



GRIPPING MODULES

AUTOMATION

SCHUNK takes the initiative. For you.

SCHUNK AUTOMATION anticipates technological trends and customer needs, and turns them into unique products, solutions and services.

As the most innovative market leader for more than 20 years we stand for state-of-the-art technology. Continuously we are setting trends for the entire Automation industry.

Take advantage of our comprehensive range of gripping modules, rotary and swivel units, linear modules, robot accessories and industry specific applications.

Discover in us a partner whose consistency and innovation will permanently strengthen your market position. In every industry. Worldwide.



GRIPPING MODULES



ROTARY MODULES



LINEAR MODULES



ROBOT ACCESSORIES

Gripping Systems













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Product Overview

Gripping Modules

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	PSH 22 – 52 (metric)	Page 340
2-Finger Heavy-load Grippers		
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3-Finger Grippers for Small Components		
	MPZ 30 – 45	Page 370
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Sealed 3-Finger Centric Grippers		
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Angular Grippers for Small Components		
	SGB 32 – 50	Page 560
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Universal Angular Grippers		
	PWG-S 40 – 80	Page 614
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Sealed Angular Grippers		
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GSM Gripper Swivel Modules		
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2-Finger Long-stroke Grippers		
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Special Grippers		
Food Grippers		
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	CAT / PGN-plus 40 – 50	Page 896
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	MGM	Page 930
Gripping Hand		
	SGH	Page 934

Product Selection Table

Gripping Modules

All dimensions in mm

		Stroke per finger			Gripping force			
		[mm]			[N]			
		1-10	11-100	101-200	10-100	101-1000	1001-10000	10001-100000
		[inch]			[lbf]			
		0.039-0.394	0.395-3.937	3.938-7.874	2.2-22.5	23-225	226-2248	2249-22481
Pneumatic 2-Finger Parallel Grippers								
DKG-RR	Page 884	3			30			
DPG-plus	Page 284	2	25			125	6230	
KGG	Page 54		15	60		88	540	
KTG	Page 46	4.5			13			
MPG	Page 18	2	10		28	270		
PFH	Page 316		30	50		510	2650	
PFH 200	Page 332			200		2200		
PGF	Page 224		7.5	31.5		240	1970	
PGM	Page 248	2	15		30	1180		
PGN	Page 184	2	45			108	15100	
PGN-plus	Page 114	2	45			140	21800	
PSH	Page 340		14	64		320	1760	
RH	Page 74	2.5	40		13	460		
SPG	Page 360			100				10000
Electric 2-Finger Parallel Grippers								
EGN	Page 832		10		70	620		
MEG	Page 816	6	10		60	175		
PEH	Page 850		60			200	1150	
PG	Page 842		35	70	30	200		
Pneumatic 3-Finger Centric Grippers								
DPZ-plus	Page 508	3	25			520	16800	
MC-GP	Page 924	2.2			0.15			
MPZ	Page 370	3	5		55	310		
PZB	Page 484	4	13			400	4000	
PZN	Page 446	2	25			260	16000	
PZN-plus	Page 386	3	35			580	38000	
Electric 3-Finger-Centric Grippers								
EZN	Page 860	6			70	500		
MC-GE	Page 924	2.2			0.15			
Pneumatic 4-Finger Centric Grippers								
PZV	Page 538	4	16			570	6900	
Grippers with Spindle Interface								
Capto C6/PGN-plus	Page 916		8	10		180	420	
Capto C6/PZN-plus	Page 918		6	10		305	1020	
CAT/PGN-plus	Page 896		4	10		70	420	
CAT/PZN-plus	Page 900		6	10		305	1020	
HSK-A/PGN-plus	Page 904		4	10		70	260	
HSK-A/PZN-plus	Page 906		6	10		305	1020	
KM 63/PGN-plus	Page 920		8	10		180	420	
KM 63/PZN-plus	Page 922		6	10		305	1020	

 Well suited
 Suitable in a special design (on request)
 Limited suitability

		Working environment						Typical areas of application								
		Normal, clean environment	Dirty environment I Grit	Dirty environment II Fine dust and fluids	Dirty environment III Aggressive fluids	High temperature range > 90 °C	Clean room	Machine tools	Material feed Component insertion	Assembly	Packaging	Electronics	Paintshop	Clean room/laboratory	Foundry	Food
Pneumatic 2-Finger Parallel Grippers																
DKG-RR	Page 884								●					●		
DPG-plus	Page 284							●	●				●		●	
KGG	Page 54								●	●	●	●				
KTG	Page 46								●	●	●	●				
MPG	Page 18								●	●	●	●				
PFH	Page 316								●	●	●					
PFH 200	Page 332								●	●	●					
PGF	Page 224								●	●	●					
PGM	Page 248								●	●	●					
PGN	Page 184							●	●	●	●	●			●	
PGN-plus	Page 114							●	●	●	●	●			●	
PSH	Page 340							●	●	●	●					
RH	Page 74								●	●	●	●				
SPG	Page 360								●	●					●	
Electric 2-Finger Parallel Grippers																
EGN	Page 832								●	●	●	●				
MEG	Page 816								●	●	●	●				
PEH	Page 850								●	●		●				
PG	Page 842								●	●		●				
Pneumatic 3-Finger Centric Grippers																
DPZ-plus	Page 508							●	●				●		●	
MC-GP	Page 924									●		●				
MPZ	Page 370								●	●	●	●				
PZB	Page 484							●	●	●	●	●			●	
PZN	Page 446							●	●	●	●	●			●	
PZN-plus	Page 386							●	●	●	●	●			●	
Electric 3-finger Centric Grippers																
EZN	Page 860								●	●	●	●				
MC-GE	Page 924									●		●				
Pneumatic 4-Finger Centric Grippers																
PZV	Page 538							●	●	●	●	●			●	
Grippers with Spindle Interface																
Capto C6/PGN-plus	Page 916							●								
Capto C6/PZN-plus	Page 918							●								
CAT/PGN-plus	Page 896							●								
CAT/PZN-plus	Page 900							●								
HSK-A/PGN-plus	Page 904							●								
HSK-A/PZN-plus	Page 906							●								
KM 63/PGN-plus	Page 920							●								
KM 63/PZN-plus	Page 922							●								

Product Selection Table

Gripping Modules

All dimensions in mm

	Stroke per finger			Gripping force			Torque		
	[mm]			[N]			[Nm]		
	1-5	6-10	11-20	1-200	201-300	301-400	0.0-1.0	1.1-2.0	2.1-3.0
	[inch]			[lbf]			[lbf ft]		
0.039-0.197	0.198-0.394	0.395-0.787	2.2-45	46-67	68-90	0-0.7	0.8-1.5	1.6-2.2	
Pneumatic, Modular Gripping System									
KONEX	Page 710	5		100			0.9		
Pneumatic Rotary Gripping Modules									
with 2-finger parallel gripper									
GSM-P	Page 730	4	10	65	270		0.05		2.7
with 3-finger centric gripper									
GSM-Z	Page 758	3	5	55	310		0.35		2.7

	[mm]		[N]			[Nm]		
	1-10	11-100	0.01-10	11-100	101-1000	0.0-1.0	1.1-2.0	2.1-3.0
	[inch]		[lbf]			[lbf ft]		
	0.039-0.394	0.395-3.937	0-2.2	2.3-22.5	23-225	0-0.7	0.8-1.5	1.6-2.2
Pneumatic Angular Grippers								
PWG-S	Page 614	20	6	51				
LMG	Page 870	10	90		31.5			
PWG	Page 630	20		6		934		
RHL	Page 608	10		0.014				
SG	Page 878	6	17.5	0.95				
SGB	Page 560	8		0.9	4.95			
SWG	Page 576		15	0.058	2.8			
Pneumatic Radial Grippers								
DWG	Page 684	10	90	8	143			
GWB	Page 656	10	90	2.1	127			

- Well suited
- Suitable in a special design (on request)
- Limited suitability

	Ambient conditions							Typical areas of application							
	Normal, clean Ambient conditions	Dirty environment I Grit	Dirty environment II Fine dust and fluids	Dirty environment III Aggressive fluids	High temperature range > 90 °C	Clean room	Machine tools	Material feed Component insertion	Assembly	Packaging	Electronics	Paintshop	Clean room/laboratory	Foundry	Food
Pneumatic, Modular Gripping System															
KONEX Page 710								●	●	●	●				
Pneumatic Rotary Gripping Modules															
with 2-finger parallel gripper															
GSM-P Page 730								●	●	●	●				
with 3-finger centric gripper															
GSM-Z Page 758								●	●	●	●				

Pneumatic Angular Grippers															
PWG-S Page 614								●	●	●					
LMG Page 870										●					●
PWG Page 630								●	●	●					
RHL Page 608									●		●				
SG Page 878										●					●
SGB Page 560										●	●	●			
SWG Page 576										●	●	●			
Pneumatic Radial Grippers															
DWG Page 684								●	●				●		●
GWB Page 656								●	●	●					

Synergies with SCHUNK

SCHUNK SYNERGY: Toolholding/Workholding and Automation

Visions in two technology areas

Toolholding/workholding and automation are our core competences. The resulting synergy effects make us unique. SCHUNK understands this complex world of clamping and handling like no one else. As a long-standing components specialist we know the demands and requirements of both technology areas. Moreover there's the fascination of new possibilities. With our twofold expertise we can provide you with trend-setting leading technology. From the spindle to robotics.

We call this "SCHUNK SYNERGY". Get to know us as your active "all-in-one" partner – all the services from one source to benefit you.



More innovative for you!

SCHUNK opens up new horizons

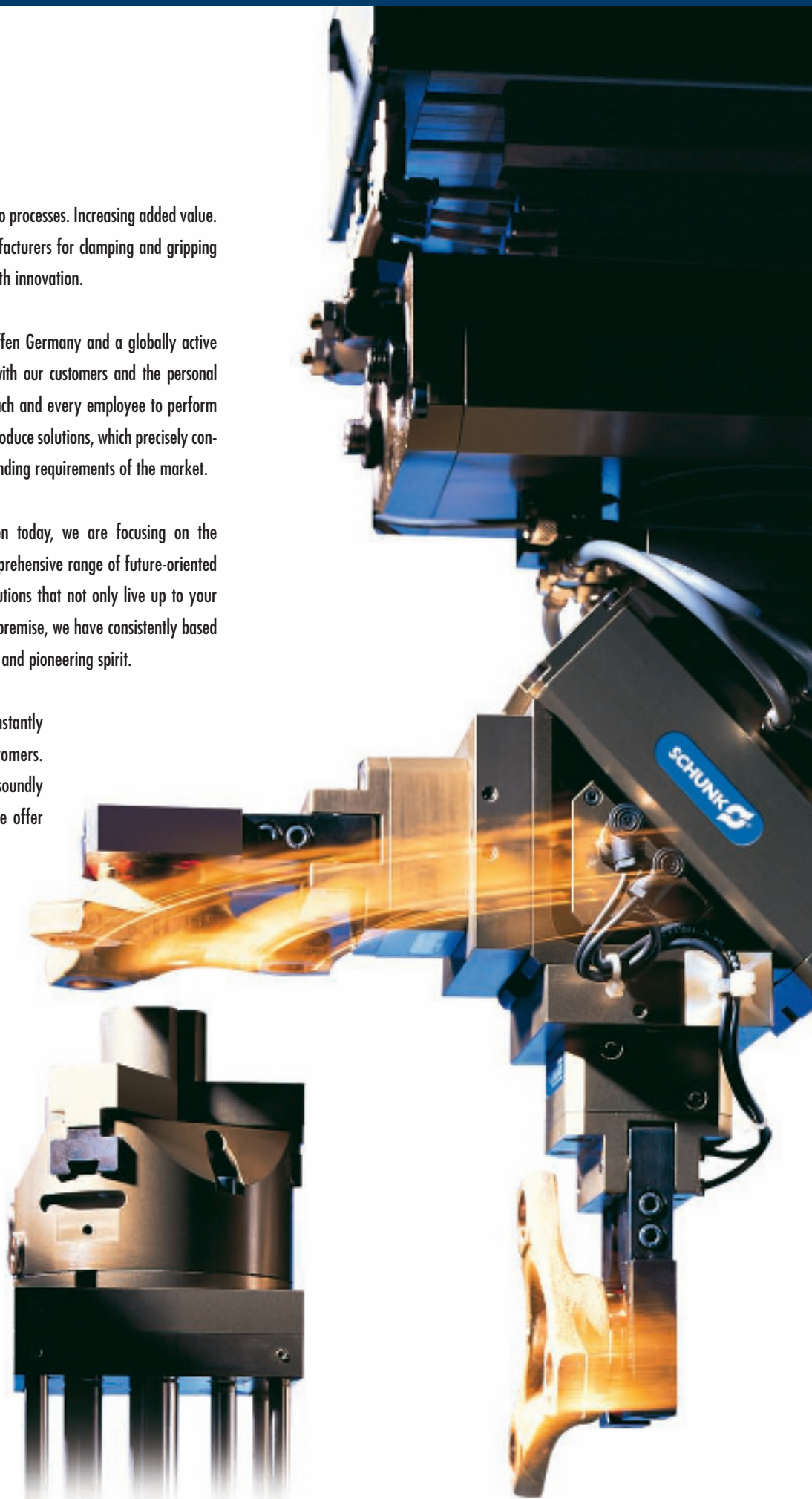
Shaping technology. Putting the dynamics into processes. Increasing added value. SCHUNK is one of the world's leading manufacturers for clamping and gripping technology, and our name is synonymous with innovation.

We are a family-run business based in Lauffen Germany and a globally active company rolled into one. Continual dialog with our customers and the personal responsibility and individual endeavors of each and every employee to perform the work faultlessly and in the best quality produce solutions, which precisely conform to our customers' needs and the demanding requirements of the market.

SCHUNK opens up new horizons. For even today, we are focusing on the opportunities of tomorrow, and boast a comprehensive range of future-oriented technologies. Our promise: High-quality solutions that not only live up to your expectations, but exceed them! And on this premise, we have consistently based our corporate philosophy: Quality, reliability and pioneering spirit.

Through continuous development, we are constantly opening up new prospects for our customers. Technical creativity, supreme expertise and soundly based experience are the success factors we offer you in engineering, production and service.

We are thinking ahead – for you!



Partners with a System Approach

System partners

Solutions from one source

As one of the most innovative market leaders, we offer unique solutions with our gripping systems, rotary units, linear modules, robot accessories and customized applications. Our broad product range enables us to offer precisely the right solution, even for your specialized tasks. We are development partners for various industries and specialize in your handling applications.

Whenever handling tasks require maximum precision and economic efficiency, SCHUNK provides the momentum and the perfect solution for putting them into practice.

You, too, can benefit from our complete automation range from one source. From standardized and individual gripper modules to complex functional modules. Rediscover SCHUNK! Again and again.



Automation product range

Gripping Systems

SCHUNK currently has the most comprehensive range of universal grippers and gripper modules for small components. Pneumatic or electric. Offering all features from state-of-the-art materials and coatings employed as standard to internal media feed-through. With our high level of technical expertise, SCHUNK sets the trend for cost-efficient handling in any industry, in any field.



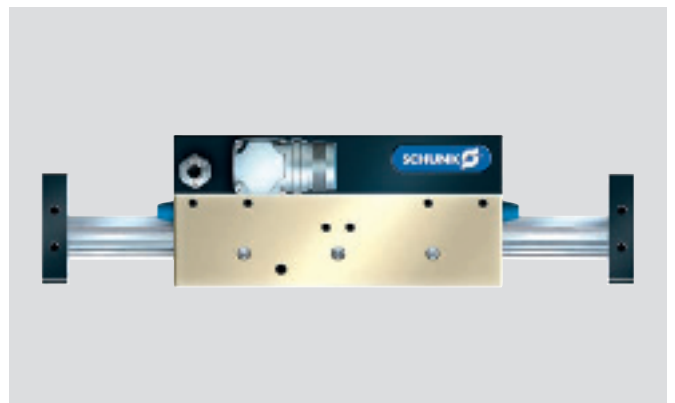
Rotary Modules

Technology and functionality in the most compact form. SCHUNK's range of rotary modules represents the entire spectrum of compact turning and rotary units, swivel heads and rotary fingers. In other words, it's the ideal solution for handling tasks.



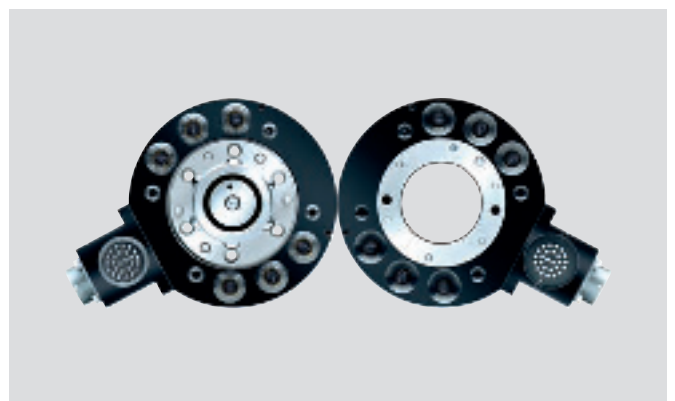
Linear Modules

Precision mini-slides, pneumatic linear modules, rigid gantry axes and axes with servo-electric linear drive – the SCHUNK product range offers linear technology for high-speed automated assembly. Compact and designed as a modular system.



Robot Accessories

Robot accessories from SCHUNK – the complete range of modules for perfect interplay between the robot arm and the tool. Suitable for all types of robot, it is also an ideal enhancement to flexible robot applications.



SCHUNK sets Standards

Gripping Systems

Quality, reliability, precision

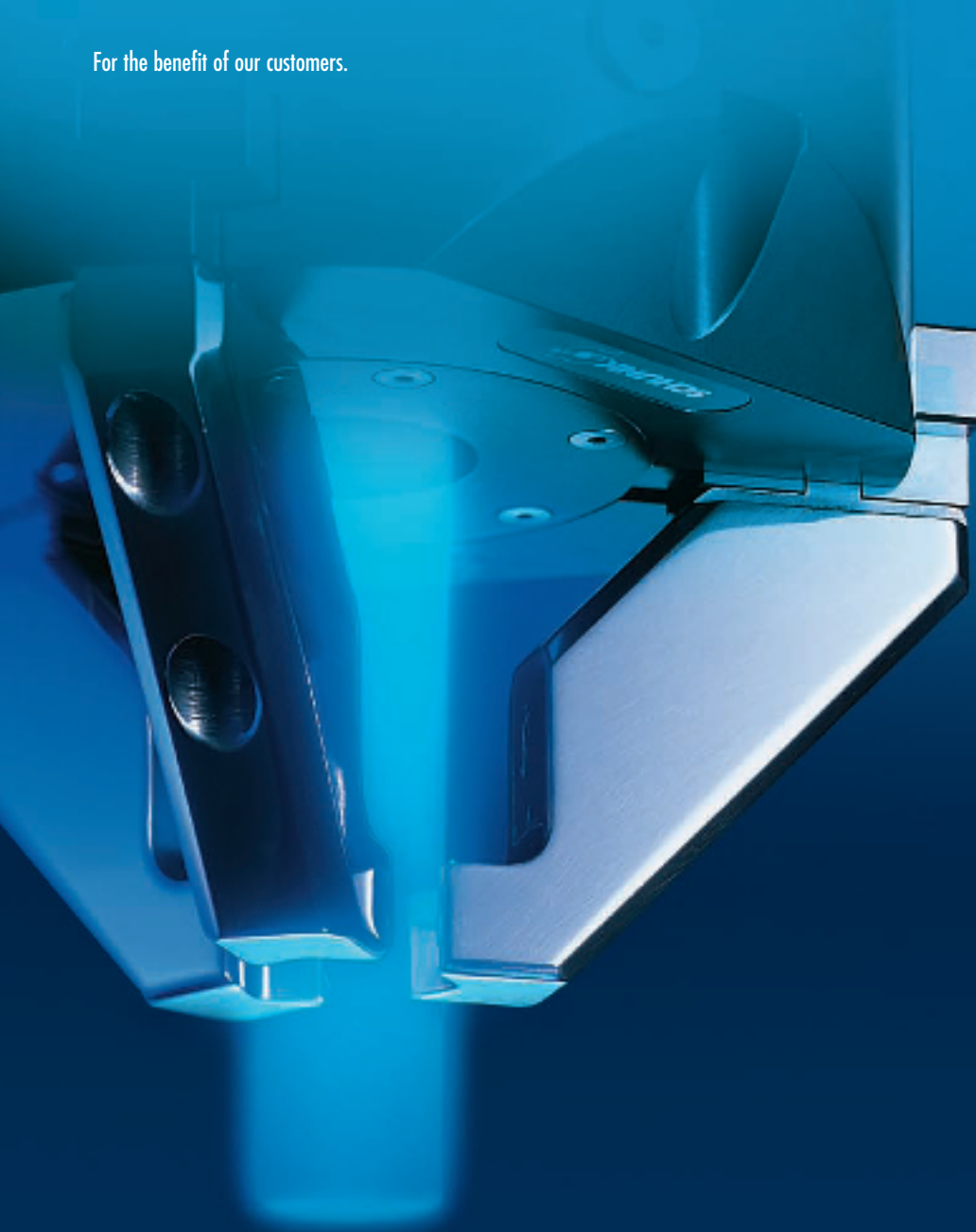
Our small component and universal gripping module program is extensive and is characterized by high product quality and many monitoring possibilities. The optimally graded sizes cover the complete spectrum of workpiece sizes. The requirement for this "Made in Germany" cutting edge technology is our continued innovative drive.

SCHUNK offers more. More willingness to take up challenges and make ideas a reality, more commitment to investment in innovative technologies, more flexibility to provide solutions for the tasks of a rapidly developing future. This is what we stand for.

For the benefit of our customers.

Good reasons for choosing gripper modules from SCHUNK:

- Simple set up
- High torque capacity
- Strong kinematics for long life
- High gripping force
- Large stroke ranges in relation to size
- Economic solutions and fast delivery times thanks to the modular design
- Pneumatic or electric



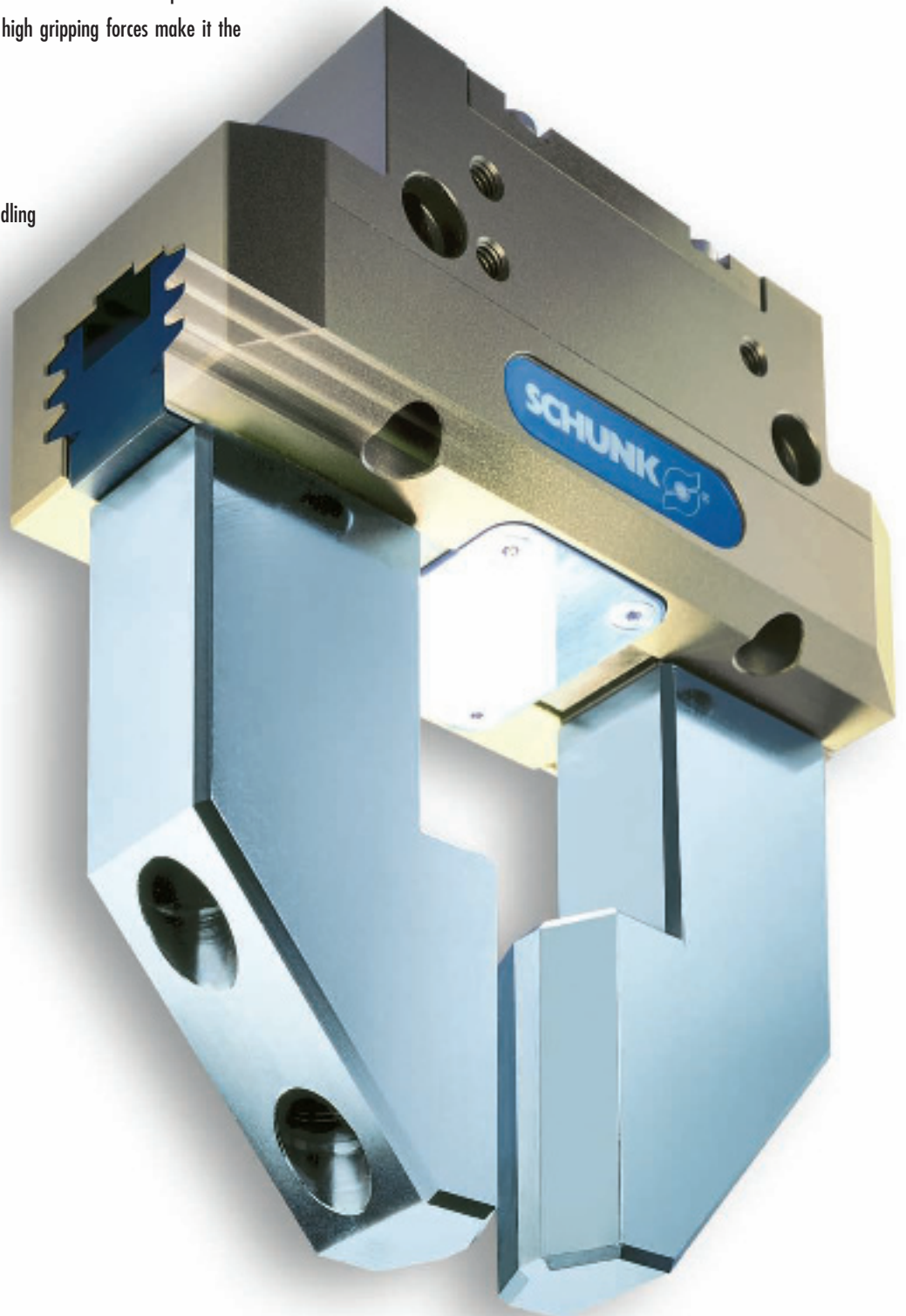
Product highlight: PGN-plus

Primus inter pares

The PGN-plus 2-finger parallel gripper is undoubtedly the “first among equals” in the SCHUNK range of gripper modules. It has been successfully used 10,000 times. The PGN-plus is the most universal of them all. Numerous options for special applications, clearly graded sizes and high gripping forces make it the optimum solution for many areas of use.

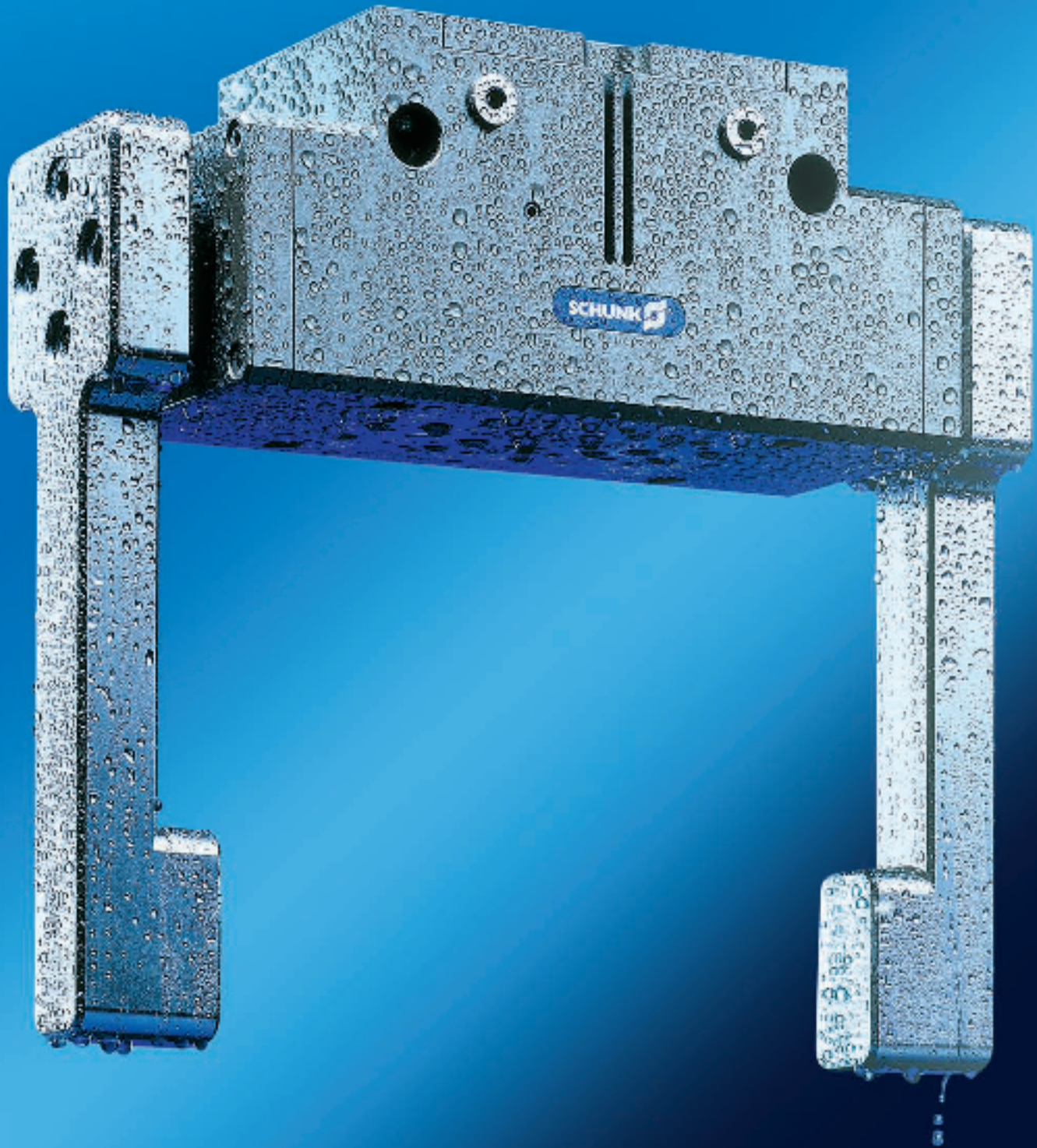
Facts that cannot fail to convince:

- Sturdy multi-tooth guide for precision handling
- Considerably higher maximum moments, enabling the use of longer gripper fingers
- Higher gripping forces through oval piston
- Attached on two gripper sides in three screw-on directions
- Hose-free direct connection or screw connection



Pneumatic Gripping Modules

Pneumatic · 2-Finger Parallel Grippers



2-FINGER PARALLEL GRIPPERS

Series	Size	Page
Grippers for Small Components		
MPG		18
MPG	20	22
MPG	25	26
MPG	32	30
MPG	40	34
MPG	50	38
MPG	64	42
KTG		46
KTG	50	50
KGG		54
KGG	80	58
KGG	140	62
KGG	220	66
KGG	280	70
RH		74
RH	901K	78
RH	901K ST10	82
RH	905	86
RH	907	90
RH	925	94
RH	940	98
RH	9010	102
RH	918	106
RH	806 KP	110
RH	801 KP	112
Universal Grippers		
PGN-plus		114
PGN-plus	40	118
PGN-plus	50	124
PGN-plus	64	130
PGN-plus	80	136
PGN-plus	100	142
PGN-plus	125	148
PGN-plus	160	154
PGN-plus	200	160
PGN-plus	240	166
PGN-plus	300	172
PGN-plus	380	178
PGN		184
PGN	50	188
PGN	64	192
PGN	80	196

Series	Size	Page
Universal Grippers		
PGN	100	200
PGN	125	204
PGN	160	208
PGN	200	212
PGN	300	216
PGN	380	220
PGF		224
PGF	50	228
PGF	64	232
PGF	80	236
PGF	100	240
PGF	125	244
PGM		248
PGM	29	252
PGM	38	256
PGM	50	260
PGM	60	264
PGM	82	268
PGM	96	272
PGM	120	276
PGM	140	280
Sealed Grippers		
DPG-plus		284
DPG-plus	50	288
DPG-plus	64	292
DPG-plus	80	296
DPG-plus	100	300
DPG-plus	125	304
DPG-plus	160	308
DPG-plus	200	312
Long-stroke Grippers		
PFH		316
PFH	30	320
PFH	40	324
PFH	50	328
PFH	200	332
PSH metric		340
PSH metric	22	344
PSH metric	32	348
PSH metric	42	352
PSH metric	52	356

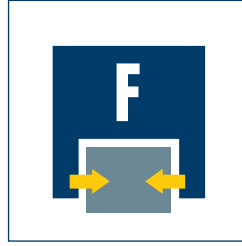
Series	Size	Page
Heavy-load Grippers		
SPG		360
SPG	100	364



Sizes
20 .. 64



Weight
0.038 kg .. 1.1 kg
1.34 oz .. 38.80 oz



Gripping force
28 N .. 270 N
6.3 lbf .. 61 lbf



Stroke per finger
2 mm .. 10 mm
0.079 in .. 0.394 in



Workpiece weight
0.14 kg .. 1.0 kg
4.94 oz .. 35.27 oz

Application example



Pneumatically driven, dual-axis automatic insertion unit for small components

1 MPG 32 2-Finger Parallel Gripper with standard finger blanks

2 FST-S 10-40 Mini-slide for vertical movement

3 FST-S 16-90 Mini-slide for horizontal movement

Grippers for small components

2-Finger parallel gripper with smooth actuating base jaws guided on roller bearings

Area of application

Gripping and movement of small to medium-sized workpieces in clean environments, such as assembly, testing, laboratory and pharmaceutical applications

Your advantages and benefits

Roller bearing guidance

for precise gripping through base jaw guide with minimum play

Base jaws guided on double roller bearings

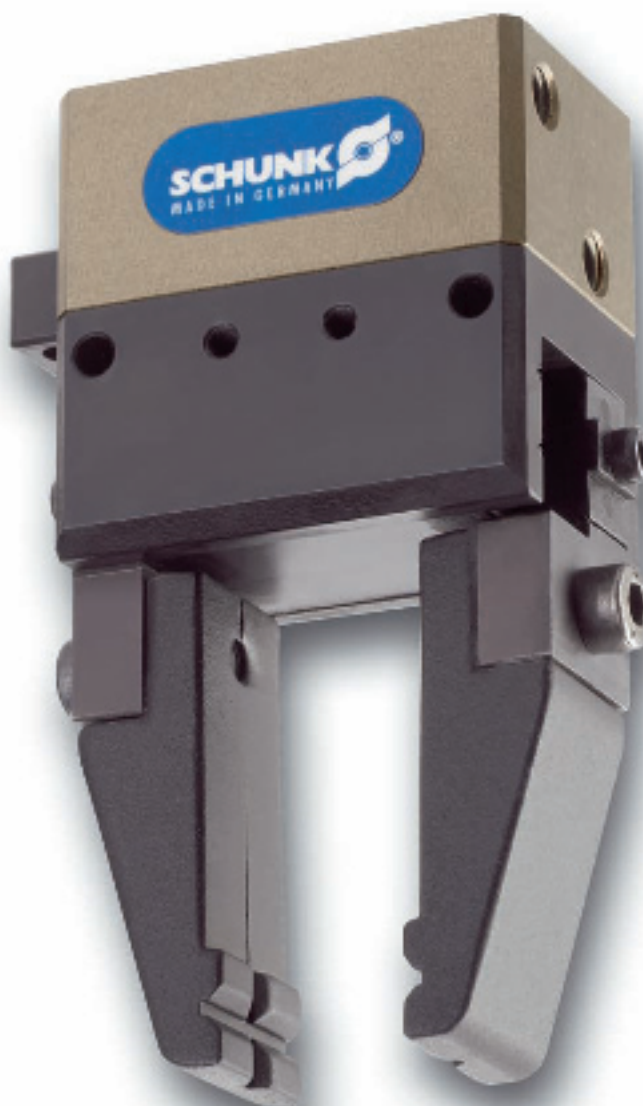
ensuring low friction and smooth running actuation

Mounting from three sides in three screw directions

for universal and flexible gripper assembly

Air supply via hose-free direct connection or fitting connections

for the flexible supply of compressed air in all automation systems



General information on the series

Working principle

Wedge-hook kinematics

Housing material

Aluminum alloy, hard-anodized

Cover material

Steel

Base jaw material

Steel

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated
Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: Quality class 4

Warranty

24 months

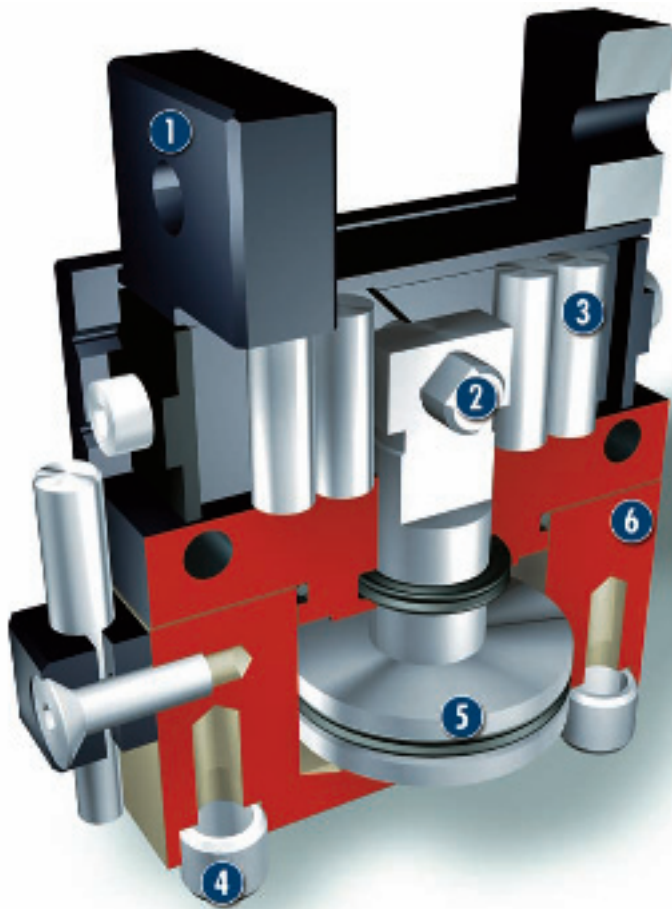
Scope of delivery

Brackets for proximity switches, centering sleeves, O-rings for direct connection, assembly and operating manual with manufacturer's declaration

Gripping force safety device

with either mechanical gripping force safety device or SDV-P pressure maintenance valve

Sectional diagram



- 1 Base jaws**
for the connection of workpiece-specific gripper fingers
- 2 Wedge-hook design**
for high power transmission and centric gripping
- 3 Roller bearing guide**
precise gripping through base jaw guide with minimum play
- 4 Centering and mounting possibilities**
for mounting the gripper by the base surface and the longitudinal sides
- 5 Drive**
piston drive system for compressed air actuation
- 6 Housing**
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy

Function description

The piston is moved up and down by compressed air. The wedge is at the upper end of the piston rod and engages in the angular slots of the two base jaws, and in so doing transform this movement into the synchronized opening or closing of the base fingers.

Options and special information

Additional mounting bores

for centering the fingers via sleeves, instead of normal mounting surfaces, are available on request as a special version.

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Centering sleeves



Fittings



IN inductive proximity switches



W/WK/KV/GK sensor cables



HM carbide inserts



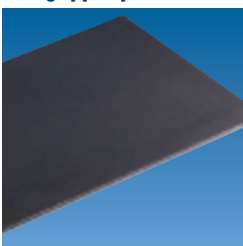
Quentes plastic inserts



SDV-P pressure maintenance valves



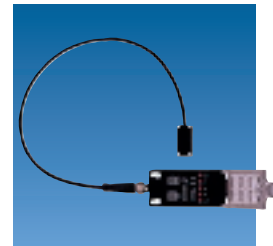
HKI gripper pads



V sensor distributors



FPS flexible position sensor



Finger blanks



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration), measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

Workpiece weight

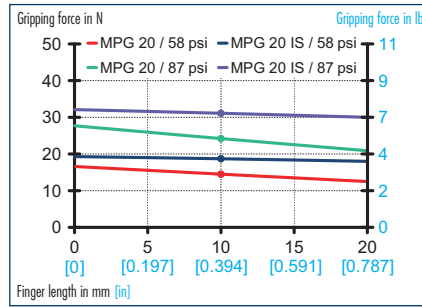
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit clamping.

Closing and opening times

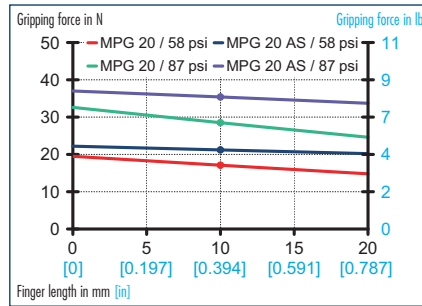
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



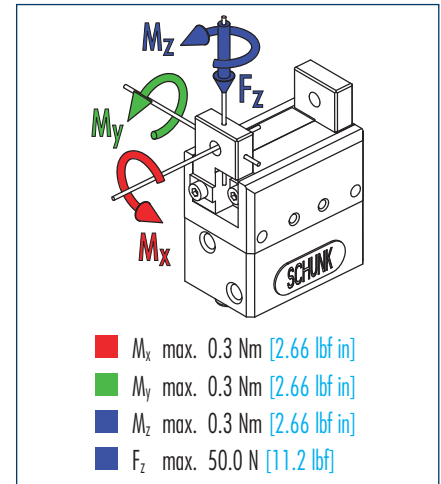
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

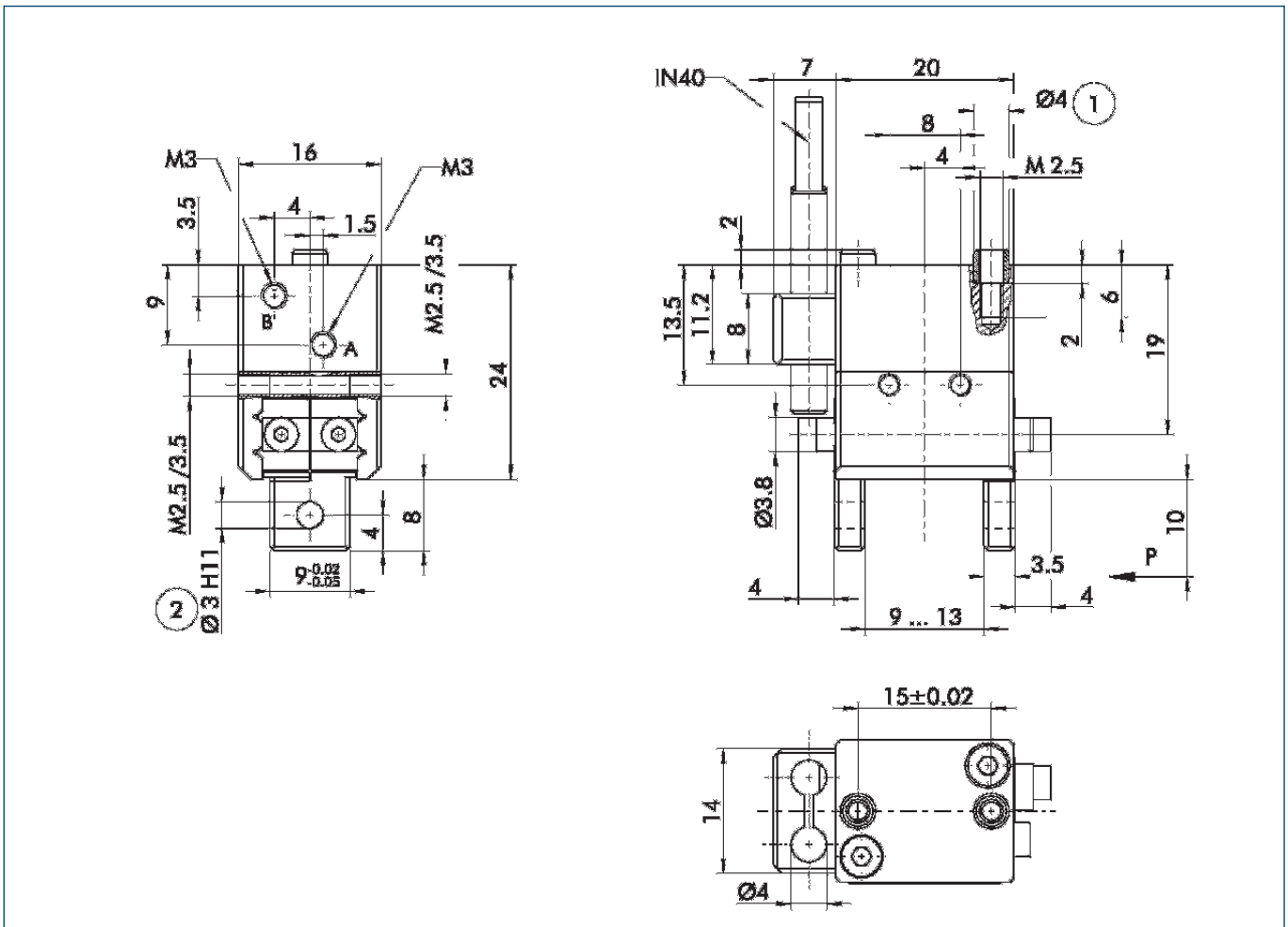


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		MPG 20	MPG 20 AS	MPG 20 IS	MPG 20 FPS
ID		0340009	0340039	0340059	0340069
Stroke per finger	mm [in]	2.0 [0.079]	2.0 [0.079]	2.0 [0.079]	2.0 [0.079]
Closing force	N [lbf]	28.0 [6.3]	36.0 [8.1]		28.0 [6.3]
Opening force	N [lbf]	24.0 [5.4]		35.0 [7.9]	24.0 [5.4]
Min. gripping force through spring	N [lbf]		8.0 [1.8]	7.0 [1.6]	
Weight	kg [oz]	0.038 [1.34]	0.045 [1.59]	0.045 [1.59]	0.045 [1.59]
Recommended workpiece weight	kg [oz]	0.14 [4.94]	0.14 [4.94]	0.14 [4.94]	0.14 [4.94]
Air consumption per double stroke	cm ³ [in ³]	0.6 [0.04]	1.35 [0.08]	1.07 [0.07]	0.62 [0.04]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	4.0 [58]	4.0 [58]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]	8.0 [116]
Closing time	s	0.03	0.02	0.03	0.03
Opening time	s	0.03	0.03	0.02	0.03
Closing/opening time with spring only	s		0.1	0.1	
Max. permitted finger length	mm [in]	20.0 [0.787]	20.0 [0.787]	20.0 [0.787]	20.0 [0.787]
Max. permitted weight per finger	kg [oz]	0.012 [0.42]	0.012 [0.42]	0.012 [0.42]	0.012 [0.42]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

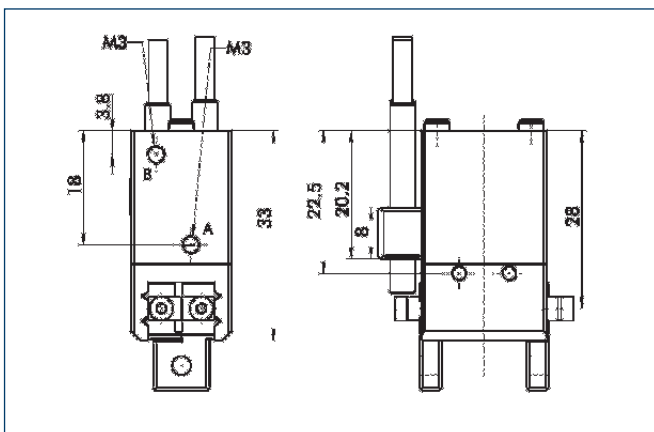


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

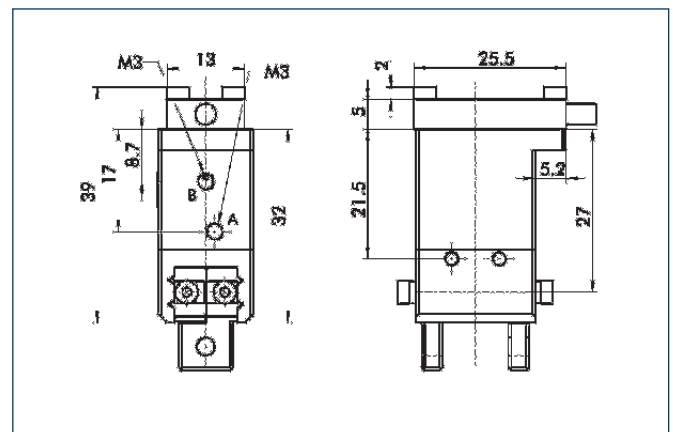
① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

AS/IS gripping force safety device



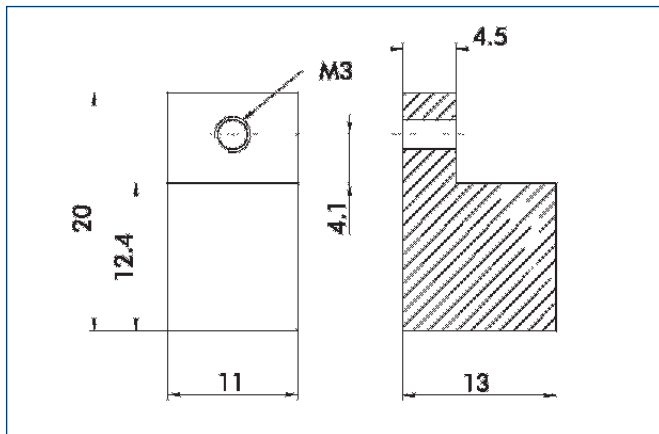
The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing force in the AS version, and as opening force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

FPS measuring system



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

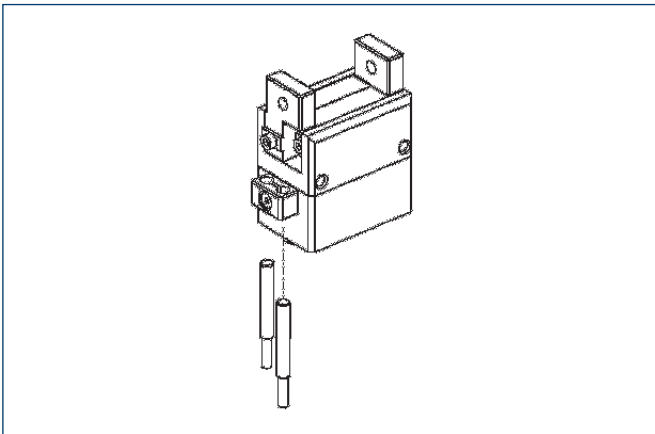
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Housing material	Scope of delivery	ID
ABR 20	Aluminum	2	0340210

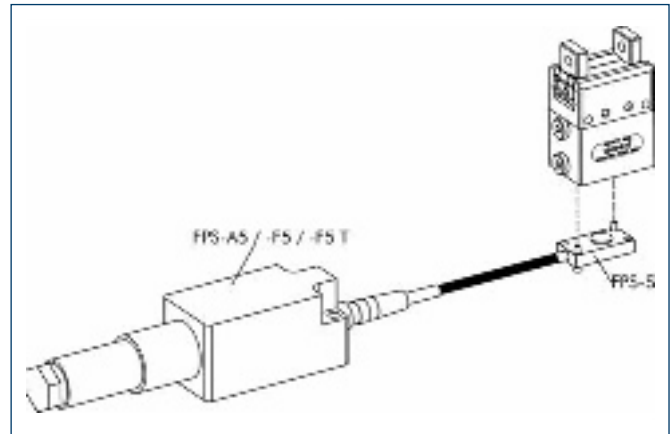
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



Measuring system: FPS position monitor

Description	ID
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Extension cables for proximity switches /magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

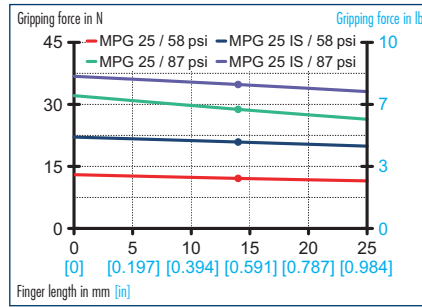
① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



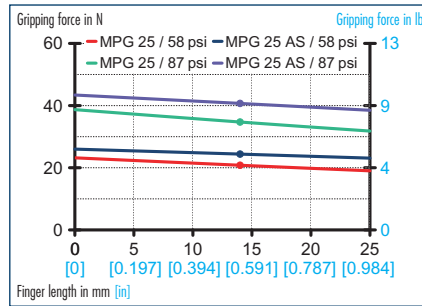
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



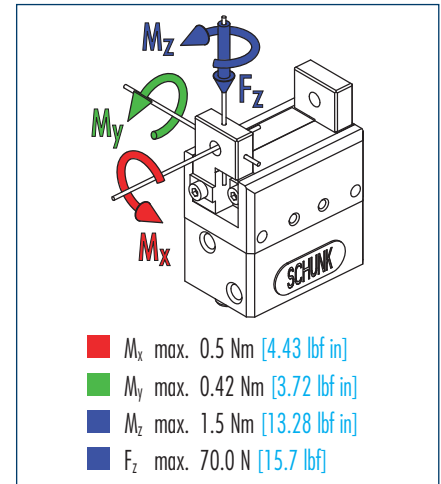
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

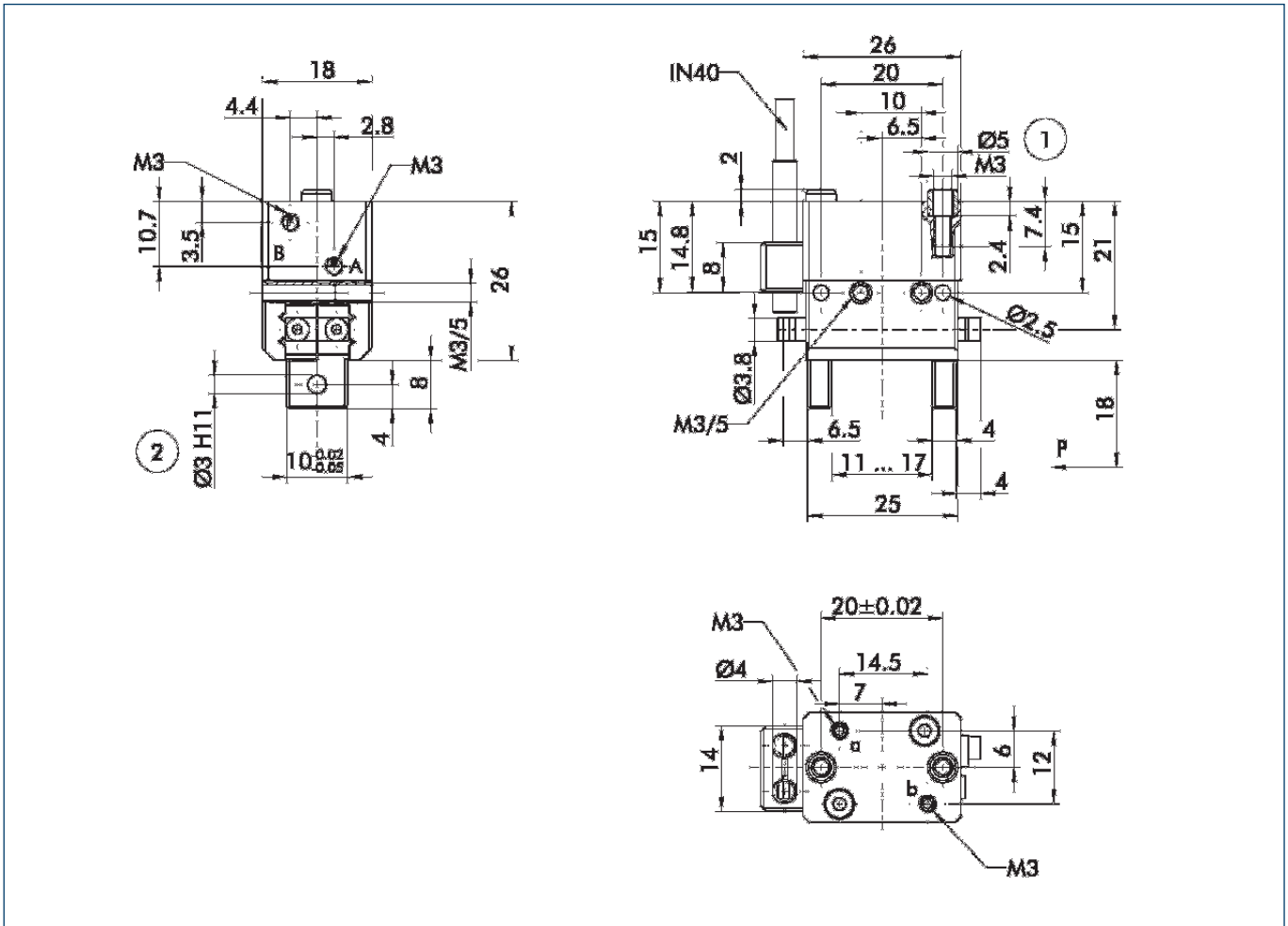


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		MPG 25	MPG 25 AS	MPG 25 IS	MPG 25 FPS
	ID	0340010	0340040	0340060	0340070
Stroke per finger	mm [in]	3.0 [0.118]	3.0 [0.118]	3.0 [0.118]	3.0 [0.118]
Closing force	N [lbf]	31.0 [7.0]	41.0 [9.2]		31.0 [7.0]
Opening force	N [lbf]	28.0 [6.3]		40.0 [9.0]	28.0 [6.3]
Min. gripping force through spring	N [lbf]		10.0 [2.2]	9.0 [2.0]	
Weight	kg [oz]	0.06 [2.12]	0.075 [2.65]	0.075 [2.65]	0.065 [2.29]
Recommended workpiece weight	kg [oz]	0.15 [5.29]	0.15 [5.29]	0.15 [5.29]	0.15 [5.29]
Air consumption per double stroke	cm ³ [in ³]	1.08 [0.07]	2.39 [0.15]	1.95 [0.12]	1.14 [0.07]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	4.0 [58]	4.0 [58]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]	8.0 [116]
Closing time	s	0.03	0.02	0.03	0.03
Opening time	s	0.03	0.03	0.02	0.03
Closing/opening time with spring only	s		0.1	0.1	
Max. permitted finger length	mm [in]	25.0 [0.984]	25.0 [0.984]	25.0 [0.984]	25.0 [0.984]
Max. permitted weight per finger	kg [oz]	0.02 [0.71]	0.02 [0.71]	0.02 [0.71]	0.02 [0.71]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

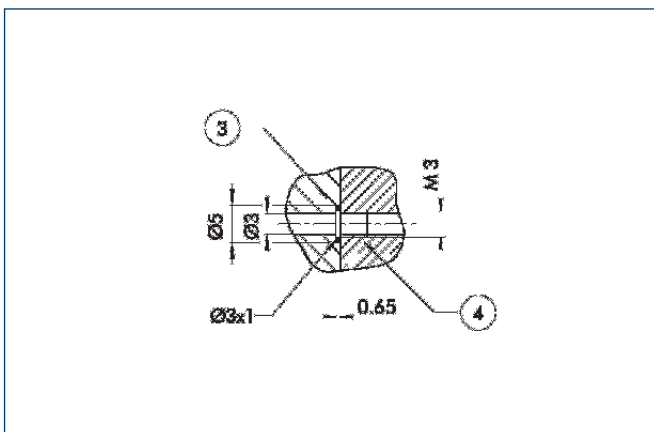


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

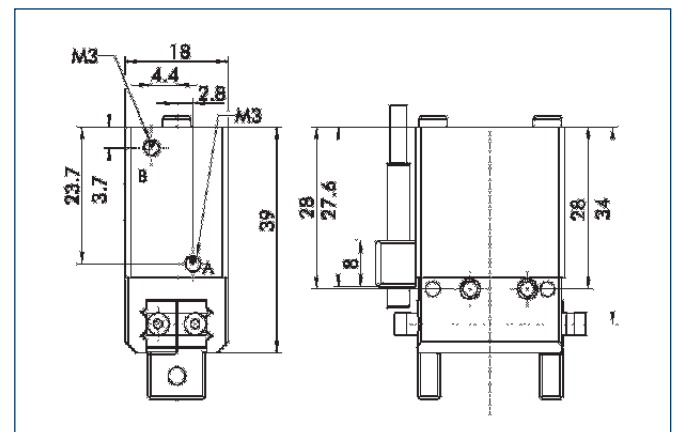
Hoseless direct connection



- ③ Adapter
- ④ Gripper

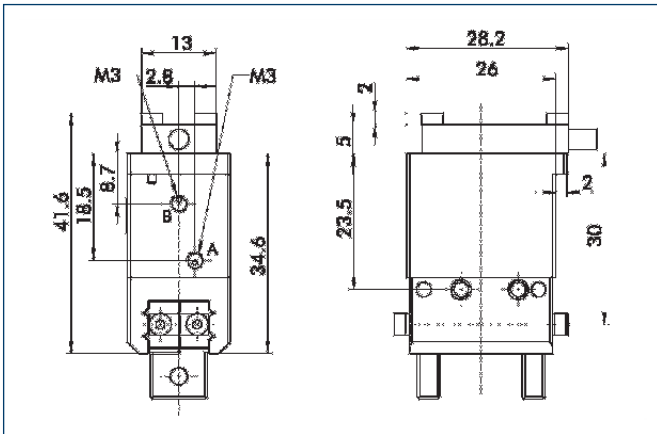
The direction connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device



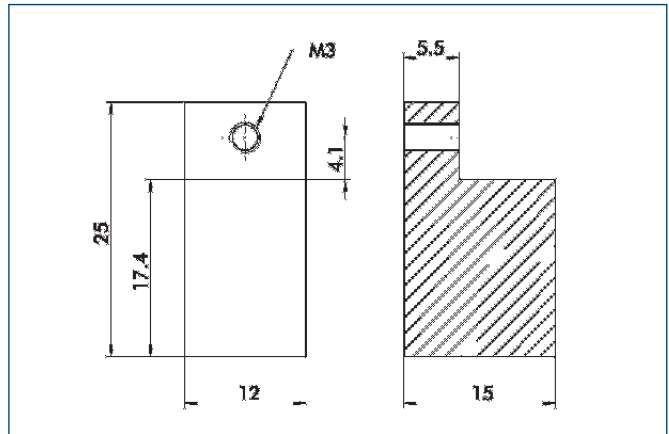
The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing force in the AS version, and as opening force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

FPS measuring system



The FPS mounting kit is used for mounting the FPS sensor on the gripper. The FPS system can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

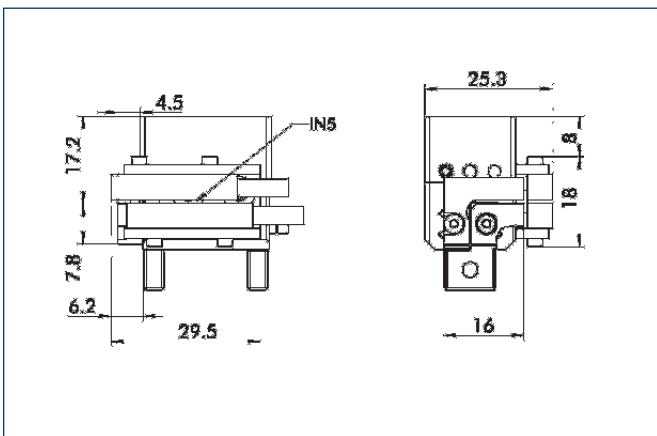
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR 25	Aluminum	2	0340211

Mounting kit for proximity switch



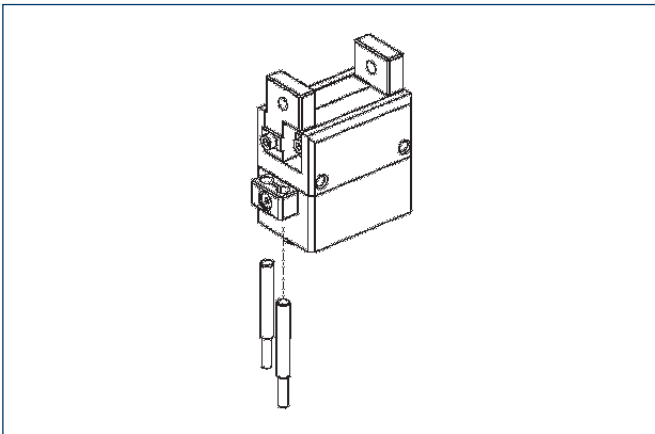
The mounting kit includes a bracket, switch cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
AS-MPG 25	0340150



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

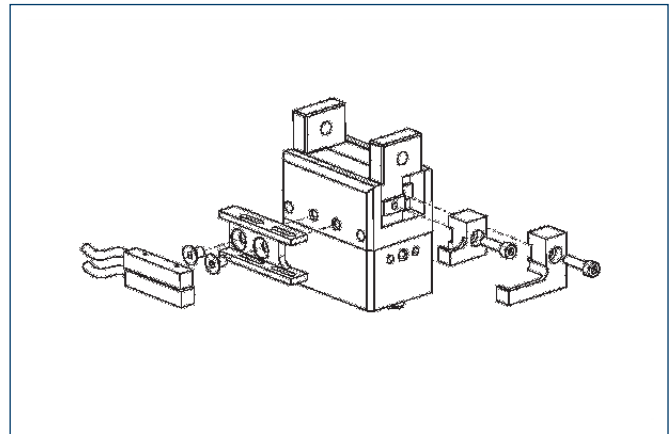
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring: Inductive proximity switches, mounted with mounting kit

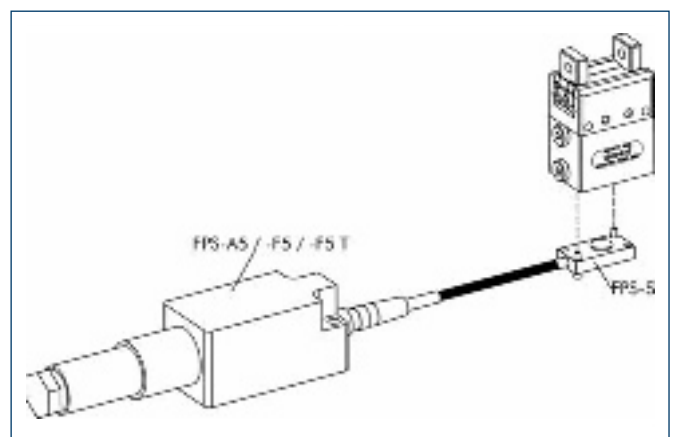
Description	ID	Recommended product
AS-MPG 25	0340150	
IN 5/S-M12	0301569	
IN 5/S-M8	0301469	•

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



Measuring system: FPS position monitor

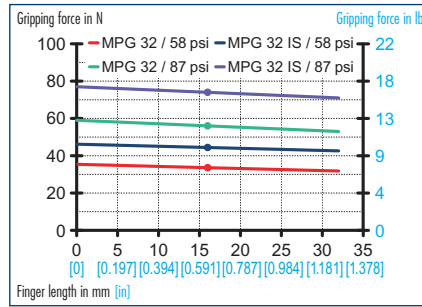
Description	ID
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

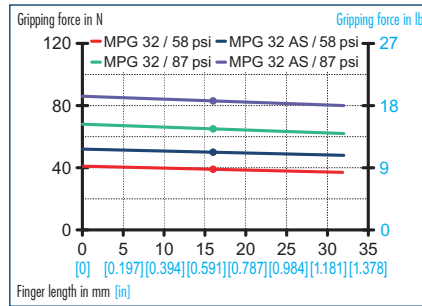
 You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



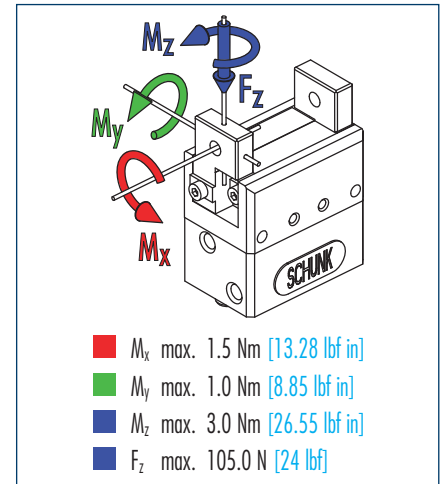
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

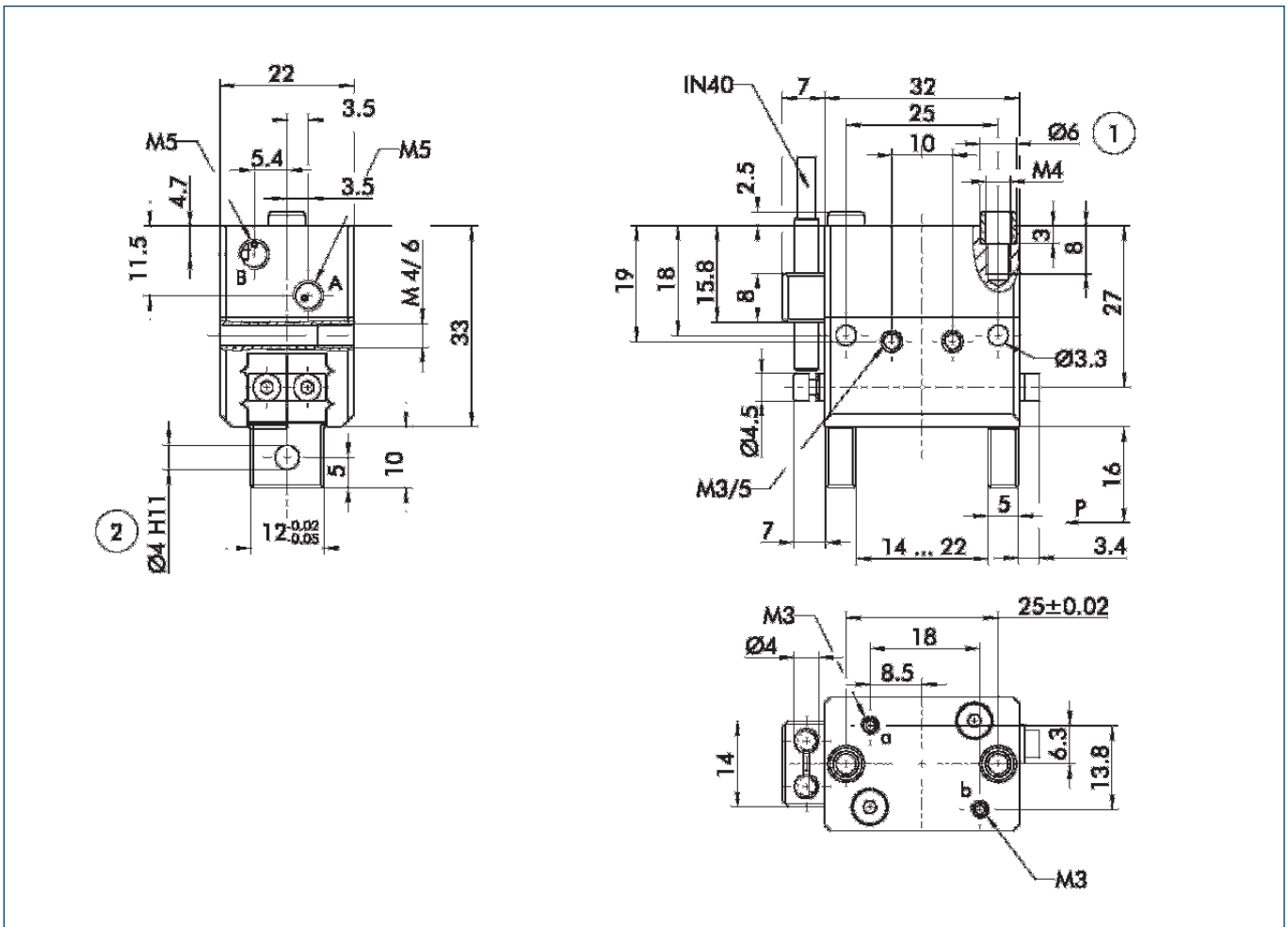


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	ID	MPG 32	MPG 32 AS	MPG 32 IS	MPG 32 FPS
		0340011	0340041	0340061	0340071
Stroke per finger	mm [in]	4.0 [0.157]	4.0 [0.157]	4.0 [0.157]	4.0 [0.157]
Closing force	N [lbf]	65.0 [14.6]	85.0 [19.1]		65.0 [14.6]
Opening force	N [lbf]	55.0 [12.4]		90.0 [20.2]	55.0 [12.4]
Min. gripping force through spring	N [lbf]		20.0 [4.5]	25.0 [5.6]	
Weight	kg [oz]	0.12 [4.23]	0.14 [4.94]	0.14 [4.94]	0.14 [4.94]
Recommended workpiece weight	kg [oz]	0.325 [11.46]	0.325 [11.46]	0.325 [11.46]	0.325 [11.46]
Air consumption per double stroke	cm ³ [in ³]	2.55 [0.16]	5.03 [0.31]	4.49 [0.27]	2.59 [0.16]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	4.0 [58]	4.0 [58]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]	8.0 [116]
Closing time	s	0.04	0.03	0.04	0.04
Opening time	s	0.04	0.04	0.03	0.04
Closing/opening time with spring only	s		0.2	0.2	
Max. permitted finger length	mm [in]	32.0 [1.260]	32.0 [1.260]	32.0 [1.260]	32.0 [1.260]
Max. permitted weight per finger	kg [oz]	0.04 [1.41]	0.04 [1.41]	0.04 [1.41]	0.04 [1.41]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

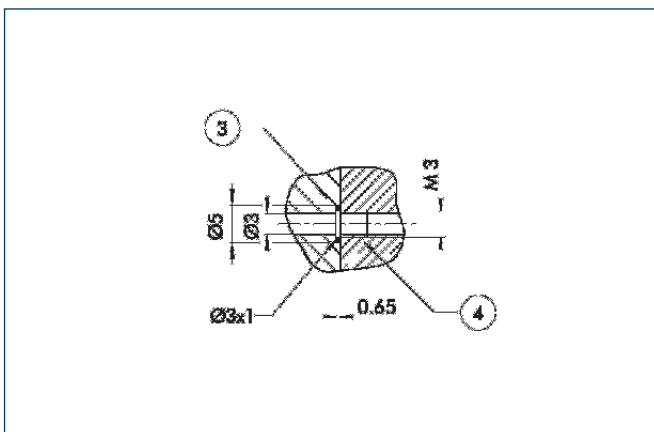


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

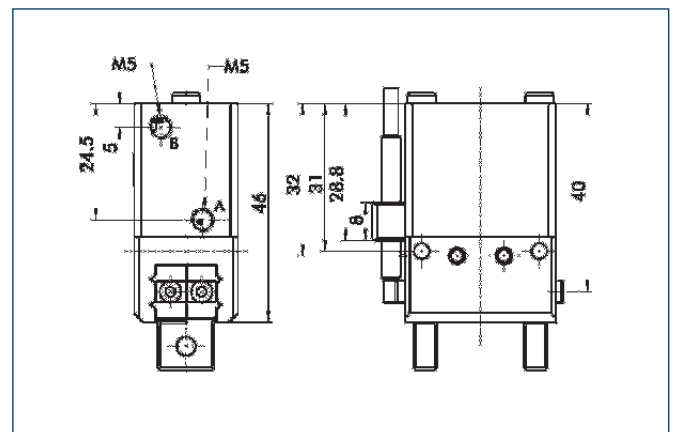
Hoseless direct connection



- ③ Adapter
- ④ Gripper

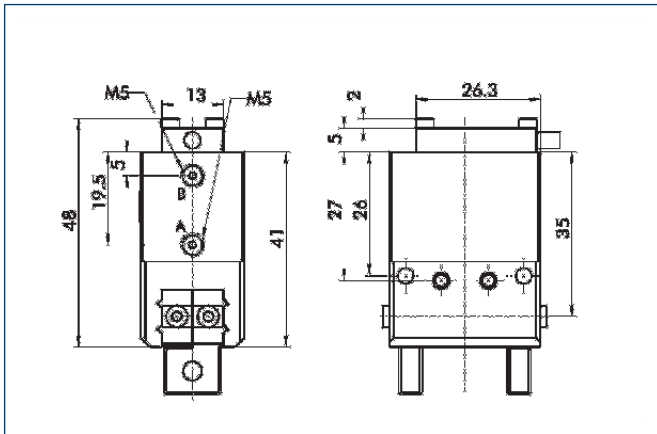
The direction connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device



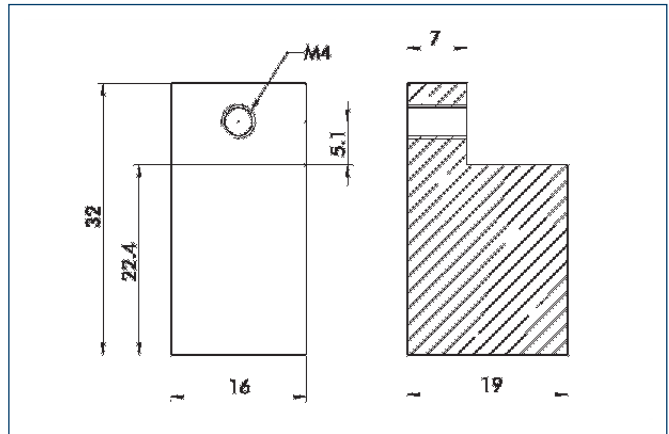
The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing force in the AS version, and as opening force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

FPS measuring system



The FPS mounting kit is used for mounting the FPS sensor on the gripper. The FPS system can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

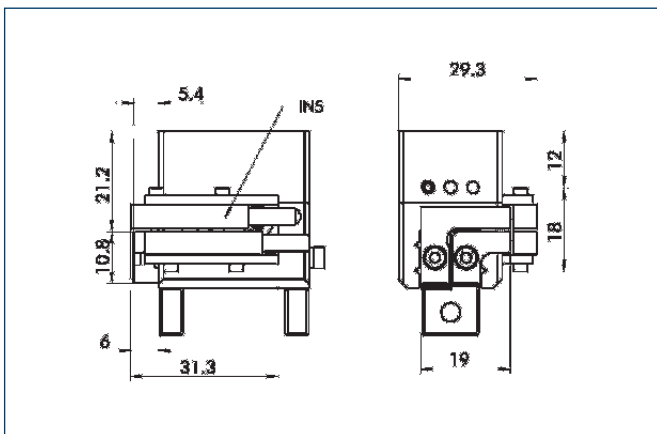
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Housing material	Scope of delivery	ID
ABR 32	Aluminum	2	0340212

Mounting kit for proximity switch



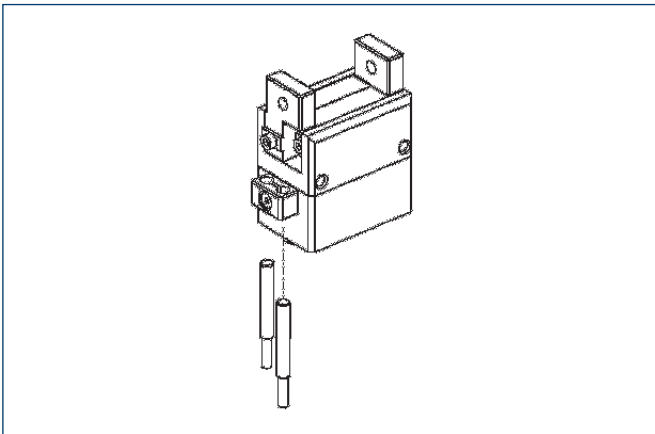
The mounting kit includes a bracket, switch cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
AS-MPG 32	0340151



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

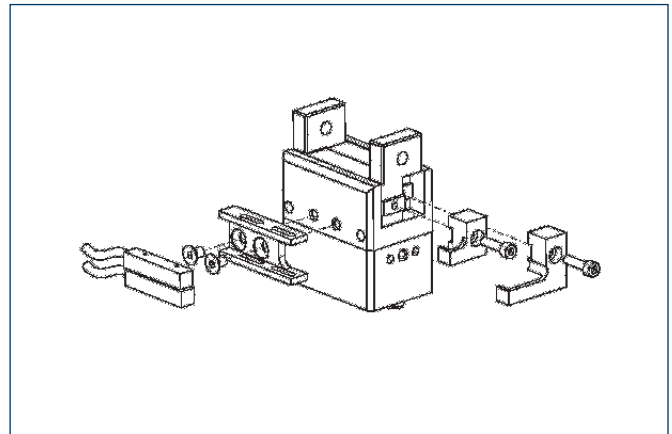
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring: Inductive proximity switches, mounted with mounting kit

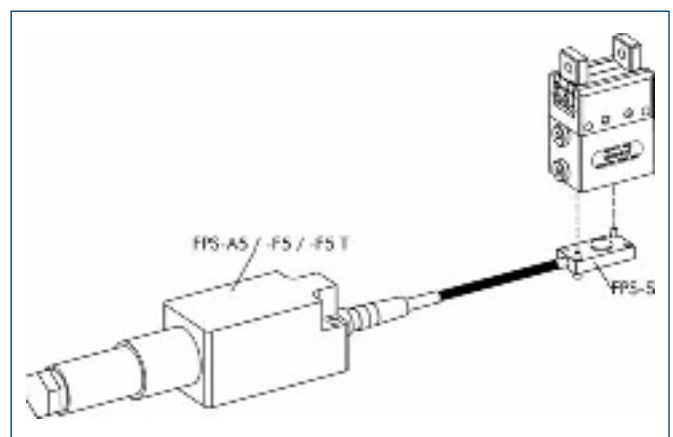
Description	ID	Recommended product
AS-MPG 32	0340151	
IN 5/S-M12	0301569	
IN 5/S-M8	0301469	•

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



Measuring system: FPS position monitor

Description	ID
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

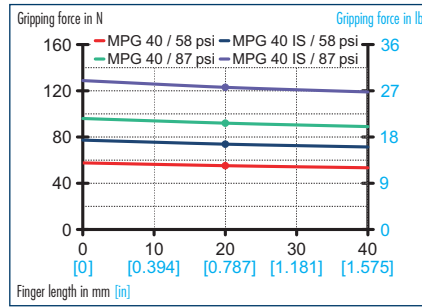
When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.



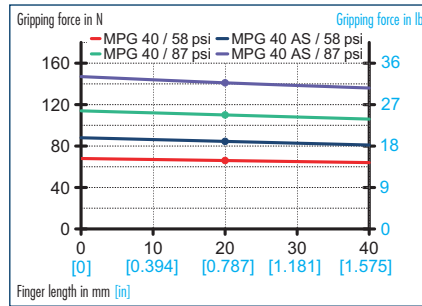
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



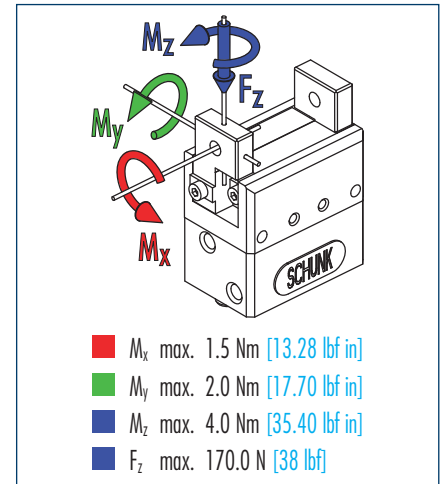
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

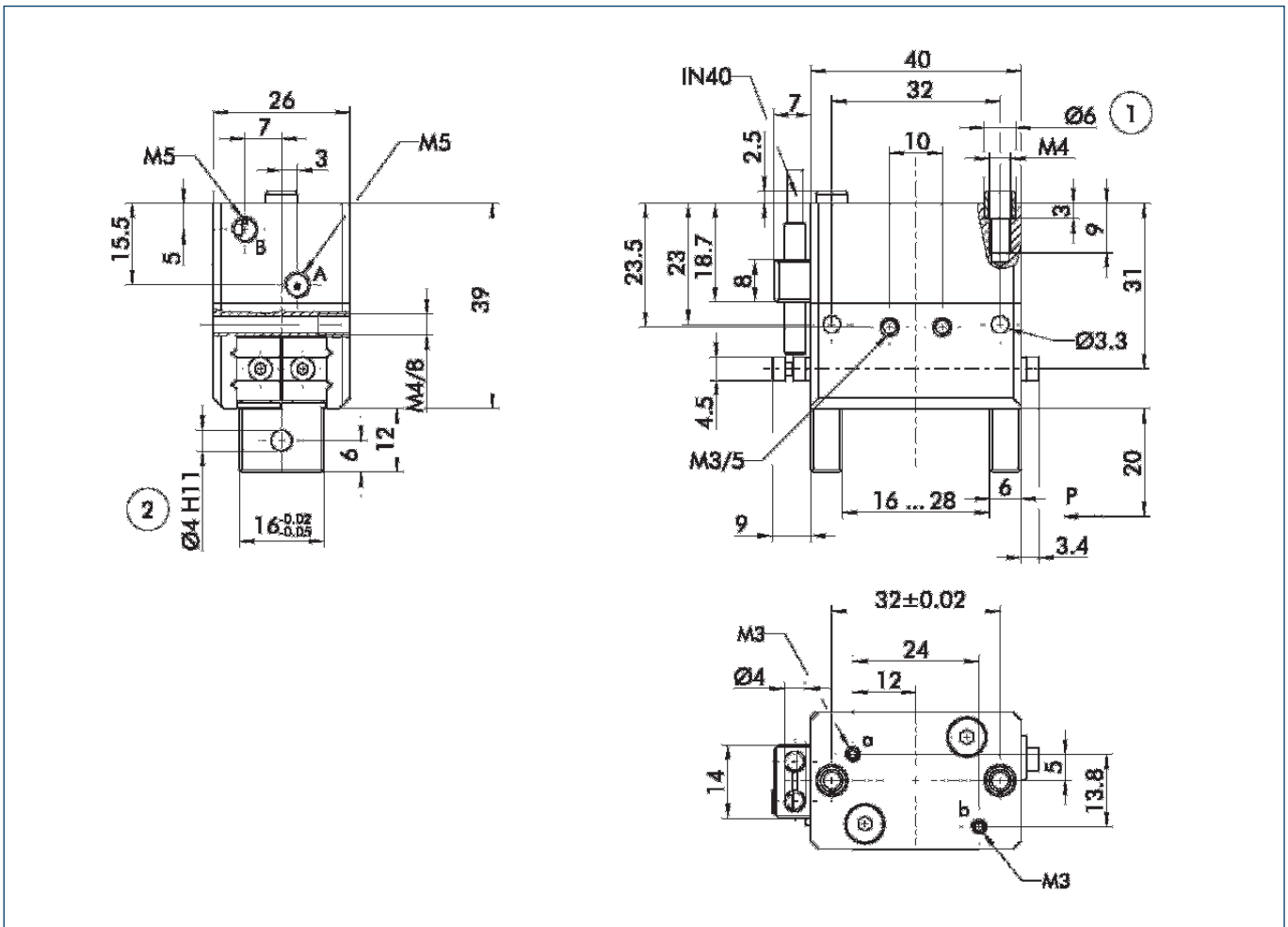


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		MPG 40	MPG 40 AS	MPG 40 IS
	ID	0340012	0340042	0340062
Stroke per finger	mm [in]	6.0 [0.236]	6.0 [0.236]	6.0 [0.236]
Closing force	N [lbf]	110.0 [25]	145.0 [33]	
Opening force	N [lbf]	90.0 [20.2]		135.0 [30]
Min. gripping force through spring	N [lbf]		35.0 [7.9]	25.0 [5.6]
Weight	kg [oz]	0.2 [7.05]	0.26 [9.17]	0.26 [9.17]
Recommended workpiece weight	kg [oz]	0.55 [19.40]	0.55 [19.40]	0.55 [19.40]
Air consumption per double stroke	cm ³ [in ³]	5.76 [0.35]	12.5 [0.76]	10.98 [0.67]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.05	0.03	0.05
Opening time	s	0.05	0.05	0.03
Closing/opening time with spring only	s		0.2	0.2
Max. permitted finger length	mm [in]	40.0 [1.575]	40.0 [1.575]	40.0 [1.575]
Max. permitted weight per finger	kg [oz]	0.08 [2.82]	0.08 [2.82]	0.08 [2.82]
IP rating		30	30	30
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

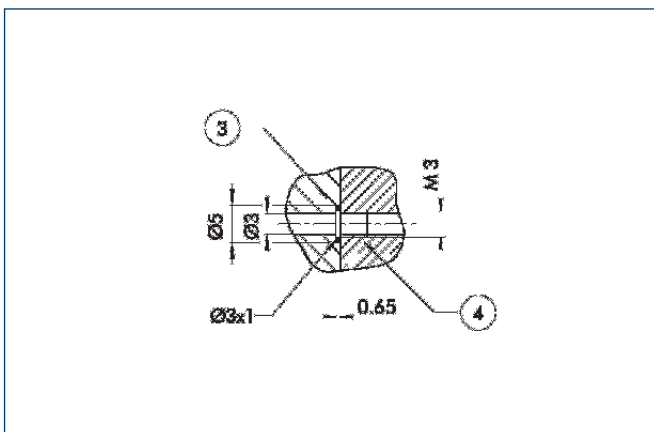


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

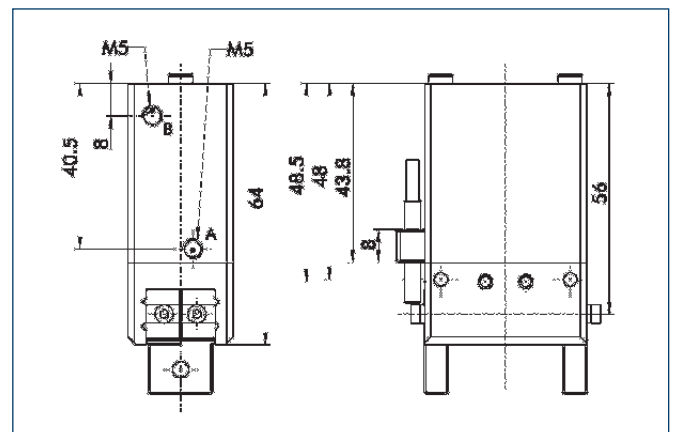
Hoseless direct connection



- ③ Adapter
- ④ Gripper

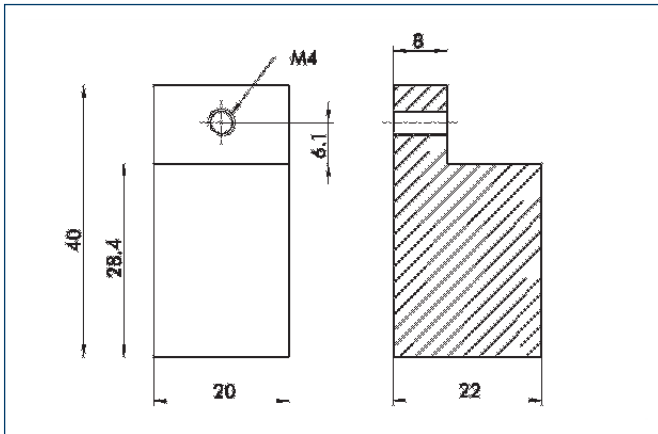
The direction connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device



The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing force in the AS version, and as opening force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

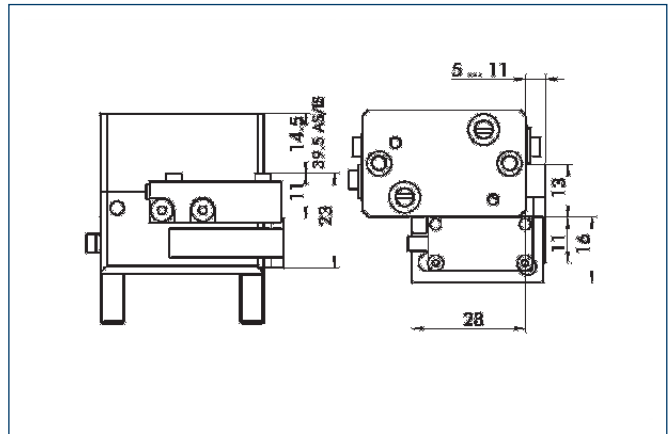
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR 40	Aluminum	2	0340213

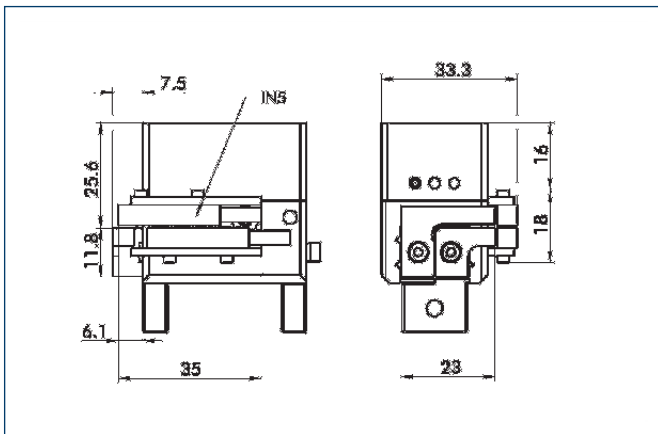
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-MPG 40	0301762

Mounting kit for proximity switch



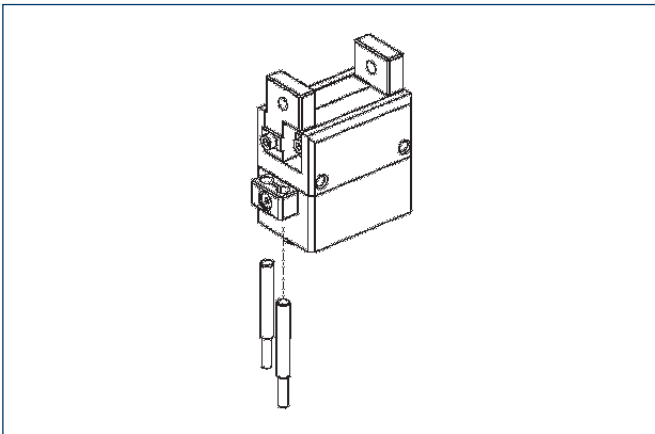
The mounting kit includes a bracket, switch cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
AS-MPG 40	0340152



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

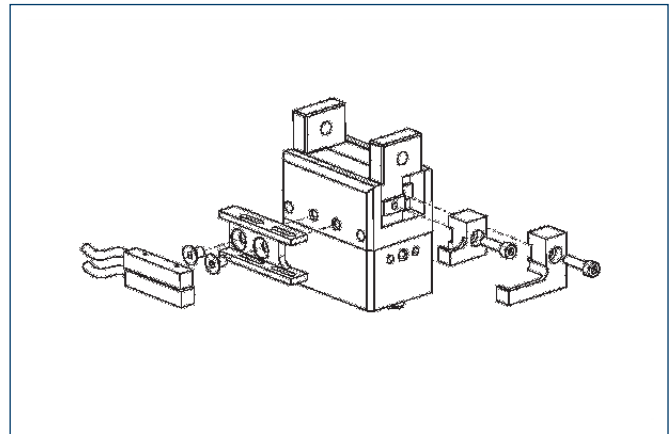
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring: Inductive proximity switches, mounted with mounting kit

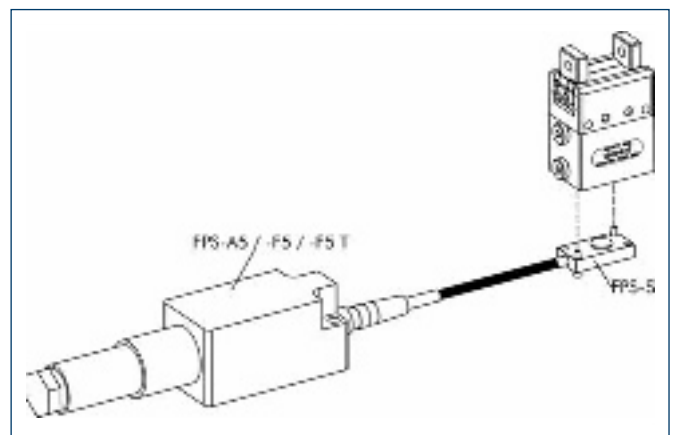
Description	ID	Recommended product
AS-MPG 40	0340152	
IN 5/S-M12	0301569	
IN 5/S-M8	0301469	•

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



Measuring system: FPS position monitor

Description	ID
AS-MPG 40	0301762
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

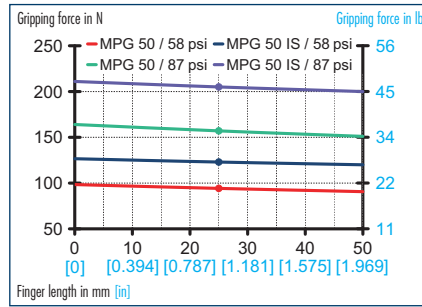
When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.



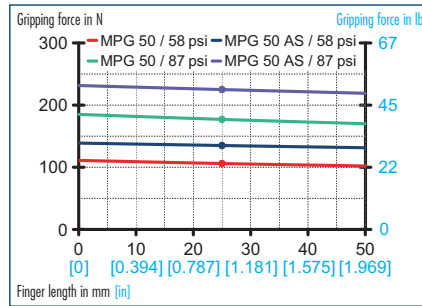
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



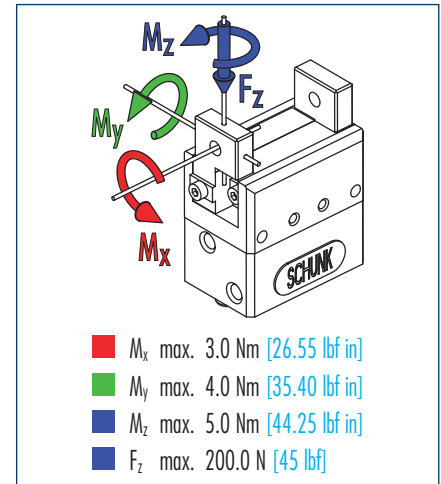
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

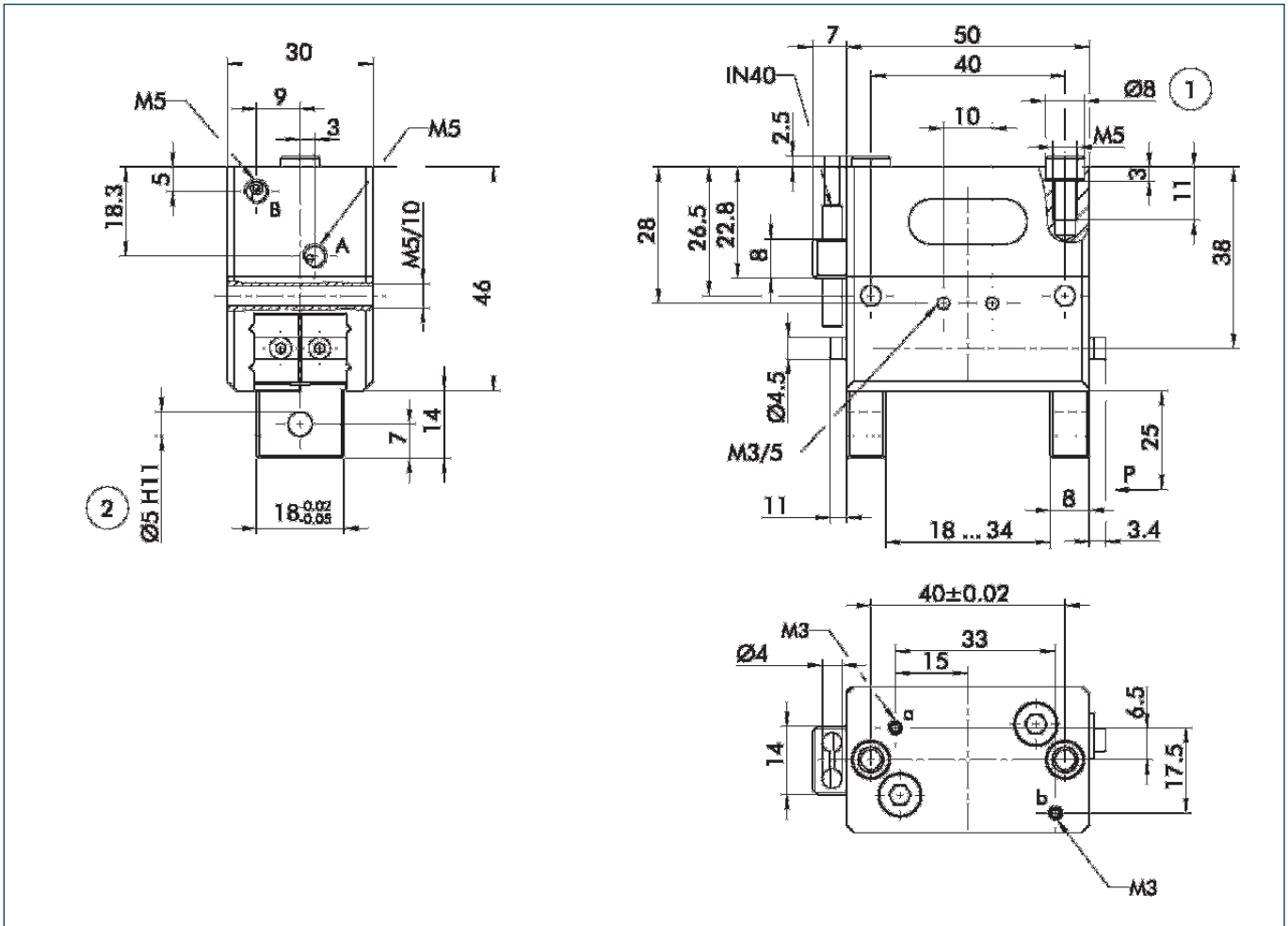


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	ID	MPG 50	MPG 50 AS	MPG 50 IS
		0340013	0340043	0340063
Stroke per finger	mm [in]	8.0 [0.315]	8.0 [0.315]	8.0 [0.315]
Closing force	N [lbf]	175.0 [39]	225.0 [51]	
Opening force	N [lbf]	155.0 [35]		210.0 [47]
Min. gripping force through spring	N [lbf]		50.0 [11.2]	35.0 [7.9]
Weight	kg [oz]	0.35 [12.35]	0.65 [22.93]	0.65 [22.93]
Recommended workpiece weight	kg [oz]	0.85 [29.98]	0.85 [29.98]	0.85 [29.98]
Air consumption per double stroke	cm ³ [in ³]	11.33 [0.69]	19.98 [1.22]	16.6 [1.01]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.01	0.01	0.02
Opening time	s	0.01	0.02	0.01
Closing/opening time with spring only	s		0.3	0.3
Max. permitted finger length	mm [in]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]
Max. permitted weight per finger	kg [oz]	0.14 [4.94]	0.14 [4.94]	0.14 [4.94]
IP rating		30	30	30
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

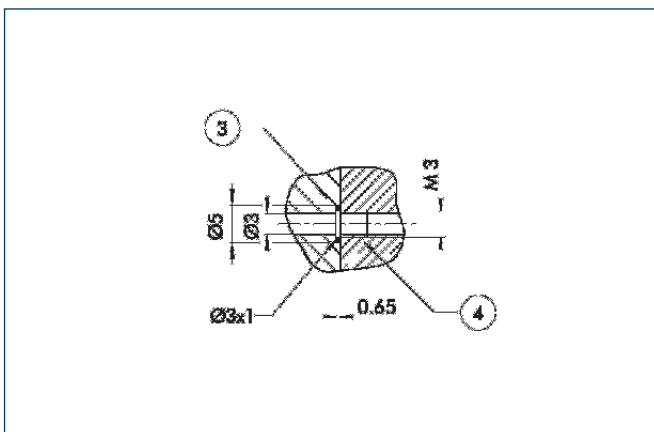


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

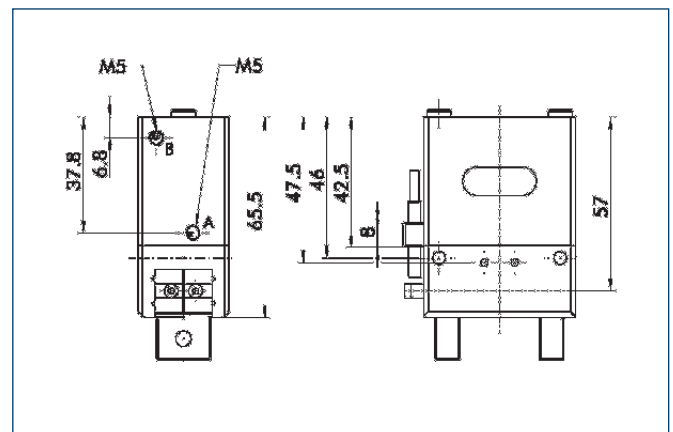
Hoseless direct connection



- ③ Adapter
- ④ Gripper

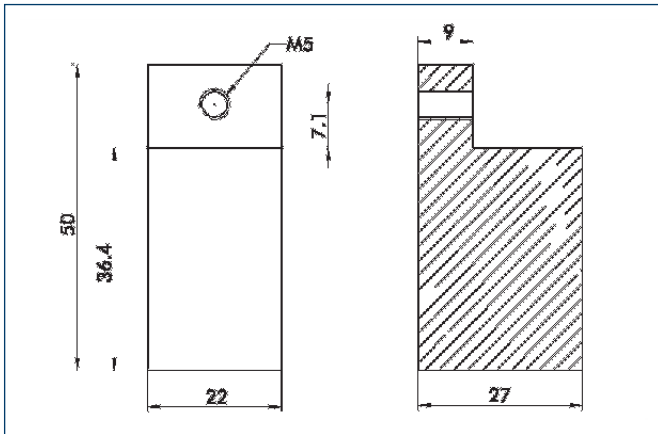
The direction connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device



The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing force in the AS version, and as opening force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

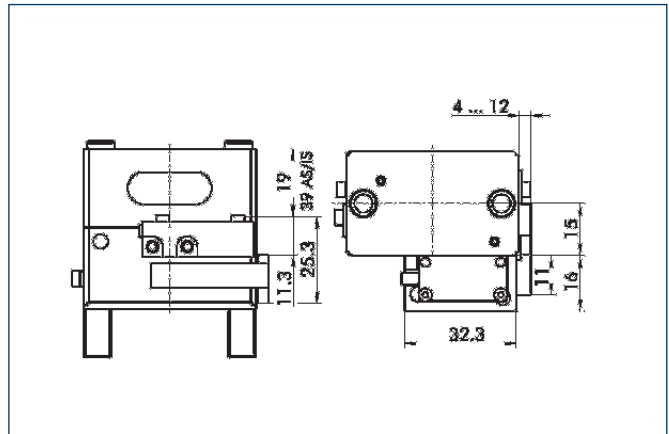
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Housing material	Scope of delivery	ID
ABR 50	Aluminum	2	0340214

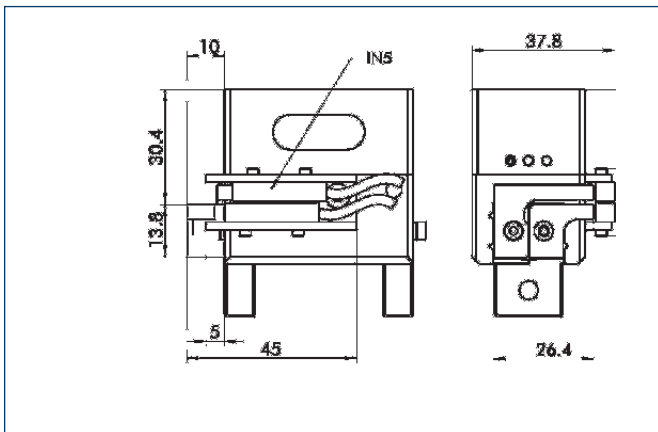
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-MPG 50	0301763

Mounting kit for proximity switch



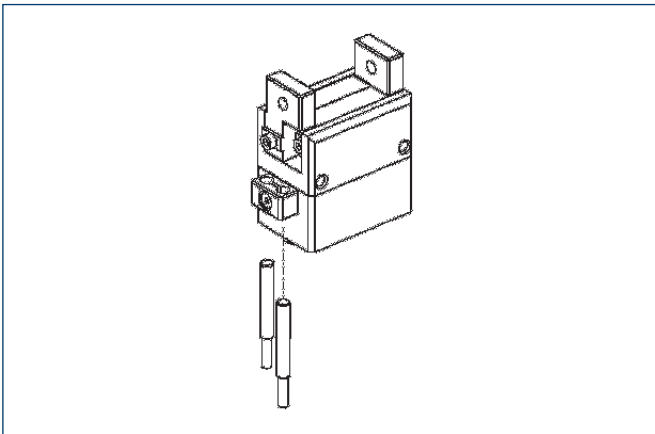
The mounting kit includes a bracket, switch cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
AS-MPG 50	0340153



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

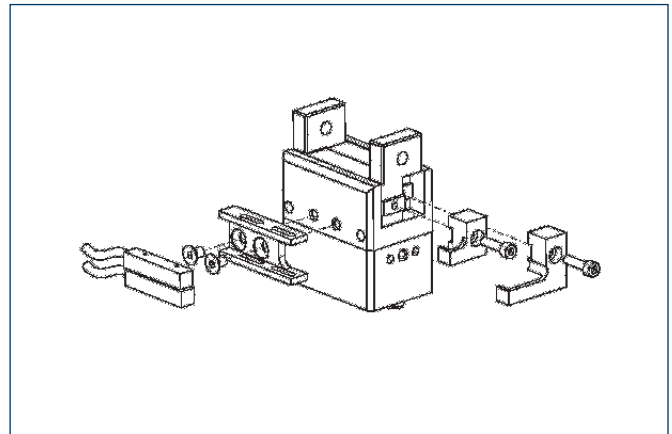
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring: Inductive proximity switches, mounted with mounting kit

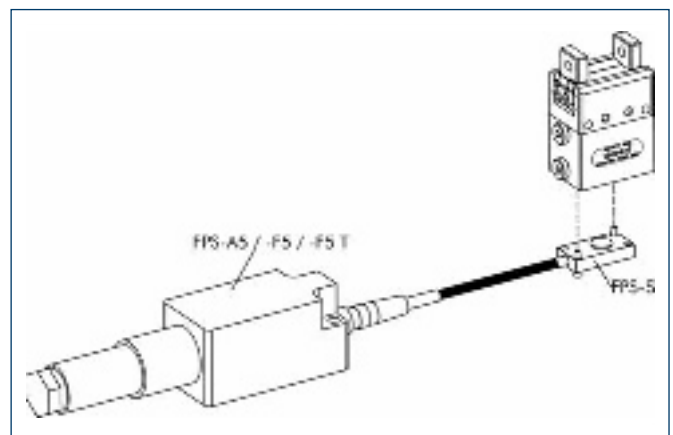
Description	ID	Recommended product
AS-MPG 50	0340153	
IN 5/S-M12	0301569	
IN 5/S-M8	0301469	•

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



Measuring system: FPS position monitor

Description	ID
AS-MPG 50	0301763
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

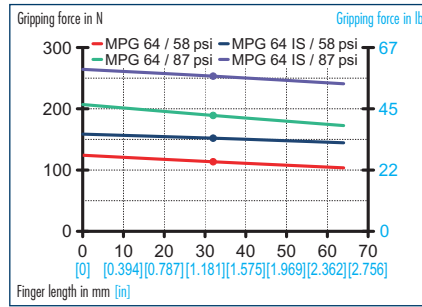
When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.



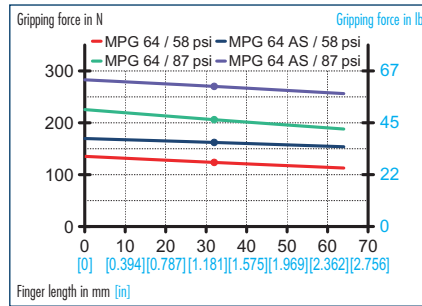
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



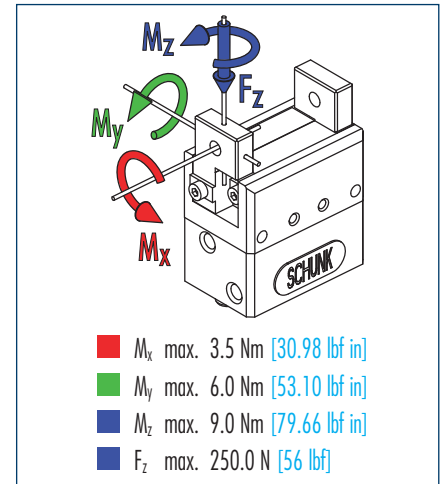
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

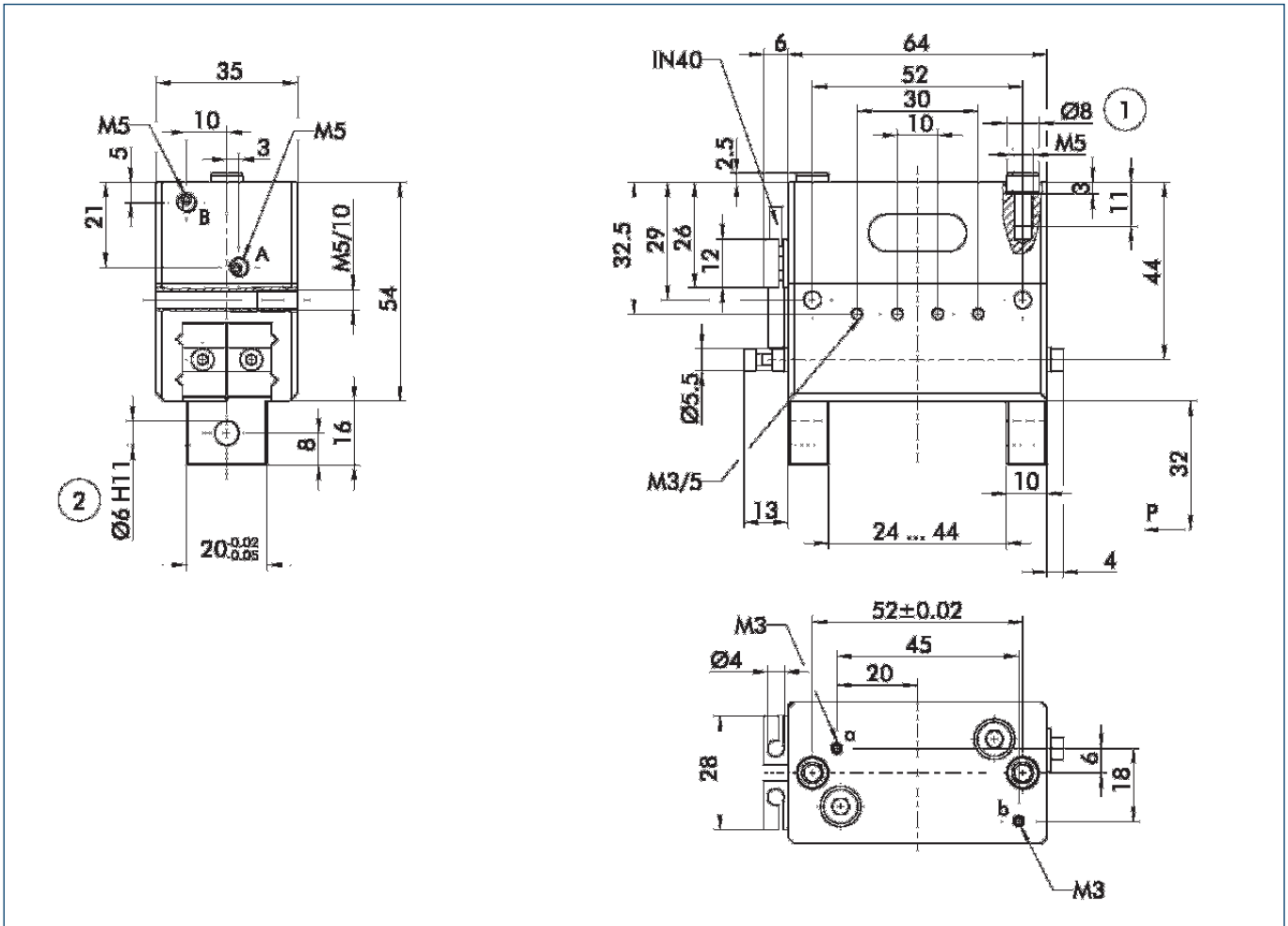


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		MPG 64	MPG 64 AS	MPG 64 IS
ID		0340014	0340044	0340064
Stroke per finger	mm [in]	10.0 [0.394]	10.0 [0.394]	10.0 [0.394]
Closing force	N [lbf]	200.0 [45]	270.0 [61]	
Opening force	N [lbf]	190.0 [43]		255.0 [57]
Min. gripping force through spring	N [lbf]		70.0 [15.7]	55.0 [12.4]
Weight	kg [oz]	0.6 [21.16]	1.1 [38.80]	1.1 [38.80]
Recommended workpiece weight	kg [oz]	1.0 [35.27]	1.0 [35.27]	1.0 [35.27]
Air consumption per double stroke	cm ³ [in ³]	18.85 [1.15]	28.58 [1.74]	26.6 [1.62]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.01	0.01	0.02
Opening time	s	0.01	0.02	0.01
Closing/opening time with spring only	s		0.3	0.3
Max. permitted finger length	mm [in]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]
Max. permitted weight per finger	kg [oz]	0.24 [8.47]	0.24 [8.47]	0.24 [8.47]
IP rating		30	30	30
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

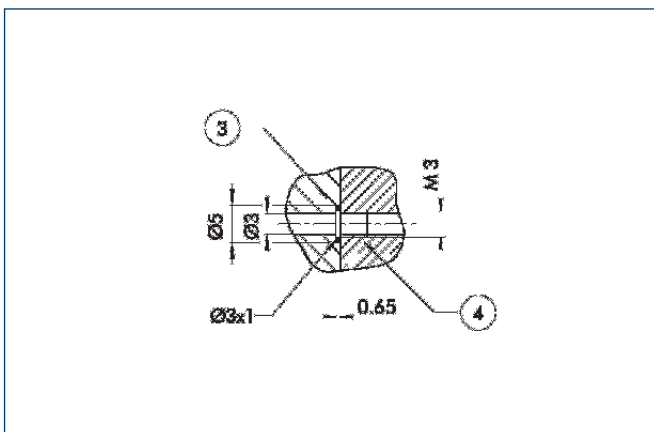


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

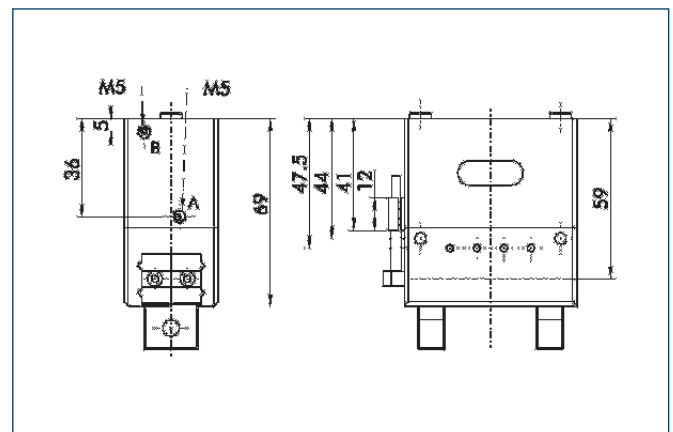
Hoseless direct connection



- ③ Adapter
- ④ Gripper

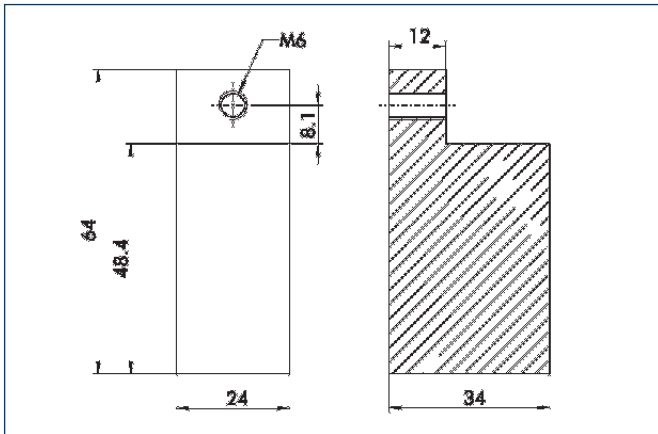
The direction connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device



The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing force in the AS version, and as opening force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

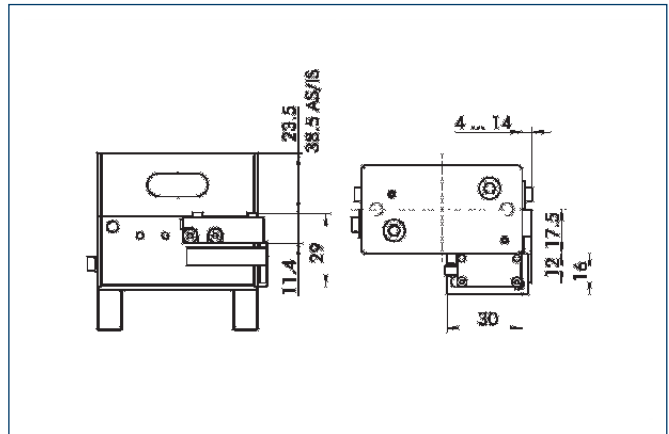
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR 64	Aluminum	2	0340215

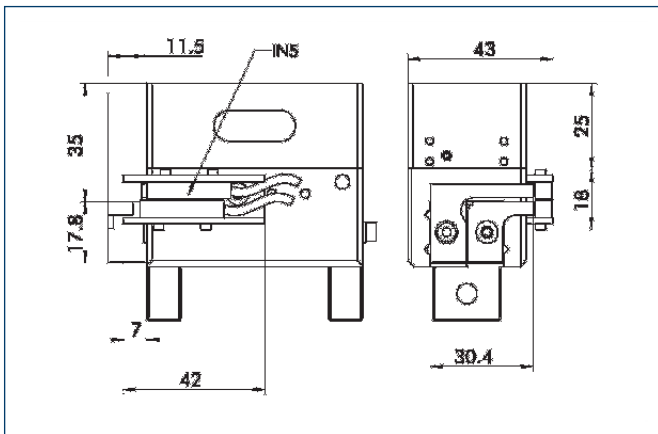
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-MPG 64	0301764

Mounting kit for proximity switch



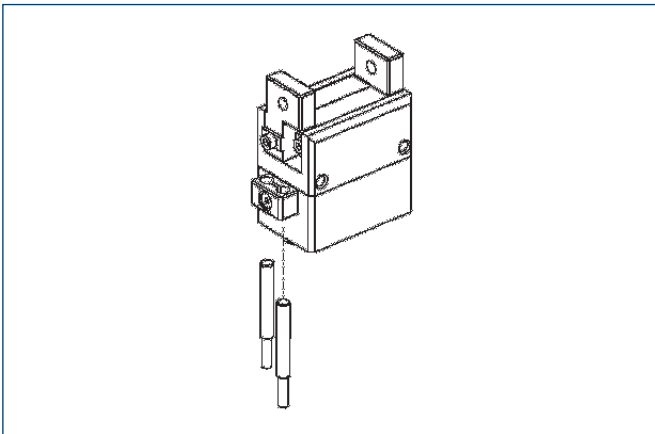
The mounting kit includes a bracket, switch cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
AS-MPG 64	0340154



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

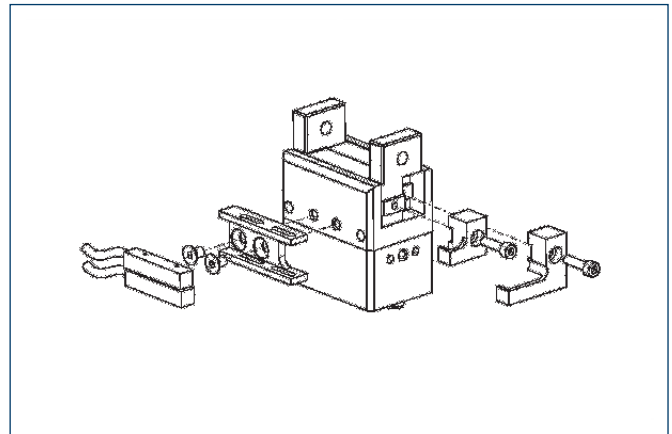
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring: Inductive proximity switches, mounted with mounting kit

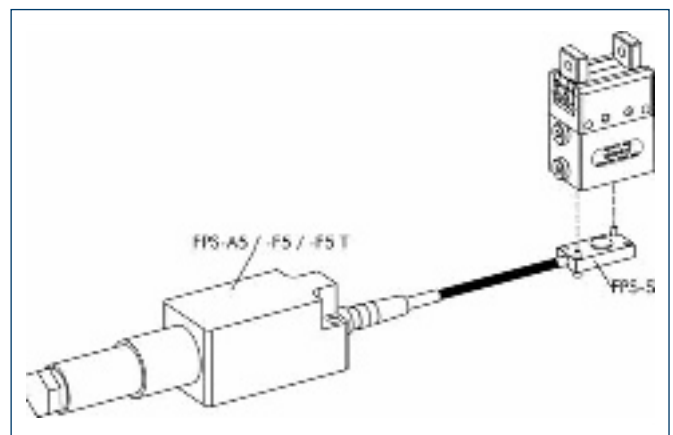
Description	ID	Recommended product
AS-MPG 64	0340154	
IN 5/S-M12	0301569	
IN 5/S-M8	0301469	•

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



Measuring system: FPS position monitor

Description	ID
AS-MPG 64	0301764
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.



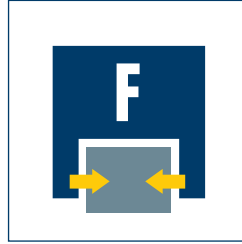
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



Size
50



Weight
0.080 kg
2.82 oz



Gripping force
13 N
2.9 lbf

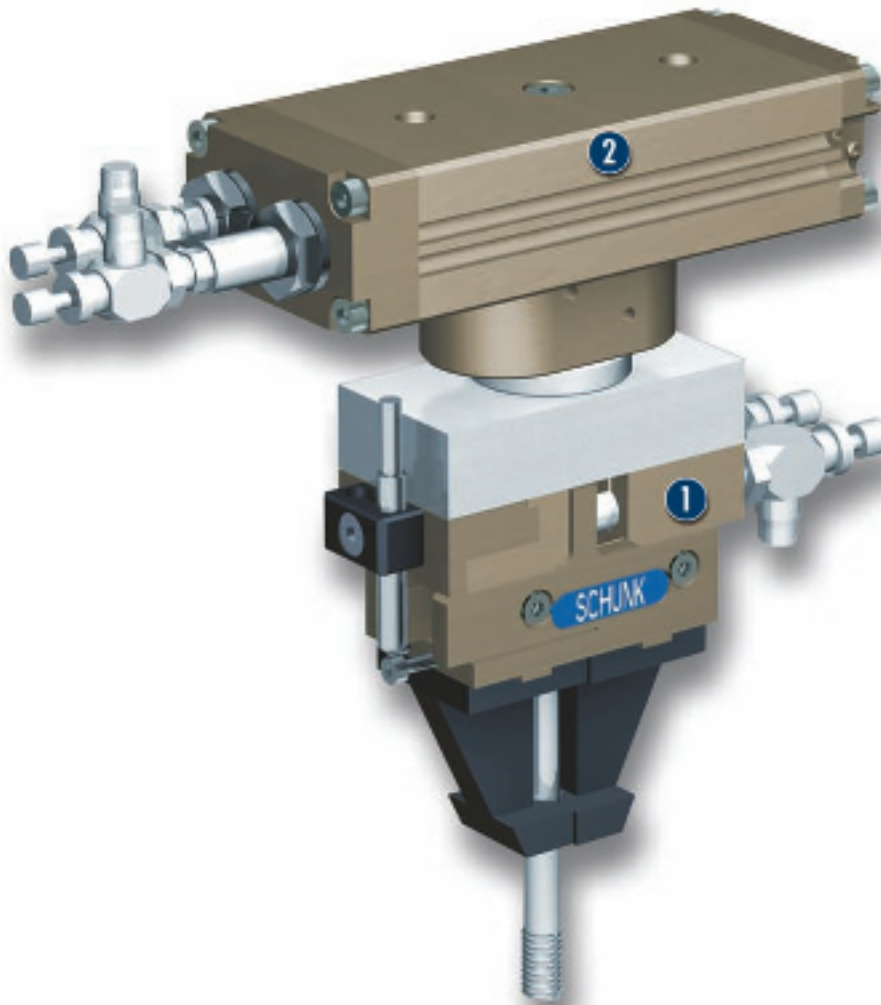


Stroke per finger
4.5 mm
0.177 in



Workpiece weight
0.065 kg
2.29 oz

Application example



Rotary gripper module for small components

1 KTG 50 2-Finger Parallel Gripper with workpiece-specific fingers

2 MRU 14.1-E-4 Miniature Rotary Unit

Grippers for small components

2-Finger parallel gripper with center bore

Area of application

Gripping and movement of small to medium-sized workpieces in low contaminated environments, equipped with end-to-end center bore for workpiece feeding, sensor systems or actuators

Your advantages and benefits

Low weight

for weight-reduced handling solutions

Long stroke

in proportion to size

Base jaws guided on roller bearings

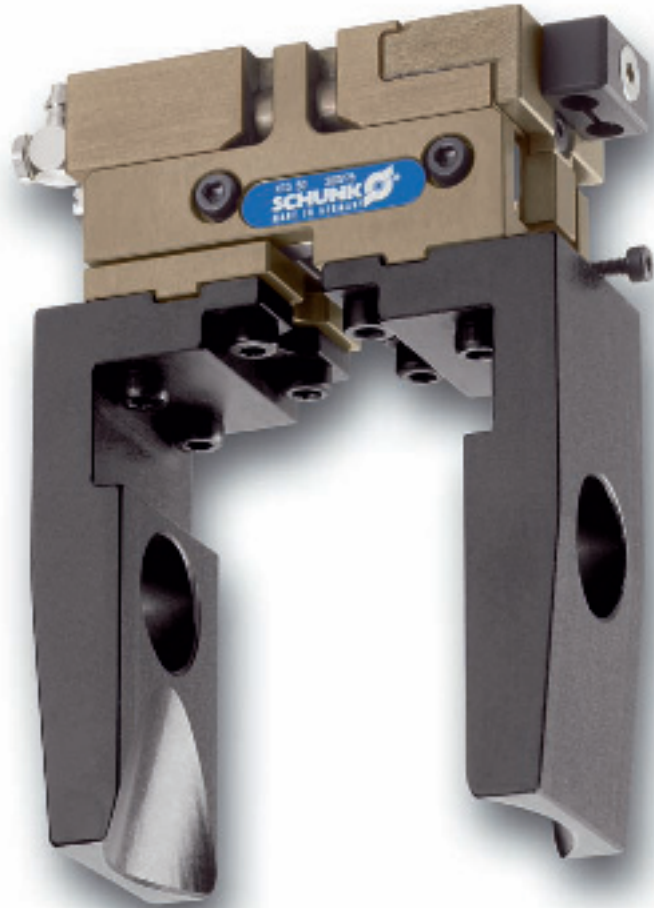
for precise gripping

Through center bore

for workpiece feeding, sensor systems or actuators

Air supply via hose-free direct connection or fitting connections

for the flexible supply of compressed air in all automation systems



General information on the series

Working principle

Synchronized double piston

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Aluminum alloy, hard-anodized

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated

Pressure medium: Required quality class of compressed air according to DIN ISO

8573-1: Quality class 4

Warranty

24 months

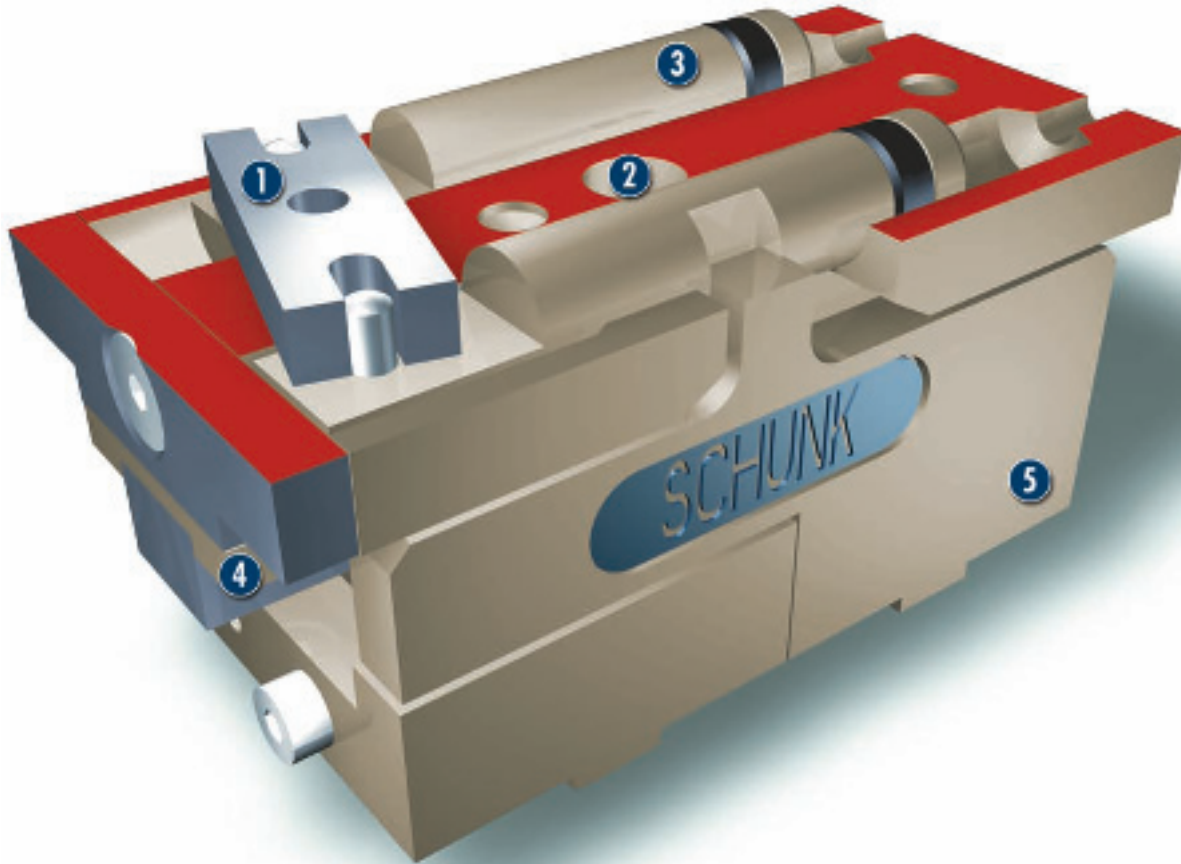
Scope of delivery

Brackets for proximity switches, centering sleeves, centering pins, O-rings for direct connection, assembly and operating manual with manufacturer's declaration

Gripping force safety device

possible with SDV-P pressure maintenance valve

Sectional diagram



1 Kinematics
synchronization using lever principle for centric clamping

2 Center bore
through-bore for workpiece feeding, sensor systems or actuators (ejector)

3 Drive
through pneumatic double piston system

4 Roller guide
exact gripping thanks to precise base jaw guide

5 Housing
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy

Function description

The application of pressure on the first or second piston sets the base jaws, each of which is guided by a carrier on the piston, in motion. The movement is synchronized by means of lever kinematics.

Options and special information

Available with reinforced jaw guides on request. Gripping force can be maintained by the SDV-P pressure maintenance valve.

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Centering sleeves



Fittings



IN inductive proximity switches



W/WK/KV/GK sensor cables



HM carbide inserts



V sensor distributors



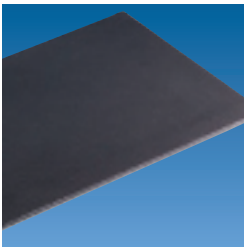
Quentes plastic inserts



Finger blanks



HKI gripper pads



SDV-P pressure maintenance valves



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration), measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

Workpiece weight

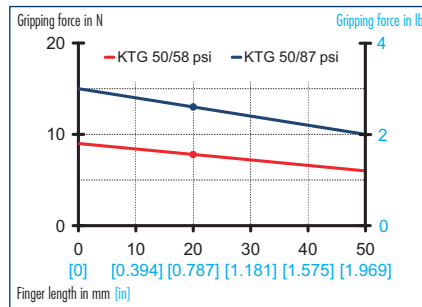
The recommended workpiece weight is calculated for a force type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit clamping.

Closing and opening times

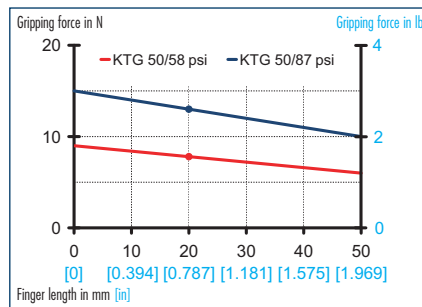
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



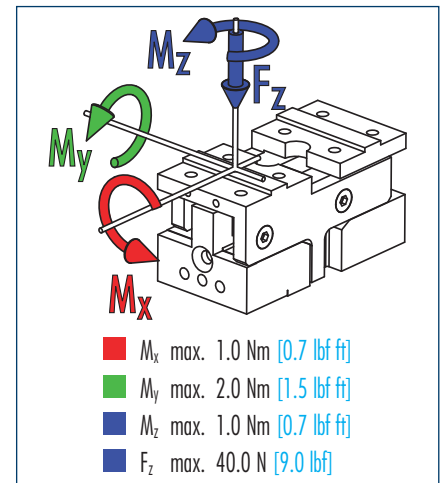
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

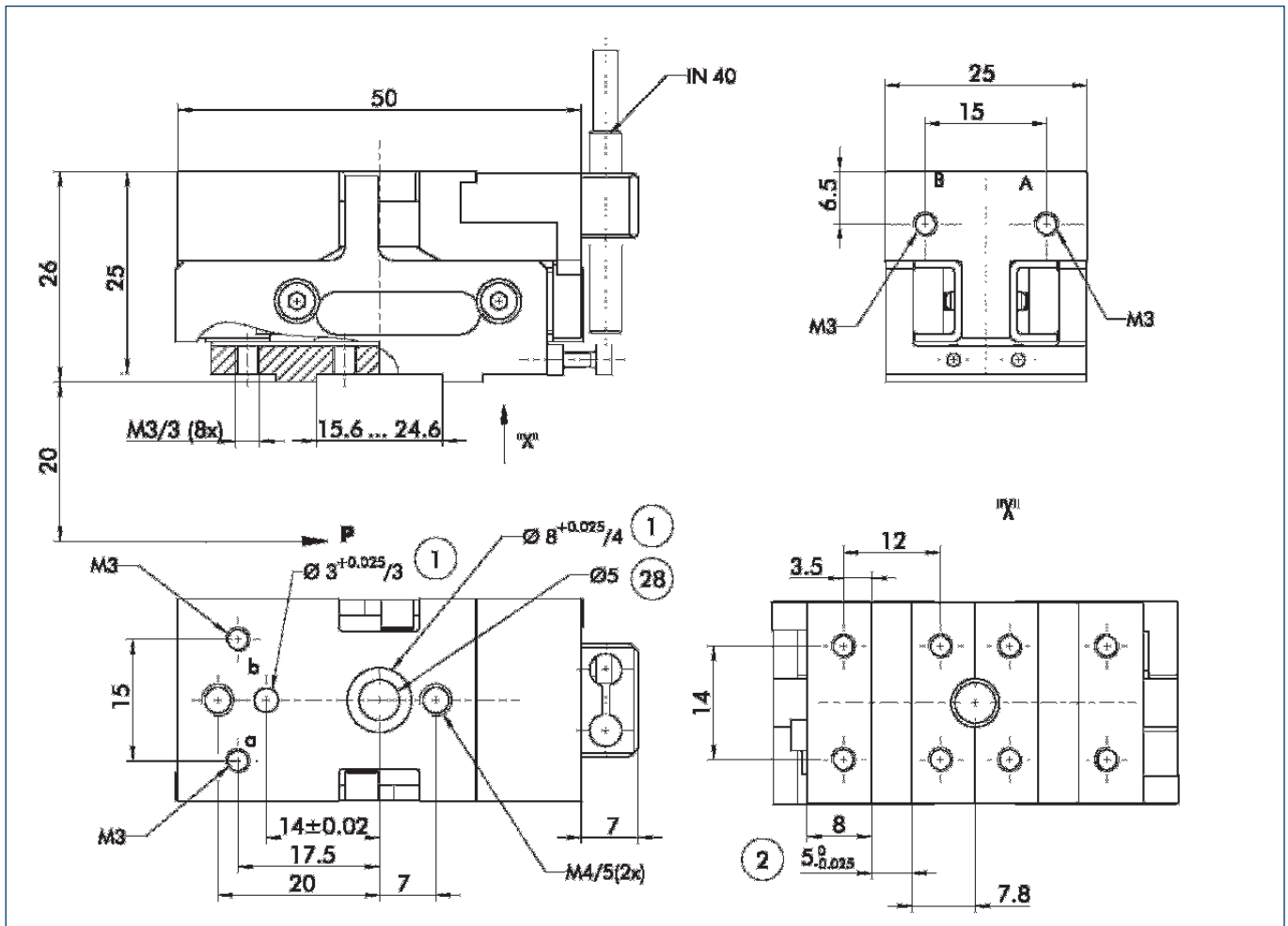


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	KTG 50	
ID	0300275	
Stroke per jaw	mm [in]	4.5 [0.177]
Closing force	N [lbf]	13.0 [2.9]
Opening force	N [lbf]	13.0 [2.9]
Weight	kg [oz]	0.08 [2.82]
Recommended workpiece weight	kg [oz]	0.065 [2.29]
Air consumption per double stroke	cm ³ [in ³]	0.23 [0.01]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	1.0 [15]
Maximum pressure	bar [psi]	7.0 [102]
Closing time	s	0.05
Opening time	s	0.05
Max. permitted finger length	mm [in]	50.0 [1.969]
Max. permitted weight per finger	kg [oz]	0.04 [1.41]
IP rating	20	
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]
Diameter of center bore	mm [in]	5.0 [0.197]

Main views

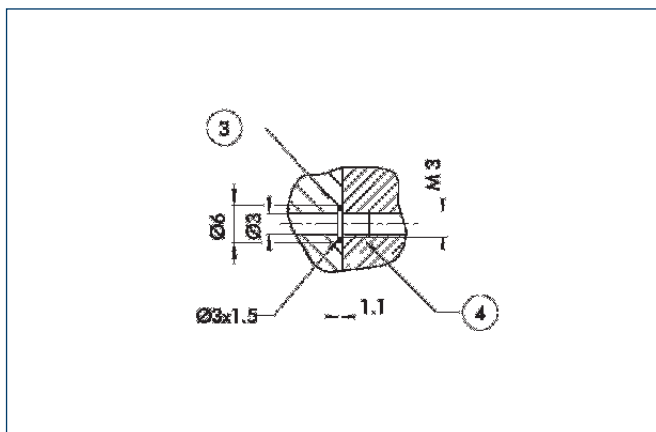


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ②⑧ Through-bore

① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

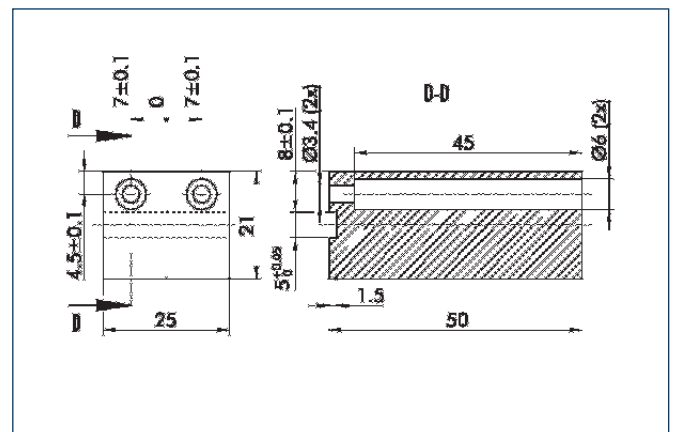
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

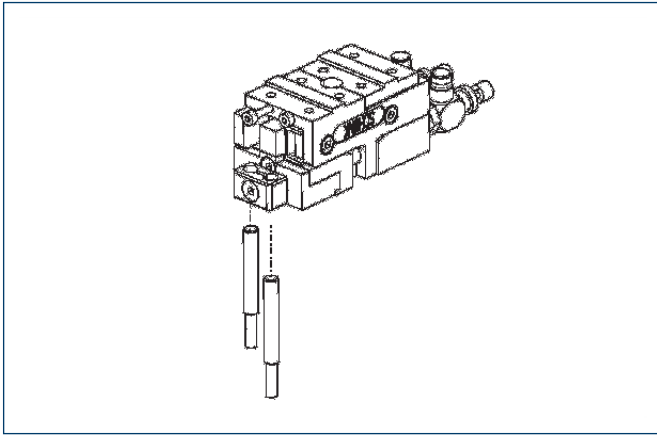
Finger blanks



Finger blanks for customized subsequent machining

Description	Material	Scope of delivery	ID
RB 50	Aluminum	2	0300280

Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

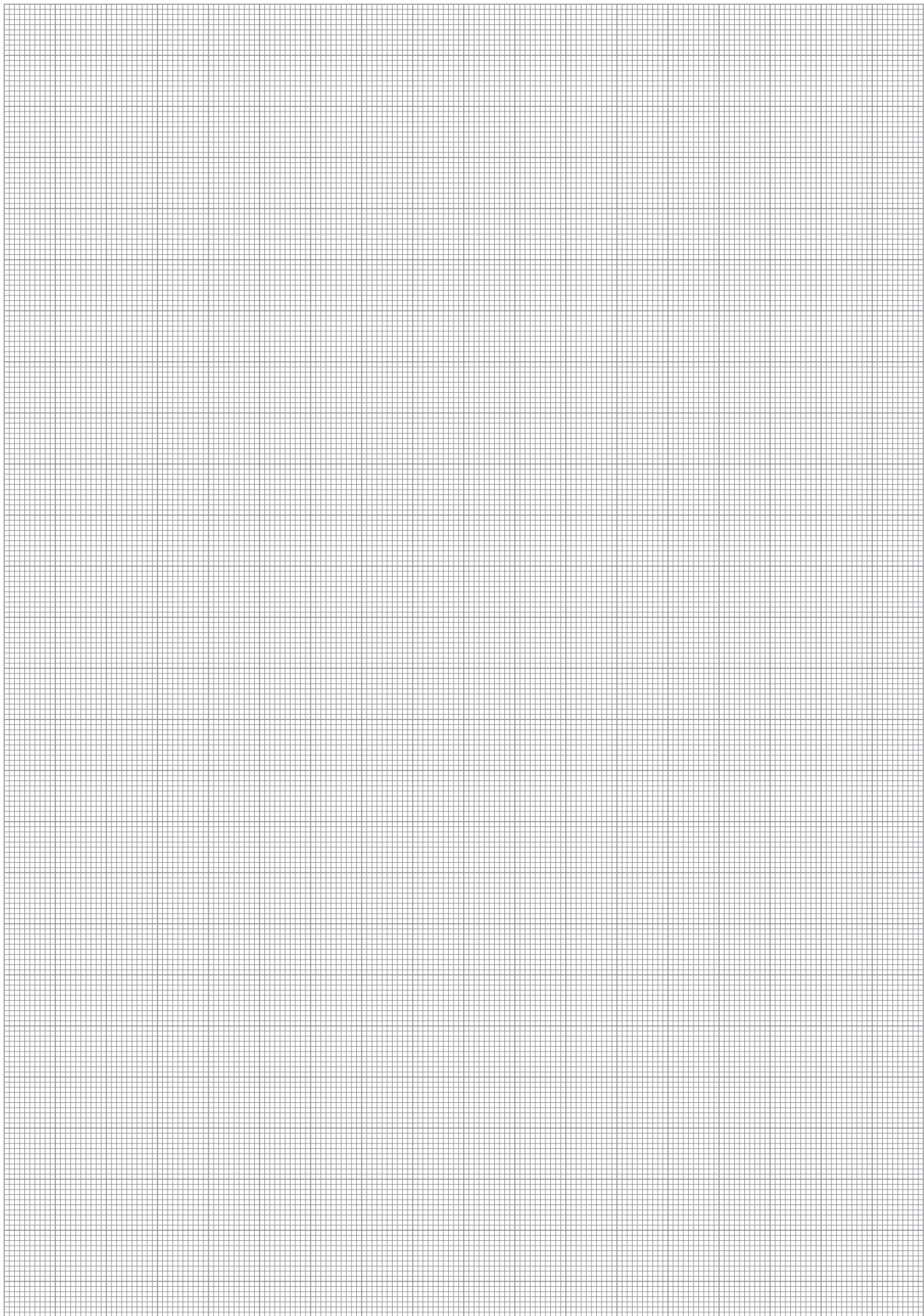
Extension cables for proximity switches/magnetic switches

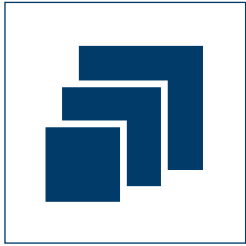
Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

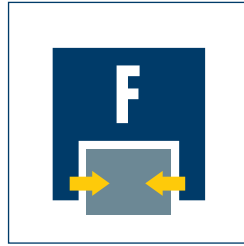




Sizes
80 .. 280



Weight
0.25 kg .. 4.2 kg
0.55 lbs .. 9.26 lbs



Gripping force
88 N .. 540 N
19.8 lbf .. 121 lbf

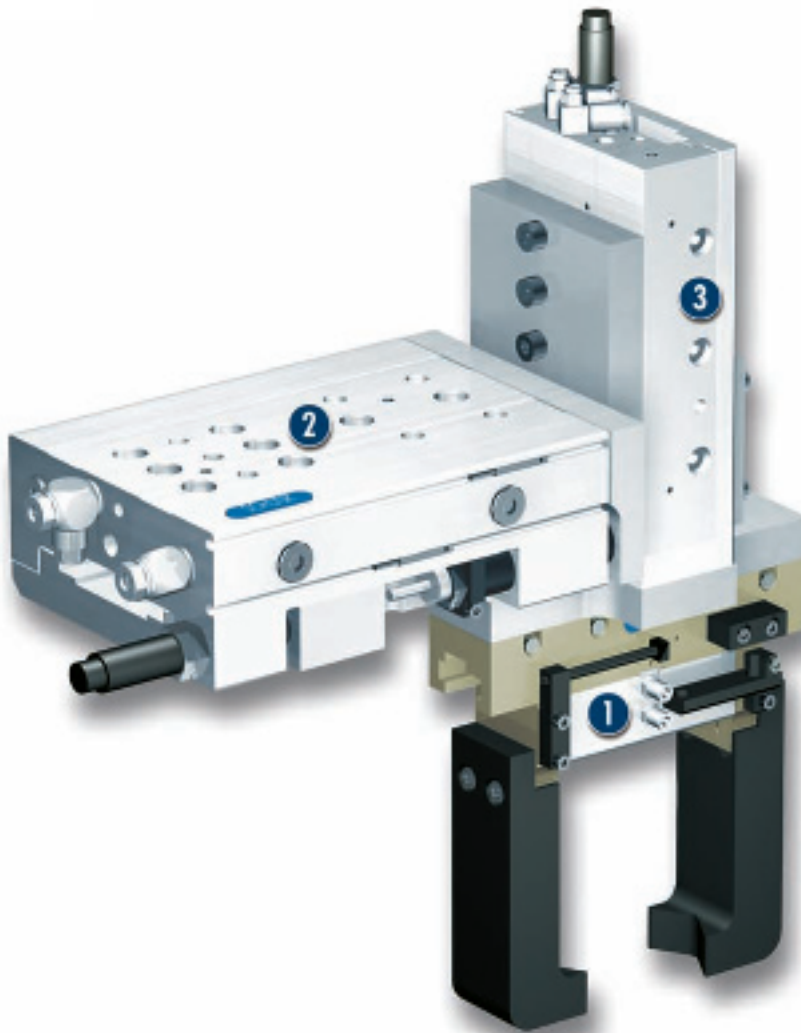


Stroke per finger
15 mm .. 60 mm
0.591 in .. 2.362 in



Workpiece weight
0.44 kg .. 2.7 kg
0.97 lbs .. 5.95 lbs

Application example



Unload unit for small components, which require an especially long gripper stroke due to their great variation in size

1 KGG 140 2-Finger Parallel Gripper with workpiece-specific fingers

2 FST-S 25-40 Mini-slide for horizontal movement

3 FST-S 16-60 Mini-slide for vertical movement

Grippers for small components

Compact 2-finger parallel gripper with long stroke

Area of application

for universal use in clean environments with light to medium work-piece weights and a long stroke range

Your advantages and benefits

Robust T-slot guide

for high maximum moments

Pneumatic 2-piston drive design

for direct power transmission and high efficiency

Rack and pinion principle

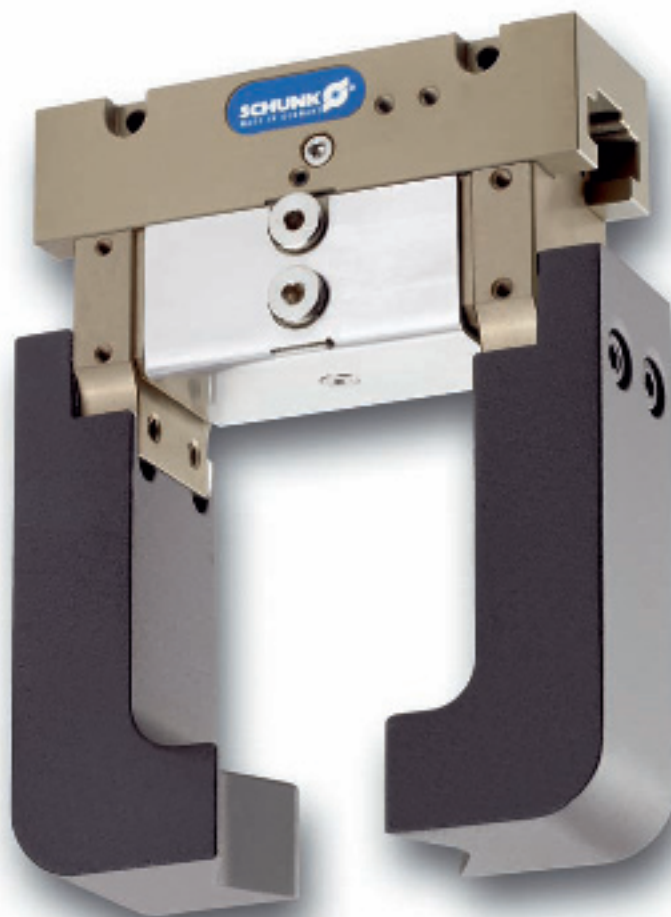
for centric clamping, even with long strokes

Mounting on two sides in three screw directions

for universal and flexible gripper assembly

Air supply via hose-free direct connection or screw connections

for the flexible supply of compressed air in all automation systems



General information on the series

Working principle

Directly driven base jaws, synchronized by rack and pinion

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Aluminum alloy, hard-anodized

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated
Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: Quality class 4

Warranty

24 months

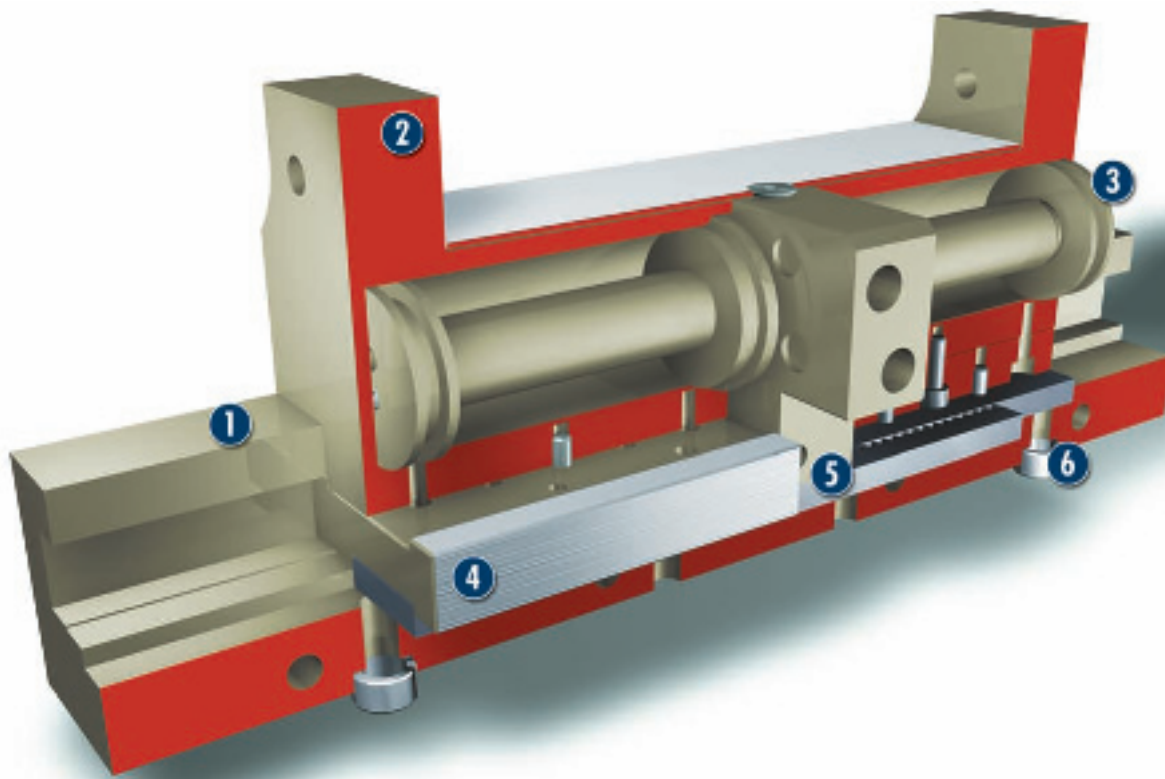
Scope of delivery

Brackets for proximity switches, centering sleeves, O-rings for direct connection, assembly and operating manual with manufacturer's declaration

Maintenance of gripping force

possible with SDV-P pressure maintenance valve

Sectional diagram



- 1 Housing**
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy
- 3 Drive**
pneumatic 2-piston system
- 5 Kinematics**
rack and pinion principle for centric clamping, even with long strokes
- 2 Base jaws**
for the connection of workpiece-specific gripper fingers
- 4 Guidance**
high maximum moments through robust T-slot guide
- 6 Centering and mounting possibilities**
for mounting the gripper on the base surface and the side surface

Function description

The base jaws, arranged in a line, are introduced with compressed air directly by the fixed piston, which causes them to open and close. The base jaws are synchronized by the internal rack and pinion arrangement.

Options and special information

Please note that the mass moment of inertia of the gripper fingers must be kept to a minimum in the case of long-stroke grippers.

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Centering sleeves



Fittings



IN inductive proximity switches



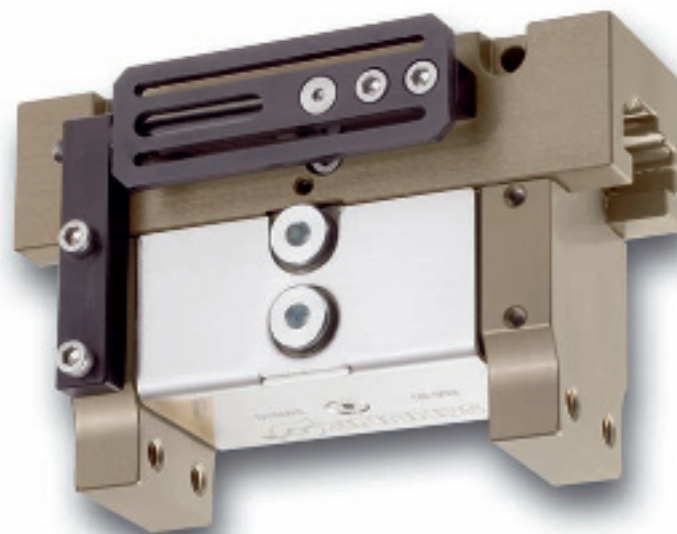
W/WK/KV/GK sensor cables



HM carbide inserts



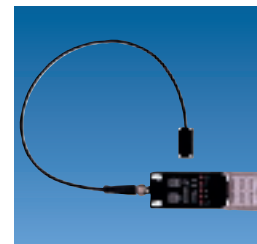
Quentes plastic inserts



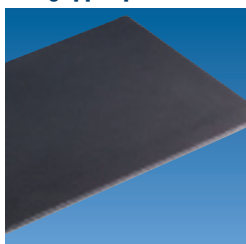
V sensor distributors



FPS flexible position sensor



HKI gripper pads



SDV-P pressure maintenance valves



Finger blanks



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration), measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

Workpiece weight

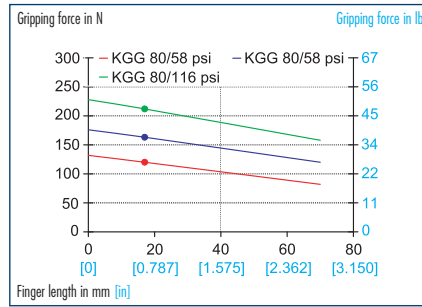
The recommended workpiece weight is calculated for a force-fit type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

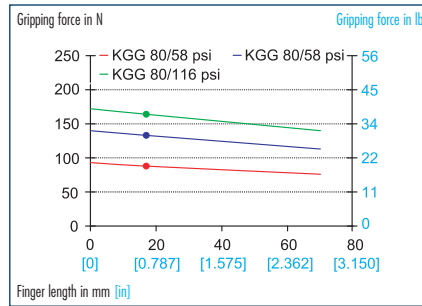
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



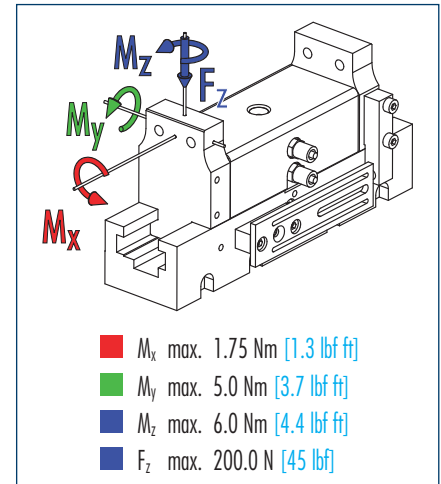
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

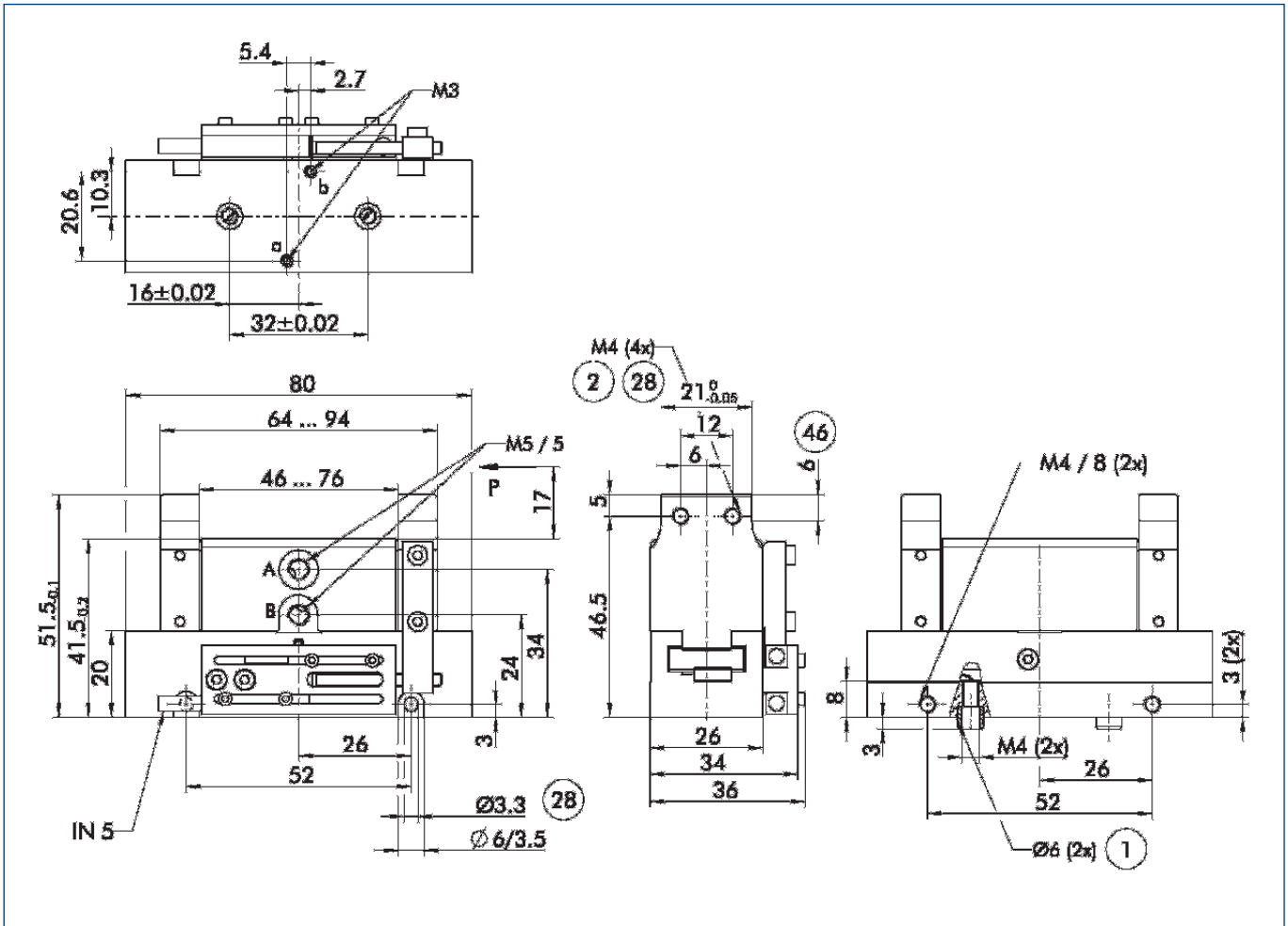


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	KGG 80	
ID	0340310	
Stroke per finger	mm [in]	15.0 [0.591]
Closing force	N [lbf]	88.0 [19.8]
Opening force	N [lbf]	140.0 [31]
Weight	kg [lbs]	0.25 [0.55]
Recommended workpiece weight	kg [lbs]	0.44 [0.97]
Air consumption per double stroke	cm ³ [in ³]	11.0 [0.67]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.5 [36]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.06
Opening time	s	0.045
Max. permitted finger length	mm [in]	70.0 [2.756]
Max. permitted weight per finger	kg [lbs]	0.15 [0.33]
IP rating		40
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.05 [0.0020]

Main views

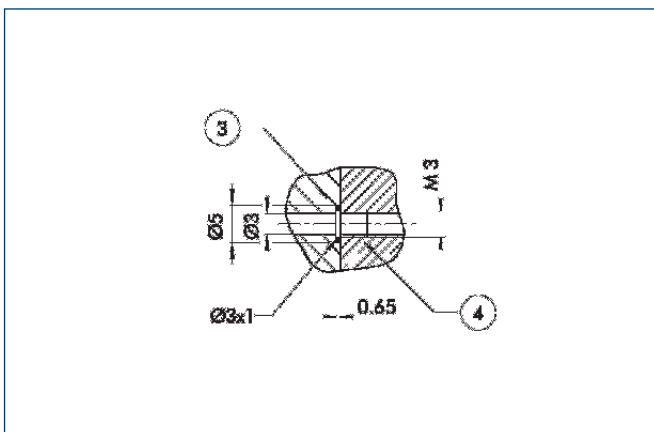


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- 28 Through-bore
- 46 Fitting depth

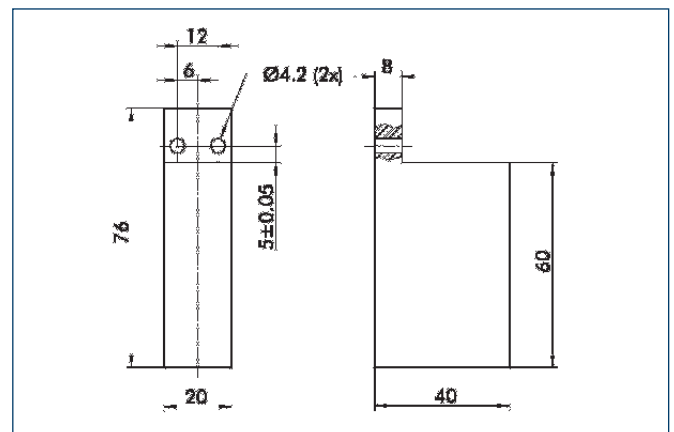
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

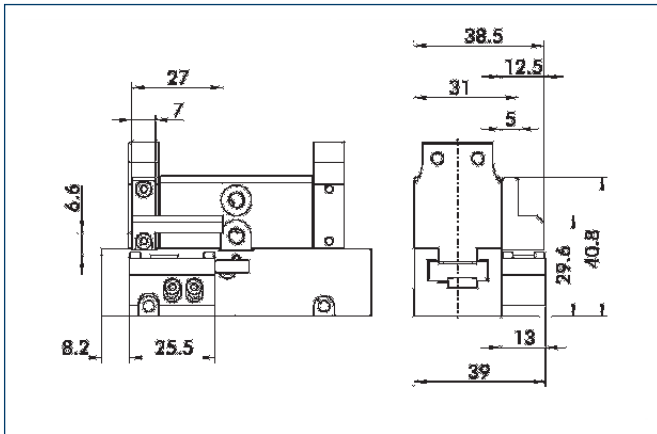
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
RB 80	Aluminum	2	0300284

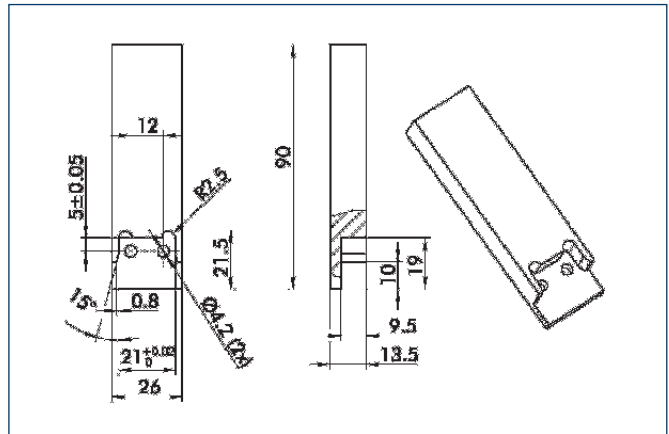
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-KGG 80	0301731

Finger design

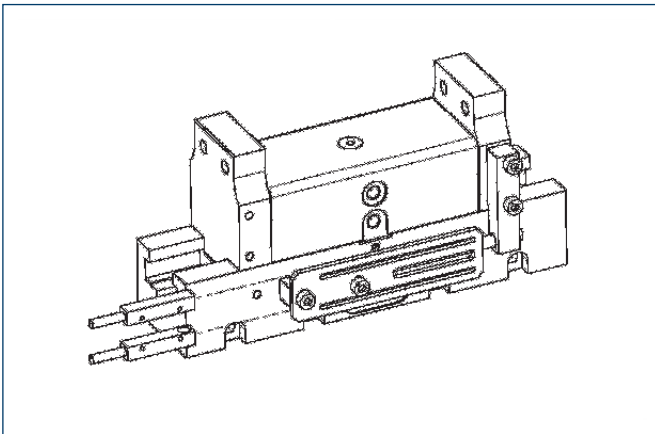


Suggested connection dimensions for gripper fingers



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

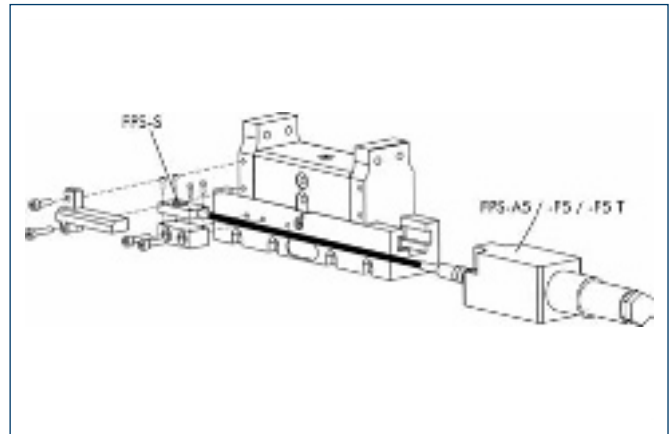
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 5/S-M12	0301569	
IN 5/S-M8	0301469	•

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



Measuring system: FPS position monitor

Description	ID
AS-KGG 80	0301731
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the “Accessories” catalog section.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

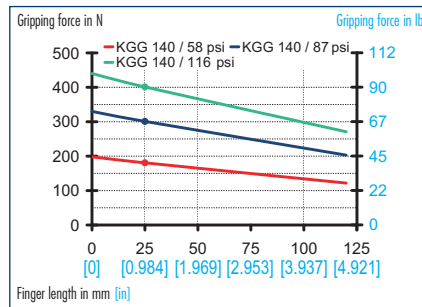
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



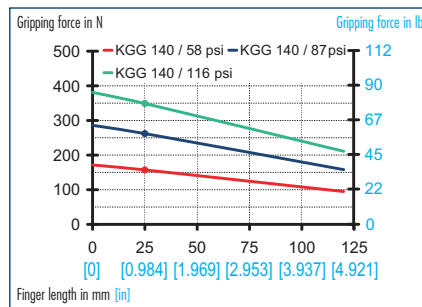
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



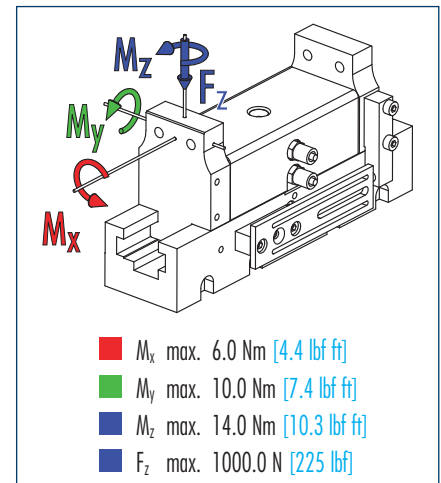
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

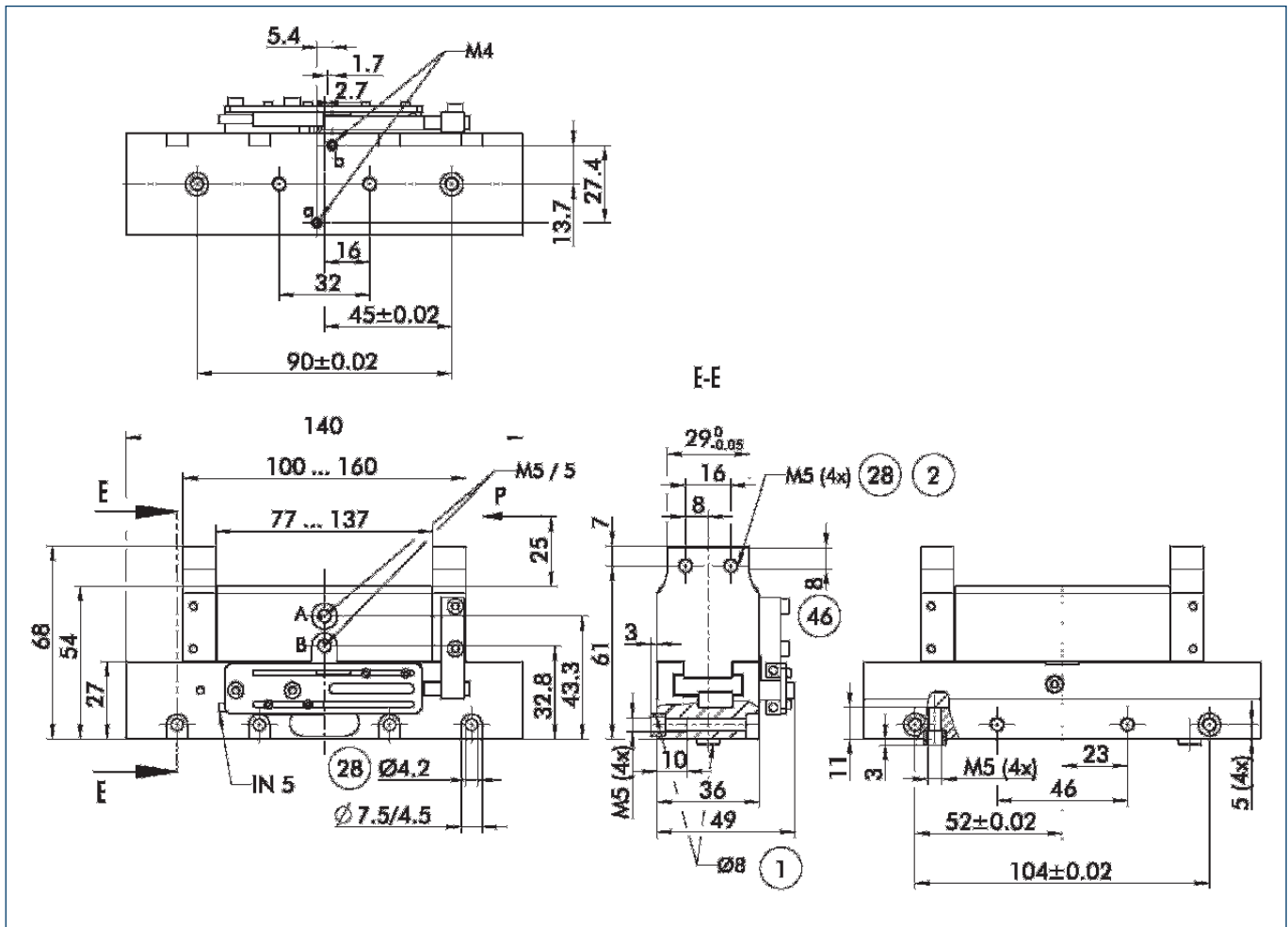


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	ID	KGG 140
		0340311
Stroke per finger	mm [in]	30.0 [1.181]
Closing force	N [lbf]	260.0 [58]
Opening force	N [lbf]	300.0 [67]
Weight	kg [lbs]	0.72 [1.59]
Recommended workpiece weight	kg [lbs]	1.3 [2.87]
Air consumption per double stroke	cm ³ [in ³]	41.0 [2.50]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.5 [36]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.12
Opening time	s	0.12
Max. permitted finger length	mm [in]	100.0 [3.937]
Max. permitted weight per finger	kg [lbs]	0.5 [1.10]
IP rating		40
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.05 [0.0020]

Main views

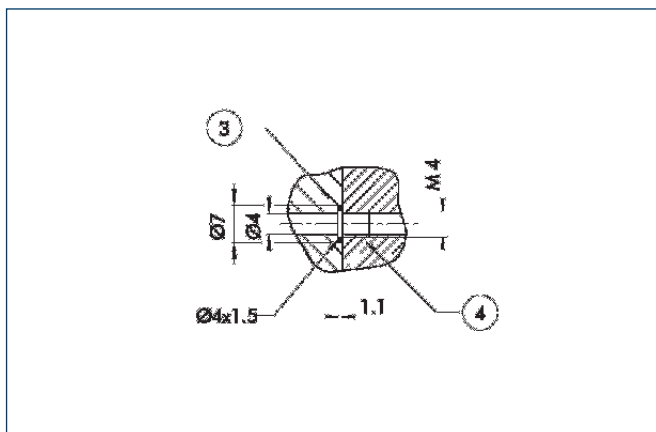


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- 28 Through-bore
- 46 Fitting length

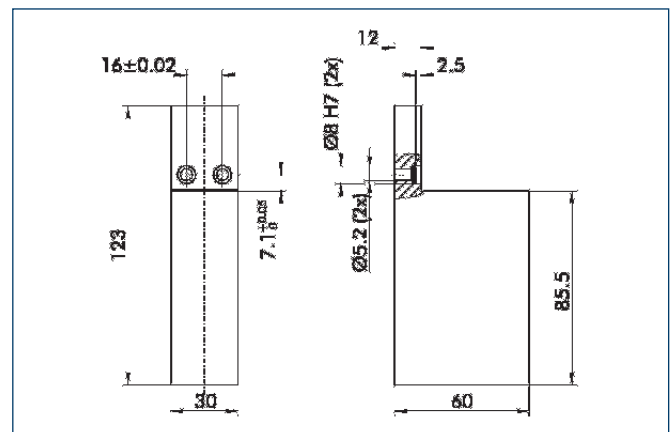
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

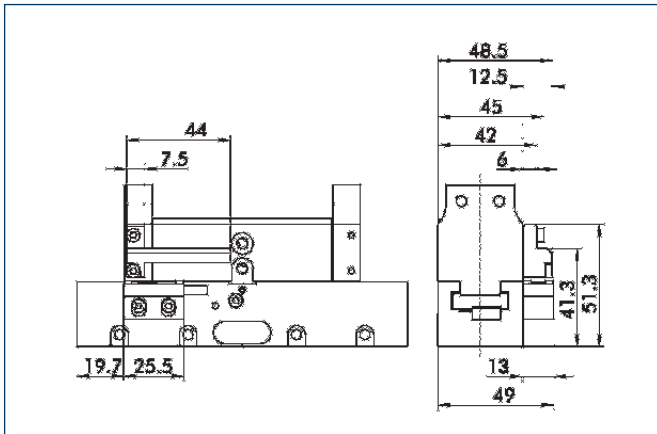
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
RB 140	Aluminum	2	0300285

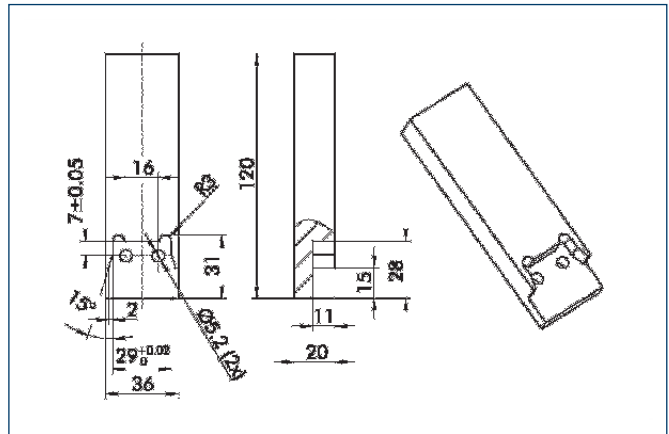
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

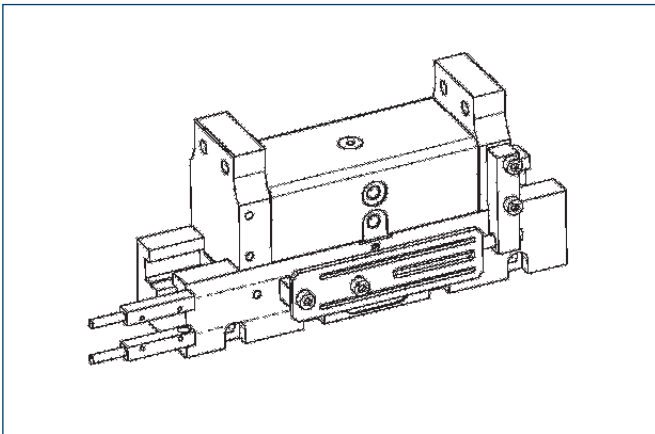
Description	ID
AS-KGG 140	0301735

Finger design



Suggested connection dimensions for gripper fingers

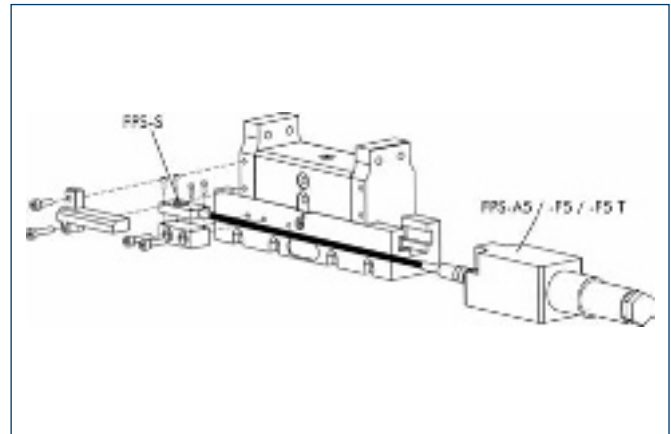
Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 5/S-M12	0301569	
IN 5/S-M8	0301469	•

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



Measuring system: FPS position monitor

Description	ID
AS-KGG 140	0301735
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the “Accessories” catalog section.

Extension cables for proximity switches/magnetic switches

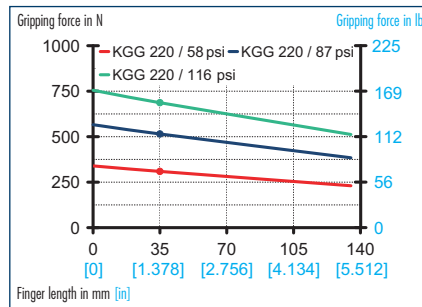
Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

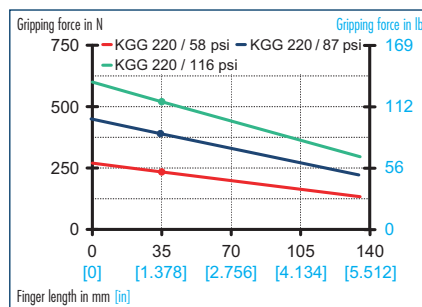
 You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



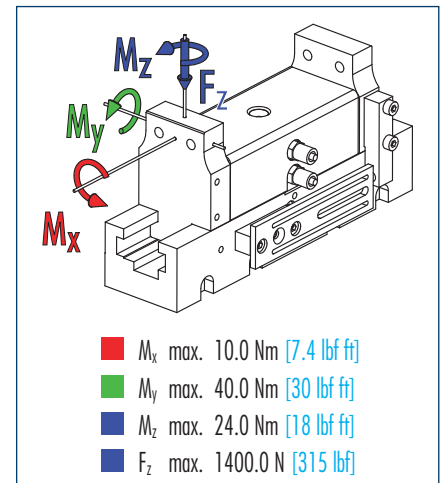
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

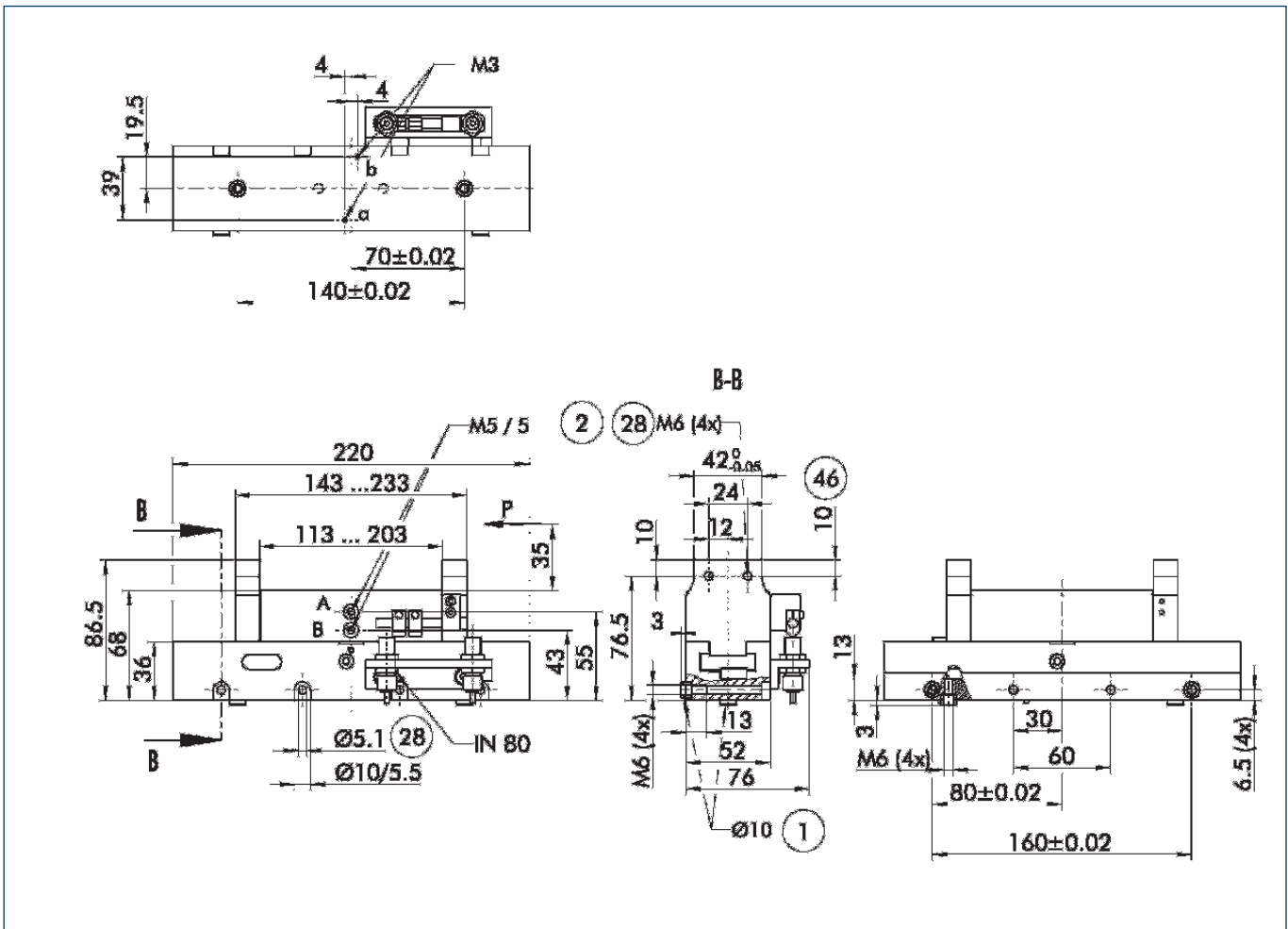


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	ID	KGG 220
		0340312
Stroke per finger	mm [in]	45.0 [1.772]
Closing force	N [lbf]	390.0 [88]
Opening force	N [lbf]	515.0 [116]
Weight	kg [lbs]	2.0 [4.41]
Recommended workpiece weight	kg [lbs]	1.95 [4.30]
Air consumption per double stroke	cm ³ [in ³]	98.0 [5.98]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.5 [36]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.25
Opening time	s	0.25
Max. permitted finger length	mm [in]	130.0 [5.118]
Max. permitted weight per finger	kg [lbs]	1.0 [2.20]
IP class		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.05 [0.0020]

Main views

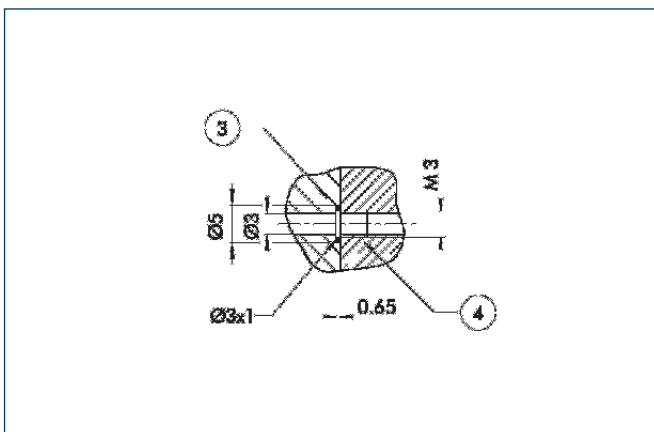


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- 28 Through-bore
- 46 Fitting length

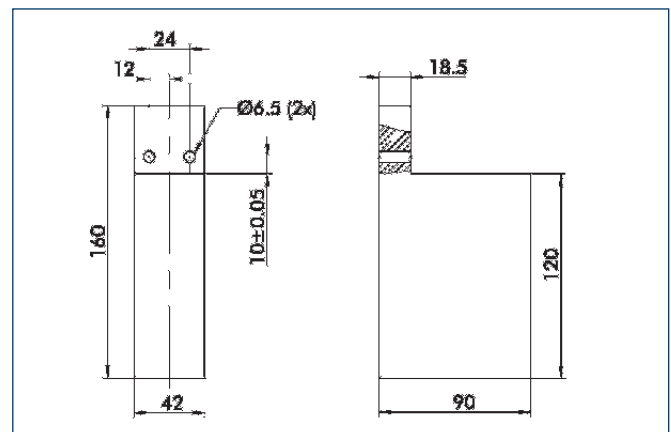
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

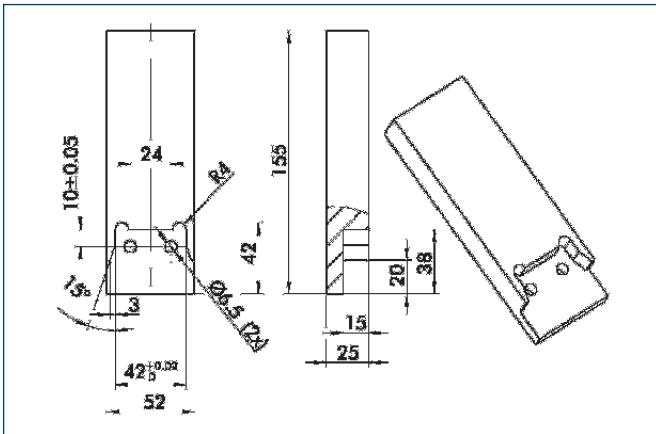
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
RB 220	Aluminum	2	0300286

Finger design

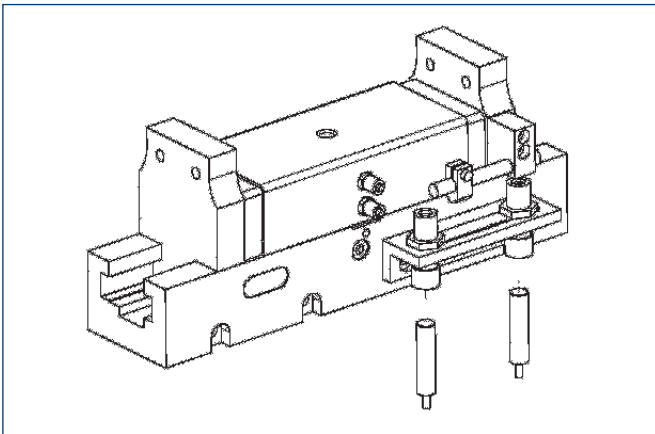


Suggested connection dimensions for gripper fingers



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

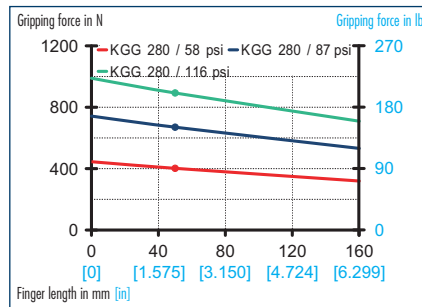
① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



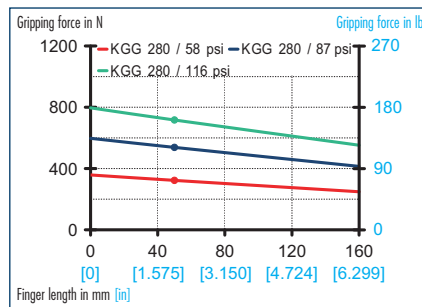
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



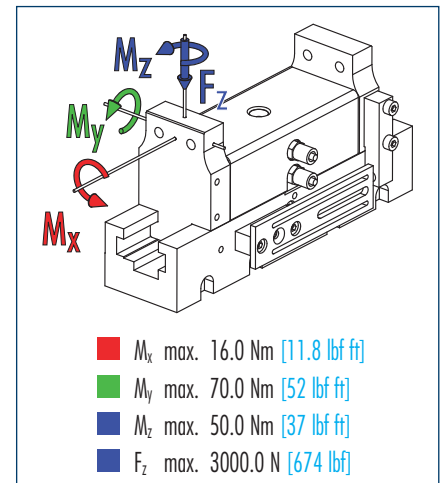
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

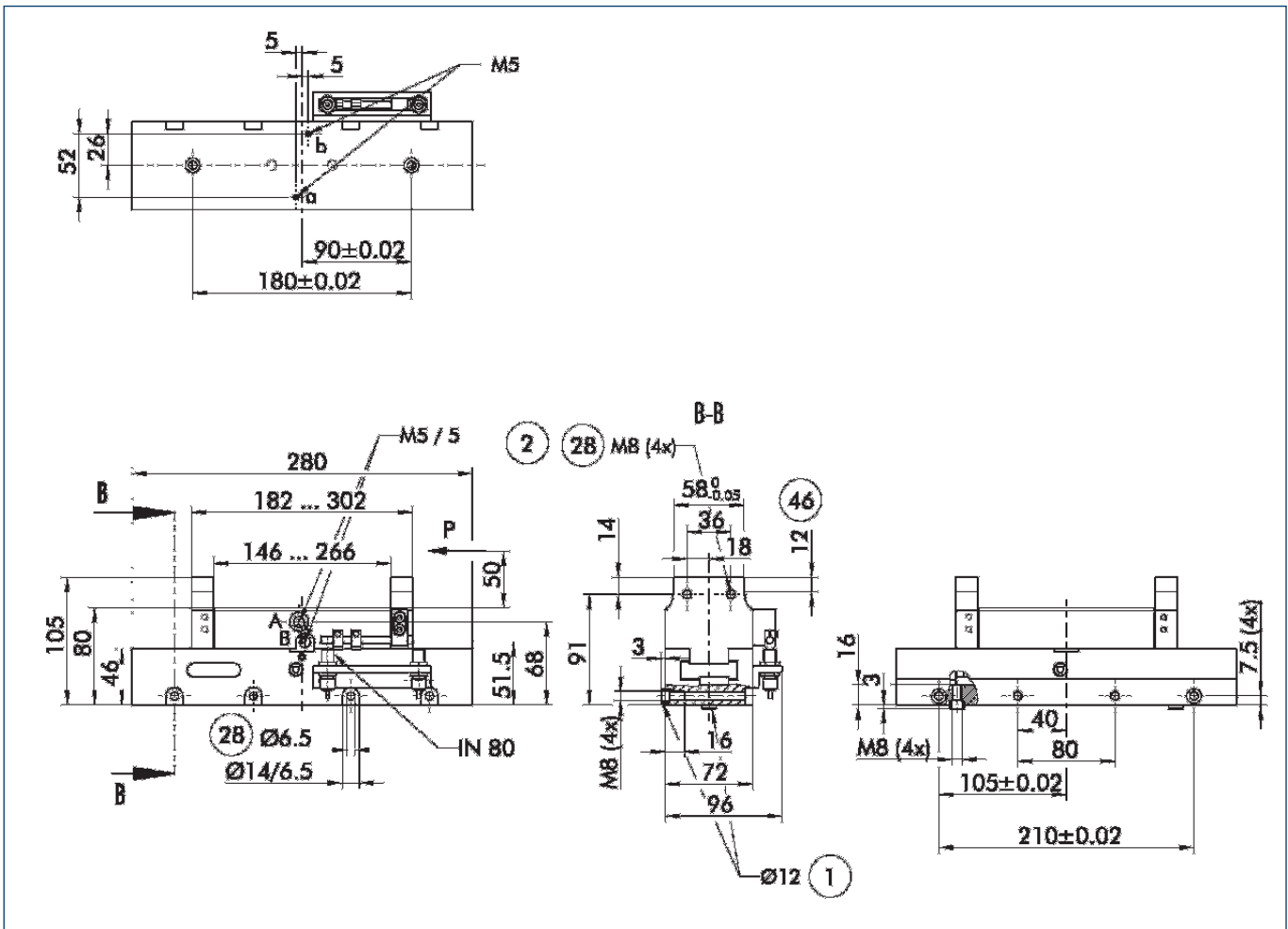


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	KGG 280	
ID	0340313	
Stroke per finger	mm [in]	60.0 [2.362]
Closing force	N [lbf]	540.0 [121]
Opening force	N [lbf]	670.0 [151]
Weight	kg [lbs]	4.2 [9.26]
Recommended workpiece weight	kg [lbs]	2.7 [5.95]
Air consumption per double stroke	cm ³ [in ³]	170.0 [10.37]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.5 [36]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.29
Opening time	s	0.25
Max. permitted finger length	mm [in]	160.0 [6.299]
Max. permitted weight per finger	kg [lbs]	2.0 [4.41]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.1 [0.0039]

Main views

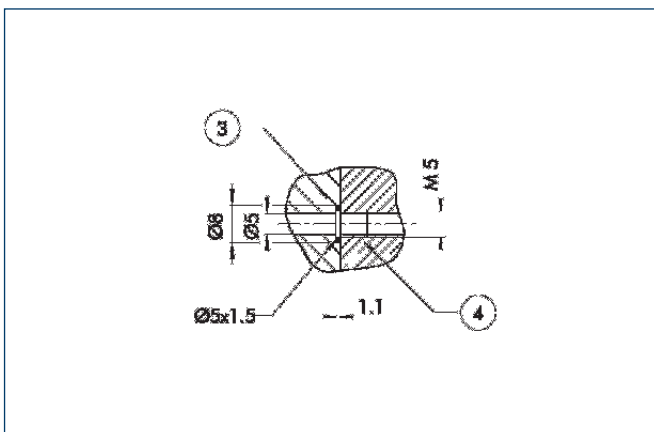


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- 28 Through-bore
- 46 Fitting length

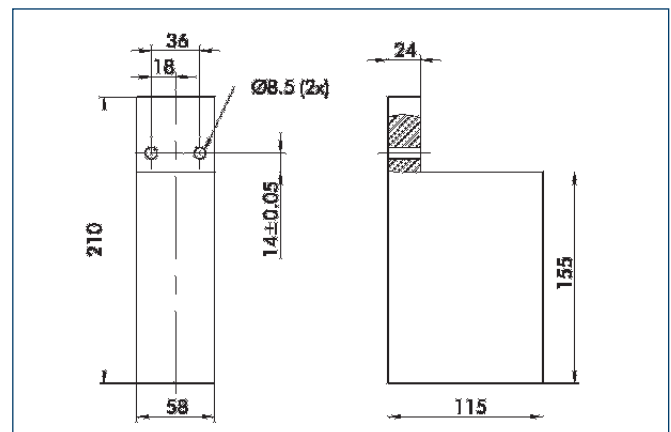
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

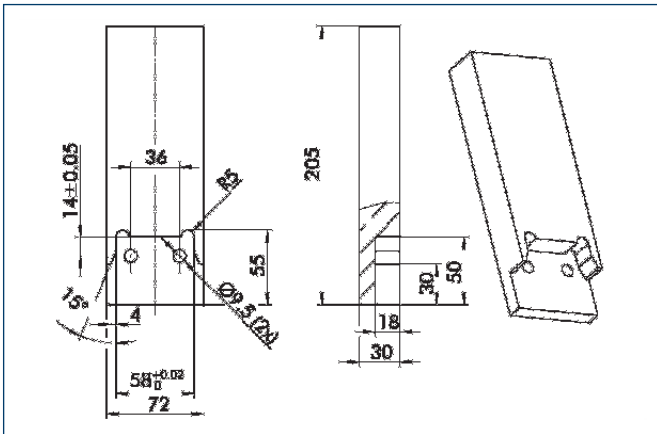
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

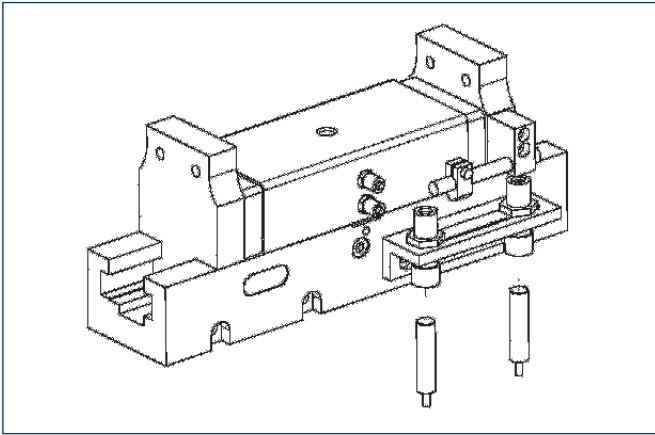
Description	Material	Scope of delivery	ID
RB 280	Aluminum	2	0300287

Finger design



Suggested connection dimensions for gripper fingers

Sensor system



End position monitoring: Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



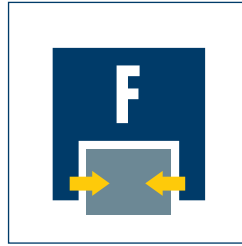
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



Sizes
801 .. 9010



Weight
0.036 kg .. 1.10 kg
0.08 lbs .. 2.43 lbs



Gripping force
13 N .. 460 N
2.9 lbf .. 103 lbf

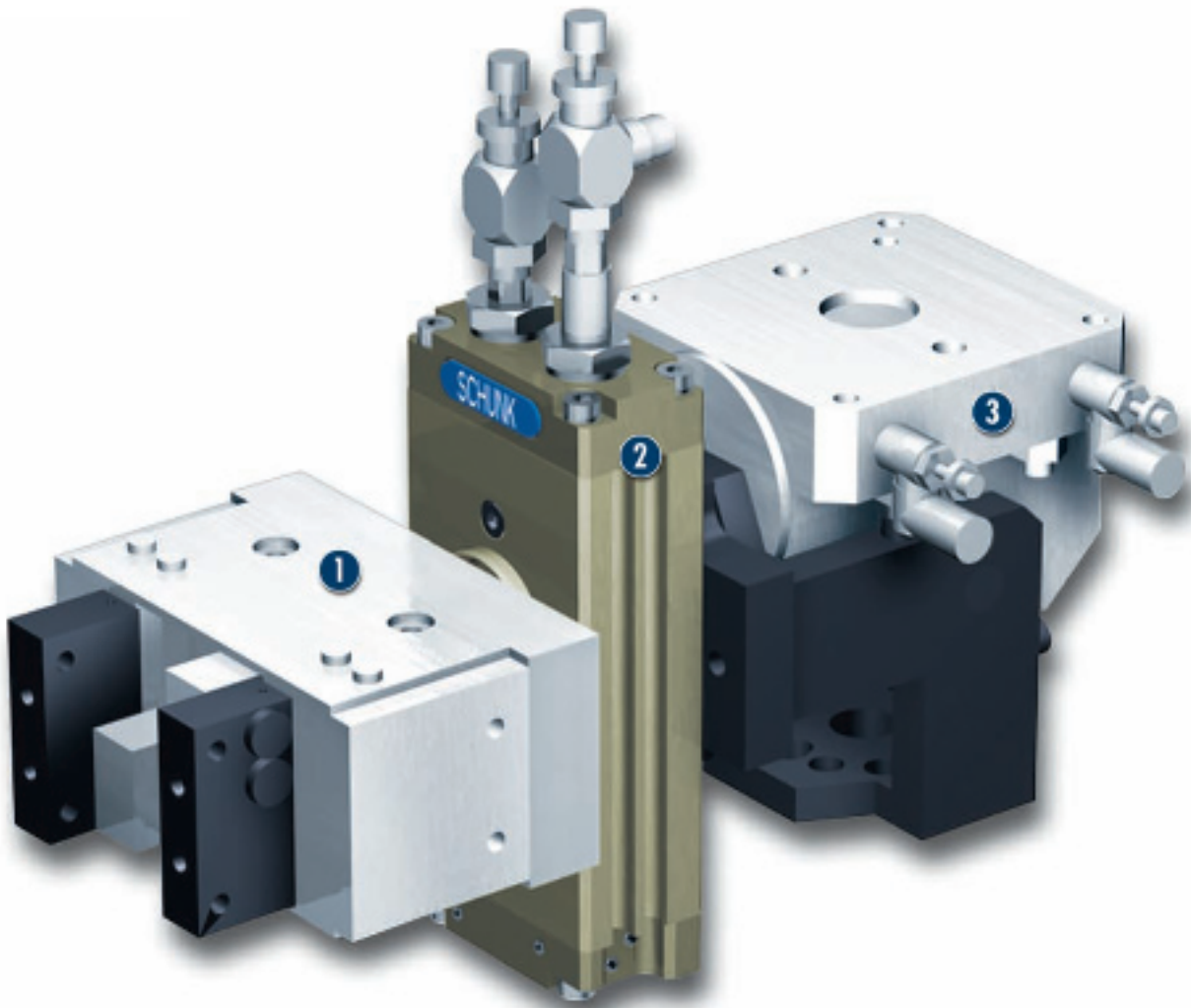


Stroke per finger
2.5 mm .. 40 mm
0.098 in .. 1.575 in



Workpiece weight
0.065 kg .. 2.30 kg
0.14 lbs .. 5.07 lbs

Application example



Transfer station with simultaneous 90° reorientation of the workpiece in two axes

1 RH 925 Small-component Gripper with short fingers

2 MRU 10.2-90-3 Miniature Rotary Actuator for gripper rotation

3 SKE 40 Rotary Actuator

Grippers for small components

The RH series is a low-price gripping system, which is particularly suitable for light applications.

Area of application

For use in clean environmental conditions (e.g. assembly or packaging zones) with low process forces

Your advantages and benefits

Low-price gripper series

for simple applications with low loads in clean environments

Maintenance-free

with low weight

Excellent price-performance ratio

making it an attractive option for low-budget applications



General information on the series

Working principle

Double-acting pneumatic drive

Housing material

Aluminum/steel

Base jaw material

Aluminum/steel

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated

Pressure medium: Required quality class of compressed air according to DIN ISO

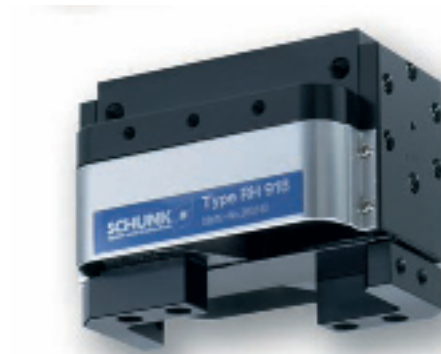
8573-1: Quality class 4

Warranty

24 months

Scope of delivery

Includes small parts for mounting, assembly and operating manual with manufacturer's declaration



Function description

RH grippers work with pneumatic pistons, which produce a synchronized movement due to kinematics that vary depending on the type.

Options and special information

In order to keep the manufacturing costs and thus the sale prices low, the RH series offers a simple design. Therefore, repairs are generally not economically feasible.

Accessories

SCHUNK accessories — the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Fittings



IN inductive proximity switches



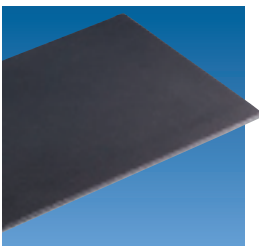
W/WK/KV/GK sensor cables



Quentes plastic inserts



HKI gripper pads



SDV-P pressure maintenance valves



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration), measured from the upper edge of the gripper.

Gripping moment

is the arithmetic total of gripping moments for each base jaw.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

Workpiece weight

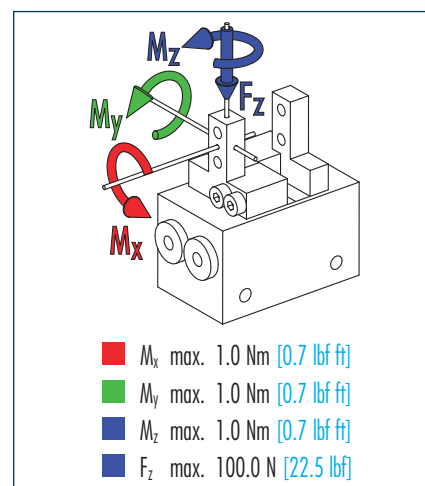
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



Finger load

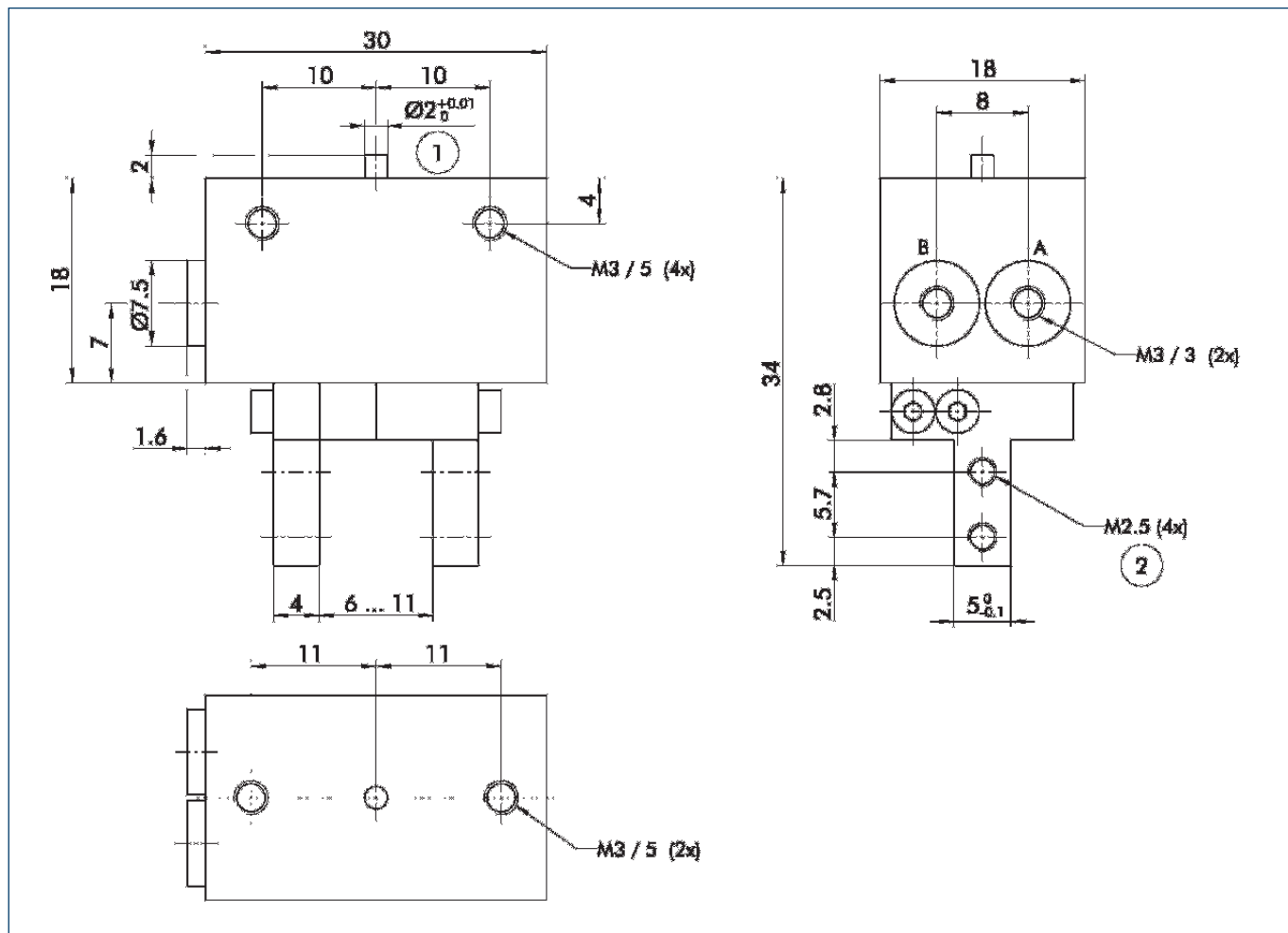


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		RH 901K	RH 901K-FS OC 5	RH 901K-FS OT 5	RH 901K-FS TC 5
	ID	0360131	0360132	0360133	0360134
Stroke per finger	mm [in]	2.5 [0.098]	2.5 [0.098]	2.5 [0.098]	2.5 [0.098]
Closing force	N [lbf]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]
Opening force	N [lbf]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]
Weight	kg [lbs]	0.036 [0.08]	0.036 [0.08]	0.036 [0.08]	0.036 [0.08]
Recommended workpiece weight	kg [lbs]	0.065 [0.14]	0.065 [0.14]	0.065 [0.14]	0.065 [0.14]
Air consumption per double stroke	cm ³ [in ³]	1.0 [0.06]	1.0 [0.06]	1.0 [0.06]	1.0 [0.06]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	2.0 [29]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]	7.0 [102]	7.0 [102]	7.0 [102]
Closing time	s	0.06	0.06	0.06	0.06
Opening time	s	0.06	0.06	0.06	0.06
Max. permitted finger length	mm [in]	35.0 [1.378]	35.0 [1.378]	35.0 [1.378]	35.0 [1.378]
Max. permitted weight per finger	kg [lbs]	0.02 [0.04]	0.02 [0.04]	0.02 [0.04]	0.02 [0.04]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	5.0 [41]	5.0 [41]	5.0 [41]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]	60.0 [140]	60.0 [140]	60.0 [140]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

Main views

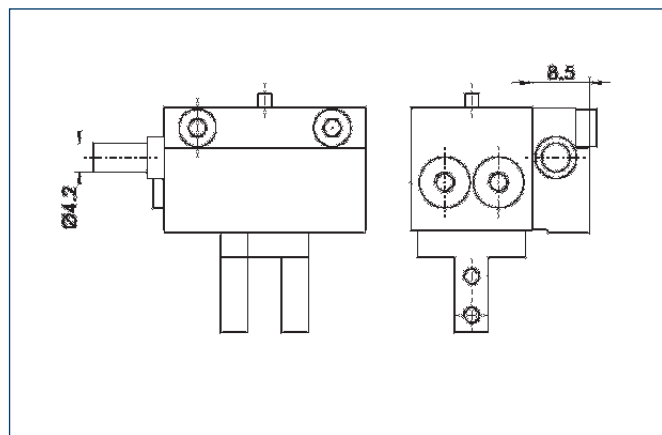


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

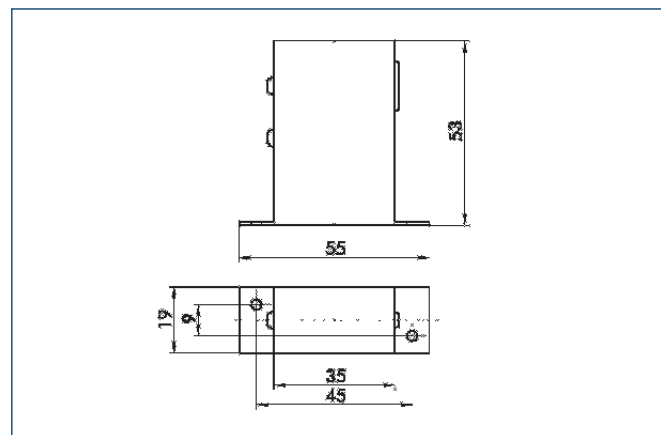
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Micro-photosensor



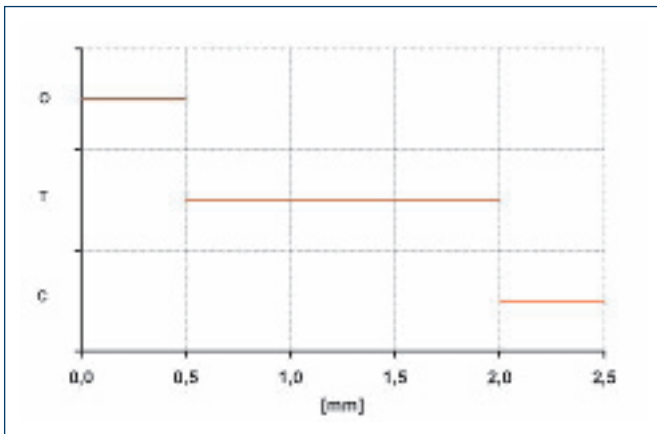
Grippers with integrated photosensor (FS) display two of three positions. (O = open, T = gripped, C = closed)

Amplifier



Dimensions of the amplifier for the photosensor (FS). The amplifier is included in the scope of delivery of FS grippers.

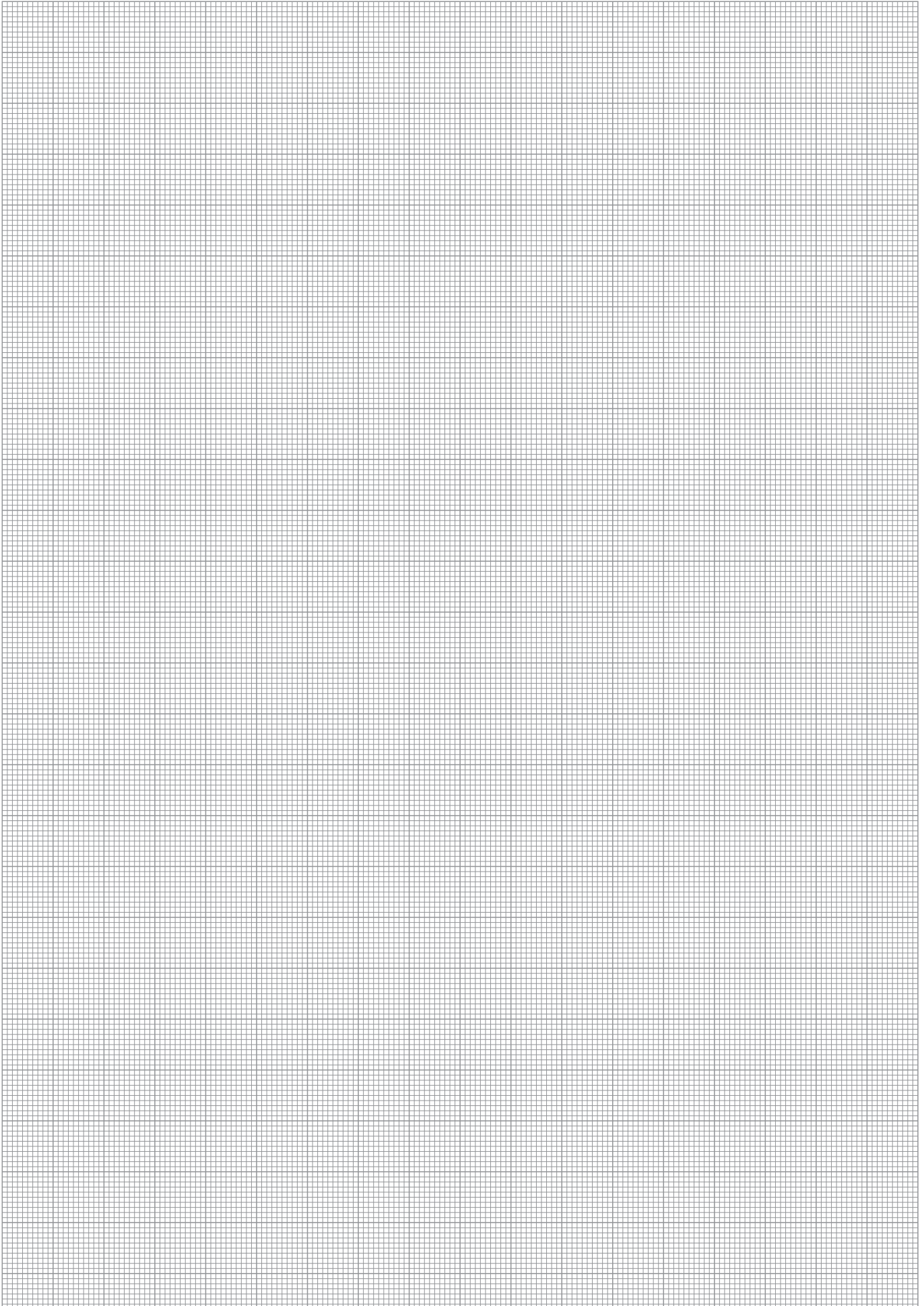
Monitoring positions



Sensor switching characteristics



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

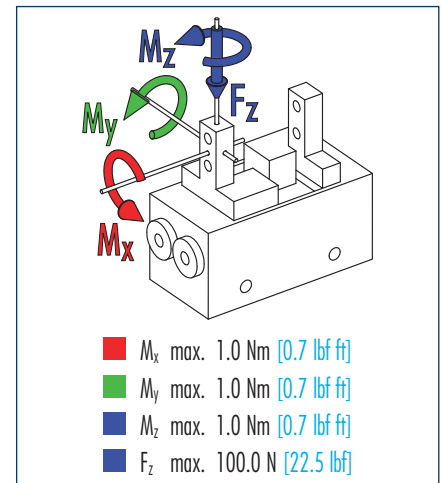


RH 901K ST10

Pneumatic · 2-Finger Parallel Grippers · Grippers for Small Components



Finger load

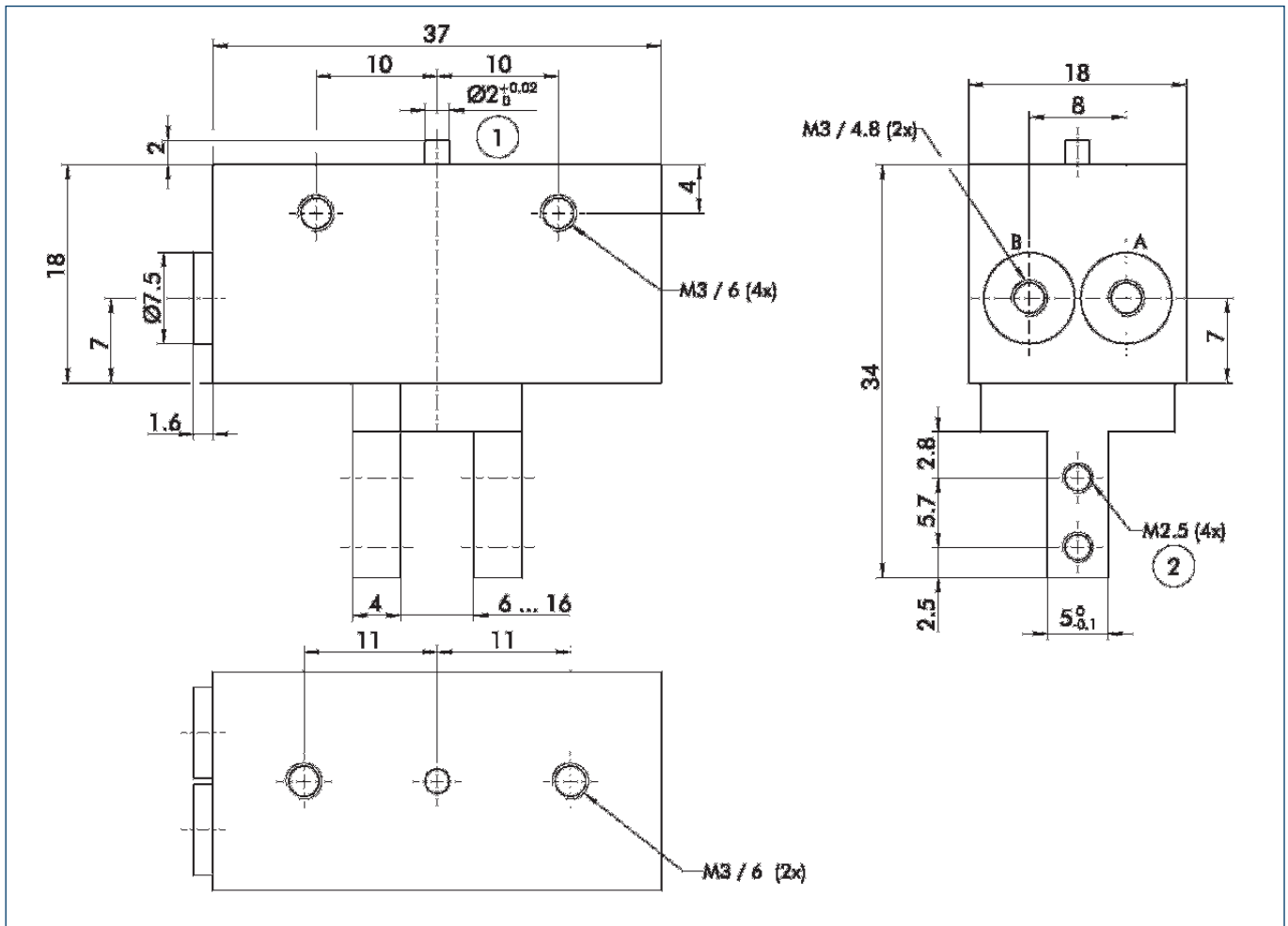


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		RH 901K-ST10	RH 901K-ST10-FS OC 5	RH 901K-ST10-FS OT 5	RH 901K-ST10-FS TC 5
	ID	0360164	0360166	0360167	0360168
Stroke per finger	mm [in]	5.0 [0.197]	5.0 [0.197]	5.0 [0.197]	5.0 [0.197]
Closing force	N [lbf]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]
Opening force	N [lbf]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]	13.0 [2.9]
Weight	kg [lbs]	0.04 [0.09]	0.04 [0.09]	0.04 [0.09]	0.04 [0.09]
Recommended workpiece weight	kg [lbs]	0.065 [0.14]	0.065 [0.14]	0.065 [0.14]	0.065 [0.14]
Air consumption per double stroke	cm ³ [in ³]	1.0 [0.06]	1.0 [0.06]	1.0 [0.06]	1.0 [0.06]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	2.0 [29]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]	7.0 [102]	7.0 [102]	7.0 [102]
Closing time	s	0.13	0.13	0.13	0.13
Opening time	s	0.13	0.13	0.13	0.13
Max. permitted finger length	mm [in]	35.0 [1.378]	35.0 [1.378]	35.0 [1.378]	35.0 [1.378]
Max. permitted weight per finger	kg [lbs]	0.02 [0.04]	0.02 [0.04]	0.02 [0.04]	0.02 [0.04]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	5.0 [41]	5.0 [41]	5.0 [41]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]	60.0 [140]	60.0 [140]	60.0 [140]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

Main views

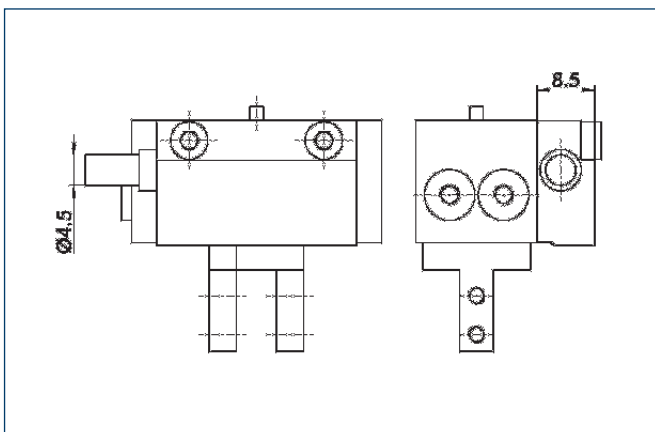


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

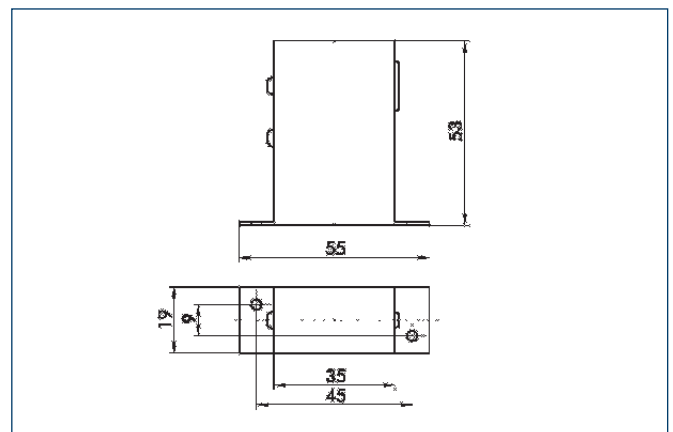
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Micro-photosensor



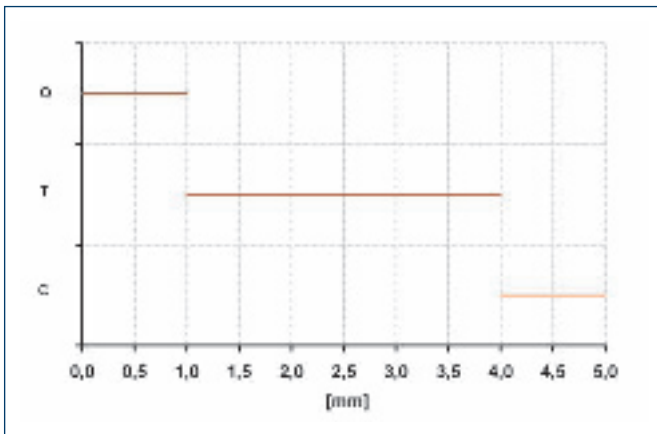
Grippers with integrated photosensor (FS) display two of three positions. (O = open, T = gripped, C = closed)

Amplifier



Dimensions of the amplifier for the photosensor (FS). The amplifier is included in the scope of delivery of FS grippers.

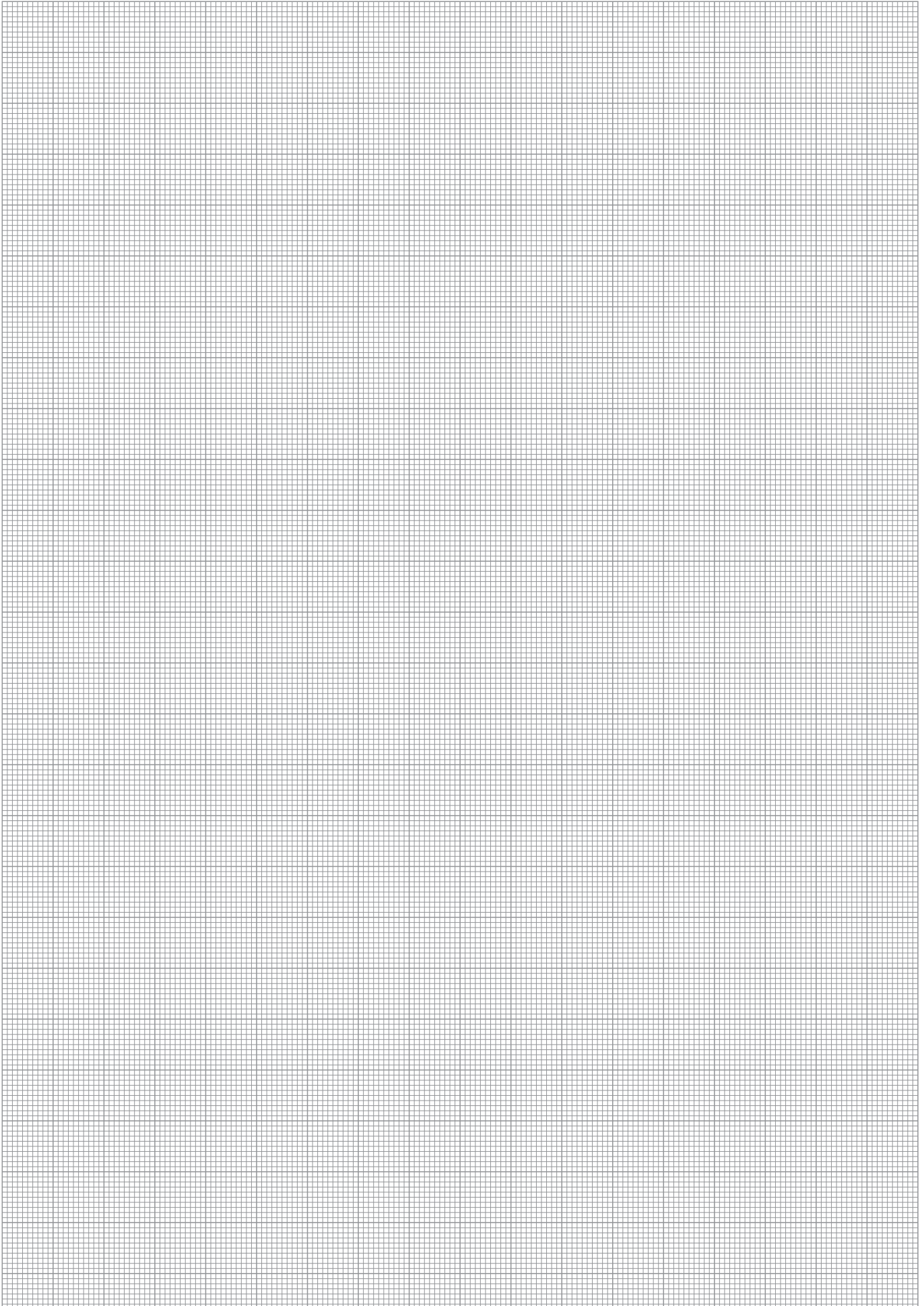
Monitoring positions



Sensor switching characteristics

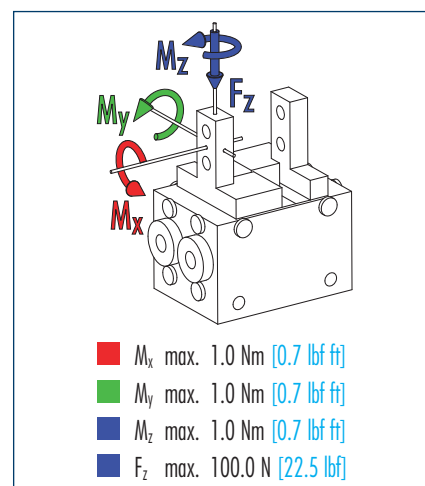


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.





Finger load

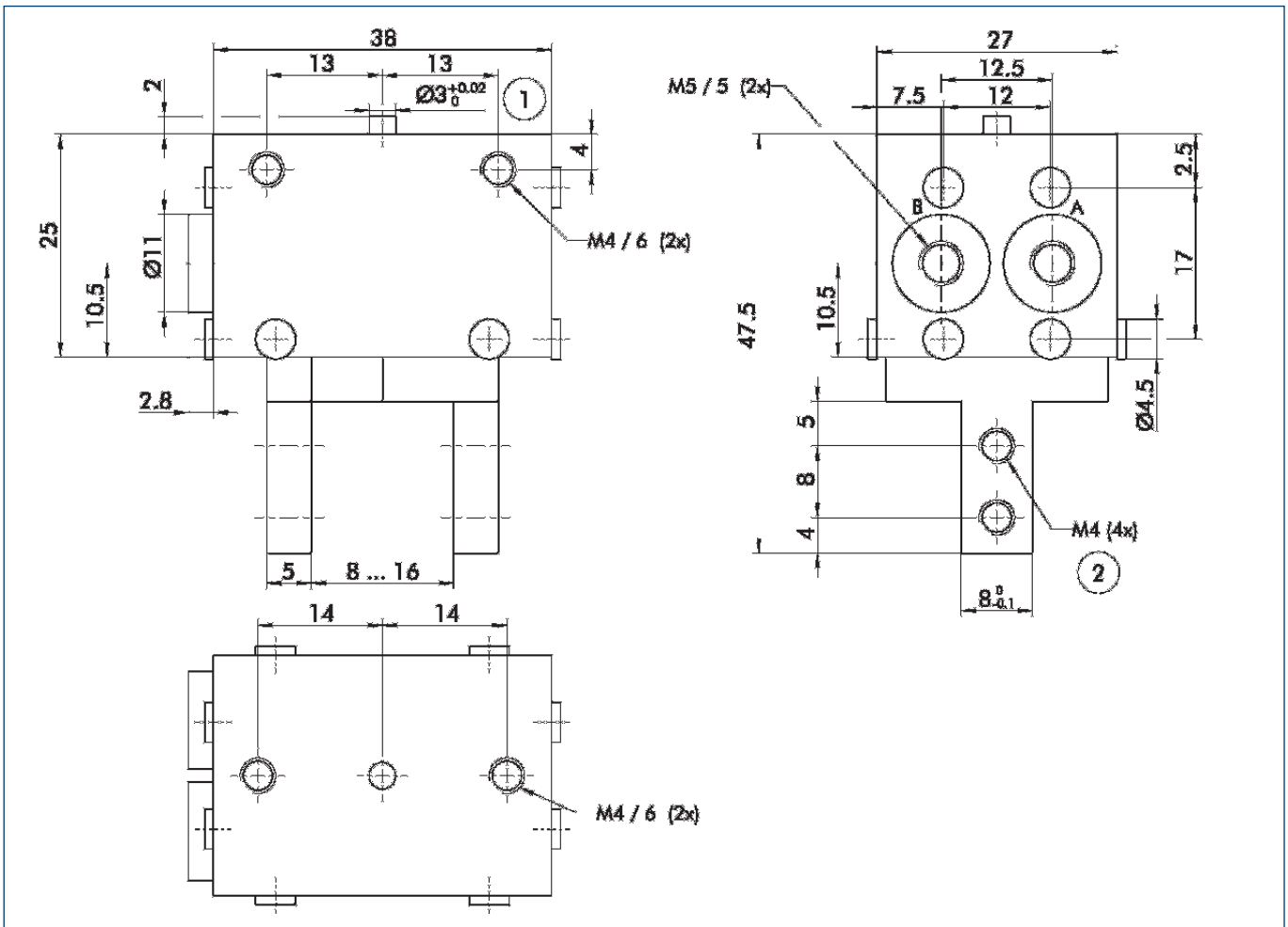


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		RH 905	RH 905-FS TC 5	RH 905-FS OC 5	RH 905-FS OT 5
	ID	0360110	0360259	0360257	0360258
Stroke per finger	mm [in]	4.0 [0.157]	4.0 [0.157]	4.0 [0.157]	4.0 [0.157]
Closing force	N [lbf]	44.0 [9.9]	44.0 [9.9]	44.0 [9.9]	44.0 [9.9]
Opening force	N [lbf]	44.0 [9.9]	44.0 [9.9]	44.0 [9.9]	44.0 [9.9]
Weight	kg [lbs]	0.093 [0.21]	0.093 [0.21]	0.093 [0.21]	0.093 [0.21]
Recommended workpiece weight	kg [lbs]	0.22 [0.49]	0.22 [0.49]	0.22 [0.49]	0.22 [0.49]
Air consumption per double stroke	cm ³ [in ³]	1.0 [0.06]	1.0 [0.06]	1.0 [0.06]	1.0 [0.06]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	2.0 [29]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]	7.0 [102]	7.0 [102]	7.0 [102]
Closing time	s	0.13	0.13	0.13	0.13
Opening time	s	0.13	0.13	0.13	0.13
Max. permitted finger length	mm [in]	35.0 [1.378]	35.0 [1.378]	35.0 [1.378]	35.0 [1.378]
Max. permitted weight per finger	kg [lbs]	0.04 [0.09]	0.04 [0.09]	0.04 [0.09]	0.04 [0.09]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	5.0 [41]	5.0 [41]	5.0 [41]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]	60.0 [140]	60.0 [140]	60.0 [140]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

Main views

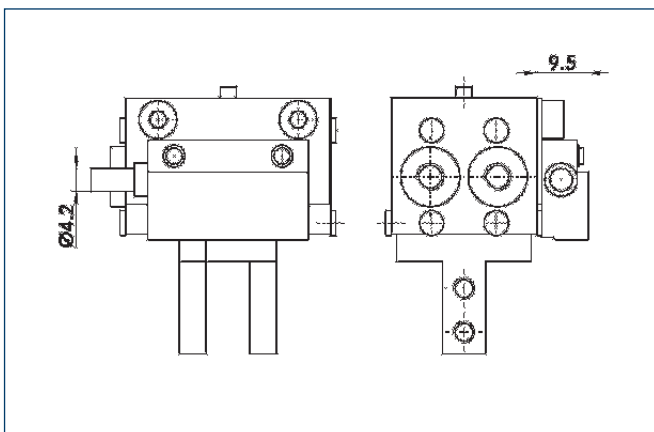


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

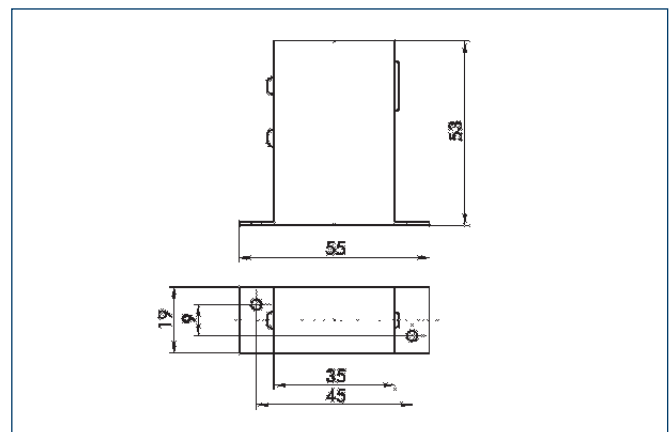
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Micro-photosensor



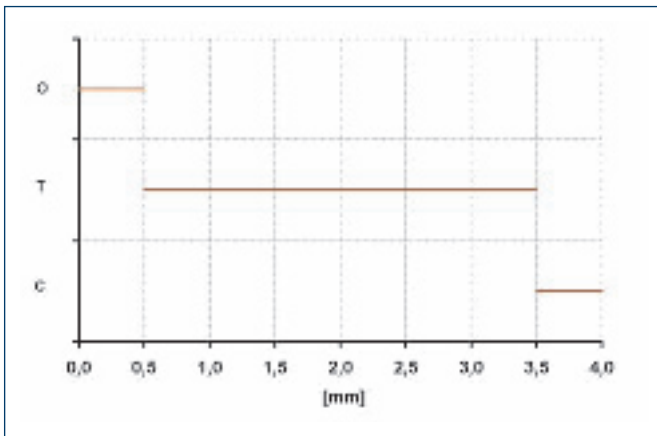
Grippers with integrated photosensor (FS) display two of three positions. (O = open, T = gripped, C = closed)

Amplifier



Dimensions of the amplifier for the photosensor (FS). The amplifier is included in the scope of delivery of FS grippers.

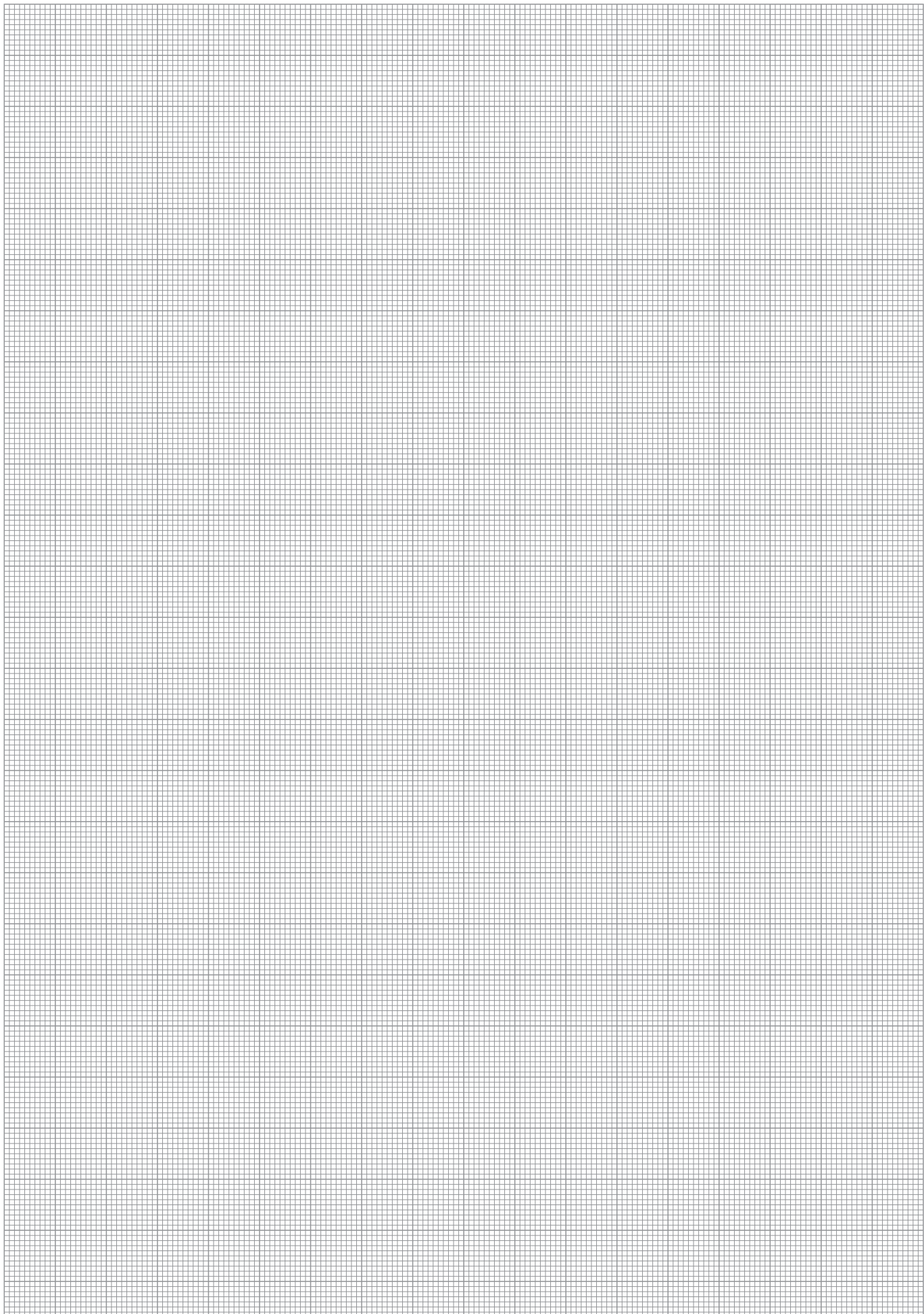
Monitoring positions



Sensor switching characteristics

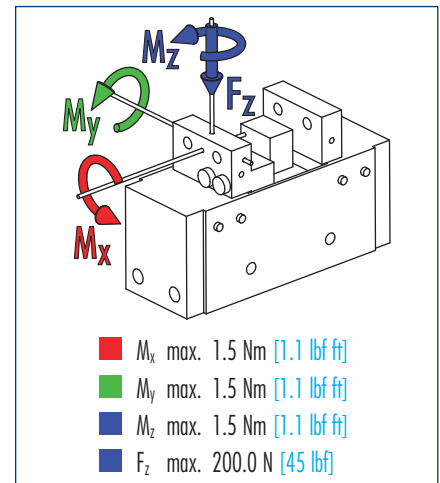


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.





Finger load

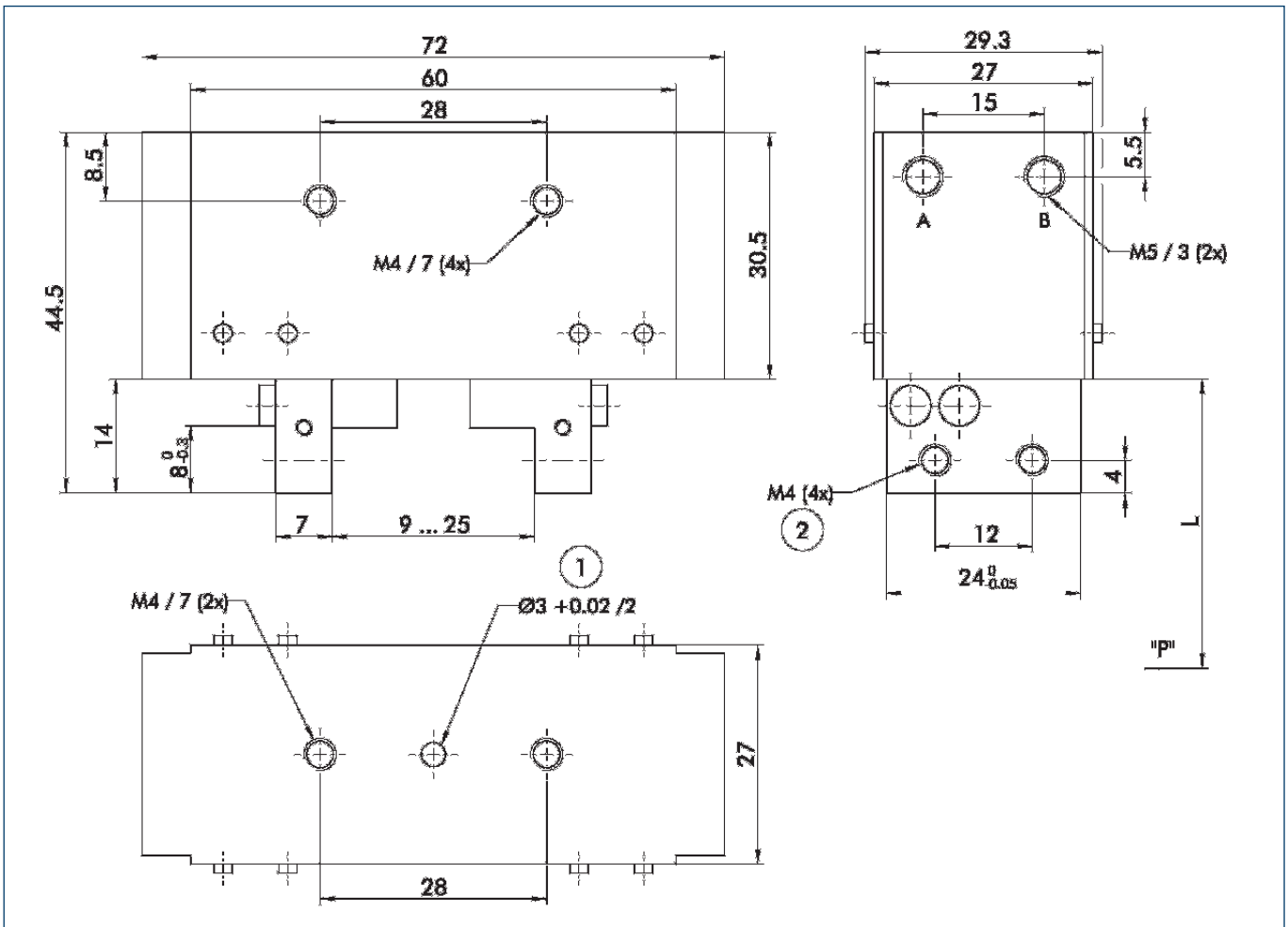


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	RH 907	
	ID	0360200
Stroke per finger	mm [in]	8.0 [0.315]
Closing force	N [lbf]	80.0 [18.0]
Opening force	N [lbf]	80.0 [18.0]
Weight	kg [lbs]	0.17 [0.37]
Recommended workpiece weight	kg [lbs]	0.4 [0.88]
Air consumption per double stroke	cm ³ [in ³]	2.0 [0.12]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]
Closing time	s	0.17
Opening time	s	0.17
Max. permitted finger length	mm [in]	20.0 [0.787]
Max. permitted weight per finger	kg [lbs]	0.05 [0.11]
IP rating		30
Min. ambient temperature	°C [°F]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]
Repeat accuracy	mm [in]	0.01 [0.0004]

Main views

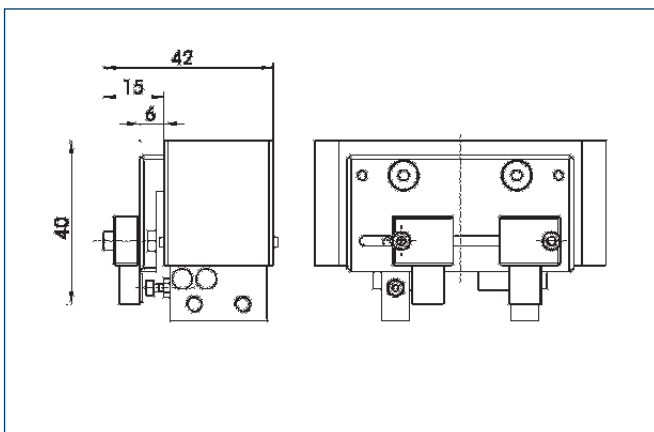


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

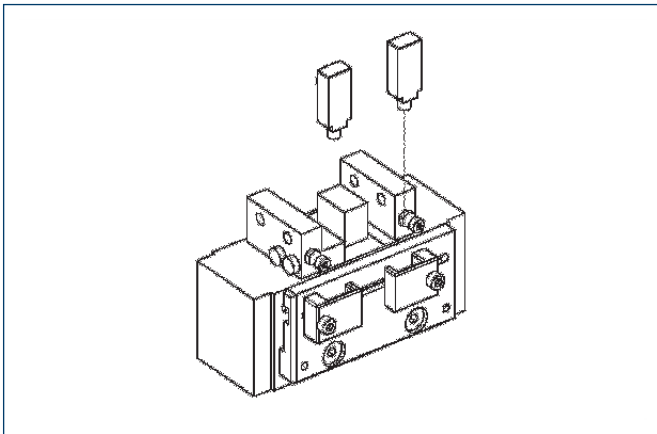
Mounting kit for proximity switch



The mounting kit consists of brackets, switch cams and the associated fastening materials. The proximity switches must be ordered separately.

Description	ID
AS-RH 907	0360206

Sensor system



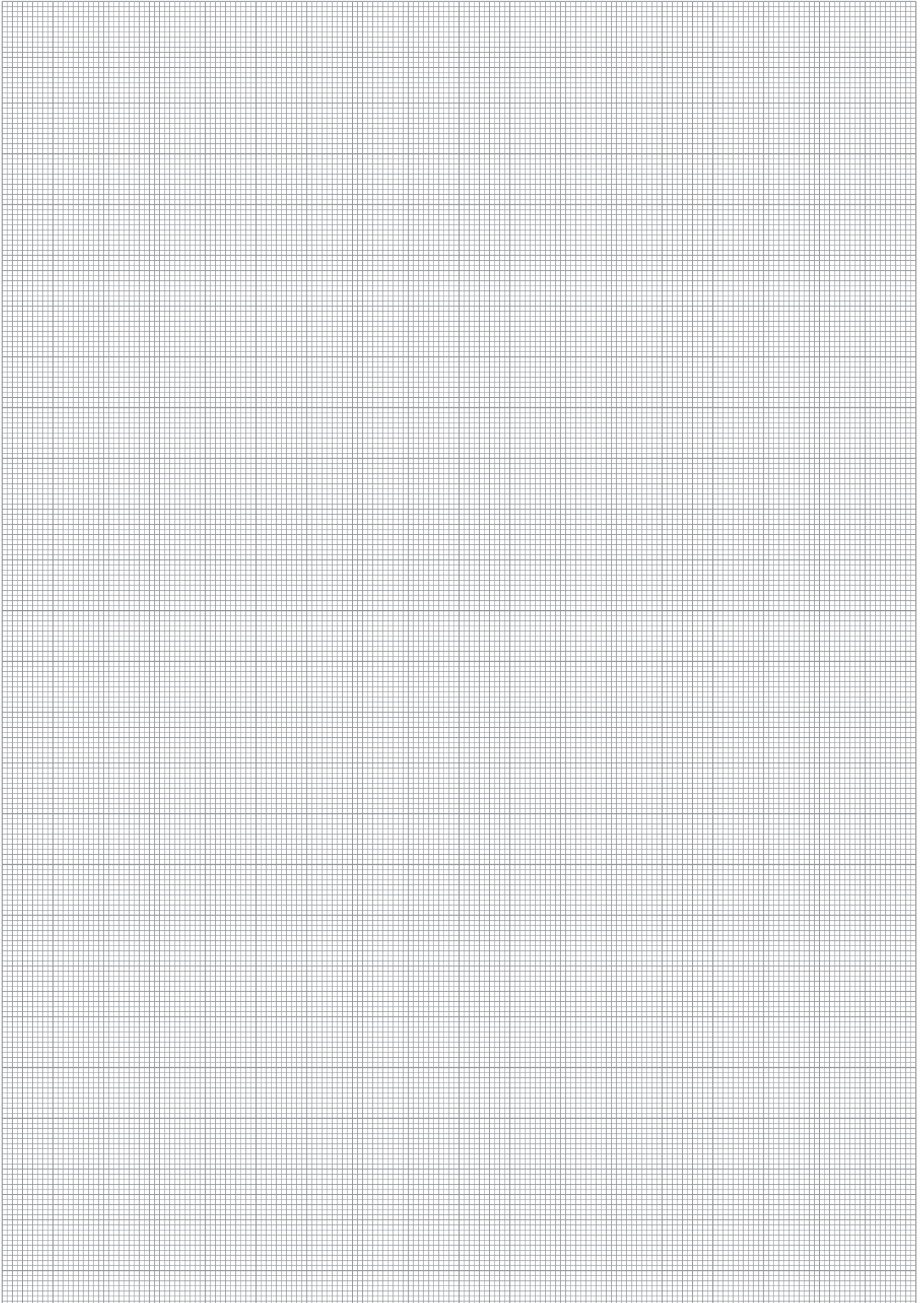
End position monitoring:

Inductive proximity switches, mounted with mounting kit

Description	ID	Recommended product
AS-RH 907	0360206	
IN 8/S-M12	0301581	
IN 8/S-M8	0301481	•
INK 8/S	9700052	

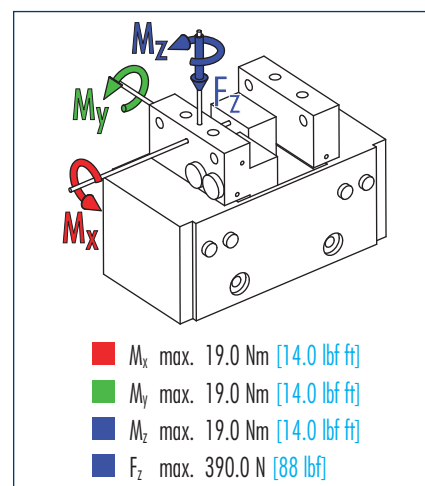


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.





Finger load

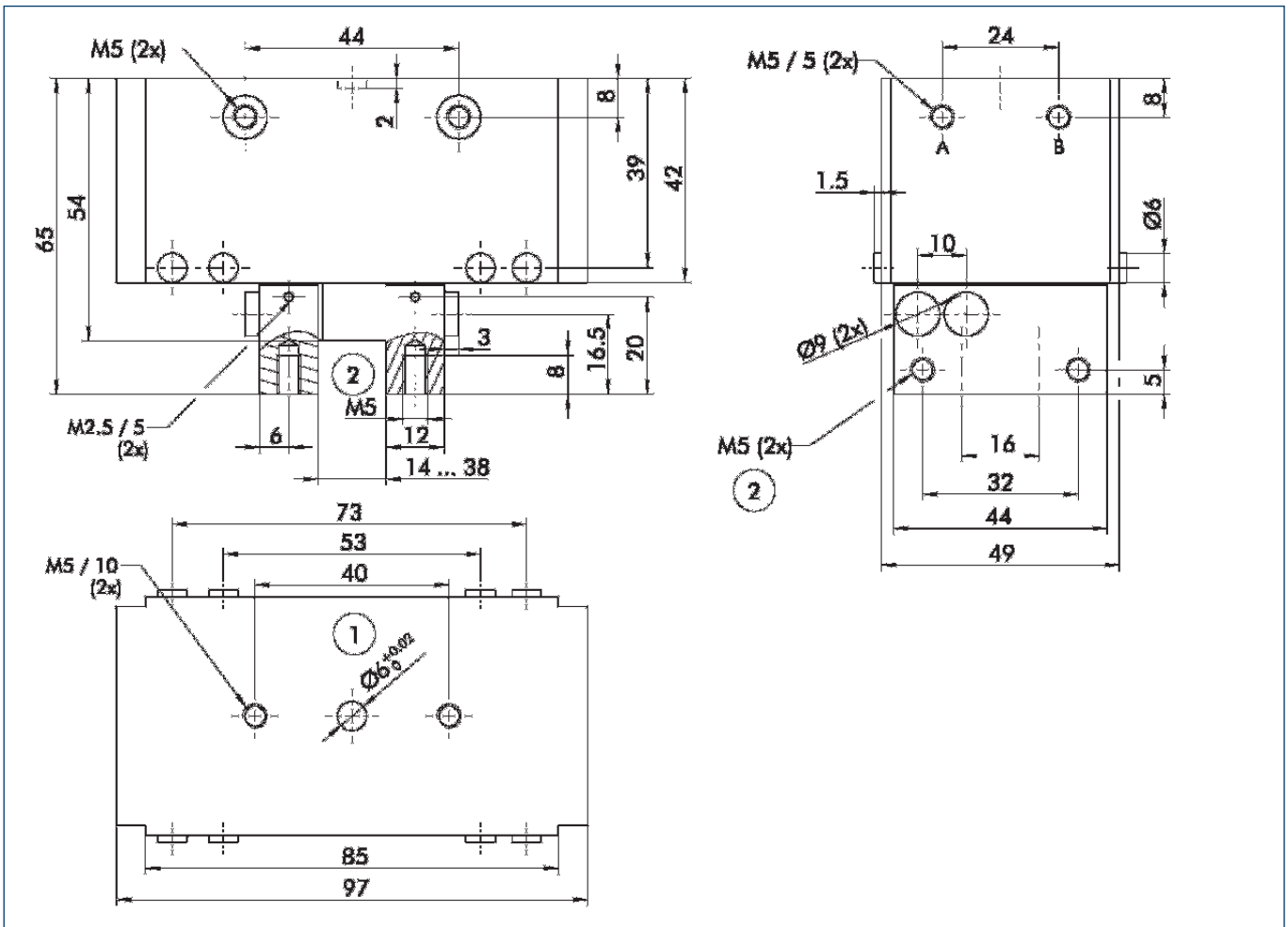


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		RH 925	RH 925 PX
	ID	0360300	0360301
Stroke per finger	mm [in]	12.0 [0.472]	12.0 [0.472]
Closing force	N [lbf]	270.0 [61]	270.0 [61]
Opening force	N [lbf]	270.0 [61]	270.0 [61]
Weight	kg [lbs]	0.55 [1.21]	0.55 [1.21]
Recommended workpiece weight	kg [lbs]	1.3 [2.87]	1.3 [2.87]
Air consumption per double stroke	cm ³ [in ³]	8.0 [0.49]	8.0 [0.49]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]	7.0 [102]
Closing time	s	0.5	0.5
Opening time	s	0.5	0.5
Max. permitted finger length	mm [in]	30.0 [1.181]	30.0 [1.181]
Max. permitted weight per finger	kg [lbs]	0.08 [0.18]	0.08 [0.18]
IP rating		30	30
Min. ambient temperature	°C [°F]	5.0 [41]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]	60.0 [140]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]

Main views

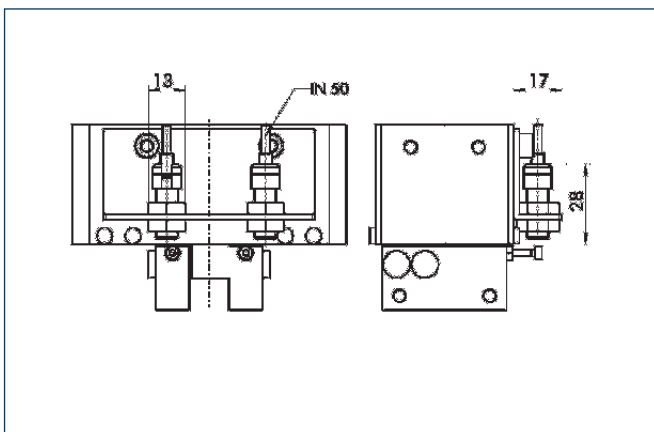


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

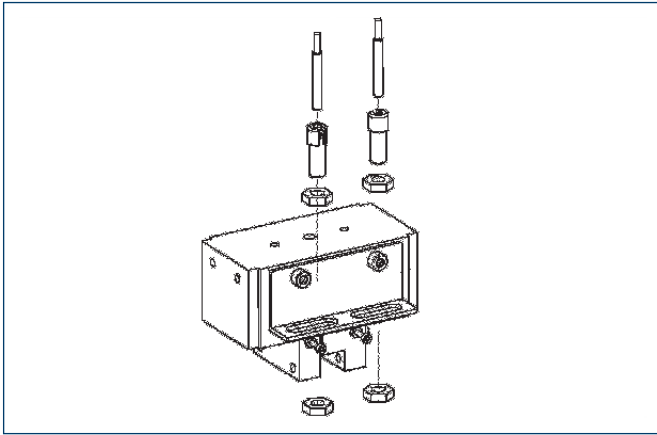
① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

Proximity switch attachment



In the PX version, the mounting kit for the proximity switches is included in delivery.

Sensor system



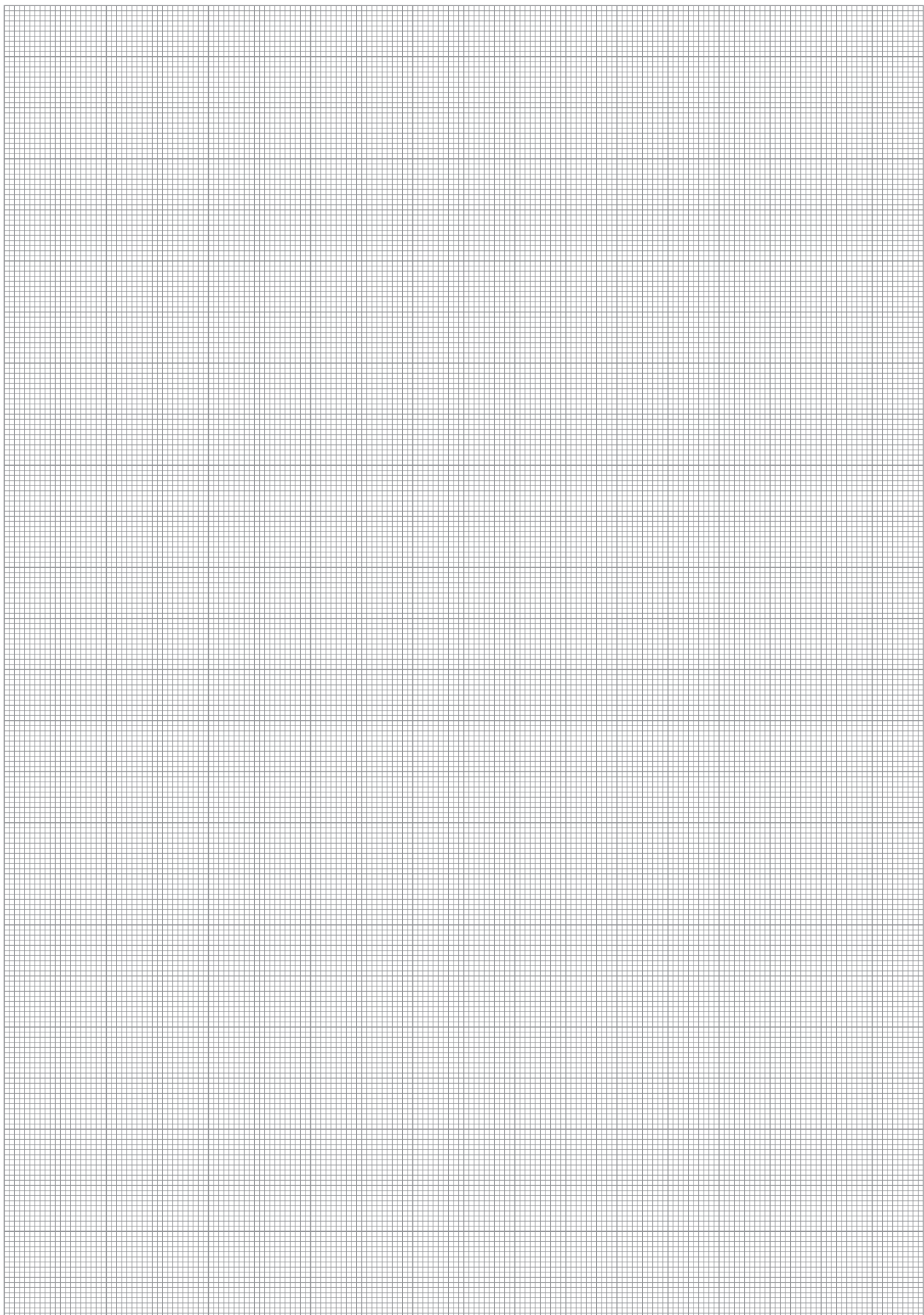
End position monitoring:

Inductive proximity switches, for direct mounting (PX only)

Description	ID	Recommended product
IN 50/S-M12	0301575	•
INK 50/S	0301560	

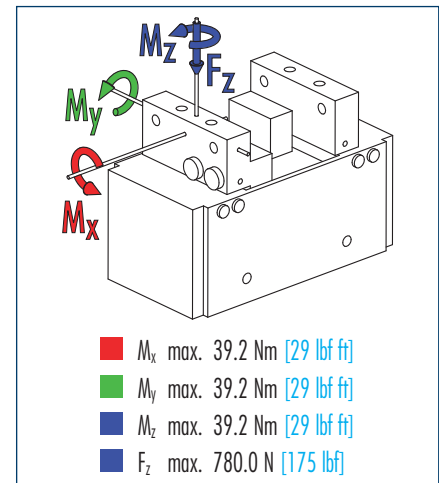


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.





Finger load

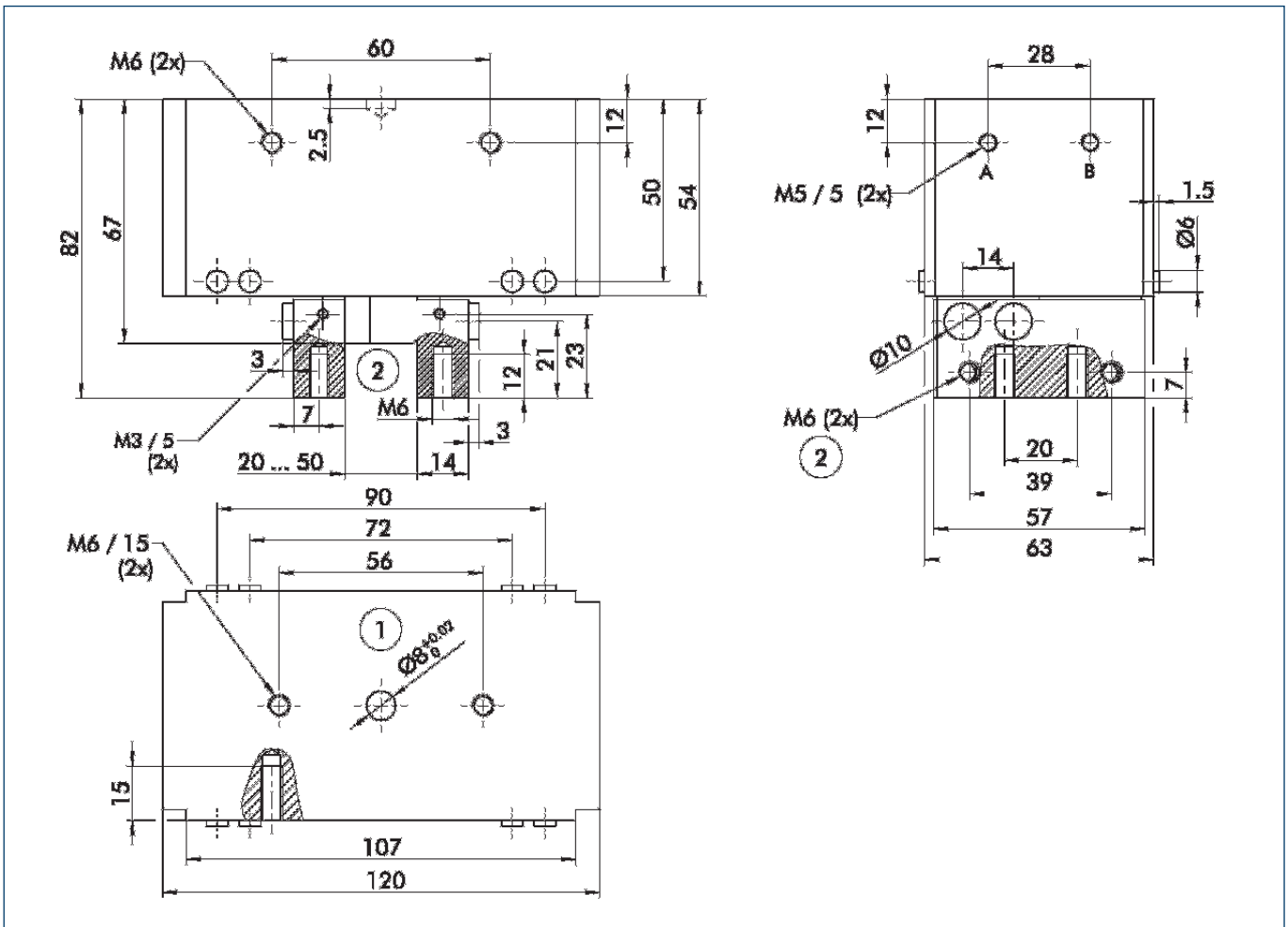


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		RH 940	RH 940 PX
	ID	0360310	0360311
Stroke per finger	mm [in]	15.0 [0.591]	15.0 [0.591]
Closing force	N [lbf]	460.0 [103]	460.0 [103]
Opening force	N [lbf]	460.0 [103]	460.0 [103]
Weight	kg [lbs]	1.1 [2.43]	1.1 [2.43]
Recommended workpiece weight	kg [lbs]	2.3 [5.07]	2.3 [5.07]
Air consumption per double stroke	cm ³ [in ³]	14.0 [0.85]	14.0 [0.85]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]	7.0 [102]
Closing time	s	0.5	0.5
Opening time	s	0.5	0.5
Max. permitted finger length	mm [in]	50.0 [1.969]	50.0 [1.969]
Max. permitted weight per finger	kg [lbs]	0.13 [0.29]	0.13 [0.29]
IP rating		30	30
Min. ambient temperature	°C [°F]	5.0 [41]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]	60.0 [140]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]

Main views

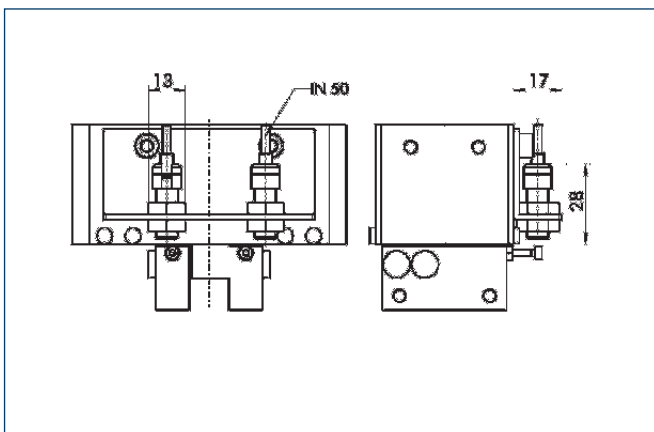


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

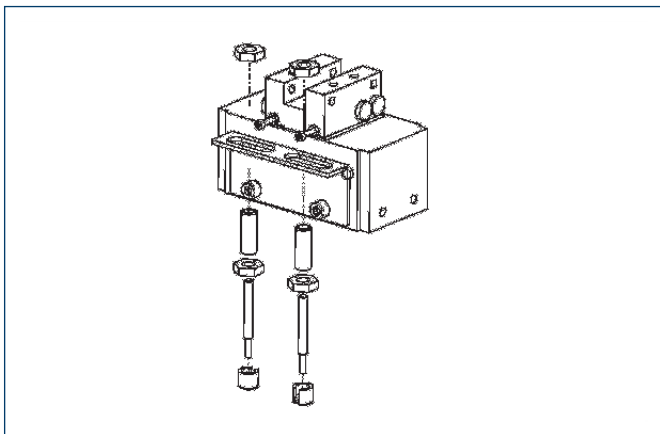
① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

Proximity switch attachment



In the PX version, the mounting kit for the proximity switches is included in delivery.

Sensor system



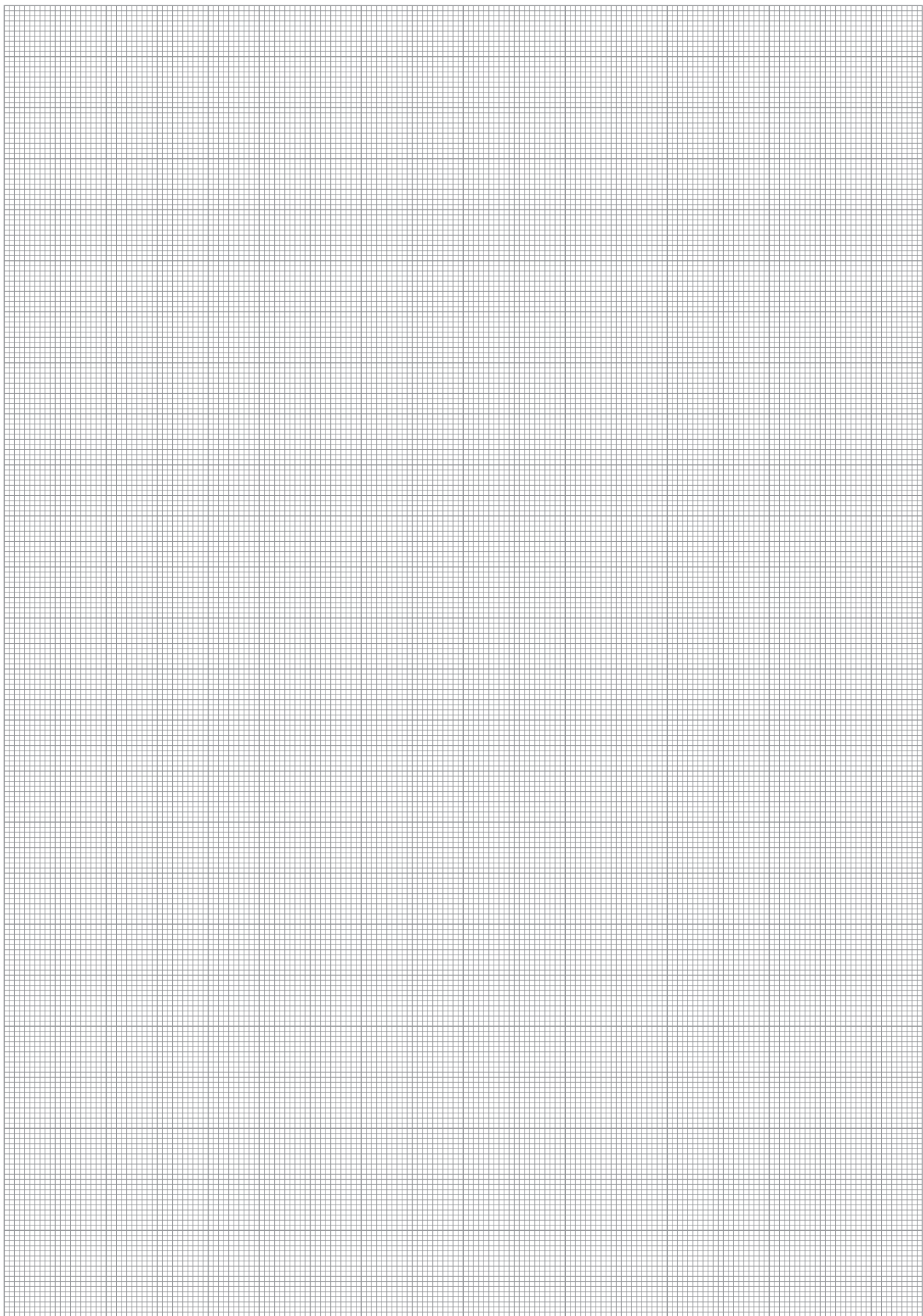
End position monitoring:

Inductive proximity switches, for direct mounting (PX only)

Description	ID	Recommended product
IN 50/S-M12	0301575	•
INK 50/S	0301560	

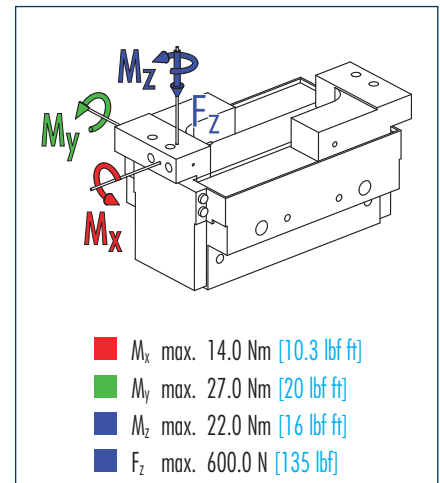


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.





Finger load

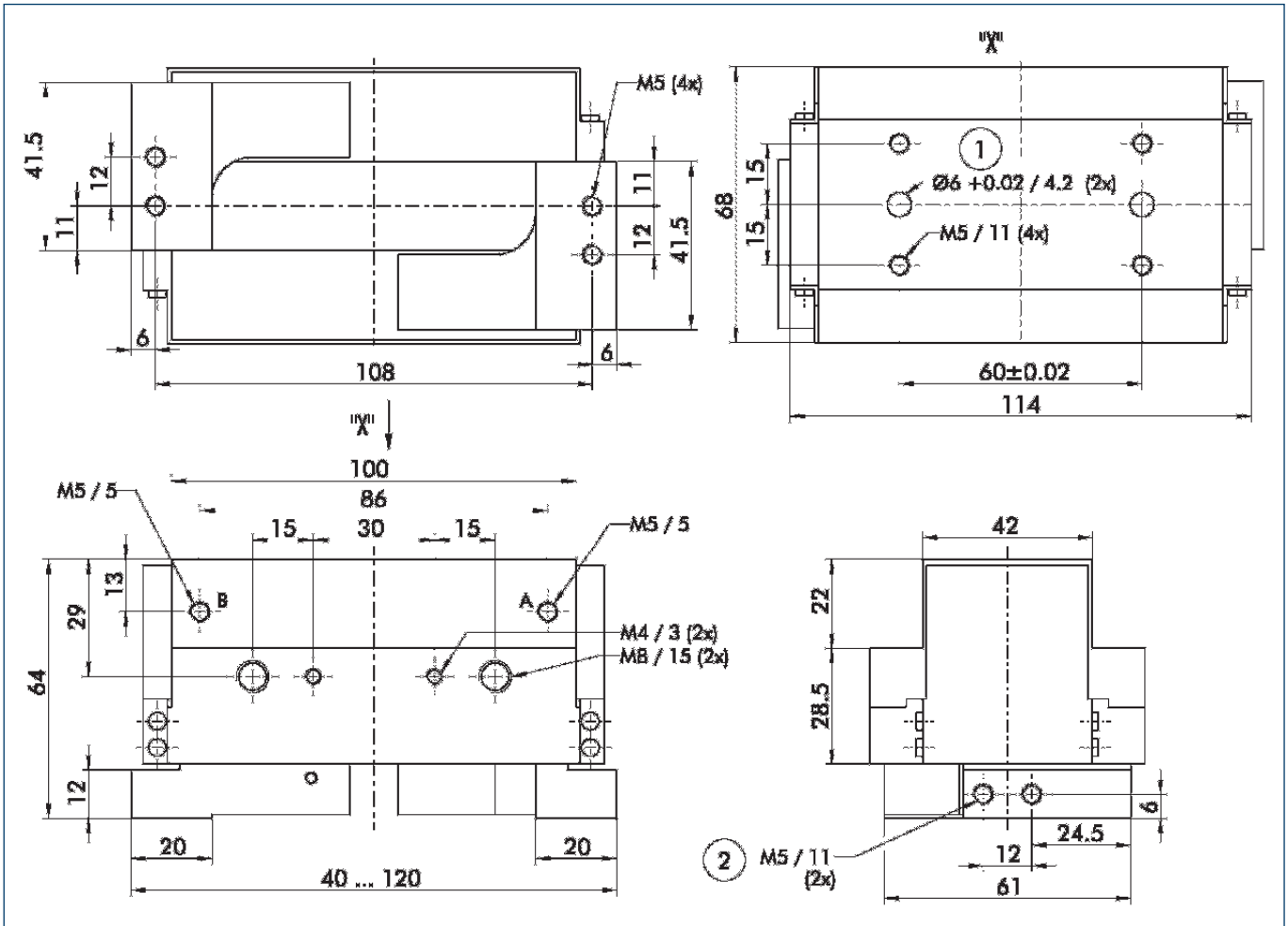


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	RH 9010	
	ID	0360141
Stroke per finger	mm [in]	40.0 [1.575]
Closing force	N [lbf]	150.0 [34]
Opening force	N [lbf]	150.0 [34]
Weight	kg [lbs]	0.89 [1.96]
Recommended workpiece weight	kg [lbs]	0.75 [1.65]
Air consumption per double stroke	cm ³ [in ³]	8.0 [0.49]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]
Closing time	s	0.5
Opening time	s	0.5
Max. permitted finger length	mm [in]	100.0 [3.937]
Max. permitted weight per finger	kg [lbs]	0.15 [0.33]
IP rating		30
Min. ambient temperature	°C [°F]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]
Repeat accuracy	mm [in]	0.02 [0.0008]

Main views

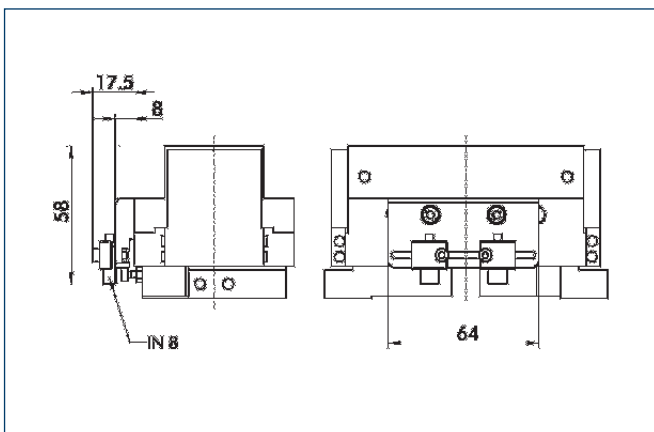


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

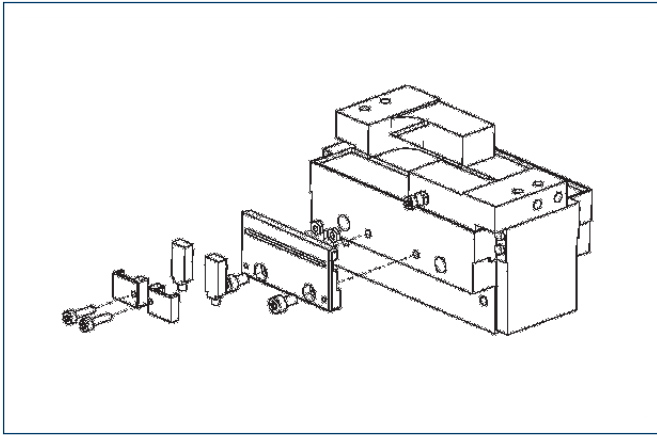
Mounting kit for proximity switch



The mounting kit consists of brackets, switch cams and the associated mounting materials. The proximity switches must be ordered separately.

Description	ID
AS-RH 9010	0360207

Sensor system



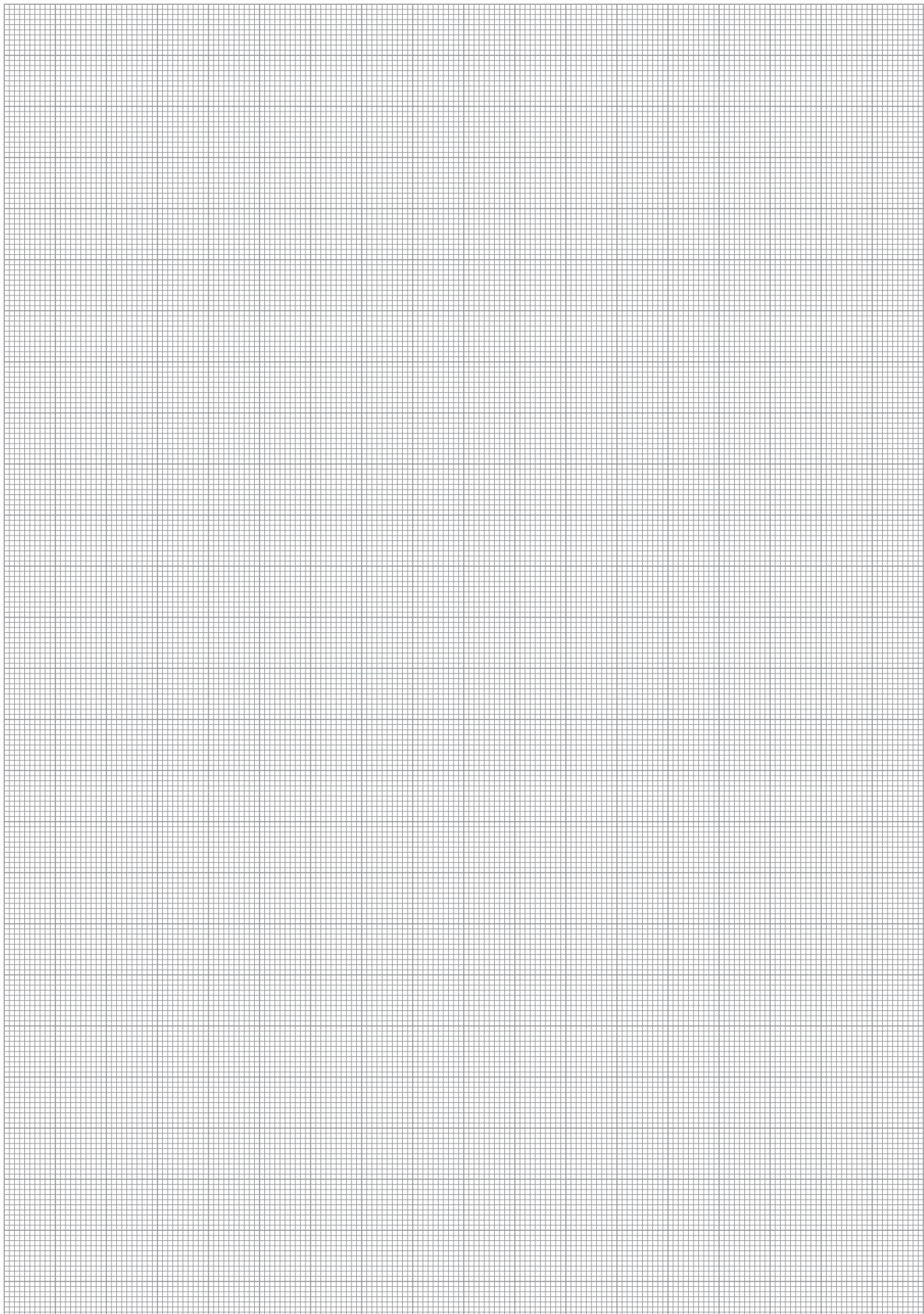
End position monitoring:

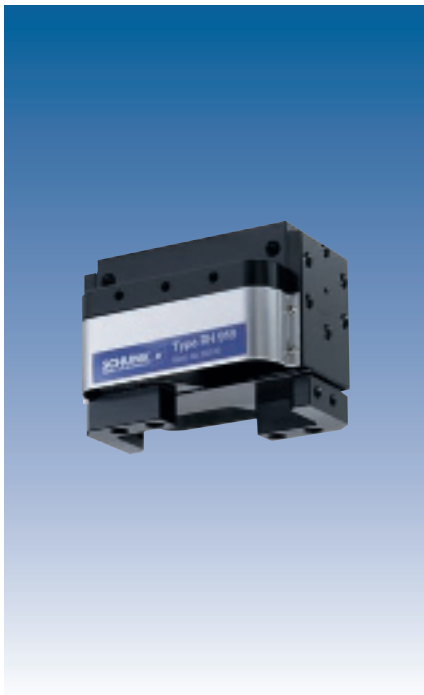
Inductive proximity switches, mounted with mounting kit

Description	ID	Recommended product
AS-RH 9010	0360207	
IN 8/S-M12	0301581	
IN 8/S-M8	0301481	•
INK 8/S	9700052	

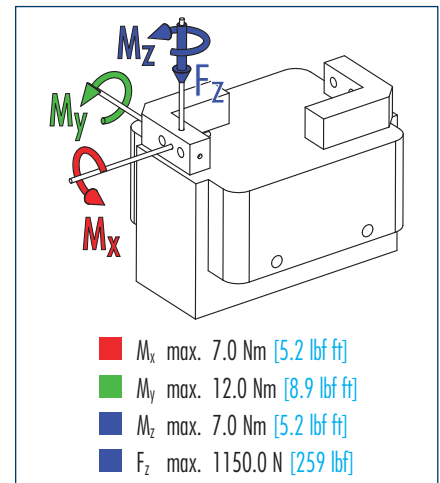


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.





Finger load

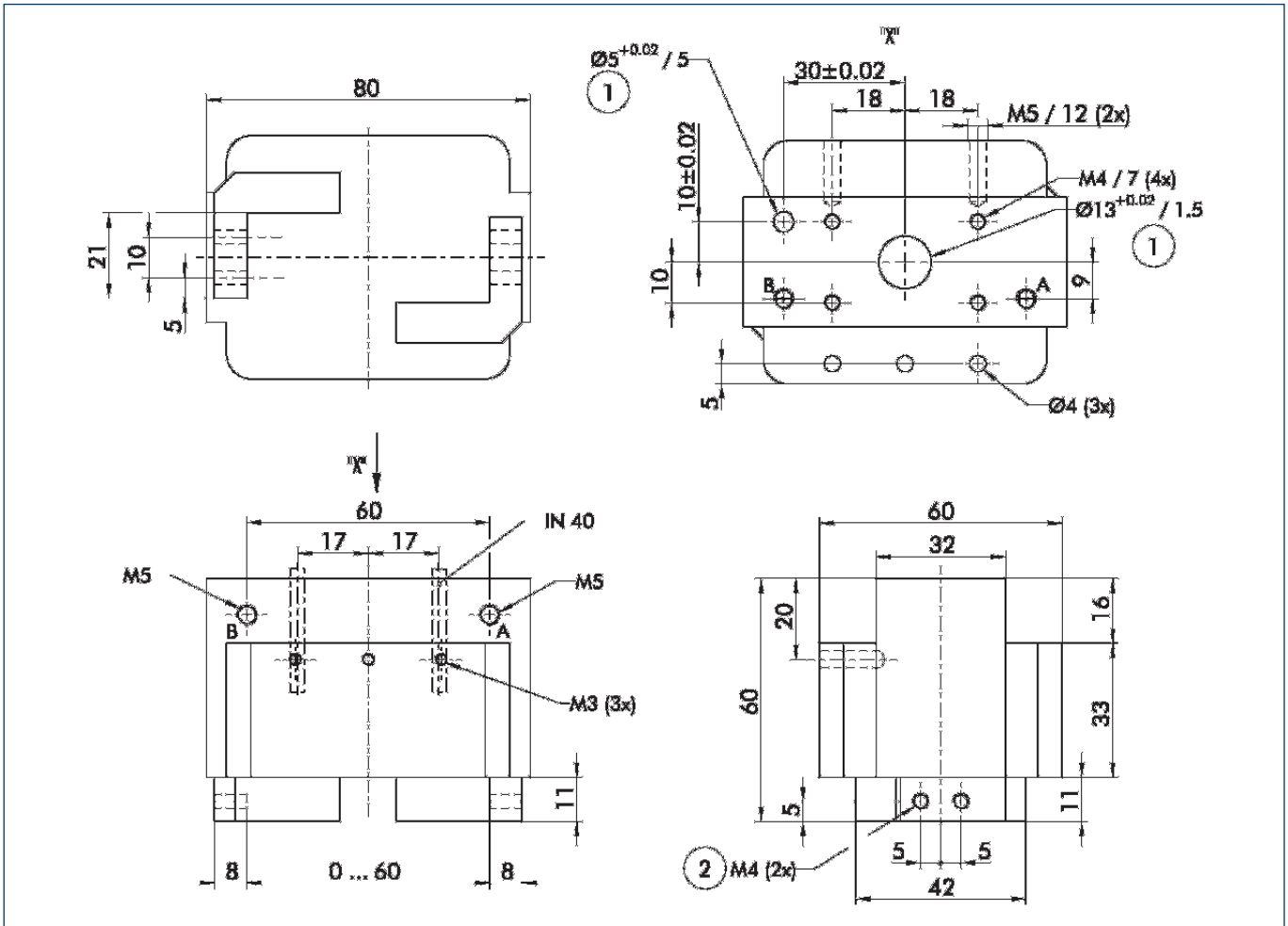


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	RH 918	
	ID	0360140
Stroke per finger	mm [in]	30.0 [1.181]
Closing force	N [lbf]	100.0 [22.5]
Opening force	N [lbf]	100.0 [22.5]
Weight	kg [lbs]	0.48 [1.06]
Recommended workpiece weight	kg [lbs]	0.5 [1.10]
Air consumption per double stroke	cm ³ [in ³]	16.0 [0.98]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]
Closing time	s	0.4
Opening time	s	0.4
Max. permitted finger length	mm [in]	65.0 [2.559]
Max. permitted weight per finger	kg [lbs]	0.12 [0.26]
IP rating		30
Min. ambient temperature	°C [°F]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]
Repeat accuracy	mm [in]	0.02 [0.0008]

Main views

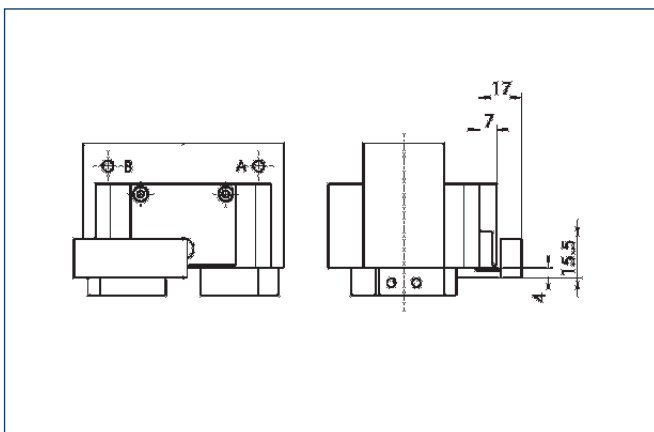


The drawing shows the gripper in the basic version with open jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

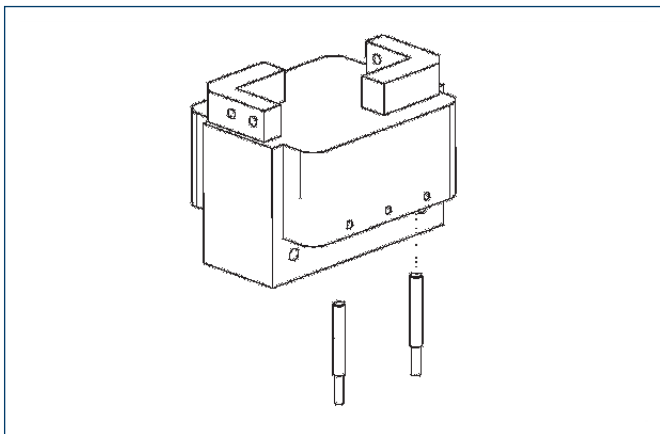
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-RH 918	0301718

Sensor system

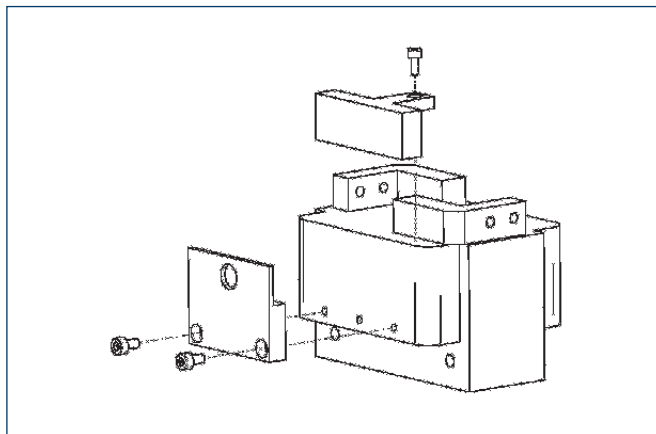


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



Measuring system:

FPS position monitor

Description	ID
AS-RH 918	0301718
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

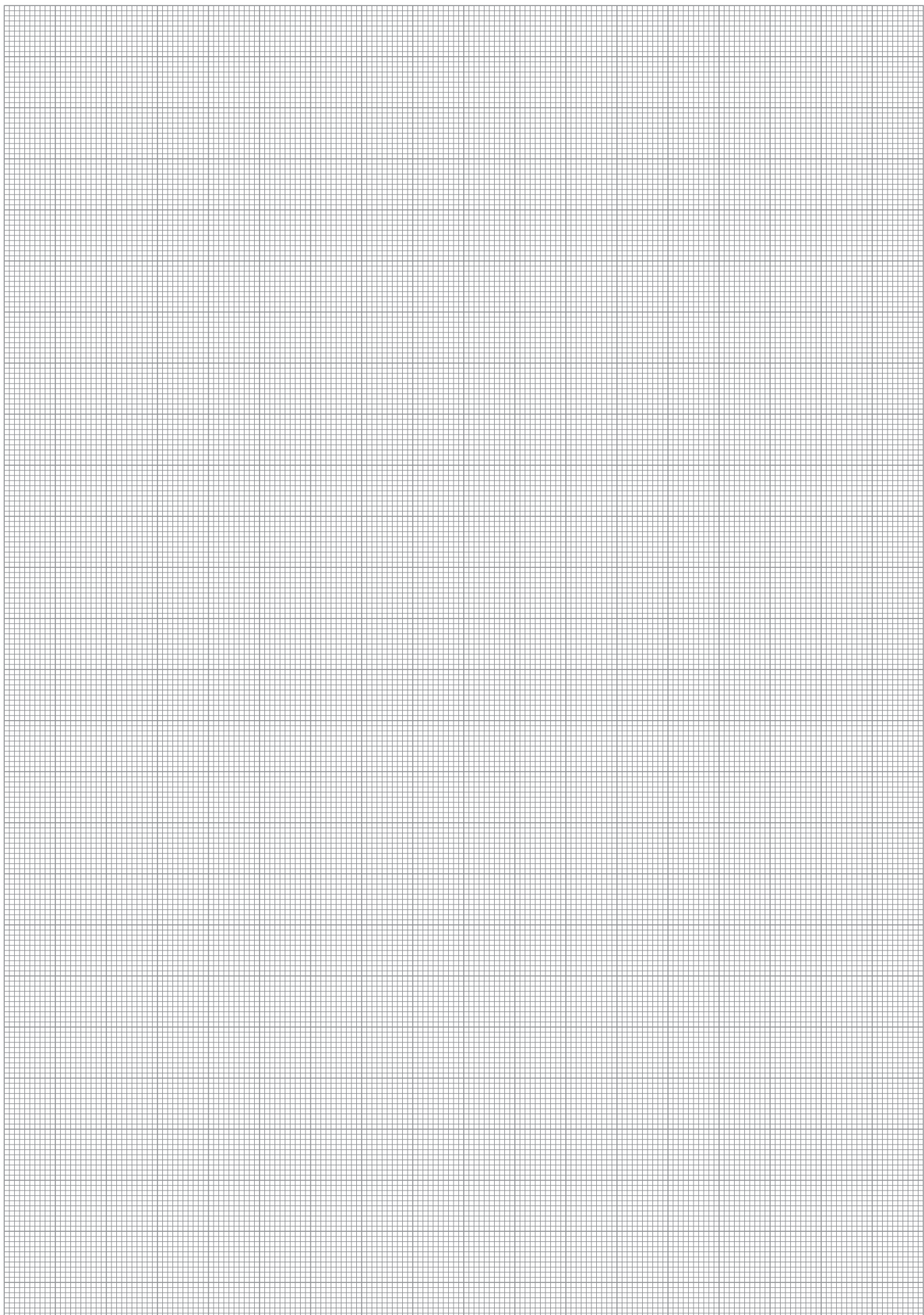
When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

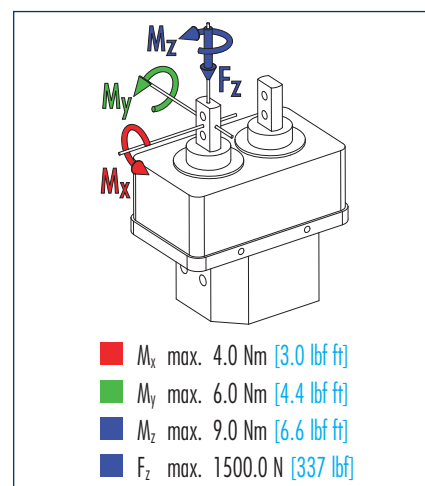


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.





Finger load



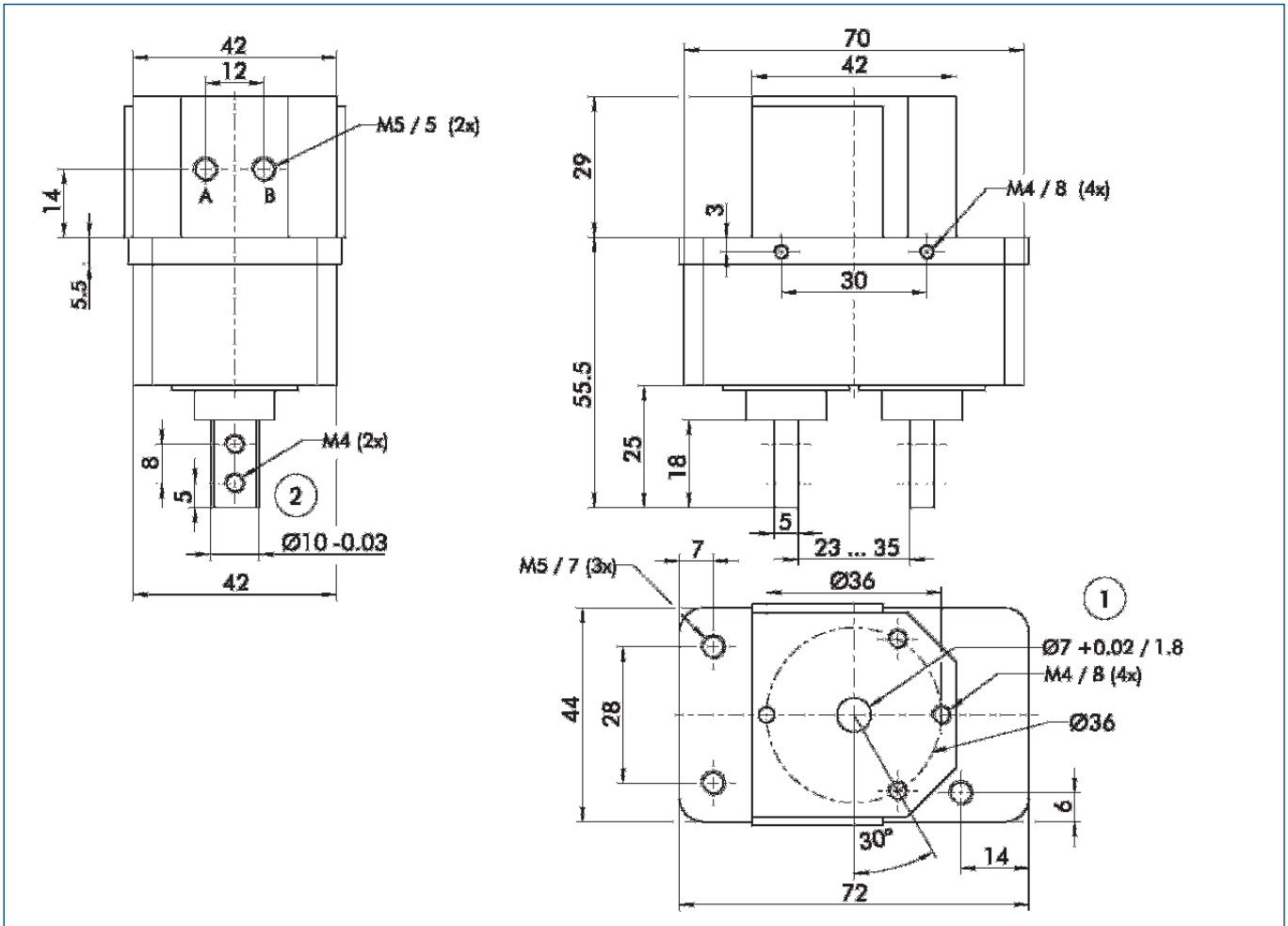
① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		RH 806 KP	RH 806 KP PX OT5	RH 806 KP PX OCS	RH 806 KP PX TCS
	ID	0360178	0360179	0360180	0360181
Stroke per finger	mm [in]	6.0 [0.236]	6.0 [0.236]	6.0 [0.236]	6.0 [0.236]
Closing force	N [lbf]	65.0 [14.6]	65.0 [14.6]	65.0 [14.6]	65.0 [14.6]
Opening force	N [lbf]	65.0 [14.6]	65.0 [14.6]	65.0 [14.6]	65.0 [14.6]
Weight	kg [lbs]	0.36 [0.79]	0.36 [0.79]	0.36 [0.79]	0.36 [0.79]
Recommended workpiece weight	kg [lbs]	0.325 [0.72]	0.325 [0.72]	0.325 [0.72]	0.325 [0.72]
Air consumption per double stroke	cm ³ [in ³]	10.0 [0.61]	10.0 [0.61]	10.0 [0.61]	10.0 [0.61]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	2.0 [29]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]	7.0 [102]	7.0 [102]	7.0 [102]
Closing time	s	0.13	0.13	0.13	0.13
Opening time	s	0.1	0.1	0.1	0.1
Max. permitted finger length	mm [in]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]
Max. permitted weight per finger	kg [lbs]	0.07 [0.15]	0.07 [0.15]	0.07 [0.15]	0.07 [0.15]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	5.0 [41]	5.0 [41]	5.0 [41]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]	60.0 [140]	60.0 [140]	60.0 [140]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Grippers with integrated sensor (PX) display two of three positions. (O = open, T = gripped, C = closed). The power voltage is 12 VDC .. 24 VDC at $I_{max} = 17$ mA. The output is PNP-switching with max. 24 V and 100 mA DC. The switching time is max. 35×10^{-6} s.

Main views

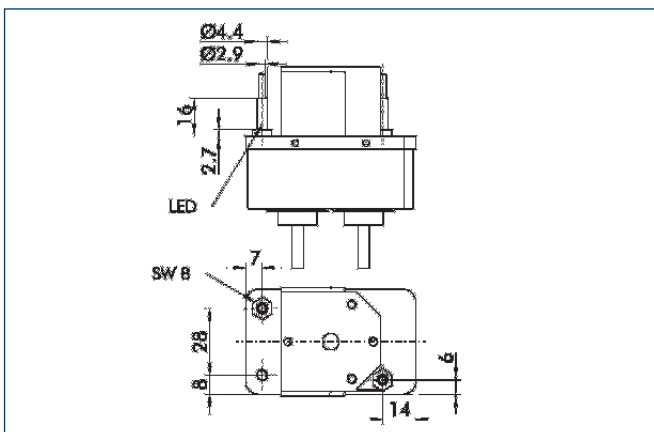


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

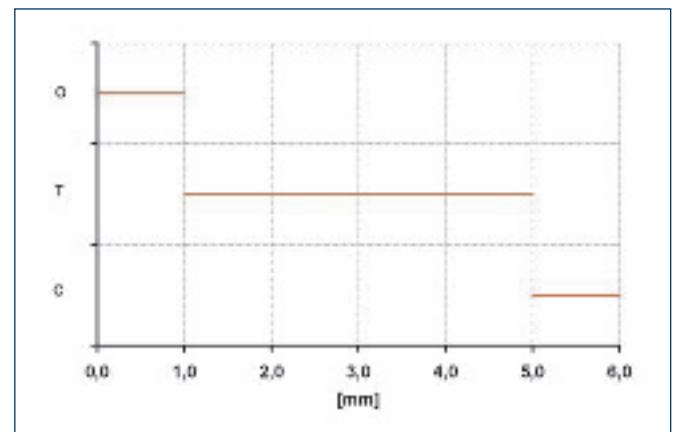
① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

Proximity switch attachment



In the PX version, the assembly material is included with the sensor.

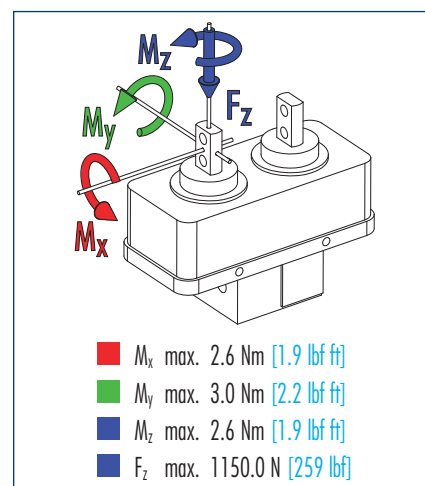
Monitoring positions



Sensor switching characteristics



Finger load



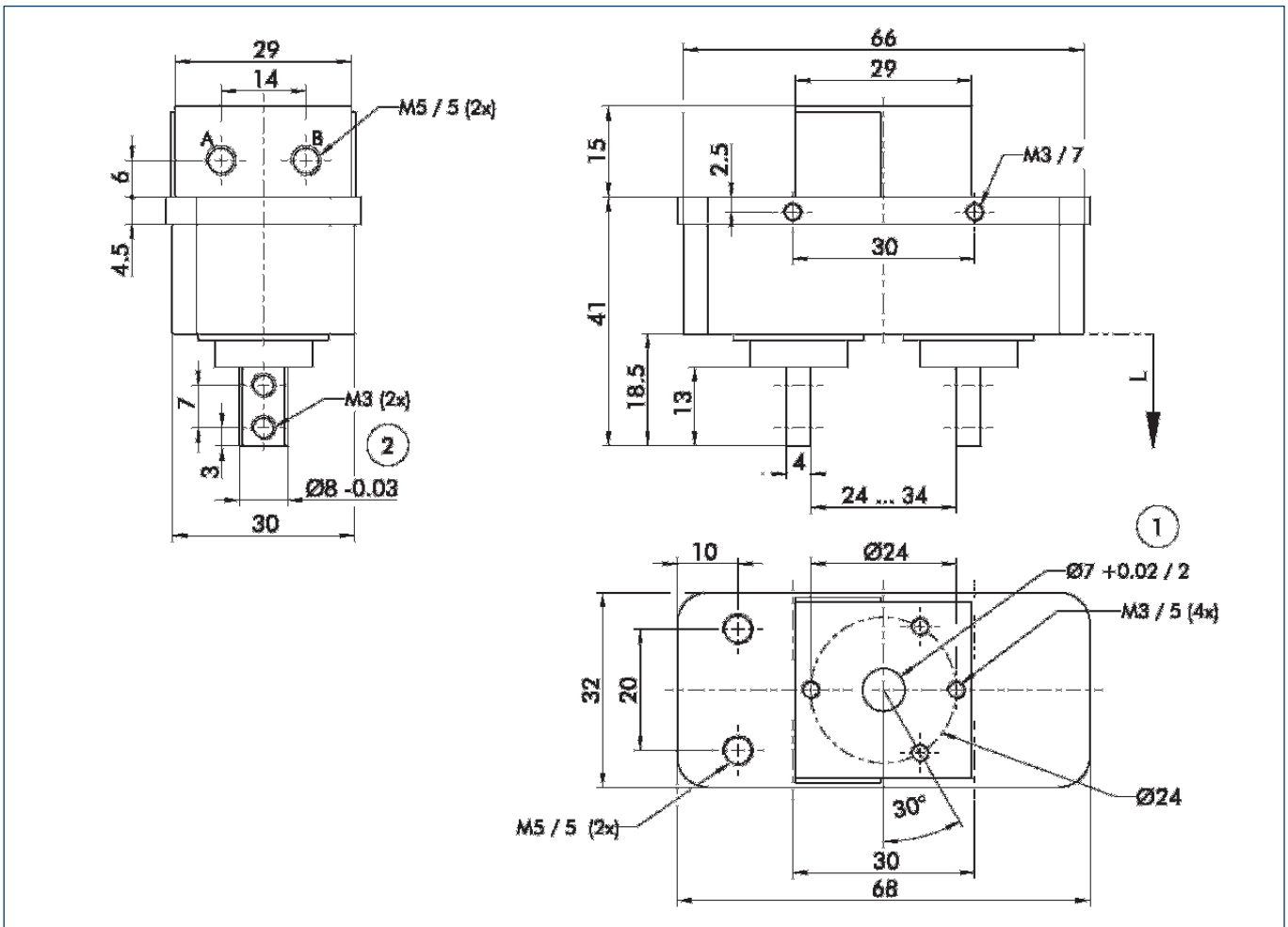
① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		RH 801 KP	RH 801 KP PX 05	RH 801 KP PX T5	RH 801 KP PX C5
	ID	0360174	0360175	0360176	0360177
Stroke per finger	mm [in]	5.0 [0.197]	5.0 [0.197]	5.0 [0.197]	5.0 [0.197]
Closing force	N [lbf]	23.0 [5.2]	23.0 [5.2]	23.0 [5.2]	23.0 [5.2]
Opening force	N [lbf]	23.0 [5.2]	23.0 [5.2]	23.0 [5.2]	23.0 [5.2]
Weight	kg [oz]	0.15 [5.29]	0.15 [5.29]	0.15 [5.29]	0.15 [5.29]
Recommended workpiece weight	kg [oz]	0.115 [4.06]	0.115 [4.06]	0.115 [4.06]	0.115 [4.06]
Air consumption per double stroke	cm ³ [in ³]	2.0 [0.12]	2.0 [0.12]	2.0 [0.12]	2.0 [0.12]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	2.0 [29]	2.0 [29]
Maximum pressure	bar [psi]	7.0 [102]	7.0 [102]	7.0 [102]	7.0 [102]
Closing time	s	0.13	0.13	0.13	0.13
Opening time	s	0.1	0.1	0.1	0.1
Max. permitted finger length	mm [in]	25.0 [0.984]	25.0 [0.984]	25.0 [0.984]	25.0 [0.984]
Max. permitted weight per finger	kg [oz]	0.05 [1.76]	0.05 [1.76]	0.05 [1.76]	0.05 [1.76]
IP rating		30	30	30	30
Min. ambient temperature	°C [°F]	5.0 [41]	5.0 [41]	5.0 [41]	5.0 [41]
Max. ambient temperature	°C [°F]	60.0 [140]	60.0 [140]	60.0 [140]	60.0 [140]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Grippers with integrated sensor (PX) display one of three positions. (O = open, T = gripped, C = closed). The power voltage is 12 VDC .. 24 VDC at $I_{max} = 17$ mA. The output is PNP-switching with max. 24 V and 100 mA DC. The switching time is max. 35×10^{-5} s.

Main views

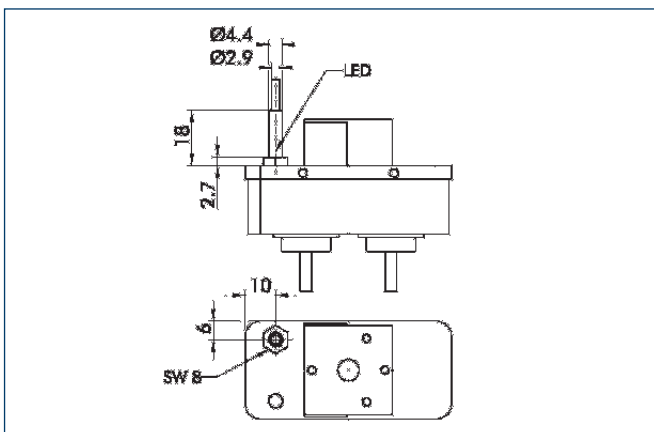


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

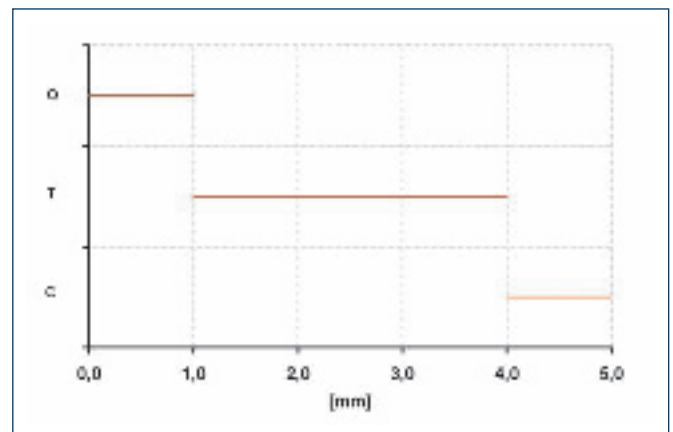
① The SDV-P pressure maintenance valve can be used as a gripping force safety device (see "Accessories" catalog section).

Proximity switch attachment



In the PX version, the assembly material is included with the sensor.

Monitoring positions



Sensor switching characteristics

PGN-plus

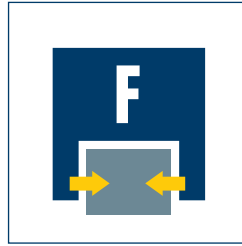
Pneumatic · 2-Finger Parallel Grippers · Universal Grippers



Sizes
40 .. 380



Weight
0.08 kg .. 39.5 kg
0.18 lbs .. 87.08 lbs



Gripping force
123 N .. 21800 N
28 lbf .. 4901 lbf

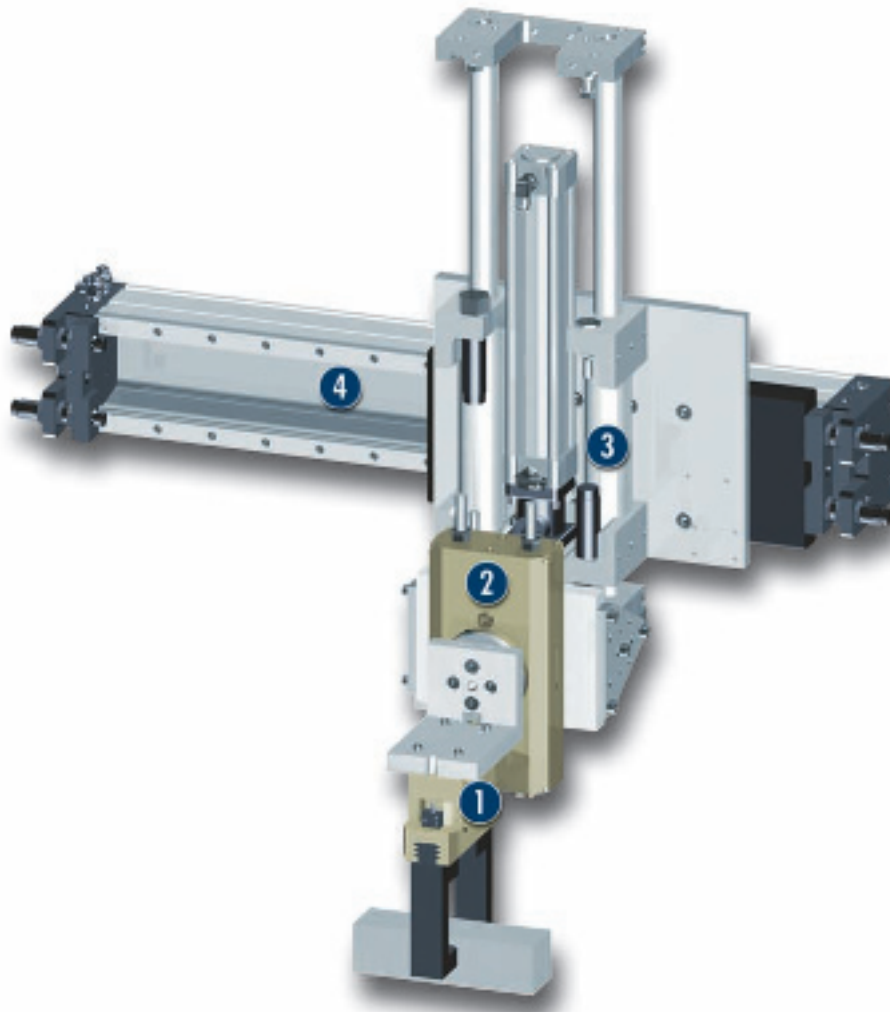


Stroke per finger
2 mm .. 45 mm
0.079 in .. 1.772 in



Workpiece weight
0.62 kg .. 80.5 kg
1.37 lbs .. 177.47 lbs

Application example



Insertion unit for light to medium-weight components

1 PGN-plus 160 2-Finger Parallel Gripper with workpiece-specific gripper fingers

2 SRU 63 Rotary Actuator

3 SLE 50 K Short-stroke Module

4 SLF 03-P Gantry Axis

Universal Gripper

Universal 2-finger parallel gripper with large gripping force and high maximum moments thanks to multiple-tooth guide

Area of application

Ideal standard solution for numerous areas of application. For universal use in clean to slightly dirty environments, special versions available for dirty environments.

Your advantages and benefits

Robust multiple-tooth guidance

for precise handling

High maximum moments possible

suitable for the use of long gripper fingers

Oval piston drive design

for maximum gripping forces

Mounting from two sides in three screw directions

for universal and flexible gripper assembly

Air supply via hose-free direct connection or screw connections

for the flexible supply of compressed air in all automation systems

Comprehensive sensor accessories

for diverse monitoring tasks and stroke position monitoring

Compact dimensions

for minimal interfering contours in handling

Diverse options

(dust protection, high temperature, anti-corrosion and many more) for optimization to suit precisely your requirements



General information on the series

Working principle

Wedge-hook kinematics

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Steel

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated
Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: Quality class 4

Warranty

24 months

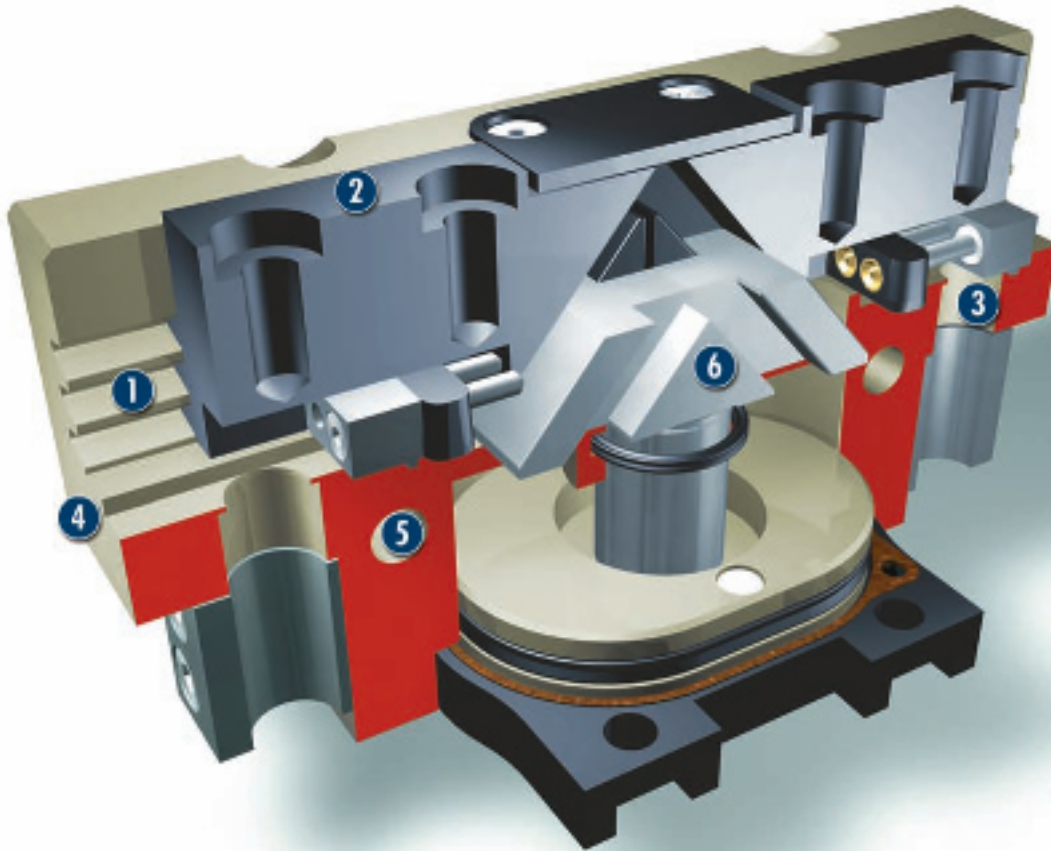
Scope of delivery

Brackets for proximity switches, centering sleeves, O-rings for direct connection, assembly and operating manual with manufacturer's declaration

Gripping force safety device

with either mechanical gripping force safety device or SDV-P pressure maintenance valve

Sectional diagram



- 1 Multiple-tooth guidance**
high load-bearing base jaw guide with minimum play for long fingers
- 2 Base jaws**
for the connection of workpiece-specific gripper fingers
- 3 Sensor system**
brackets for proximity switches and adjustable operating switch target in the housing
- 4 Housing**
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy
- 5 Centering and mounting possibilities**
for universal gripper assembly
- 6 Kinematics**
wedge-hook principle for high power transmission and synchronous gripping

Function description

The oval piston is moved up or down by means of compressed air. Via its slanted working surfaces, the wedge hook redirects this movement into a lateral, synchronous gripping motion of the two base jaws.

Options and special information

Version with dust cover

Sealed, increased degree of protection against the ingress of materials, for use in dusty environments

Anti-corrosion version

For use in corrosion-inducing atmospheres

High-temperature version

For use in hot environments

Version with increased grip force

When higher gripping forces are required

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Centering sleeves



Fittings



MMS magnetic switches



IN inductive proximity switches



HUE protective cover



W/WK/KV/GK sensor cables



BSWS quick-change finger system



Sensor distributors



SDV-P pressure maintenance valves



Finger blanks



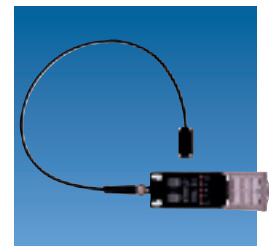
FMS force measuring system



APS analog position sensor



FPS flexible position sensor



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the "Accessories" section of this catalog.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each jaw at distance P (see illustration), measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

Workpiece weight

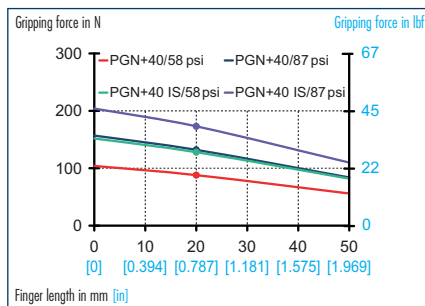
The recommended workpiece weight is calculated for a force-type connection with a friction coefficient of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

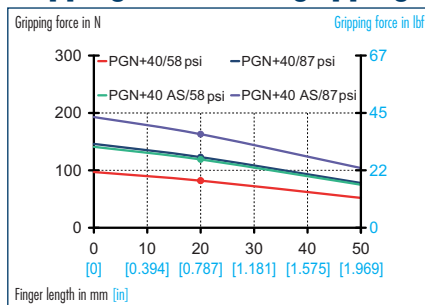
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



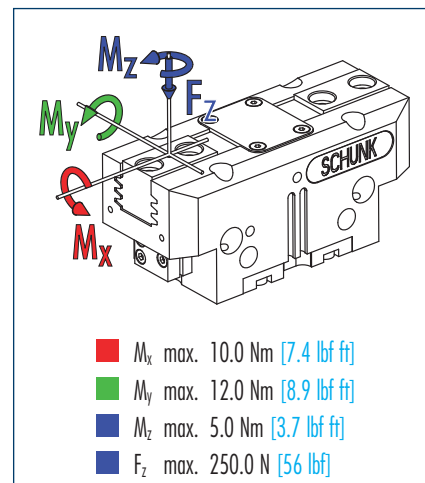
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

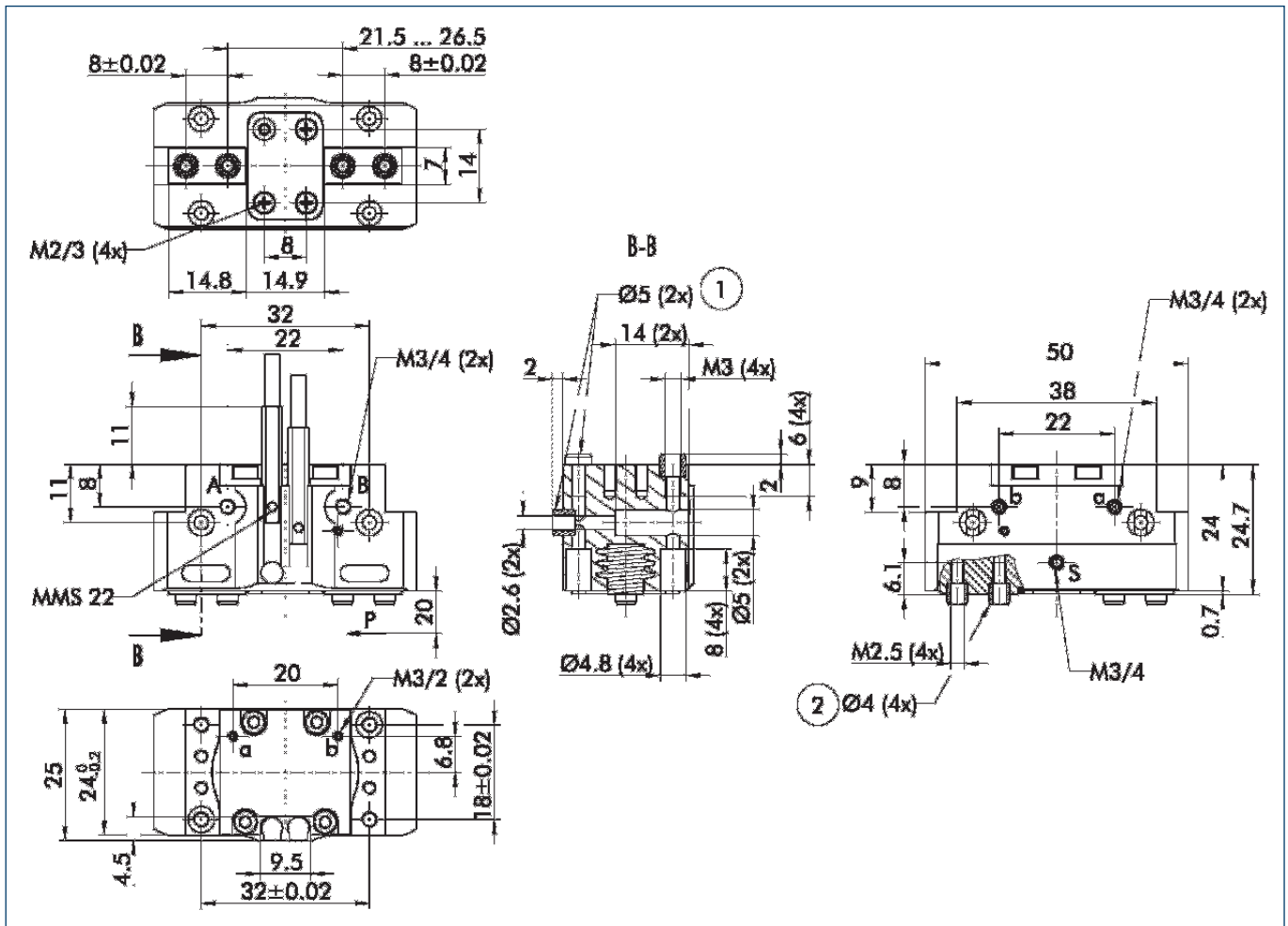
Technical data

Description		PGN-plus 40	PGN-plus 40 AS	PGN-plus 40 IS
ID		0371080	0371082	0371084
Stroke per jaw	mm [in]	2.5 [0.098]	2.5 [0.098]	2.5 [0.098]
Closing force	N [lbf]	123.0 [28]	163.0 [37]	
Opening force	N [lbf]	132.0 [30]		173.0 [39]
Min. spring force	N [lbf]		40.0 [9.0]	50.0 [11.2]
Weight	kg [lbs]	0.08 [0.18]	0.1 [0.22]	0.1 [0.22]
Recommended workpiece weight	kg [lbs]	0.62 [1.37]	0.62 [1.37]	0.62 [1.37]
Air consumption per double stroke	cm ³ [in ³]	2.5 [0.15]	5.5 [0.34]	5.5 [0.34]
Minimum pressure	bar [psi]	2.5 [36]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.02	0.02	0.03
Opening time	s	0.02	0.03	0.02
Max. permitted finger length	mm [in]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]
Max. permitted weight per finger	kg [lbs]	0.1 [0.22]	0.1 [0.22]	0.1 [0.22]
IP rating		40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

OPTIONS and their characteristics

Version with dust cover	ID	37371080	37371082	37371084
IP rating		64	64	64
Weight	kg [lbs]	0.1 [0.22]	0.12 [0.26]	0.12 [0.26]
Anti-corrosion version	ID	38371080	38371082	38371084
High-temperature version	ID	39371080	39371082	39371084
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]

Main views

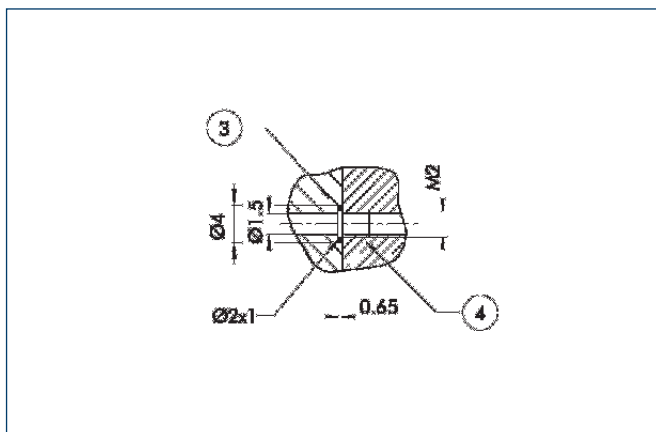


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

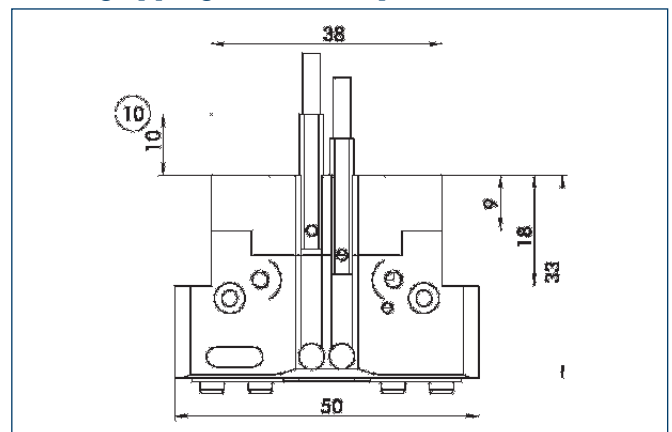
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

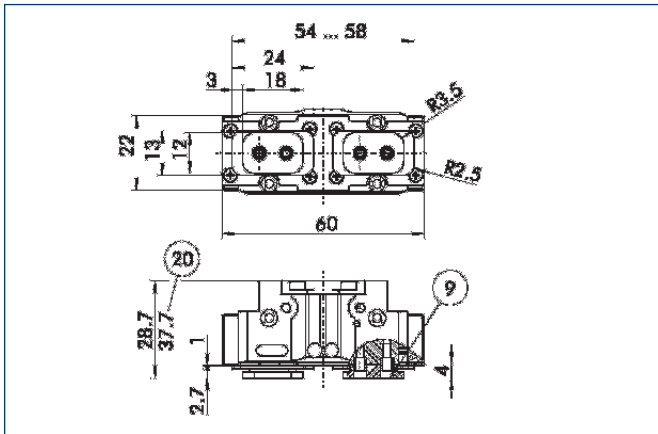
AS/IS gripping force safety device



- ⑩ Projection only with AS version

The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

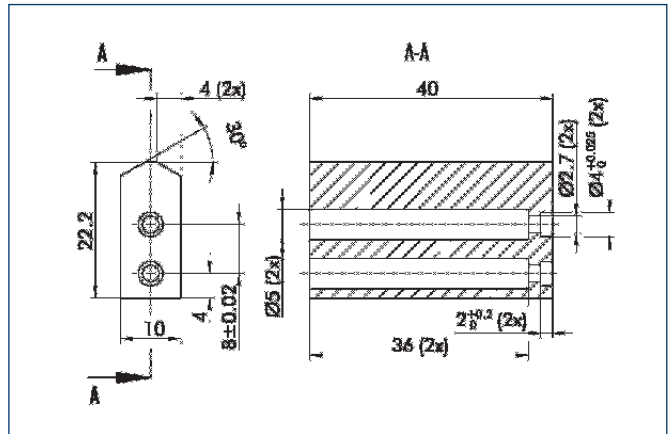
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- ⑳ With AS / IS version

The “dust-protection” option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

Finger blanks



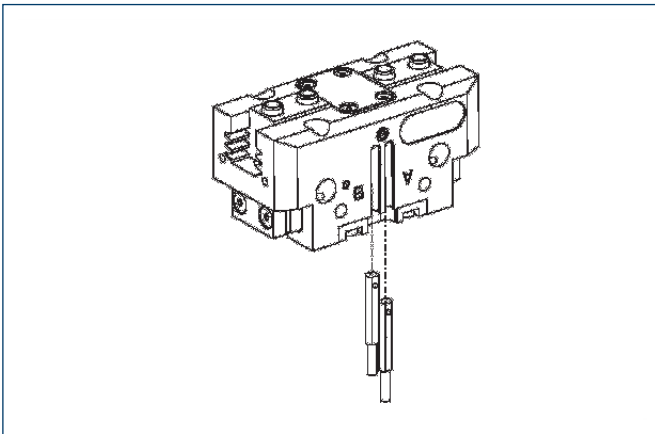
Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 40	Aluminum	1	0300008
SBR-plus 40	Steel	1	0300018



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

Sensor system



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

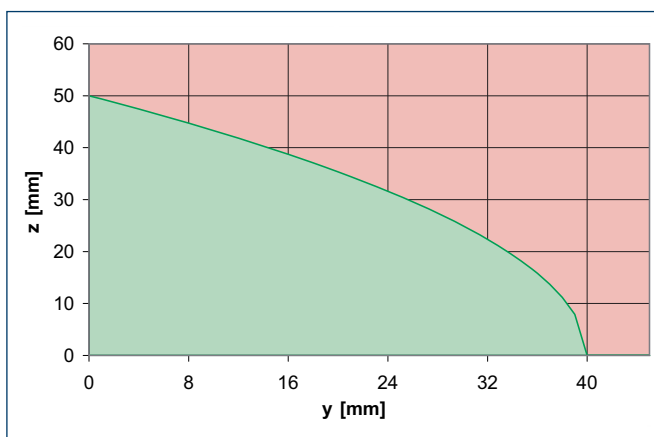
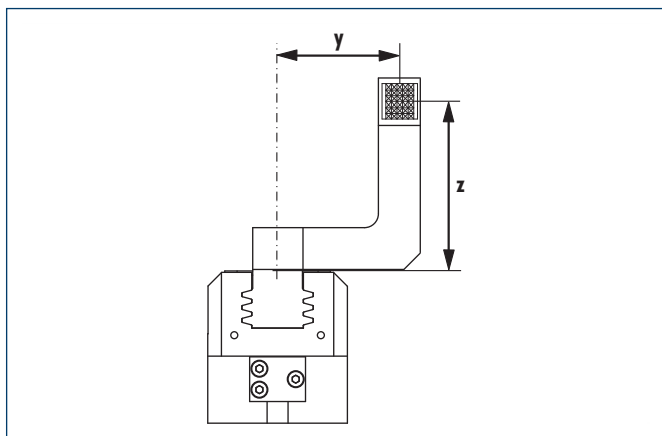
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M8	0301496
KV 20-M8	0301497
W 3-M5-PNP/NPN	0301650
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

Maximum permitted finger offset

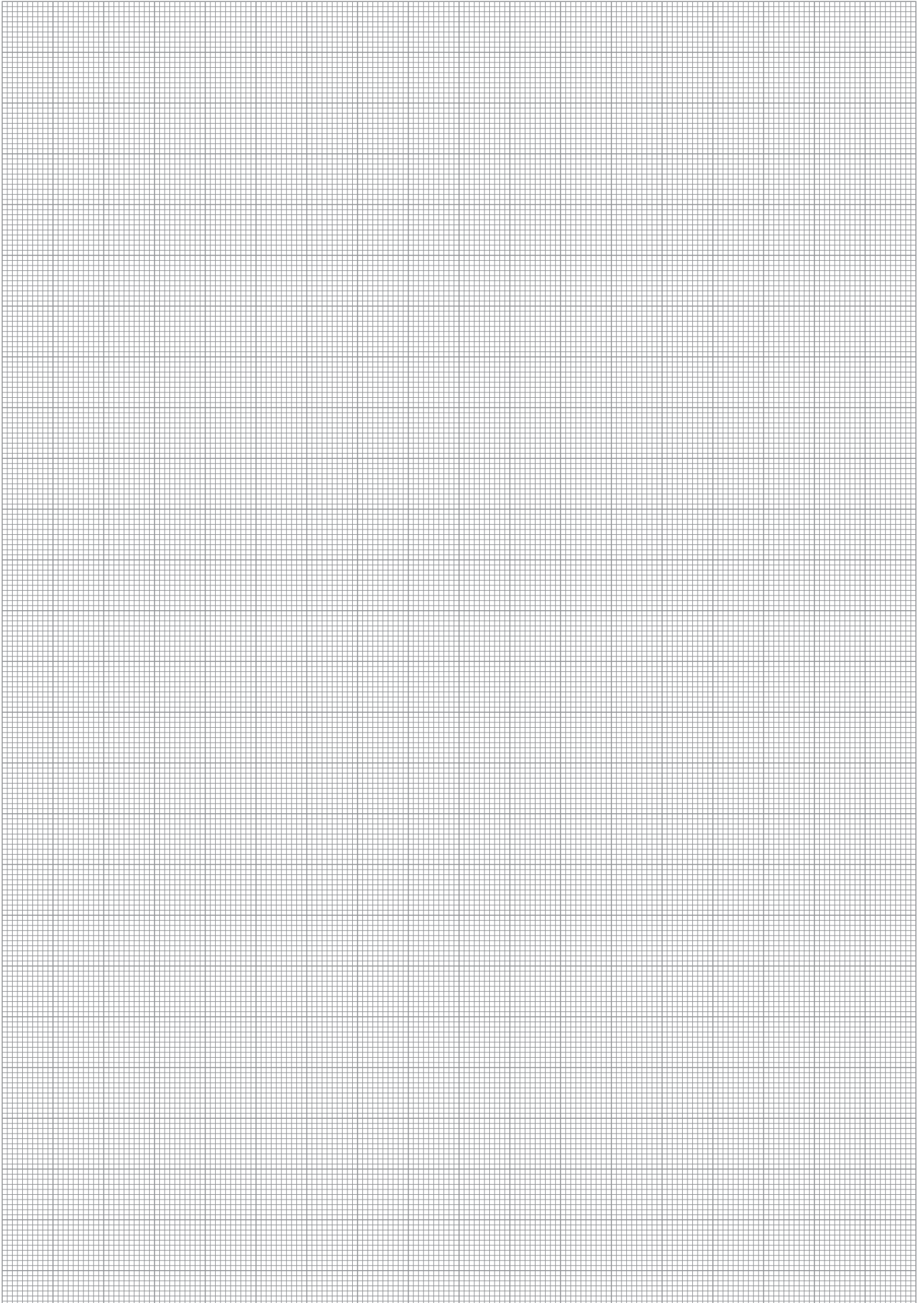


- Permitted range
- Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.

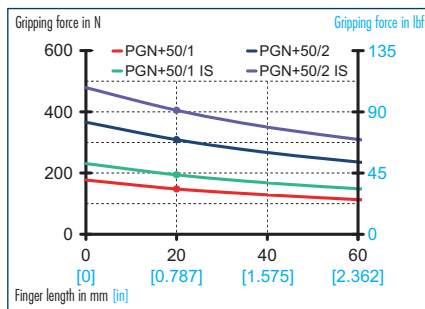


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

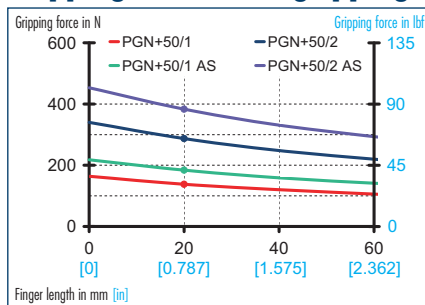




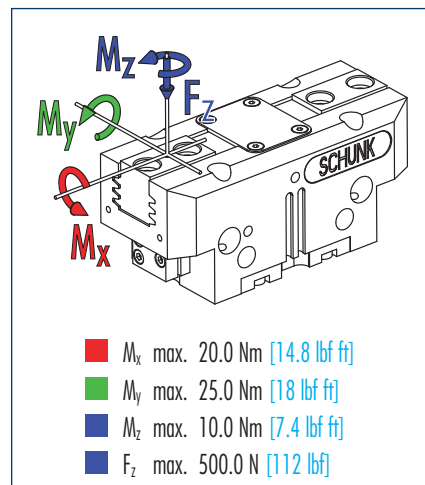
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

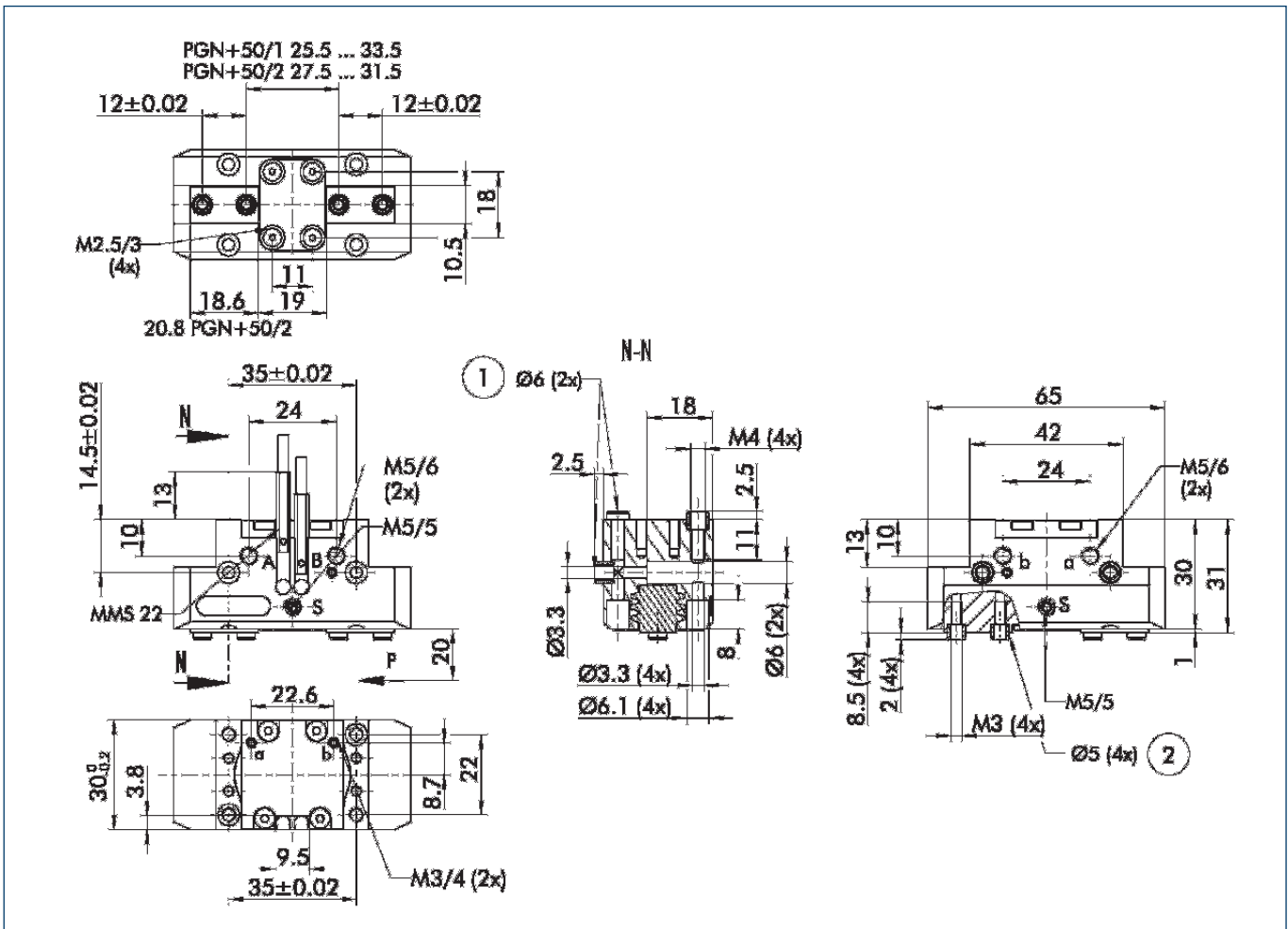
Technical data

Description		PGN-plus 50-1	PGN-plus 50-2	PGN-plus 50-1 AS	PGN-plus 50-2 AS	PGN-plus 50-1 IS	PGN-plus 50-2 IS
ID		0371099	0371149	0371399	0371449	0371459	0371469
Stroke per jaw	mm [in]	4.0 [0.157]	2.0 [0.079]	4.0 [0.157]	2.0 [0.079]	4.0 [0.157]	2.0 [0.079]
Closing force	N [lbf]	140.0 [31]	290.0 [65]	185.0 [42]	385.0 [87]		
Opening force	N [lbf]	145.0 [33]	310.0 [70]			205.0 [46]	425.0 [96]
Min. spring force	N [lbf]			45.0 [10.1]	95.0 [21.4]	45.0 [10.1]	95.0 [21.4]
Weight	kg [lbs]	0.17 [0.37]	0.17 [0.37]	0.21 [0.46]	0.21 [0.46]	0.21 [0.46]	0.21 [0.46]
Recommended workpiece weight	kg [lbs]	0.7 [1.54]	1.45 [3.20]	0.7 [1.54]	1.45 [3.20]	0.7 [1.54]	1.45 [3.20]
Air consumption per double stroke	cm ³ [in ³]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.02	0.02	0.02	0.02	0.03	0.03
Opening time	s	0.02	0.02	0.03	0.03	0.02	0.02
Max. permitted finger length	mm [in]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]
Max. permitted weight per finger	kg [lbs]	0.18 [0.40]	0.18 [0.40]	0.18 [0.40]	0.18 [0.40]	0.18 [0.40]	0.18 [0.40]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

OPTIONS and their characteristics

Version with dust cover	ID	37371099	37371149	37371399	37371449	37371459	37371469
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	0.2 [0.44]	0.2 [0.44]	0.24 [0.53]	0.24 [0.53]	0.24 [0.53]	0.24 [0.53]
Anti-corrosion version	ID	38371099	38371149	38371399	38371449	38371459	38371469
High-temperature version	ID	39371099	39371149	39371399	39371449	39371459	39371469
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]
KVZ for increased grip force	ID	0372099	0372149	0372399		0372459	
Description		PGN-plus 50/1-KVZ	PGN-plus 50/2-KVZ	PGN-plus 50/1 AS-KVZ		PGN-plus 50/1 IS-KVZ	
Closing force	N [lbf]	250.0 [56]	520.0 [117]	295.0 [66]			
Opening force	N [lbf]	260.0 [58]	560.0 [126]			315.0 [71]	
Weight	kg [lbs]	0.21 [0.46]	0.21 [0.46]	0.26 [0.57]		0.26 [0.57]	
Maximum pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]		6.0 [87]	
Max. permitted finger length	mm [in]	64.0 [2.520]	50.0 [1.969]	50.0 [1.969]		50.0 [1.969]	

Main views

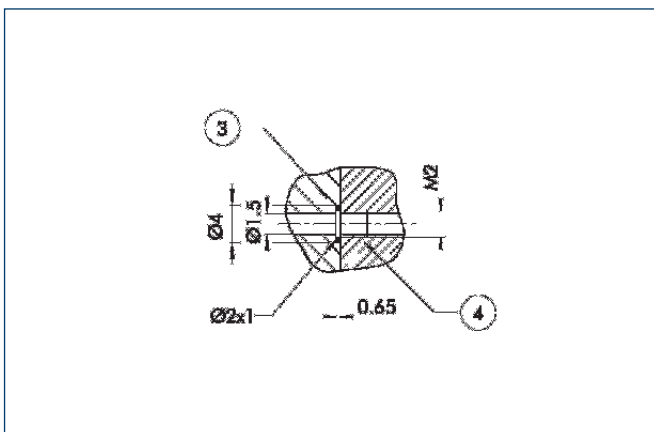


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

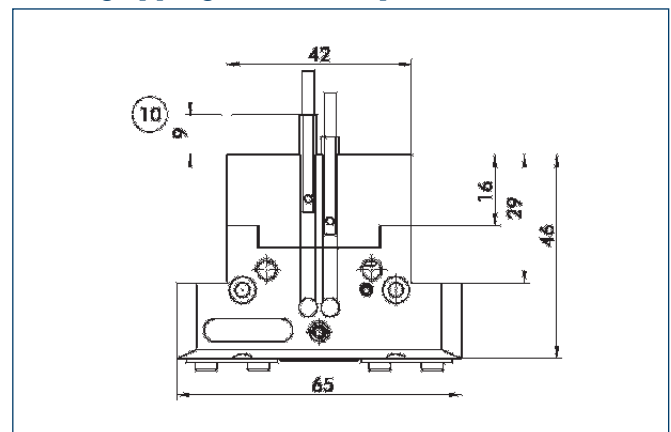
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

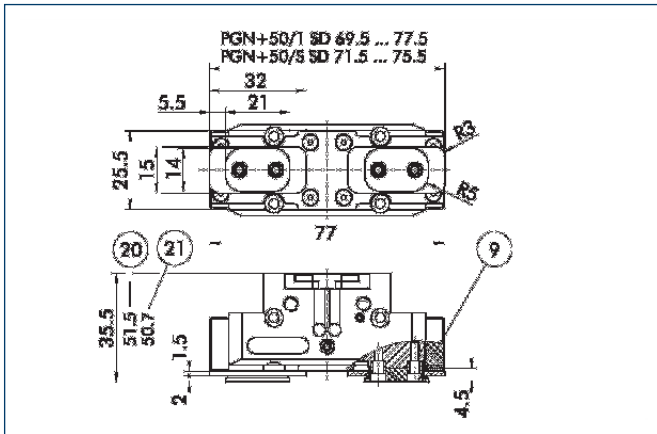
AS/IS gripping force safety device



- ⑩ Projection only with AS version

The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

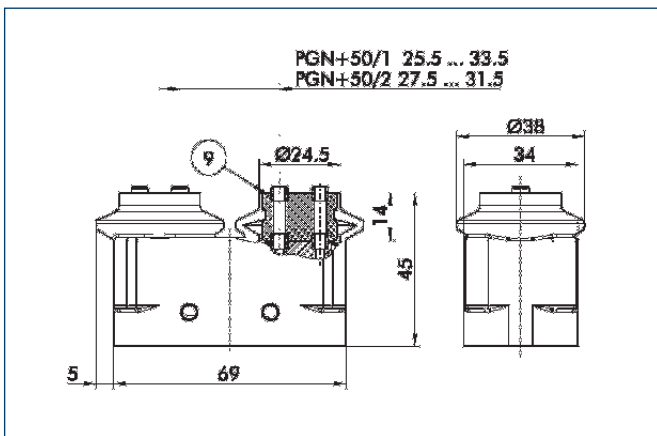
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- ⑳ With AS / IS version
- ㉑ For KVZ version

The “dust-protection” option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still further measured from the upper edge of the gripper housing.

HUE protective cover



- ⑨ For screw connection diagram, see basic version

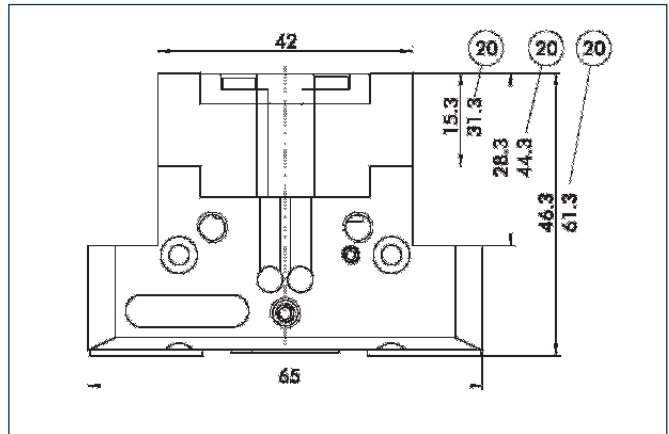
The HUE protective cover completely protects the gripper against external influences up to IP65. The mounting diagram shifts by the height of the intermediate jaw.

Description	ID
HUE PGN-plus 50	0371479



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

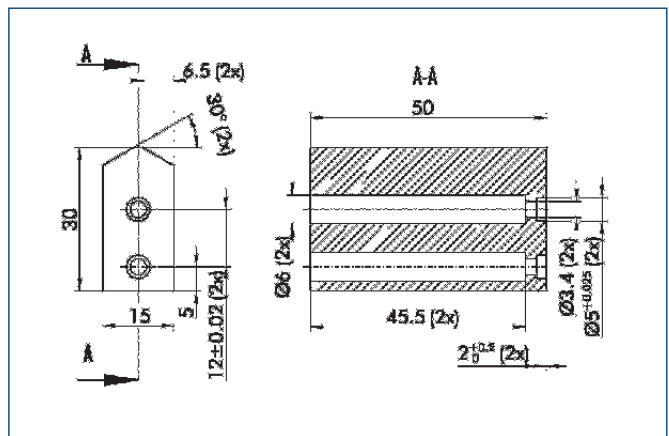
KVZ for increased grip force version



- ㉑ With AS / IS version

The KVZ cylinder increases the gripping forces during opening and closing. A second, in series-connected piston also increases the force on the wedge hook. The full gripping force shown in the data table is sometimes only reached after a few hundred gripping cycles. Please consider that grippers which are equipped with a gripping force safety device (AS/IS) are higher.

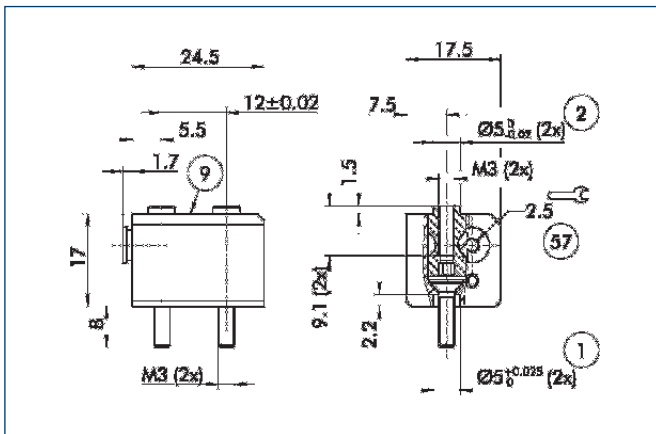
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 50	Aluminum	1	0300009
SBR-plus 50	Steel	1	0300019

BSWS quick-change finger system

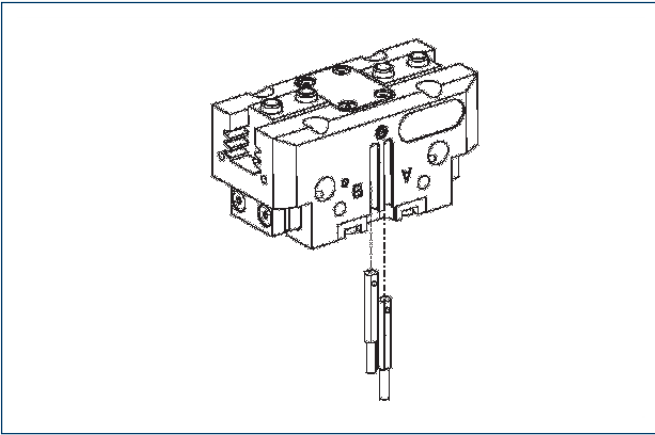


- ① Gripper connection
- ② Finger connection
- ⑨ For screw connection diagram, see basic version
- ⑤⑦ Locking mechanism

The BSWS quick-change finger system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.



Sensor system



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches /magnetic switches

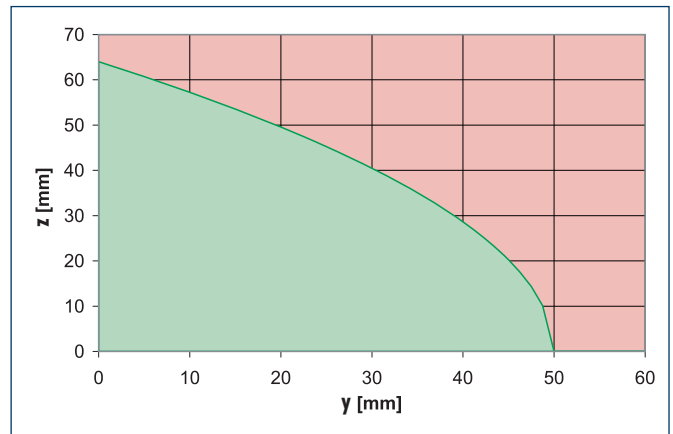
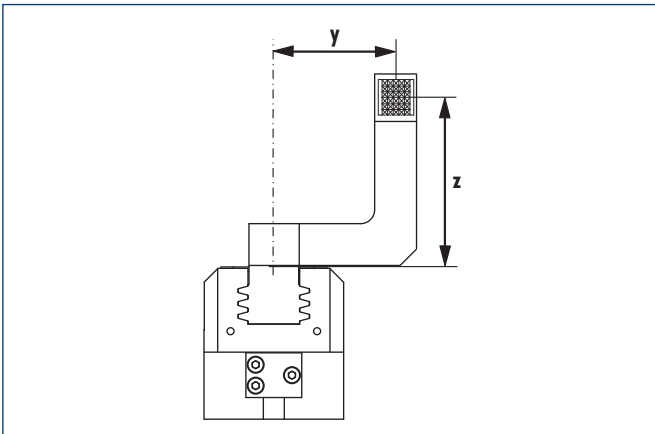
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M8	0301496
KV 20-M8	0301497
W 3-M5-PNP/NPN	0301650
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Maximum permitted finger offset



- Permitted range
- Non-permissible range

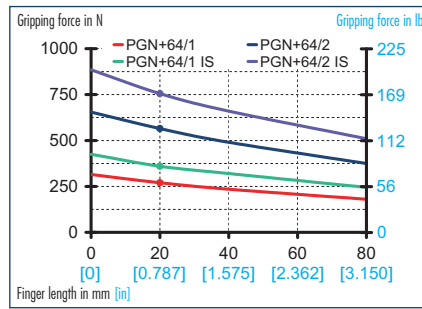
The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



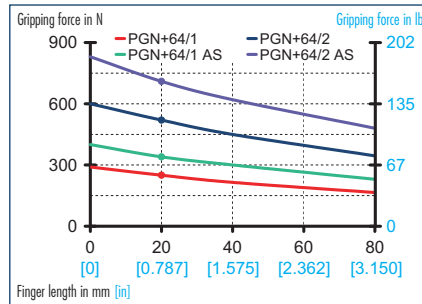
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



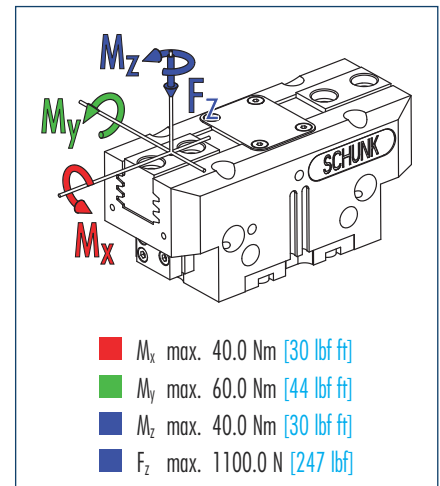
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

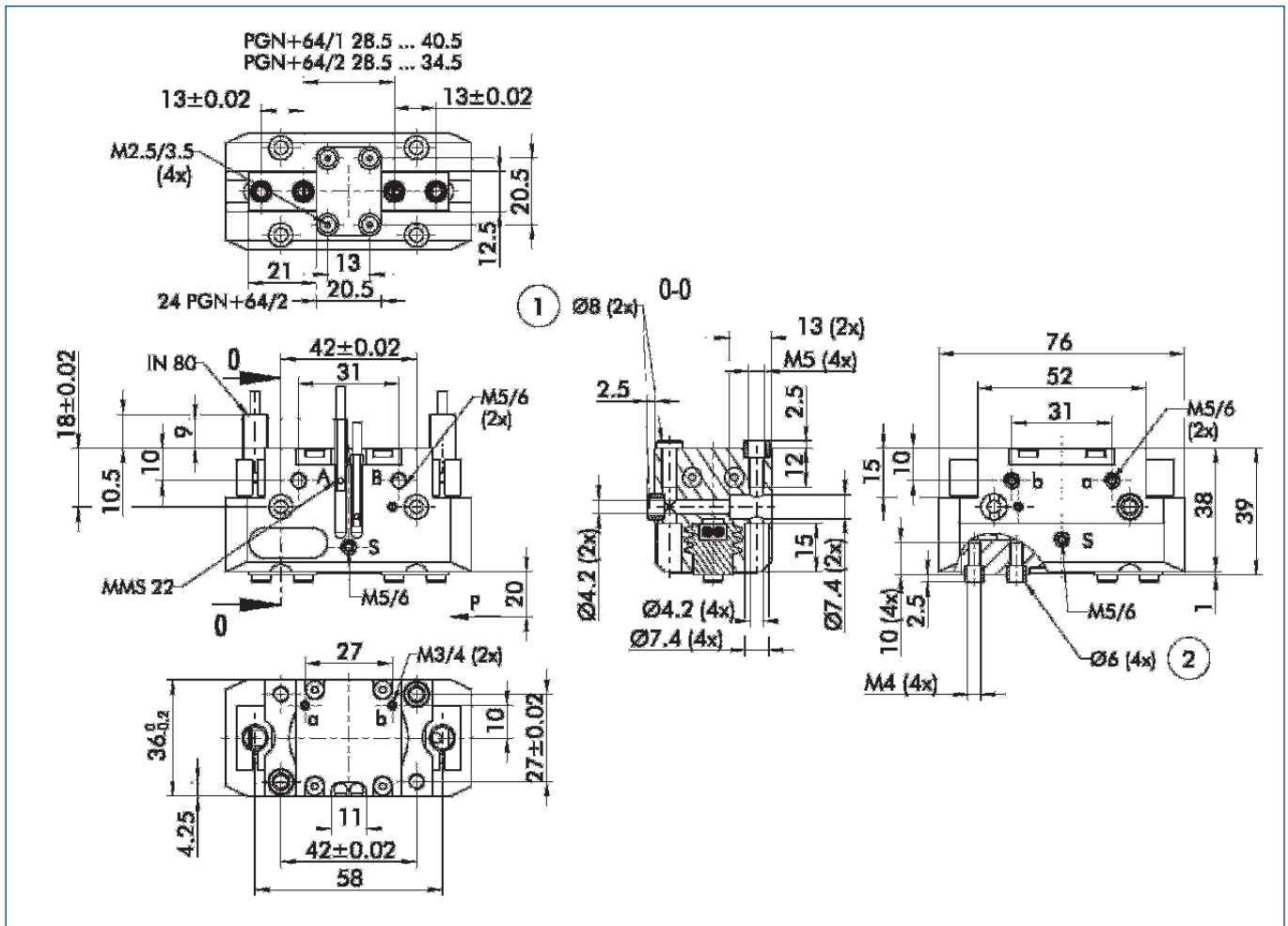
Technical data

Description		PGN-plus 64-1	PGN-plus 64-2	PGN-plus 64-1 AS	PGN-plus 64-2 AS	PGN-plus 64-1 IS	PGN-plus 64-2 IS
ID		0371090	0371091	0371092	0371093	0371094	0371095
Stroke per jaw	mm [in]	6.0 [0.236]	3.0 [0.118]	6.0 [0.236]	3.0 [0.118]	6.0 [0.236]	3.0 [0.118]
Closing force	N [lbf]	250.0 [56]	520.0 [117]	340.0 [76]	710.0 [160]		
Opening force	N [lbf]	270.0 [61]	565.0 [127]			360.0 [81]	755.0 [170]
Min. spring force	N [lbf]			90.0 [20.2]	190.0 [43]	90.0 [20.2]	190.0 [43]
Weight	kg [lbs]	0.28 [0.62]	0.28 [0.62]	0.37 [0.82]	0.37 [0.82]	0.37 [0.82]	0.37 [0.82]
Recommended workpiece weight	kg [lbs]	1.25 [2.76]	2.6 [5.73]	1.25 [2.76]	2.6 [5.73]	1.25 [2.76]	2.6 [5.73]
Air consumption per double stroke	cm ³ [in ³]	9.0 [0.55]	9.0 [0.55]	9.0 [0.55]	9.0 [0.55]	9.0 [0.55]	9.0 [0.55]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.03	0.03	0.02	0.02	0.04	0.04
Opening time	s	0.03	0.03	0.04	0.04	0.02	0.02
Max. permitted finger length	mm [in]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]
Max. permitted weight per finger	kg [lbs]	0.35 [0.77]	0.35 [0.77]	0.35 [0.77]	0.35 [0.77]	0.35 [0.77]	0.35 [0.77]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

OPTIONS and their characteristics

Version with dust cover	ID	37371090	37371091	37371092	37371093	37371094	37371095
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	0.35 [0.77]	0.35 [0.77]	0.44 [0.97]	0.44 [0.97]	0.44 [0.97]	0.44 [0.97]
Anti-corrosion version	ID	38371090	38371091	38371092	38371093	38371094	38371095
High-temperature version	ID	39371090	39371091	39371092	39371093	39371094	39371095
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]
KVZ for increased grip force	ID	0372090	0372091	0372092		0372093	
Description		PGN-plus 64/1-KVZ	PGN-plus 64/2-KVZ	PGN-plus 64/1 AS-KVZ		PGN-plus 64/1 IS-KVZ	
Closing force	N [lbf]	450.0 [101]	935.0 [210]	540.0 [121]			
Opening force	N [lbf]	485.0 [109]	1015.0 [228]			560.0 [126]	
Weight	kg [lbs]	0.35 [0.77]	0.35 [0.77]	0.43 [0.95]		0.43 [0.95]	
Maximum pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]		6.0 [87]	
Max. permitted finger length	mm [in]	80.0 [3.150]	64.0 [2.520]	64.0 [2.520]		64.0 [2.520]	

Main views

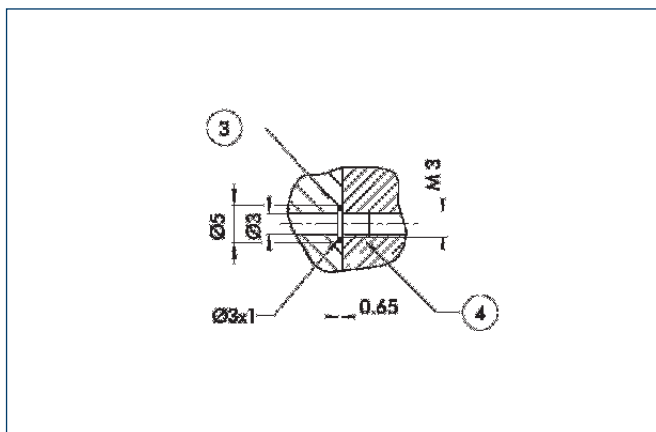


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

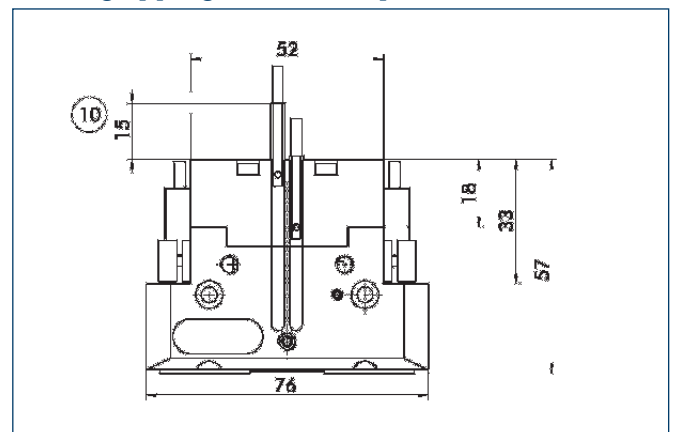
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

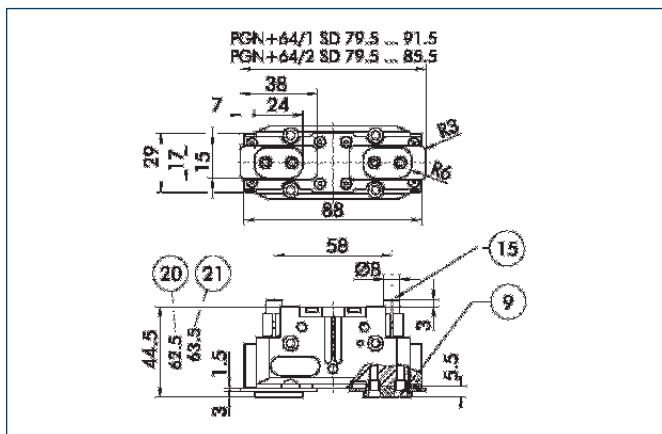
AS/IS gripping force safety device



- ⑩ Projection only with AS version

The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

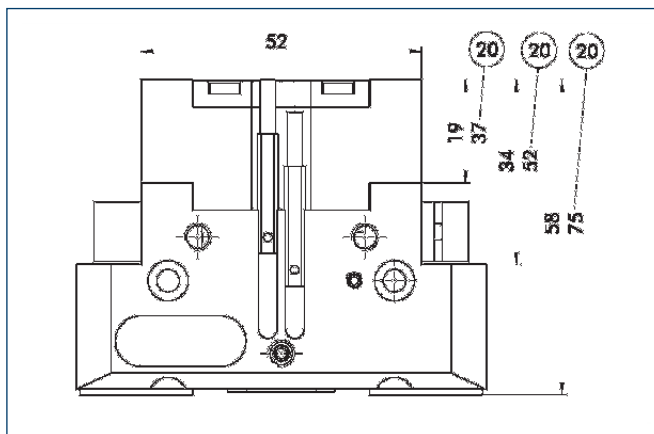
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- 15 Sealing bolt
- 20 With AS / IS version
- 21 For KVZ version

The "dust-protection" option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

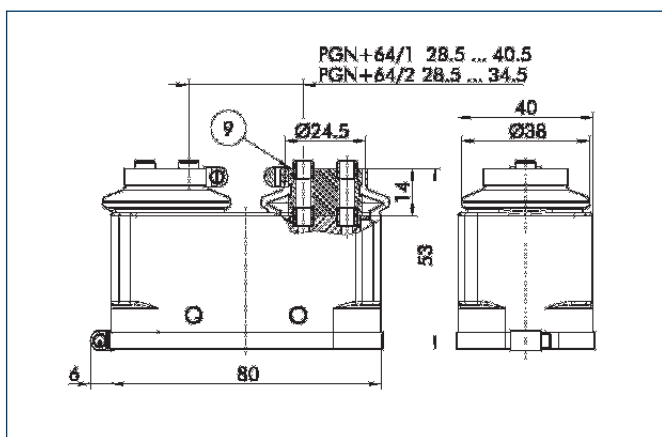
KVZ for increased grip force version



- 20 With AS / IS version

The KVZ cylinder increases the gripping forces during opening and closing. A second, in series-connected piston also increases the force on the wedge hook. The full gripping force shown in the data table is sometimes only reached after a few hundred gripping cycles. Please consider that grippers which are equipped with a gripping force safety device (AS/IS) are higher.

HUE protective cover

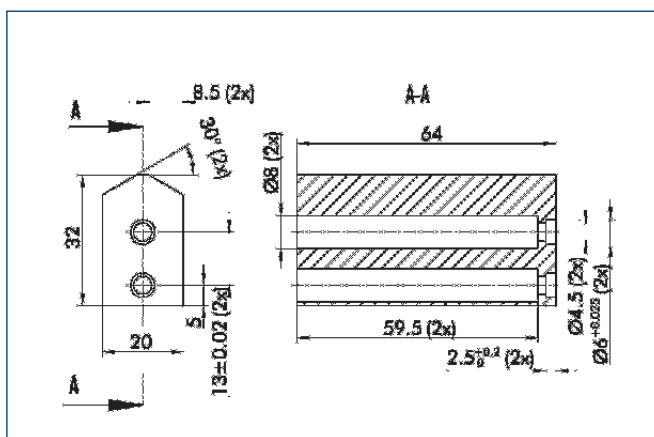


- ⑨ For screw connection diagram, see basic version

The HUE protective cover completely protects the gripper against external influences up to IP65. The mounting diagram shifts by the height of the intermediate jaw.

Description	ID
HUE PGN-plus 64	0371480

Finger blanks



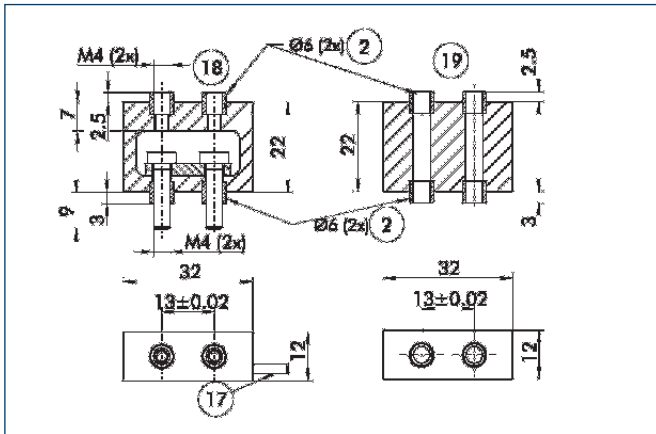
Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 64	Aluminum	1	0300010
SBR-plus 64	Steel	1	0300020



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

FMS force measuring jaws

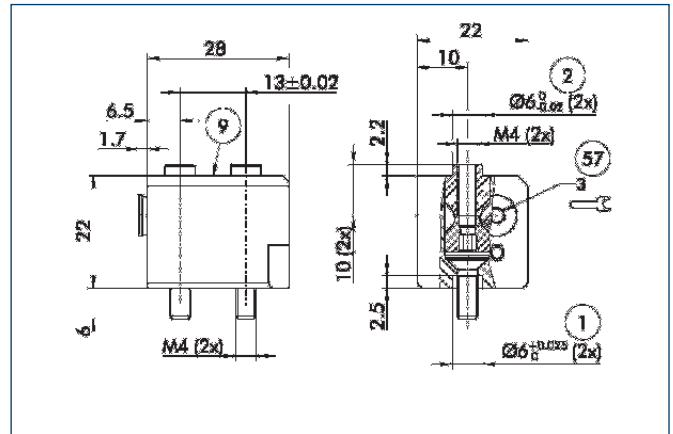


- ② Finger connection
- ⑰ Cable outlet
- ⑱ Fine serration
- ⑲ Air connection

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, an FMS-A1 electronic processor and an FMS-A connection cable are required.

Description	ID
FMS-A1	0301810
FMS-AK10	0301822
FMS-AK2	0301820
FMS-AK20	0301823
FMS-AK5	0301821
FMS-ZBA 64	0301832
FMS-ZBP 64	0301833

BSWS quick-change finger system



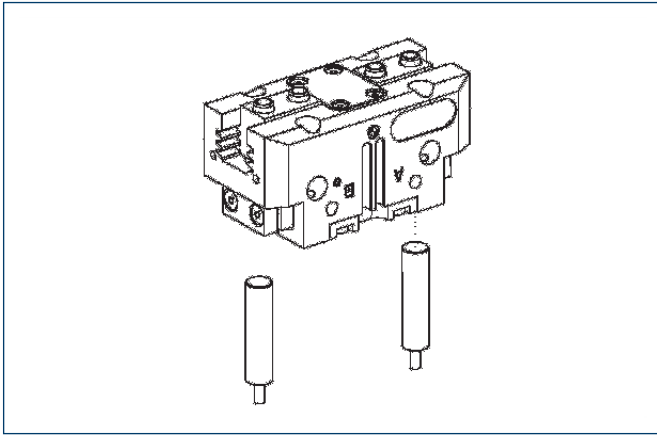
- ① Gripper connection
- ② Finger connection
- ⑨ For screw connection diagram, see basic version
- ⑤⑦ Locking mechanism

The BSWS quick-change finger system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system

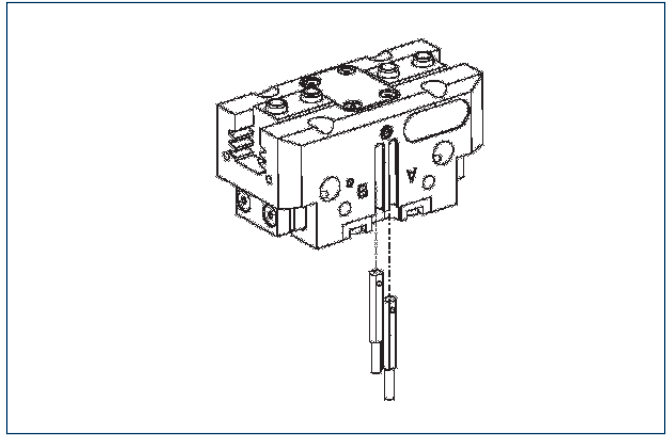


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches /magnetic switches

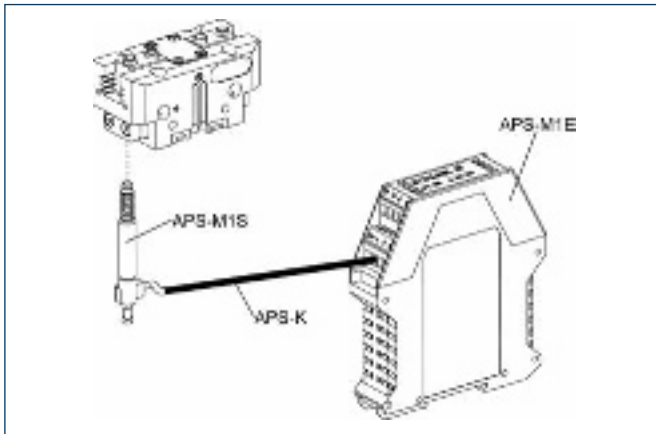
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

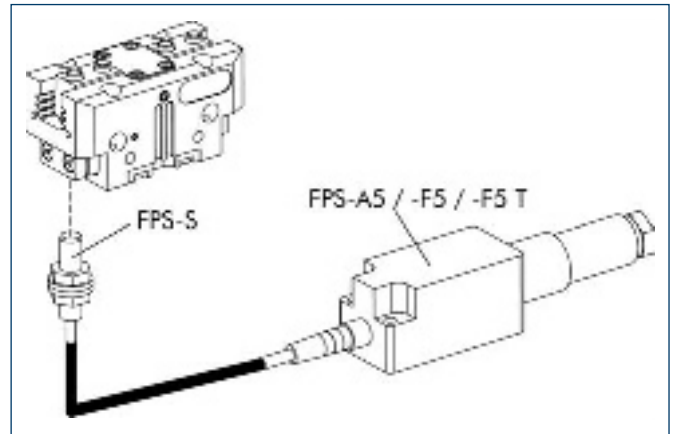
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-64/1	0302075
AS-APS-M1-64/2	0302076

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

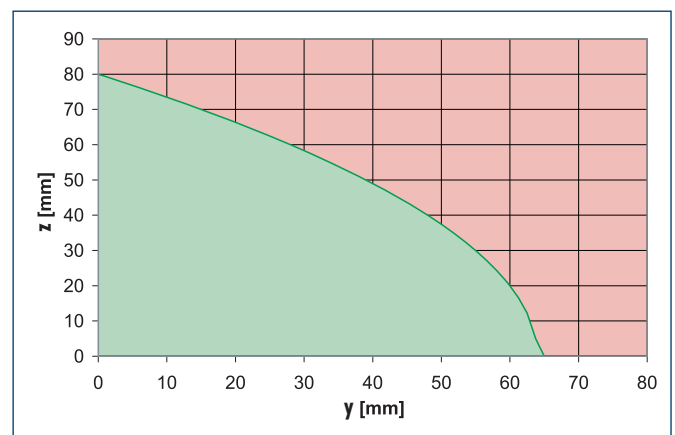
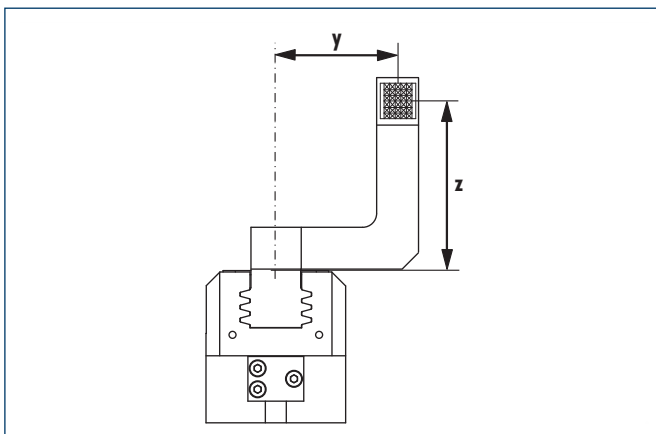


Measuring system:
FPS position monitor

Description	ID
AS-PGN/PZN-plus 64/1, PGN/PZN-plus 80/2	0301630
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Maximum permitted finger offset



■ Permitted range
■ Non-permissible range

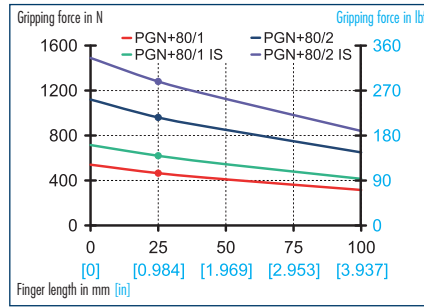
The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



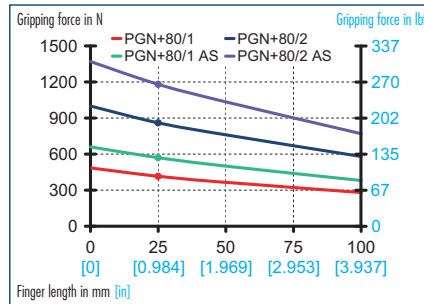
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



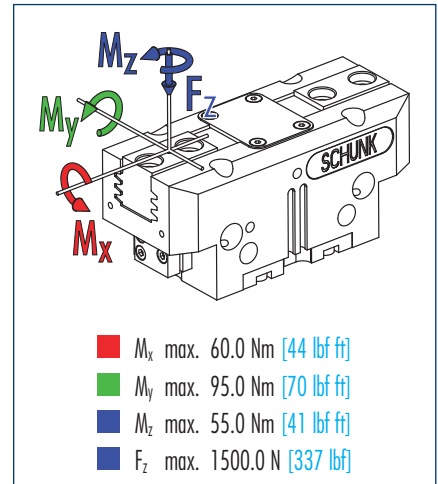
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

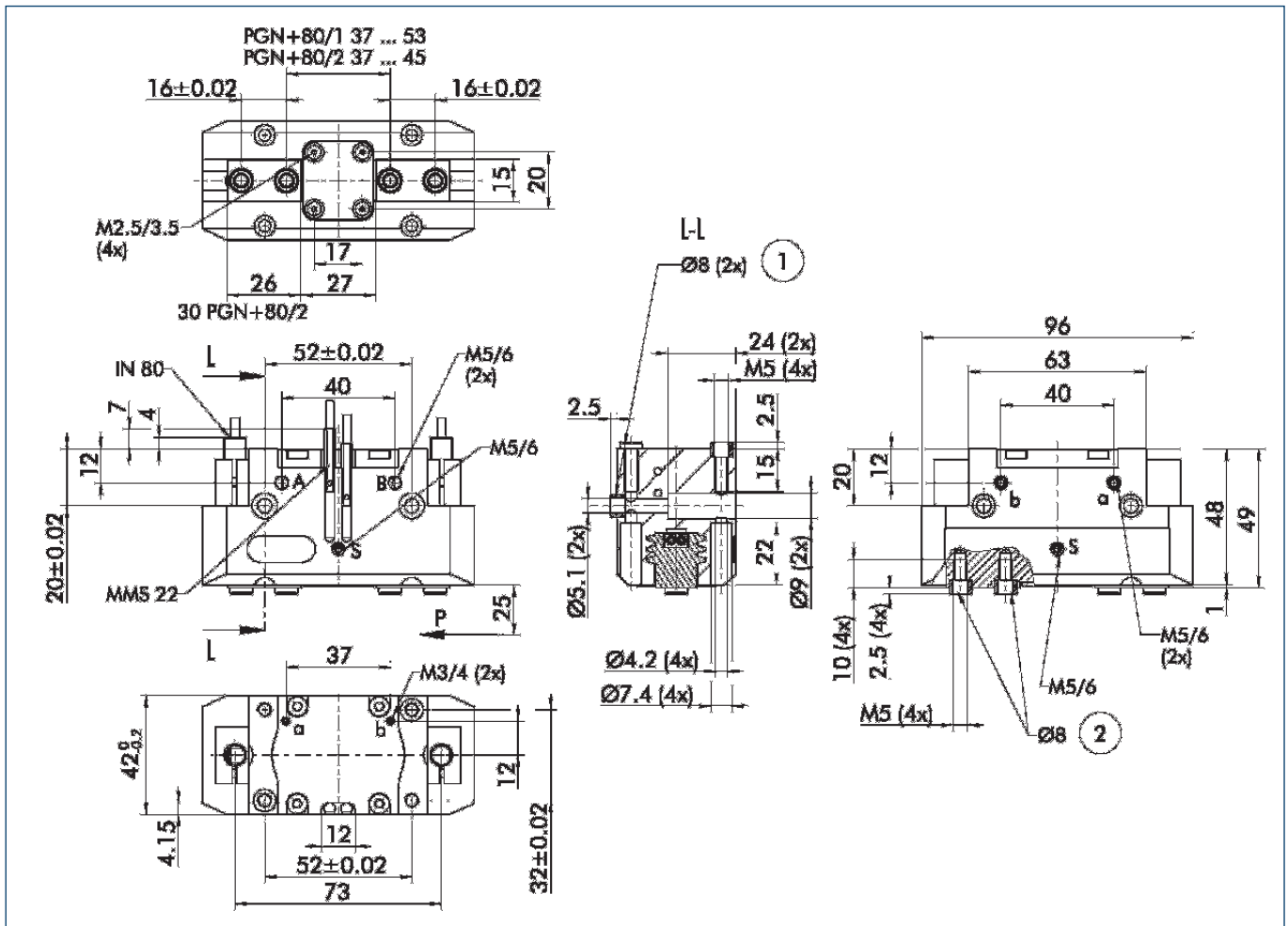
Technical data

Description		PGN-plus 80-1	PGN-plus 80-2	PGN-plus 80-1 AS	PGN-plus 80-2 AS	PGN-plus 80-1 IS	PGN-plus 80-2 IS
ID		0371101	0371151	0371401	0371451	0371461	0371471
Stroke per jaw	mm [in]	8.0 [0.315]	4.0 [0.157]	8.0 [0.315]	4.0 [0.157]	8.0 [0.315]	4.0 [0.157]
Closing force	N [lbf]	415.0 [93]	860.0 [193]	570.0 [128]	1180.0 [265]		
Opening force	N [lbf]	465.0 [105]	960.0 [216]			620.0 [139]	1280.0 [288]
Min. spring force	N [lbf]			155.0 [35]	320.0 [72]	155.0 [35]	320.0 [72]
Weight	kg [lbs]	0.5 [1.10]	0.5 [1.10]	0.6 [1.32]	0.6 [1.32]	0.6 [1.32]	0.6 [1.32]
Recommended workpiece weight	kg [lbs]	2.1 [4.63]	4.3 [9.48]	2.1 [4.63]	4.3 [9.48]	2.1 [4.63]	4.3 [9.48]
Air consumption per double stroke	cm ³ [in ³]	21.0 [1.28]	21.0 [1.28]	21.0 [1.28]	21.0 [1.28]	21.0 [1.28]	21.0 [1.28]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.04	0.04	0.03	0.03	0.05	0.05
Opening time	s	0.04	0.04	0.05	0.05	0.03	0.03
Max. permitted finger length	mm [in]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]
Max. permitted weight per finger	kg [lbs]	0.6 [1.32]	0.6 [1.32]	0.6 [1.32]	0.6 [1.32]	0.6 [1.32]	0.6 [1.32]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

OPTIONS and their characteristics

Version with dust cover	ID	37371101	37371151	37371401	37371451	37371461	37371471
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	0.6 [1.32]	0.6 [1.32]	0.7 [1.54]	0.7 [1.54]	0.7 [1.54]	0.7 [1.54]
Anti-corrosion version	ID	38371101	38371151	38371401	38371451	38371461	38371471
High-temperature version	ID	39371101	39371151	39371401	39371451	39371461	39371471
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]
KVZ for increased grip force	ID	0372101	0372151	0372401		0372461	
Description		PGN-plus 80/1-KVZ	PGN-plus 80/2-KVZ	PGN-plus 80/1 AS-KVZ		PGN-plus 80/1 IS-KVZ	
Closing force	N [lbf]	745.0 [167]	1550.0 [348]	900.0 [202]			
Opening force	N [lbf]	835.0 [188]	1730.0 [389]			950.0 [214]	
Weight	kg [lbs]	0.65 [1.43]	0.65 [1.43]	0.75 [1.65]		0.75 [1.65]	
Maximum pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]		6.0 [87]	
Max. permitted finger length	mm [in]	100.0 [3.937]	80.0 [3.150]	80.0 [3.150]		80.0 [3.150]	

Main views

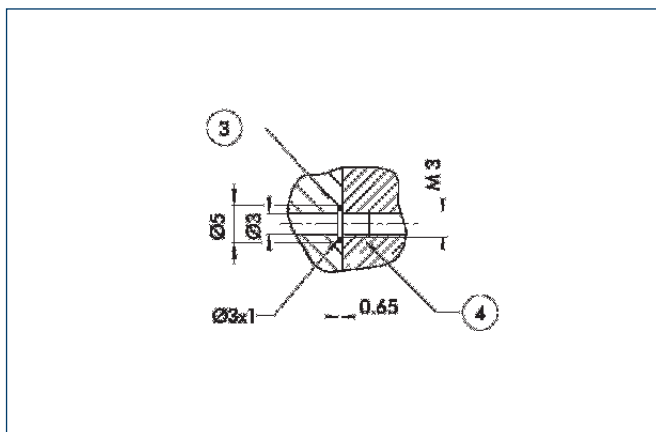


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

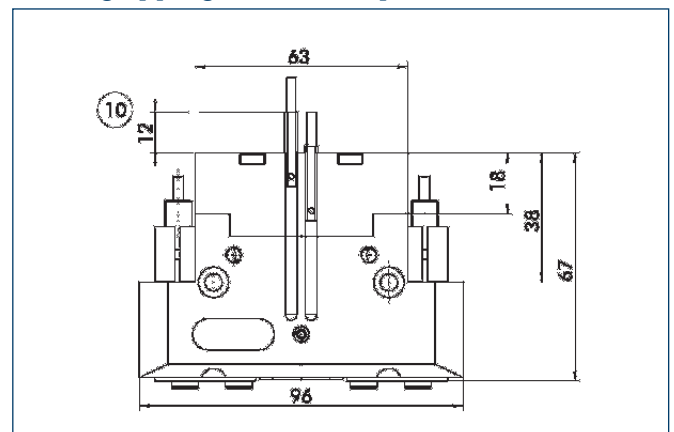
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device



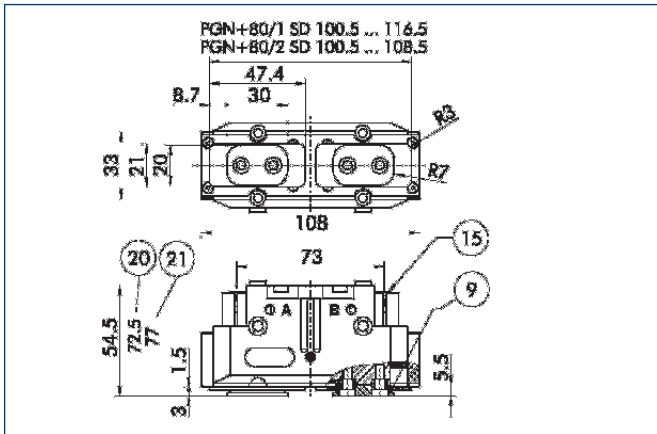
- ⑩ Projection only with AS version

The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 80

Pneumatic · 2-Finger Parallel Grippers · Universal Grippers

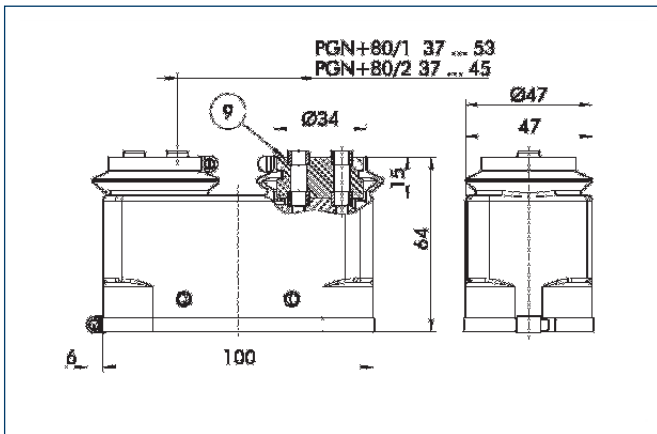
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- ⑮ Sealing bolt
- ⑳ With AS / IS version
- ㉑ For KVZ version

The "dust-protection" option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

HUE protective cover



- ⑨ For mounting screw connection diagram, see basic version

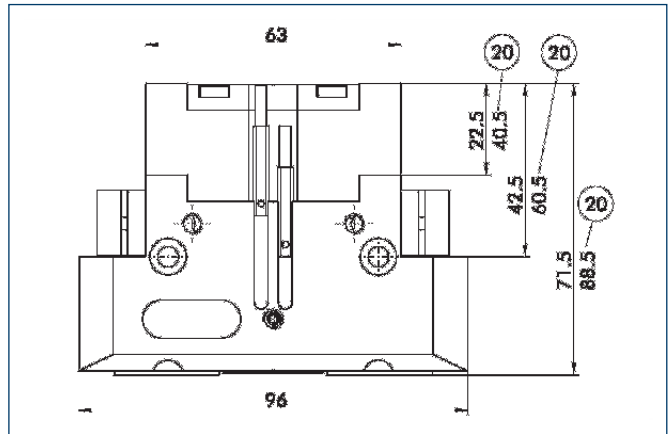
The HUE protective cover completely protects the gripper against external influences up to IP65. The mounting diagram shifts by the height of the intermediate jaw.

Description	ID
HUE PGN-plus 80	0371481



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

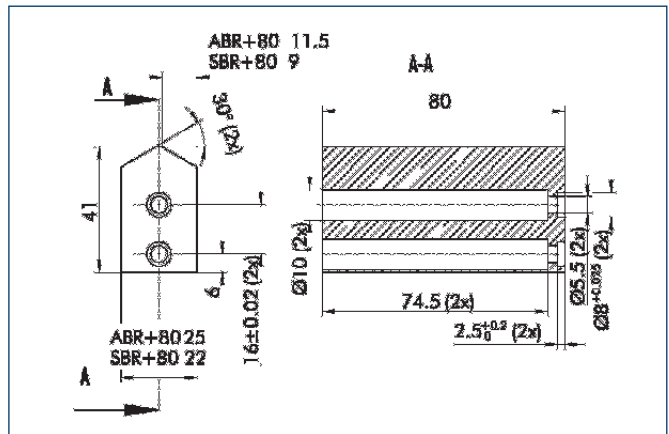
KVZ for increased grip force version



- ㉑ With AS / IS version

The KVZ cylinder increases the gripping forces during opening and closing. A second, in series-connected piston also increases the force on the wedge hook. The full gripping force shown in the data table is sometimes only reached after a few hundred gripping cycles. Please consider that grippers which are equipped with a gripping force safety device (AS/IS) are higher.

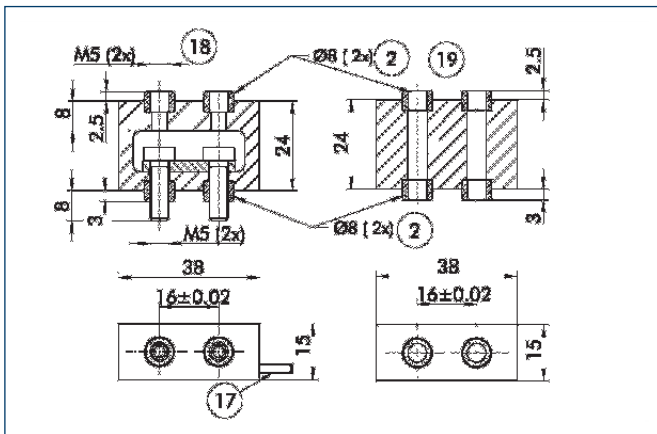
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 80	Aluminum	1	0300011
SBR-plus 80	Steel	1	0300021

FMS force measuring jaws

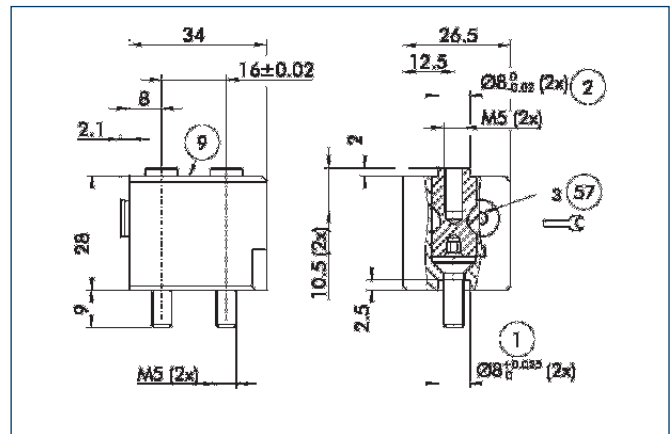


- ② Finger connection
- ⑰ Cable outlet
- ⑱ Fine serration
- ⑲ Air connection

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, an FMS-A1 electronic processor and an FMS-A connection cable are required.

Description	ID
FMS-A1	0301810
FMS-AK10	0301822
FMS-AK2	0301820
FMS-AK20	0301823
FMS-AK5	0301821
FMS-ZBA 80	0301834
FMS-ZBP 80	0301835

BSWS quick-change finger system

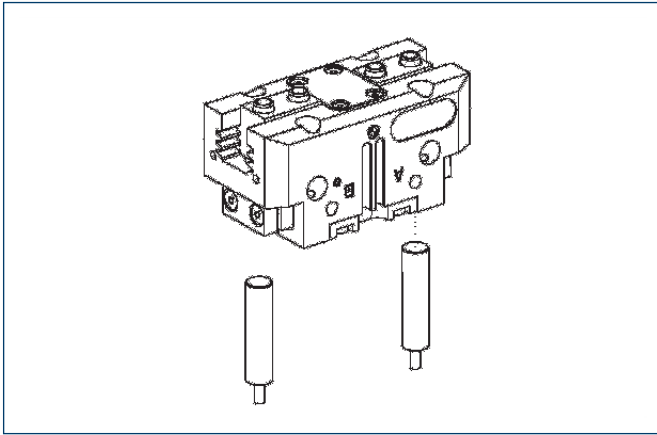


- ① Gripper connection
- ② Finger connection
- ⑨ For screw connection diagram, see basic version
- ⑤⑦ Locking mechanism

The BSWS quick-change finger system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.

 You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system

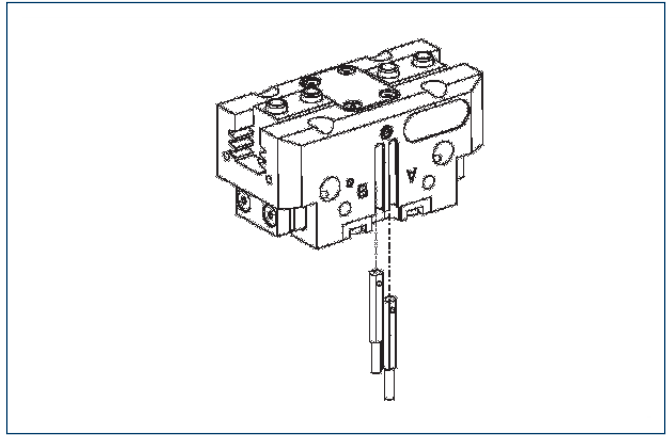


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

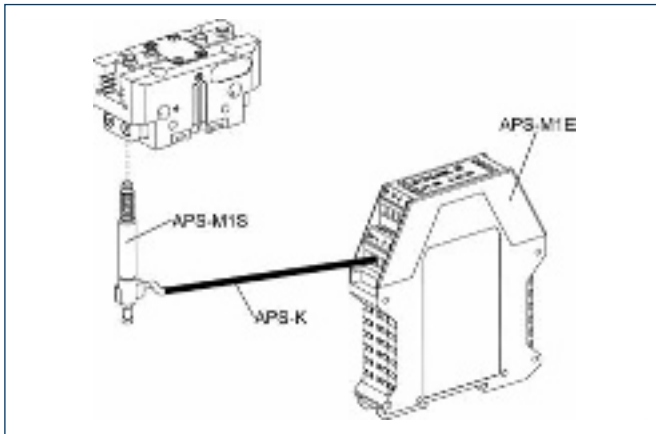
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

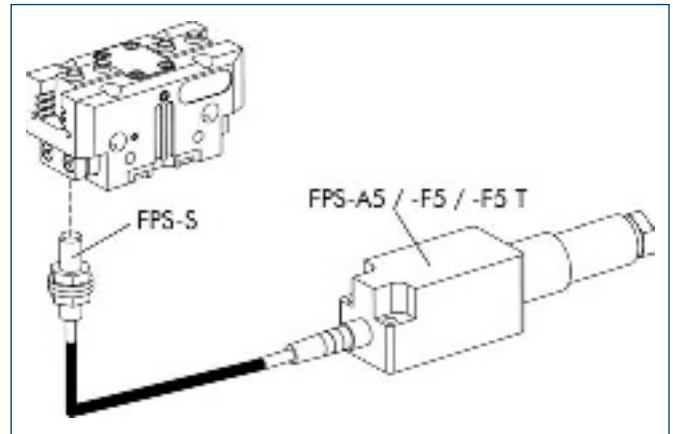
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-80/1	0302077
AS-APS-M1-80/2	0302078

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

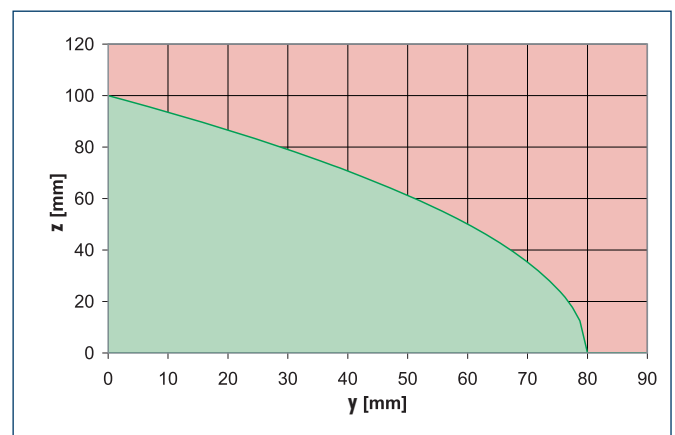
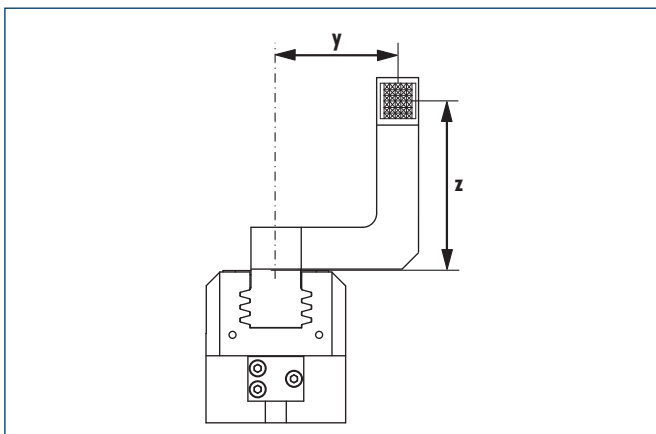


Measuring system:
FPS position monitor

Description	ID
AS-PGN-plus/PZN-plus 80/1, PZB 80/100	0301632
AS-PGN/PZN-plus 64/1, PGN/PZN-plus 80/2	0301630
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Maximum permitted finger offset



■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



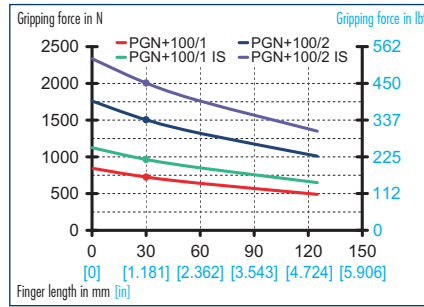
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PGN-plus 100

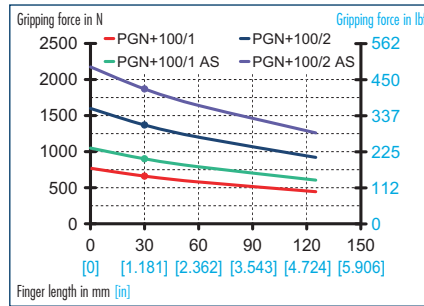
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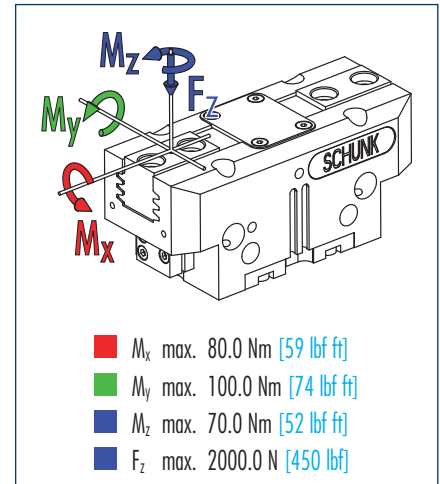
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

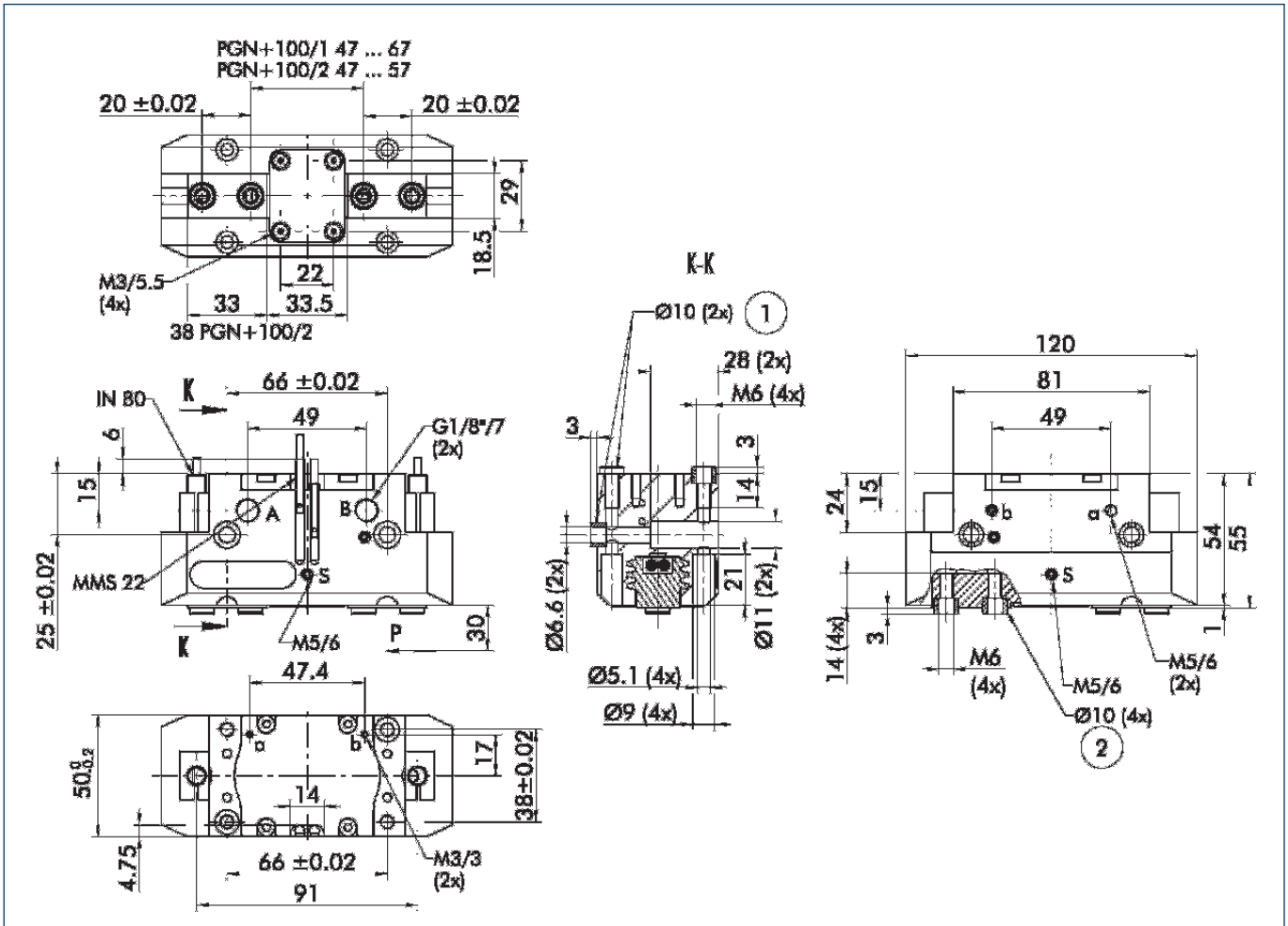
Technical data

Description		PGN-plus 100-1	PGN-plus 100-2	PGN-plus 100-1 AS	PGN-plus 100-2 AS	PGN-plus 100-1 IS	PGN-plus 100-2 IS
ID		0371102	0371152	0371402	0371452	0371462	0371472
Stroke per jaw	mm [in]	10.0 [0.394]	5.0 [0.197]	10.0 [0.394]	5.0 [0.197]	10.0 [0.394]	5.0 [0.197]
Closing force	N [lbf]	660.0 [148]	1370.0 [308]	900.0 [202]	1870.0 [420]		
Opening force	N [lbf]	725.0 [163]	1500.0 [337]			970.0 [218]	2010.0 [452]
Min. spring force	N [lbf]			240.0 [54]	500.0 [112]	240.0 [54]	240.0 [54]
Weight	kg [lbs]	0.81 [1.79]	0.81 [1.79]	1.0 [2.20]	1.0 [2.20]	1.0 [2.20]	1.0 [2.20]
Recommended workpiece weight	kg [lbs]	3.3 [7.28]	6.85 [15.10]	3.3 [7.28]	6.85 [15.10]	3.3 [7.28]	6.85 [15.10]
Air consumption per double stroke	cm ³ [in ³]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.07	0.07	0.05	0.05	0.09	0.09
Opening time	s	0.07	0.07	0.09	0.09	0.05	0.05
Max. permitted finger length	mm [in]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]
Max. permitted weight per finger	kg [lbs]	1.1 [2.43]	1.1 [2.43]	1.1 [2.43]	1.1 [2.43]	1.1 [2.43]	1.1 [2.43]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

OPTIONS and their characteristics

Version with dust cover	ID	37371102	37371152	37371402	37371452	37371462	37371472
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	0.99 [2.18]	0.99 [2.18]	1.18 [2.60]	1.18 [2.60]	1.18 [2.60]	1.18 [2.60]
Anti-corrosion version	ID	38371102	38371152	38371402	38371452	38371462	38371472
High-temperature version	ID	39371102	39371152	39371402	39371452	39371462	39371472
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]
KVZ for increased grip force	ID	0372102	0372152	0372402		0372462	
Description		PGN-plus 100/1-KVZ	PGN-plus 100/2-KVZ	PGN-plus 100/1 AS-KVZ		PGN-plus 100/1 IS-KVZ	
Closing force	N [lbf]	1190.0 [268]	2465.0 [554]	1430.0 [321]			
Opening force	N [lbf]	1305.0 [293]	2700.0 [607]			1500.0 [337]	
Weight	kg [lbs]	1.05 [2.31]	1.05 [2.31]	1.3 [2.87]		1.3 [2.87]	
Maximum pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]		6.0 [87]	
Max. permitted finger length	mm [in]	125.0 [4.921]	100.0 [3.937]	100.0 [3.937]		100.0 [3.937]	

Main views

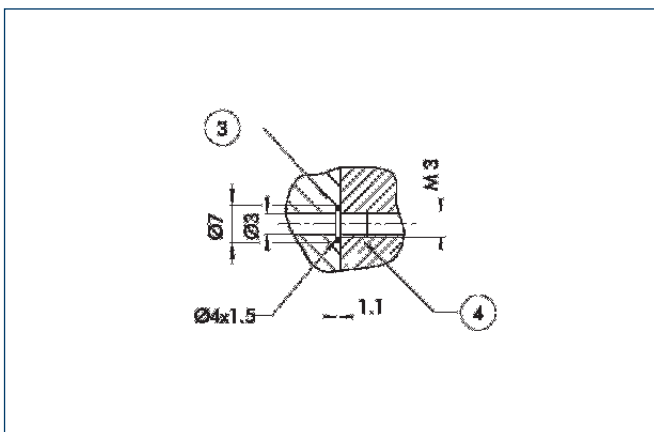


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

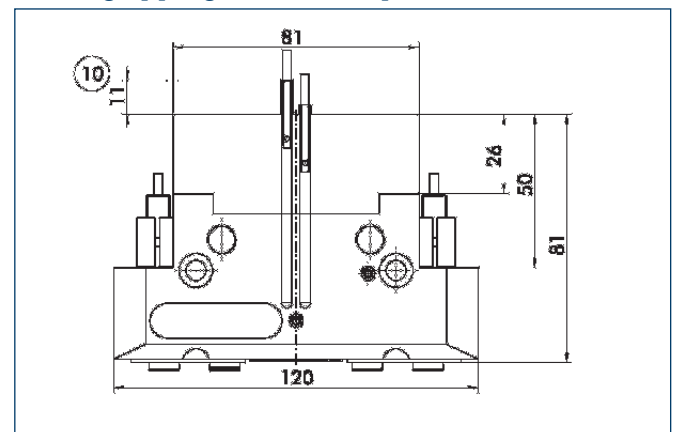
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device



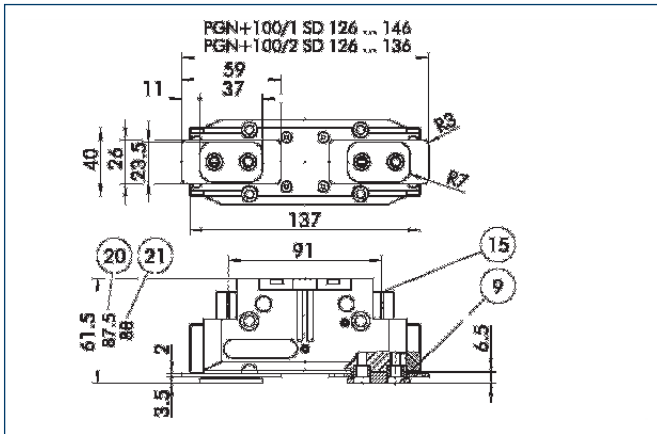
- ⑩ Projection only with AS version

The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 100

Pneumatic · 2-Finger Parallel Grippers · Universal Grippers

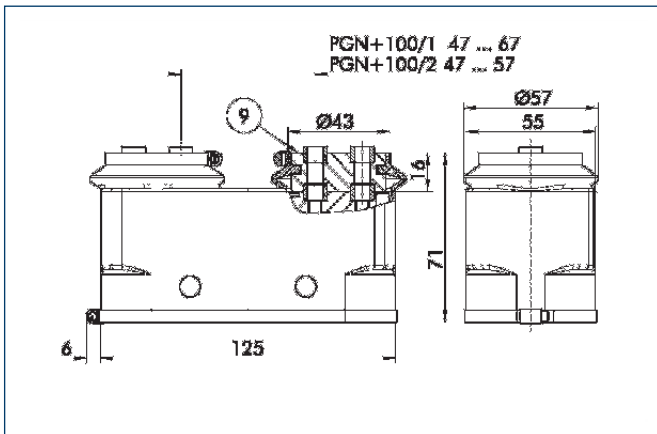
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- 15 Sealing bolt
- 20 With AS / IS version
- 21 For KVZ version

The "dust-protection" option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

HUE protective cover



- ⑨ For screw connection diagram, see basic version

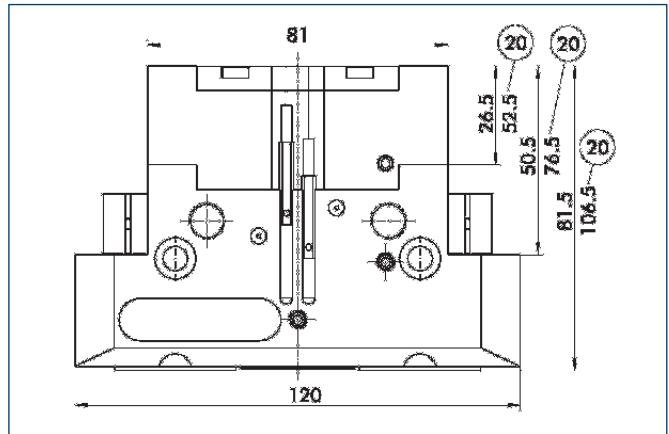
The HUE protective cover completely protects the gripper against external influences up to IP65. The mounting diagram shifts by the height of the intermediate jaw.

Description	ID
HUE PGN-plus 100	0371482



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

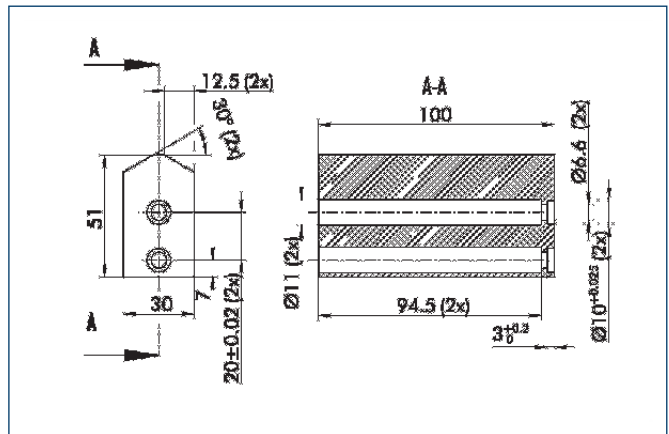
KVZ for increased grip force version



- 20 With AS / IS version

The KVZ cylinder increases the gripping forces during opening and closing. A second, in series-connected piston also increases the force on the wedge hook. The full gripping force shown in the data table is sometimes only reached after a few hundred gripping cycles. Please consider that grippers which are equipped with a gripping force safety device (AS/IS) are higher.

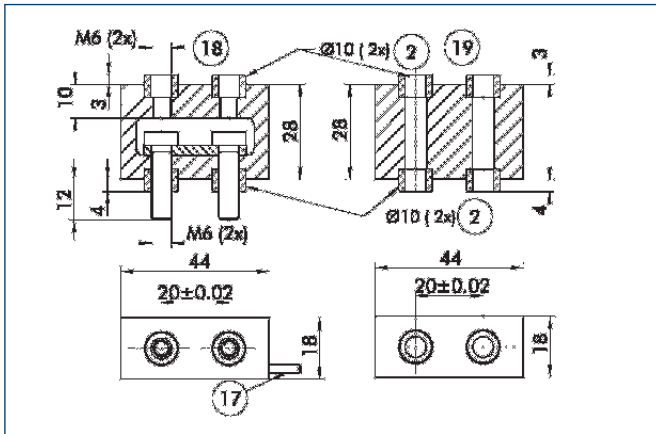
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 100	Aluminum	1	0300012
SBR-plus 100	Steel	1	0300022

FMS force measuring jaws

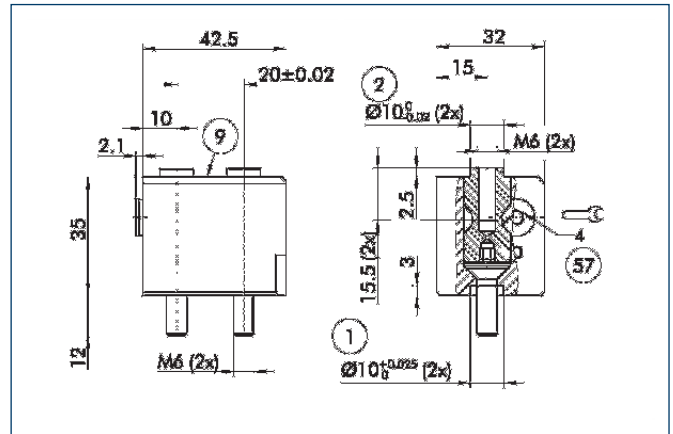


- ② Finger connection
- ⑰ Cable outlet
- ⑱ Fine serration
- ⑲ Air connection

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, an FMS-A1 electronic processor and an FMS-A connection cable are required.

Description	ID
FMS-A1	0301810
FMS-AK10	0301822
FMS-AK2	0301820
FMS-AK20	0301823
FMS-AK5	0301821
FMS-ZBA 100	0301836
FMS-ZBP 100	0301837

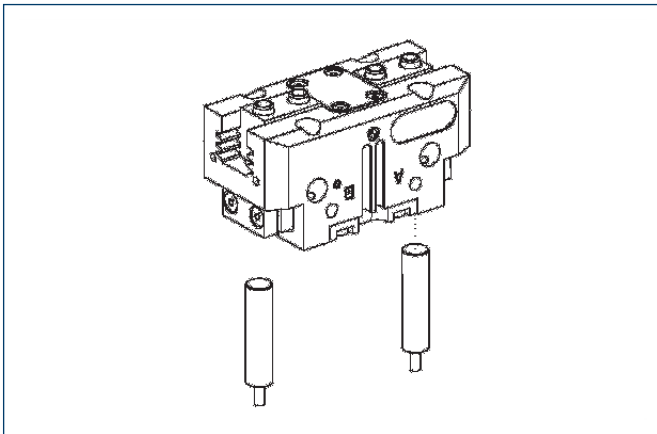
BSWS quick-change finger system



- ① Gripper connection
- ② Finger connection
- ⑨ For screw connection diagram, see basic version
- ⑵ Locking mechanism

The BSWS quick-change finger system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.

Sensor system

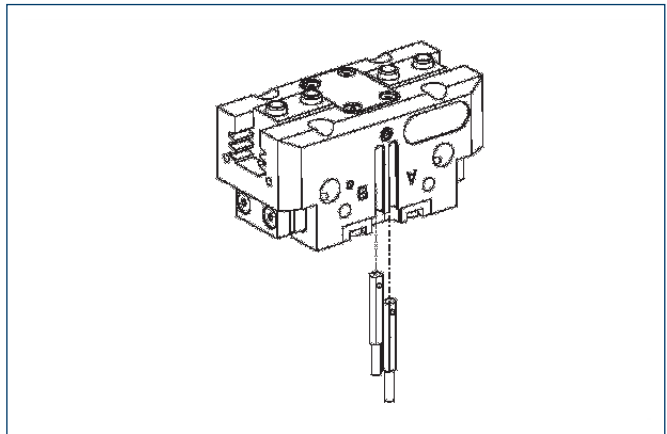


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

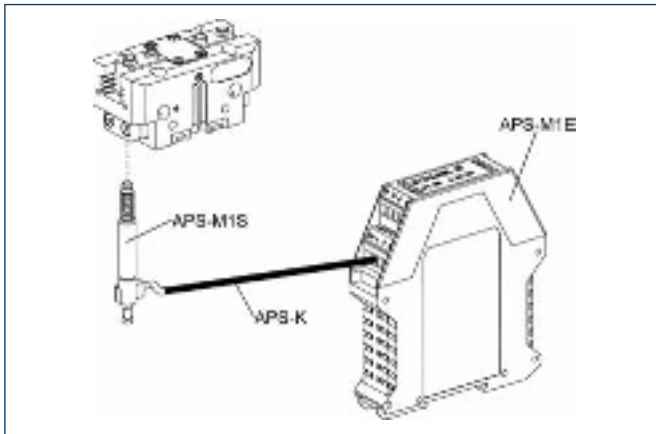
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

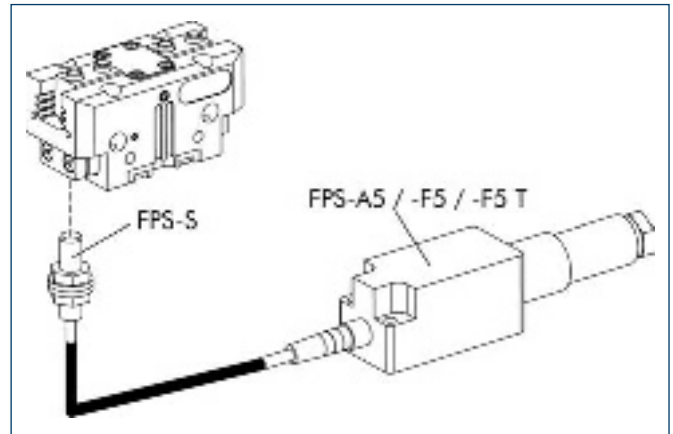
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-100/1	0302079
AS-APS-M1-100/2	0302080

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

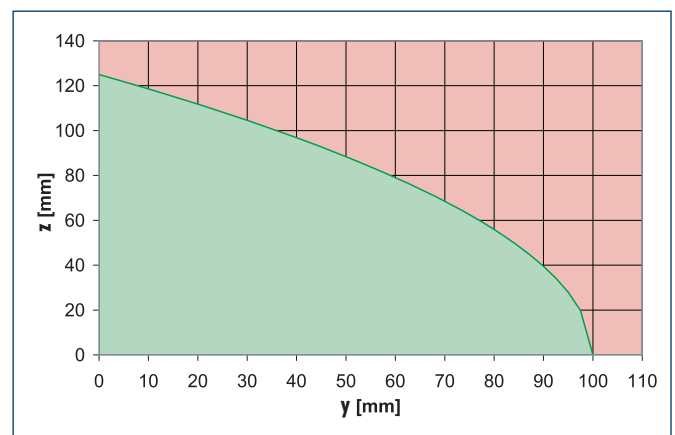
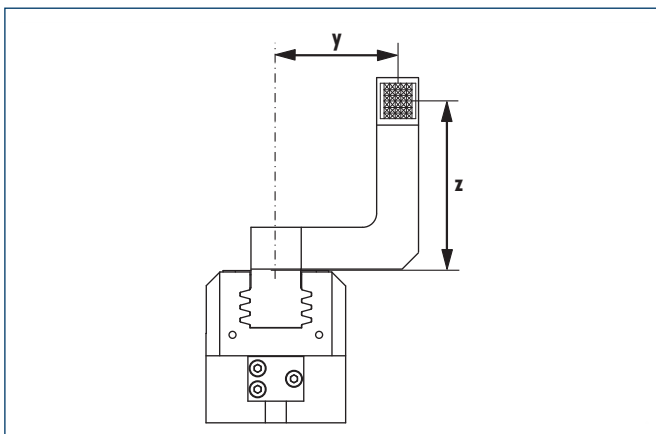


Measuring system:
FPS position monitor

Description	ID
AS-PGN/PZN-plus 100/1	0301634
AS-PGN/PZN-plus 100/2, PZB 125	0301635
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Maximum permitted finger offset



■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



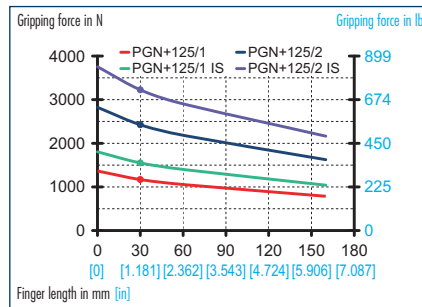
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PGN-plus 125

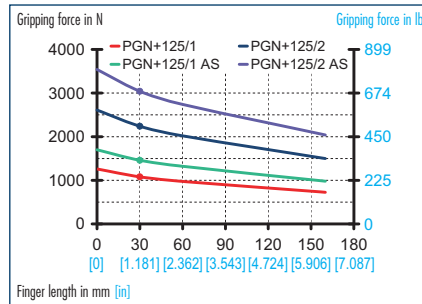
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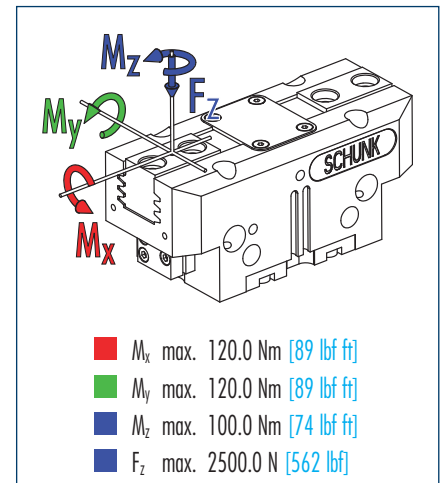
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

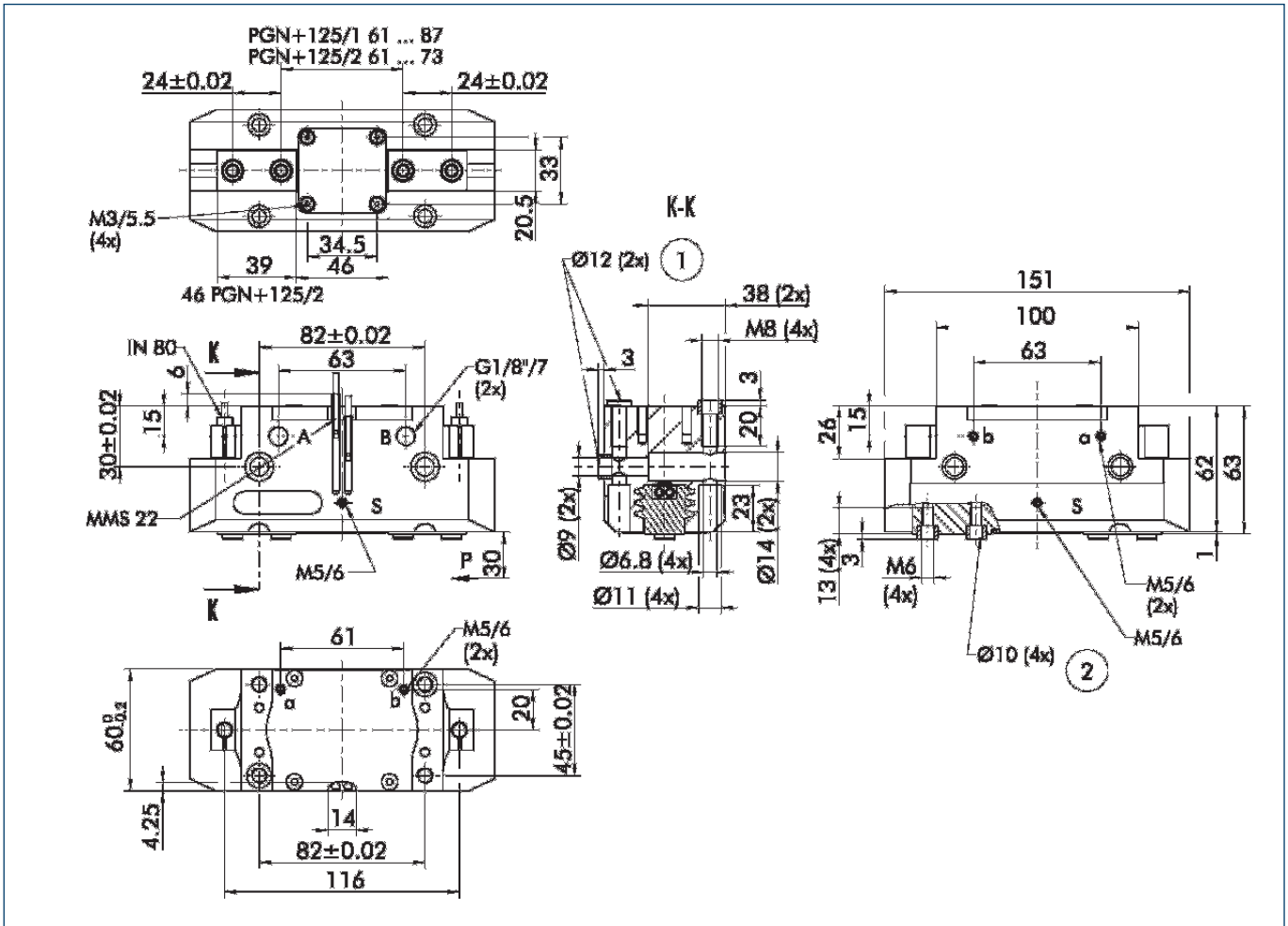
Technical data

Description		PGN-plus 125-1	PGN-plus 125-2	PGN-plus 125-1 AS	PGN-plus 125-2 AS	PGN-plus 125-1 IS	PGN-plus 125-2 IS
ID		0371103	0371153	0371403	0371453	0371463	0371473
Stroke per jaw	mm [in]	13.0 [0.512]	6.0 [0.236]	13.0 [0.512]	6.0 [0.236]	13.0 [0.512]	6.0 [0.236]
Closing force	N [lbf]	1080.0 [243]	2240.0 [504]	1470.0 [330]	3040.0 [683]		
Opening force	N [lbf]	1170.0 [263]	2420.0 [544]			1530.0 [344]	3180.0 [715]
Min. spring force	N [lbf]			390.0 [88]	800.0 [180]	390.0 [88]	800.0 [180]
Weight	kg [lbs]	1.35 [2.98]	1.35 [2.98]	1.85 [4.08]	1.85 [4.08]	1.85 [4.08]	1.85 [4.08]
Recommended workpiece weight	kg [lbs]	5.4 [11.90]	11.2 [24.69]	5.4 [11.90]	11.2 [24.69]	5.4 [11.90]	11.2 [24.69]
Air consumption per double stroke	cm ³ [in ³]	81.0 [4.94]	81.0 [4.94]	81.0 [4.94]	81.0 [4.94]	81.0 [4.94]	81.0 [4.94]
Minimum pressure	bar [psi]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.1	0.1	0.08	0.08	0.12	0.12
Opening time	s	0.1	0.1	0.12	0.12	0.08	0.08
Max. permitted finger length	mm [in]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]
Max. permitted weight per finger	kg [lbs]	2.1 [4.63]	2.1 [4.63]	2.1 [4.63]	2.1 [4.63]	2.1 [4.63]	2.1 [4.63]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

OPTIONS and their characteristics

Version with dust cover	ID	37371103	37371153	37371403	37371453	37371463	37371473
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	1.55 [3.42]	1.55 [3.42]	2.05 [4.52]	2.05 [4.52]	2.05 [4.52]	2.05 [4.52]
Anti-corrosion version	ID	38371103	38371153	38371403	38371453	38371463	38371473
High-temperature version	ID	39371103	39371153	39371403	39371453	39371463	39371473
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]
KVZ for increased grip force	ID	0372103	0372153	0372403		0372463	
Description		PGN-plus 125/1-KVZ	PGN-plus 125/2-KVZ	PGN-plus 125/1 AS-KVZ		PGN-plus 125/1 IS-KVZ	
Closing force	N [lbf]	1945.0 [437]	4030.0 [906]	2335.0 [525]			
Opening force	N [lbf]	2105.0 [473]	4355.0 [979]			2395.0 [538]	
Weight	kg [lbs]	1.85 [4.08]	1.85 [4.08]	2.3 [5.07]		2.3 [5.07]	
Maximum pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]		6.0 [87]	
Max. permitted finger length	mm [in]	160.0 [6.299]	125.0 [4.921]	125.0 [4.921]		125.0 [4.921]	

Main views

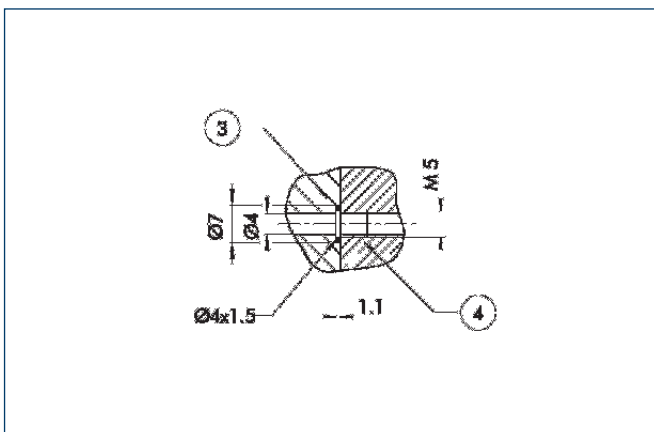


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

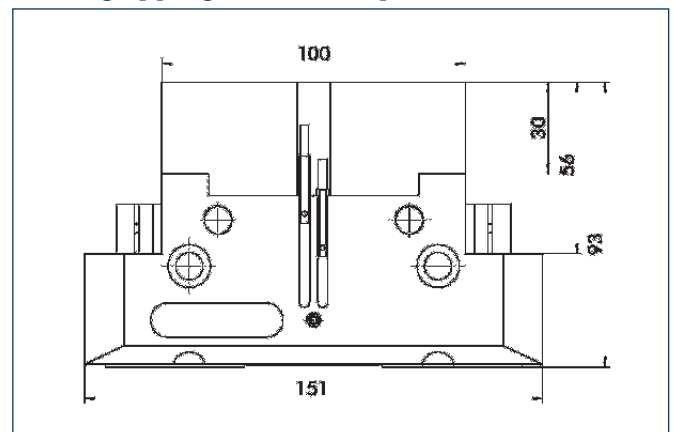
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device

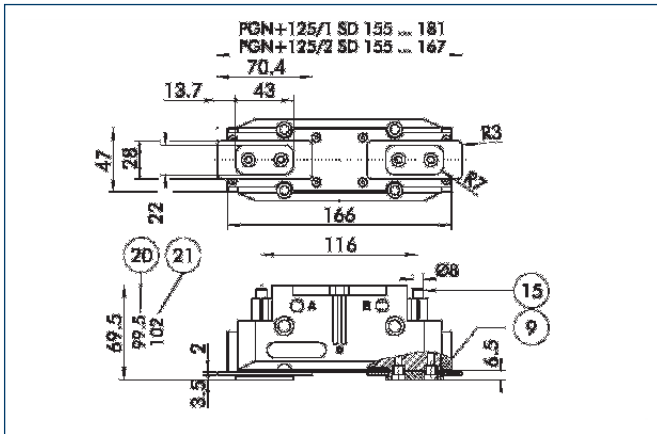


The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 125

Pneumatic · 2-Finger Parallel Grippers · **Universal Grippers**

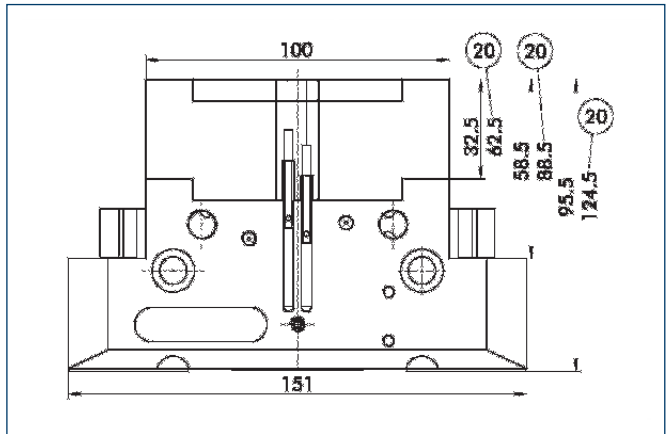
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- 15 Sealing bolt
- 20 With AS / IS version
- 21 For KVZ version

The “dust-protection” option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

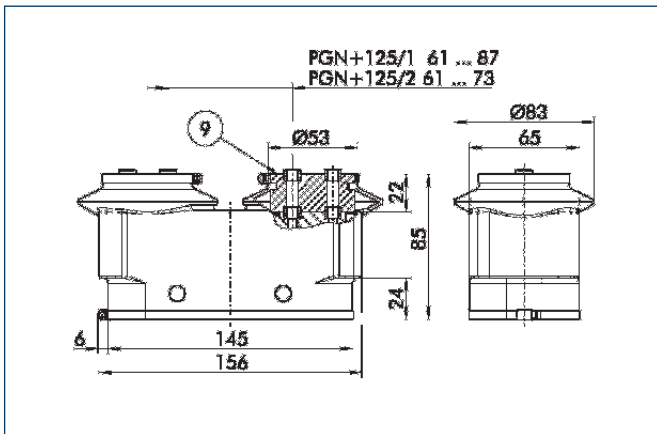
KVZ for increased grip force version



- 20 With AS / IS version

The KVZ cylinder increases the gripping forces during opening and closing. A second, in series-connected piston also increases the force on the wedge hook. The full gripping force shown in the data table is sometimes only reached after a few hundred gripping cycles. Please consider that grippers which are equipped with a gripping force safety device (AS/IS) are higher.

HUE protective cover

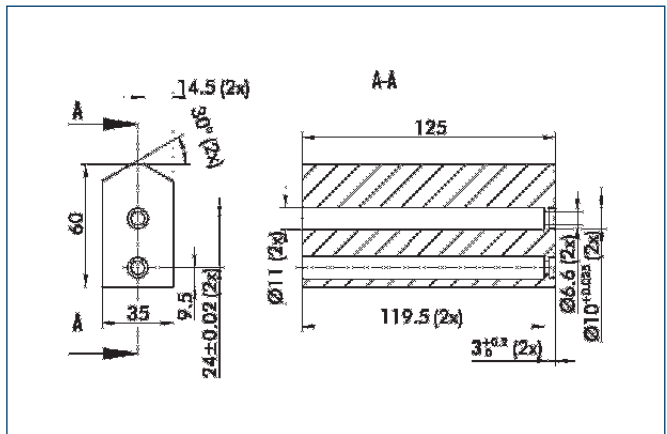


- ⑨ For screw connection diagram, see basic version

The HUE protective cover completely protects the gripper against external influences up to IP65. The mounting diagram shifts by the height of the intermediate jaw.

Description	ID
HUE PGN-plus 125	0371483

Finger blanks



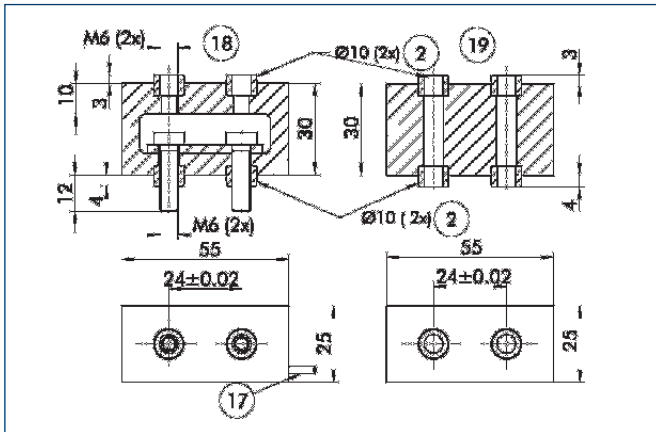
Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 125	Aluminum	1	0300013
SBR-plus 125	Steel	1	0300023



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

FMS force measuring jaws

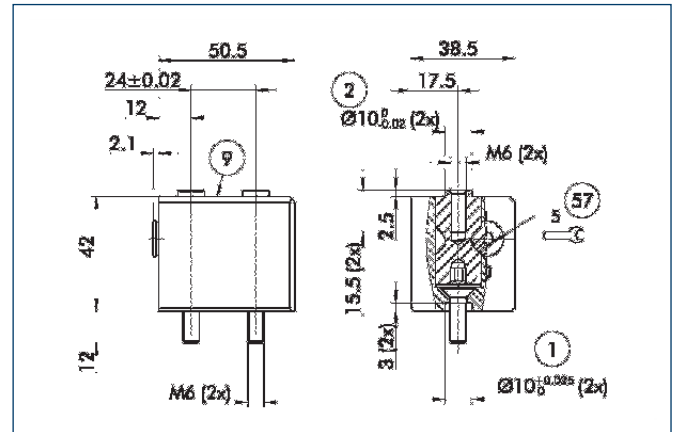


- ② Finger connection
- ⑰ Cable outlet
- ⑱ Fine serration
- ⑲ Air connection

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, an FMS-A1 electronic processor and an FMS-A connection cable are required.

Description	ID
FMS-A1	0301810
FMS-AK10	0301822
FMS-AK2	0301820
FMS-AK20	0301823
FMS-AK5	0301821
FMS-ZBA 125	0301838
FMS-ZBP 125	0301839

BSWS quick-change finger system



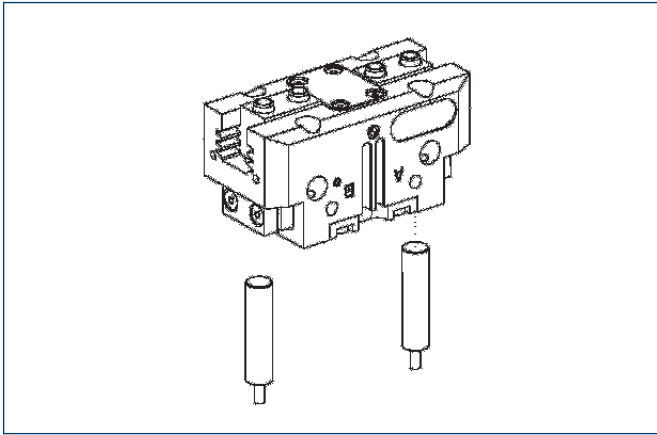
- ① Gripper connection
- ② Finger connection
- ⑨ For screw connection diagram, see basic version
- ⑤⑦ Locking mechanism

The BSWS quick-change finger system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system

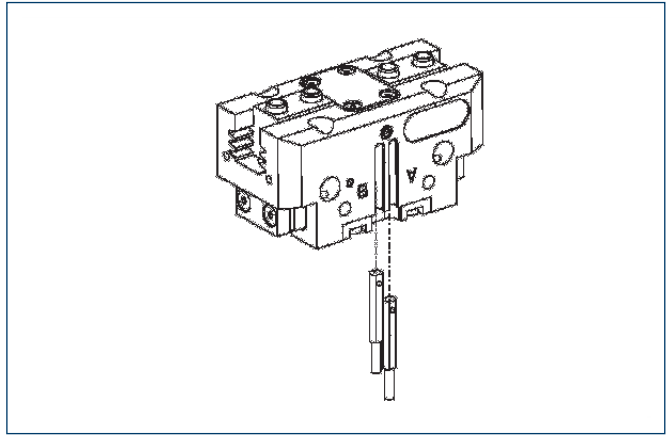


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

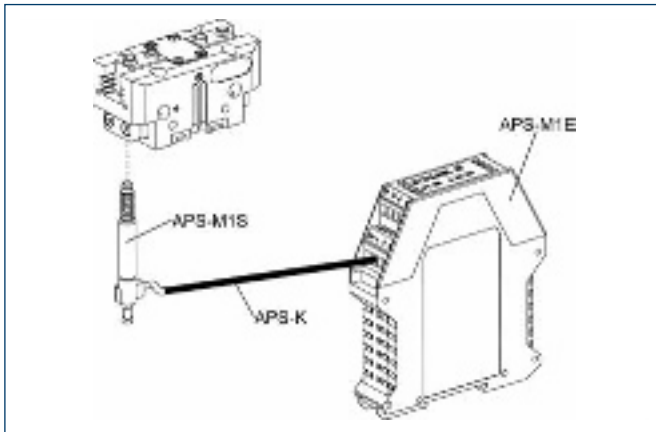
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

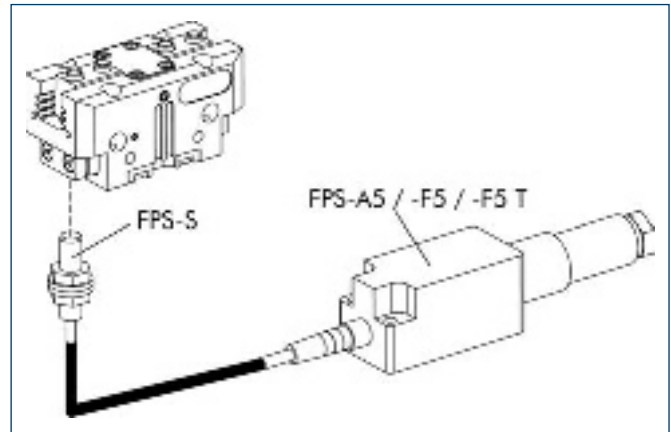
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-125/1	0302081
AS-APS-M1-125/2	0302082

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

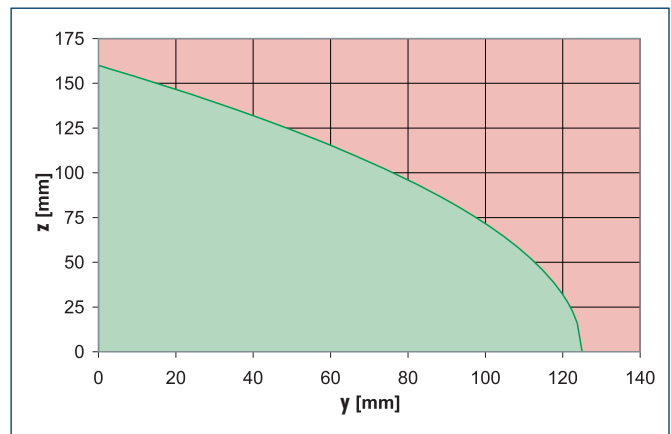
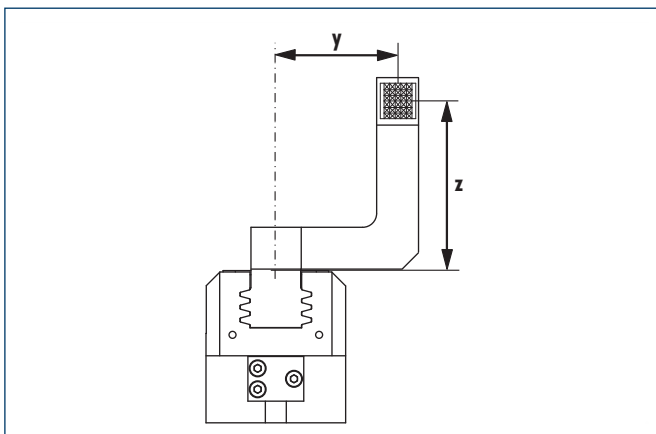


Measuring system:
FPS position monitor

Description	ID
AS-PGN/PZN-plus 125/1, PZB 160	0301636
AS-PGN/PZN-plus 125/2	0301637
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Maximum permitted finger offset



■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



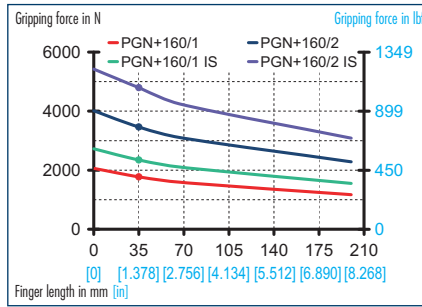
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PGN-plus 160

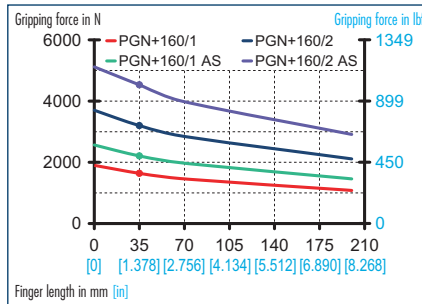
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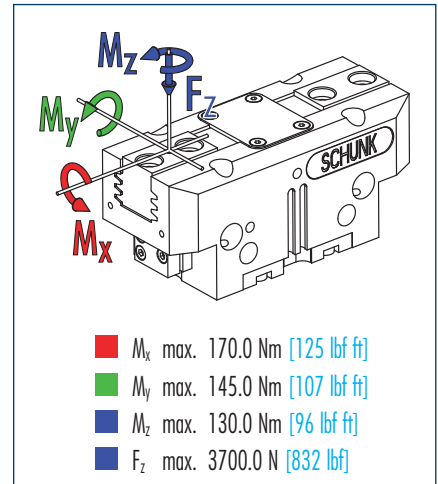
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

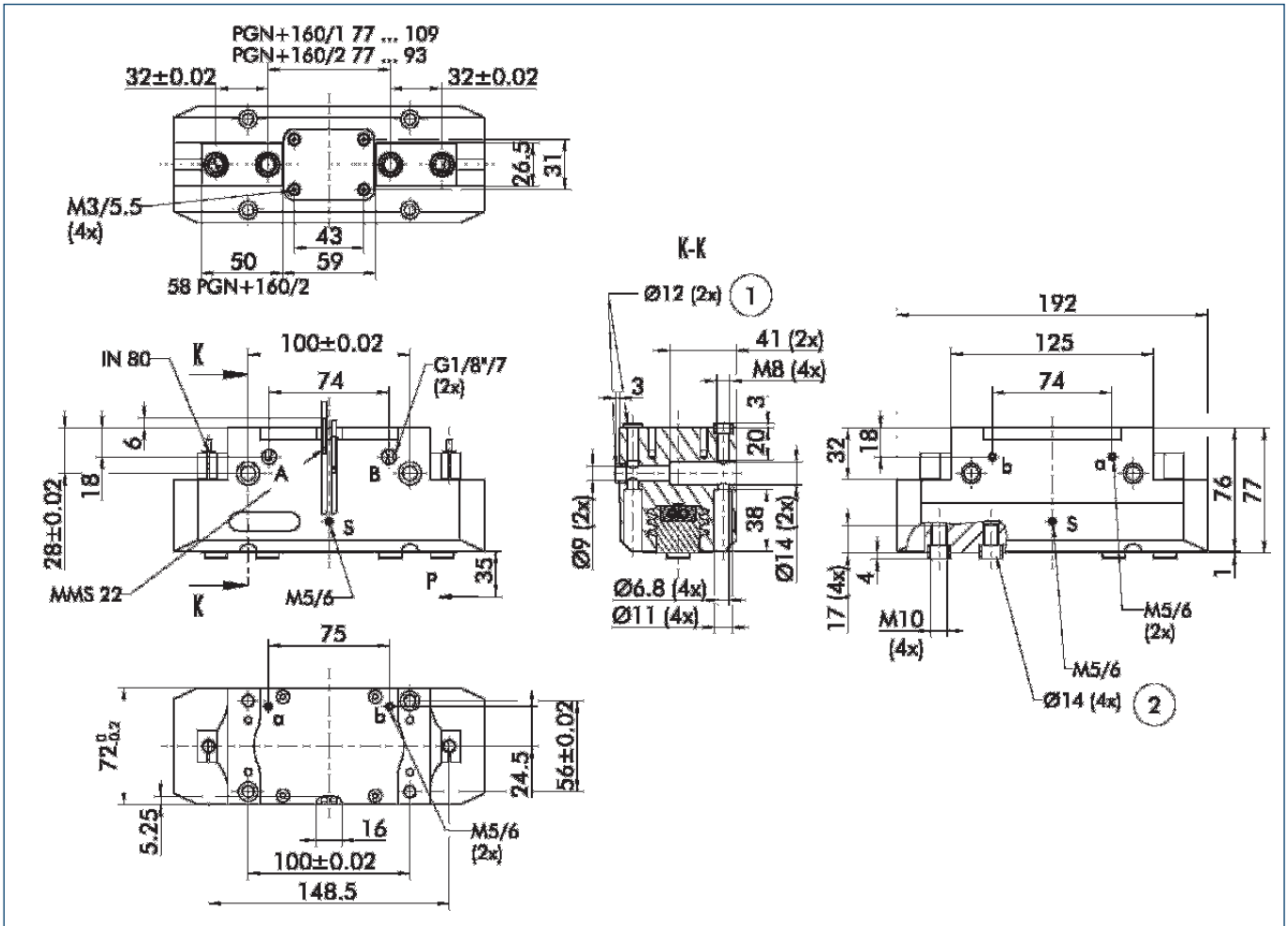
Technical data

Description		PGN-plus 160-1	PGN-plus 160-2	PGN-plus 160-1 AS	PGN-plus 160-2 AS	PGN-plus 160-1 IS	PGN-plus 160-2 IS
ID		0371104	0371154	0371404	0371454	0371464	0371474
Stroke per jaw	mm [in]	16.0 [0.630]	8.0 [0.315]	16.0 [0.630]	8.0 [0.315]	16.0 [0.630]	8.0 [0.315]
Closing force	N [lbf]	1640.0 [369]	3200.0 [719]	2210.0 [497]	4420.0 [994]		
Opening force	N [lbf]	1770.0 [398]	3460.0 [778]			2390.0 [537]	4530.0 [1018]
Min. spring force	N [lbf]			570.0 [128]	1220.0 [274]	570.0 [128]	1220.0 [274]
Weight	kg [lbs]	2.6 [5.73]	2.6 [5.73]	3.3 [7.28]	3.3 [7.28]	3.3 [7.28]	3.3 [7.28]
Recommended workpiece weight	kg [lbs]	8.2 [18.08]	16.0 [35.27]	8.2 [18.08]	16.0 [35.27]	8.2 [18.08]	16.0 [35.27]
Air consumption per double stroke	cm ³ [in ³]	157.0 [9.58]	157.0 [9.58]	157.0 [9.58]	157.0 [9.58]	157.0 [9.58]	157.0 [9.58]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.15	0.15	0.12	0.12	0.25	0.25
Opening time	s	0.15	0.15	0.25	0.25	0.12	0.12
Max. permitted finger length	mm [in]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]
Max. permitted weight per finger	kg [lbs]	3.5 [7.72]	3.5 [7.72]	3.5 [7.72]	3.5 [7.72]	3.5 [7.72]	3.5 [7.72]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

OPTIONS and their characteristics

Version with dust cover	ID	37371104	37371154	37371404	37371454	37371464	37371474
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	3.0 [6.61]	3.0 [6.61]	3.7 [8.16]	3.7 [8.16]	3.7 [8.16]	3.7 [8.16]
Anti-corrosion version	ID	38371104	38371154	38371404	38371454	38371464	38371474
High-temperature version	ID	39371104	39371154	39371404	39371454	39371464	39371474
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]
KVZ for increased grip force	ID	0372104	0372154	0372404		0372464	
Description		PGN-plus 160/1-KVZ	PGN-plus 160/2-KVZ	PGN-plus 160/1 AS-KVZ		PGN-plus 160/1 IS-KVZ	
Closing force	N [lbf]	2950.0 [663]	5760.0 [1295]	3520.0 [791]			
Opening force	N [lbf]	3185.0 [716]	6230.0 [1401]			3700.0 [832]	
Weight	kg [lbs]	3.4 [7.50]	3.4 [7.50]	4.4 [9.70]		4.4 [9.70]	
Maximum pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]		6.0 [87]	
Max. permitted finger length	mm [in]	160.0 [6.299]	125.0 [4.921]	125.0 [4.921]		125.0 [4.921]	

Main views

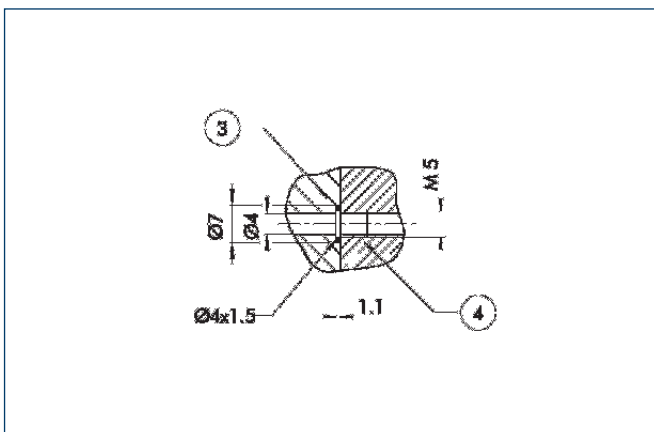


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

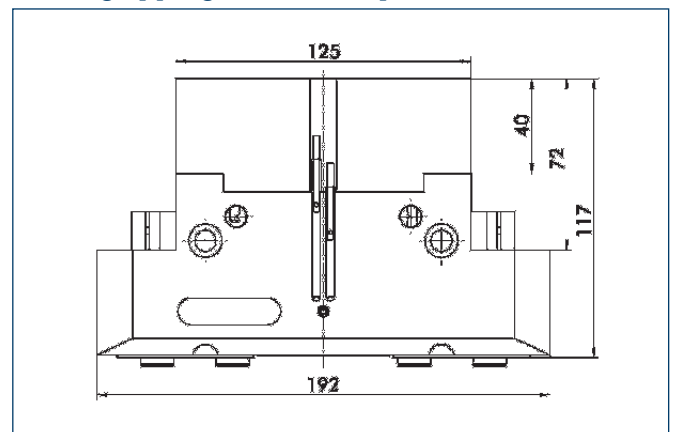
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device

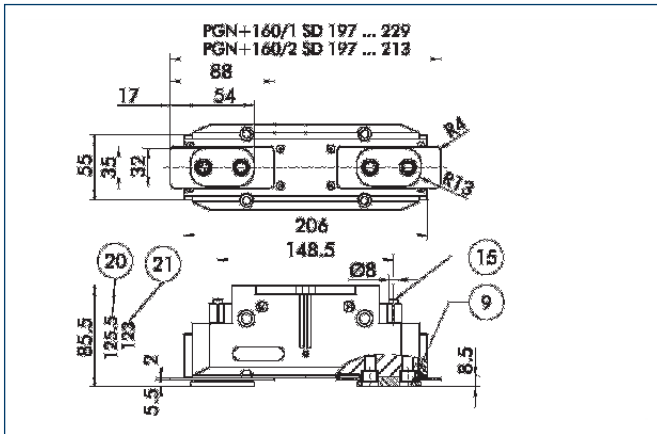


The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 160

Pneumatic · 2-Finger Parallel Grippers · **Universal Grippers**

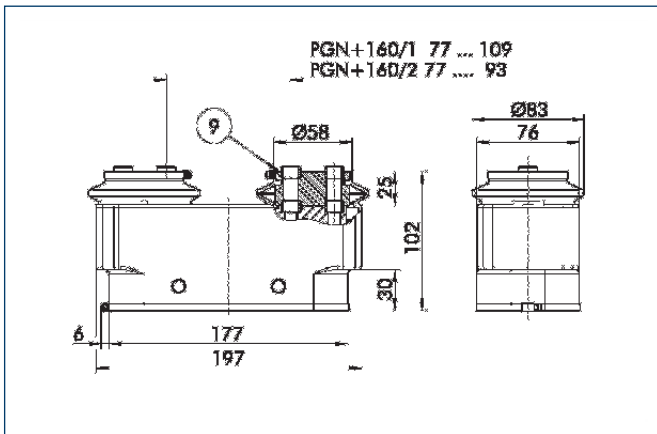
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- ⑮ Sealing bolt
- ⑳ With AS / IS version
- ㉑ For KVZ version

The "dust-protection" option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

HUE protective cover



- ⑨ For screw connection diagram, see basic version

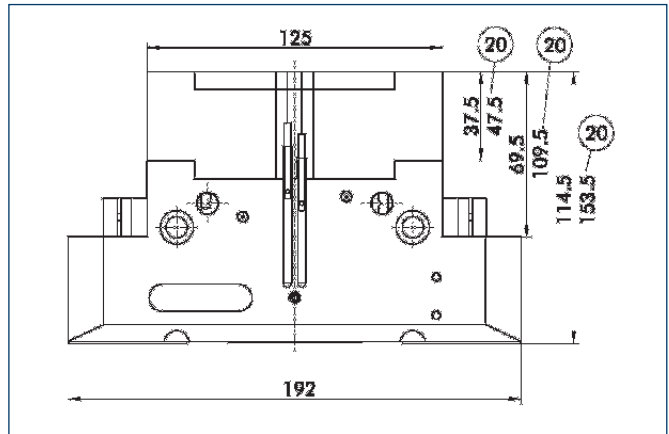
The HUE protective cover completely protects the gripper against external influences up to IP65. The screw connection diagram shifts by the height of the intermediate jaw.

Description	ID
HUE PGN-plus 160	0371484



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

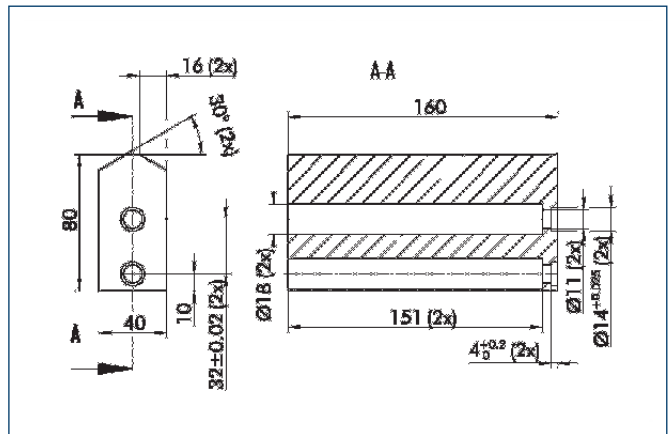
KVZ for increased grip force version



- ㉑ With AS / IS version

The KVZ cylinder increases the gripping forces during opening and closing. A second, in series-connected piston also increases the force on the wedge hook. The full gripping force shown in the data table is sometimes only reached after a few hundred gripping cycles. Please consider that grippers which are equipped with a gripping force safety device (AS/IS) are higher.

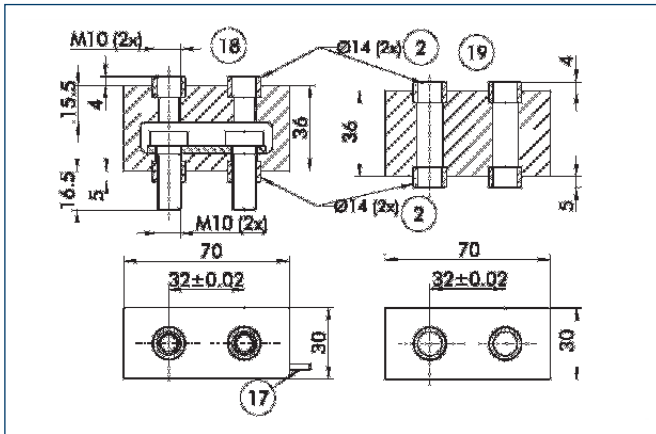
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 160	Aluminum	1	0300014
SBR-plus 160	Steel	1	0300024

FMS force measuring jaws

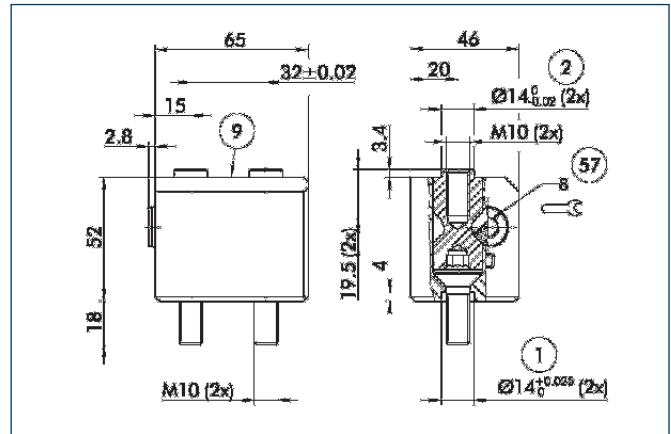


- ② Finger connection
- ⑰ Cable outlet
- ⑱ Fine serration
- ⑲ Air connection

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, an FMS-A1 electronic processor and an FMS-A connection cable are required.

Description	ID
FMS-A2	0301811
FMS-AK10	0301822
FMS-AK2	0301820
FMS-AK20	0301823
FMS-AK5	0301821
FMS-ZBA 160	0301840
FMS-ZBP 160	0301841

BSWS quick-change finger system



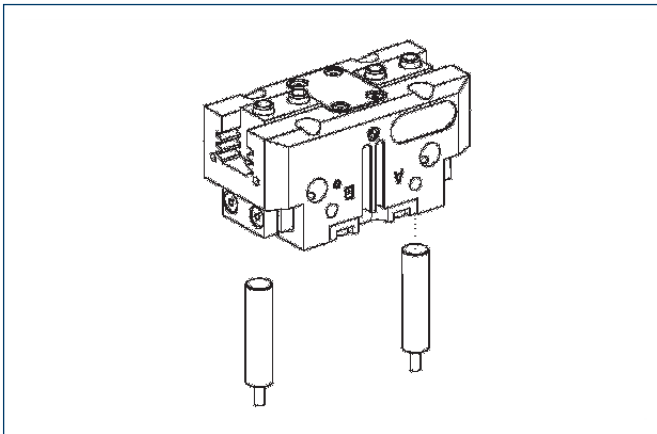
- ① Gripper connection
- ② Finger connection
- ⑨ For screw connection diagram, see basic version
- ⑤⑦ Locking mechanism

The BSWS quick-change finger system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system

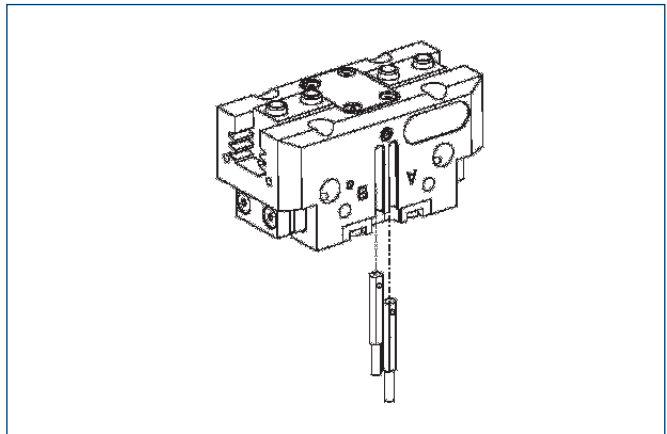


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

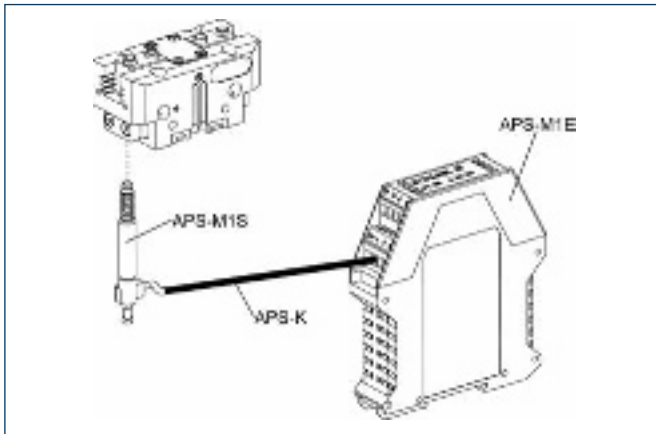
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

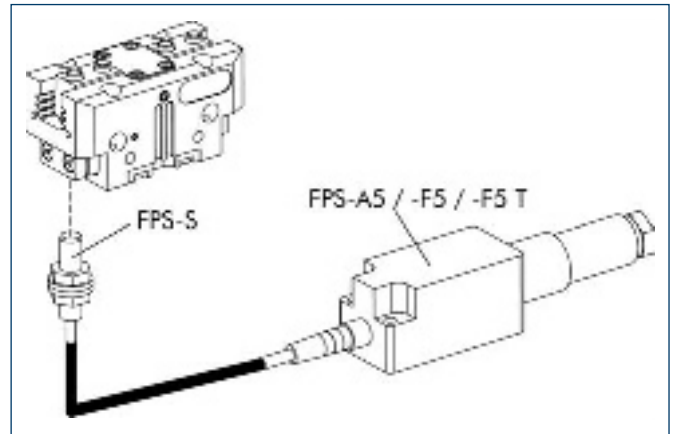
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-160/1 and 240/2	0302083
AS-APS-M1-160/2	0302084

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

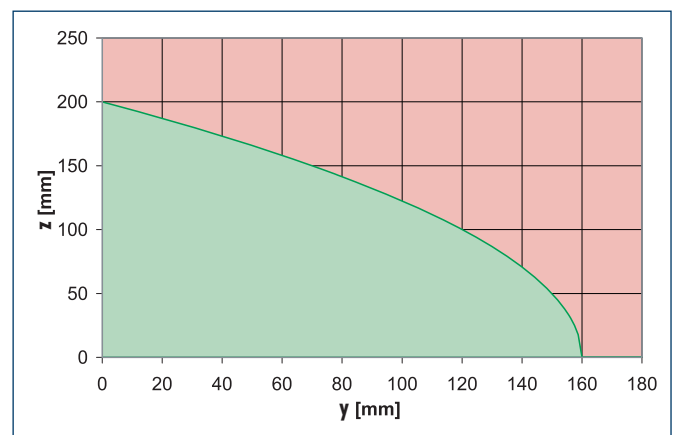
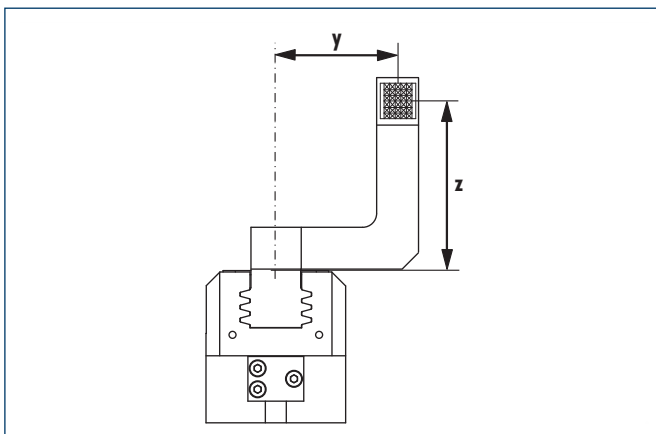


Measuring system:
FPS position monitor

Description	ID
AS-PGN/PZN-plus 160/1	0301638
AS-PGN/PZN-plus 160/2	0301639
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Maximum permitted finger offset



■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



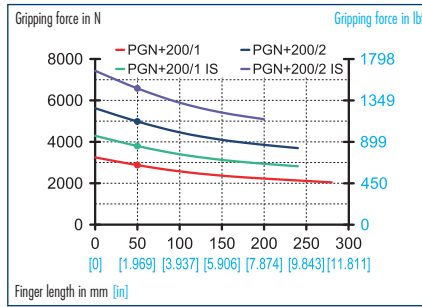
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PGN-plus 200

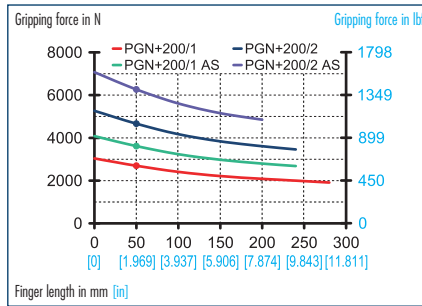
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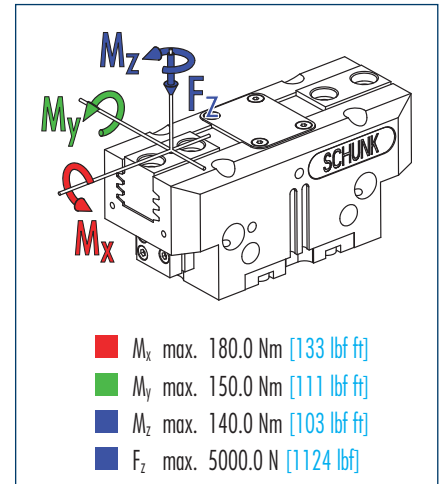
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

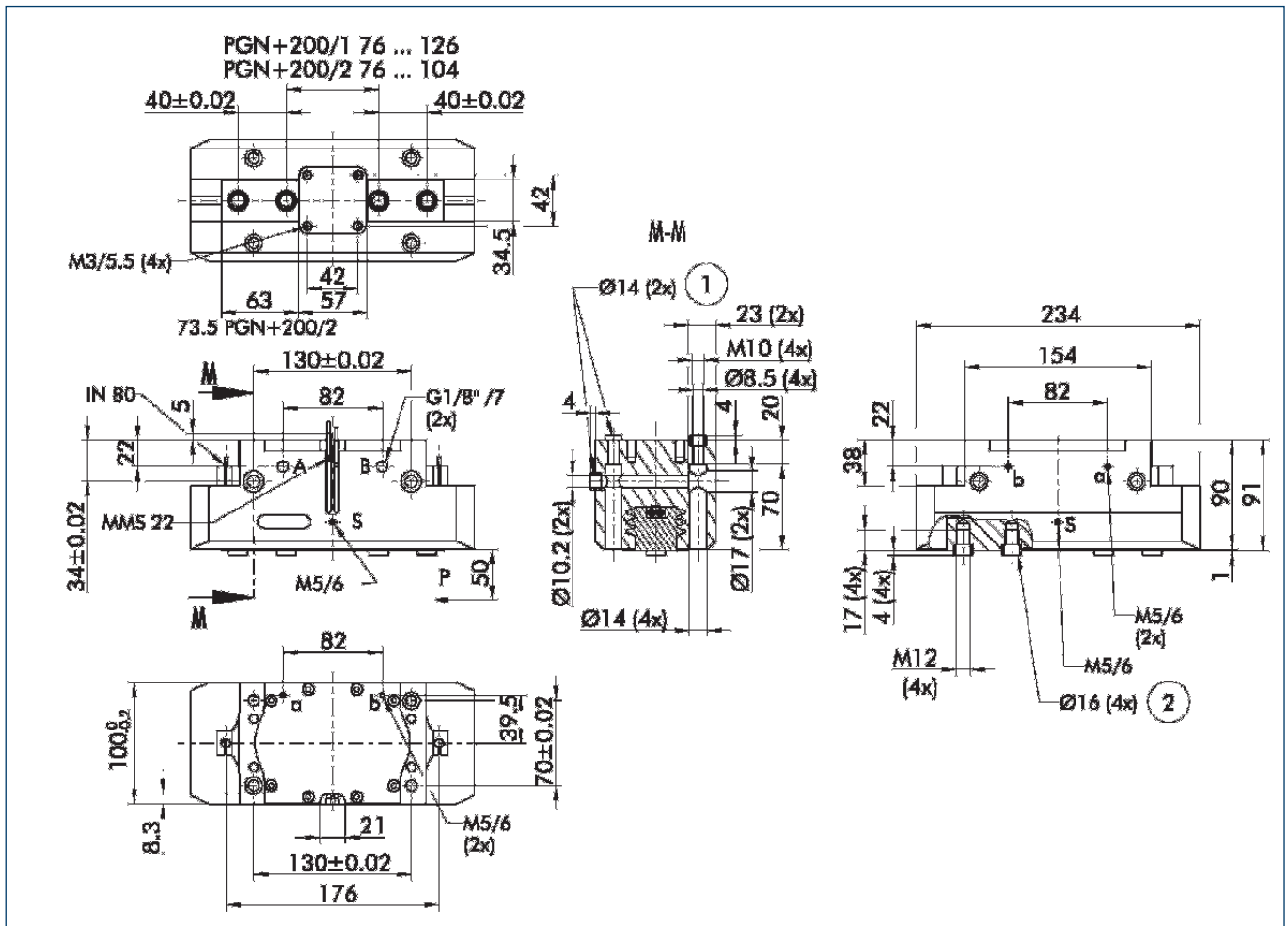
Technical data

Description		PGN-plus 200-1	PGN-plus 200-2	PGN-plus 200-1 AS	PGN-plus 200-2 AS	PGN-plus 200-1 IS	PGN-plus 200-2 IS
ID		0371105	0371155	0371405	0371455	0371465	0371475
Stroke per jaw	mm [in]	25.0 [0.984]	14.0 [0.551]	25.0 [0.984]	14.0 [0.551]	25.0 [0.984]	14.0 [0.551]
Closing force	N [lbf]	2700.0 [607]	4650.0 [1045]	3620.0 [814]	6250.0 [1405]		
Opening force	N [lbf]	2870.0 [645]	4980.0 [1120]			3800.0 [854]	6560.0 [1475]
Min. spring force	N [lbf]			910.0 [205]	1600.0 [360]	910.0 [205]	1600.0 [360]
Weight	kg [lbs]	5.4 [11.90]	5.4 [11.90]	7.5 [16.53]	7.5 [16.53]	7.5 [16.53]	7.5 [16.53]
Recommended workpiece weight	kg [lbs]	13.5 [29.76]	23.5 [51.81]	13.5 [29.76]	23.5 [51.81]	13.5 [29.76]	23.5 [51.81]
Air consumption per double stroke	cm ³ [in ³]	390.0 [23.80]	390.0 [23.80]	390.0 [23.80]	390.0 [23.80]	390.0 [23.80]	390.0 [23.80]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.35	0.35	0.3	0.3	0.6	0.6
Opening time	s	0.35	0.35	0.6	0.6	0.3	0.3
Max. permitted finger length	mm [in]	280.0 [11.024]	240.0 [9.449]	240.0 [9.449]	200.0 [7.874]	240.0 [9.449]	200.0 [7.874]
Max. permitted weight per finger	kg [lbs]	6.5 [14.33]	6.5 [14.33]	6.5 [14.33]	6.5 [14.33]	6.5 [14.33]	6.5 [14.33]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

OPTIONS and their characteristics

Version with dust cover	ID	37371105	37371155	37371405	37371455	37371465	37371475
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	6.0 [13.23]	6.0 [13.23]	8.1 [17.86]	8.1 [17.86]	8.1 [17.86]	8.1 [17.86]
Anti-corrosion version	ID	38371105	38371155	38371405	38371455	38371465	38371475
High-temperature version	ID	39371105	39371155	39371405	39371455	39371465	39371475
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]
KVZ for increased grip force	ID	0372105	0372155	0372405		0372465	
Description		PGN-plus 200/1-KVZ	PGN-plus 200/2-KVZ	PGN-plus 200/1 AS-KVZ		PGN-plus 200/1 IS-KVZ	
Closing force	N [lbf]	4860.0 [1093]	8370.0 [1882]	5770.0 [1297]			
Opening force	N [lbf]	5165.0 [1161]	8965.0 [2015]			5960.0 [1340]	
Weight	kg [lbs]	6.7 [14.77]	6.7 [14.77]	9.0 [19.84]		9.0 [19.84]	
Maximum pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]		6.0 [87]	
Max. permitted finger length	mm [in]	200.0 [7.874]	160.0 [6.299]	160.0 [6.299]		160.0 [6.299]	

Main views

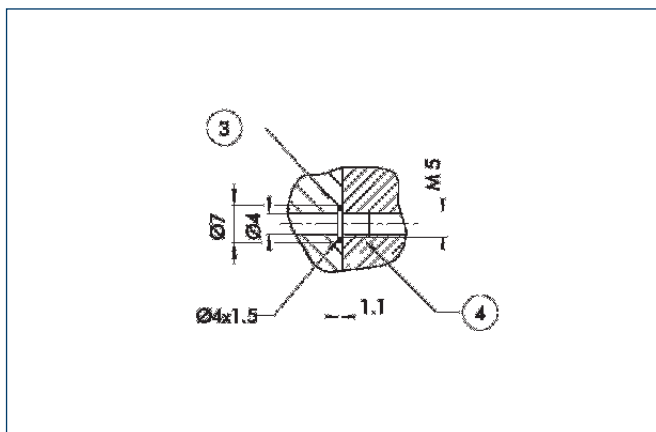


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

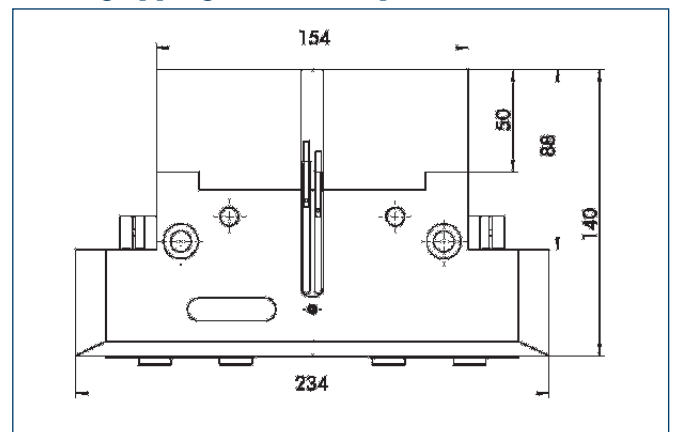
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device

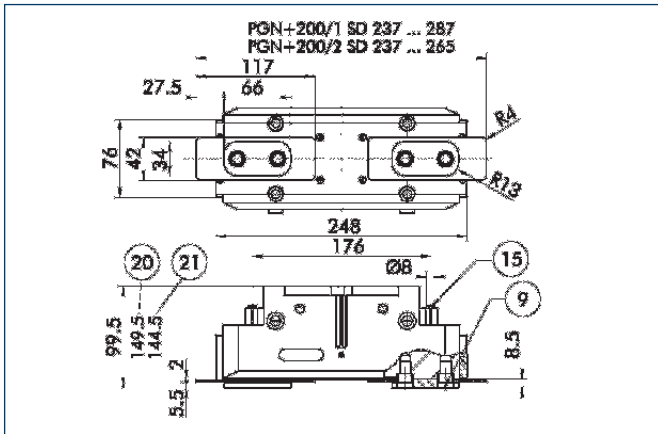


The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 200

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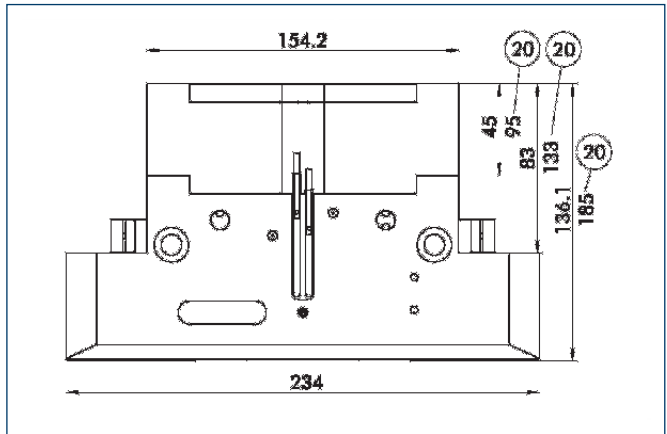
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- ⑮ Sealing bolt
- ⑳ With AS / IS version
- ㉑ For KVZ version

The “dust-protection” option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

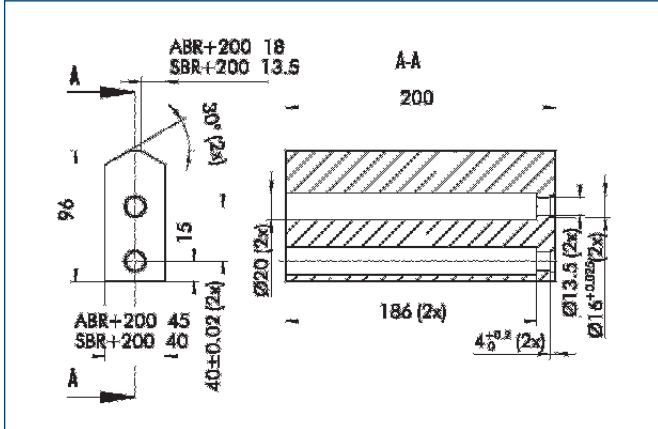
KVZ for increased grip force version



- ㉒ With AS / IS version

The KVZ cylinder increases the gripping forces during opening and closing. A second, in series-connected piston also increases the force on the wedge hook. The full gripping force shown in the data table is sometimes only reached after a few hundred gripping cycles. Please consider that grippers which are equipped with a gripping force safety device (AS/IS) are higher.

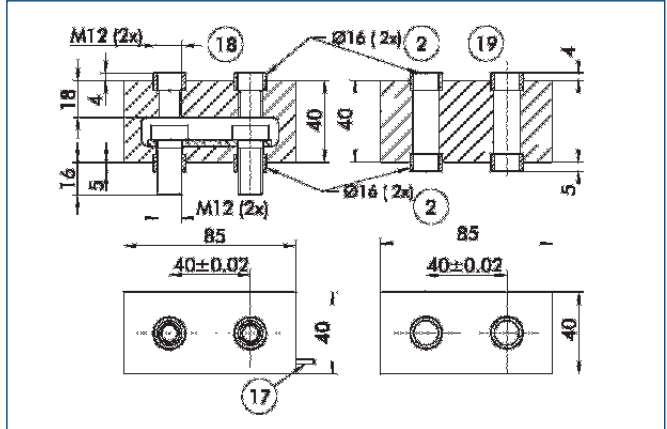
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 200	Aluminum	1	0300015
SBR-plus 200	16 MnCr 5	1	0300025

FMS force measuring jaws



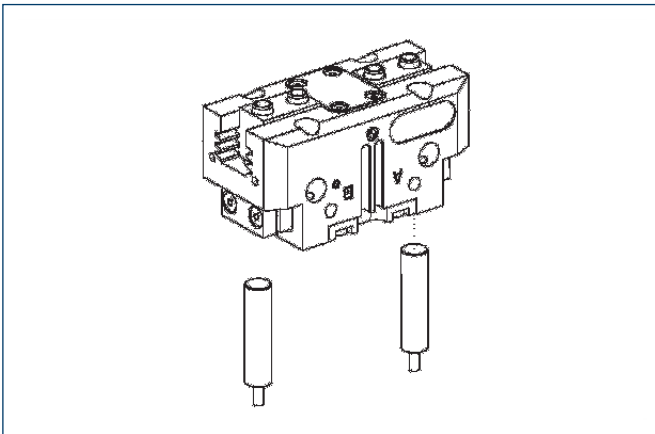
- ② Finger connection
- ⑱ Fine serration
- ⑰ Cable outlet
- ⑲ Air connection

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, an FMS-A1 electronic processor and an FMS-A connection cable are required.

Description	ID
FMS-A2	0301811
FMS-AK10	0301822
FMS-AK2	0301820
FMS-AK20	0301823
FMS-AK5	0301821
FMS-ZBA 200	0301842
FMS-ZBP 200	0301843

 You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

Sensor system



End position monitoring:
Inductive proximity switches, for direct mounting

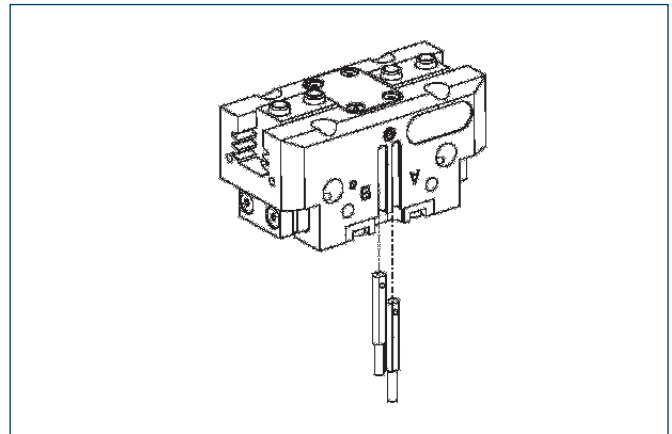
Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

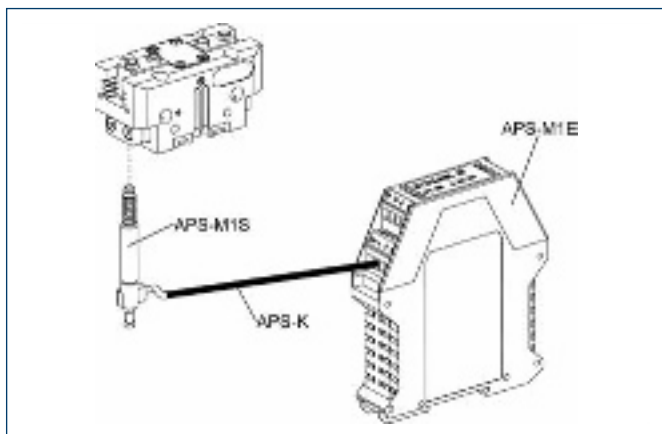
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

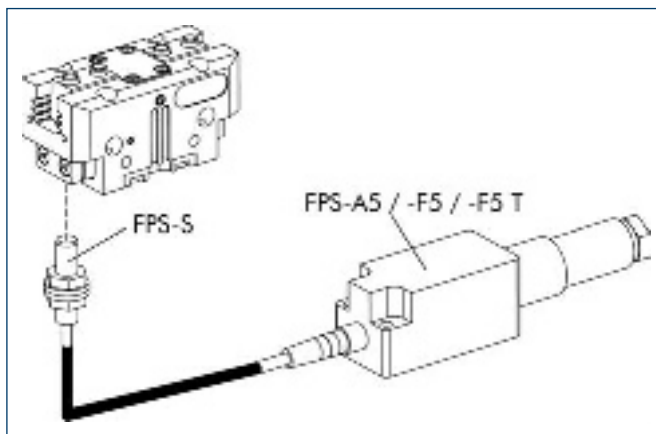
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-200/1 and 380/2	0302085
AS-APS-M1-200/2	0302086

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

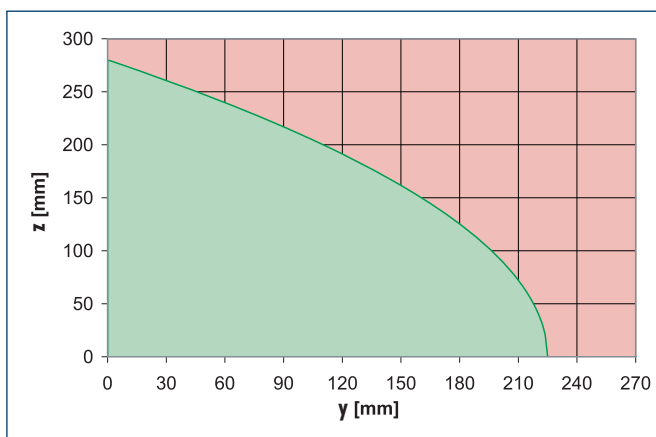
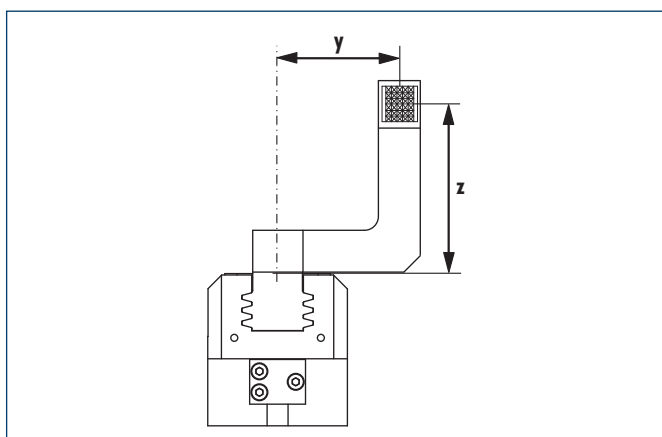


Measuring system:
FPS position monitor

Description	ID
AS-PGN/PZN-plus 200/1	0301640
AS-PGN/PZN-plus 200/2	0301641
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

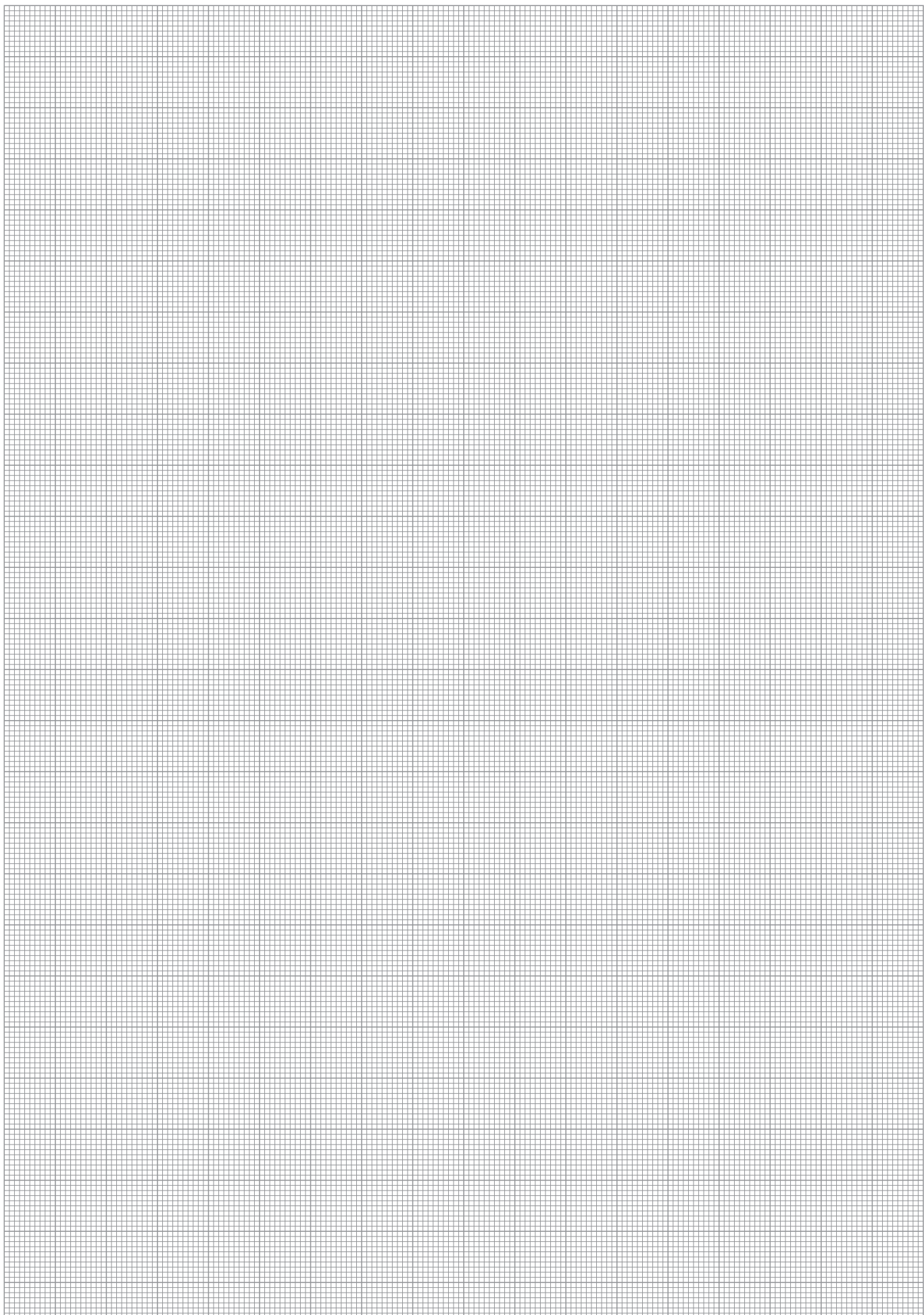
Maximum permitted finger offset



■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.

 You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

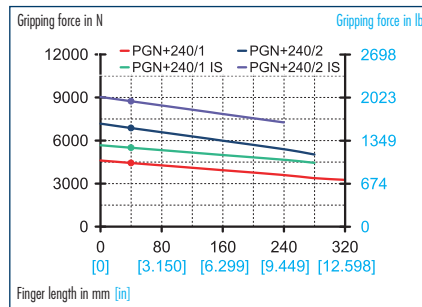


PGN-plus 240

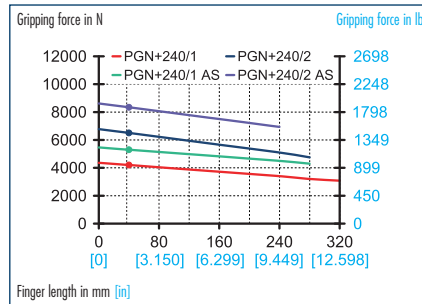
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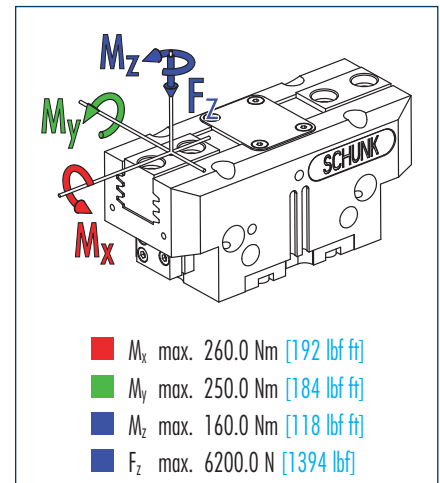
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

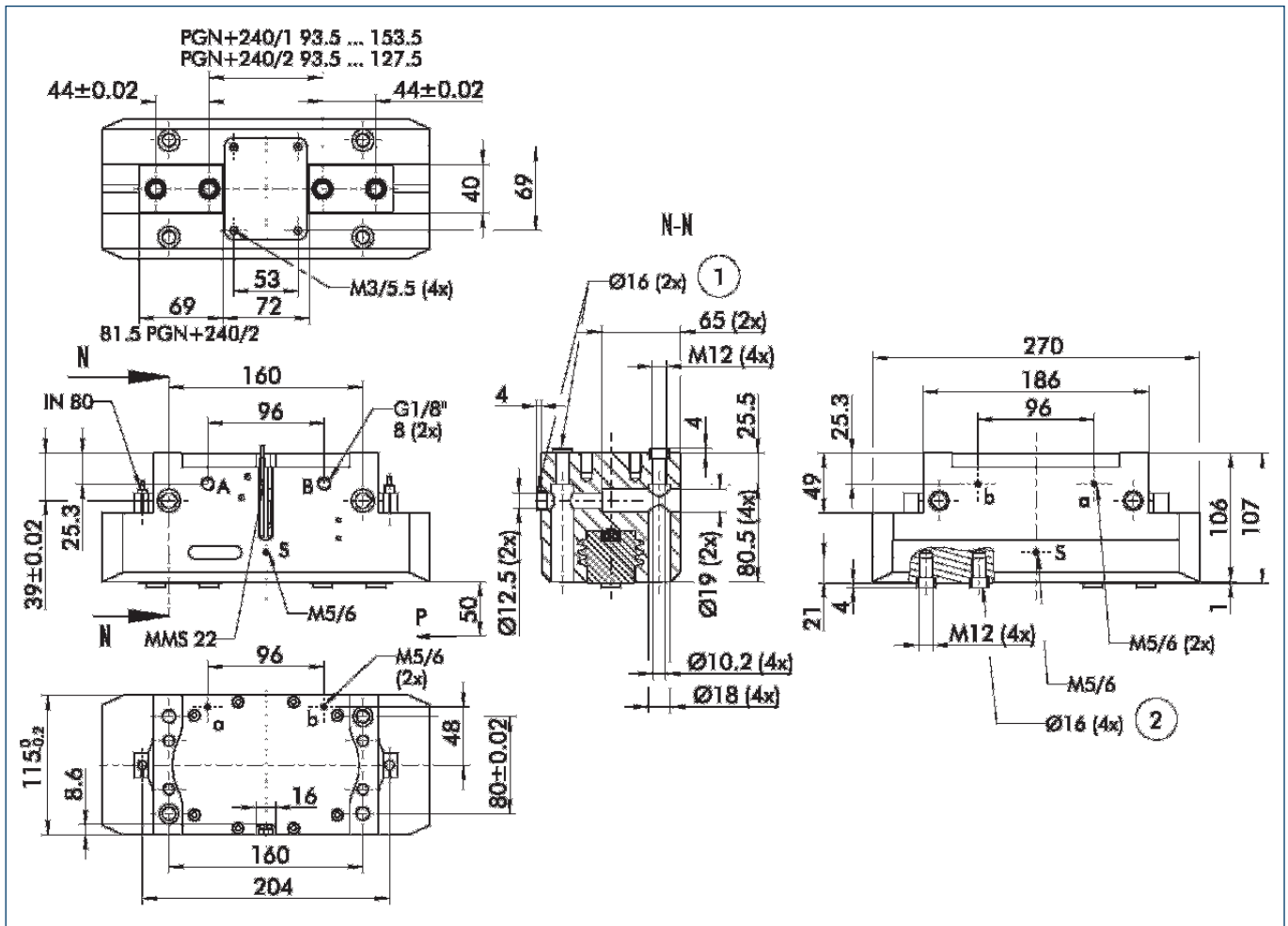
Technical data

Description		PGN-plus 240-1	PGN-plus 240-2	PGN-plus 240-1 AS	PGN-plus 240-2 AS	PGN-plus 240-1 IS	PGN-plus 240-2 IS
ID		0371108	0371158	0371408	0371458	0371468	0371478
Stroke per jaw	mm [in]	30.0 [1.181]	17.0 [0.669]	30.0 [1.181]	17.0 [0.669]	30.0 [1.181]	17.0 [0.669]
Closing force	N [lbf]	4200.0 [944]	6500.0 [1461]	5300.0 [1191]	8340.0 [1875]		
Opening force	N [lbf]	4440.0 [998]	6870.0 [1544]			5500.0 [1236]	8740.0 [1965]
Min. spring force	N [lbf]			1100.0 [247]	1840.0 [414]	1100.0 [247]	1840.0 [414]
Weight	kg [lbs]	8.5 [18.74]	9.0 [19.84]	12.0 [26.46]	12.0 [26.46]	12.0 [26.46]	12.0 [26.46]
Recommended workpiece weight	kg [lbs]	20.0 [44.09]	34.5 [76.06]	20.0 [44.09]	34.5 [76.06]	20.0 [44.09]	34.5 [76.06]
Air consumption per double stroke	cm ³ [in ³]	646.0 [39.42]	646.0 [39.42]	646.0 [39.42]	646.0 [39.42]	646.0 [39.42]	646.0 [39.42]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.45	0.45	0.35	0.35	0.65	0.65
Opening time	s	0.45	0.45	0.65	0.65	0.35	0.35
Max. permitted finger length	mm [in]	320.0 [12.598]	280.0 [11.024]	280.0 [11.024]	240.0 [9.449]	280.0 [11.024]	240.0 [9.449]
Max. permitted weight per finger	kg [lbs]	8.5 [18.74]	8.5 [18.74]	8.5 [18.74]	8.5 [18.74]	8.5 [18.74]	8.5 [18.74]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.04 [0.0016]	0.04 [0.0016]	0.04 [0.0016]	0.04 [0.0016]	0.04 [0.0016]	0.04 [0.0016]

OPTIONS and their characteristics

Version with dust cover	ID	37371108	37371158	37371408	37371458	37371468	37371478
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	11.4 [25.13]	11.4 [25.13]	14.4 [31.75]	14.4 [31.75]	14.4 [31.75]	14.4 [31.75]
Anti-corrosion version	ID	38371108	38371158	38371408	38371458	38371468	38371478
High-temperature version	ID	39371108	39371158	39371408	39371458	39371468	39371478
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]

Main views

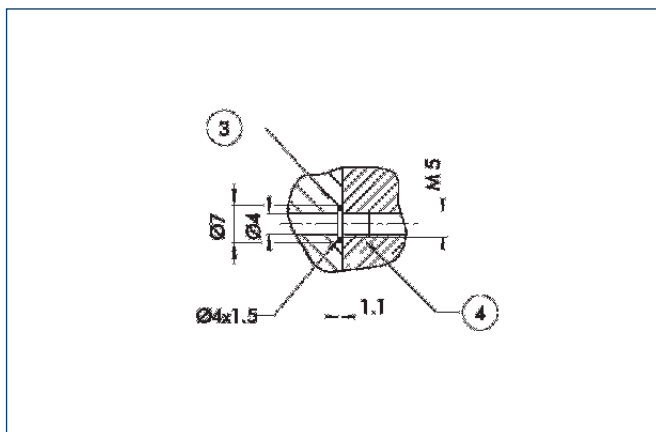


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

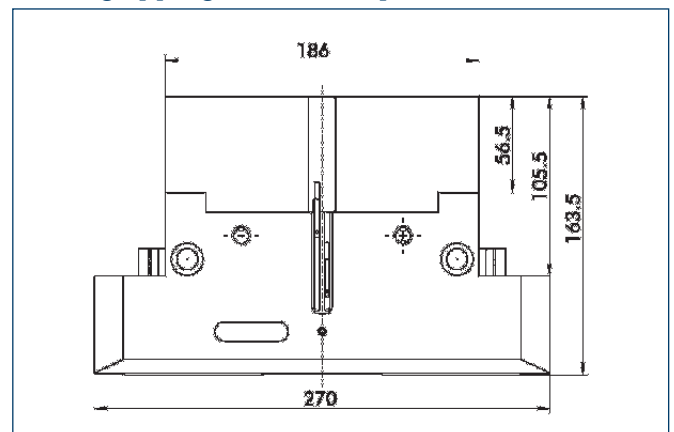
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device

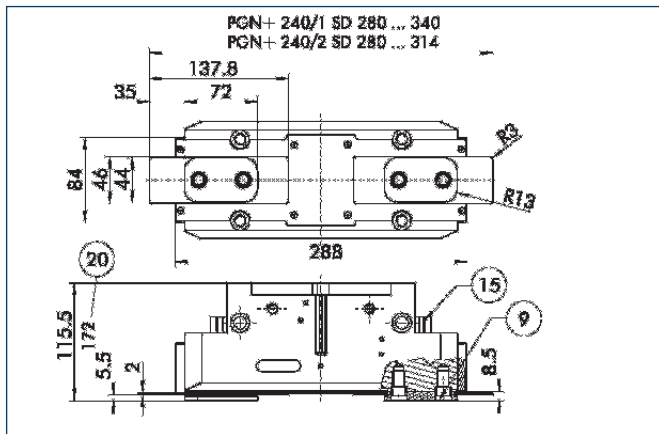


The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 240

Pneumatic · 2-Finger Parallel Grippers · **Universal Grippers**

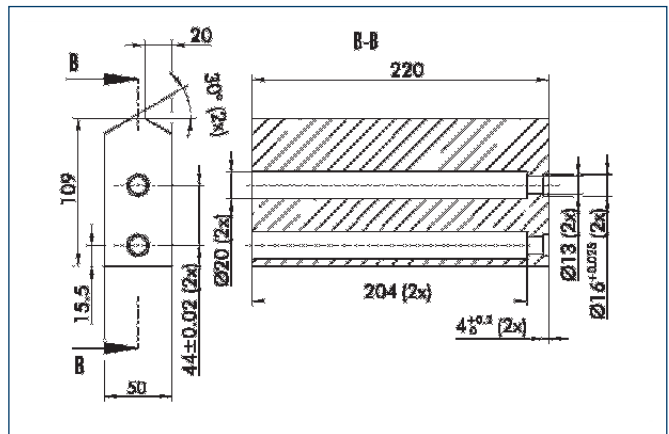
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- ⑮ Sealing bolt
- ⑳ With AS / IS version

The “dust-protection” option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

Finger blanks



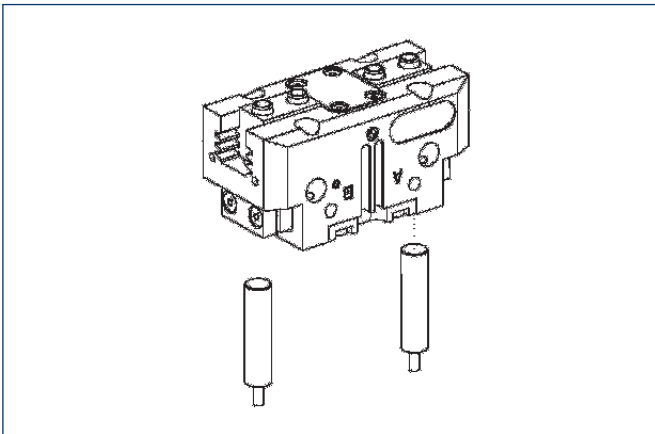
Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 240	Aluminum	1	0300017
SBR-plus 240	Steel	1	0300027



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

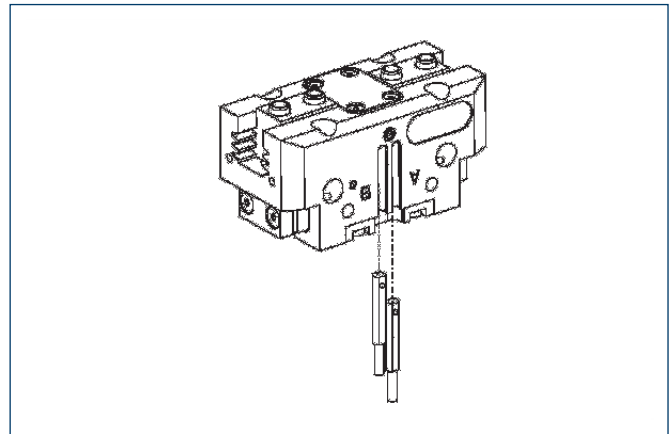
Sensor system



End position monitoring:
Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

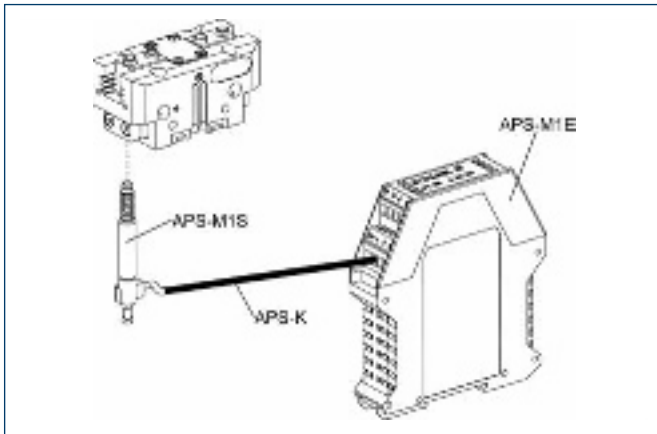
Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

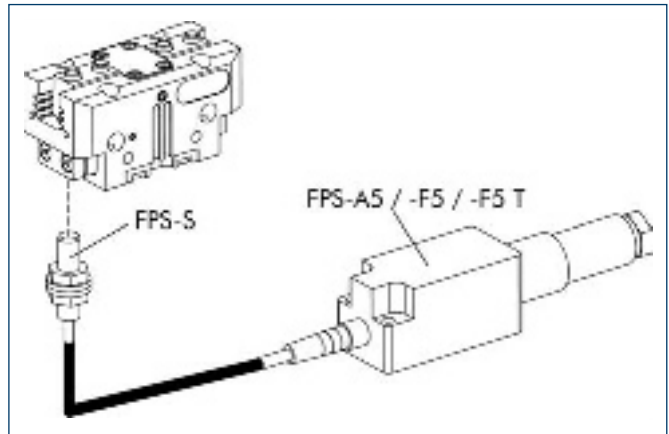
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-160/1 and 240/2	0302083
AS-APS-M1-240/1	0302087

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

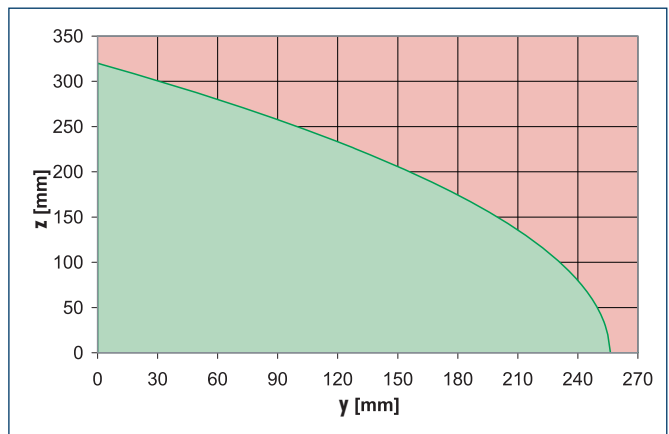
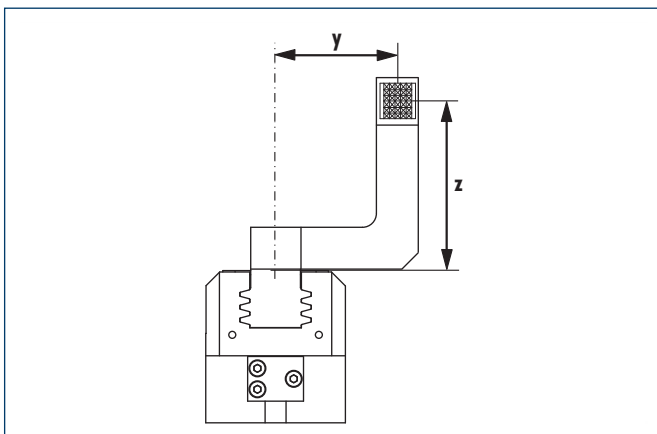


Measuring system:
FPS position monitor

Description	ID
AS-PGN/PZN-plus 240/1	0301643
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Maximum permitted finger offset

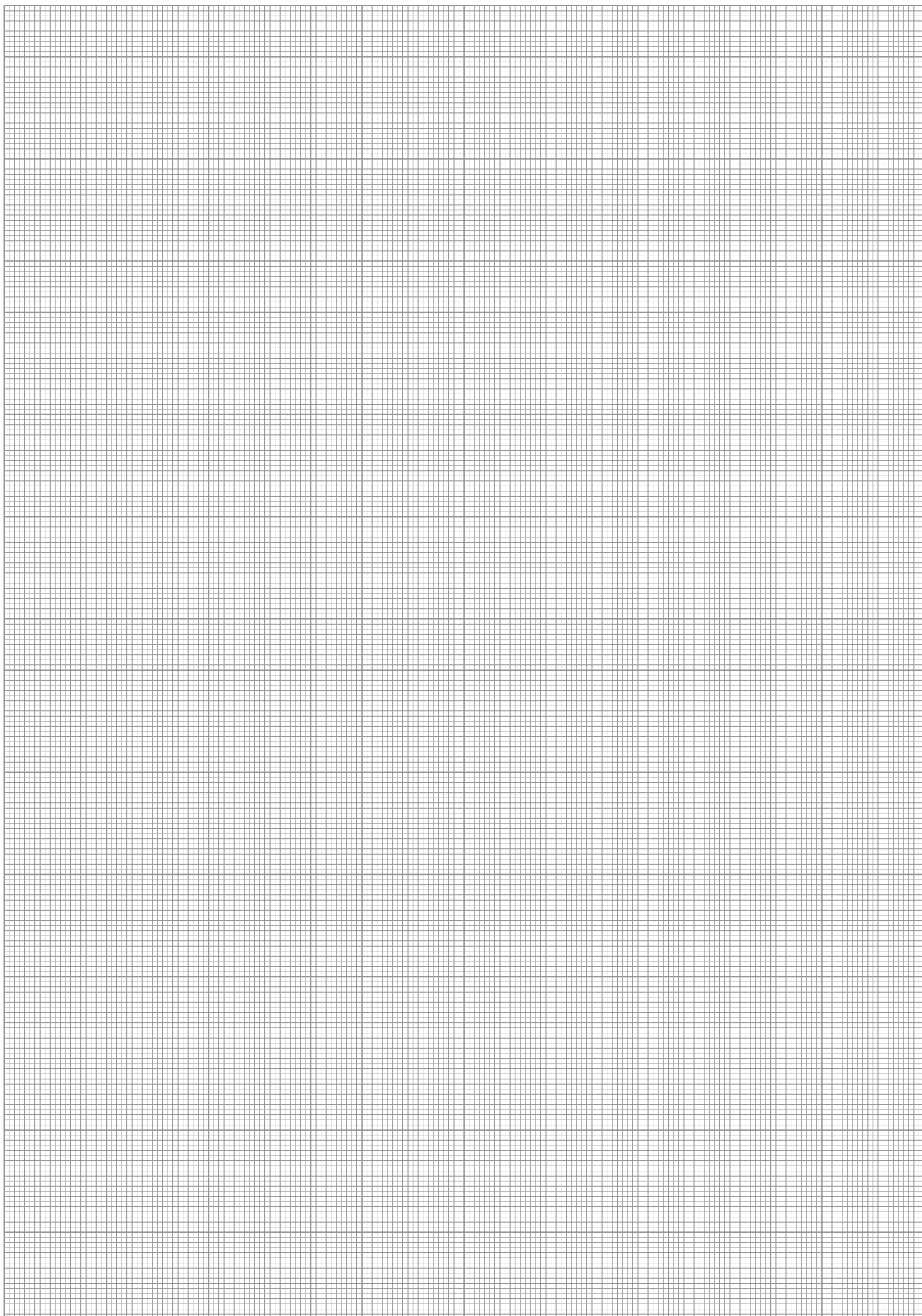


■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

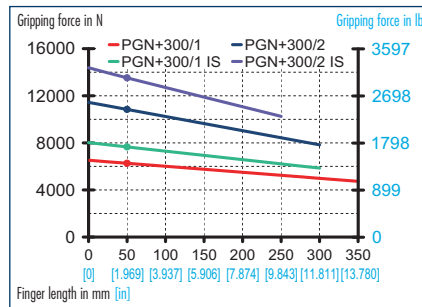


PGN-plus 300

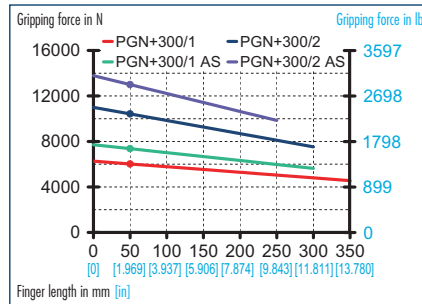
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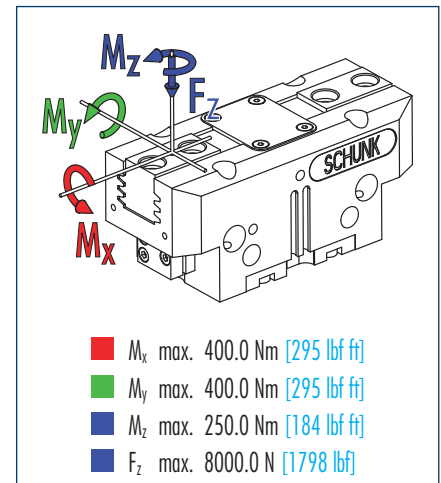
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

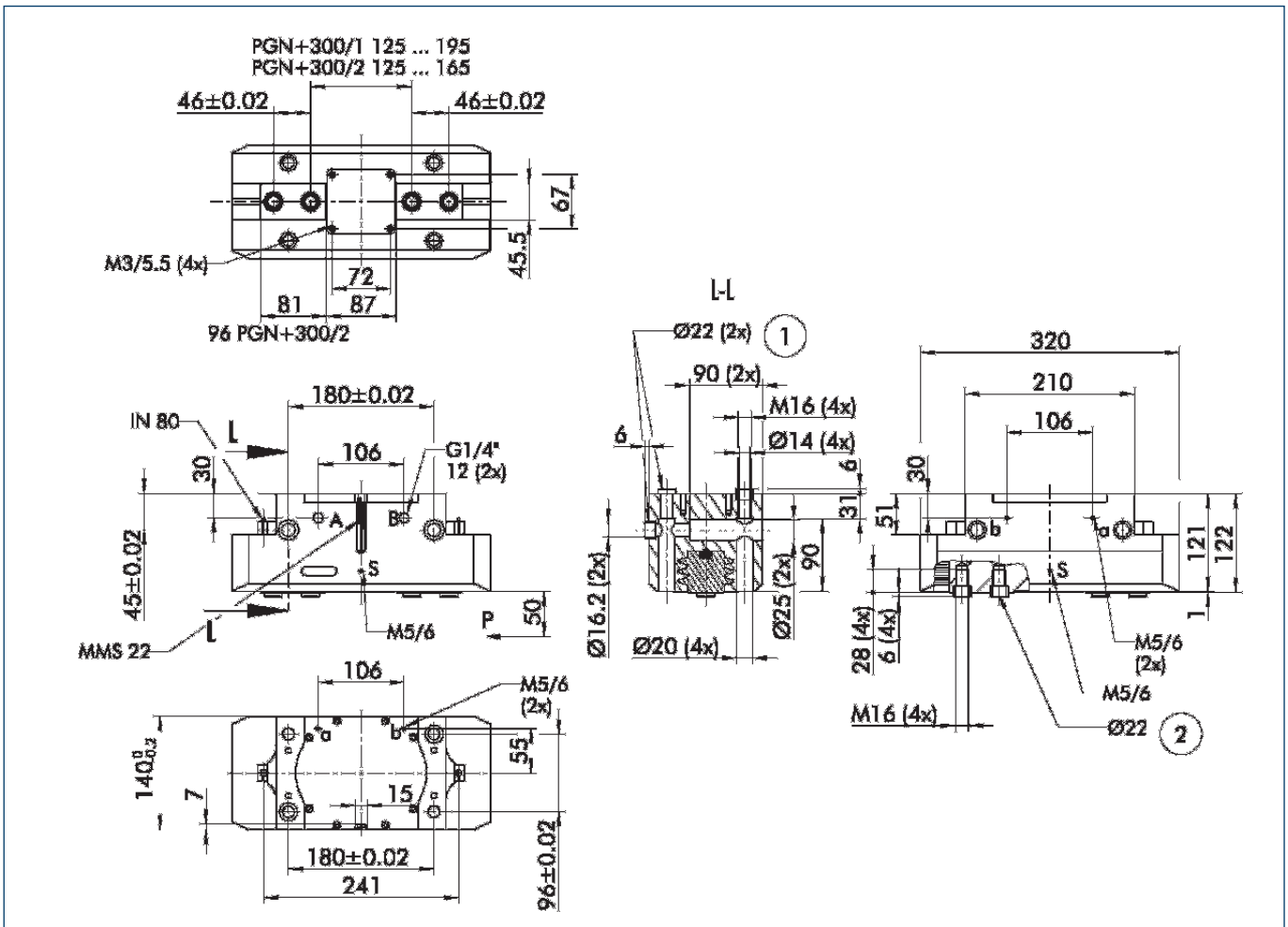
Technical data

Description		PGN-plus 300-1	PGN-plus 300-2	PGN-plus 300-1 AS	PGN-plus 300-2 AS	PGN-plus 300-1 IS	PGN-plus 300-2 IS
ID		0371106	0371156	0371406	0371456	0371466	0371476
Stroke per jaw	mm [in]	35.0 [1.378]	20.0 [0.787]	35.0 [1.378]	20.0 [0.787]	35.0 [1.378]	20.0 [0.787]
Closing force	N [lbf]	6000.0 [1349]	10300.0 [2316]	7400.0 [1664]	12500.0 [2810]		
Opening force	N [lbf]	6260.0 [1407]	10800.0 [2428]			7800.0 [1754]	13000.0 [2923]
Min. spring force	N [lbf]			1400.0 [315]	2200.0 [495]	1400.0 [315]	2200.0 [495]
Weight	kg [lbs]	13.9 [30.64]	13.9 [30.64]	17.2 [37.92]	17.2 [37.92]	17.2 [37.92]	17.2 [37.92]
Recommended workpiece weight	kg [lbs]	30.0 [66.14]	51.5 [113.54]	30.0 [66.14]	51.5 [113.54]	30.0 [66.14]	51.5 [113.54]
Air consumption per double stroke	cm ³ [in ³]	1030.0 [62.85]	1030.0 [62.85]	1030.0 [62.85]	1030.0 [62.85]	1030.0 [62.85]	1030.0 [62.85]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.5	0.5	0.4	0.4	0.7	0.7
Opening time	s	0.5	0.5	0.7	0.7	0.4	0.4
Max. permitted finger length	mm [in]	350.0 [13.780]	300.0 [11.811]	300.0 [11.811]	250.0 [9.843]	300.0 [11.811]	350.0 [13.780]
Max. permitted weight per finger	kg [lbs]	11.5 [25.35]	11.5 [25.35]	11.5 [25.35]	11.5 [25.35]	11.5 [25.35]	11.5 [25.35]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]

OPTIONS and their characteristics

Version with dust cover	ID	37371106	37371156	37371406	37371456	37371466	37371476
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	17.6 [38.80]	17.6 [38.80]	21.3 [46.96]	21.3 [46.96]	21.3 [46.96]	21.3 [46.96]
Anti-corrosion version	ID	38371106	38371156	38371406	38371456	38371466	38371476
High-temperature version	ID	39371106	39371156	39371406	39371456	39371466	39371476
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]

Main views

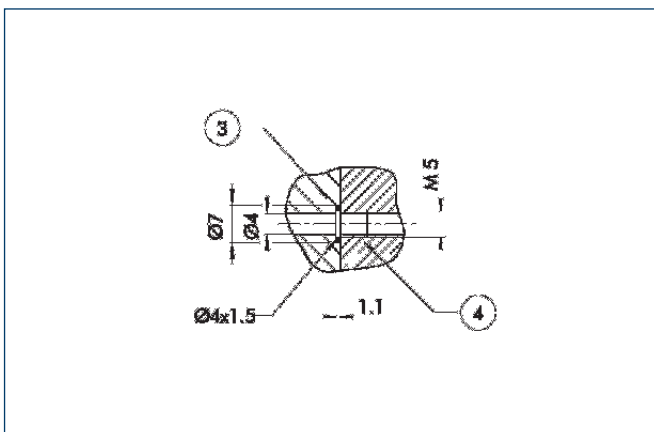


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

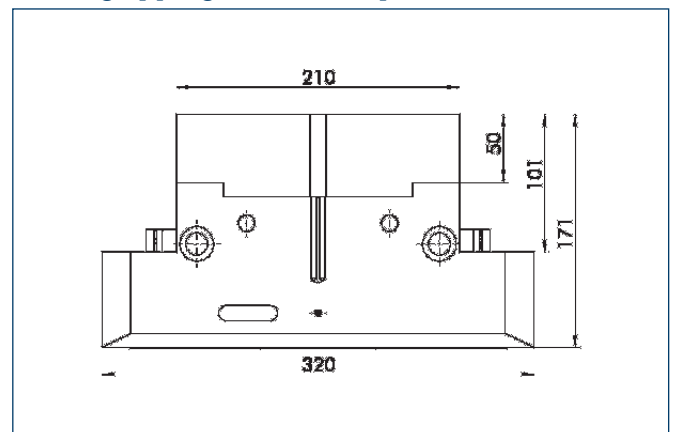
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device

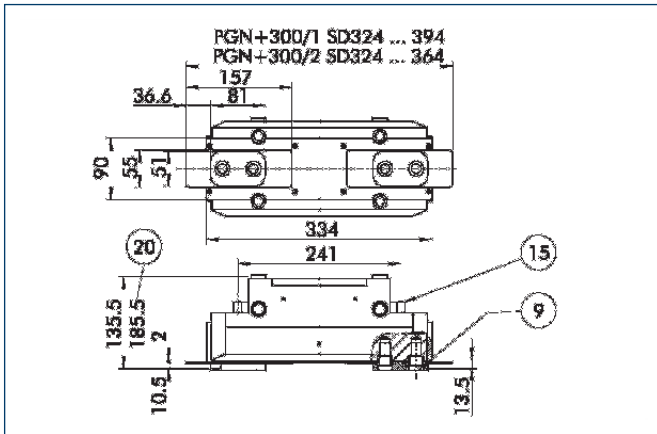


The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 300

Pneumatic · 2-Finger Parallel Grippers · Universal Grippers

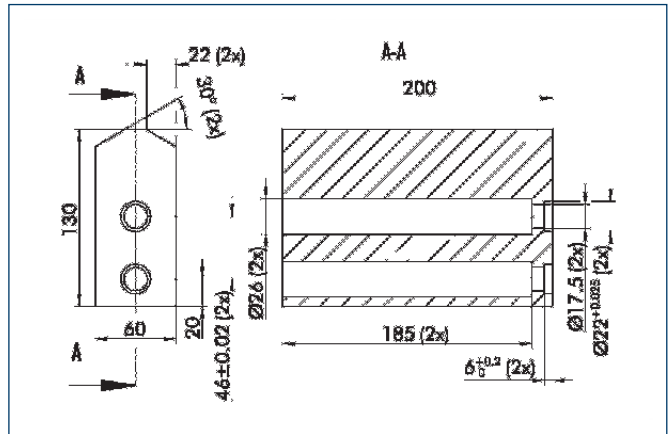
Version with dust cover



- ⑨ For mounting screw connection diagram, see basic version
- ⑮ Sealing bolt
- ⑳ With AS / IS version

The “dust-protection” option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

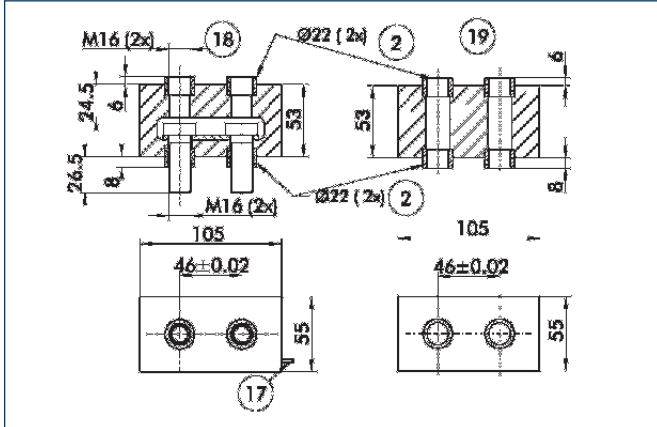
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
ABR-plus 300	Aluminum	1	0300016
SBR-plus 300	16 MnCr 5	1	0300026

FMS force measuring jaws



- ② Finger connection
- ⑮ Cable outlet
- ⑱ Fine serration
- ⑲ Air connection

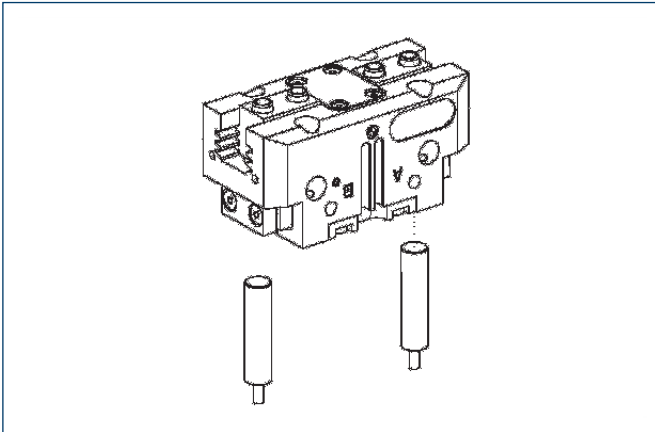
Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, an FMS-A1 electronic processor and an FMS-A connection cable are required.

Description	ID
FMS-A2	0301811
FMS-AK10	0301822
FMS-AK2	0301820
FMS-AK20	0301823
FMS-AK5	0301821
FMS-ZBA 300	0301846
FMS-ZBP 300	0301847



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

Sensor system



End position monitoring:
Inductive proximity switches, for direct mounting

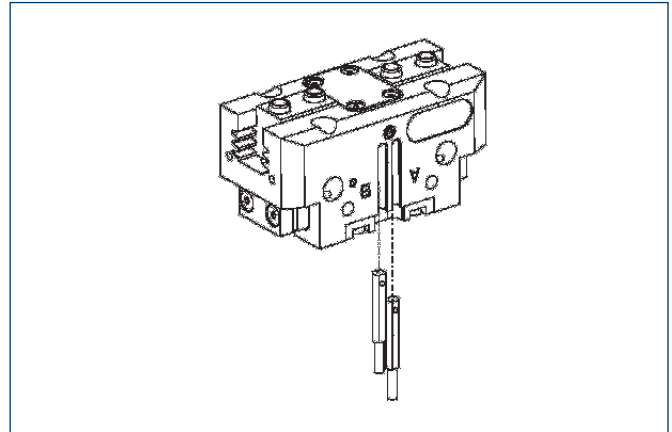
Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

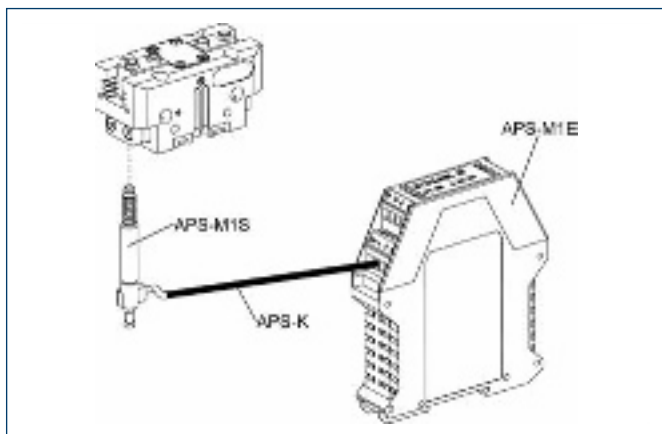
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

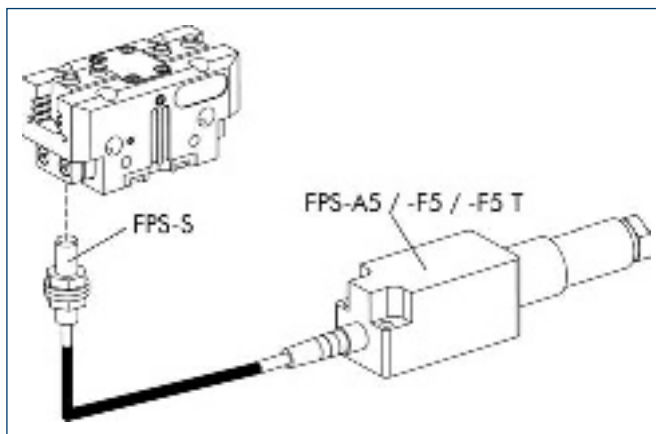
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-300/1	0302088
AS-APS-M1-300/2	0302089

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

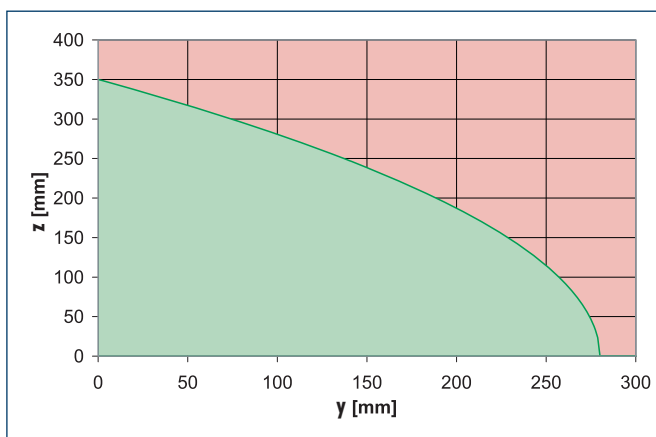
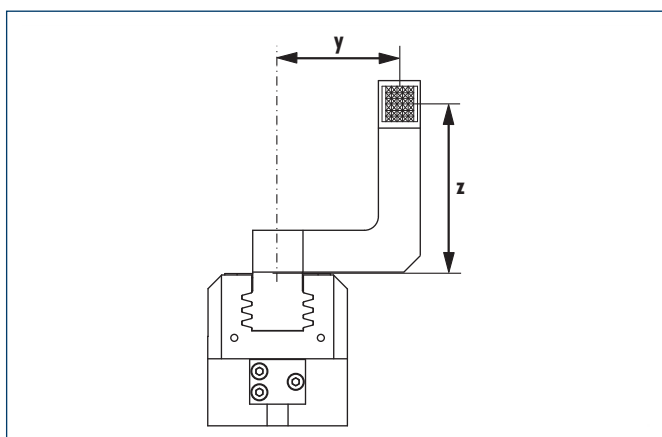


Measuring system:
FPS position monitor

Description	ID
AS-PGN/PZN-plus 300-2	0301642
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

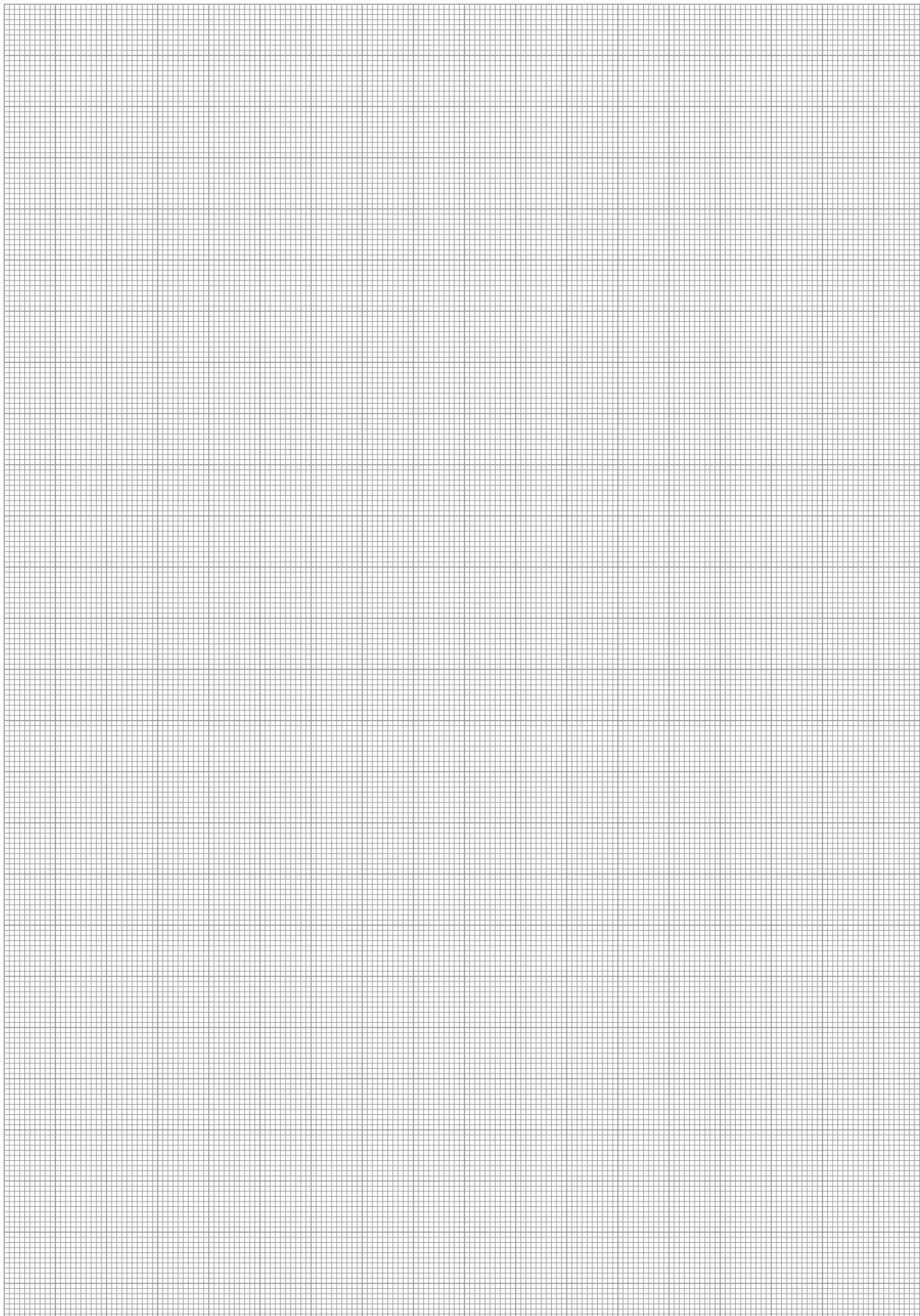
Maximum permitted finger offset



■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.

 You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

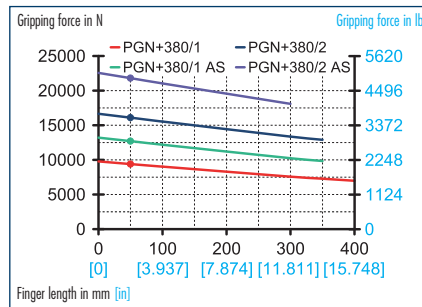


PGN-plus 380

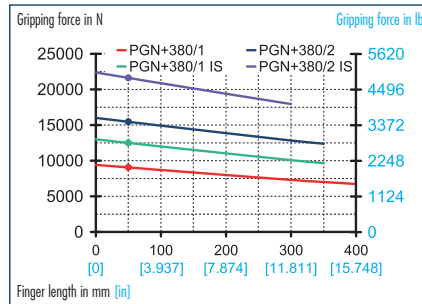
Pneumatic · 2-Finger Parallel Grippers · Universal Grippers



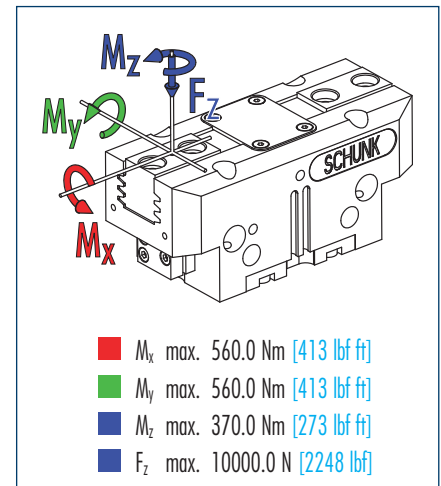
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

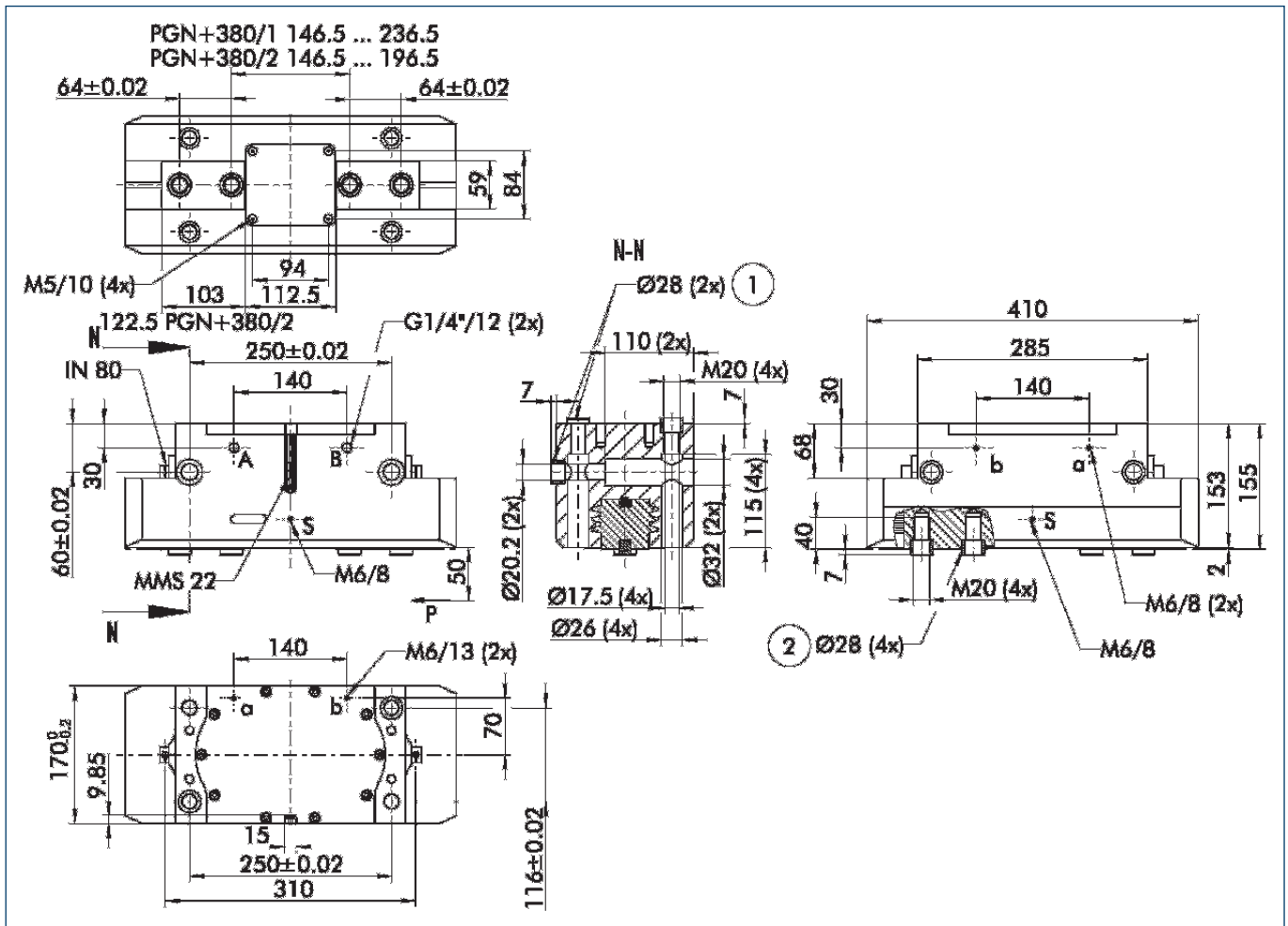
Technical data

Description		PGN-plus 380-1	PGN-plus 380-2	PGN-plus 380-1 AS	PGN-plus 380-2 AS	PGN-plus 380-1 IS	PGN-plus 380-2 IS
ID		0371107	0371157	0371407	0371457	0371467	0371477
Stroke per jaw	mm [in]	45.0 [1.772]	26.0 [1.024]	45.0 [1.772]	26.0 [1.024]	45.0 [1.772]	26.0 [1.024]
Closing force	N [lbf]	9050.0 [2035]	15450.0 [3473]	12350.0 [2776]	21150.0 [4755]		
Opening force	N [lbf]	9400.0 [2113]	16100.0 [3619]			12700.0 [2855]	21800.0 [4901]
Min. spring force	N [lbf]			3300.0 [742]	5700.0 [1281]	3300.0 [742]	5700.0 [1281]
Weight	kg [lbs]	28.0 [61.73]	29.0 [63.93]	36.5 [80.47]	37.5 [82.67]	36.5 [80.47]	37.5 [82.67]
Recommended workpiece weight	kg [lbs]	47.0 [103.62]	80.5 [177.47]	47.0 [103.62]	80.5 [177.47]	47.0 [103.62]	80.5 [177.47]
Air consumption per double stroke	cm ³ [in ³]	1714.0 [104.59]	1714.0 [104.59]	1714.0 [104.59]	1714.0 [104.59]	1714.0 [104.59]	1714.0 [104.59]
Minimum pressure	bar [psi]	2.5 [36]	2.5 [36]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Nominal operating pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Closing time	s	0.6	0.6	0.5	0.5	0.8	0.8
Opening time	s	0.6	0.6	0.8	0.8	0.5	0.5
Max. permitted finger length	mm [in]	400.0 [15.748]	350.0 [13.780]	350.0 [13.780]	300.0 [11.811]	350.0 [13.780]	300.0 [11.811]
Max. permitted weight per finger	kg [lbs]	17.0 [37.48]	17.0 [37.48]	17.0 [37.48]	17.0 [37.48]	17.0 [37.48]	17.0 [37.48]
IP rating		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]

OPTIONS and their characteristics

Version with dust cover	ID	37371107	37371157	37371407	37371457	37371467	37371477
IP rating		64	64	64	64	64	64
Weight	kg [lbs]	30.0 [66.14]	31.0 [68.34]	38.5 [84.88]	39.5 [87.08]	38.5 [84.88]	39.5 [87.08]
Anti-corrosion version	ID	38371107	38371157	38371407	38371457	38371467	38371477
High-temperature version	ID	39371107	39371157	39371407	39371457	39371467	39371477
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]	130.0 [266]

Main views

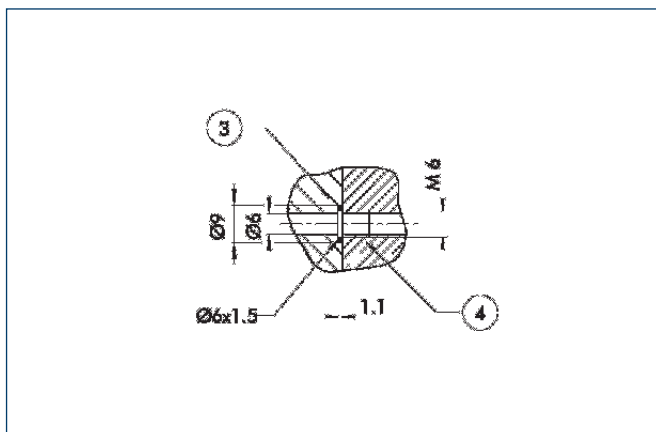


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- S,s Air purge connection or ventilation hole
- ① Gripper connection
- ② Finger connection

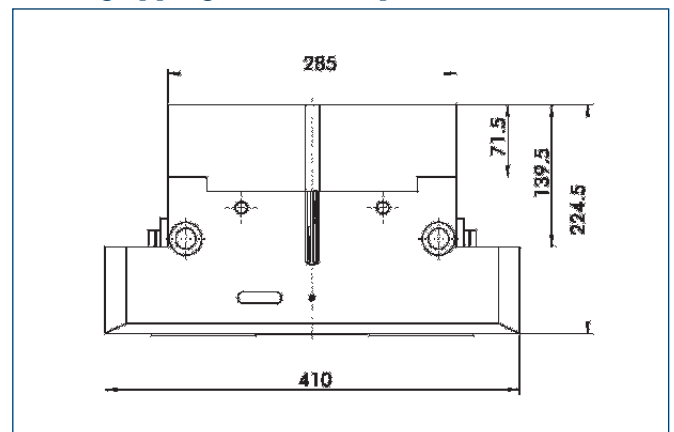
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

AS/IS gripping force safety device

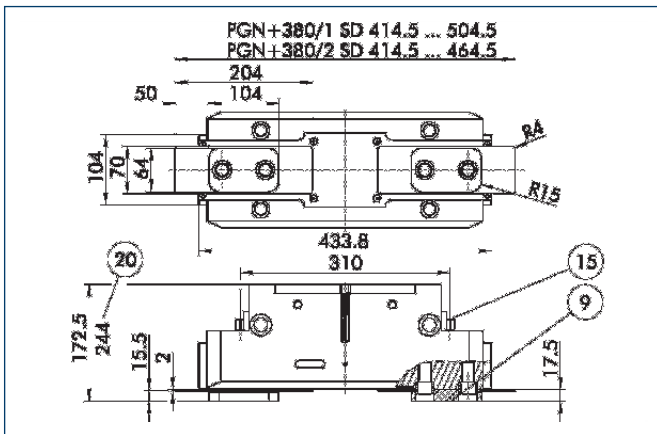


The mechanical gripping force safety device ensures a minimum gripping force even if there is a drop in pressure. This acts as closing grip force in the AS version, and as opening grip force in the IS version. In addition, the gripping force safety device can also be employed as a gripping force booster or for single-acting gripping.

PGN-plus 380

Pneumatic · 2-Finger Parallel Grippers · Universal Grippers

Version with dust cover

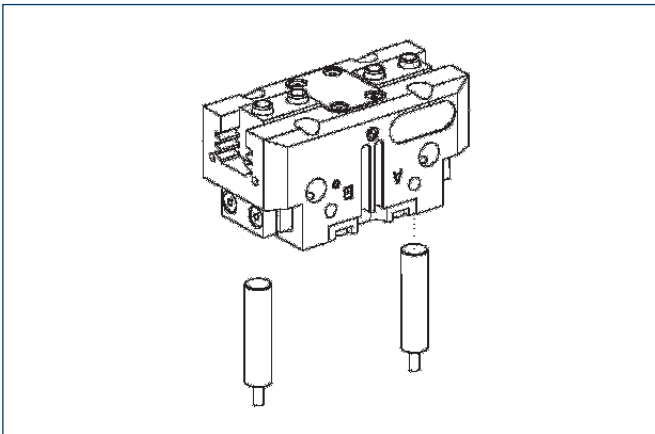


- ⑨ For mounting screw connection diagram, see basic version
- ⑮ Sealing bolt
- ⑳ With AS / IS version

The “dust-protection” option increases the degree of protection against penetrating substances. The screw connection diagram shifts by the height of the intermediate jaw. The finger length is still measured from the upper edge of the gripper housing.

 You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

Sensor system



End position monitoring:
Inductive proximity switches, for direct mounting

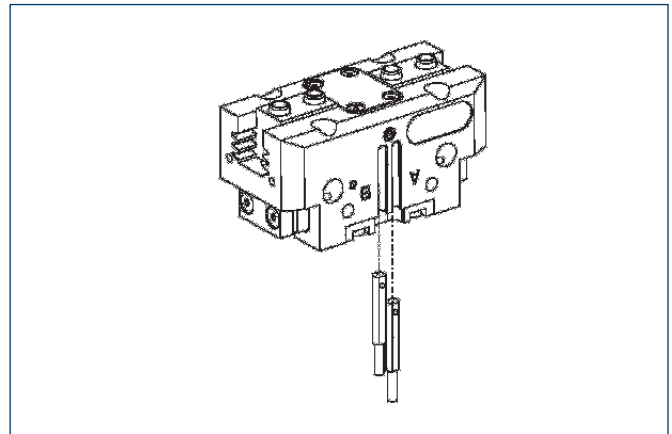
Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M5-PNP/NPN	0301652
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 3-M5-PNP/NPN	0301650
W 5-M12	0301507
WK 3-M8	0301594
WK 3-M8 NPN	0301602
WK 5-M8	0301502
WK 5-M8 NPN	9641116

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

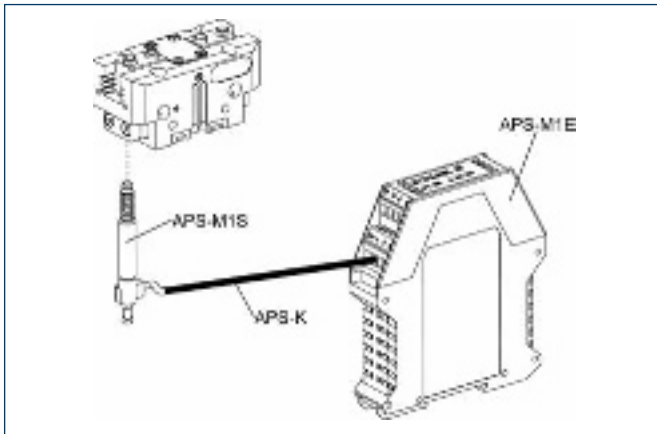
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301455	
MMS 22-S-M5-NPN-SA	0301461	
MMS 22-S-M5-PNP	0301454	
MMS 22-S-M5-PNP-SA	0301460	
MMS 22-S-M8-NPN	0301451	
MMS 22-S-M8-NPN-SA	0301457	
MMS 22-S-M8-PNP	0301450	•
MMS 22-S-M8-PNP-SA	0301456	
MMSK 22-S-NPN	0301453	
MMSK 22-S-NPN-SA	0301459	
MMSK 22-S-PNP	0301452	
MMSK 22-S-PNP-SA	0301458	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

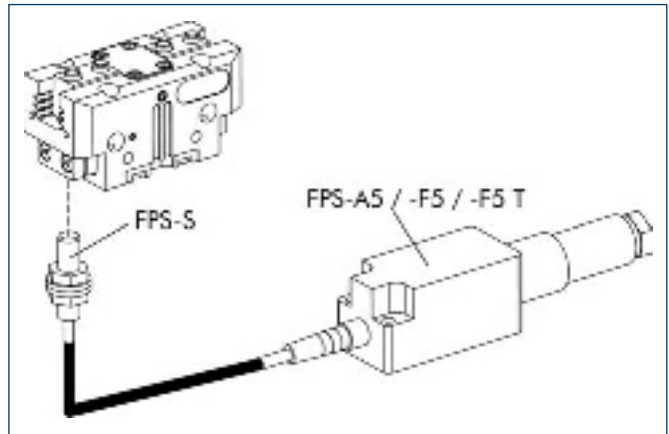
Sensor system



Measuring system:
APS position monitor

Description	ID
APS-K2	0302066
APS-K7	0302068
APS-M1E	0302064
APS-M1S	0302062
AS-APS-M1-200/1 and 380/2	0302085
AS-APS-M1-380/1	0302090

When using an APS system, a mounting kit (AS-APS, incl. 3 m cable), an APS sensor (APS-M1S) and electronics (APS-M1E) are required for each gripper. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their electronic processor (PLC) it is max. 1 m.

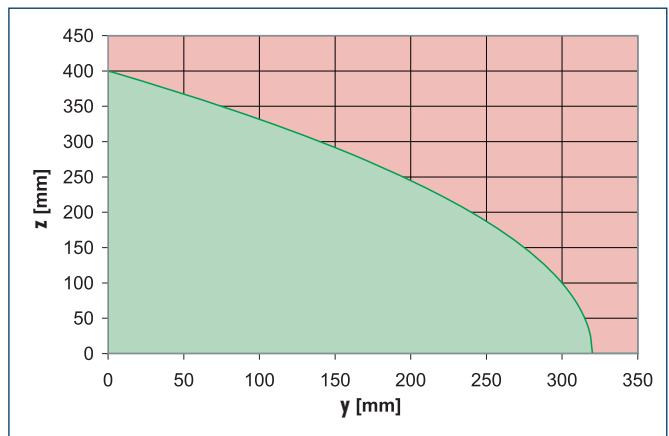
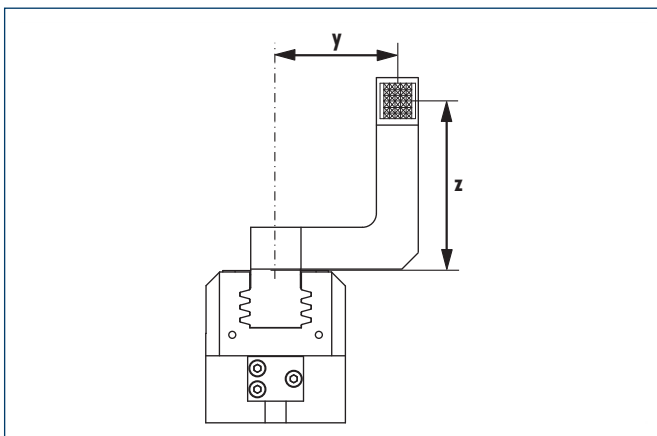


Measuring system:
FPS position monitor

Description	ID
AS-PGN-plus 380-2	0301645
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S M8	0301704

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

Maximum permitted finger offset

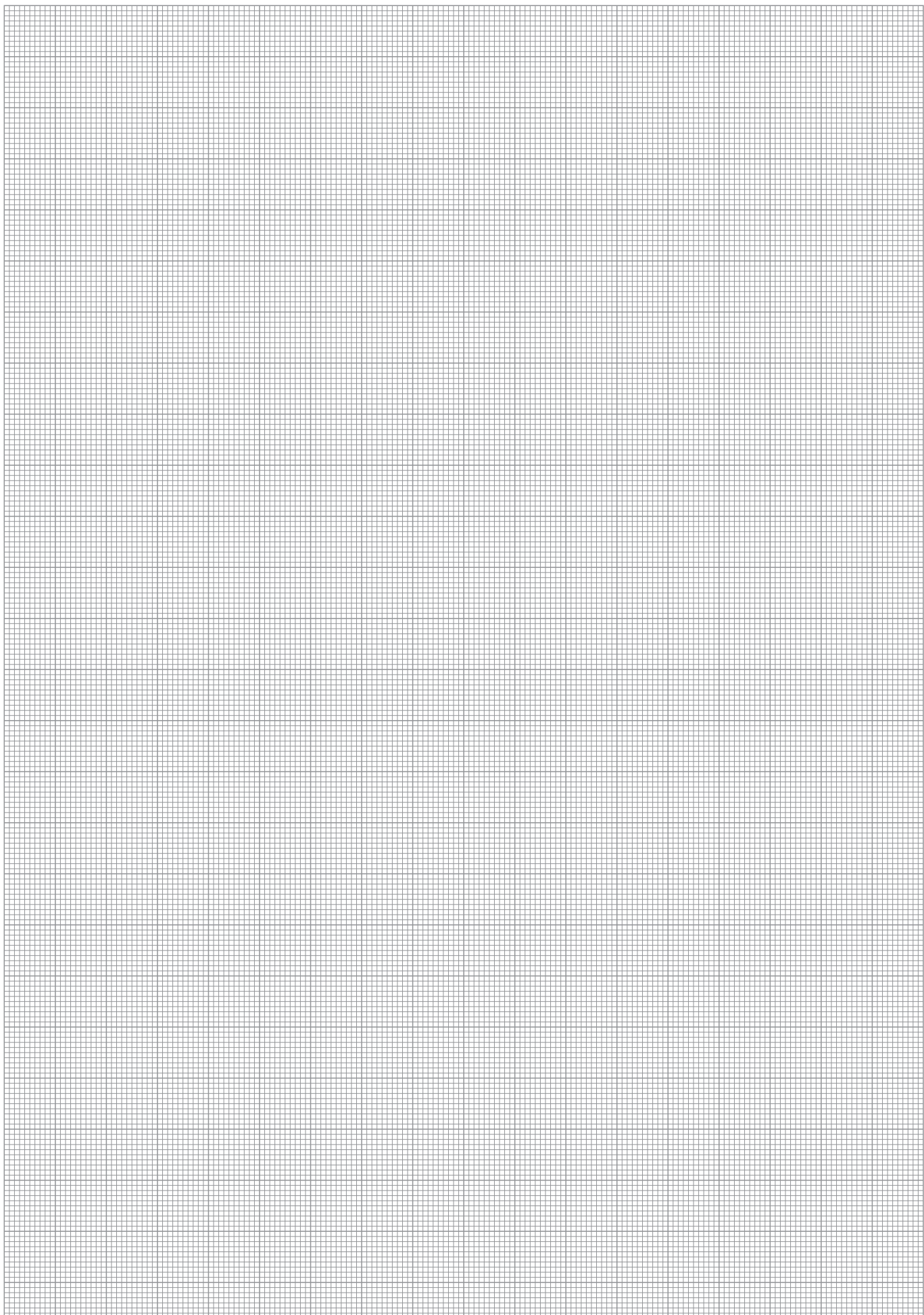


■ Permitted range
■ Non-permissible range

The curve applies to the basic version (stroke -1). For other versions, the curve will be parallel but offset in line with the max. permitted finger length.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

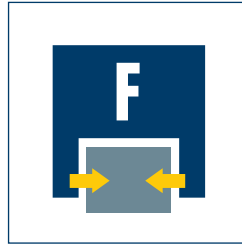




Sizes
50 .. 380



Weight
0.125 kg .. 28.0 kg
0.28 lbs .. 61.73 lbs



Gripping force
100 N .. 15100 N
22.5 lbf .. 3395 lbf

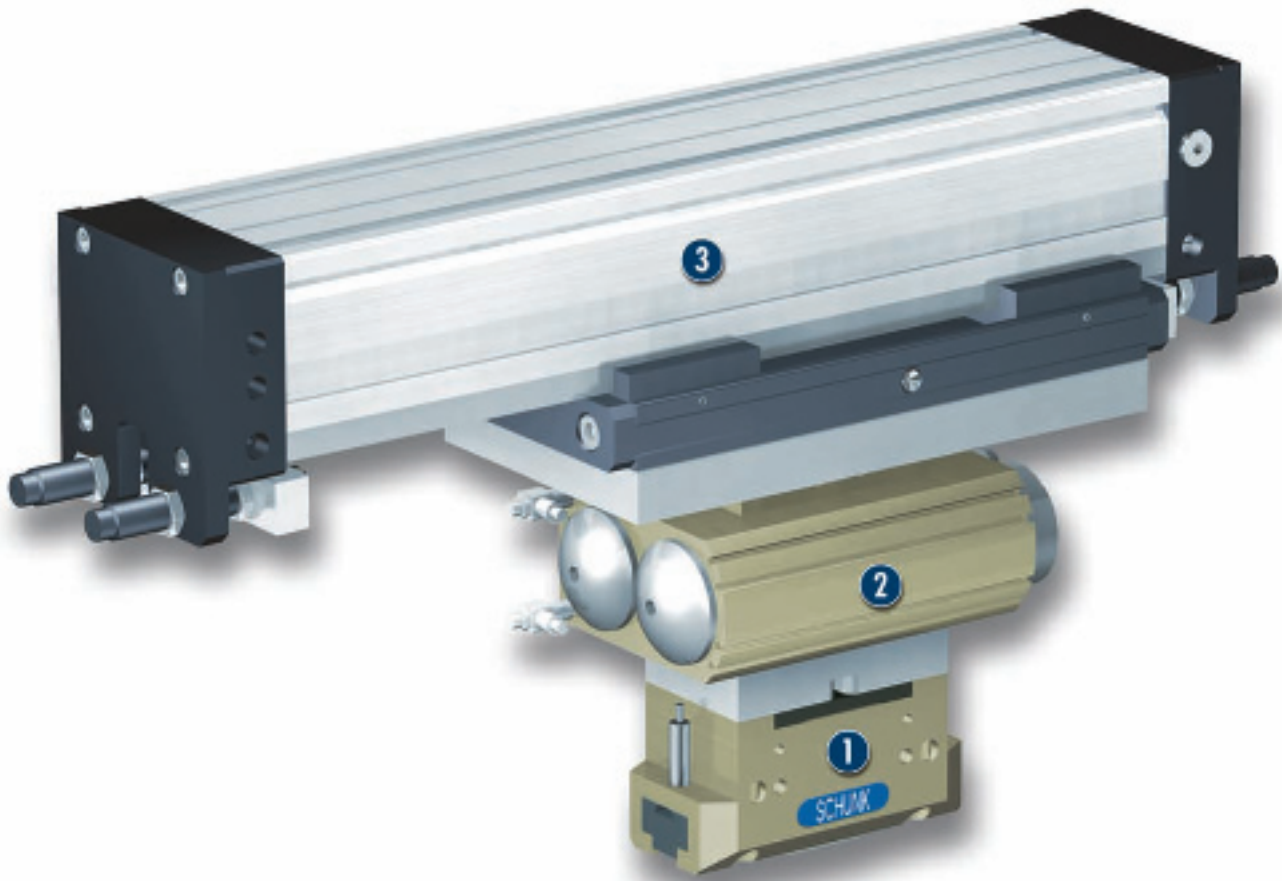


Stroke per finger
2 mm .. 45 mm
0.079 in .. 1.772 in



Force-fit gripping
0.5 kg .. 75.0 kg
1.10 lbs .. 165.35 lbs

Application example



Horizontal turning station with
180° reorientation of the workpiece

- 1 2-Finger Parallel Gripper PGN 125
- 2 Rotary Actuator SRU 35.1-180-3-4
- 3 Gantry Axis LIRAX-P-SLF-01

Universal Gripper

Universal 2-finger parallel gripper with high gripping force and robust T-slot guidance. Please use the PGN only for replacement orders, for new designs please use the successor model PGN-plus.

Area of application

For universal use in clean to slightly dirty environments. Special solutions are available for use in high temperatures, with dust or corrosion protection. Please ask for more details!

Your advantages and benefits

High precision T-slot guidance

For precise handling of a varied range of workpieces

High maximum moments

Suitable for use with long gripper fingers

Can be attached from two sides in three screw directions

For universal and flexible gripper mounting

Air supply via hose-free direct connection or via fittings

For flexible pressure supply in all automated systems

Double-sided air purge connection

To keep dirt out of the guidance areas



General information on the series

Working principle

Wedge-hook kinematics

Housing material

Aluminum alloy, hard-anodized

Base jaws material

Steel

Actuation

Pneumatic, via filtered compressed air (10 µm): Dry, lubricated or non-lubricated
 Pressure medium: Requirement on the quality class of compressed air according to DIN ISO 8573-1: Quality class 4

Warranty

24 months

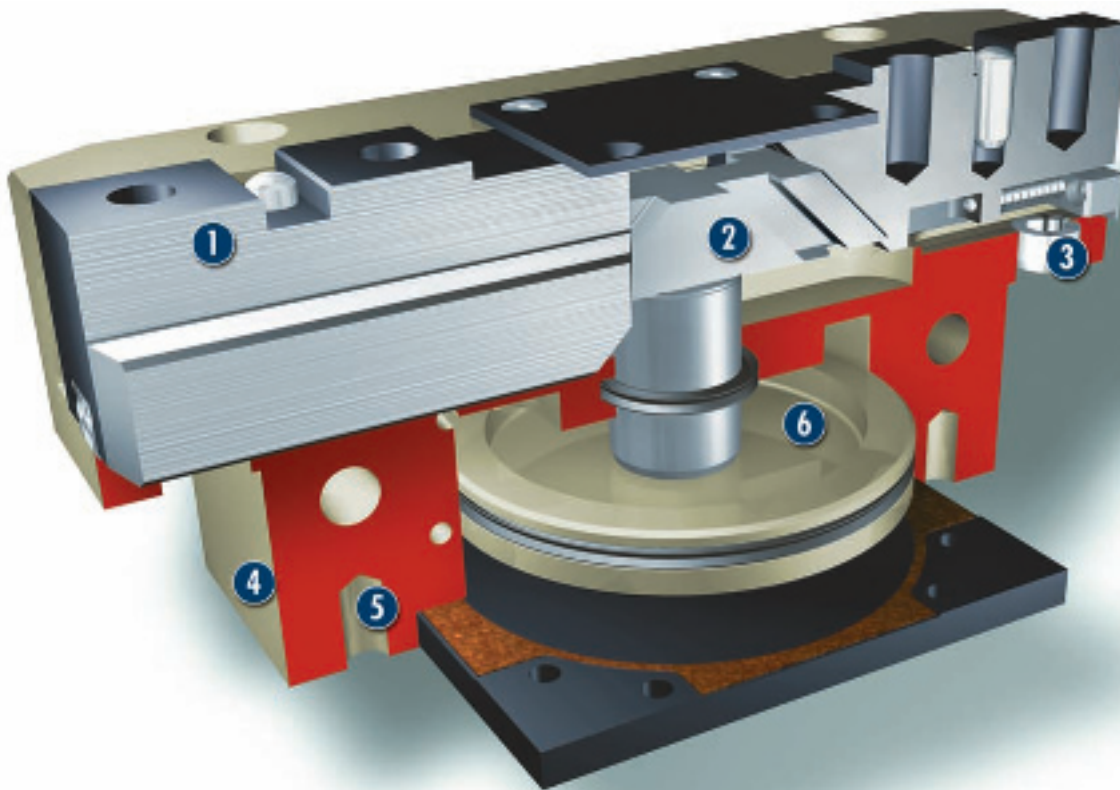
Scope of delivery

Brackets for proximity switches (only for sizes 64, 80), dowel pins, O-rings for direct connection, guide sleeves, assembly and operating manual with manufacturers declaration

Maintenance of gripping force

Possible using variants with mechanical gripping force safety device or pressure maintenance valve SDV-P

Sectional diagram



- 1 Base jaws**
for the adaptation of workpiece-specific gripper fingers
- 2 Kinematics**
wedge hook design for high power transmission and synchronous gripping
- 3 Sensor systems**
integrated brackets for proximity switches and adjustable operating targets
- 4 Housing**
weight-reduced thanks to the use of a hard-anodized, high-strength aluminum alloy
- 5 Centering and mounting options**
for universal gripper mounting
- 6 Drive**
pneumatic piston for actuation

Functional description

The round piston is pressed up or down by compressed air. Via its slanted working surfaces, the wedge hook redirects this movement into a lateral, synchronous gripping motion of the two base jaws.

Options and special information

Please use the PGN only for replacement orders, for new designs, please use the successor model PGN-plus.

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Fittings



Inductive proximity switches IN



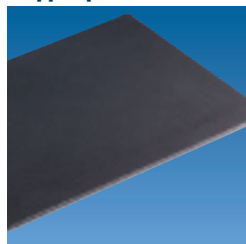
Plastic inserts – Quentes



Sensor cables W/WK/KV/GK



Gripper pads HKI



Sensor distributor V



Pressure maintenance valves SDV-P



Finger blanks



Flexible position sensor FPS



① Please refer to the additional views at the end of each size for the specific size of the required accessory, availability for the gripper size, the description and the ID No. You can find more detailed information on our range of accessories in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration) measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the variance of the end position after 100 consecutive strokes.

Workpiece weight

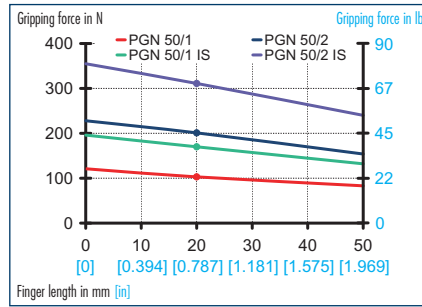
The recommended workpiece weight is calculated for force-fit gripping with a friction coefficient of 0.1 and a safety of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit clamping.

Closing and opening times

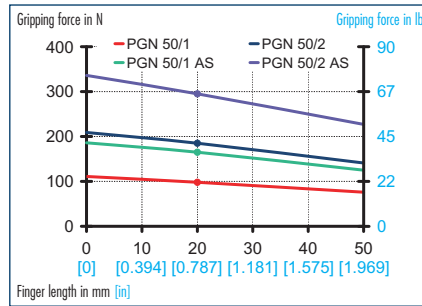
Closing and opening times are the pure movement times of the base jaws or fingers. Valve switching times, hose filling times or PLC reaction times are not included and must be taken into consideration when determining cycle times.



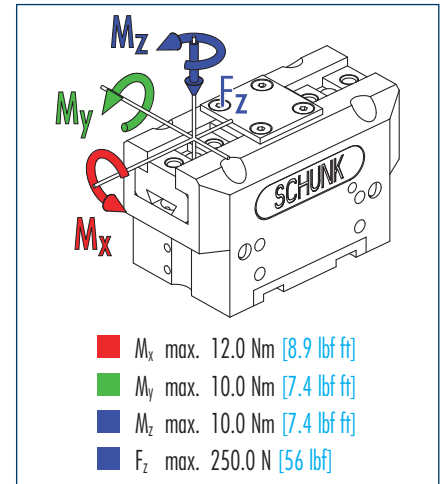
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

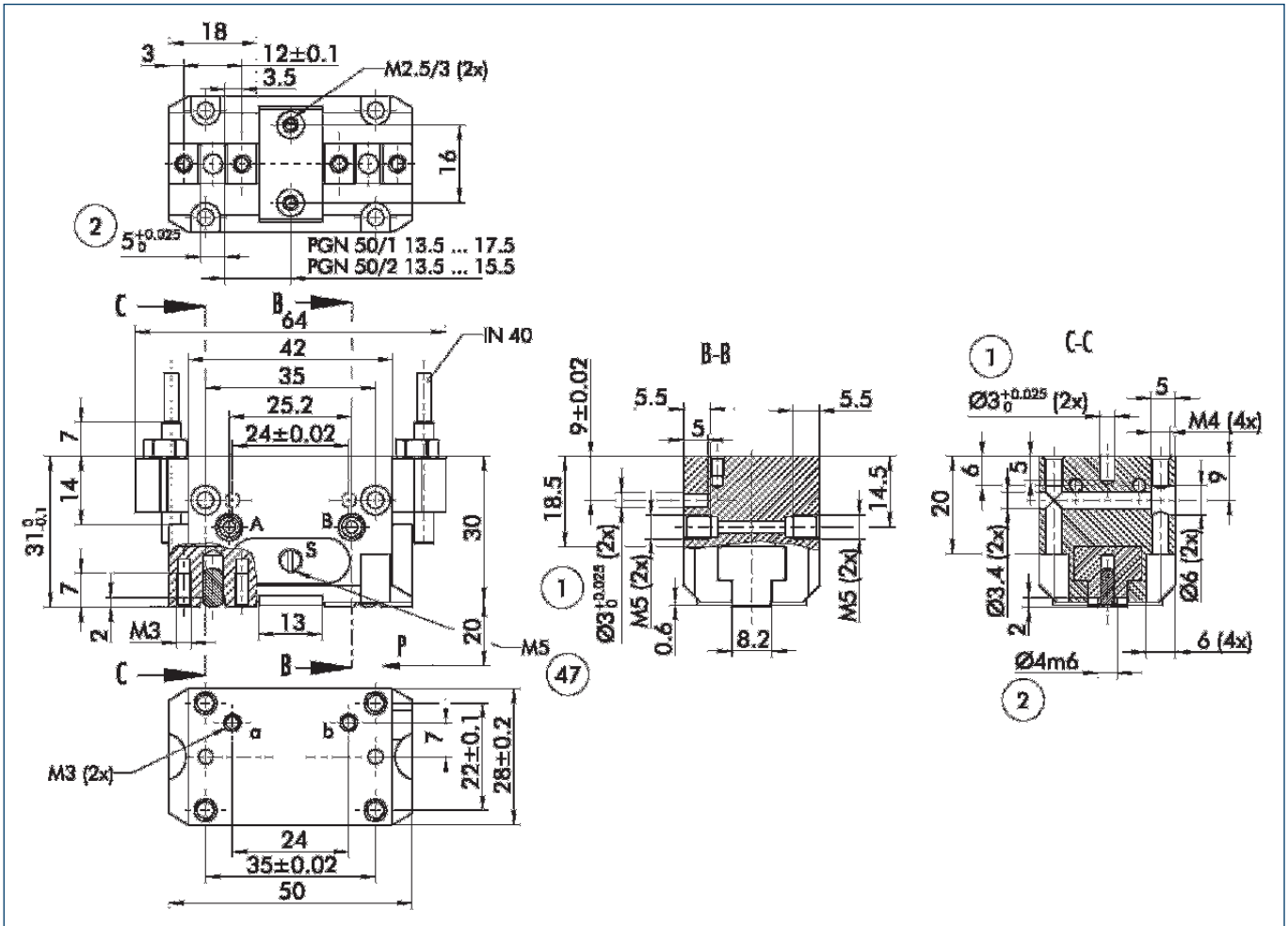


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 50-1	PGN 50-2	PGN 50-1 AS	PGN 50-2 AS	PGN 50-1 IS	PGN 50-2 IS
ID		0370099	0370149	0370399	0370449	0370459	0370469
Stroke per finger	mm [in]	4.0 [0.157]	2.0 [0.079]	4.0 [0.157]	2.0 [0.079]	4.0 [0.157]	2.0 [0.079]
Closing force	N [lbf]	100.0 [22.5]	180.0 [40]	160.0 [36]	190.0 [43]		
Opening force	N [lbf]	110.0 [25]	200.0 [45]			155.0 [35]	280.0 [63]
Min. gripping force by spring	N [lbf]			30.0 [6.7]	60.0 [13.5]	30.0 [6.7]	60.0 [13.5]
Weight	kg [lbs]	0.125 [0.28]	0.125 [0.28]	0.14 [0.31]	0.14 [0.31]	0.14 [0.31]	0.14 [0.31]
Recommended workpiece weight	kg [lbs]	0.5 [1.10]	0.9 [1.98]	0.5 [1.10]	0.9 [1.98]	0.5 [1.10]	0.9 [1.98]
Air consumption per double stroke	cm ³ [in ³]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]	5.0 [0.31]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.02	0.02	0.01	0.01	0.01	0.01
Opening time	s	0.02	0.02	0.02	0.02	0.01	0.01
Closing / opening time with spring only	s			0.05	0.05	0.05	0.05
Max. permitted finger length	mm [in]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]
Max. permitted weight per finger	kg [lbs]	0.12 [0.26]	0.12 [0.26]	0.12 [0.26]	0.12 [0.26]	0.12 [0.26]	0.12 [0.26]
IP class		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

Main views

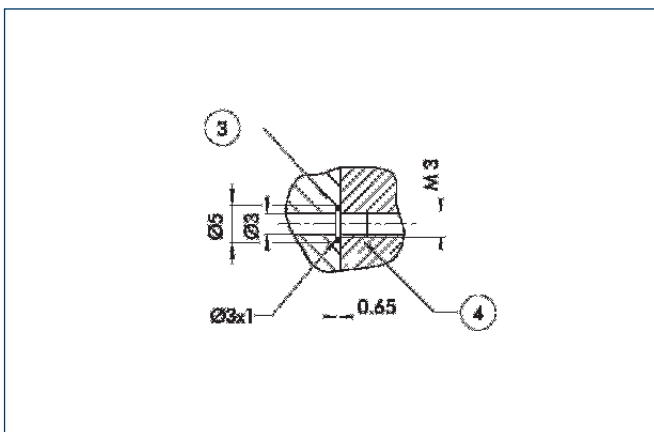


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④7 On both sides

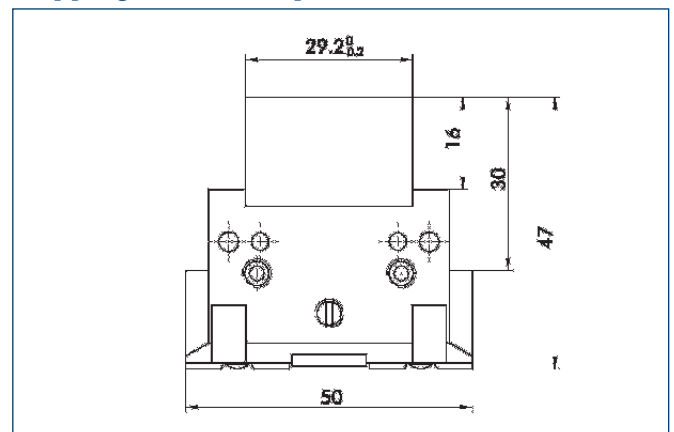
Hose-free direct connection



- ③ Adapter
- ④ Gripper

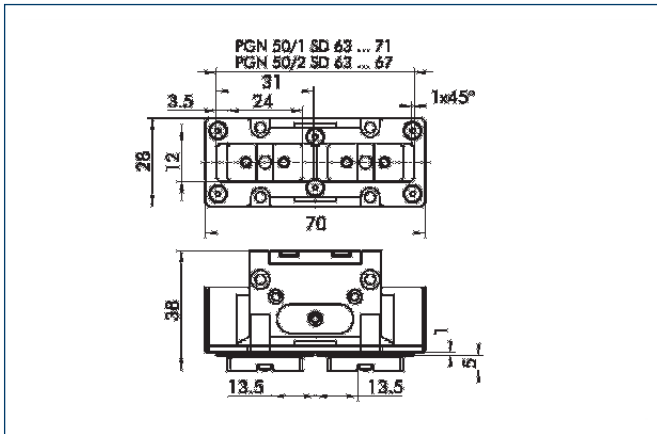
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



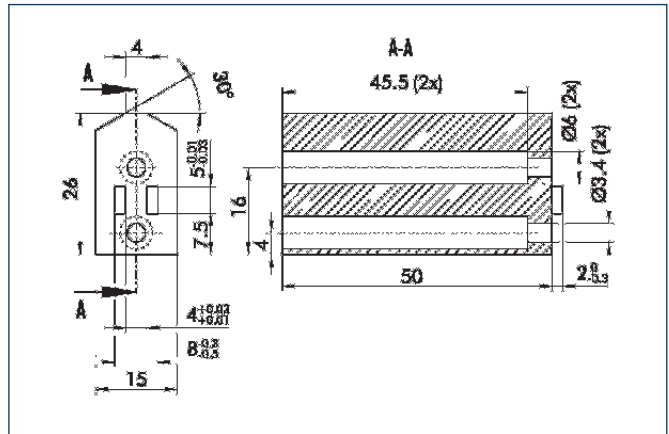
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

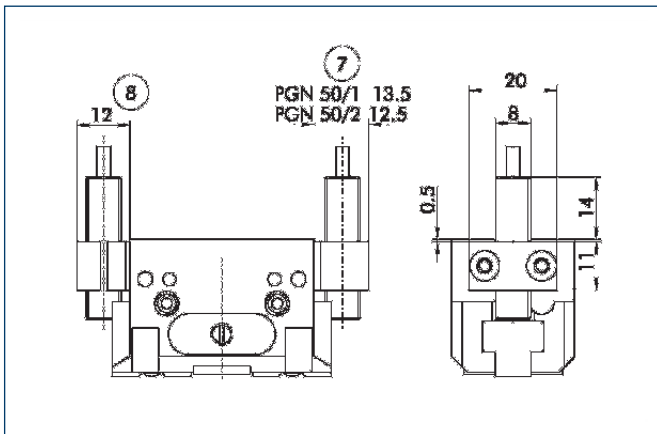
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Material	Scope of delivery	ID
ABR 50	Aluminum	1	0300714
SBR 50	16 MnCr 5	1	0300715

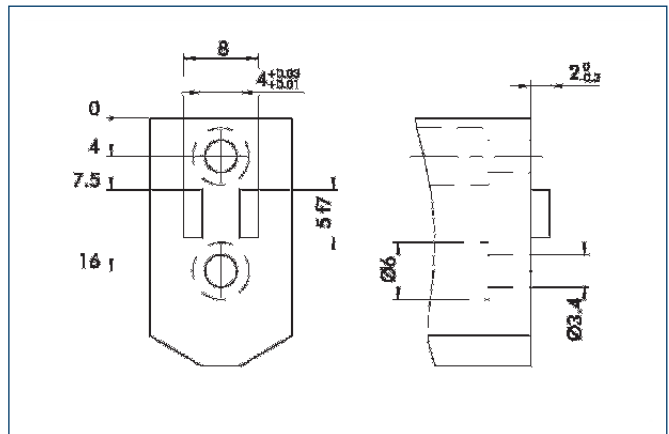
Inductive proximity switches



- ⑦ Monitoring – Gripper open
- ⑧ Monitoring – Gripper closed

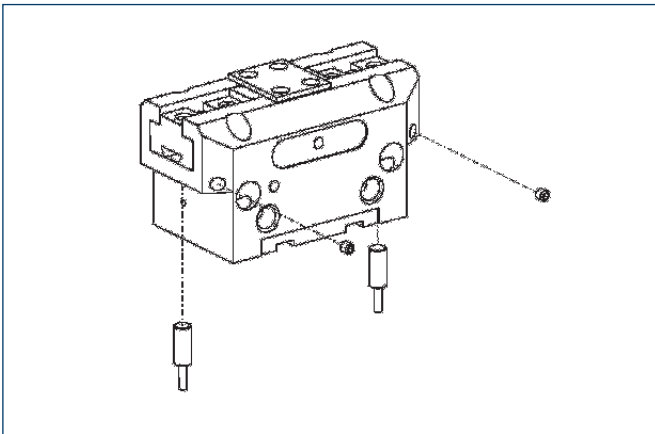
① To be considered when using proximity switch IN 80 instead of IN 40
The proximity switches can also be mounted using the brackets supplied but without using the eccentric sleeves. Please bear in mind that when using IN 80 instead of IN 40 sensors, the switch position is not adjustable.

Finger design



Suggestion for connection dimensions – Gripper fingers

Sensor systems



- ① To be considered when using proximity switch IN 80 instead of IN 40
The proximity switches can also be mounted using the brackets supplied but without using the eccentric sleeves. Please bear in mind that when using IN 80 instead of IN 40 sensors, the switch position is not adjustable.

End position monitoring:

Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 40/O-M12	0301584	
IN 40/O-M8	0301484	•
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
IN 80/O-M12	0301588	
IN 80/O-M8	0301488	
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	
INK 40/O	0301556	
INK 40/S	0301555	
INK 80/O	0301551	
INK 80/S	0301550	

- ① Two sensors are required per gripper; an NO contact (/S) and an NC contact (/O), as well as an optional extension cable.

Extension cables for proximity switches/magnetic switches

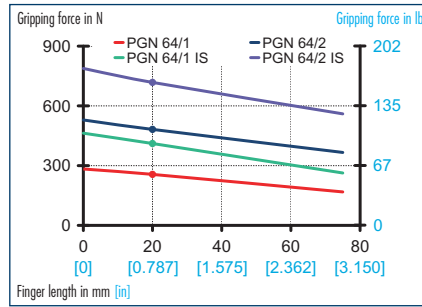
Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

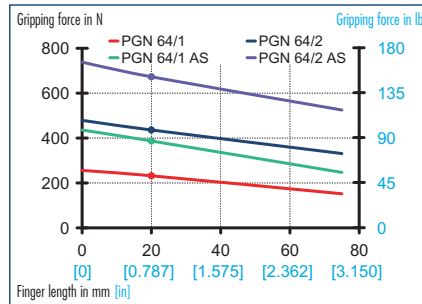
 You can find detailed information and components of the specified accessory in the “Accessories” catalog section.



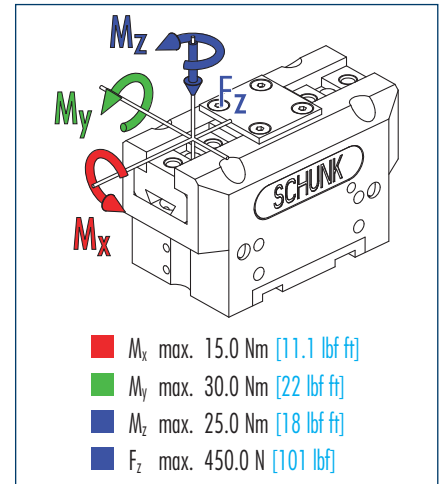
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

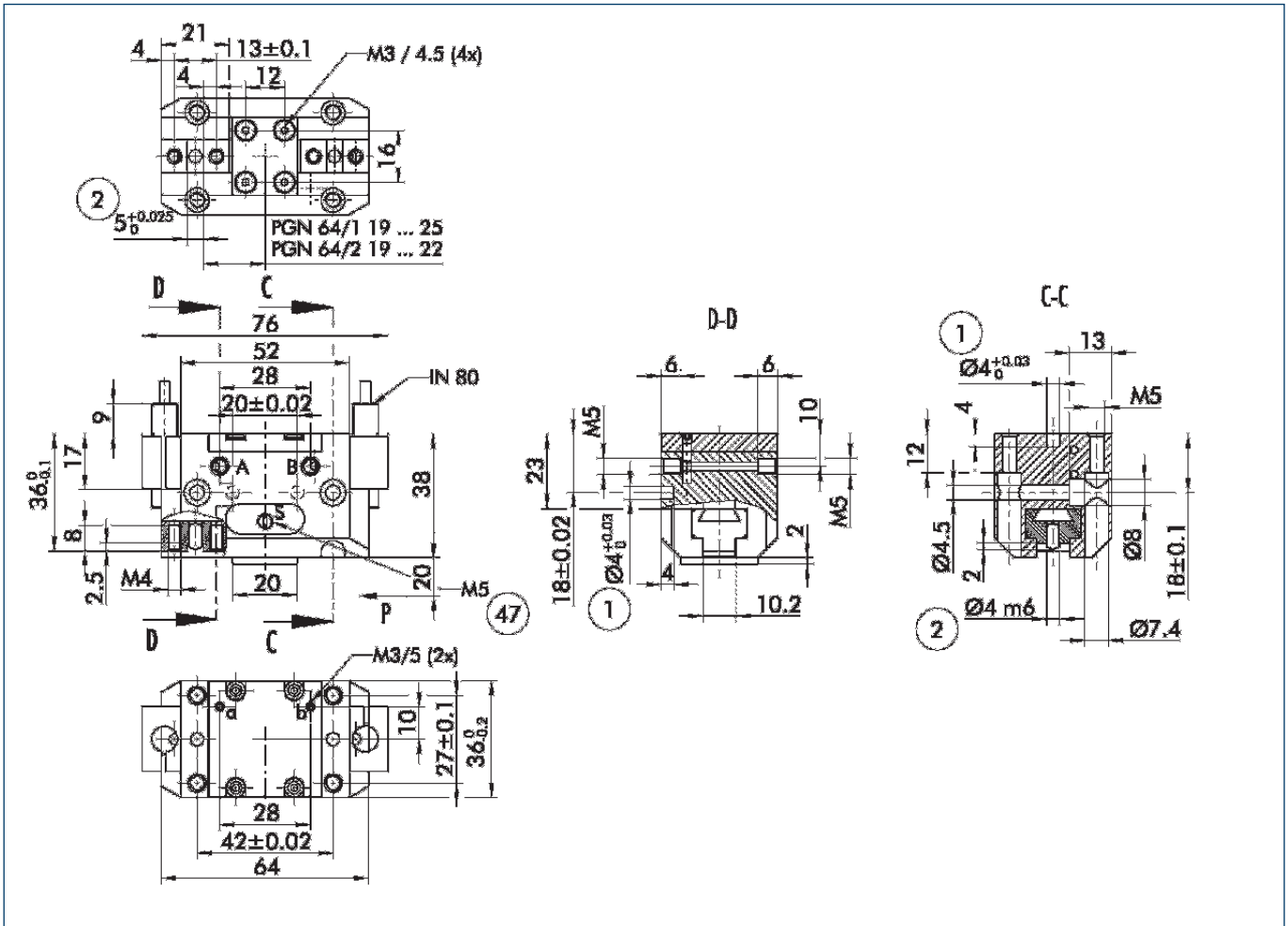


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 64-1	PGN 64-2	PGN 64-1 AS	PGN 64-2 AS	PGN 64-1 IS	PGN 64-2 IS
	ID	0370100	0370150	0370400	0370450	0370460	0370470
Stroke per finger	mm [in]	6.0 [0.236]	3.0 [0.118]	6.0 [0.236]	3.0 [0.118]	6.0 [0.236]	3.0 [0.118]
Closing force	N [lbf]	220.0 [49]	420.0 [94]	370.0 [83]	740.0 [166]		
Opening force	N [lbf]	255.0 [57]	480.0 [108]			370.0 [83]	740.0 [166]
Min. gripping force by spring	N [lbf]			70.0 [15.7]	140.0 [31]	70.0 [15.7]	140.0 [31]
Weight	kg [lbs]	0.27 [0.60]	0.27 [0.60]	0.35 [0.77]	0.35 [0.77]	0.35 [0.77]	0.35 [0.77]
Recommended workpiece weight	kg [lbs]	1.1 [2.43]	2.1 [4.63]	1.1 [2.43]	2.1 [4.63]	1.1 [2.43]	2.1 [4.63]
Air consumption per double stroke	cm ³ [in ³]	10.0 [0.61]	10.0 [0.61]	10.0 [0.61]	10.0 [0.61]	10.0 [0.61]	10.0 [0.61]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.02	0.02	0.01	0.01	0.02	0.02
Opening time	s	0.02	0.02	0.02	0.02	0.01	0.01
Closing / opening time with spring only	s			0.05	0.05	0.05	0.05
Max. permitted finger length	mm [in]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]
Max. permitted weight per finger	kg [lbs]	0.3 [0.66]	0.3 [0.66]	0.3 [0.66]	0.3 [0.66]	0.3 [0.66]	0.3 [0.66]
IP class		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

Main views

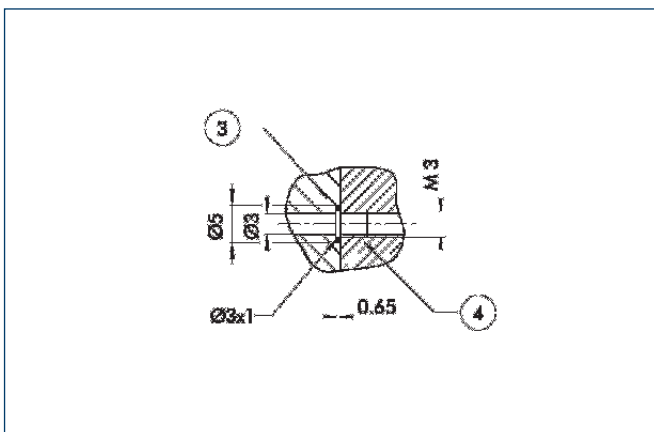


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④⑦ On both sides

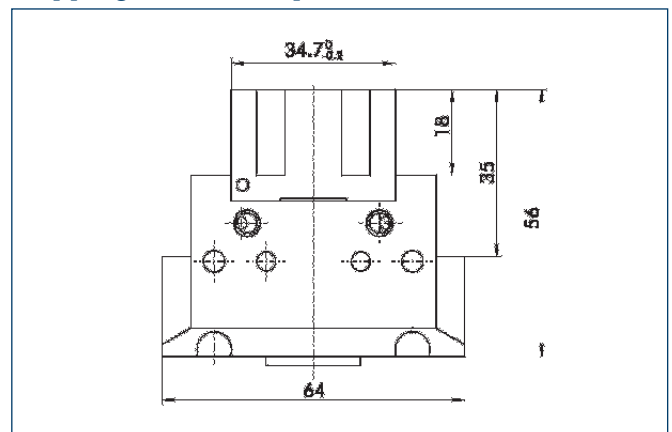
Hose-free direct connection



- ③ Adapter
- ④ Gripper

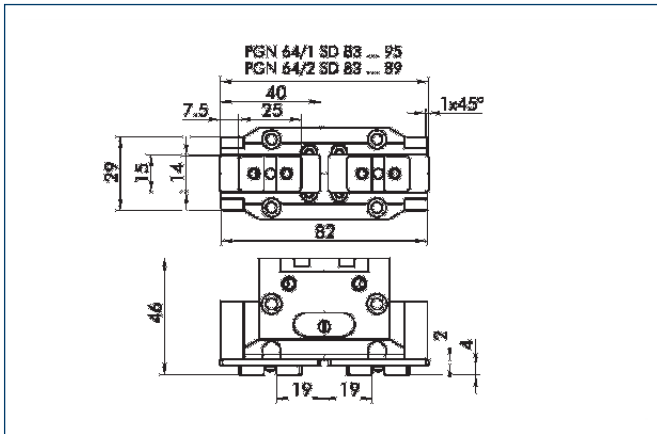
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



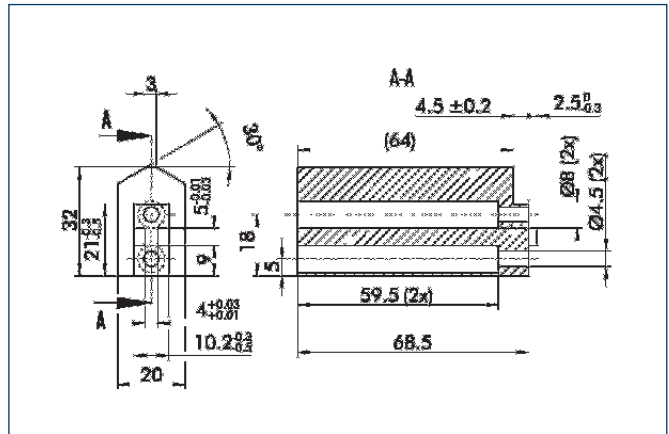
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

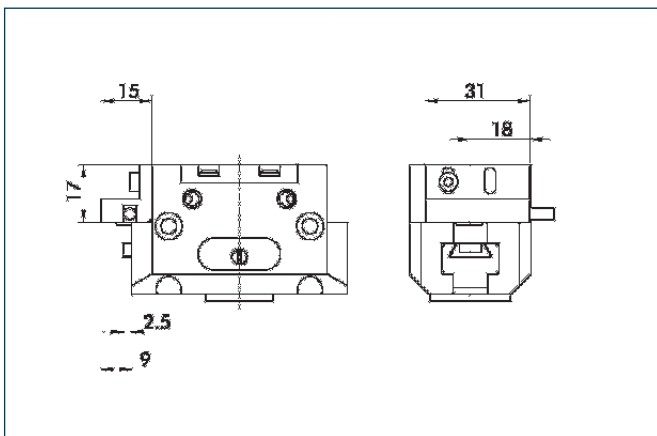
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Material	Scope of delivery	ID
ABR 64	Aluminum	1	0300725
SBR 64	16 MnCr 5	1	0300734

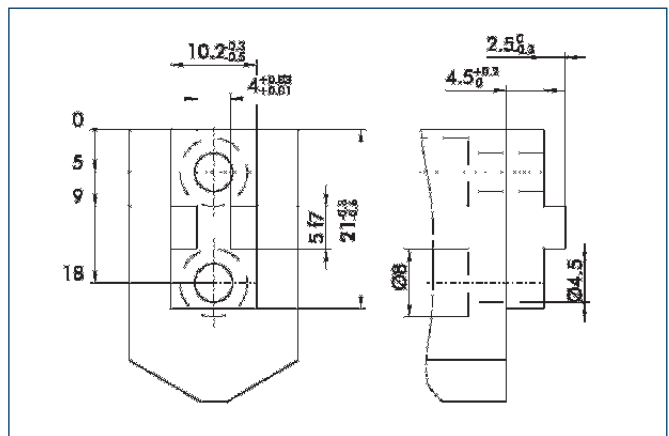
Mounting kit for FPS



The flexible position sensor FPS can distinguish between five freely programmable areas or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

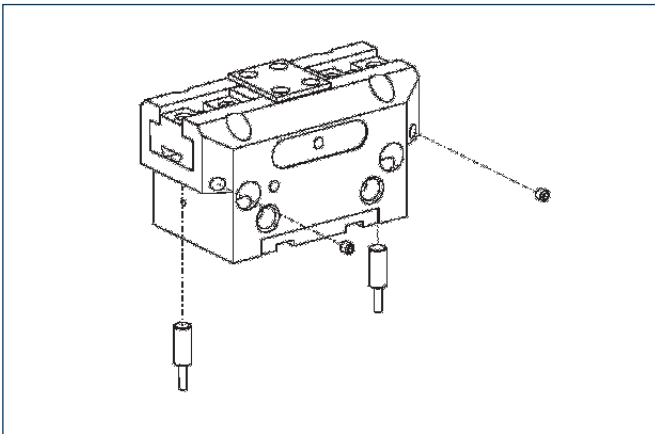
Designation	ID
AS-PGN 64-100/ HGN 80-100	0301710

Finger design



Suggestion for connection dimensions – Gripper fingers

Sensor systems

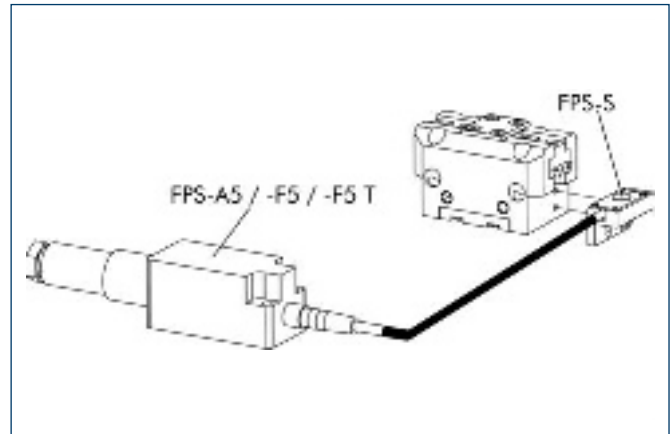


End position monitoring:

Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

- ① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.



Measuring system:

Position monitoring FPS

Designation	ID
AS-PGN 64-100/ HGN 80-100	0301710
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as optional extras in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

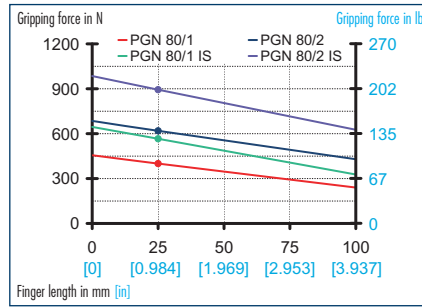
Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

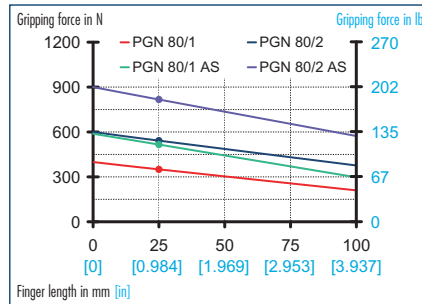
 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



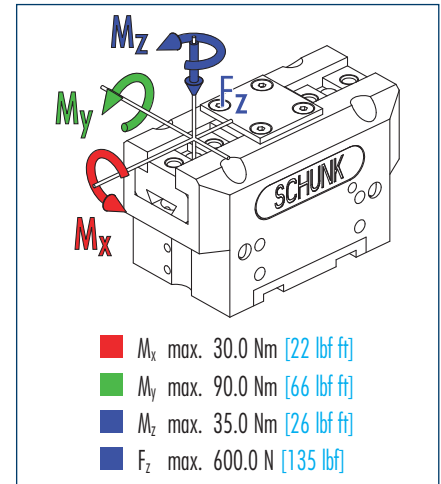
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

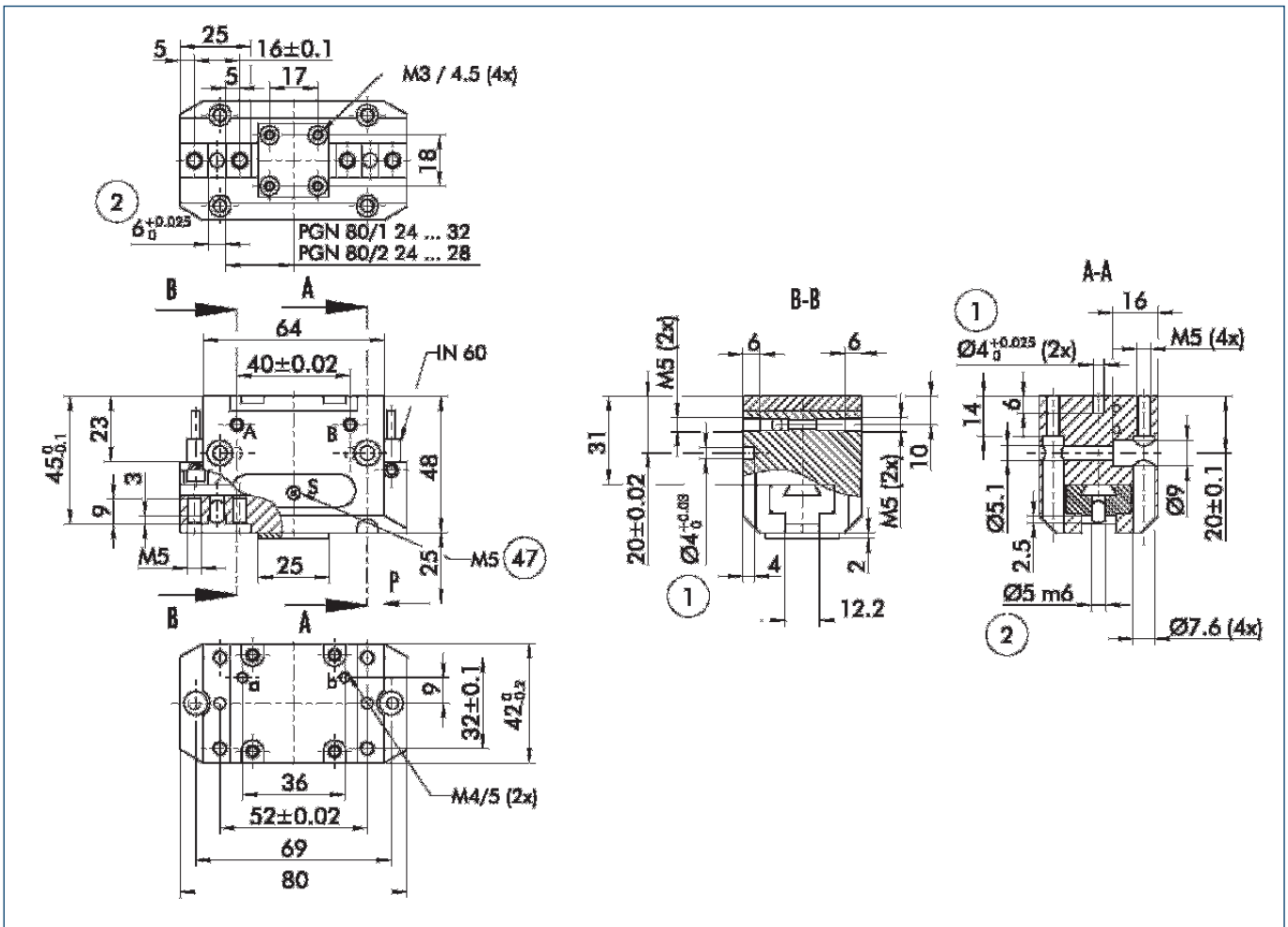


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 80-1	PGN 80-2	PGN 80-1 AS	PGN 80-2 AS	PGN 80-1 IS	PGN 80-2 IS
ID		0370101	0370151	0370401	0370451	0370461	0370471
Stroke per finger	mm [in]	8.0 [0.315]	4.0 [0.157]	8.0 [0.315]	4.0 [0.157]	8.0 [0.315]	4.0 [0.157]
Closing force	N [lbf]	360.0 [81]	540.0 [121]	540.0 [121]	900.0 [202]		
Opening force	N [lbf]	400.0 [90]	620.0 [139]			520.0 [117]	860.0 [193]
Min. gripping force by spring	N [lbf]			120.0 [27]	180.0 [40]	120.0 [27]	180.0 [40]
Weight	kg [lbs]	0.43 [0.95]	0.43 [0.95]	0.68 [1.50]	0.68 [1.50]	0.68 [1.50]	0.68 [1.50]
Recommended workpiece weight	kg [lbs]	1.8 [3.97]	2.7 [5.95]	1.8 [3.97]	2.7 [5.95]	1.8 [3.97]	2.7 [5.95]
Air consumption per double stroke	cm ³ [in ³]	20.0 [1.22]	20.0 [1.22]	20.0 [1.22]	20.0 [1.22]	20.0 [1.22]	20.0 [1.22]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.03	0.03	0.02	0.02	0.03	0.03
Opening time	s	0.03	0.03	0.03	0.03	0.02	0.02
Closing / opening time with spring only	s			0.03	0.03	0.03	0.03
Max. permitted finger length	mm [in]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]
Max. permitted weight per finger	kg [lbs]	0.5 [1.10]	0.5 [1.10]	0.5 [1.10]	0.5 [1.10]	0.5 [1.10]	0.5 [1.10]
IP class		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

Main views

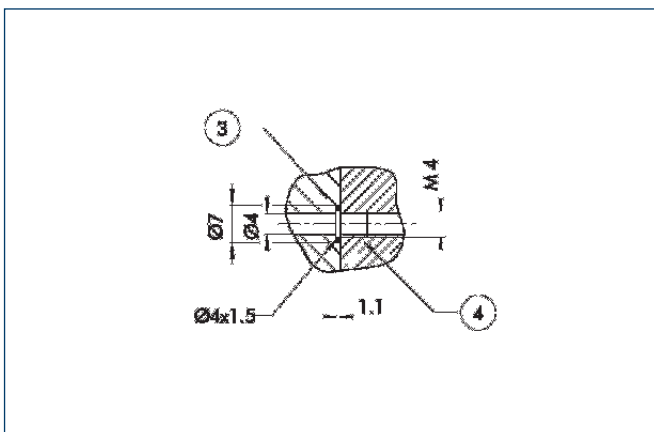


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④7 On both sides

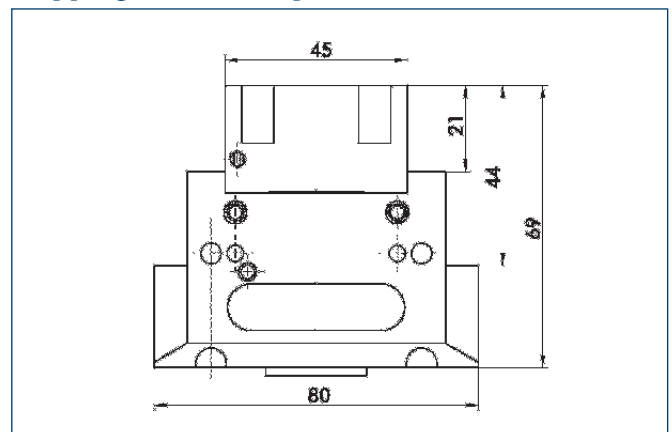
Hose-free direct connection



- ③ Adapter
- ④ Gripper

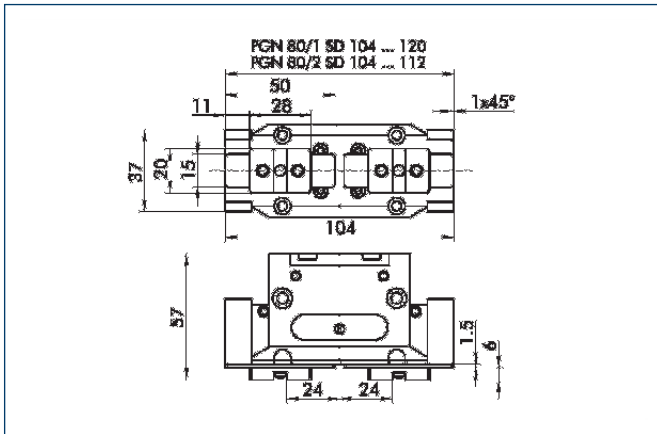
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



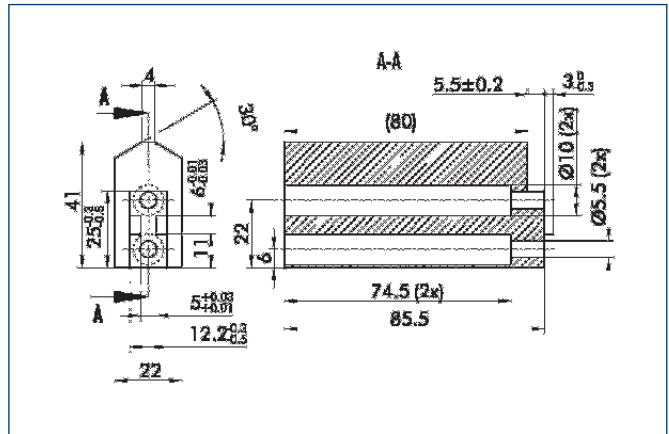
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

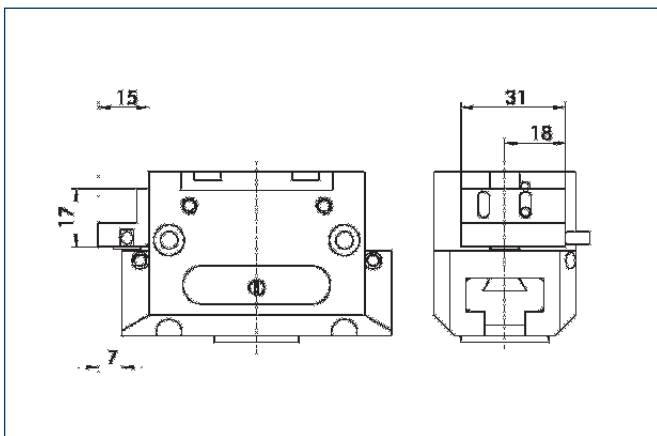
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Housing material	Scope of delivery	ID
ABR 80	Aluminum	1	0300726
SBR 80	16 MnCr 5	1	0300735

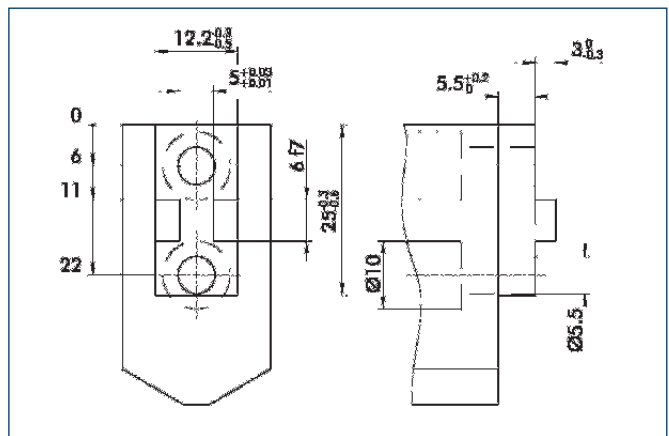
Mounting kit for FPS



The flexible position sensor FPS can distinguish between five freely programmable areas or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

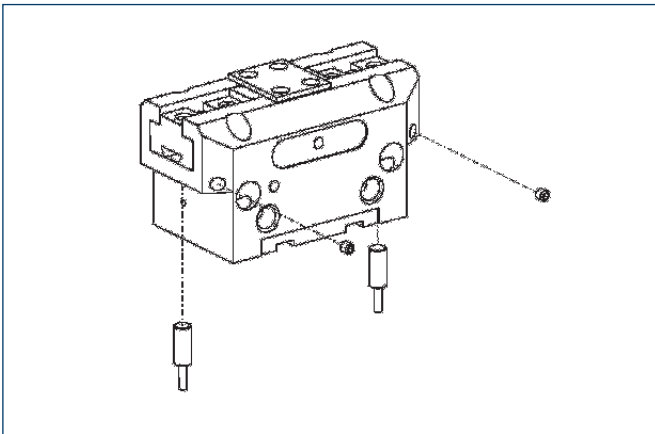
Designation	ID
AS-PGN 64-100/HGN 80-100	0301710

Finger design



Suggestion for connection dimensions – Gripper fingers

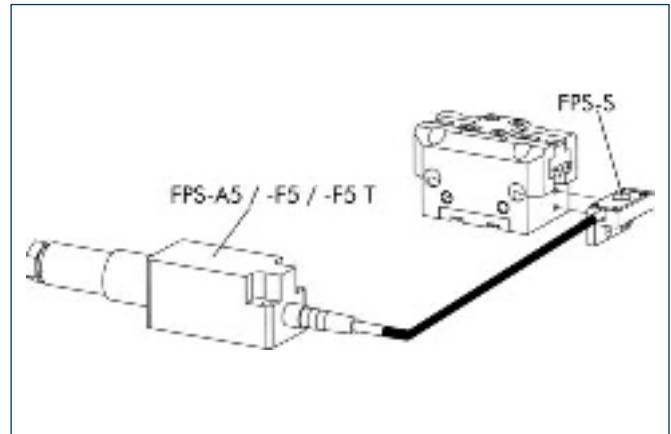
Sensor systems



End position monitoring:
Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 60/S-M12	0301585	
IN 60/S-M8	0301485	•
INK 60/S	0301553	

① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.



Measuring system:
Position monitoring FPS

Designation	ID
AS-PGN 64-100/ HGN 80-100	0301710
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-A5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as optional extras in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

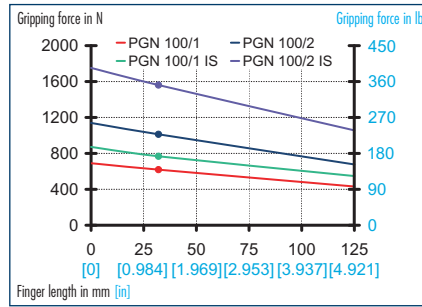
Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

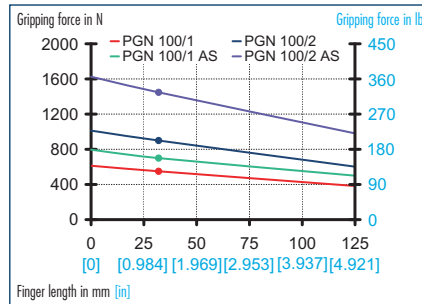
 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



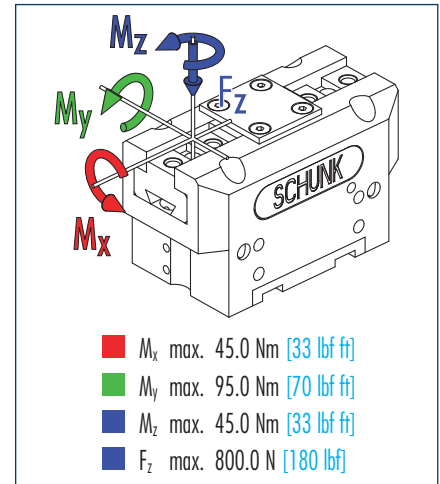
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

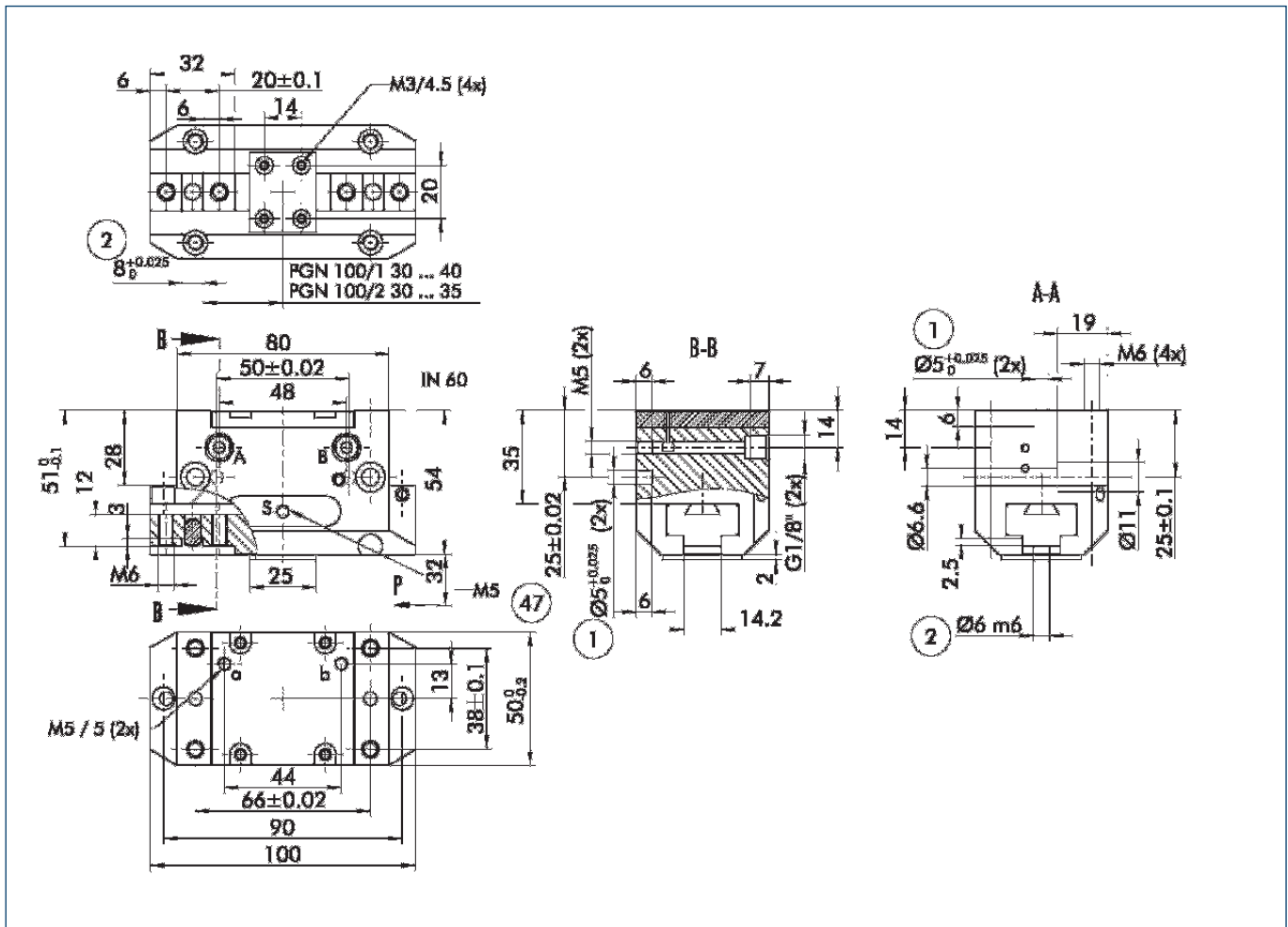


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 100-1	PGN 100-2	PGN 100-1 AS	PGN 100-2 AS	PGN 100-1 IS	PGN 100-2 IS
	ID	0370102	0370152	0370402	0370452	0370462	0370472
Stroke per finger	mm [in]	10.0 [0.394]	5.0 [0.197]	10.0 [0.394]	5.0 [0.197]	10.0 [0.394]	5.0 [0.197]
Closing force	N [lbf]	550.0 [124]	900.0 [202]	700.0 [157]	1530.0 [344]		
Opening force	N [lbf]	620.0 [139]	1010.0 [227]			700.0 [157]	1530.0 [344]
Min. gripping force by spring	N [lbf]			180.0 [40]	300.0 [67]	180.0 [40]	300.0 [67]
Weight	kg [lbs]	0.75 [1.65]	0.75 [1.65]	0.96 [2.12]	0.96 [2.12]	0.96 [2.12]	0.96 [2.12]
Recommended workpiece weight	kg [lbs]	2.75 [6.06]	4.5 [9.92]	2.75 [6.06]	4.5 [9.92]	2.75 [6.06]	4.5 [9.92]
Air consumption per double stroke	cm ³ [in ³]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]	40.0 [2.44]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.05	0.05	0.03	0.03	0.05	0.05
Opening time	s	0.05	0.05	0.05	0.05	0.03	0.03
Closing / opening time with spring only	s			0.05	0.05	0.05	0.05
Max. permitted finger length	mm [in]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]
Max. permitted weight per finger	kg [lbs]	0.95 [2.09]	0.95 [2.09]	0.95 [2.09]	0.95 [2.09]	0.95 [2.09]	0.95 [2.09]
IP class		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]	0.01 [0.0004]

Main views

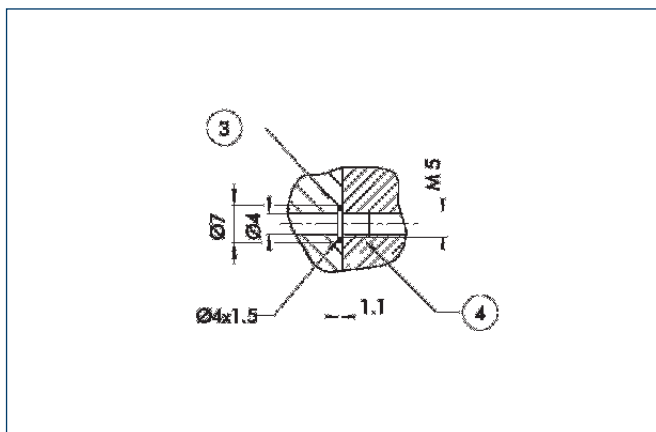


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④7 On both sides

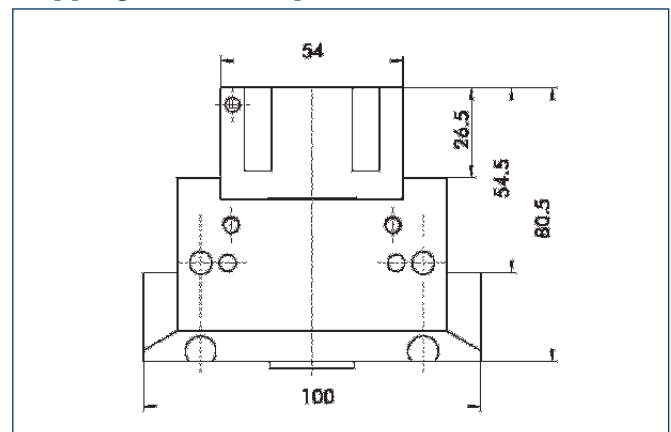
Hose-free direct connection



- ③ Adapter
- ④ Gripper

The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS

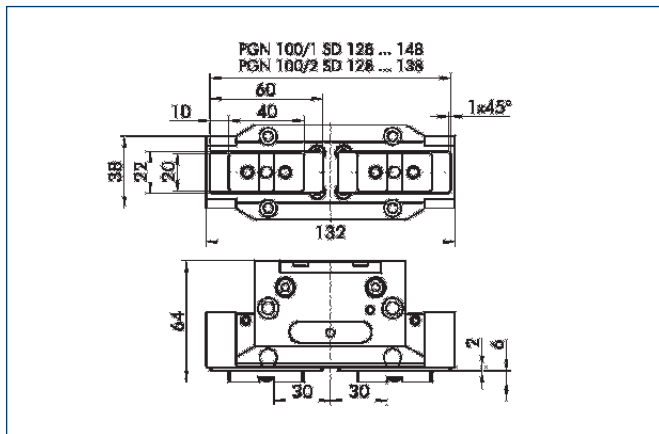


The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

PGN 100

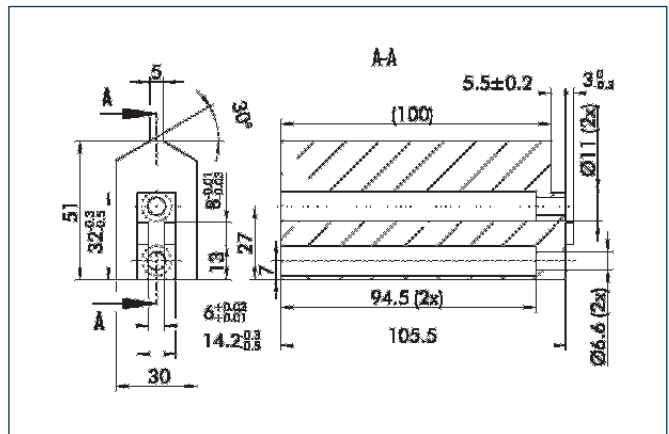
Pneumatic · 2-Finger Parallel Grippers · Universal Grippers

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

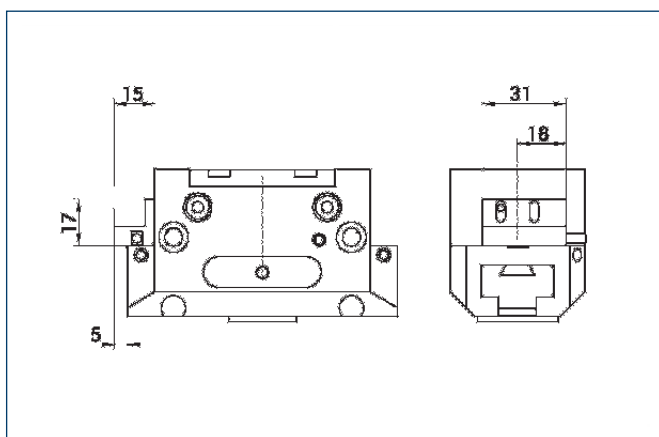
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Housing material	Scope of delivery	ID
ABR 100	Aluminum	1	0300727
SBR 100	16 MnCr 5	1	0300736

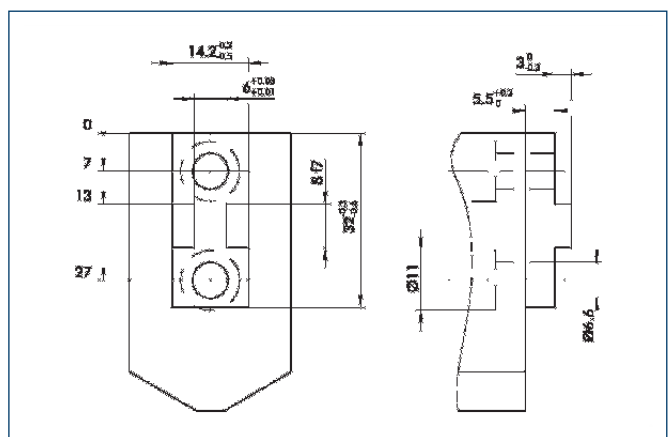
Mounting kit for FPS



The flexible position sensor FPS can distinguish between five freely programmable areas or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Designation	ID
AS-PGN 64-100/HGN 80-100	0301710

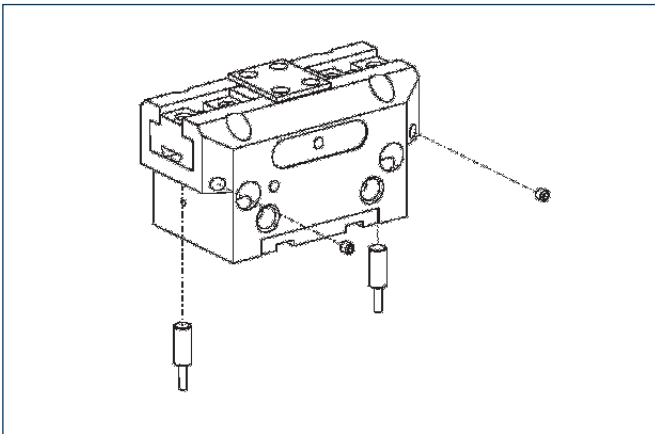
Finger design



Suggestion for connection dimensions – Gripper fingers

 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.

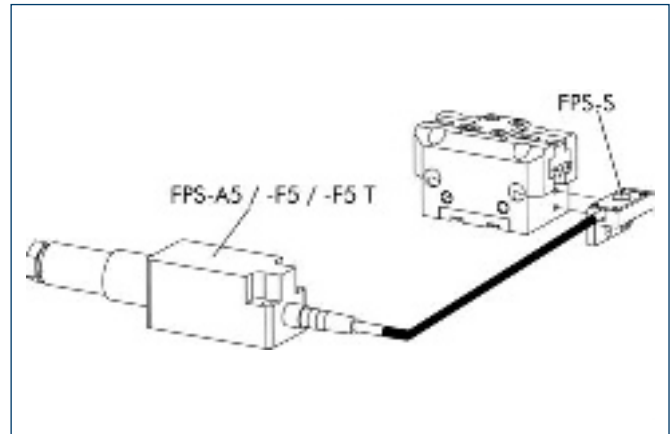
Sensor systems



End position monitoring:
Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 60/S-M12	0301585	
IN 60/S-M8	0301485	•
INK 60/S	0301553	

① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.



Measuring system:
Position monitoring FPS

Designation	ID
AS-PGN 64-100/ HGN 80-100	0301710
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-A5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as optional extras in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

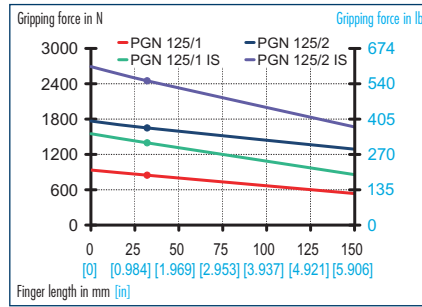
Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

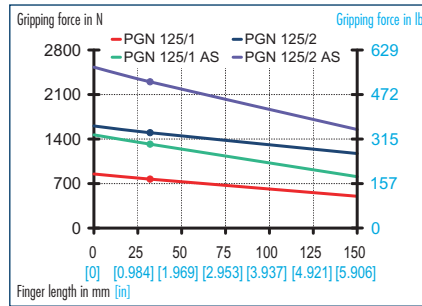
 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



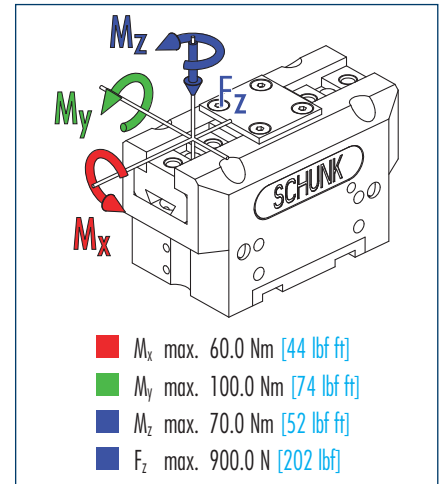
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

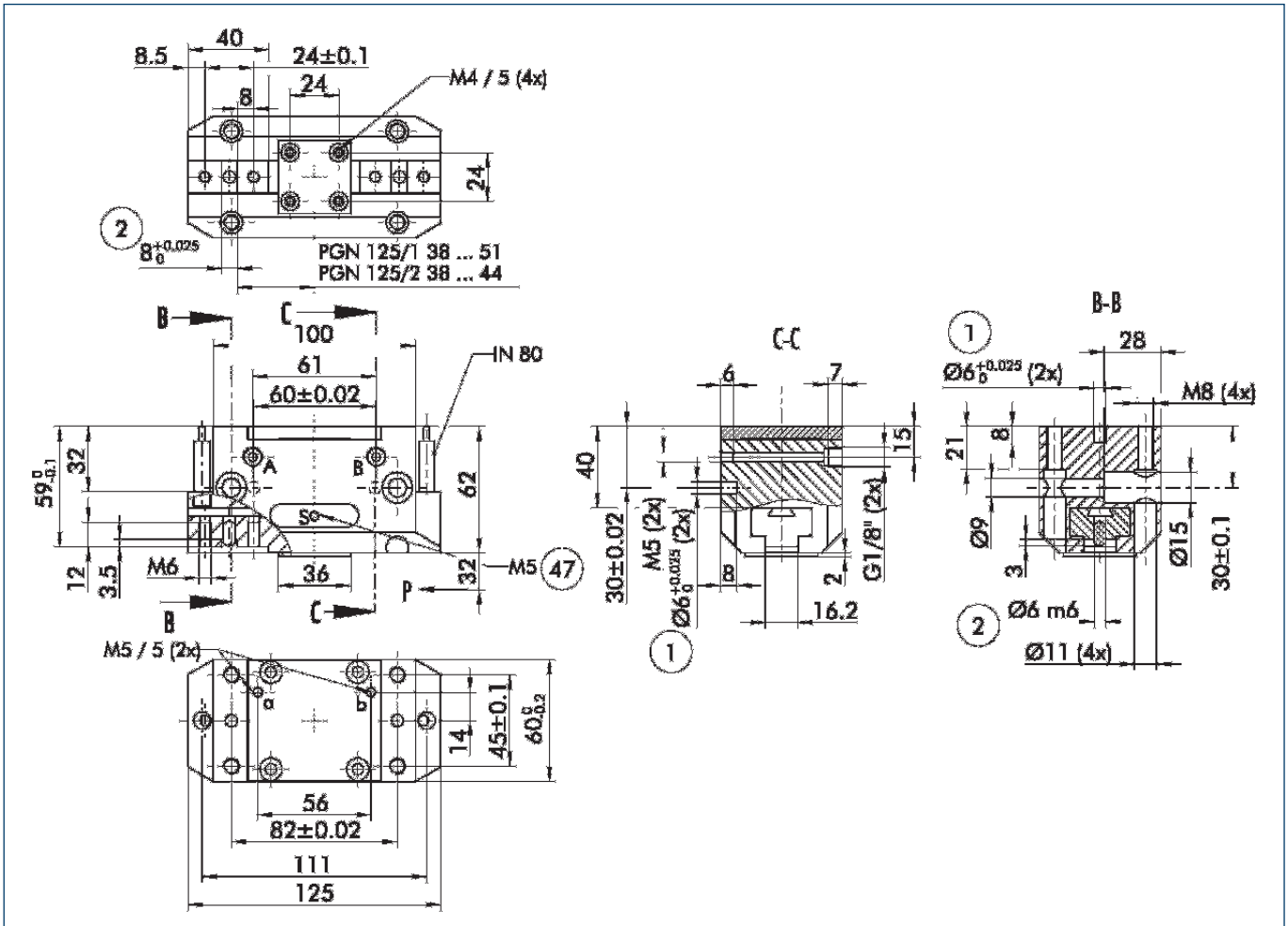


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 125-1	PGN 125-2	PGN 125-1 AS	PGN 125-2 AS	PGN 125-1 IS	PGN 125-2 IS
ID		0370103	0370153	0370403	0370453	0370463	0370473
Stroke per finger	mm [in]	13.0 [0.512]	6.0 [0.236]	13.0 [0.512]	6.0 [0.236]	13.0 [0.512]	6.0 [0.236]
Closing force	N [lbf]	800.0 [180]	1500.0 [337]	1350.0 [303]	2300.0 [517]		
Opening force	N [lbf]	845.0 [190]	1650.0 [371]			1350.0 [303]	2310.0 [519]
Min. gripping force by spring	N [lbf]			270.0 [61]	500.0 [112]	270.0 [61]	500.0 [112]
Weight	kg [lbs]	1.3 [2.87]	1.3 [2.87]	1.65 [3.64]	1.65 [3.64]	1.65 [3.64]	1.65 [3.64]
Recommended workpiece weight	kg [lbs]	4.0 [8.82]	7.5 [16.53]	4.0 [8.82]	7.5 [16.53]	4.0 [8.82]	7.5 [16.53]
Air consumption per double stroke	cm ³ [in ³]	70.0 [4.27]	70.0 [4.27]	70.0 [4.27]	70.0 [4.27]	70.0 [4.27]	70.0 [4.27]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.08	0.08	0.07	0.07	0.1	0.1
Opening time	s	0.08	0.08	0.1	0.1	0.07	0.07
Closing / opening time with spring only	s			0.14	0.14	0.14	0.14
Max. permitted finger length	mm [in]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]
Max. permitted weight per finger	kg [lbs]	1.75 [3.86]	1.75 [3.86]	1.75 [3.86]	1.75 [3.86]	1.75 [3.86]	1.75 [3.86]
IP class		40	40	40	40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

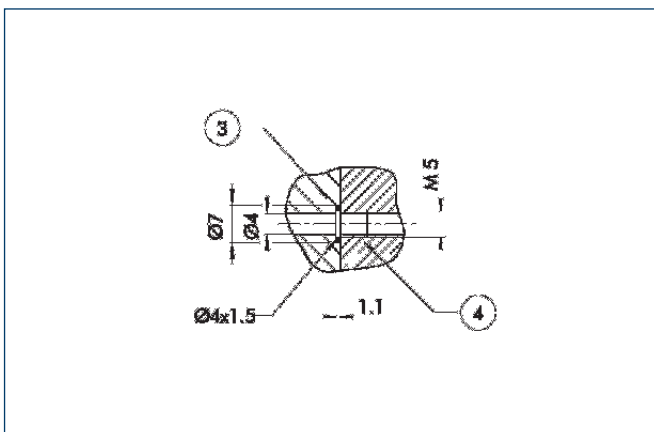


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④ On both sides

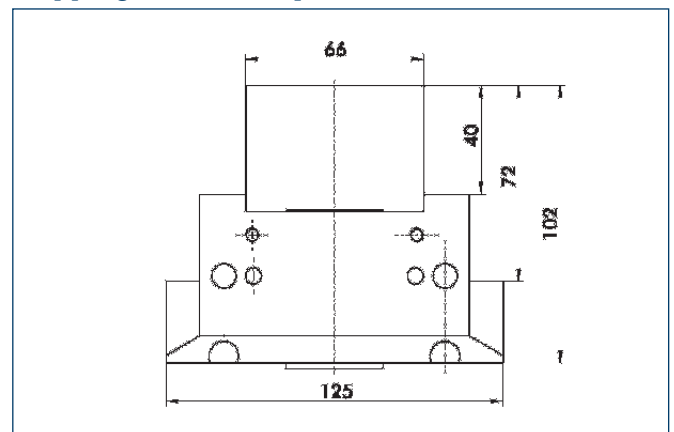
Hose-free direct connection



- ③ Adapter
- ④ Gripper

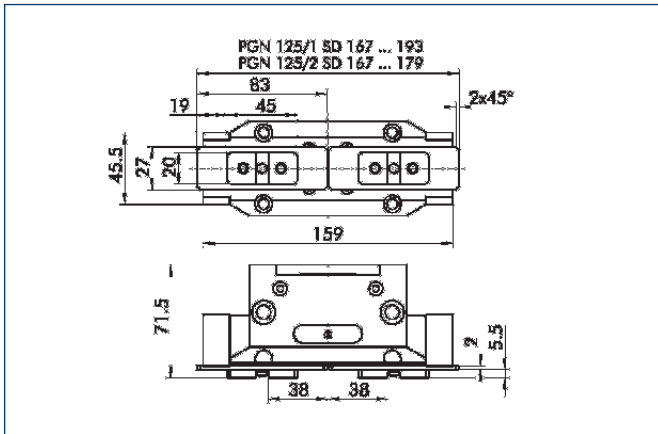
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



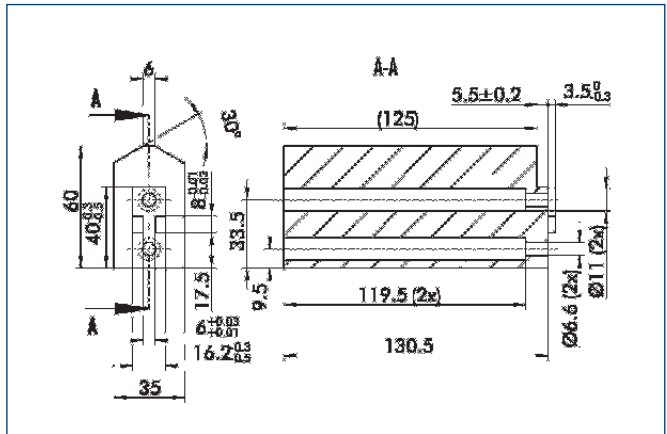
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

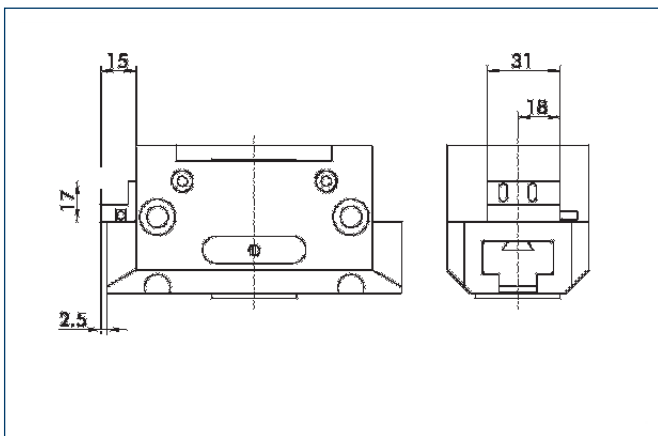
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Housing material	Scope of delivery	ID
ABR 125	Aluminum	1	0300728
SBR 125	16 MnCr 5	1	0300737

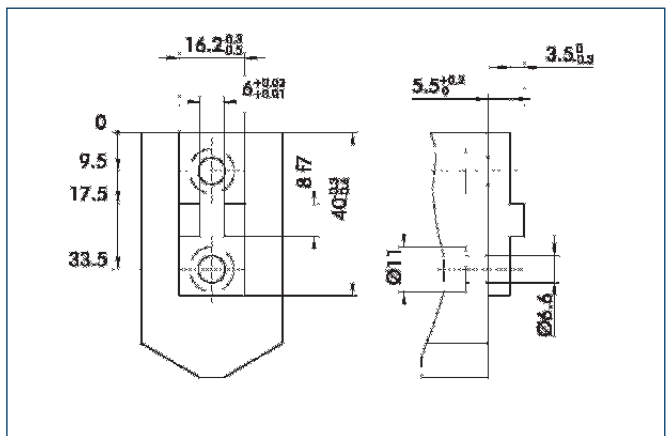
Mounting kit for FPS



The flexible position sensor FPS can distinguish between five freely programmable areas or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

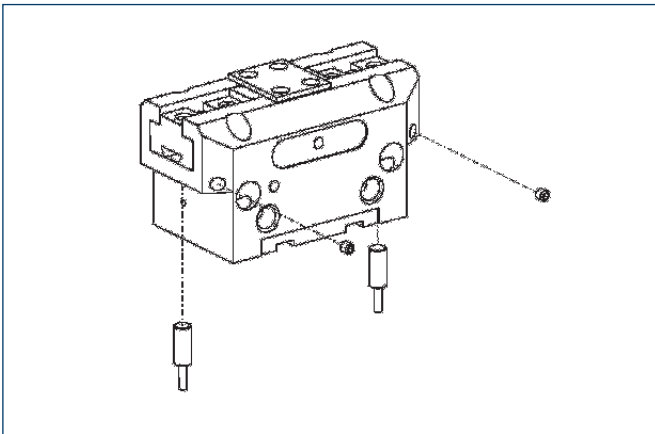
Designation	ID
AS-PGN/HGN 125-160	0301711

Finger design



Suggestion for connection dimensions – Gripper fingers

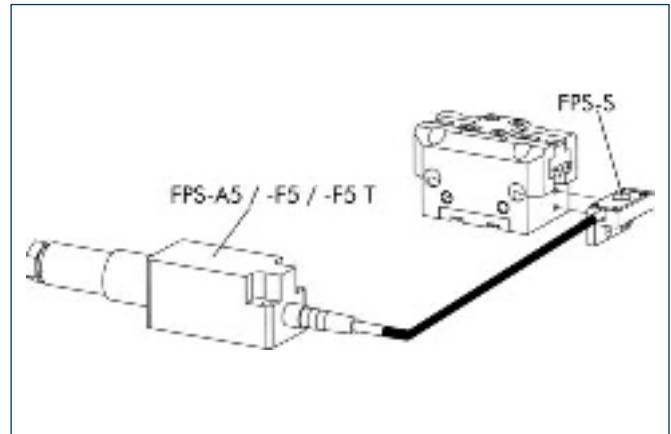
Sensor systems



End position monitoring:
Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.



Measuring system:
Position monitoring FPS

Designation	ID
AS-PGN/HGN 125-160	0301711
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-A5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as optional extras in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

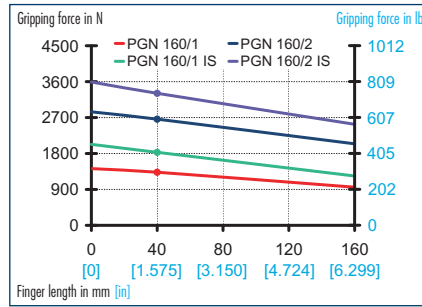
Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

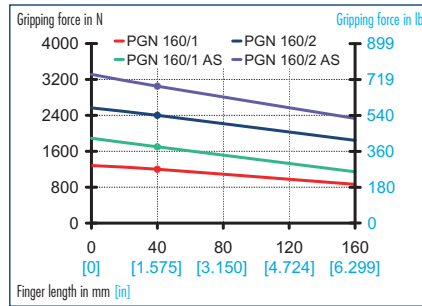
 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



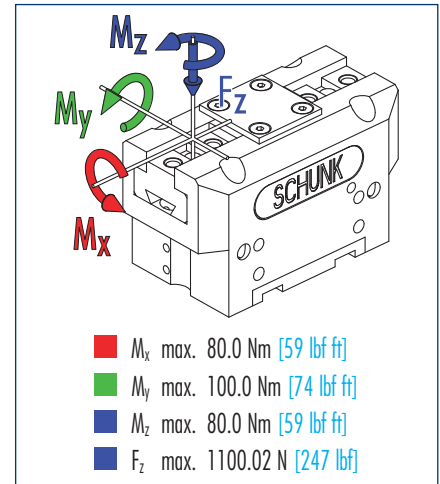
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

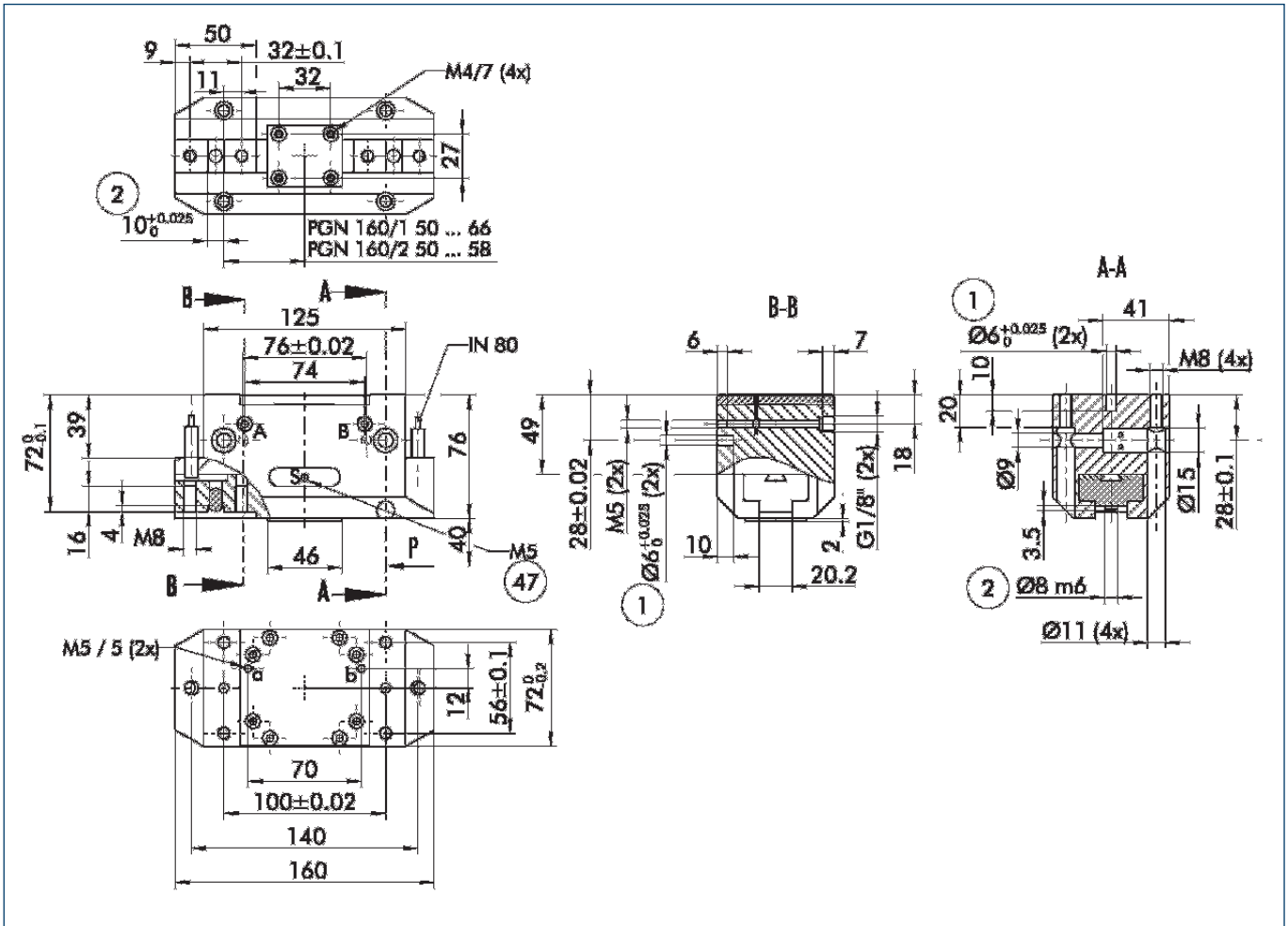


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 160-1	PGN 160-2	PGN 160-1 AS	PGN 160-2 AS	PGN 160-1 IS	PGN 160-2 IS
ID		0370104	0370154	0370404	0370454	0370464	0370474
Stroke per finger	mm [in]	16.0 [0.630]	8.0 [0.315]	16.0 [0.630]	8.0 [0.315]	16.0 [0.630]	8.0 [0.315]
Closing force	N [lbf]	1200.0 [270]	2400.0 [540]	1700.0 [382]	3050.0 [686]		
Opening force	N [lbf]	1330.0 [299]	2660.0 [598]			1720.0 [387]	3090.0 [695]
Min. gripping force by spring	N [lbf]			400.0 [90]	800.0 [180]	400.0 [90]	800.0 [180]
Weight	kg [lbs]	2.4 [5.29]	2.4 [5.29]	3.5 [7.72]	3.5 [7.72]	3.5 [7.72]	3.5 [7.72]
Recommended workpiece weight	kg [lbs]	6.0 [13.23]	12.0 [26.46]	6.0 [13.23]	12.0 [26.46]	6.0 [13.23]	12.0 [26.46]
Air consumption per double stroke	cm ³ [in ³]	140.0 [8.54]	140.0 [8.54]	140.0 [8.54]	140.0 [8.54]	140.0 [8.54]	140.0 [8.54]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.1	0.1	0.12	0.12	0.3	0.3
Opening time	s	0.1	0.1	0.3	0.3	0.12	0.12
Closing / opening time with spring only	s			0.19	0.19	0.19	0.19
Max. permitted finger length	mm [in]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]	160.0 [6.299]
Max. permitted weight per finger	kg [lbs]	3.0 [6.61]	3.0 [6.61]	3.0 [6.61]	3.0 [6.61]	3.0 [6.61]	3.0 [6.61]
IP class		40	40	40	40	40	40
Min. operating temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. operating temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

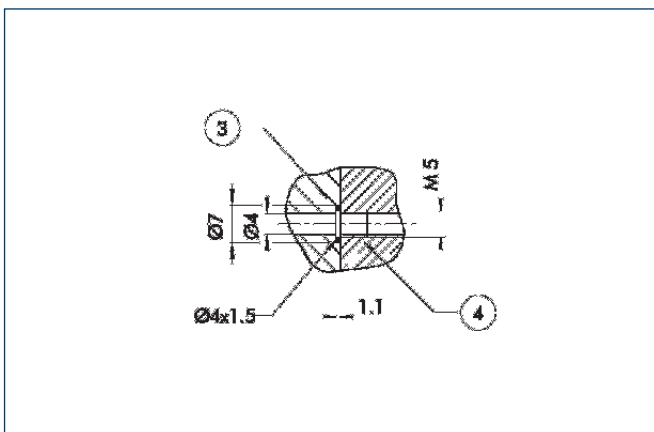


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④ On both sides

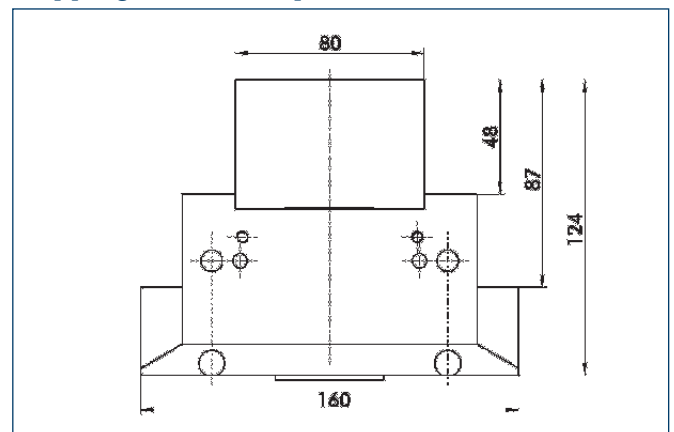
Hose-free direct connection



- ③ Adapter
- ④ Gripper

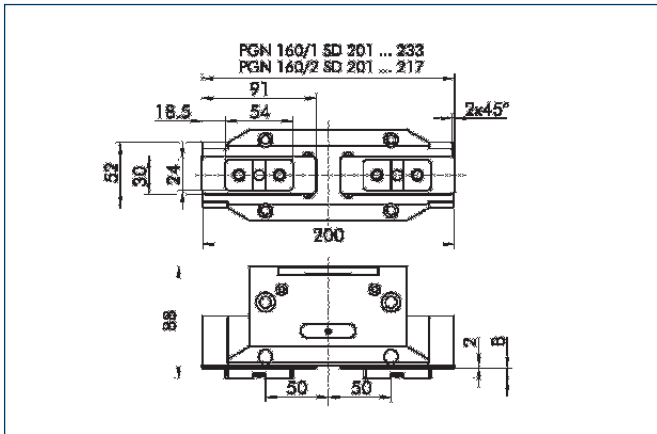
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



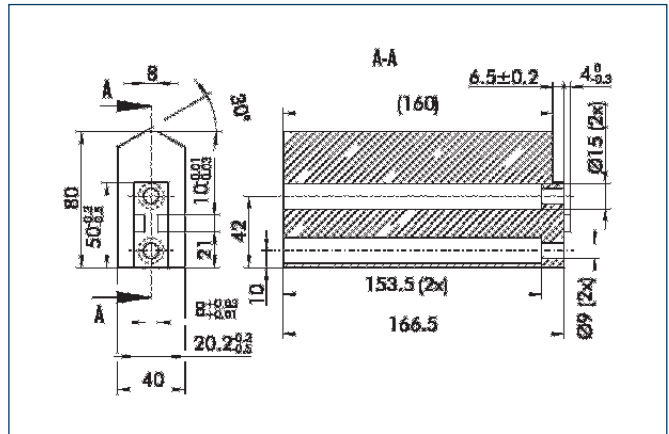
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

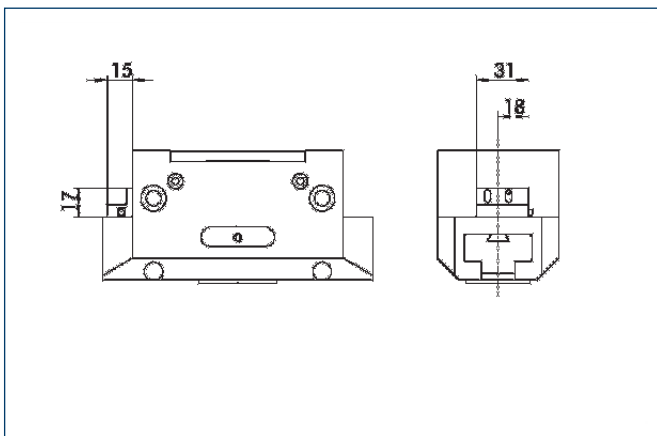
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Housing material	Scope of delivery	ID
ABR 160	Aluminum	1	0300729
SBR 160	16 MnCr 5	1	0300738

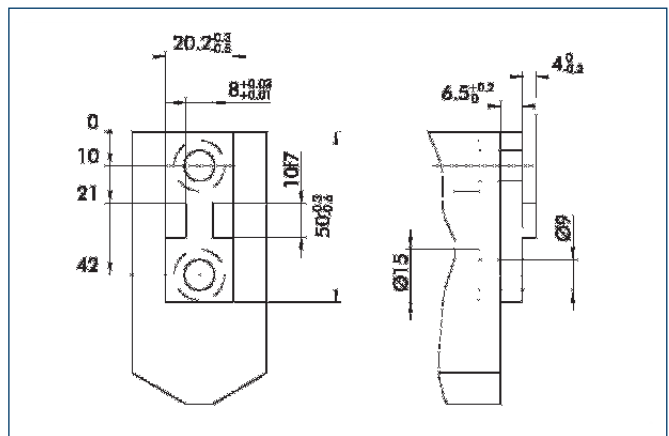
Mounting kit for FPS



The flexible position sensor FPS can distinguish between five freely programmable areas or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

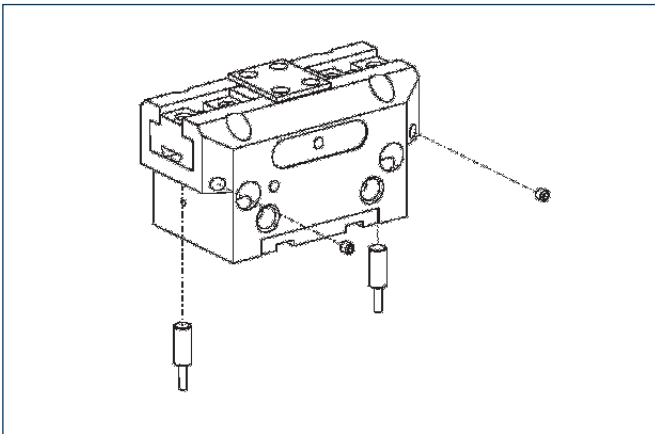
Designation	ID
AS-PGN/HGN 125-160	0301711

Finger design



Suggestion for connection dimensions – Gripper fingers

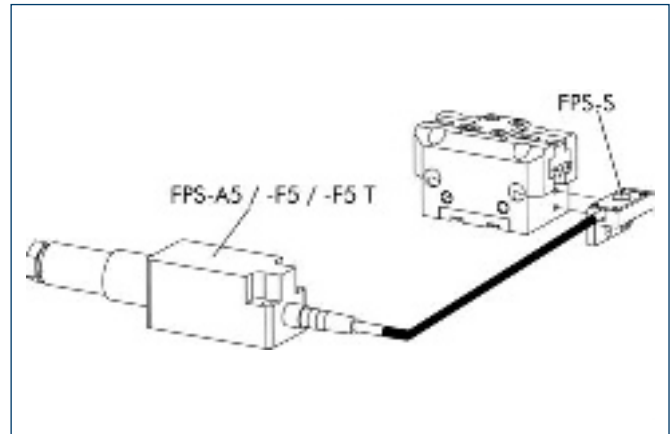
Sensor systems



End position monitoring:
Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.



Measuring system:
Position monitoring FPS

Designation	ID
AS-PGN/HGN 125-160	0301711
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as optional extras in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

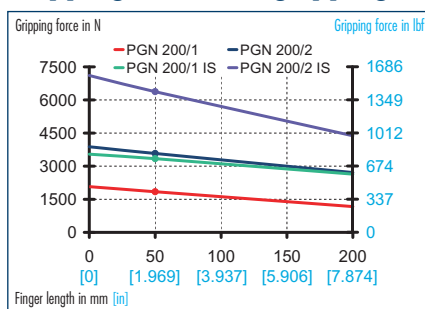
Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

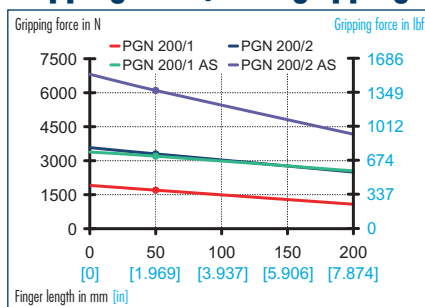
 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



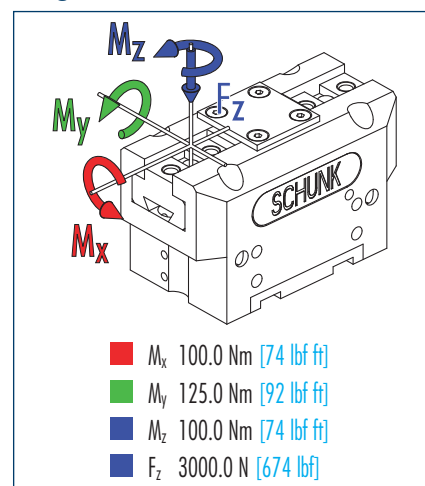
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

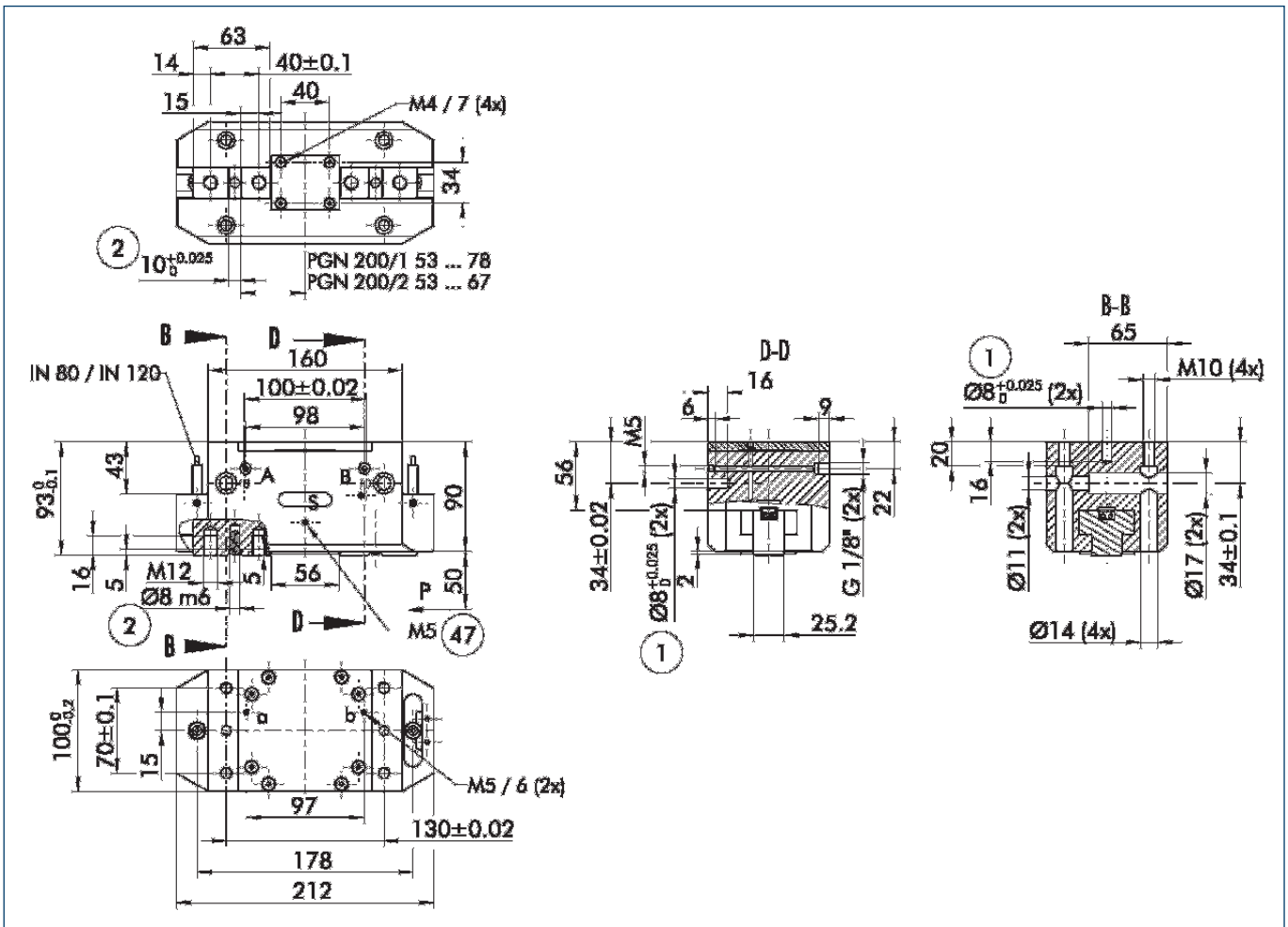


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 200-1	PGN 200-2	PGN 200-1 AS	PGN 200-2 AS	PGN 200-1 IS	PGN 200-2 IS
ID		0370105	0370155	0370405	0370455	0370465	0370475
Stroke per finger	mm [in]	25.0 [0.984]	14.0 [0.551]	25.0 [0.984]	14.0 [0.551]	25.0 [0.984]	14.0 [0.551]
Closing force	N [lbf]	1700.0 [382]	3300.0 [742]	3200.0 [719]	6100.0 [1371]		
Opening force	N [lbf]	1840.0 [414]	3570.0 [803]			3170.0 [713]	6050.0 [1360]
Min. gripping force by spring	N [lbf]			570.0 [128]	1100.0 [247]	570.0 [128]	1100.0 [247]
Weight	kg [lbs]	5.1 [11.24]	5.1 [11.24]	6.0 [13.23]	6.0 [13.23]	6.0 [13.23]	6.0 [13.23]
Recommended workpiece weight	kg [lbs]	8.5 [18.74]	16.5 [36.38]	8.5 [18.74]	16.5 [36.38]	8.5 [18.74]	16.5 [36.38]
Air consumption per double stroke	cm ³ [in ³]	306.0 [18.67]	306.0 [18.67]	306.0 [18.67]	306.0 [18.67]	306.0 [18.67]	306.0 [18.67]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.3	0.3	0.3	0.3	0.7	0.7
Opening time	s	0.3	0.3	0.7	0.7	0.3	0.3
Closing / opening time with spring only	s			0.5	0.5	0.5	0.5
Max. permitted finger length	mm [in]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]	200.0 [7.874]
Max. permitted weight per finger	kg [lbs]	5.5 [12.13]	5.5 [12.13]	5.5 [12.13]	5.5 [12.13]	5.5 [12.13]	5.5 [12.13]
IP class		40	40	40	40	40	40
Min. operating temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. operating temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

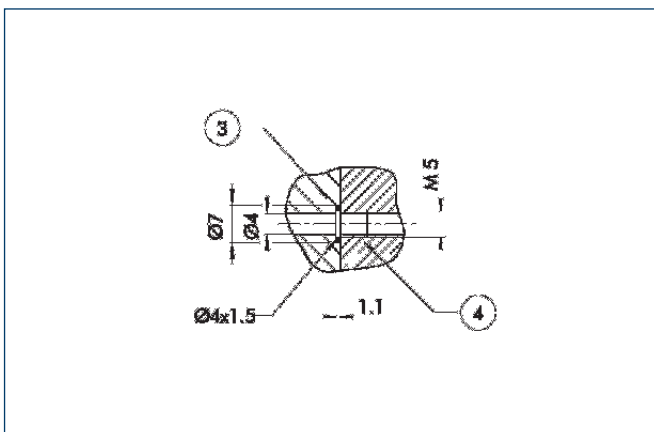


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④ On both sides

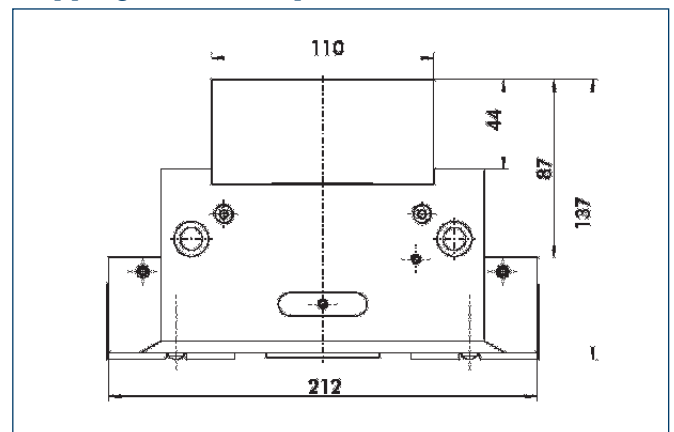
Hose-free direct connection



- ③ Adapter
- ④ Gripper

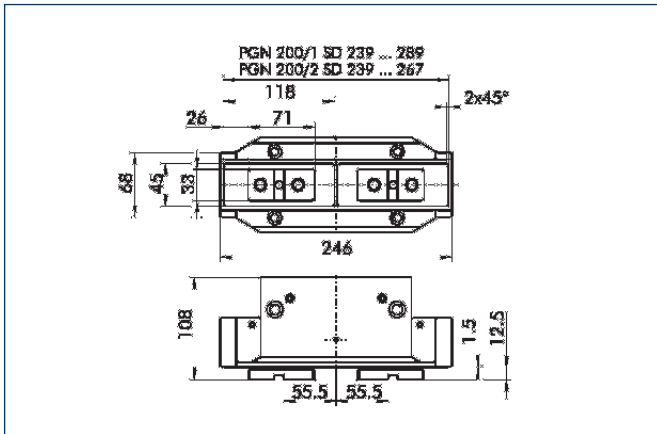
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



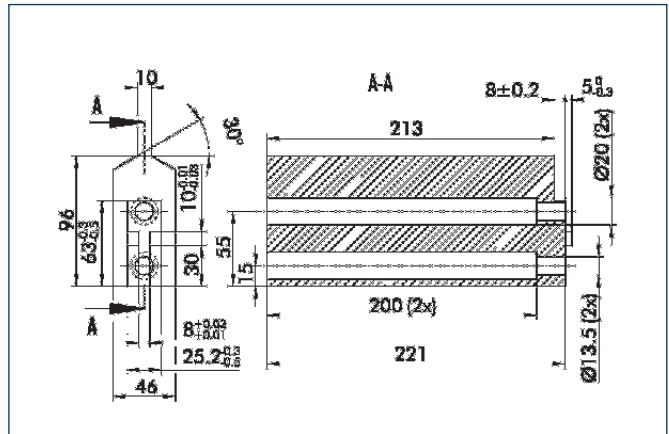
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

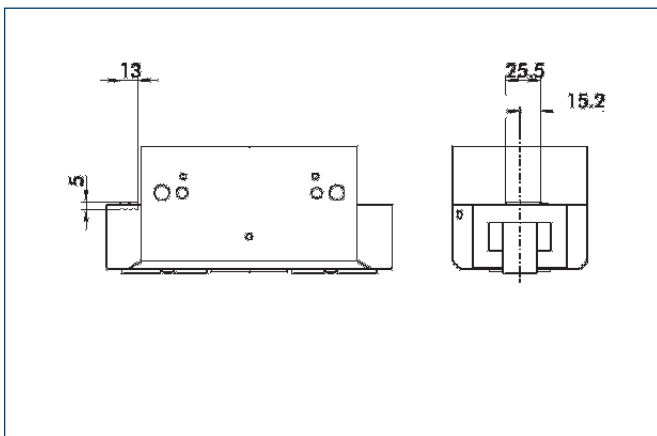
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Housing material	Scope of delivery	ID
ABR 200	Aluminum	1	0300751
SBR 200	16 MnCr 5	1	0300739

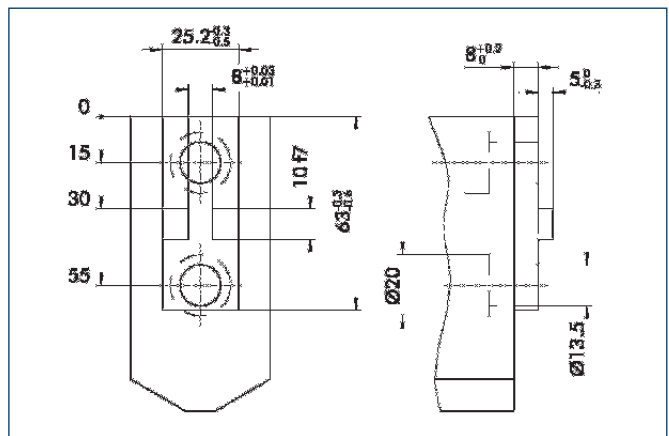
Mounting kit for FPS



The flexible position sensor FPS can distinguish between five freely programmable areas or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

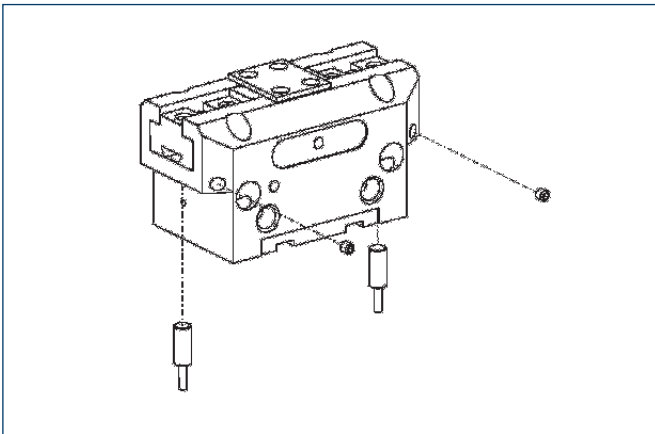
Designation	ID
AS-PGN 200-1	0301730
AS-PGN 200-2	0301732

Finger design



Suggestion for connection dimensions – Gripper fingers

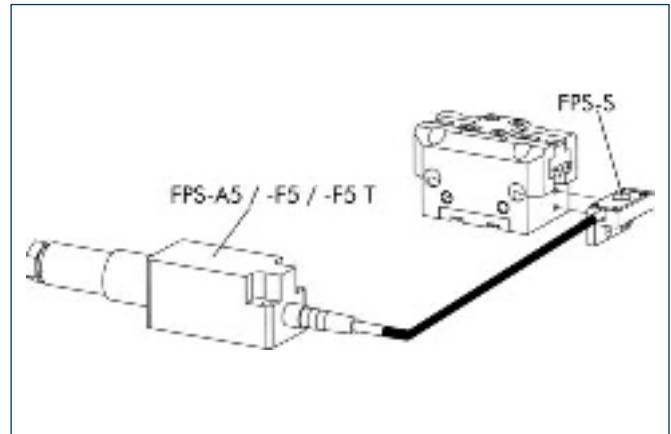
Sensor systems



End position monitoring:
Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 120/S-M12	0301592	
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 120/S	0301562	
INK 80/S	0301550	

① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.



Measuring system:
Position monitoring FPS

Designation	ID
AS-PGN 200-1	0301730
AS-PGN 200-2	0301732
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as optional extras in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

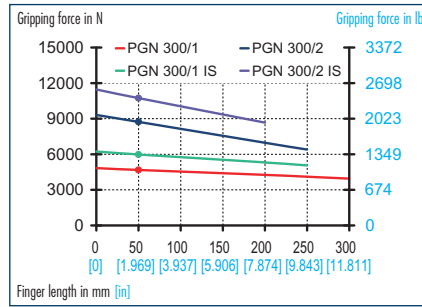
① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.



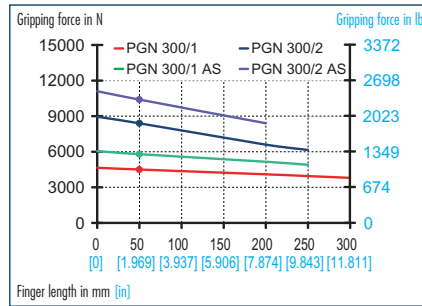
You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



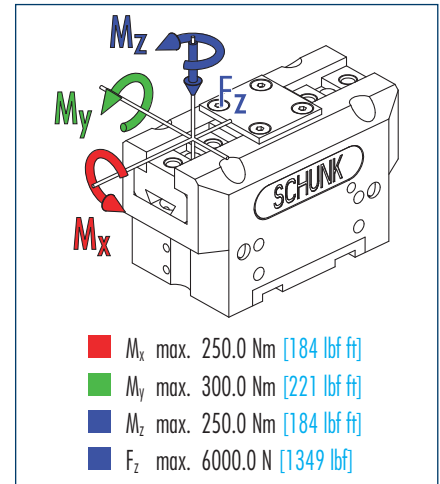
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

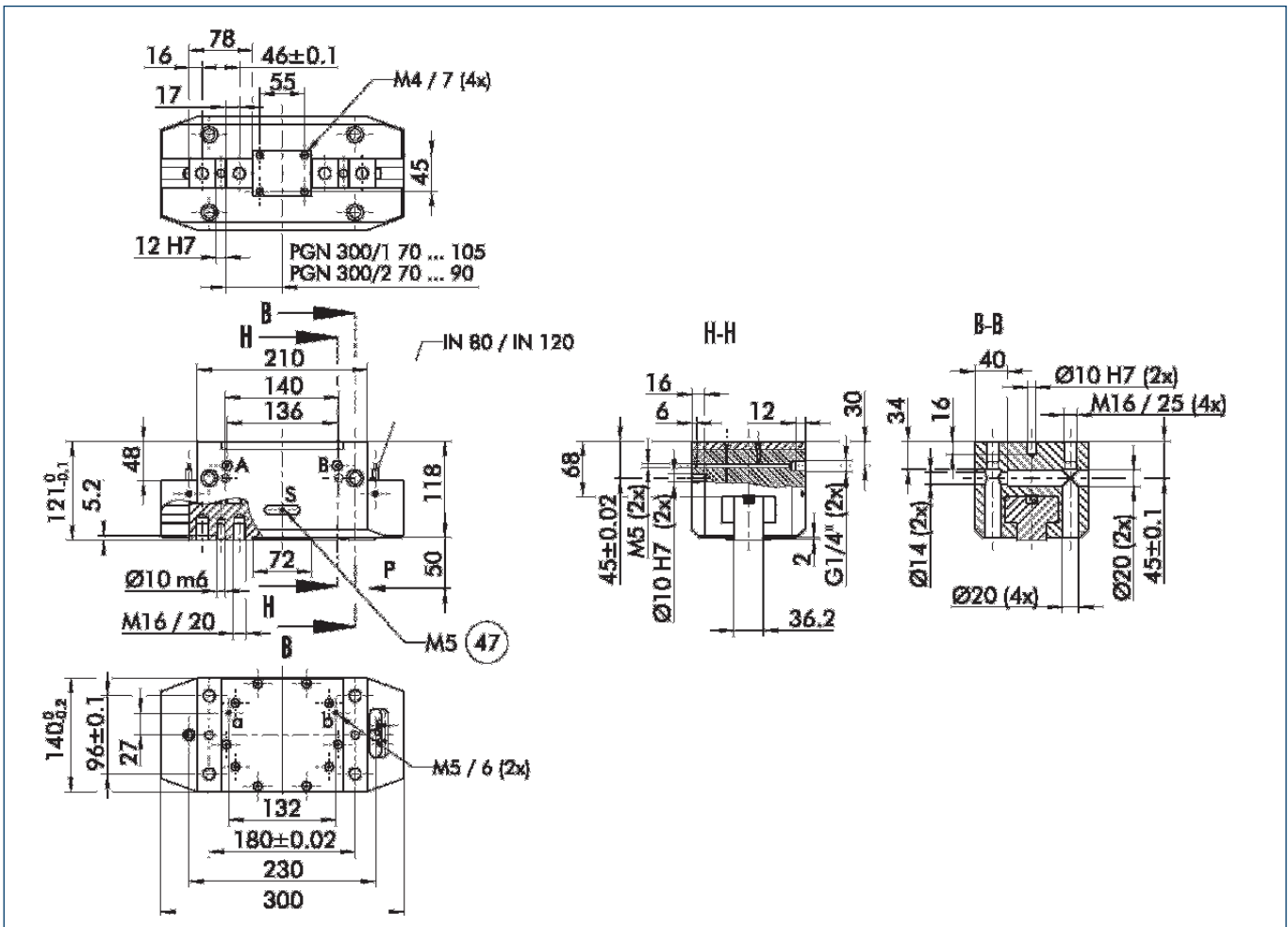


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 300-1	PGN 300-2	PGN 300-1 AS	PGN 300-2 AS	PGN 300-1 IS	PGN 300-2 IS
ID		0370106	0370156	0370406	0370456	0370466	0370476
Stroke per finger	mm [in]	35.0 [1.378]	20.0 [0.787]	35.0 [1.378]	20.0 [0.787]	35.0 [1.378]	20.0 [0.787]
Closing force	N [lbf]	4500.0 [1012]	8400.0 [1888]	5800.0 [1304]	10400.0 [2338]		
Opening force	N [lbf]	4680.0 [1052]	8730.0 [1963]			5800.0 [1304]	10400.0 [2338]
Min. gripping force by spring	N [lbf]			1500.0 [337]	2800.0 [629]	1500.0 [337]	2800.0 [629]
Weight	kg [lbs]	13.4 [29.54]	13.4 [29.54]	15.5 [34.17]	15.5 [34.17]	15.5 [34.17]	15.5 [34.17]
Recommended workpiece weight	kg [lbs]	22.5 [49.60]	42.0 [92.59]	22.5 [49.60]	42.0 [92.59]	22.5 [49.60]	42.0 [92.59]
Air consumption per double stroke	cm ³ [in ³]	885.0 [54.01]	885.0 [54.01]	885.0 [54.01]	885.0 [54.01]	885.0 [54.01]	885.0 [54.01]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.7	0.7	0.6	0.6	1.2	1.2
Opening time	s	0.7	0.7	1.2	1.2	0.6	0.6
Closing / opening time with spring only	s			1.3	1.3	1.3	1.3
Max. permitted finger length	mm [in]	300.0 [11.811]	250.0 [9.843]	250.0 [9.843]	200.0 [7.874]	250.0 [9.843]	200.0 [7.874]
Max. permitted weight per finger	kg [lbs]	9.0 [19.84]	9.0 [19.84]	9.0 [19.84]	9.0 [19.84]	9.0 [19.84]	9.0 [19.84]
IP class		40	40	40	40	40	40
Min. operating temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. operating temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

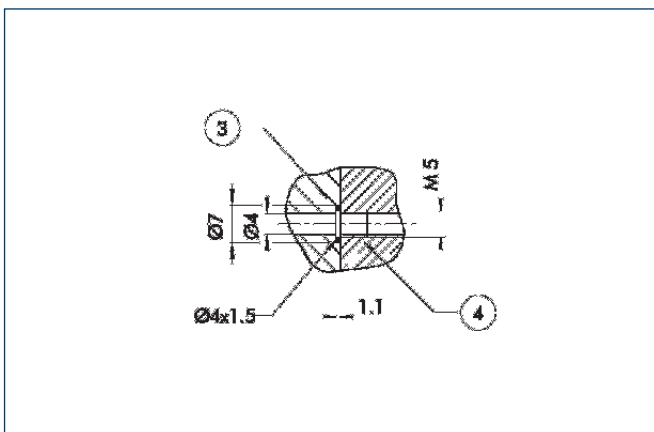


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④⑦ On both sides

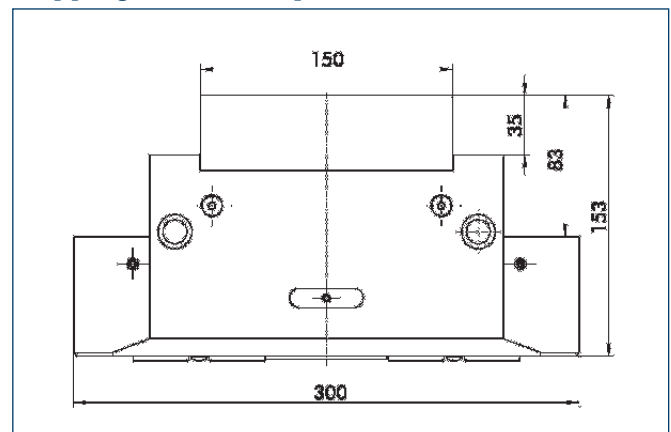
Hose-free direct connection



- ③ Adapter
- ④ Gripper

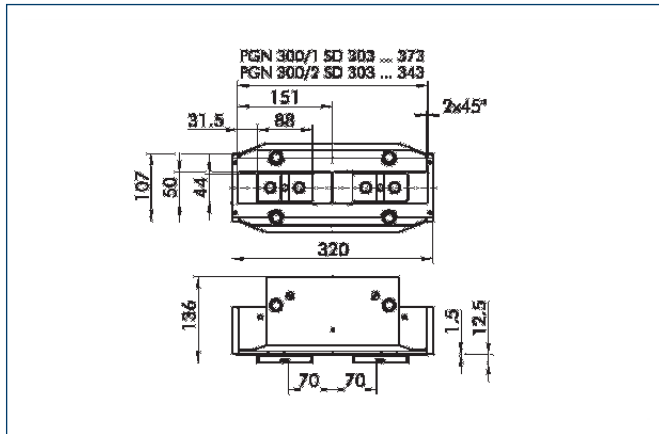
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



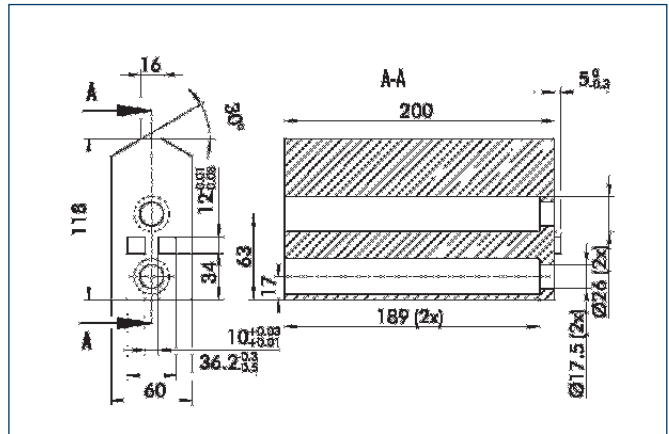
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

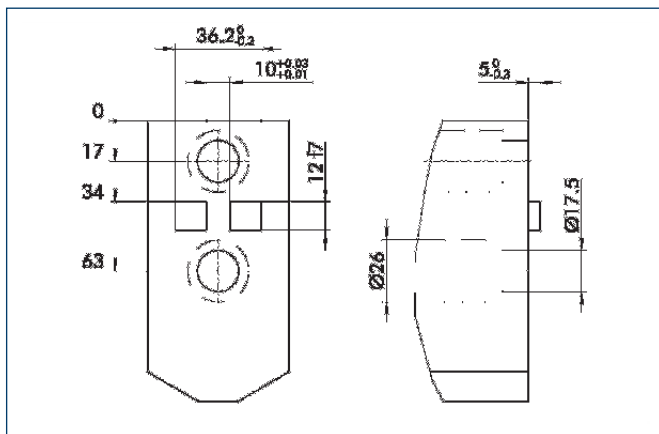
Finger blanks



Finger blanks for customer-specific reworking, incl. screw connection diagram

Designation	Housing material	Scope of delivery	ID
ABR 300	Aluminum	1	0300752
SBR 300	16 MnCr 5	1	0300753

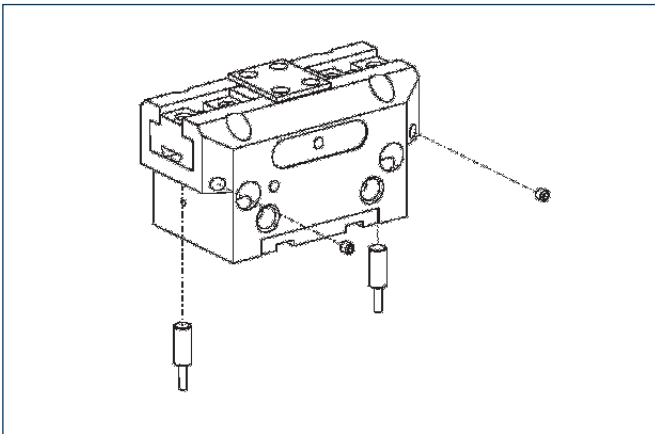
Finger design



Suggestion for connection dimensions – Gripper fingers

 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.

Sensor systems

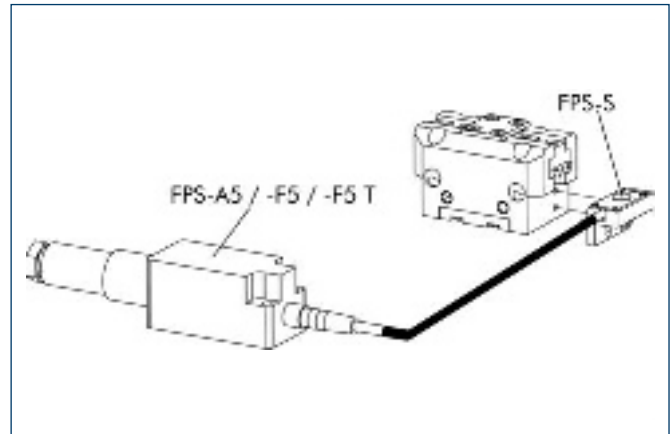


End position monitoring:

Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 120/S-M12	0301592	
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 120/S	0301562	
INK 80/S	0301550	

- ① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.



Measuring system:

Position monitoring FPS

Designation	ID
AS-PGN 300-2	0301734
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5/ F5 T or A 5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as optional extras in the "Accessories" catalog section.

Extension cables for proximity switches/magnetic switches

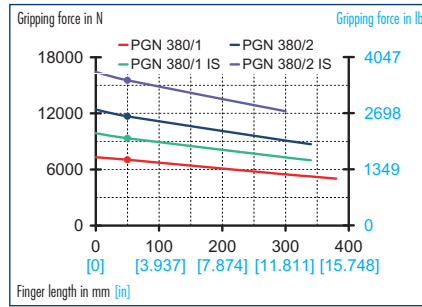
Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

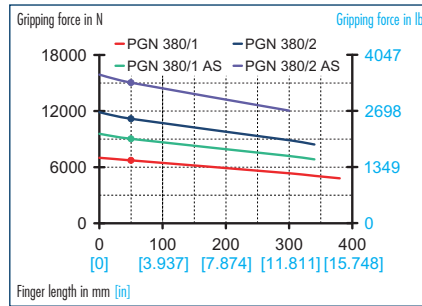
 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



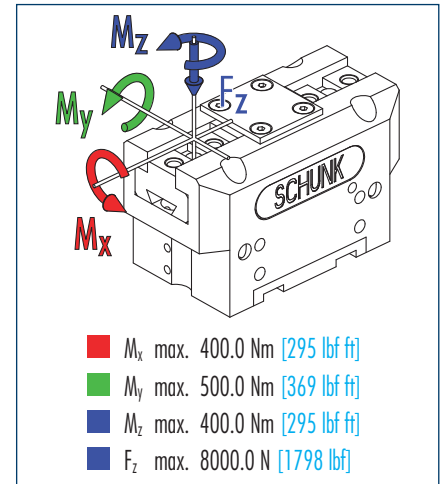
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

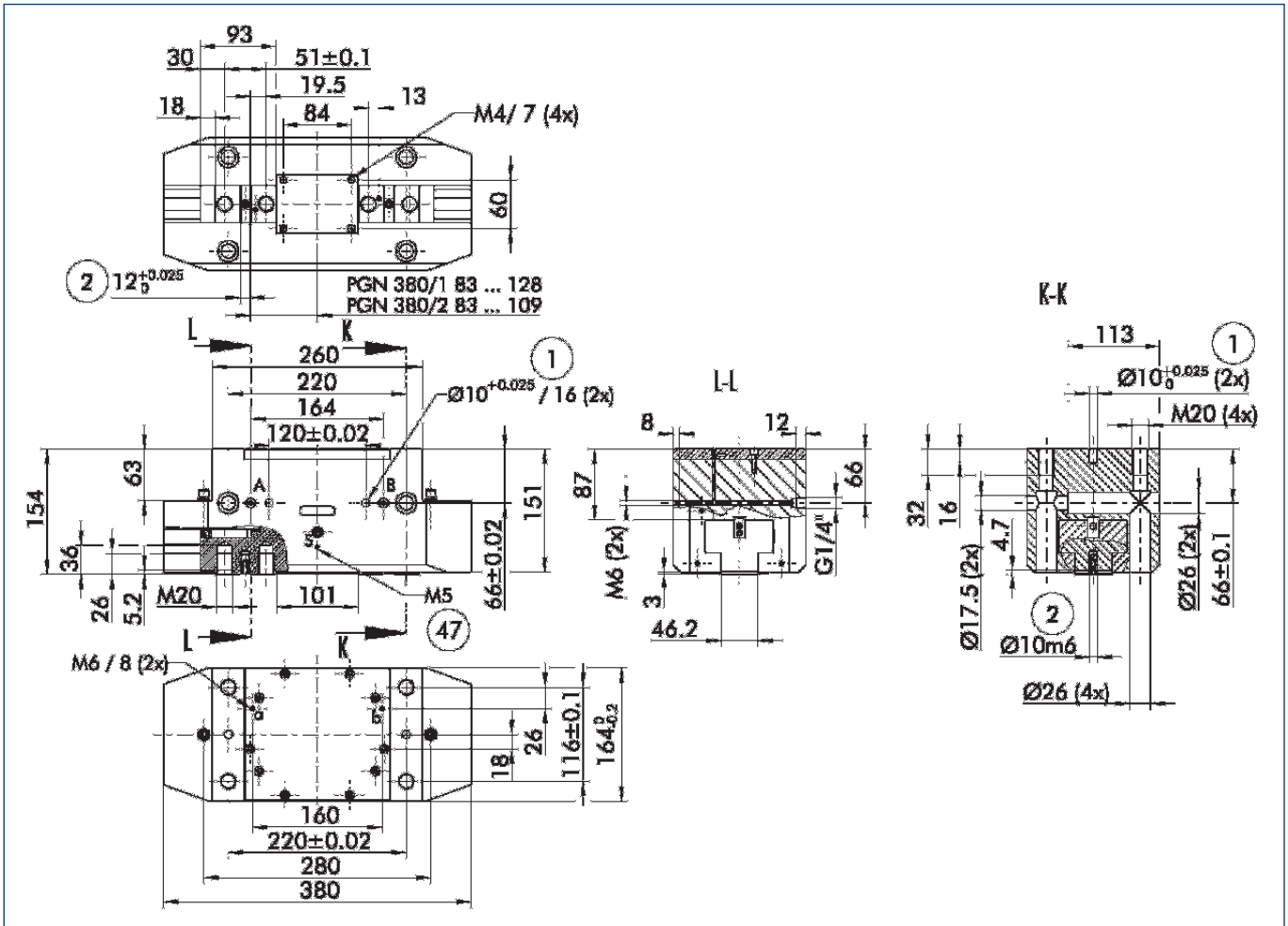


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. The tool life may be reduced.

Technical data

Designation		PGN 380-1	PGN 380-2	PGN 380-1 AS	PGN 380-2 AS	PGN 380-1 IS	PGN 380-2 IS
ID		0370107	0370157	0370407	0370457	0370467	0370477
Stroke per finger	mm [in]	45.0 [1.772]	26.0 [1.024]	45.0 [1.772]	26.0 [1.024]	45.0 [1.772]	26.0 [1.024]
Closing force	N [lbf]	6700.0 [1506]	11200.0 [2518]	9000.0 [2023]	15100.0 [3395]		
Opening force	N [lbf]	7033.0 [1581]	11680.0 [2626]			9000.0 [2023]	15100.0 [3395]
Min. gripping force by spring	N [lbf]			2300.0 [517]	3900.0 [877]	2300.0 [517]	3900.0 [877]
Weight	kg [lbs]	25.0 [55.12]	25.0 [55.12]	28.0 [61.73]	28.0 [61.73]	28.0 [61.73]	28.0 [61.73]
Recommended workpiece weight	kg [lbs]	33.5 [73.85]	56.0 [123.46]	45.0 [99.21]	75.0 [165.35]	45.0 [99.21]	75.0 [165.35]
Air consumption per double stroke	cm ³ [in ³]	1700.0 [103.74]	1700.0 [103.74]	1700.0 [103.74]	1700.0 [103.74]	1700.0 [103.74]	1700.0 [103.74]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]	2.0 [29]	4.0 [58]	4.0 [58]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	8.0 [116]	6.5 [94]	6.5 [94]	6.5 [94]	6.5 [94]
Closing time	s	0.8	0.8	0.6	0.6	1.0	1.0
Opening time	s	0.8	0.8	1.0	1.0	0.6	0.6
Closing / opening time with spring only	s			1.3	1.3	1.3	1.3
Max. permitted finger length	mm [in]	380.0 [14.961]	340.0 [13.386]	340.0 [13.386]	300.0 [11.811]	340.0 [13.386]	300.0 [11.811]
Max. permitted weight per finger	kg [lbs]	15.0 [33.07]	15.0 [33.07]	15.0 [33.07]	15.0 [33.07]	15.0 [33.07]	15.0 [33.07]
IP class		40	40	40	40	40	40
Min. operating temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. operating temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]	0.05 [0.0020]

Main views

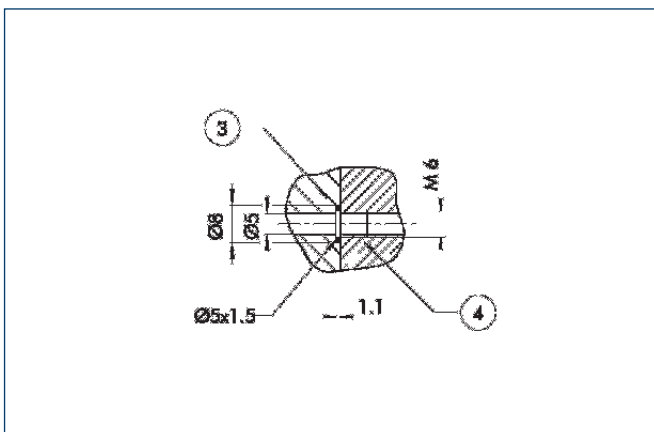


The illustration shows the gripper in the basic version with closed jaws, without taking into account the measurements of the optional extras described below.

① As an alternative to or in addition to the spring-mounted, mechanical gripping force safety device, the pressure maintenance valve SDV-P can also be used for I.D. or O.D. gripping (see the "Accessories" catalog section).

- A,a Main connection, direct connection – Open gripper
- B,b Main connection, direct connection – Close gripper
- S,s Air purge connection or vent hole
- ① Gripper connection
- ② Finger connection
- ④ On both sides

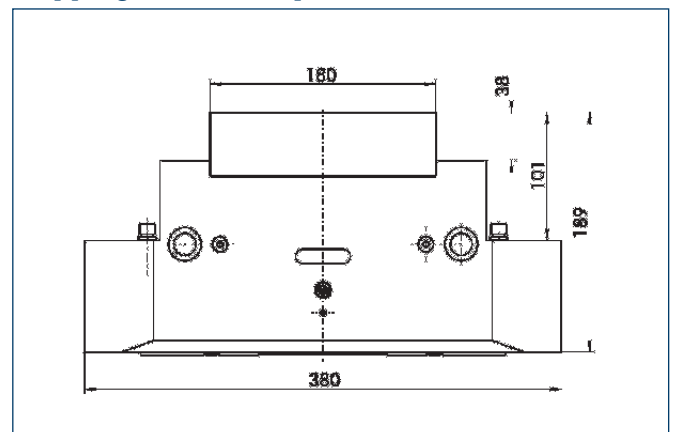
Hose-free direct connection



- ③ Adapter
- ④ Gripper

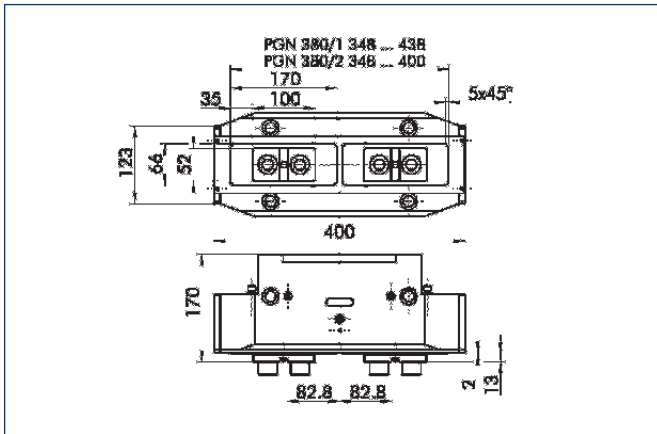
The direct connection supplies pressure to the gripper without a failure-prone hose system. Instead, the pressure medium is guided through holes in the mounting plate.

Gripping force safety device AS/IS



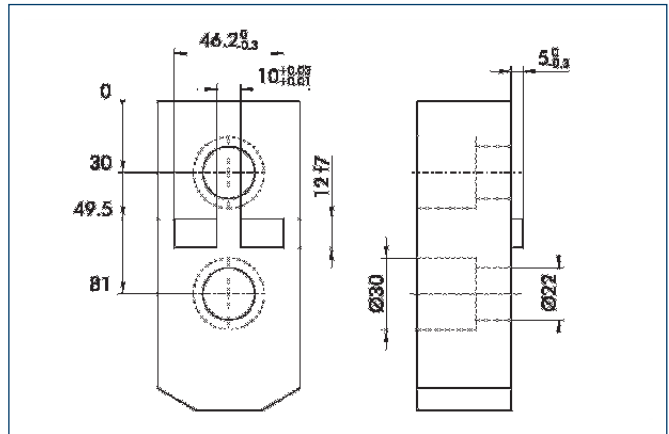
The mechanical gripping force safety device ensures a minimum gripping force, even with a drop in pressure. This works as a closing force for the AS version; for the IS version it works as an opening force. In addition, the gripping force safety device can also be used to increase the grip force or for single actuated gripping.

Dust protected version



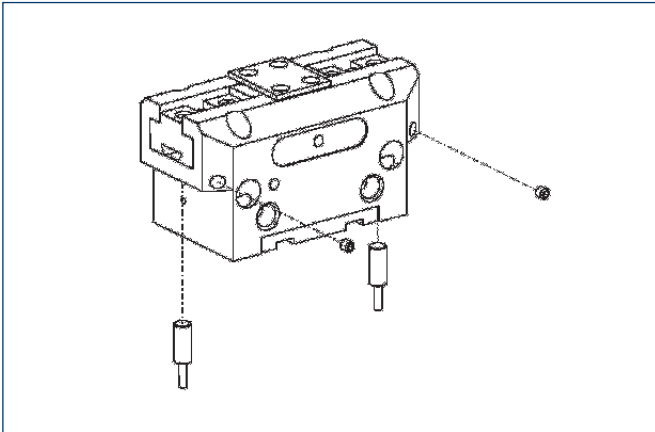
The "Dust-proof" option increases the degree of protection against penetrating substances. The screw connection diagram moves by the height of the intermediate jaw. The finger length must still be measured from the upper edge of the gripper housing.

Finger design



Suggestion for connection dimensions – Gripper fingers

Sensor systems



End position monitoring:

Inductive proximity switches, for direct mounting

Designation	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

- ① Two sensors (NO contacts/S) are required per gripper as well as an optional extension cable.

Extension cables for proximity switches/magnetic switches

Designation	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① For the sensor cables, observe the minimum permitted bending radii. Generally, these are 35 mm.

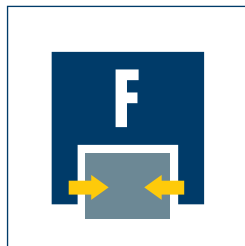
 You can find detailed information and components of the specified accessory in the "Accessories" catalog section.



Sizes
50 .. 125



Weight
0.3 kg .. 5.3 kg
0.66 lbs .. 11.68 lbs



Gripping force
240 N .. 1970 N
54 lbf .. 443 lbf



Stroke per finger
7.5 mm .. 31.5 mm
0.295 in .. 1.240 in



Workpiece weight
1.2 kg .. 7.1 kg
2.65 lbs .. 15.65 lbs

Application example



Assembly unit for mounting a pin in a bore with tolerances for the position. The compensation unit compensates for the planar offset without turning the workpiece or allowing it to tilt.

1 PGF 80 2-Finger Parallel Gripper with special fingers and workpiece (pin)

2 AGE-XY-80 Compensation Unit

Universal Gripper

Universal parallel gripper with surface-guided base jaws

Area of application

Suitable for clean working environments and high part diversity thanks to its long jaw stroke and high gripping forces

Your advantages and benefits

Precise flat guide

for very good guidance characteristics

Long stroke despite a compact design

for minimal interfering contours

Mounting from two sides in three screw directions

for universal and flexible gripper assembly

Air supply via hose-free direct connection or fittings

for the flexible supply of compressed air in all automation systems

M5 connection on both sides near the guides

for the use of lubricating nipples



General information on the series

Working principle

Wedge-hook kinematics

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Steel

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated

Pressure medium: Required quality class of compressed air according to DIN ISO

8573-1: Quality class 4

Warranty

24 months

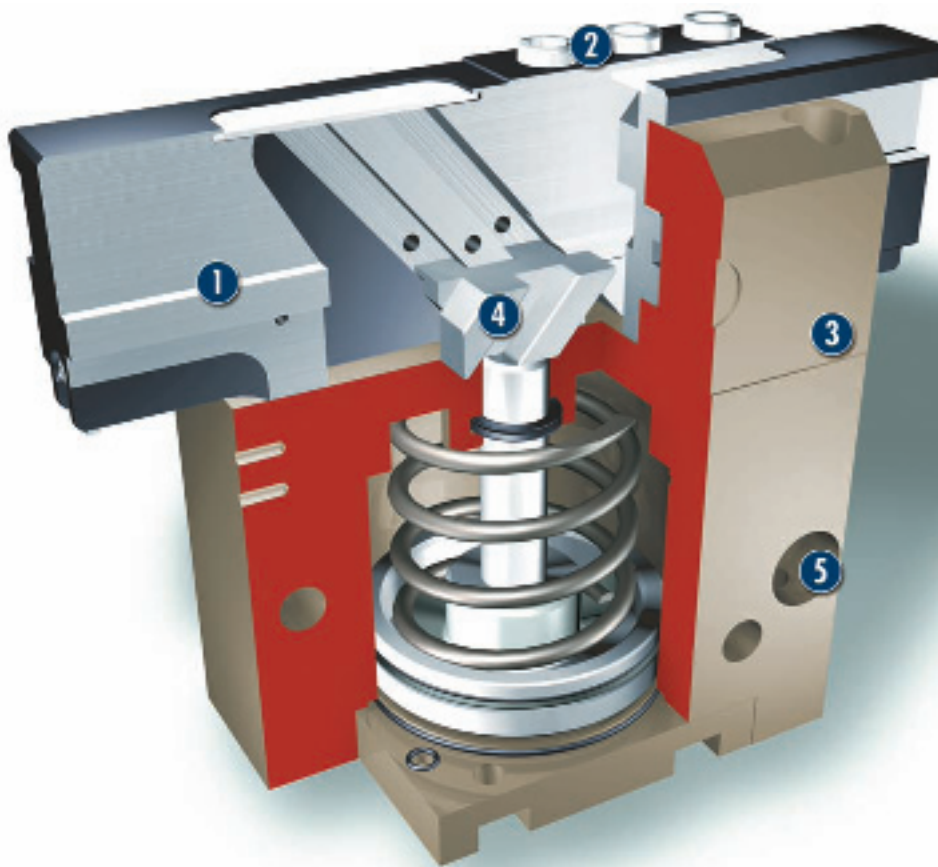
Scope of delivery

Brackets for proximity switches, centering sleeves, O-rings for direct connection, Assembly and Operating Manual with manufacturer's declaration

Maintenance of gripping force

with either mechanical gripping force safety device or SDV-P pressure maintenance valve

Sectional diagram



- 1 Guidance**
precise gripping through flat, precision ground guidance along the entire length of the housing
- 3 Housing**
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy
- 5 Centering and mounting possibilities**
for universal gripper assembly
- 2 Base jaws**
for the connection of workpiece-specific gripper fingers
- 4 Kinematics**
wedge-hook principle for high power transmission and centric gripping

Function description

The round piston is moved up or down by means of compressed air. Through its angled active surfaces, the wedge hook transforms this motion into the lateral, synchronous gripping movement of both base jaws.

Options and special information

Due to the long guidance, the gripper is highly resistant during gripping operations when the gripper fingers are subject to high moment loads. Grippers with increased accuracy are available on request.

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Centering sleeves



Fittings



IN inductive proximity switches



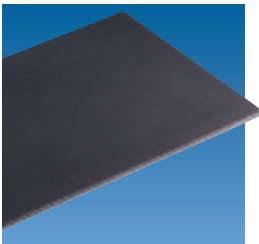
Quentes plastic inserts



W/WK/KV/GK sensor cables



HKI gripper pads



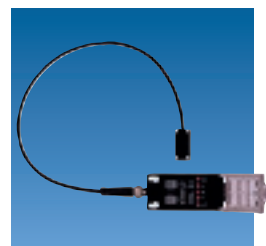
V sensor distributors



SDV-P pressure maintenance valves



FPS flexible position sensor



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration), measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

Workpiece weight

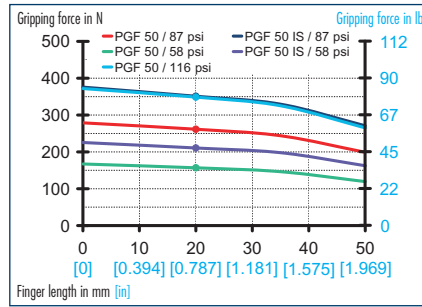
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit clamping gripping.

Closing and opening times

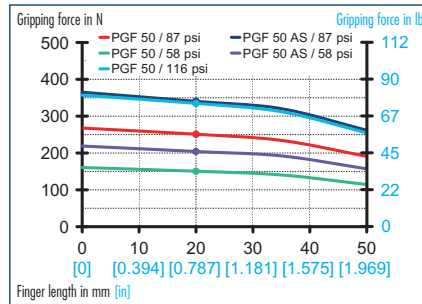
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



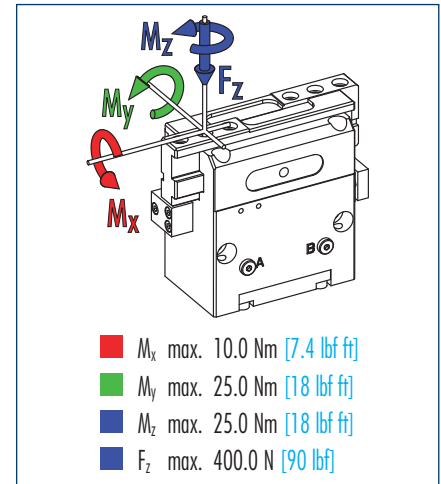
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

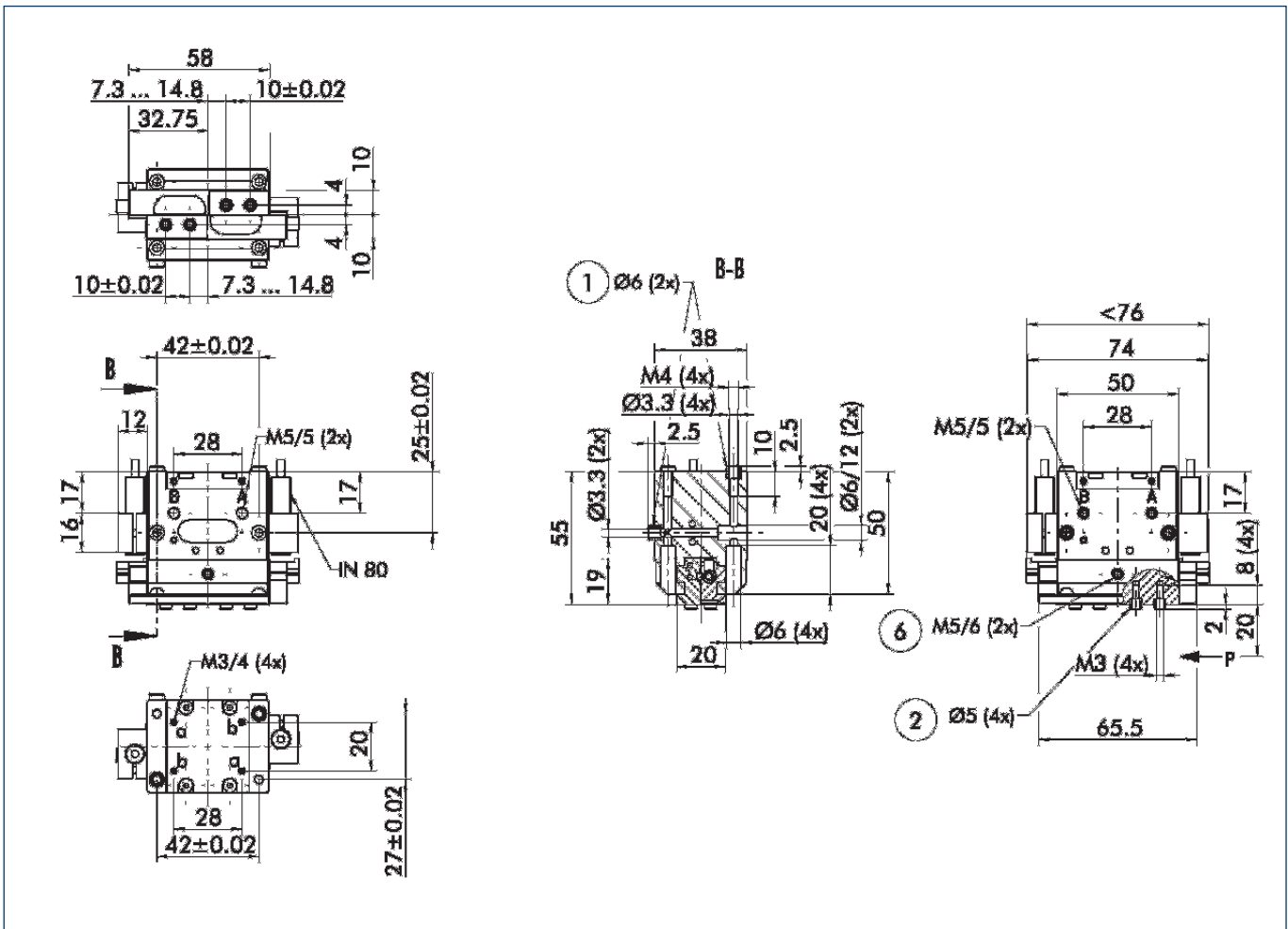


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		PGF 50	PGF 50 AS	PGF 50 IS
	ID	0340360	0340361	0340362
Stroke per finger	mm [in]	7.5 [0.295]	7.5 [0.295]	7.5 [0.295]
Closing force	N [lbf]	240.0 [54]	340.0 [76]	
Opening force	N [lbf]	260.0 [58]		350.0 [79]
Min. gripping force through spring	N [lbf]		100.0 [22.5]	100.0 [22.5]
Weight	kg [lbs]	0.3 [0.66]	0.35 [0.77]	0.35 [0.77]
Recommended workpiece weight	kg [lbs]	1.2 [2.65]	1.2 [2.65]	1.2 [2.65]
Air consumption per double stroke	cm ³ [in ³]	14.0 [0.85]	14.0 [0.85]	14.0 [0.85]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	3.5 [51]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.03	0.03	0.07
Opening time	s	0.03	0.07	0.03
Closing/opening time with spring only	s		0.5	0.5
Max. permitted finger length	mm [in]	50.0 [1.969]	50.0 [1.969]	50.0 [1.969]
Max. permitted weight per finger	kg [lbs]	0.25 [0.55]	0.25 [0.55]	0.25 [0.55]
IP rating		40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

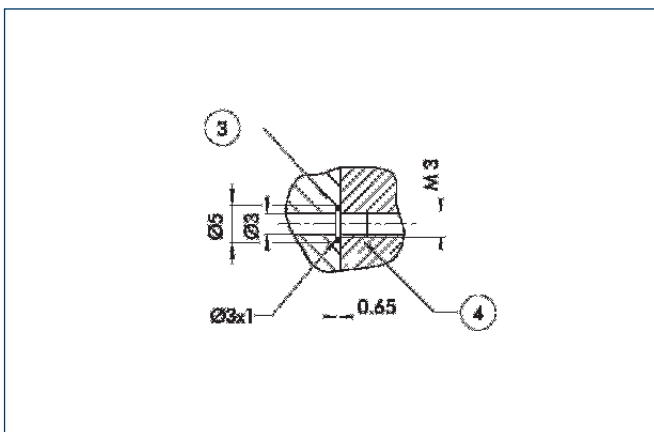


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ⑥ Lubricating nipple connection

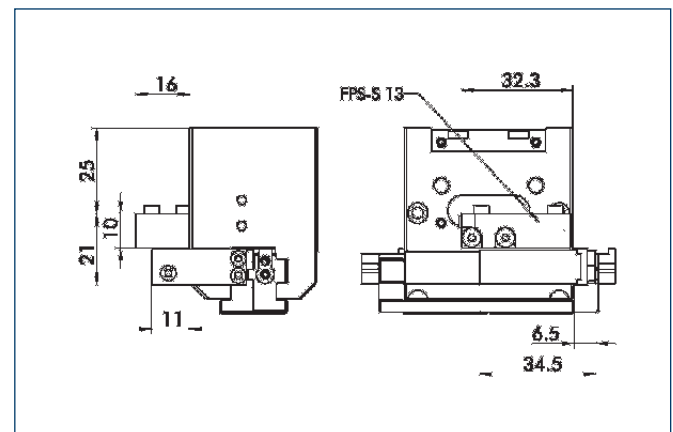
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

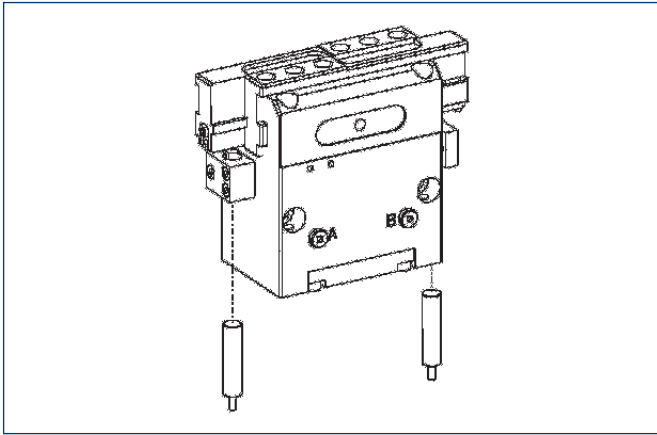
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-PGF 50	0302731

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

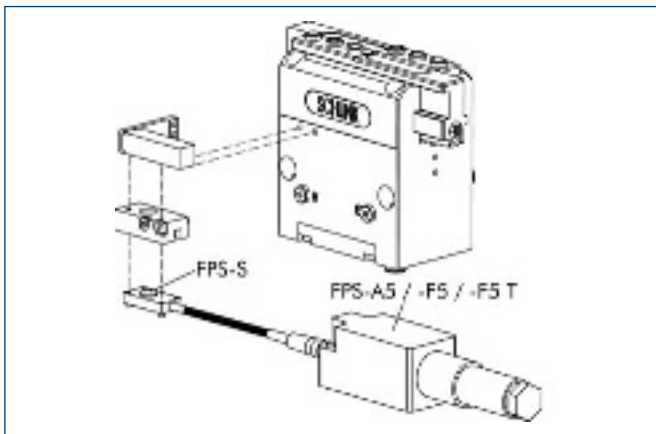
Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system



Measuring system:

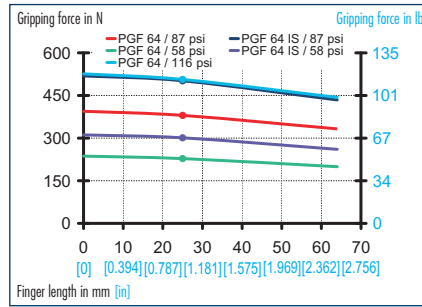
FPS position monitor

Description	ID
AS-PGF 50	0302731
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

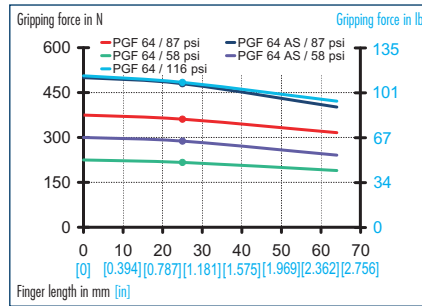
When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.



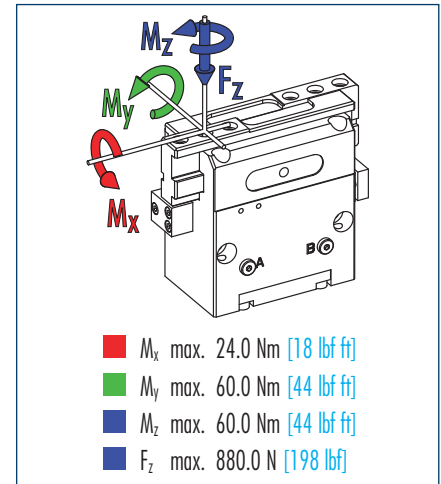
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

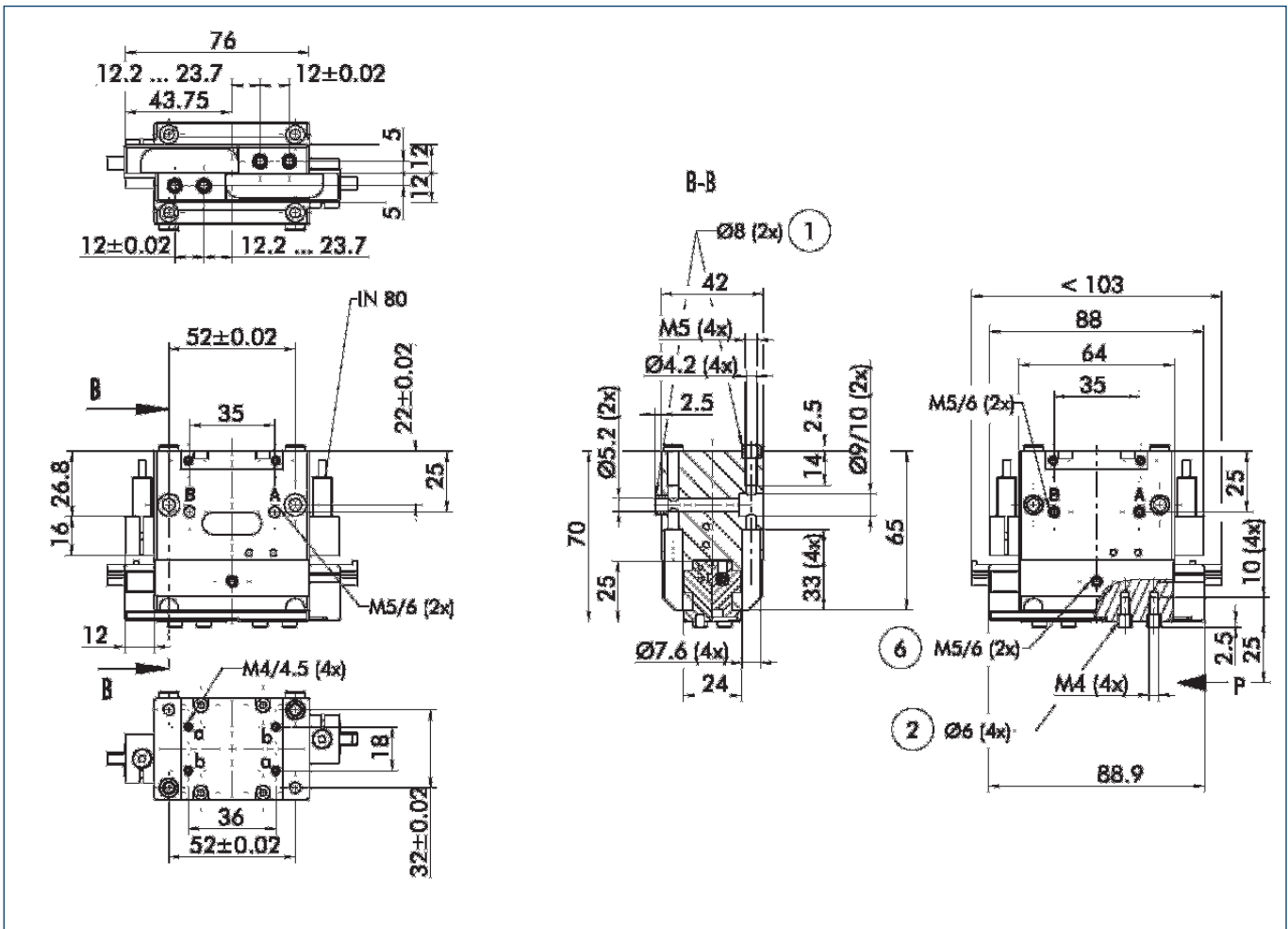


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		PGF 64	PGF 64 AS	PGF 64 IS
ID		0340365	0340366	0340367
Stroke per finger	mm [in]	11.5 [0.453]	11.5 [0.453]	11.5 [0.453]
Closing force	N [lbf]	360.0 [81]	480.0 [108]	
Opening force	N [lbf]	380.0 [85]		500.0 [112]
Min. gripping force through spring	N [lbf]		120.0 [27]	120.0 [27]
Weight	kg [lbs]	0.6 [1.32]	0.7 [1.54]	0.7 [1.54]
Recommended workpiece weight	kg [lbs]	1.8 [3.97]	1.8 [3.97]	1.8 [3.97]
Air consumption per double stroke	cm ³ [in ³]	30.0 [1.83]	30.0 [1.83]	30.0 [1.83]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	3.5 [51]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.06	0.05	0.1
Opening time	s	0.06	0.1	0.05
Closing/opening time with spring only	s		0.5	0.5
Max. permitted finger length	mm [in]	64.0 [2.520]	64.0 [2.520]	64.0 [2.520]
Max. permitted weight per finger	kg [lbs]	0.4 [0.88]	0.4 [0.88]	0.4 [0.88]
IP rating		40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

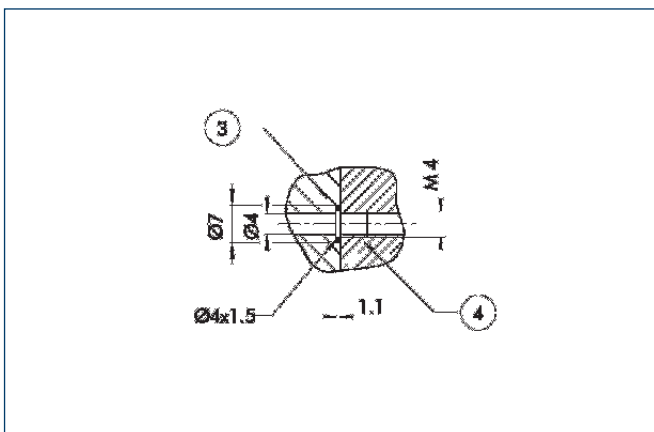


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ⑥ Lubricating nipple connection

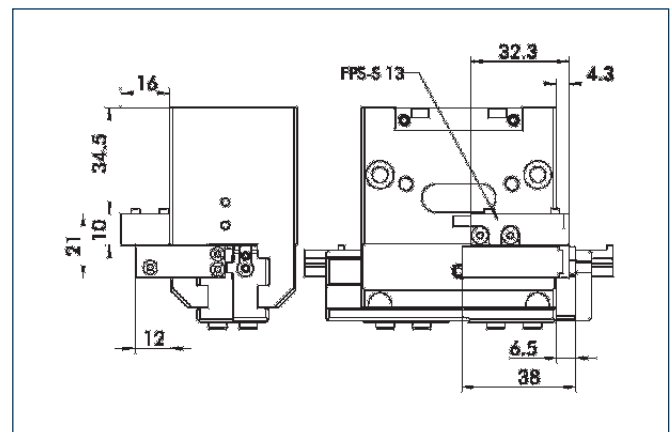
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

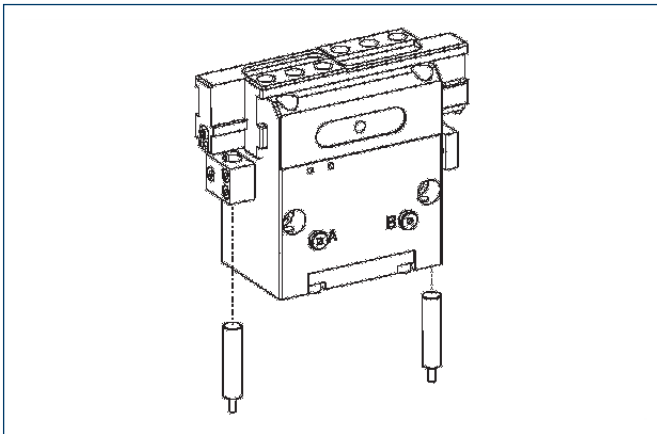
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-PGF 64	0302732

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

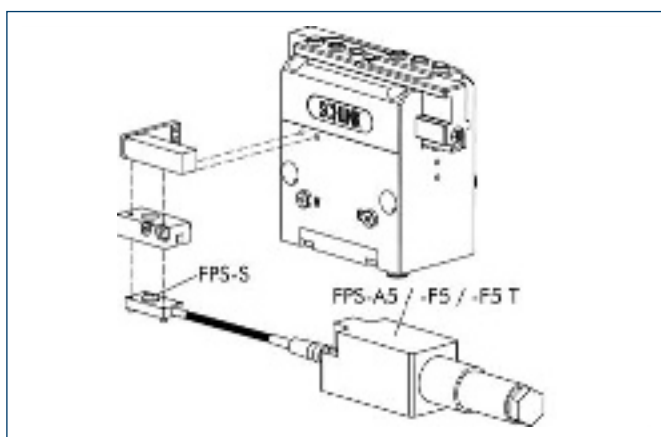
Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system



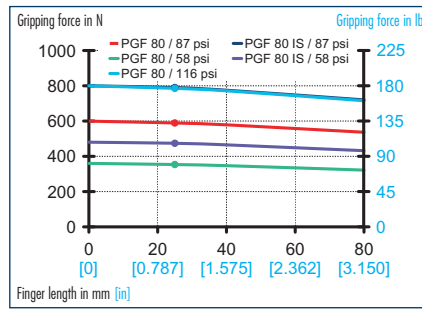
Measuring system:
FPS position monitor

Description	ID
AS-PGF 64	0302732
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

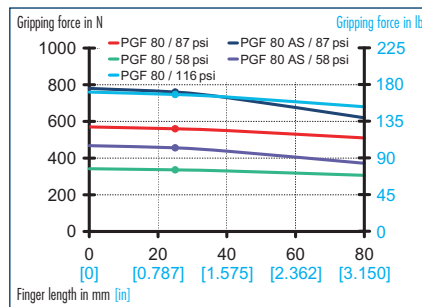
When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.



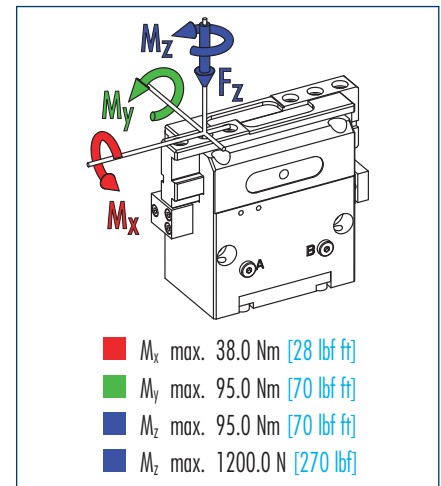
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

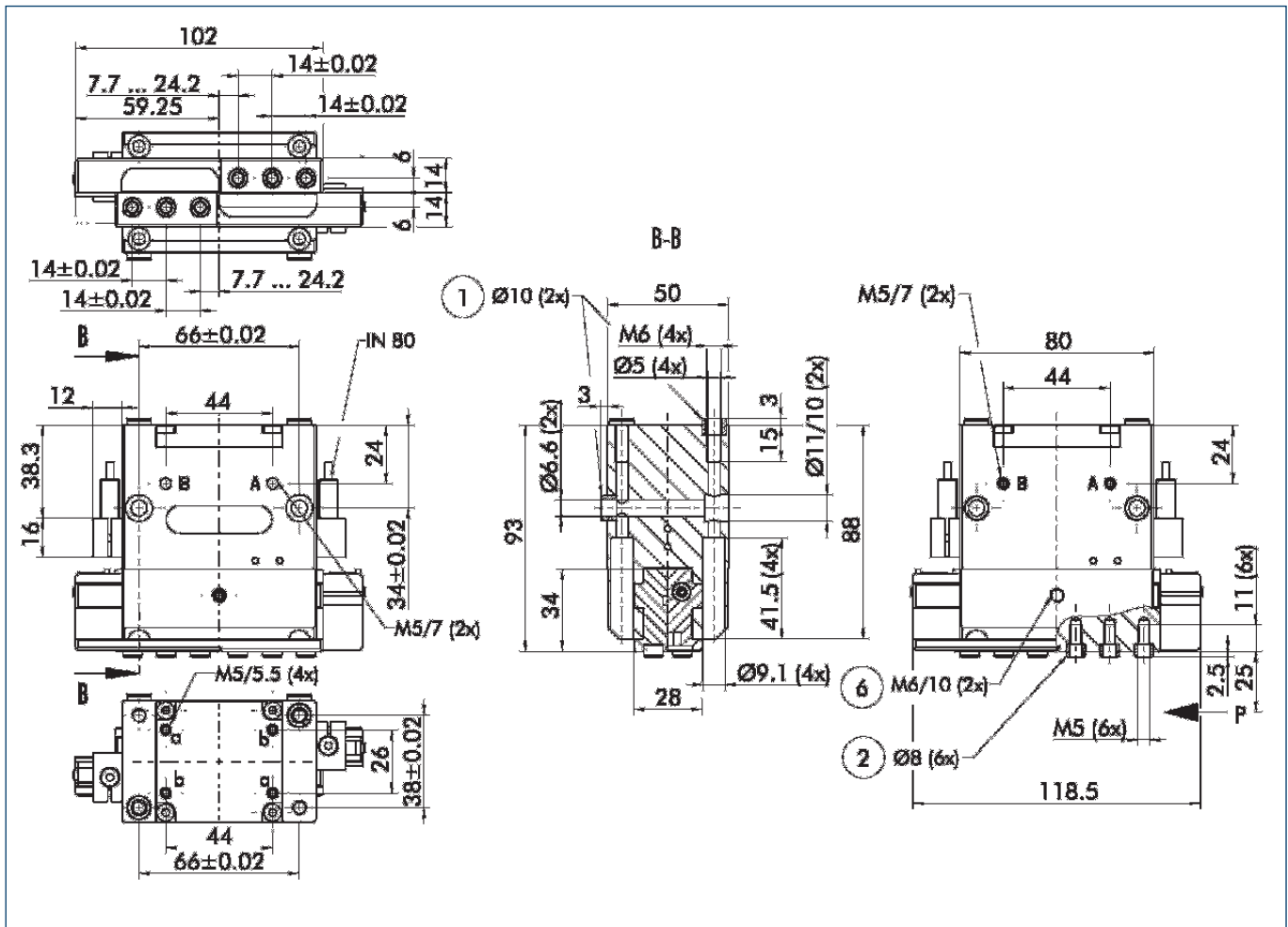


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		PGF 80	PGF 80 AS	PGF 80 IS
ID		0340370	0340371	0340372
Stroke per finger	mm [in]	16.5 [0.650]	16.5 [0.650]	16.5 [0.650]
Closing force	N [lbf]	560.0 [126]	760.0 [171]	
Opening force	N [lbf]	590.0 [133]		790.0 [178]
Min. gripping force through spring	N [lbf]		200.0 [45]	200.0 [45]
Weight	kg [lbs]	1.15 [2.54]	1.25 [2.76]	1.25 [2.76]
Recommended workpiece weight	kg [lbs]	2.8 [6.17]	2.8 [6.17]	2.8 [6.17]
Air consumption per double stroke	cm ³ [in ³]	77.0 [4.70]	77.0 [4.70]	77.0 [4.70]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	3.5 [51]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.1	0.08	0.14
Opening time	s	0.1	0.14	0.08
Closing/opening time with spring only	s		0.6	0.6
Max. permitted finger length	mm [in]	80.0 [3.150]	80.0 [3.150]	80.0 [3.150]
Max. permitted weight per finger	kg [lbs]	0.75 [1.65]	0.75 [1.65]	0.75 [1.65]
IP rating		40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]	0.02 [0.0008]	0.02 [0.0008]

Main views

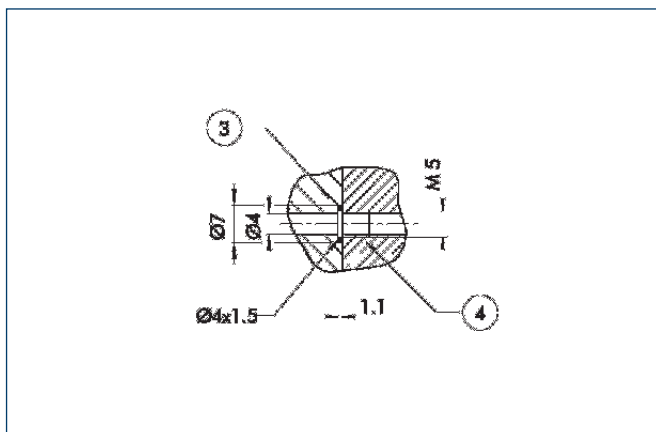


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ⑥ Lubricating nipple connection

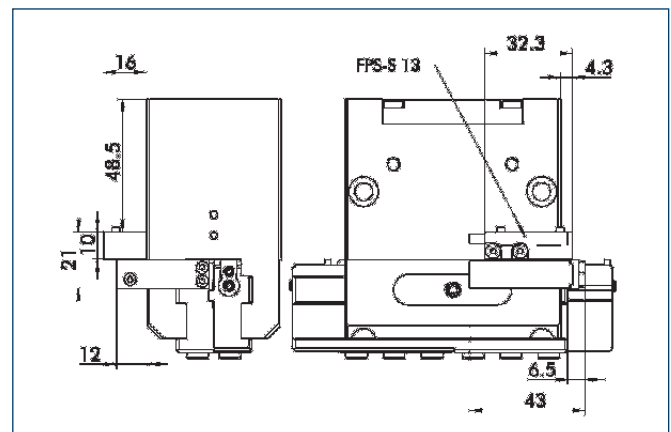
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

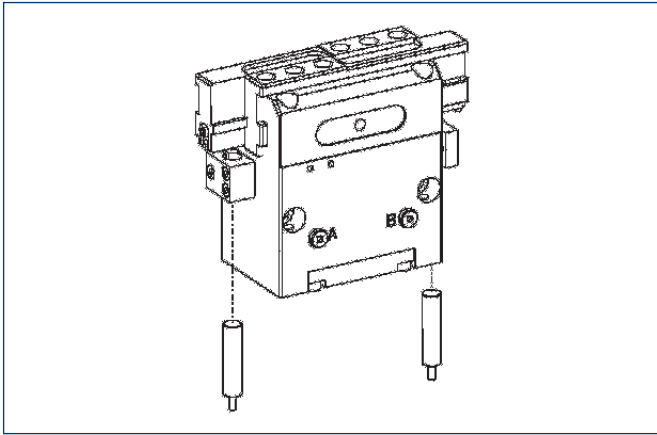
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-PGF 80	0302733

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

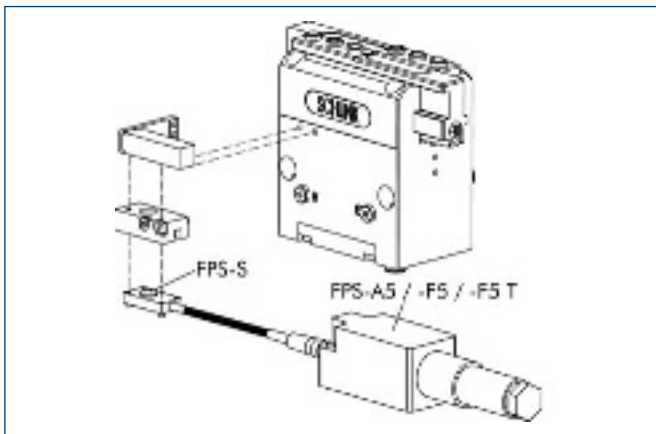
Description	ID
AS-PGF 80	0302733
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system



Measuring system:

FPS position monitor

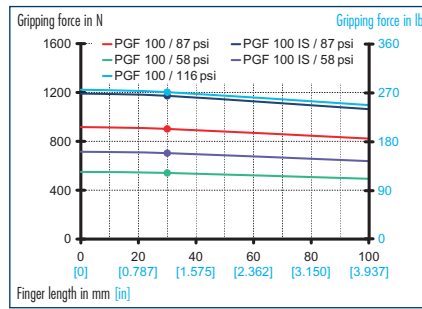
Description	ID
AS-PGF 80	0302733
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

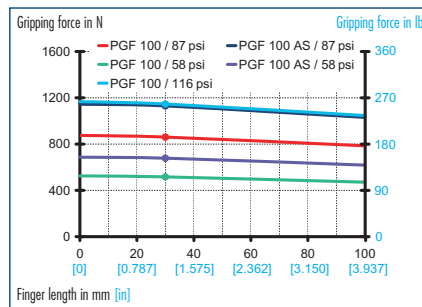
 You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



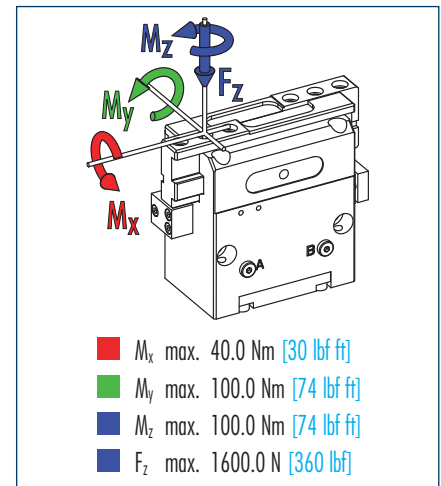
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

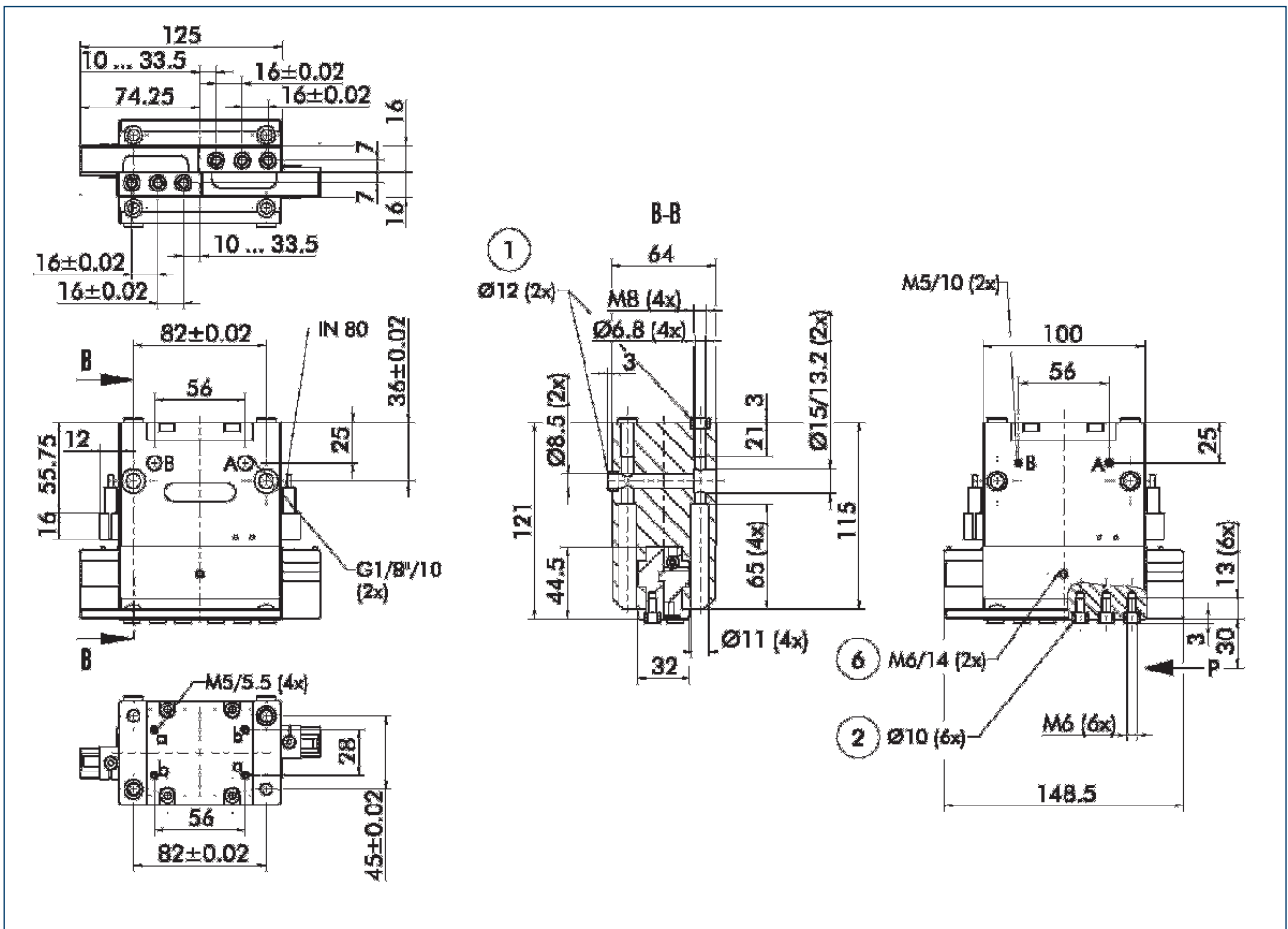


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		PGF 100	PGF 100 AS	PGF 100 IS
	ID	0340380	0340381	0340382
Stroke per finger	mm [in]	23.5 [0.925]	23.5 [0.925]	23.5 [0.925]
Closing force	N [lbf]	880.0 [198]	1150.0 [259]	
Opening force	N [lbf]	900.0 [202]		1200.0 [270]
Min. gripping force through spring	N [lbf]		270.0 [61]	270.0 [61]
Weight	kg [lbs]	2.35 [5.18]	2.85 [6.28]	2.85 [6.28]
Recommended workpiece weight	kg [lbs]	4.4 [9.70]	4.4 [9.70]	4.4 [9.70]
Air consumption per double stroke	cm ³ [in ³]	154.0 [9.40]	154.0 [9.40]	154.0 [9.40]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	3.5 [51]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.15	0.16	0.25
Opening time	s	0.15	0.25	0.16
Closing/opening time with spring only	s		0.7	0.7
Max. permitted finger length	mm [in]	100.0 [3.937]	100.0 [3.937]	100.0 [3.937]
Max. permitted weight per finger	kg [lbs]	1.4 [3.09]	1.4 [3.09]	1.4 [3.09]
IP rating		40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.03 [0.0012]	0.03 [0.0012]	0.03 [0.0012]

Main views

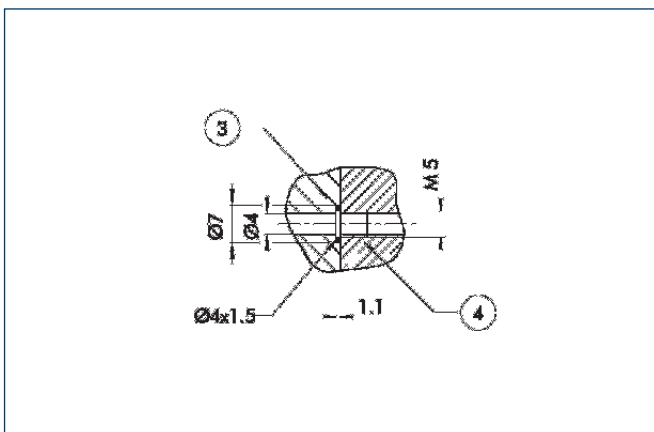


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ⑤ Lubricating nipple connection
- ⑥ Lubricating nipple connection

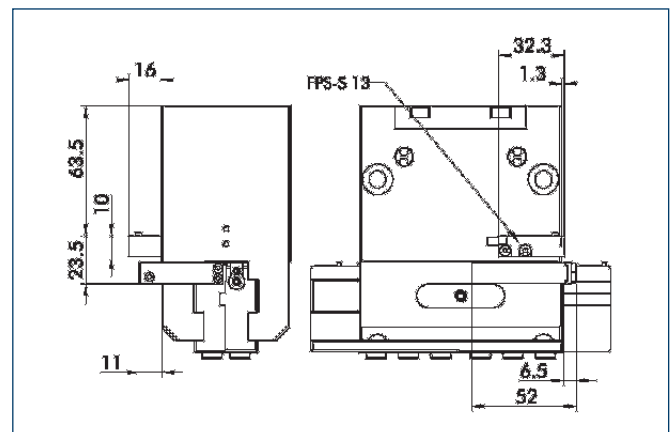
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

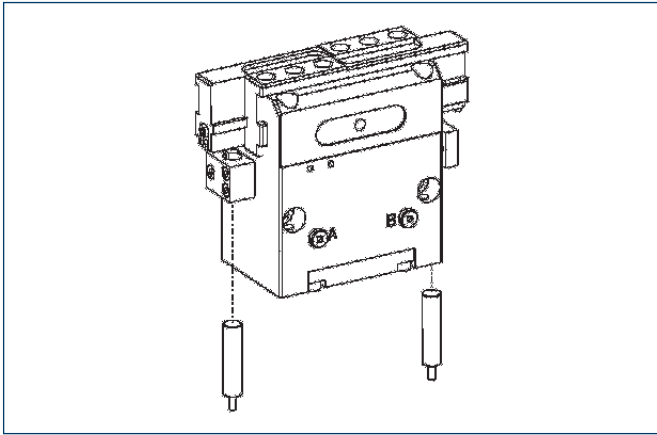
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
AS-PGF 100	0302734

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

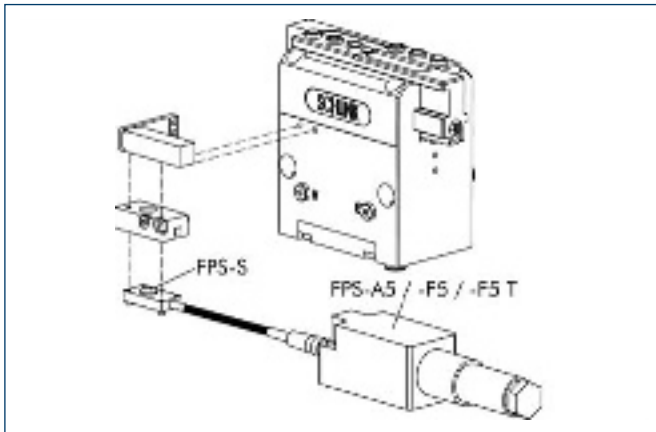
Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system



Measuring system:

FPS position monitor

Description	ID
AS-PGF 100	0302734
FPS-A5	0301802
FPS-F5	0301805
FPS-F5 T	0301807
FPS-S 13	0301705

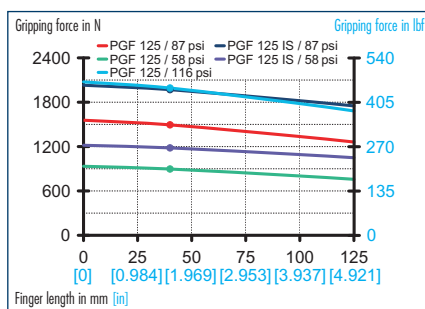
When using an FPS system, an FPS sensor (FPS-S) and an electronic processor (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.



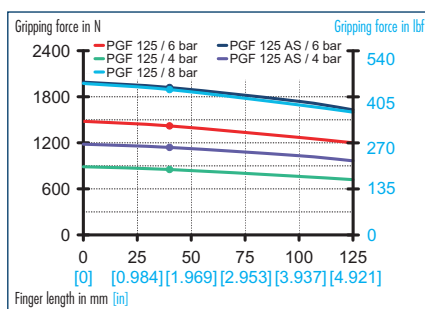
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



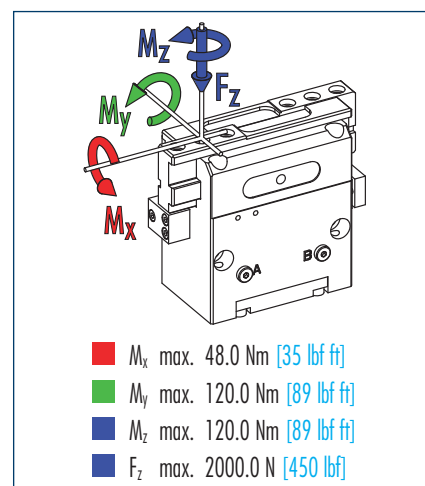
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

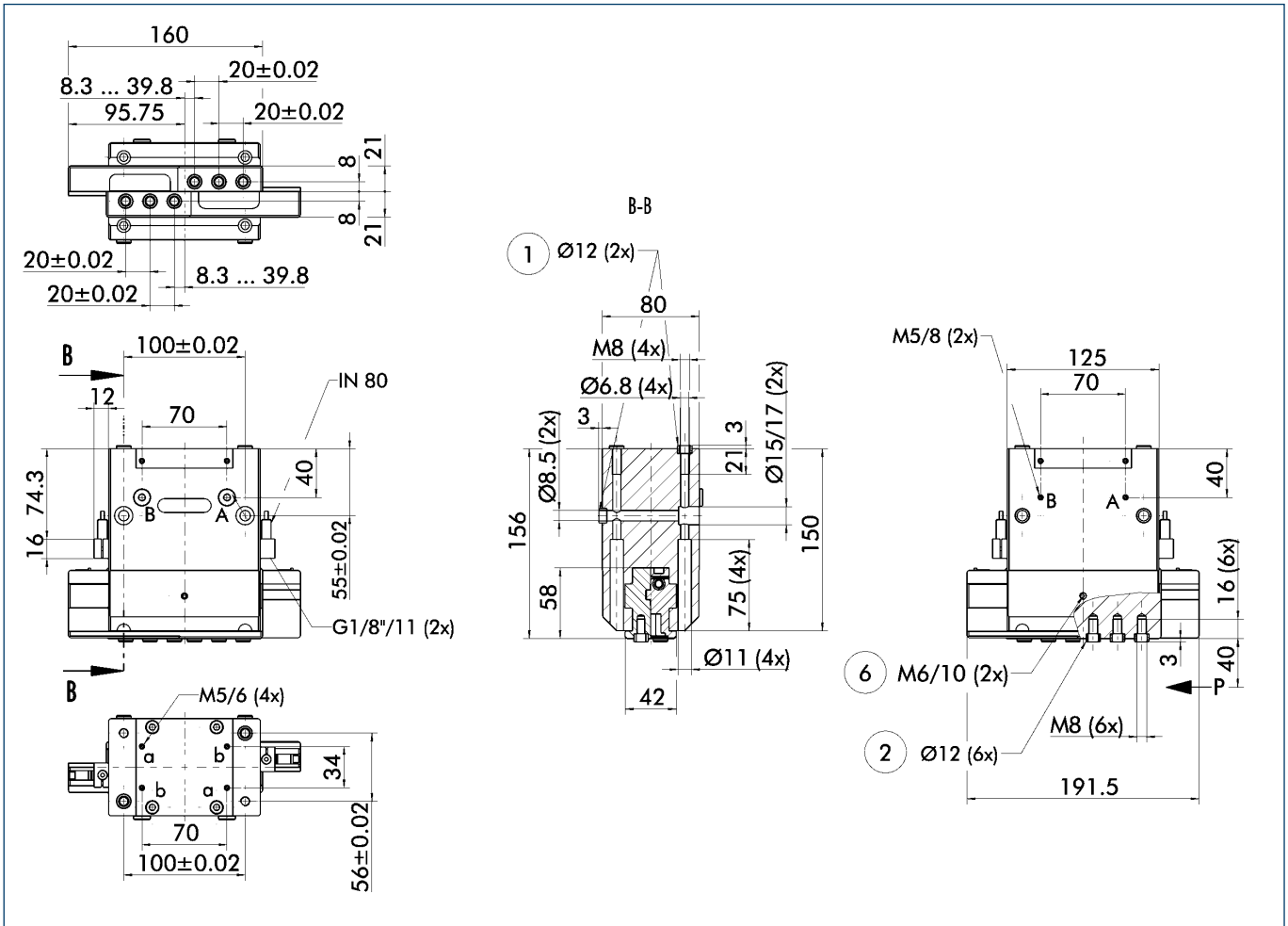


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description		PGF125	PGF 125 AS	PGF 125 IS
	ID	0340390	0340391	0340392
Stroke per finger	mm [in]	31.5 [1.240]	31.5 [1.240]	31.5 [1.240]
Closing force	N [lbf]	1420.0 [319]	1900.0 [427]	
Opening force	N [lbf]	1490.0 [335]		1970.0 [443]
Min. gripping force through spring	N [lbf]		480.0 [108]	480.0 [108]
Weight	kg [lbs]	5.0 [11.02]	5.3 [11.68]	5.3 [11.68]
Recommended workpiece weight	kg [lbs]	7.1 [15.65]	7.1 [15.65]	7.1 [15.65]
Air consumption per double stroke	cm ³ [in ³]	300.0 [18.31]	300.0 [18.31]	300.0 [18.31]
Nominal pressure	bar [psi]	6.0 [87]	6.0 [87]	6.0 [87]
Minimum pressure	bar [psi]	3.5 [51]	4.0 [58]	4.0 [58]
Maximum pressure	bar [psi]	8.0 [116]	6.5 [94]	6.5 [94]
Closing time	s	0.25	0.22	0.4
Opening time	s	0.25	0.4	0.22
Closing/opening time with spring only	s		0.8	0.8
Max. permitted finger length	mm [in]	125.0 [4.921]	125.0 [4.921]	125.0 [4.921]
Max. permitted weight per finger	kg [lbs]	2.4 [5.29]	2.4 [5.29]	2.4 [5.29]
IP rating		40	40	40
Min. ambient temperature	°C [°F]	-10.0 [14]	-10.0 [14]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]	90.0 [194]	90.0 [194]
Repeat accuracy	mm [in]	0.03 [0.0012]	0.03 [0.0012]	0.03 [0.0012]

Main views

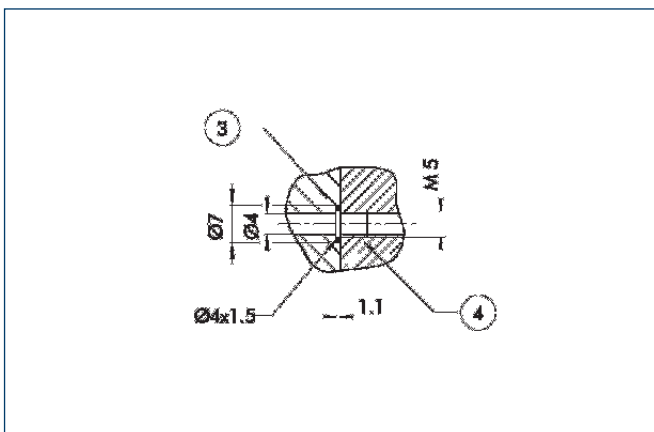


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ③ Adapter
- ④ Gripper
- ⑤ Lubricating nipple connection

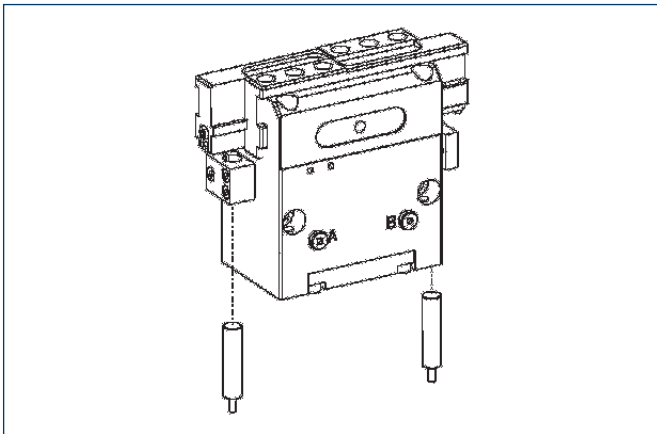
Hoseless direct connection



- ③ Adapter
- ④ Gripper

The direct connection is used for supplying compressed air to the gripper without vulnerable hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
IN-B 80/S-M8	0301477	
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

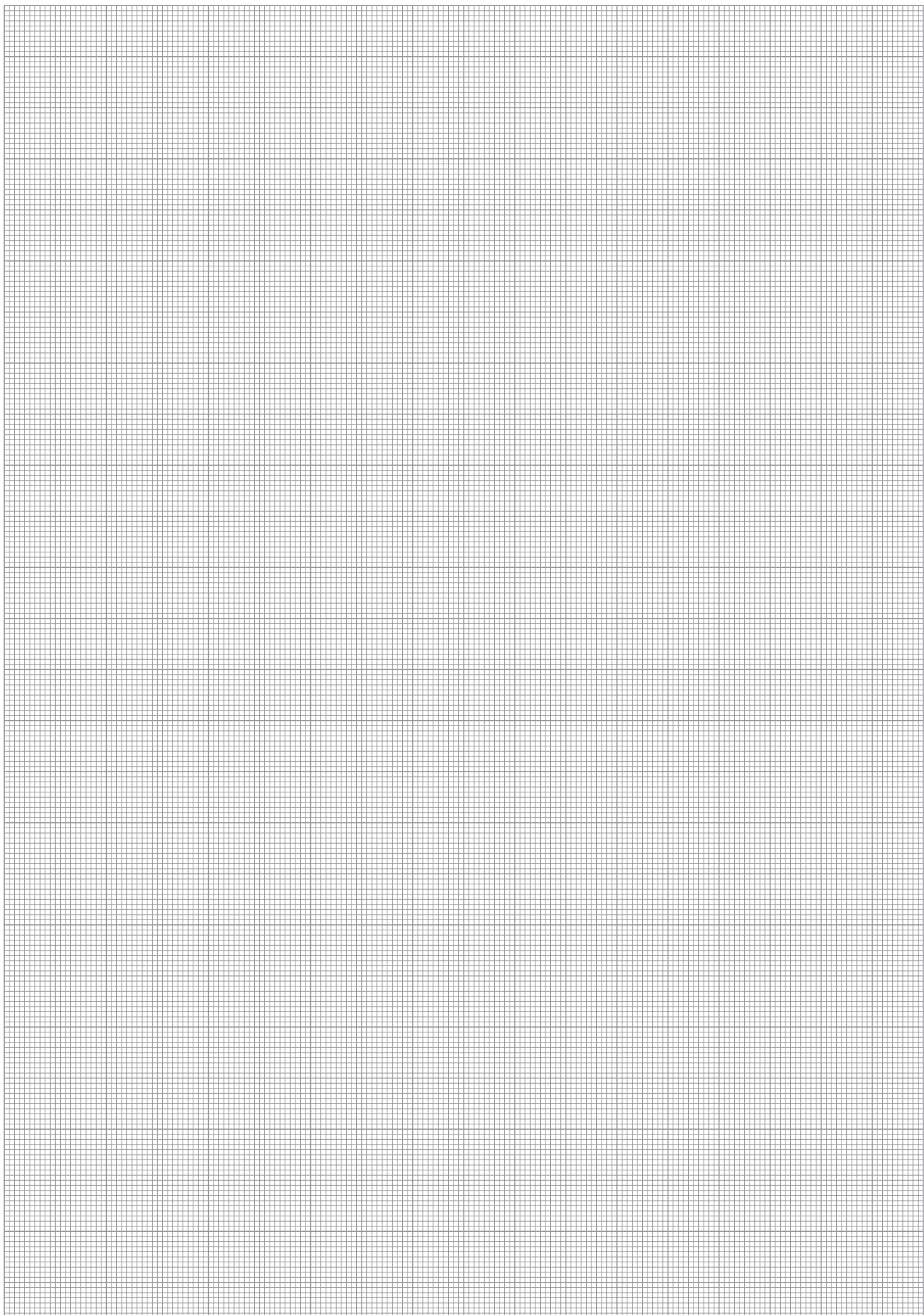
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

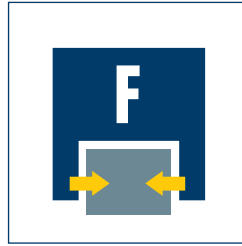




Sizes
29 .. 140



Weight
0.025 kg .. 2.55 kg
0.06 lbs .. 5.62 lbs



Gripping force
30 N .. 1180 N
6.7 lbf .. 265 lbf

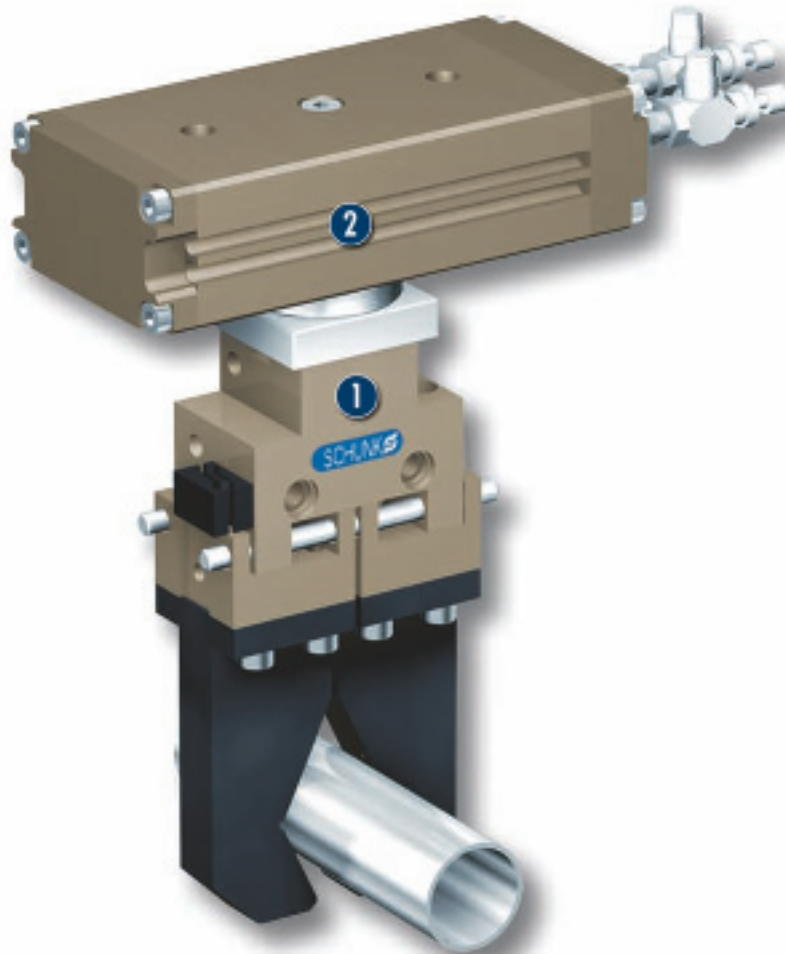


Stroke per finger
2 mm .. 15 mm
0.079 in .. 0.591 in



Workpiece weight
0.15 kg .. 5.9 kg
0.33 lbs .. 13.01 lbs

Application example



Reversing unit for the economical reorientation of cylindrical bar material

1 PGM 50 2-Finger Parallel Gripper with workpiece-specific gripper fingers

2 MRU 14.1-E-0 Miniature Rotary Actuator

Universal Gripper

Universal, economical 2-finger parallel gripper

Area of application

for universal use in clean environments

Your advantages and benefits

Economical gripper series

for material handling

Rod guide for base jaws

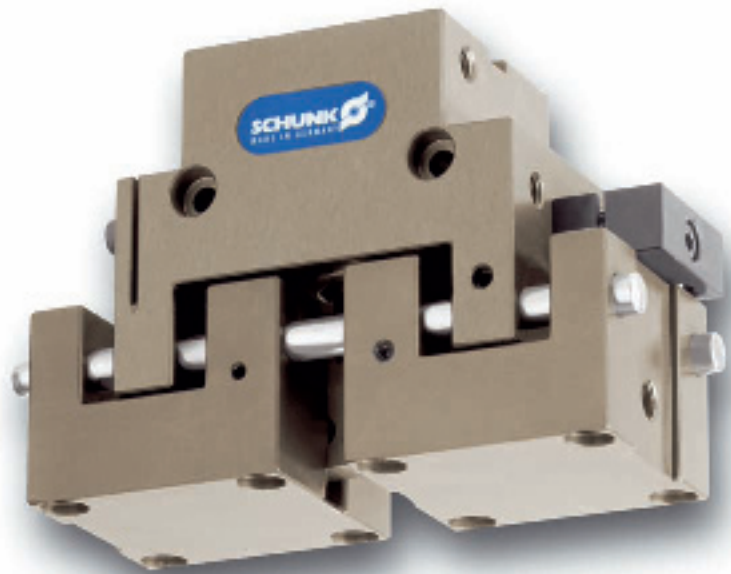
for excellent guidance characteristics

Cylinder rod guidance

for versatility and a long tool life

Compact design

for minimal interfering contours in the application



General information on the series

Working principle

Internal wedge-hook kinematics

Housing material

Aluminum alloy, hard-anodized

Guide

Steel guide, ground and hardened

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated

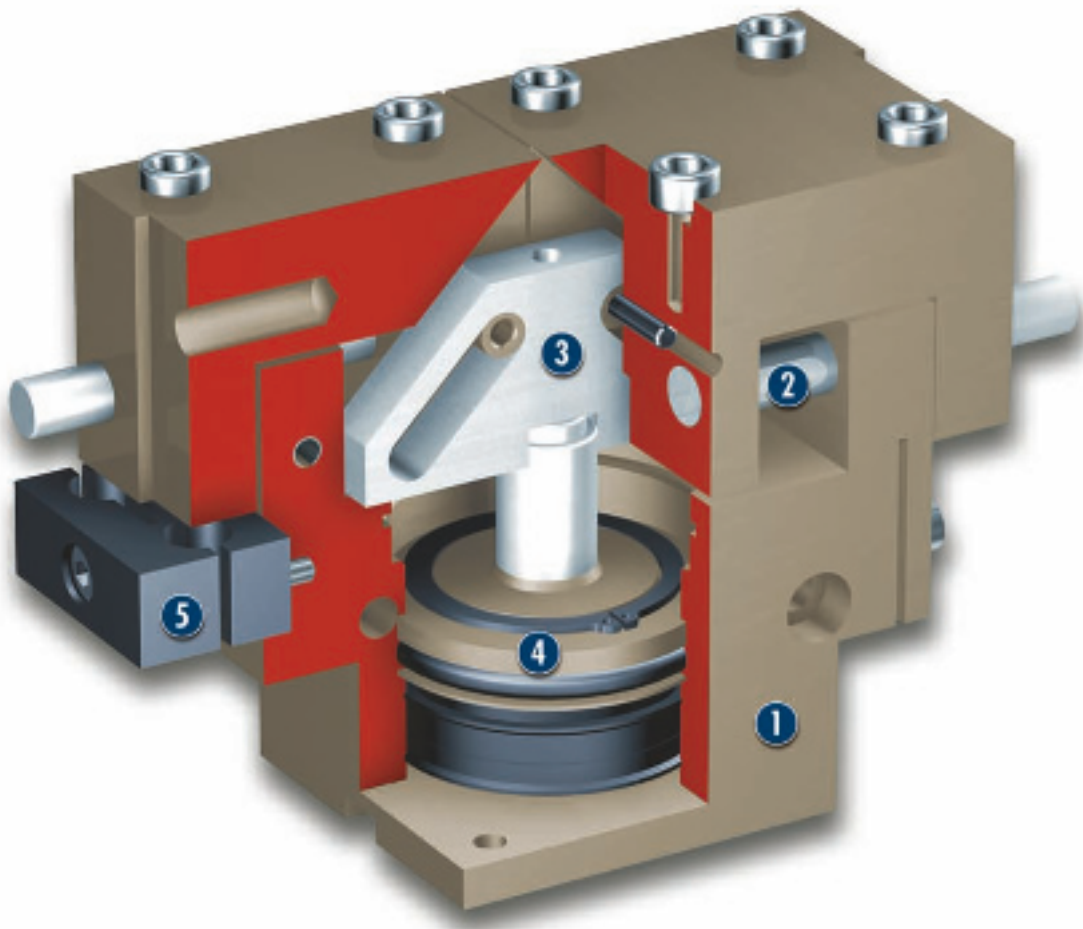
Warranty

24 months

Scope of delivery

Brackets for proximity switches, centering sleeves, assembly and operating manual with manufacturer's declaration

Sectional diagram



- 1 Housing**
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy
- 3 Kinematics**
internal, power transmission via line contact
- 5 Sensor system**
mounting brackets for inductive proximity switches
- 2 Rod guide**
simple yet resilient
- 4 Drive**
using tried and tested pneumatic piston drive

Function description

The piston is moved up and down by compressed air. The wedge hook, together with the transverse rods of the base jaws, transforms the piston motion into synchronized opening and closing.

Options and special information

The PGM series is a product line with an important cost/benefit ratio.

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

Centering sleeves



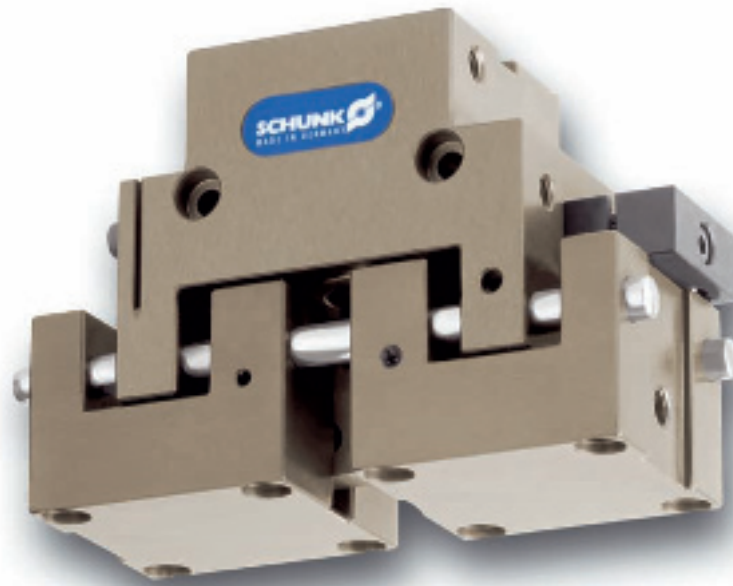
Fittings



IN inductive proximity switches



W/WK/KV/GK sensor cables



V sensor distributors



SDV-P pressure maintenance valves



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration), measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

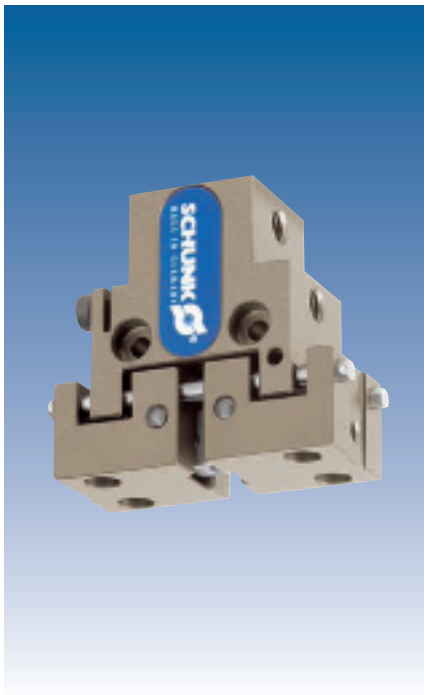
is defined as the spread of the limit position after 100 consecutive strokes.

Workpiece weight

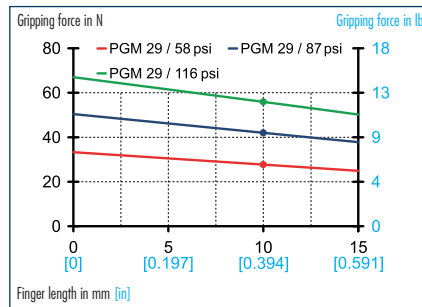
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit clamping.

Closing and opening times

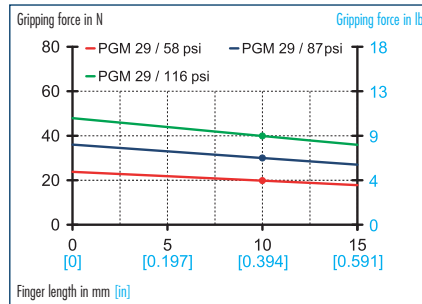
Closing and opening times are purely the times that the base jaws or base fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



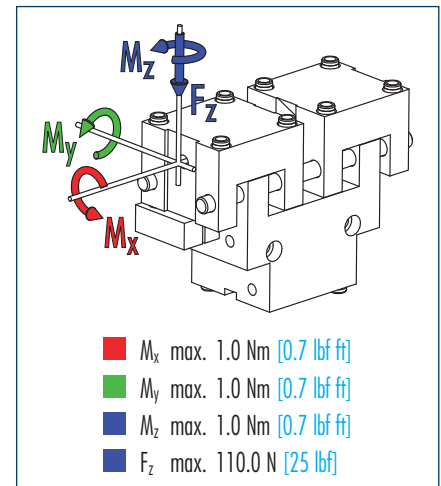
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

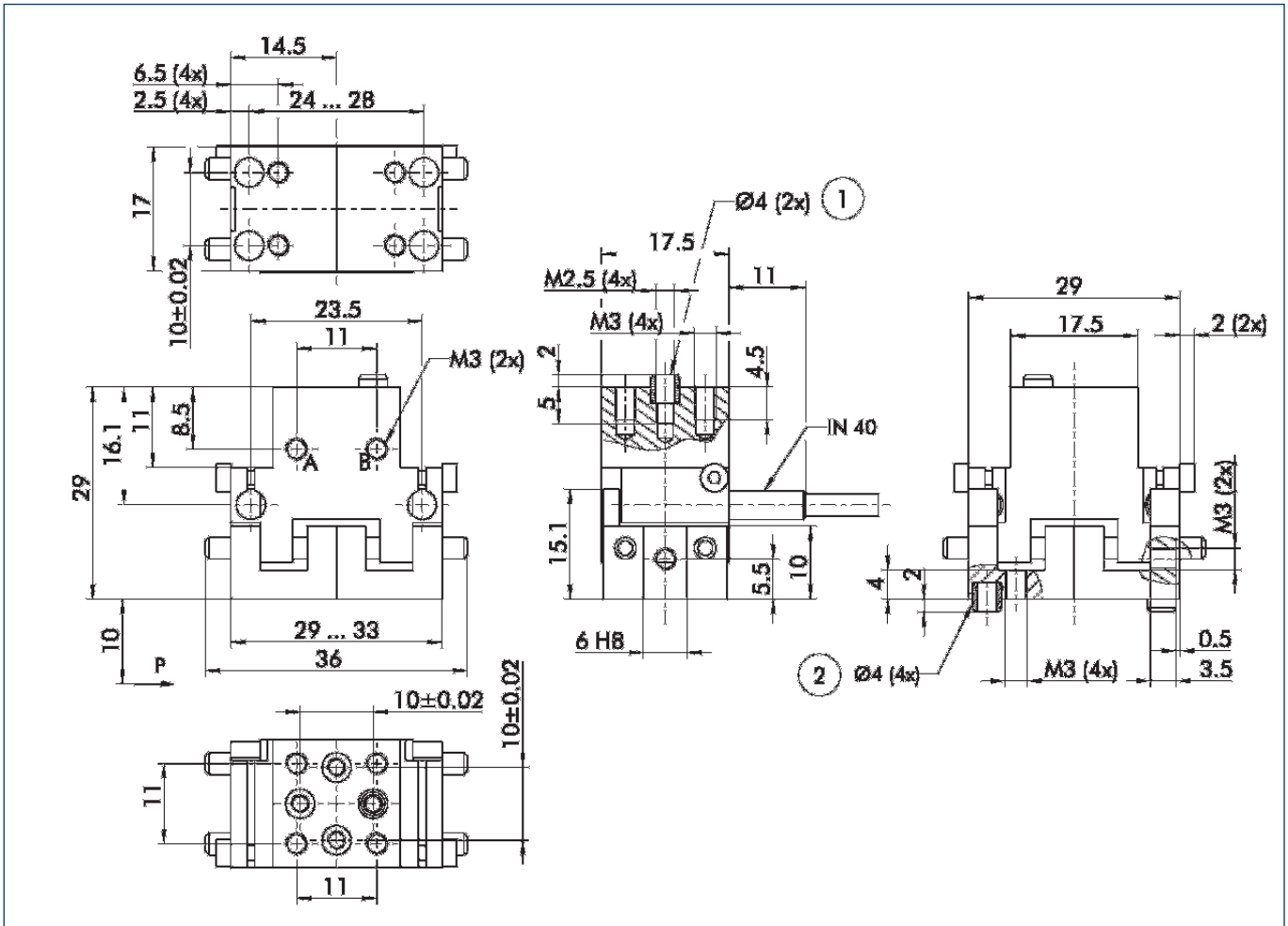


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 29	
	ID	0302680
Stroke per finger	mm [in]	2.0 [0.079]
Closing force	N [lbf]	30.0 [6.7]
Opening force	N [lbf]	40.0 [9.0]
Weight	kg [lbs]	0.025 [0.06]
Recommended workpiece weight	kg [lbs]	0.15 [0.33]
Air consumption per double stroke	cm ³ [in ³]	0.16 [0.01]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.03
Opening time	s	0.03
Max. permitted finger length	mm [in]	15.0 [0.591]
Max. permitted weight per finger	kg [lbs]	0.01 [0.02]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]

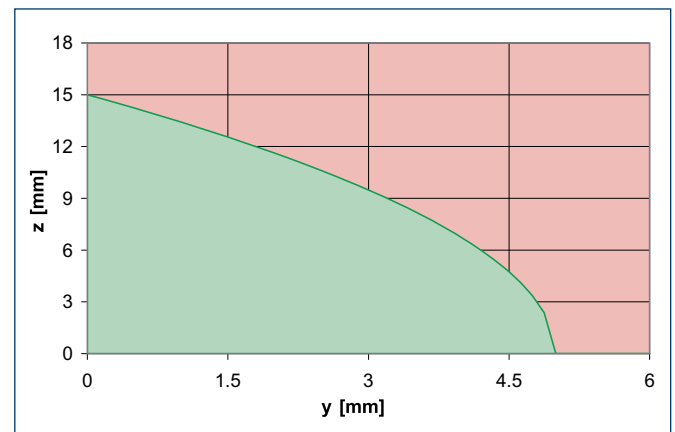
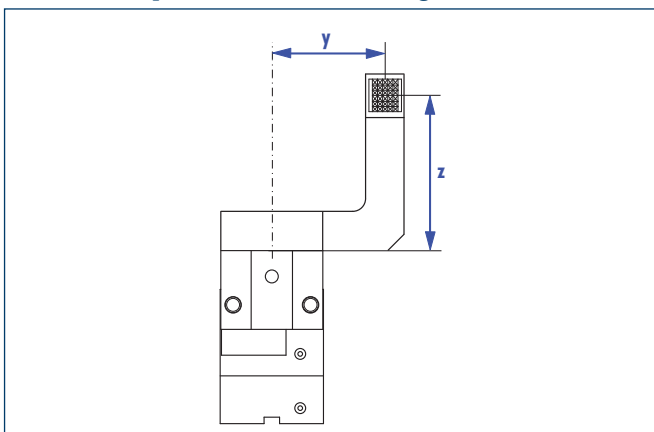
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

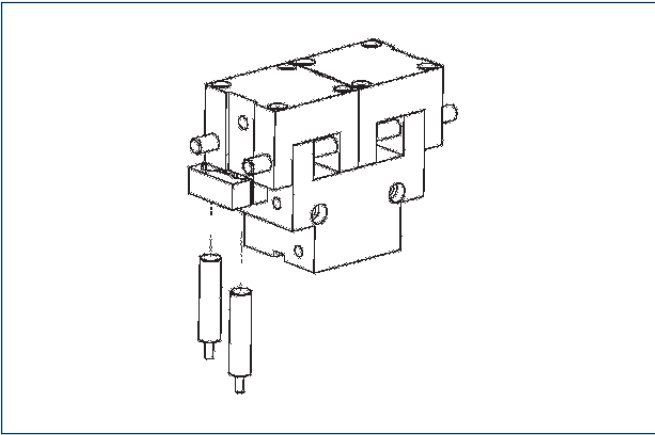
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

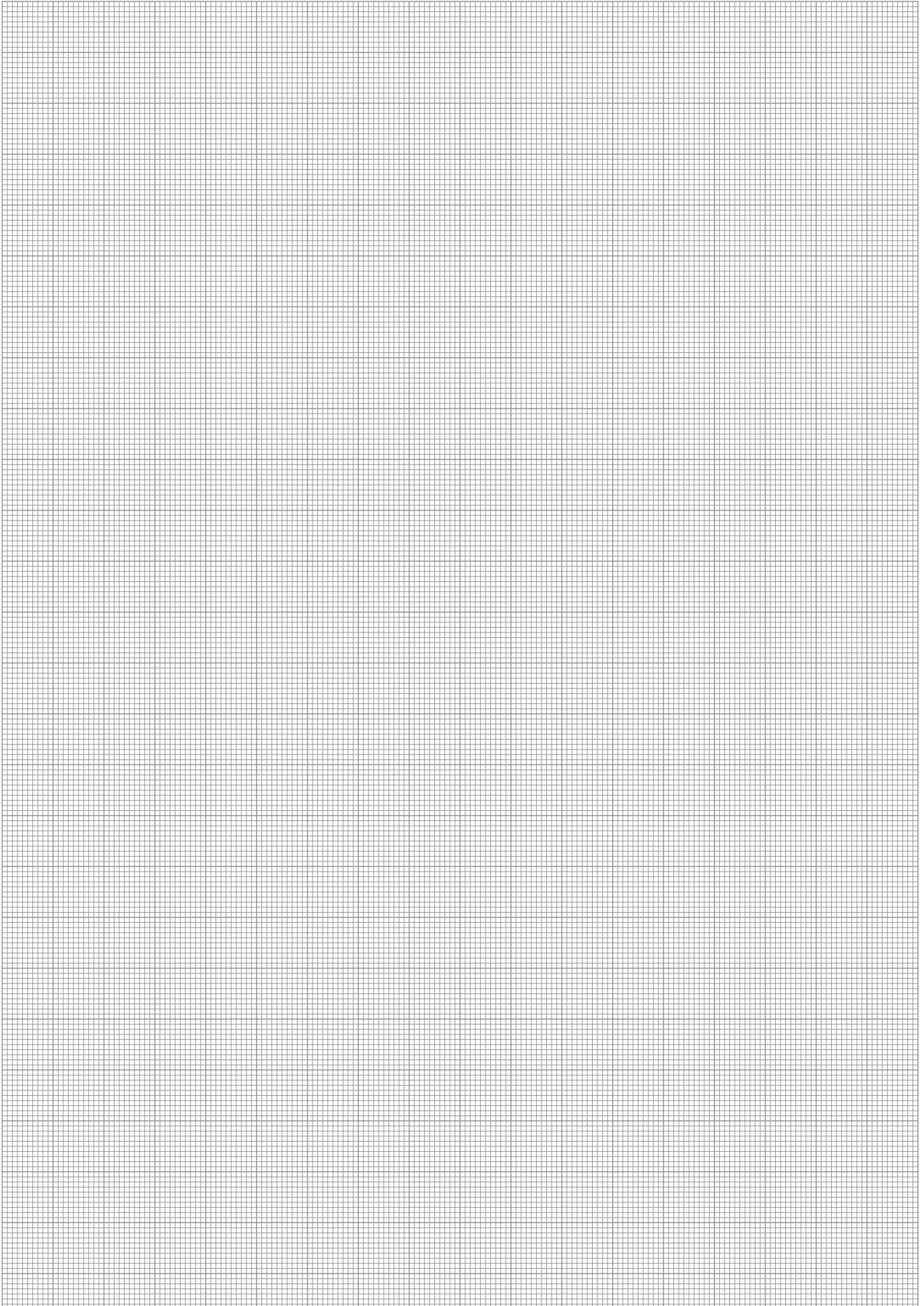
Extension cables for proximity switches/magnetic switches

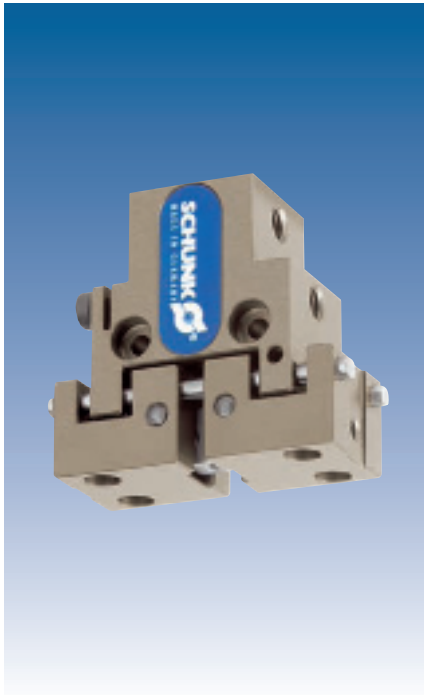
Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

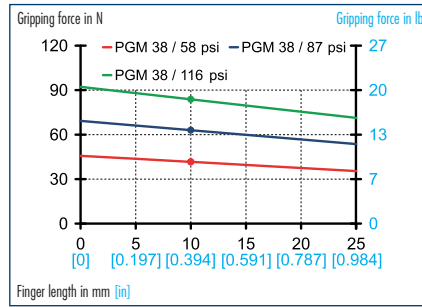


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

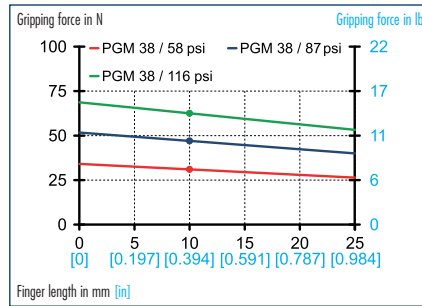




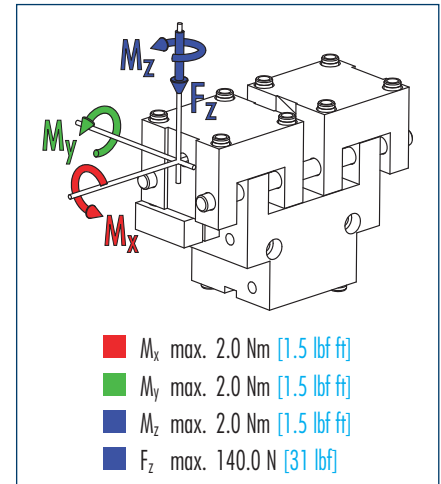
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

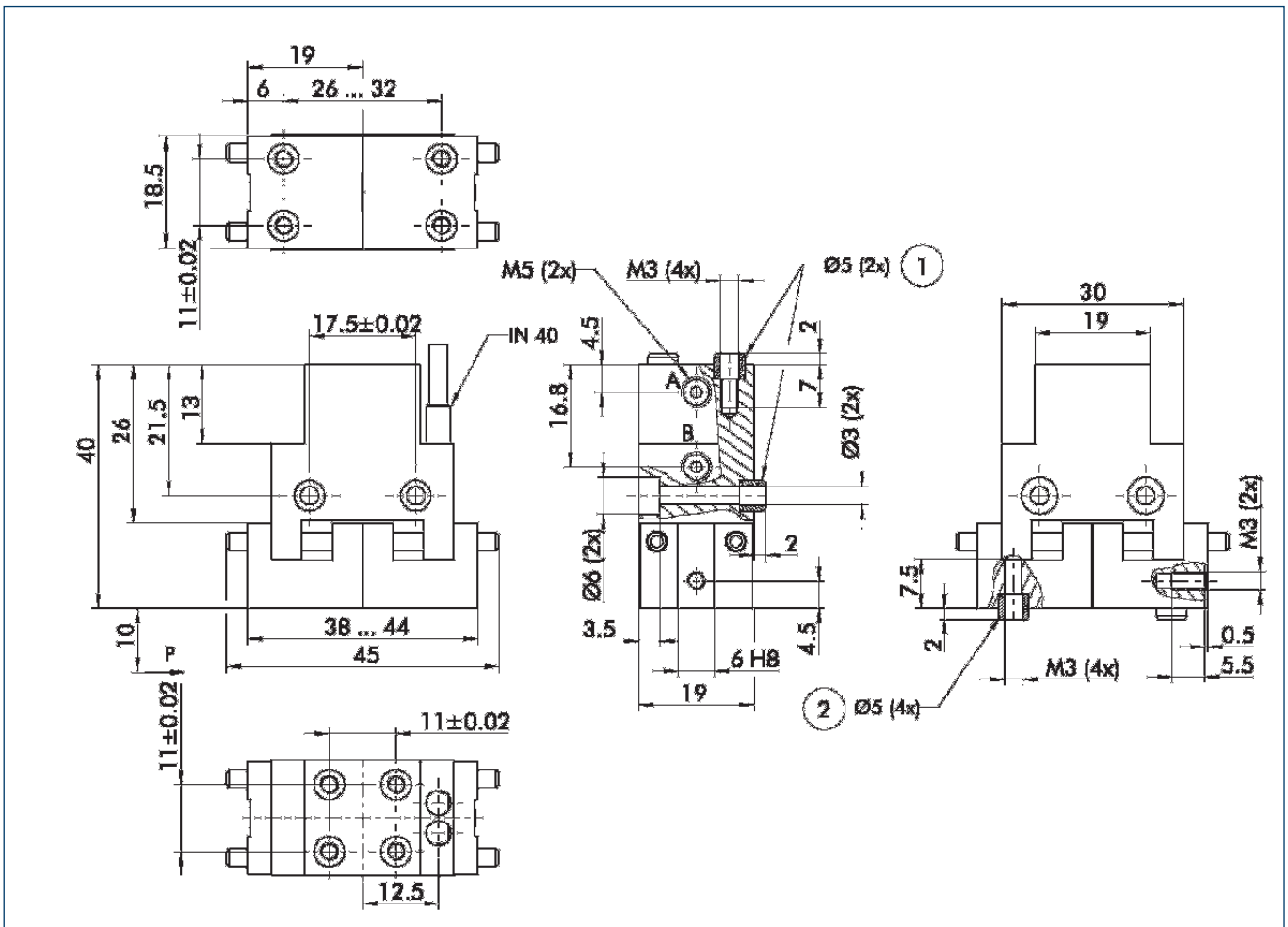


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 38	
	ID	0302681
Stroke per finger	mm [in]	3.0 [0.118]
Closing force	N [lbf]	47.0 [10.6]
Opening force	N [lbf]	63.0 [14.2]
Weight	kg [lbs]	0.05 [0.11]
Recommended workpiece weight	kg [lbs]	0.235 [0.52]
Air consumption per double stroke	cm ³ [in ³]	0.34 [0.02]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.03
Opening time	s	0.03
Max. permitted finger length	mm [in]	25.0 [0.984]
Max. permitted weight per finger	kg [lbs]	0.017 [0.04]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]

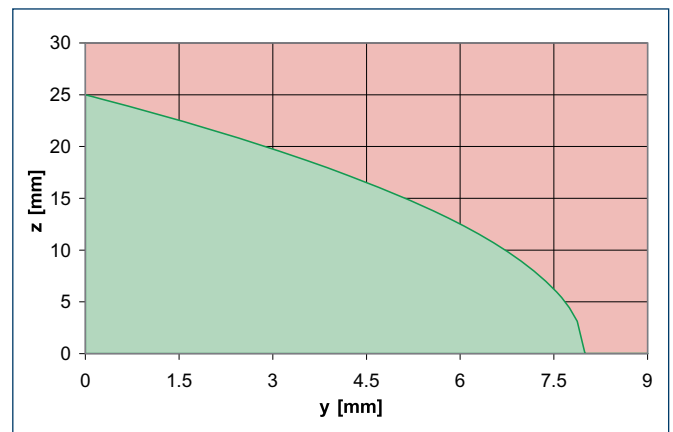
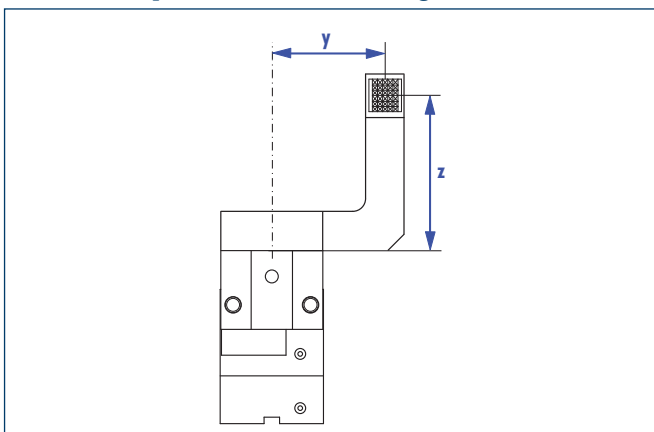
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

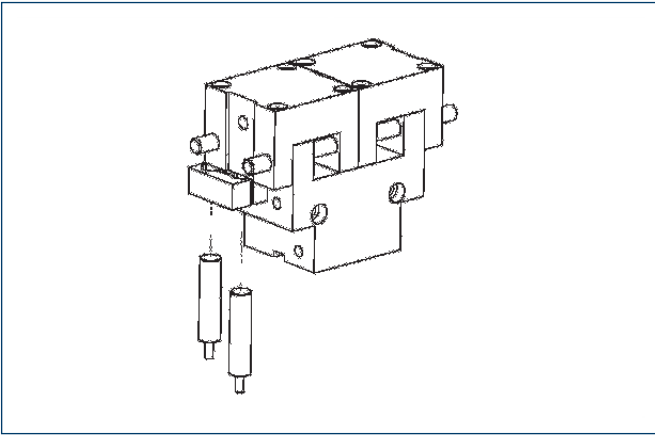
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

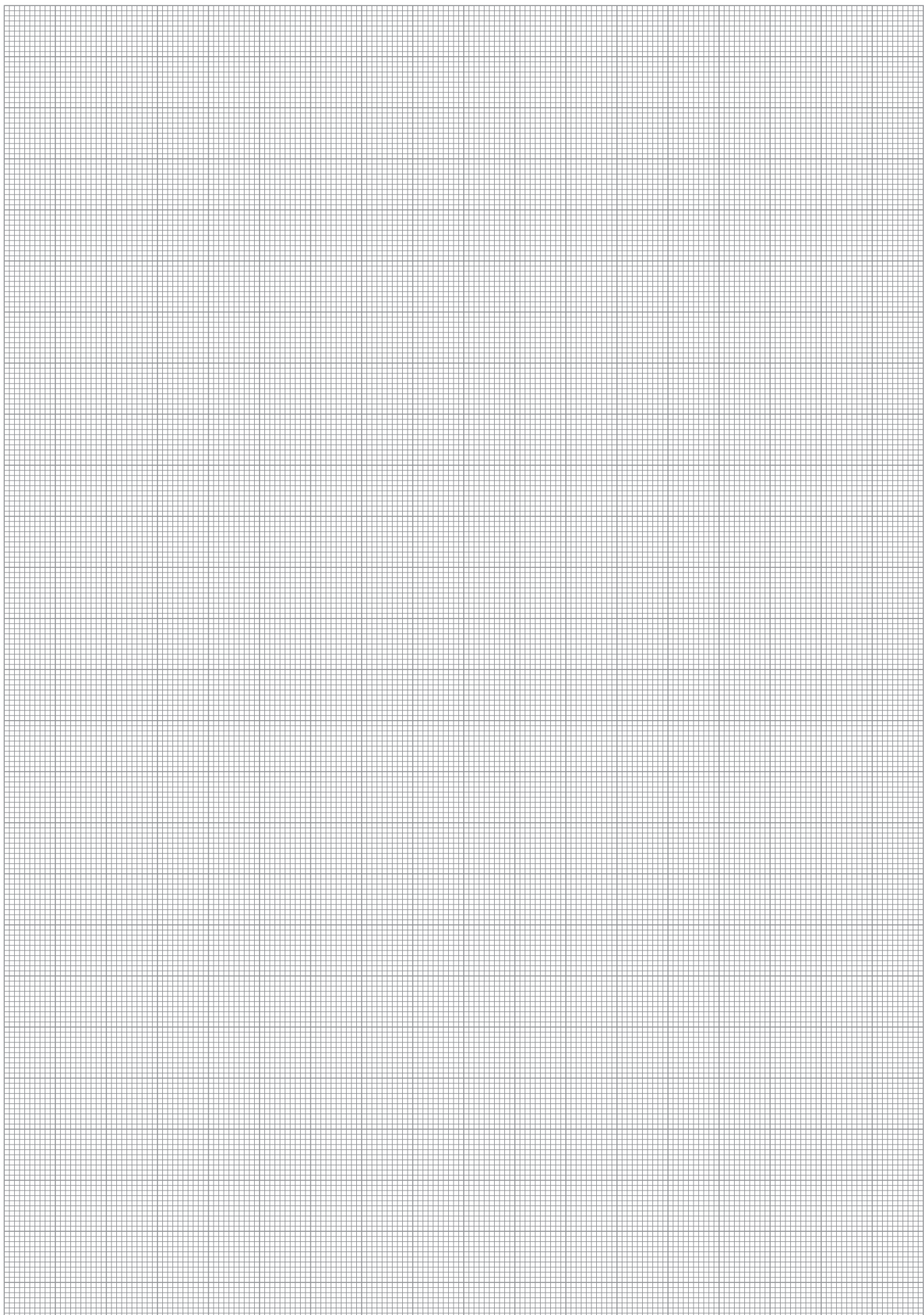
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

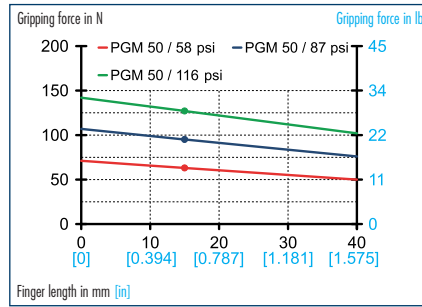


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

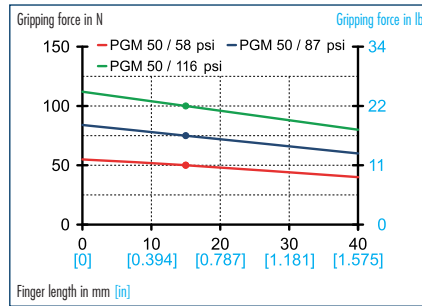




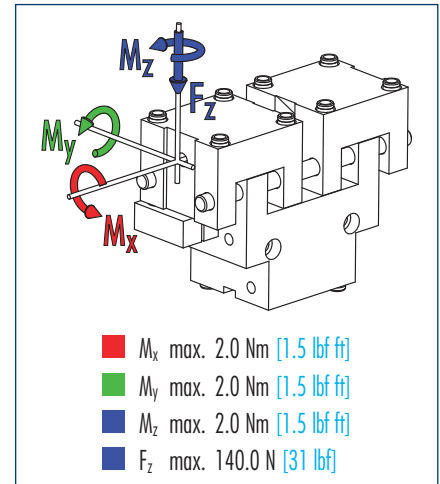
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

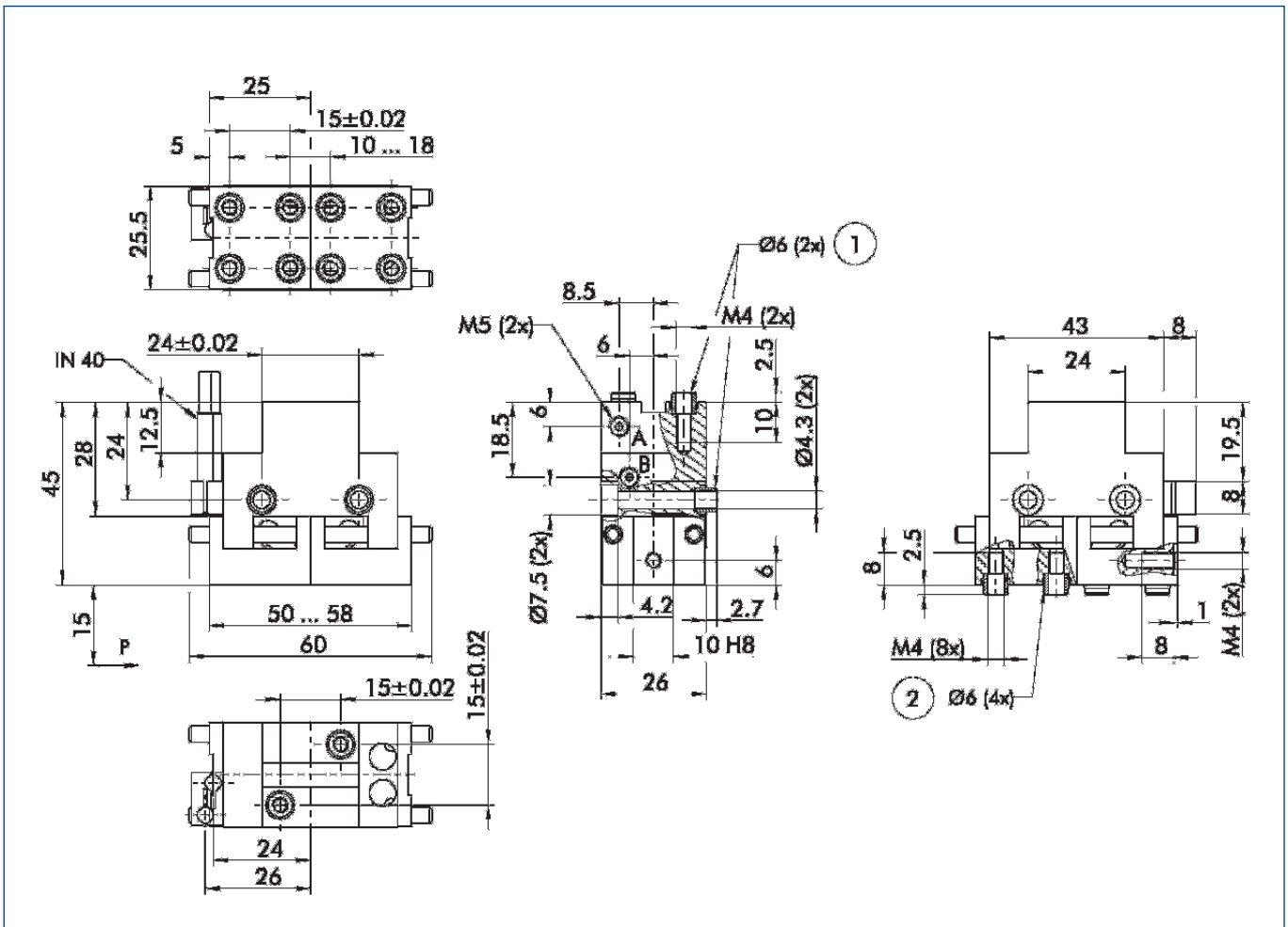


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 50	
ID	0302682	
Stroke per finger	mm [in]	4.0 [0.157]
Closing force	N [lbf]	75.0 [16.9]
Opening force	N [lbf]	95.0 [21.4]
Weight	kg [lbs]	0.105 [0.23]
Recommended workpiece weight	kg [lbs]	0.375 [0.83]
Air consumption per double stroke	cm ³ [in ³]	0.8 [0.05]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.04
Opening time	s	0.04
Max. permitted finger length	mm [in]	40.0 [1.575]
Max. permitted weight per finger	kg [lbs]	0.035 [0.08]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]

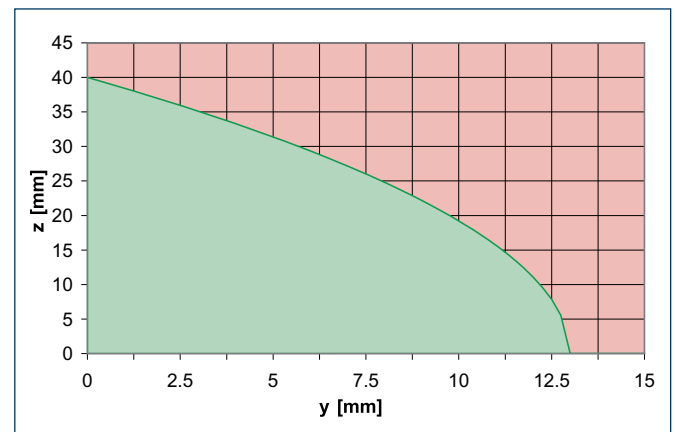
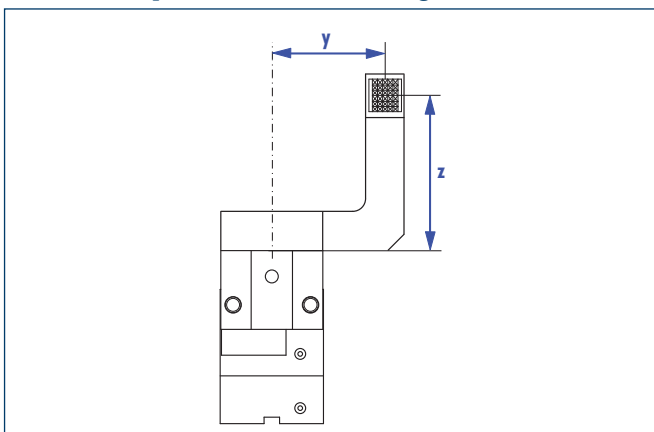
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

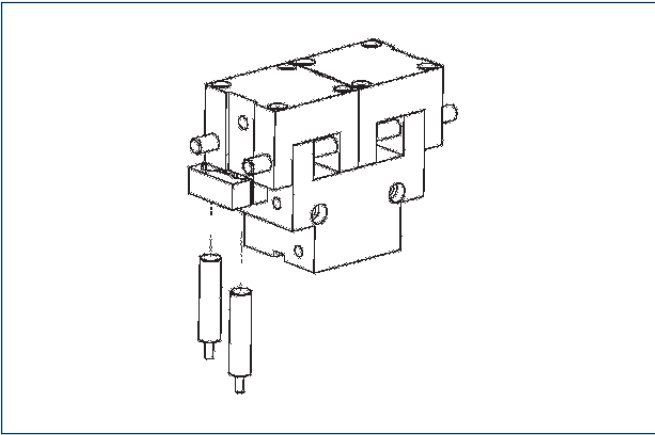
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

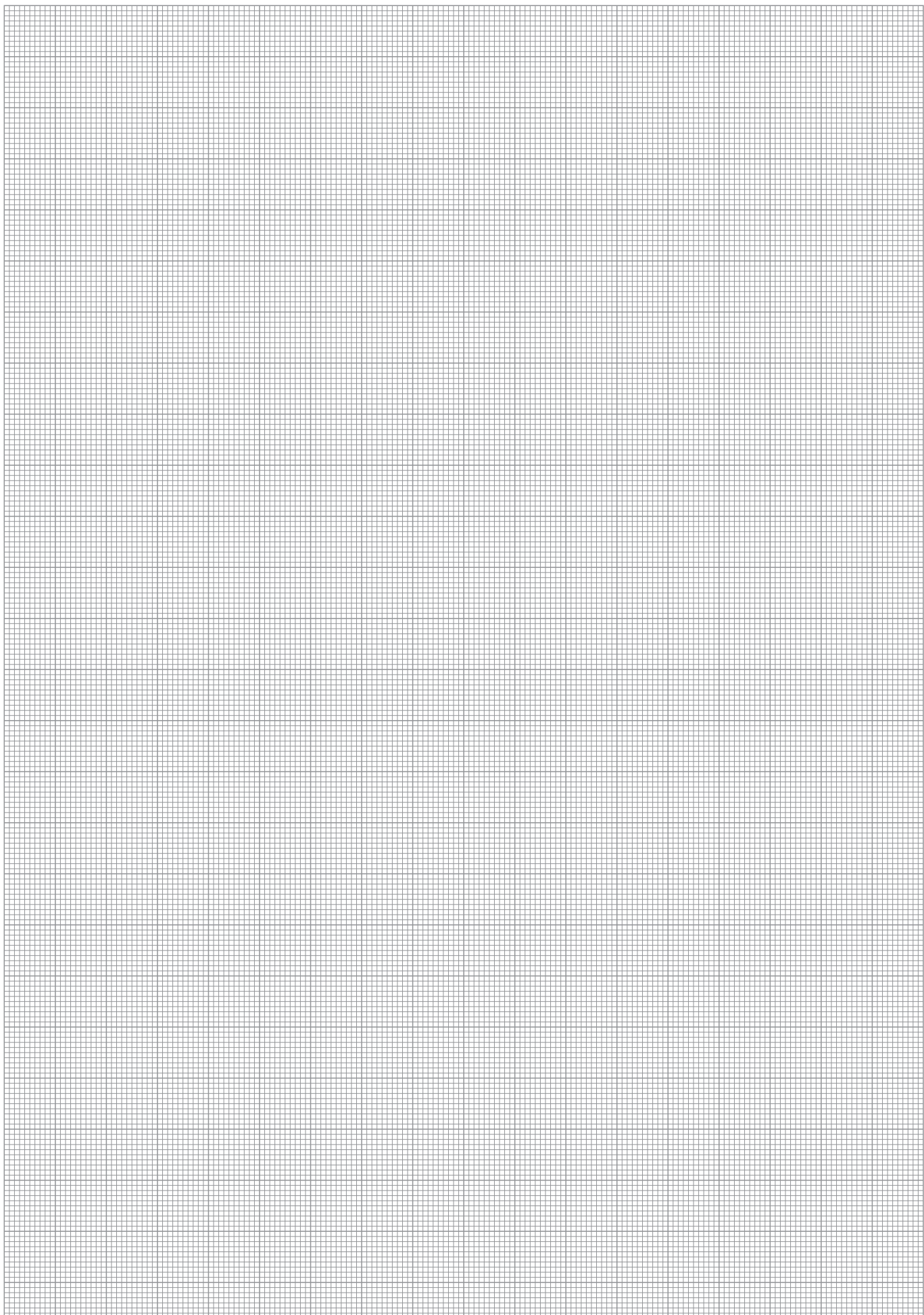
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

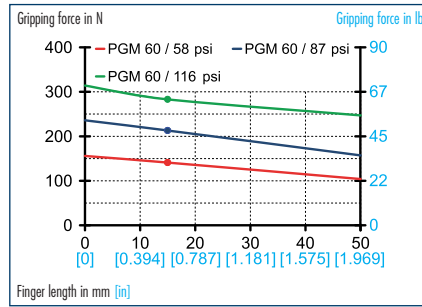


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

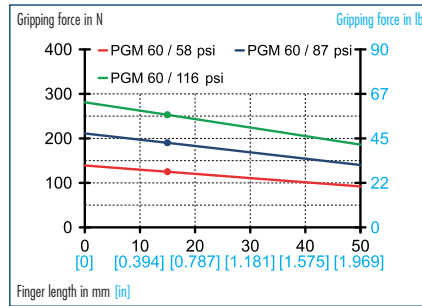




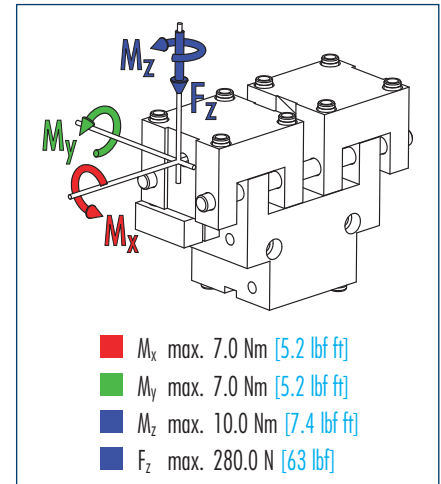
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

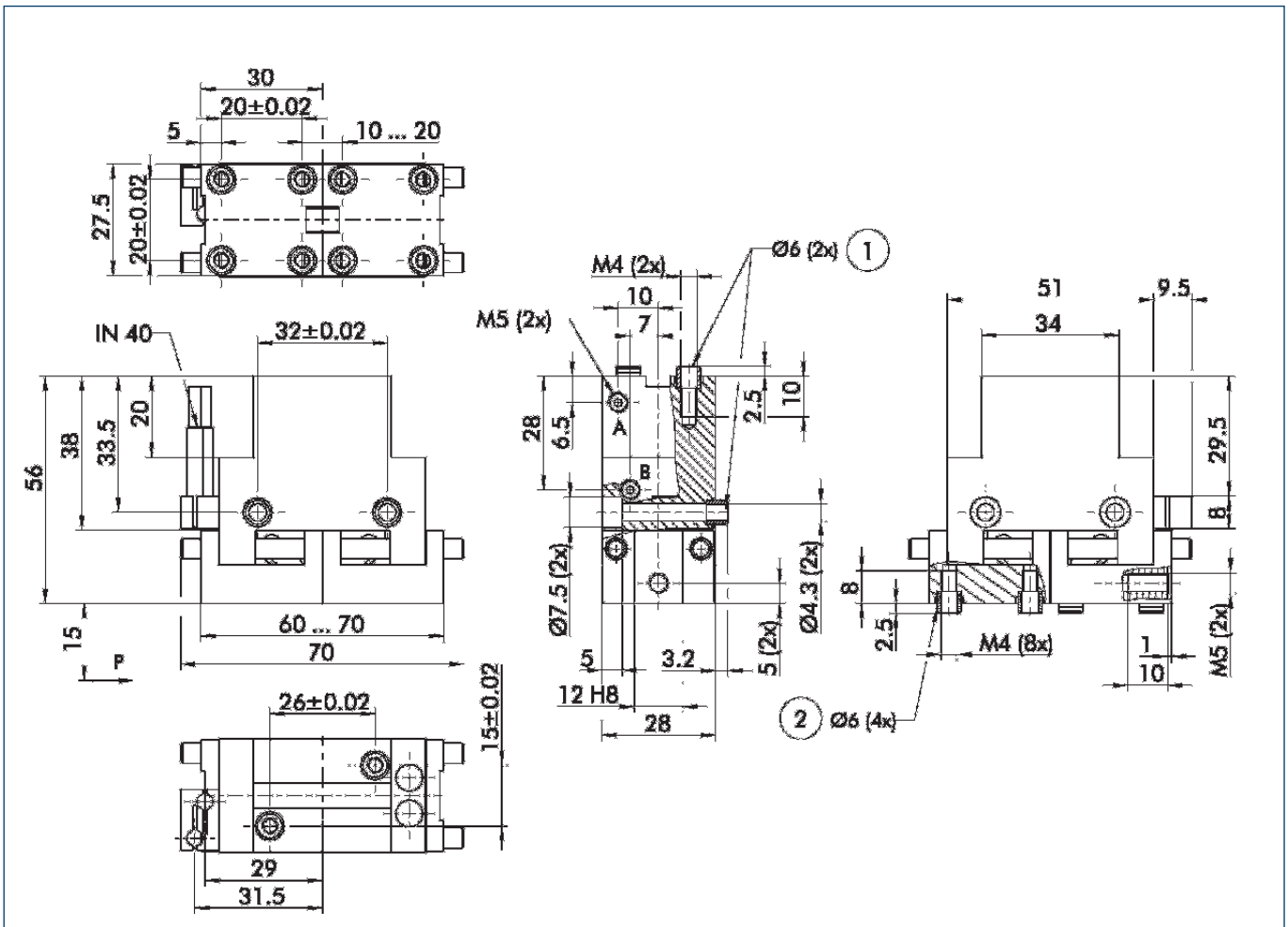


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 60	
	ID	0302683
Stroke per finger	mm [in]	5.0 [0.197]
Closing force	N [lbf]	190.0 [43]
Opening force	N [lbf]	210.0 [47]
Weight	kg [lbs]	0.21 [0.46]
Recommended workpiece weight	kg [lbs]	0.95 [2.09]
Air consumption per double stroke	cm ³ [in ³]	2.5 [0.15]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.05
Opening time	s	0.05
Max. permitted finger length	mm [in]	50.0 [1.969]
Max. permitted weight per finger	kg [lbs]	0.07 [0.15]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.02 [0.0008]

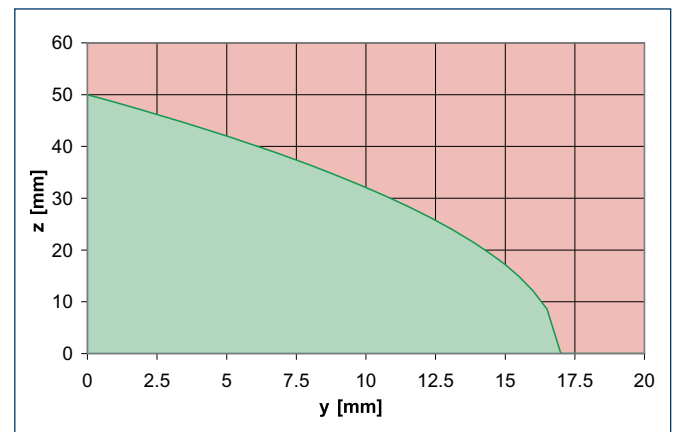
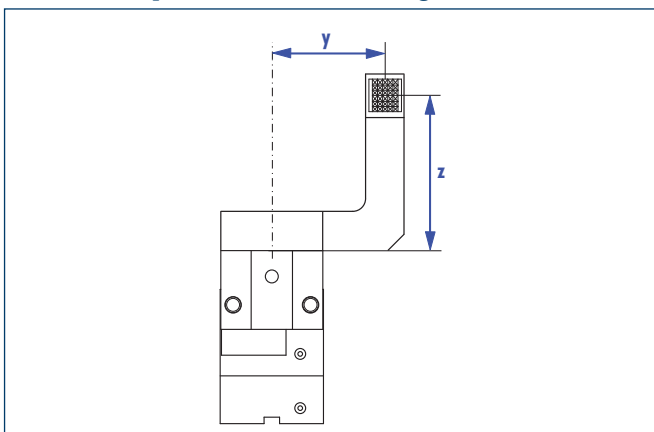
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

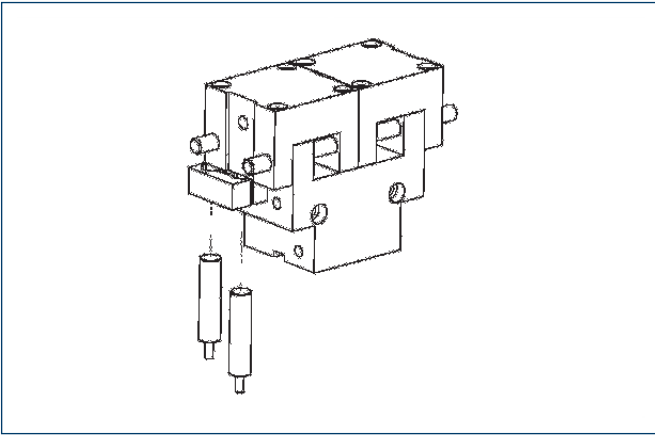
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

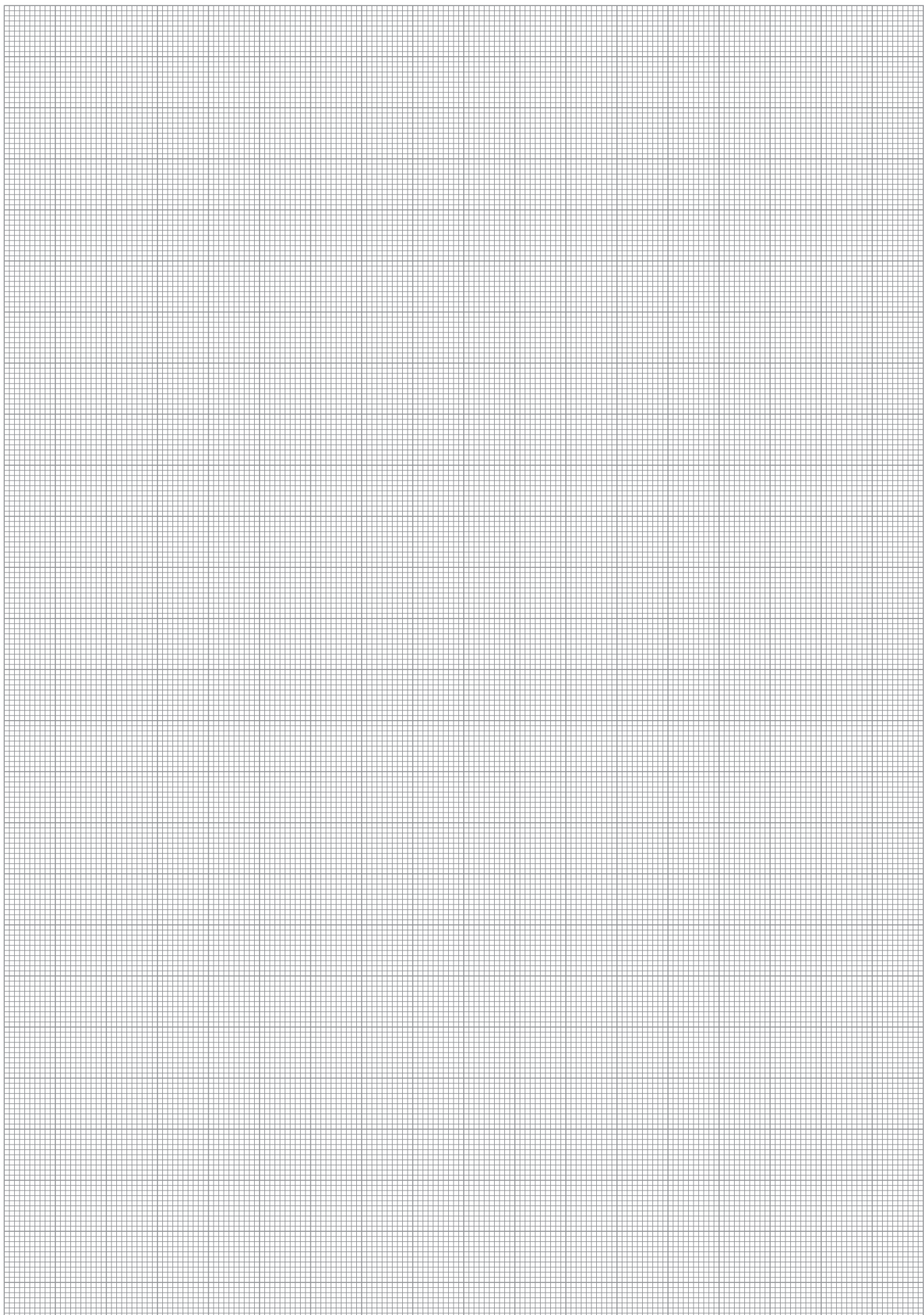
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

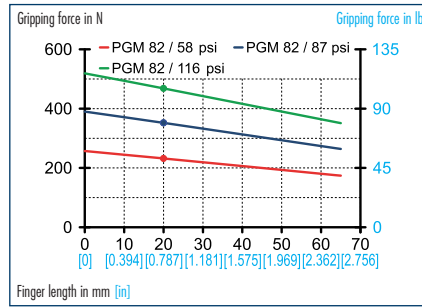


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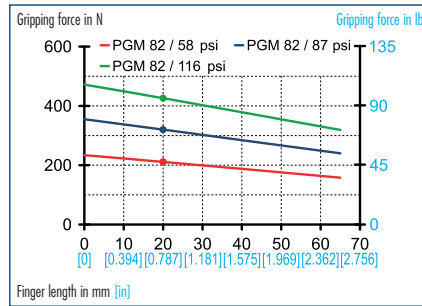




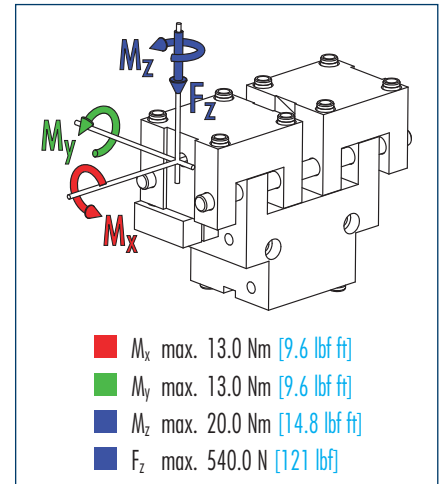
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

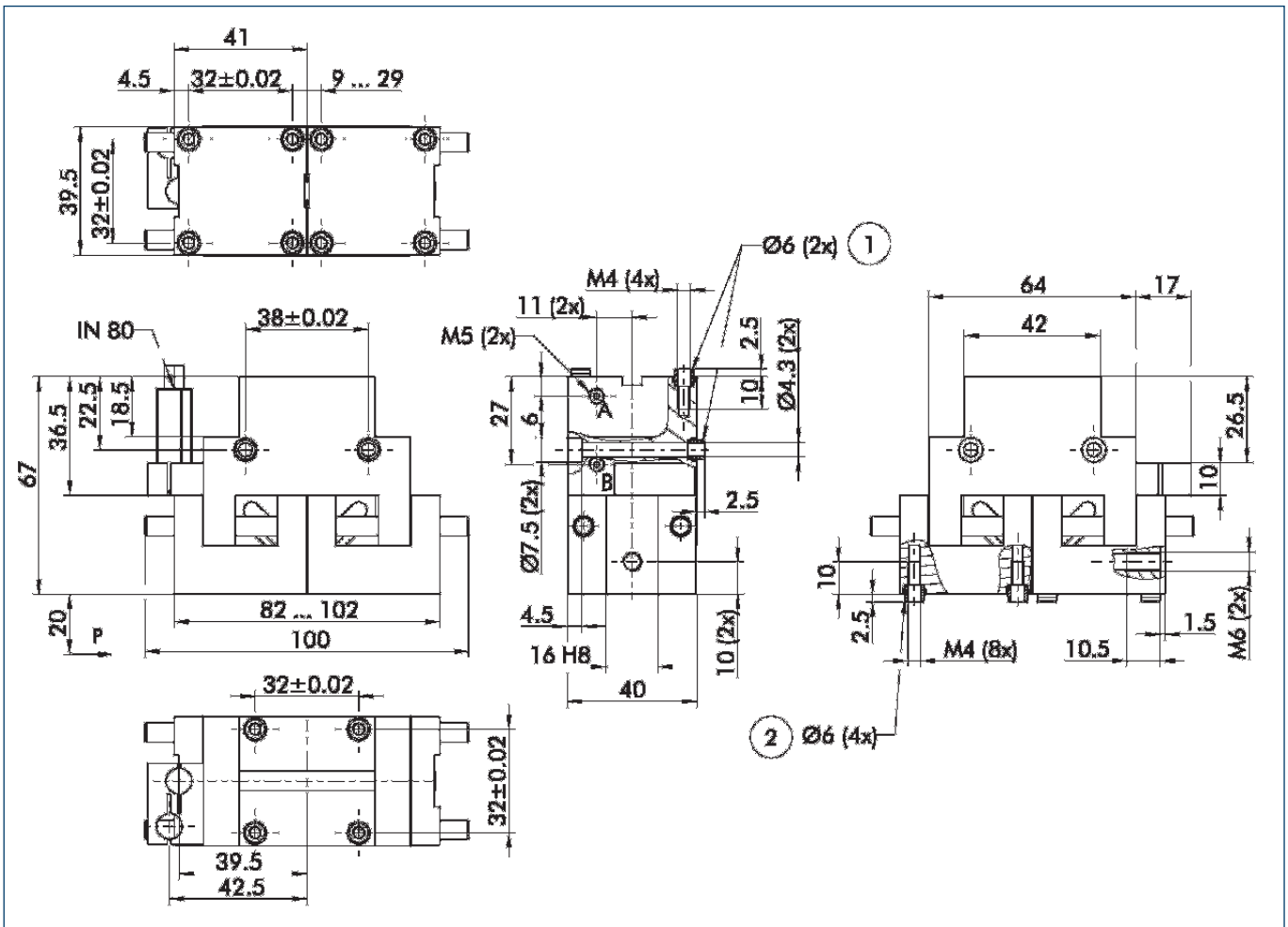


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 82	
ID	0302684	
Stroke per finger	mm [in]	10.0 [0.394]
Closing force	N [lbf]	320.0 [72]
Opening force	N [lbf]	350.0 [79]
Weight	kg [lbs]	0.6 [1.32]
Recommended workpiece weight	kg [lbs]	1.6 [3.53]
Air consumption per double stroke	cm ³ [in ³]	8.0 [0.49]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.07
Opening time	s	0.07
Max. permitted finger length	mm [in]	65.0 [2.559]
Max. permitted weight per finger	kg [lbs]	0.17 [0.37]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.03 [0.0012]

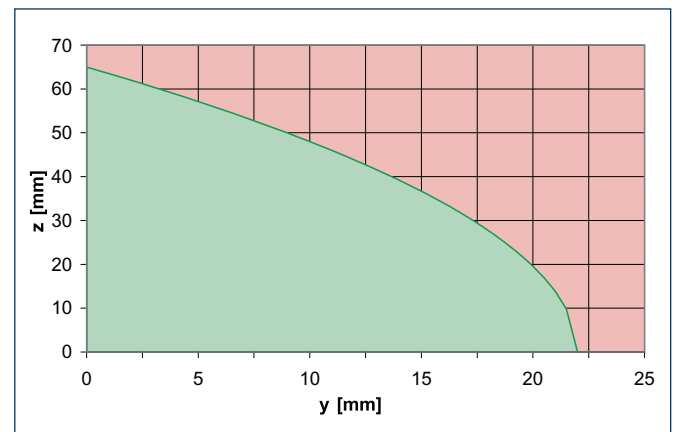
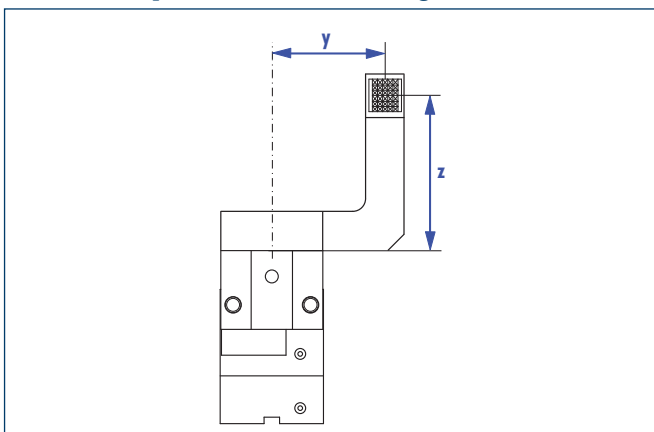
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

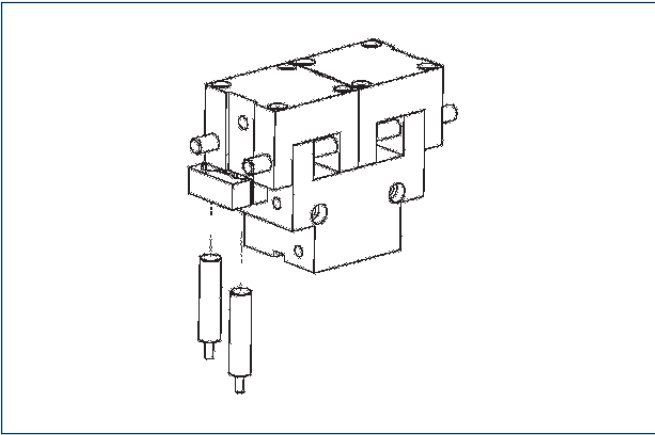
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

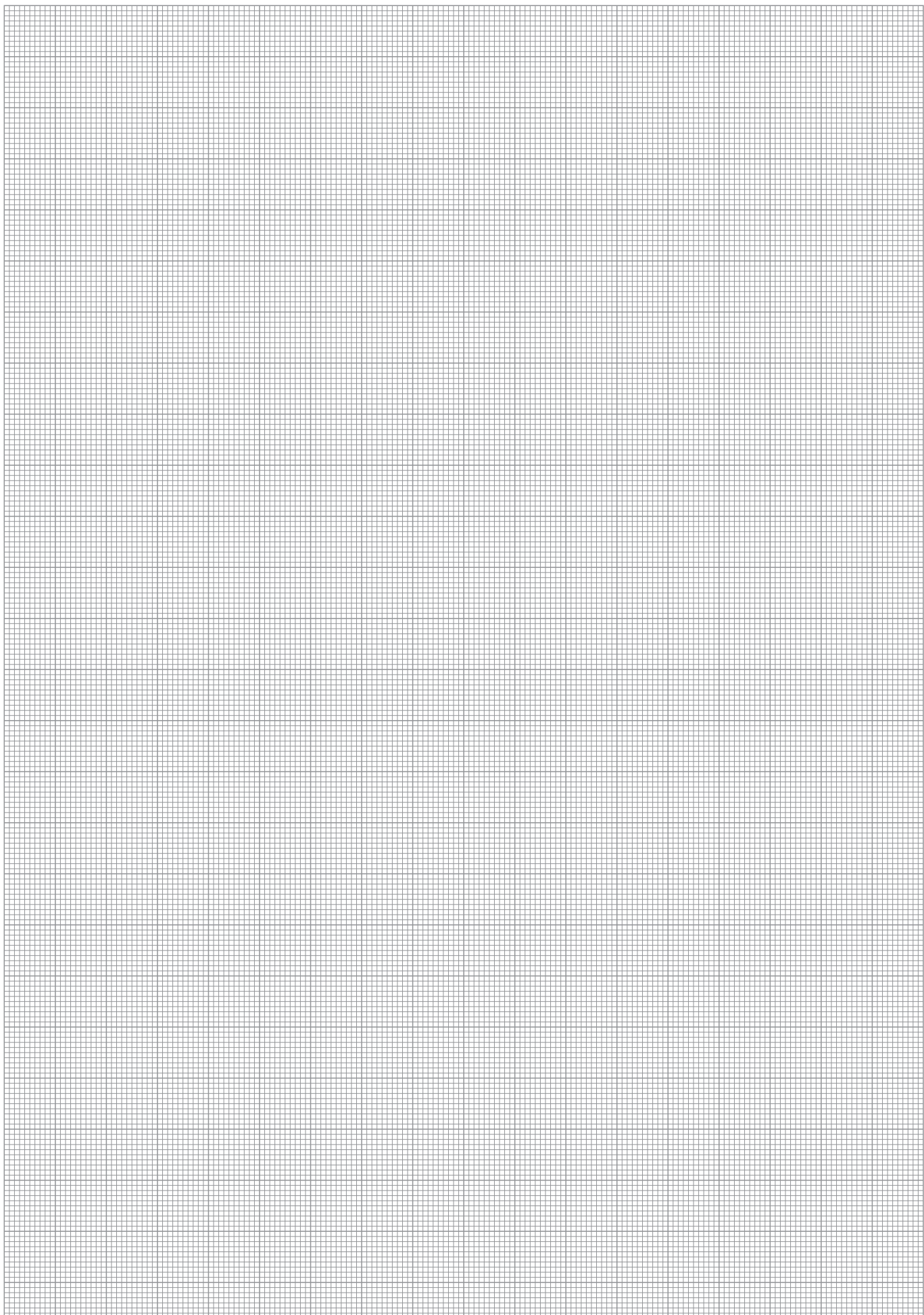
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

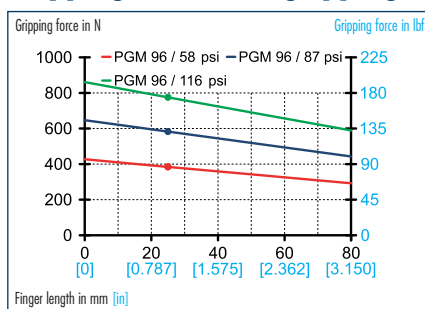


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

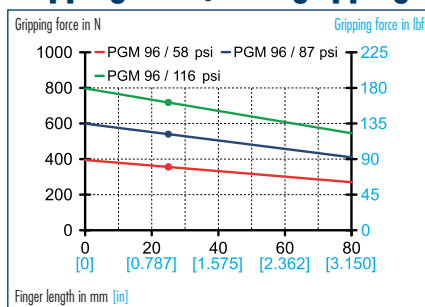




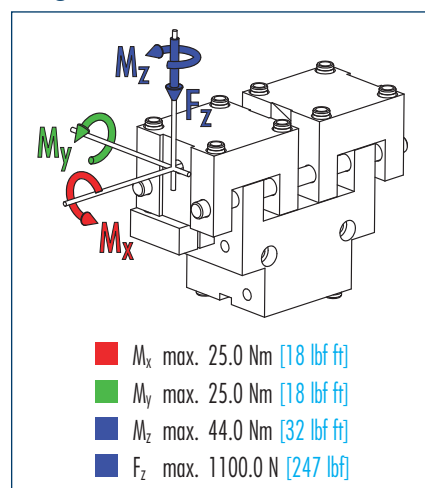
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

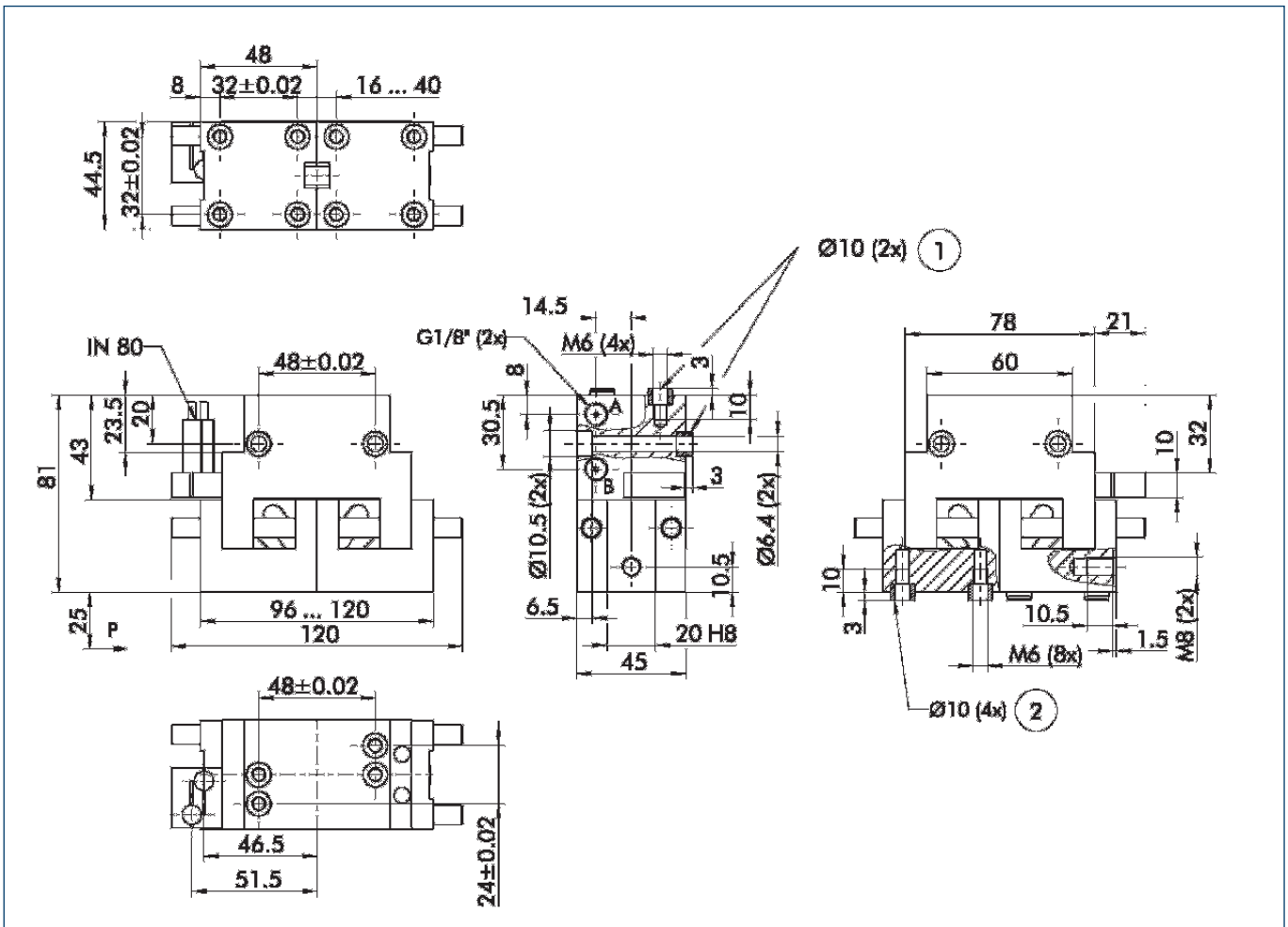


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 96	
ID	0302685	
Stroke per finger	mm [in]	12.0 [0.472]
Closing force	N [lbf]	540.0 [121]
Opening force	N [lbf]	580.0 [130]
Weight	kg [lbs]	0.84 [1.85]
Recommended workpiece weight	kg [lbs]	2.7 [5.95]
Air consumption per double stroke	cm ³ [in ³]	15.1 [0.92]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.08
Opening time	s	0.08
Max. permitted finger length	mm [in]	80.0 [3.150]
Max. permitted weight per finger	kg [lbs]	0.28 [0.62]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.03 [0.0012]

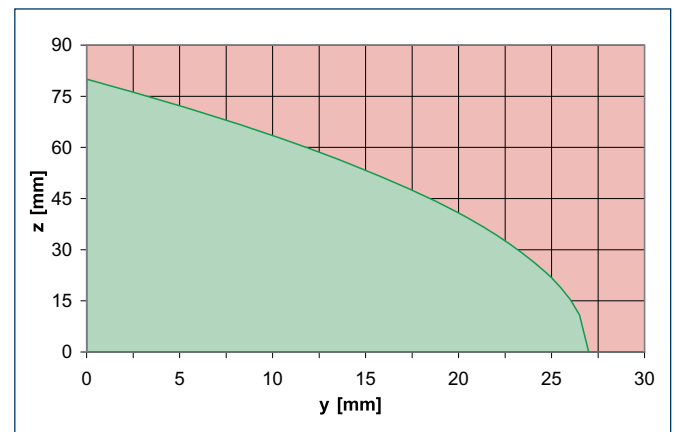
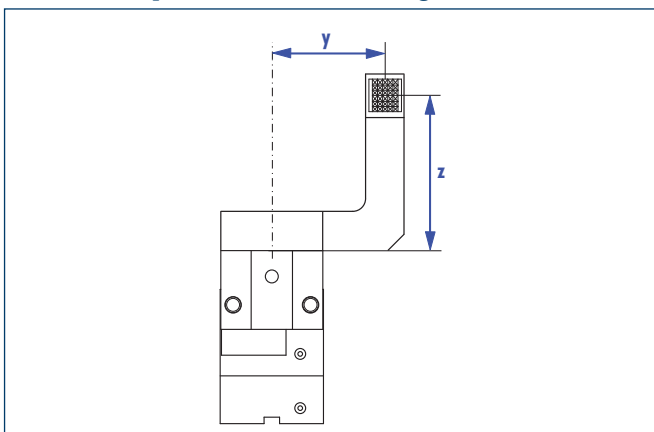
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

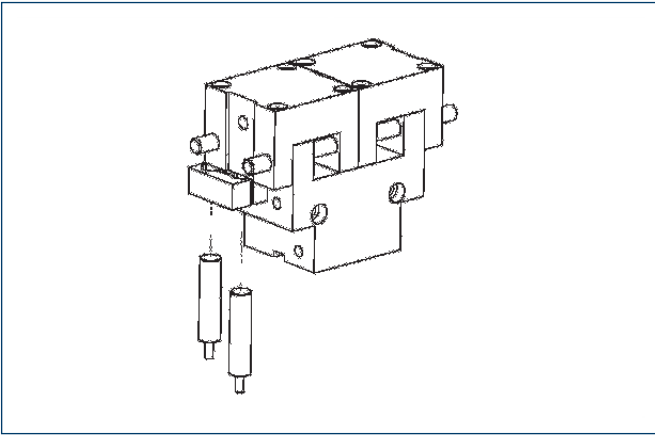
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

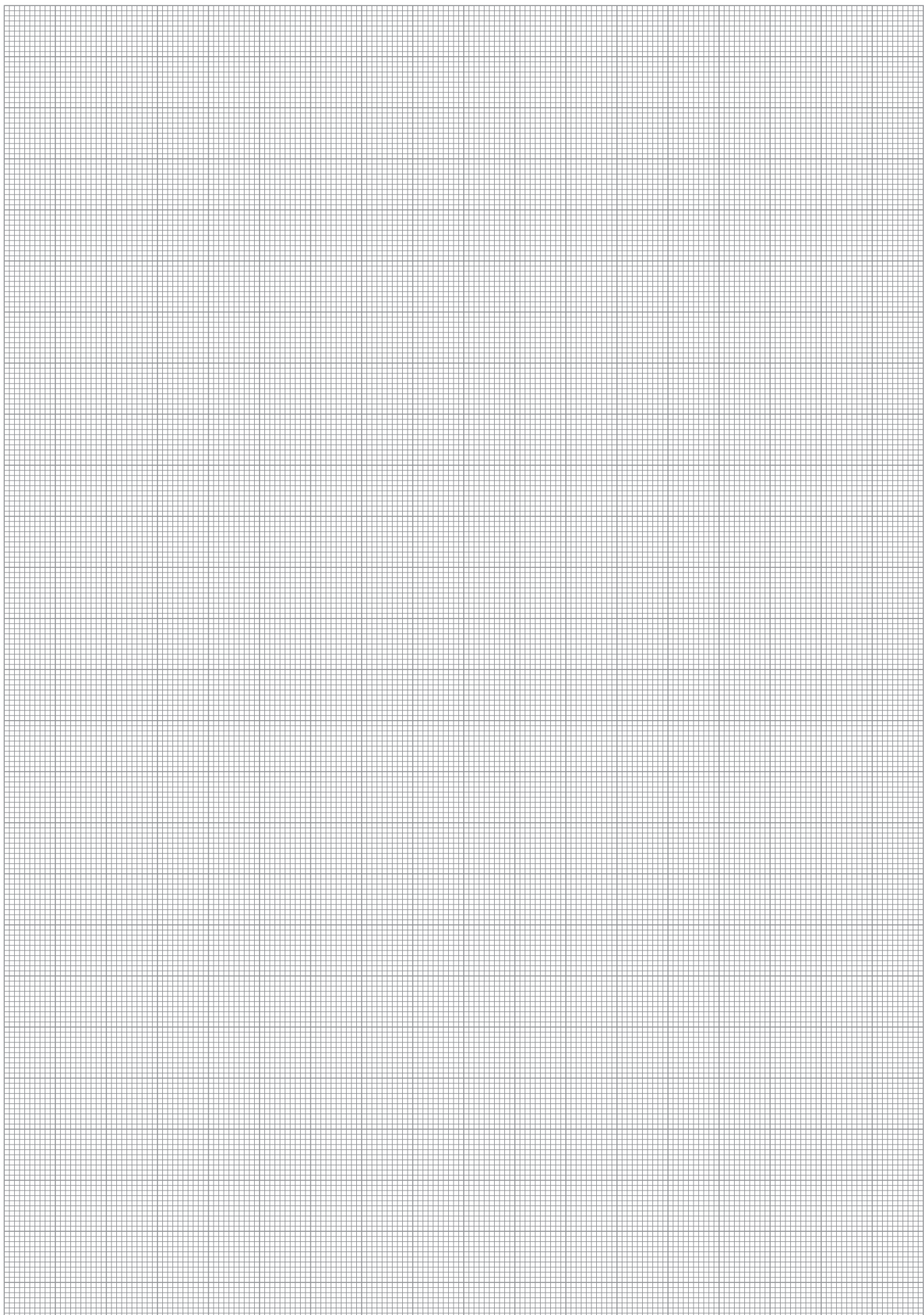
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

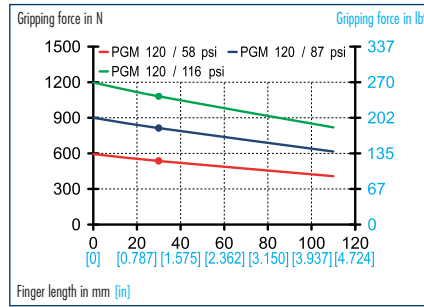


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

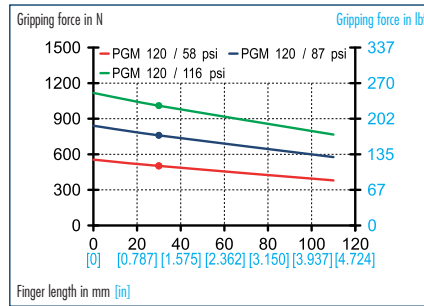




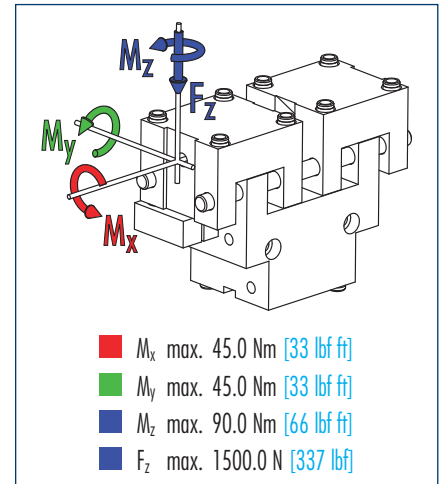
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

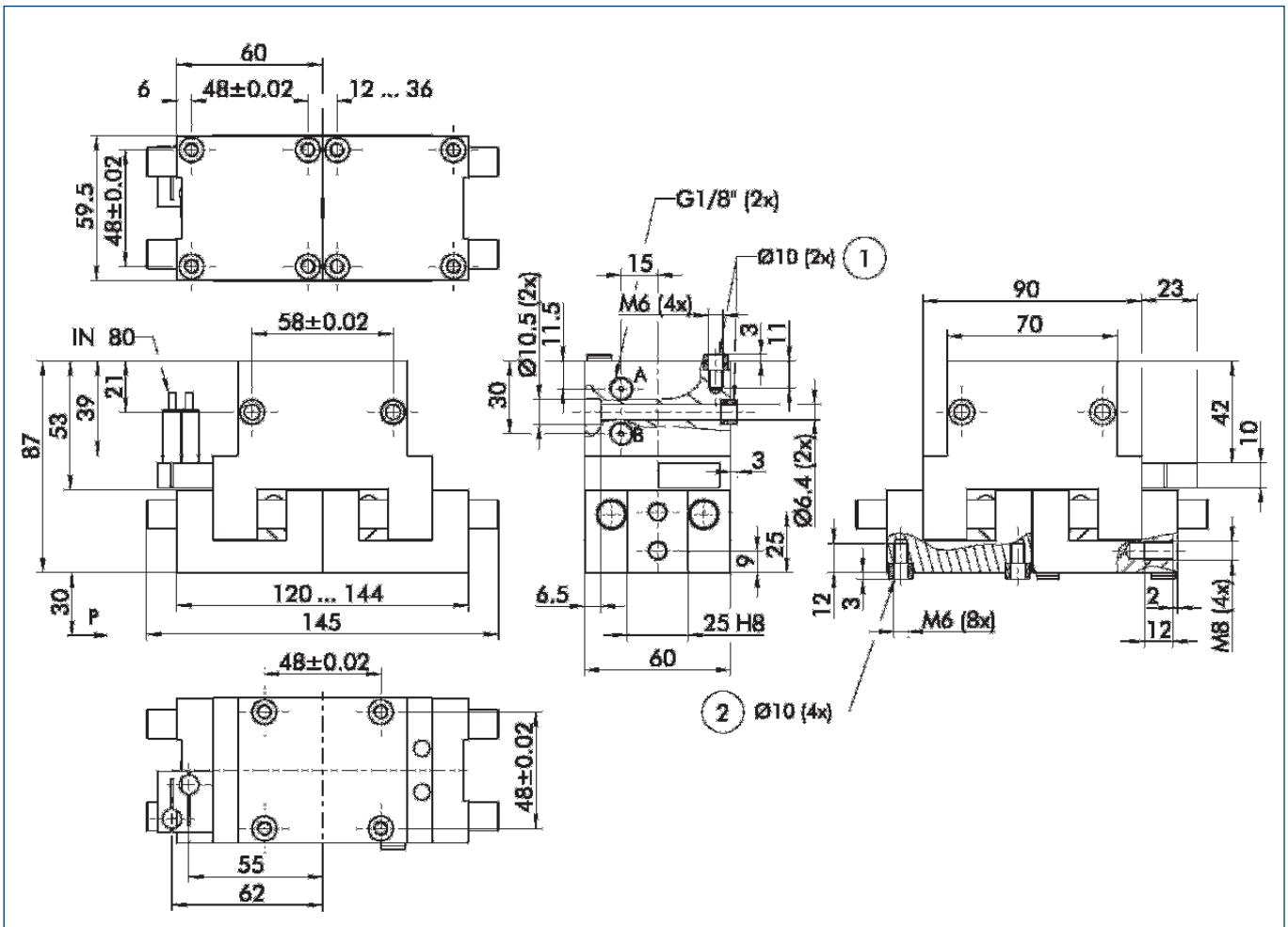


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 120	
ID	0302686	
Stroke per finger	mm [in]	12.0 [0.472]
Closing force	N [lbf]	760.0 [171]
Opening force	N [lbf]	810.0 [182]
Weight	kg [lbs]	1.26 [2.78]
Recommended workpiece weight	kg [lbs]	3.8 [8.38]
Air consumption per double stroke	cm ³ [in ³]	23.6 [1.44]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.1
Opening time	s	0.1
Max. permitted finger length	mm [in]	110.0 [4.331]
Max. permitted weight per finger	kg [lbs]	0.58 [1.28]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.03 [0.0012]

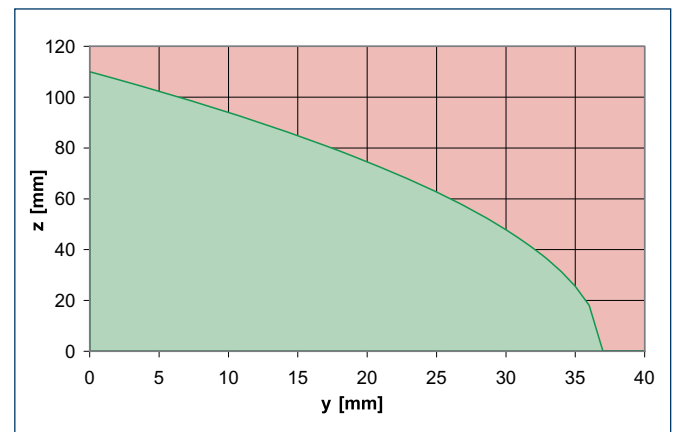
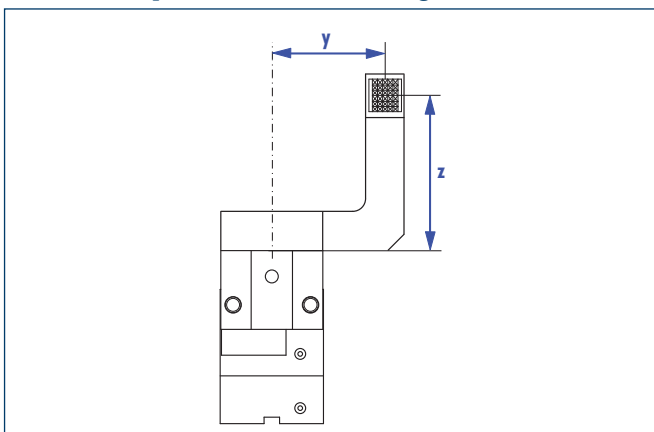
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

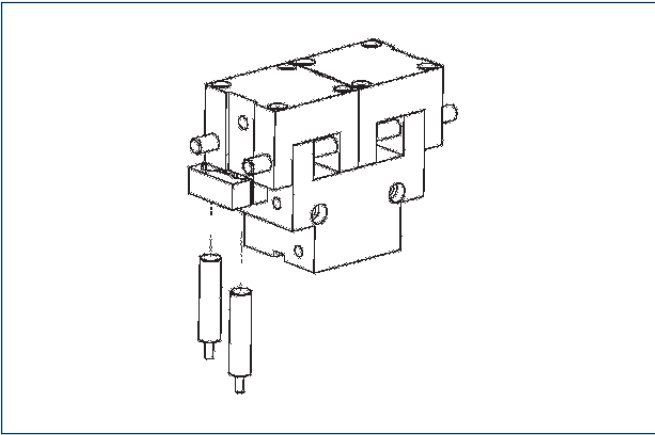
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

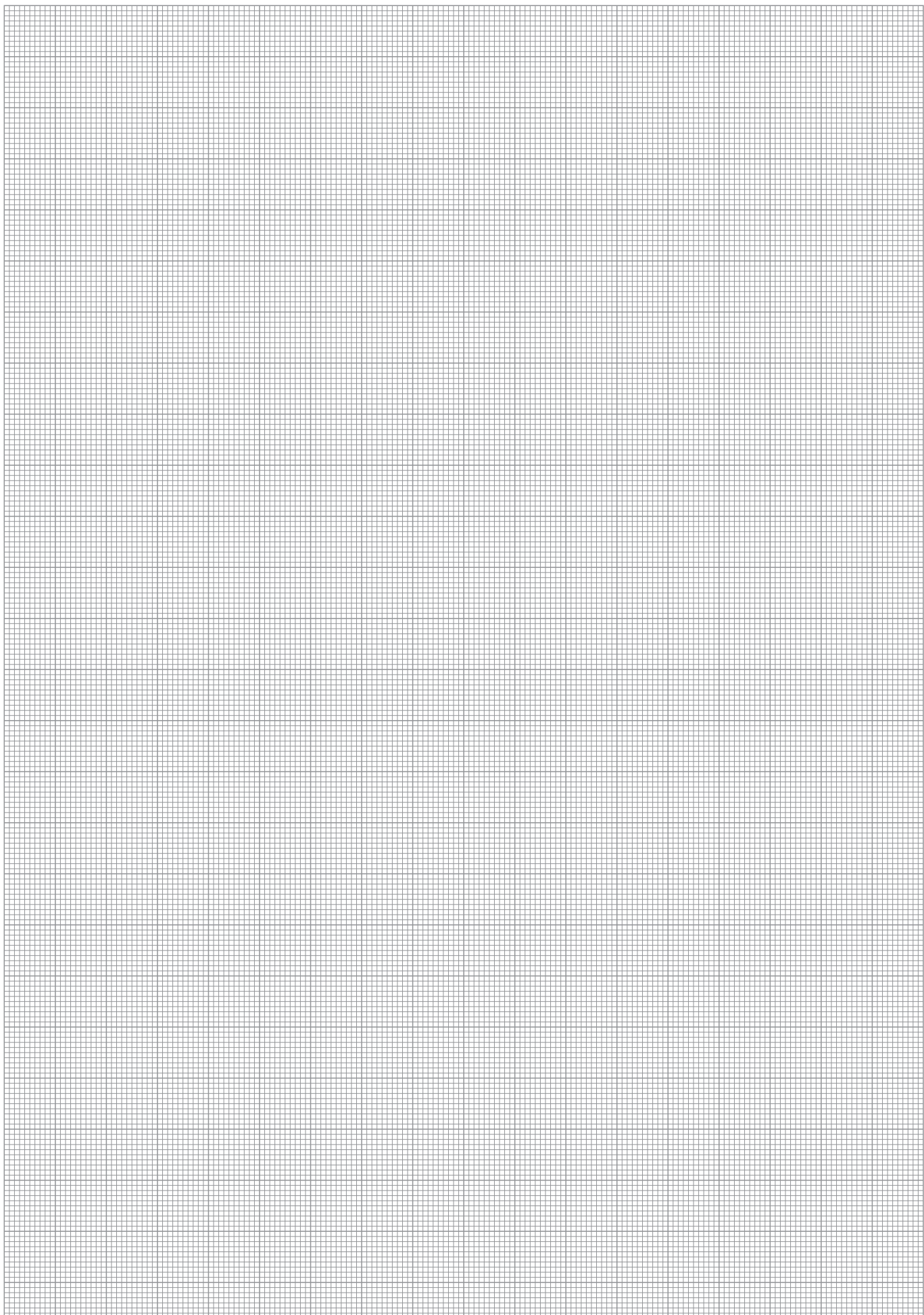
Extension cables for proximity switches/magnetic switches

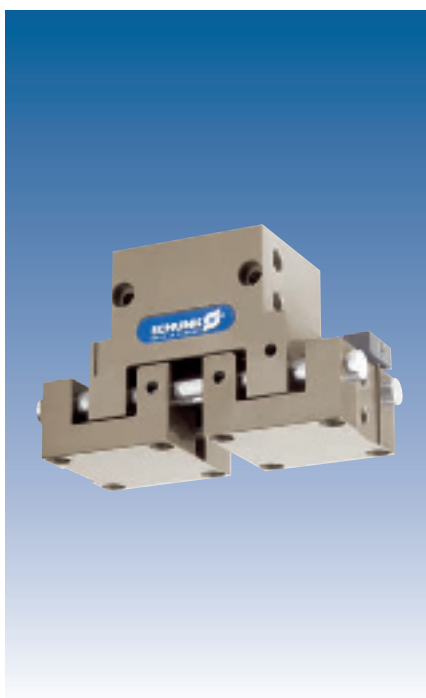
Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

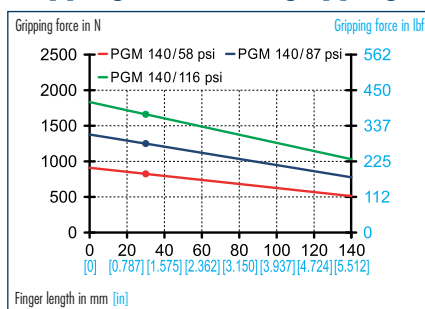


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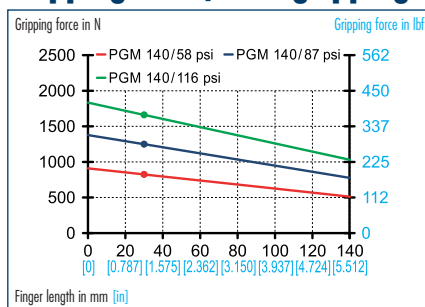




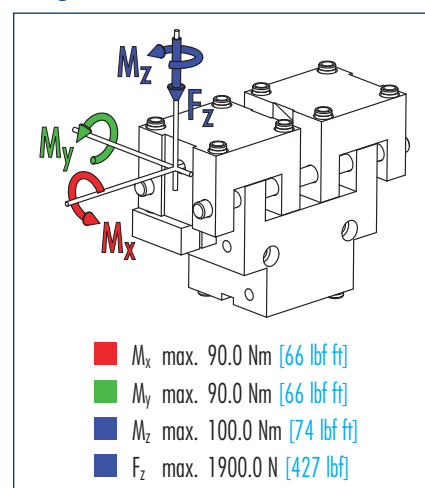
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

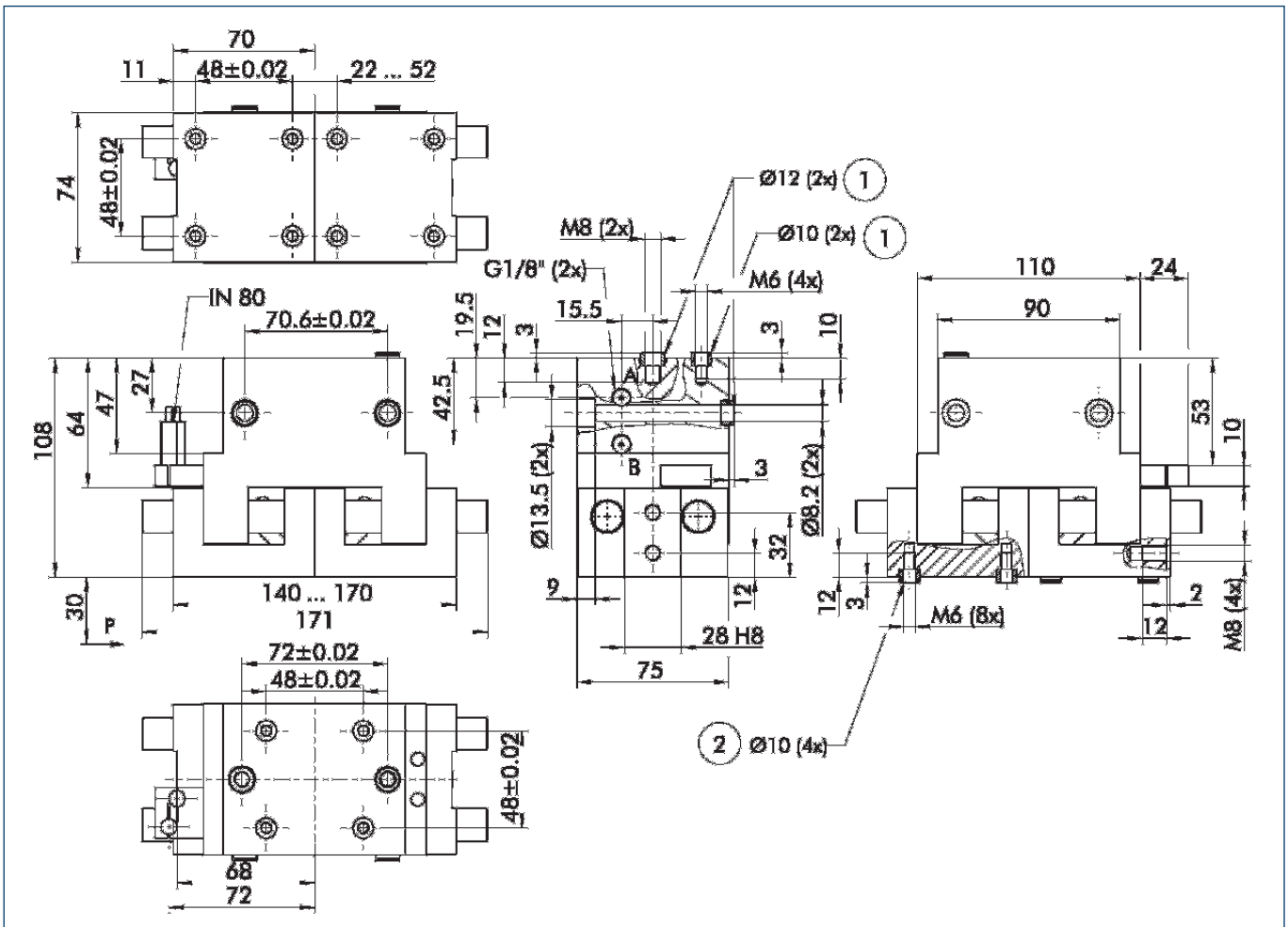


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

Technical data

Description	PGM 140	
ID	0302687	
Stroke per finger	mm [in]	15.0 [0.591]
Closing force	N [lbf]	1180.0 [265]
Opening force	N [lbf]	1250.0 [281]
Weight	kg [lbs]	2.55 [5.62]
Recommended workpiece weight	kg [lbs]	5.9 [13.01]
Air consumption per double stroke	cm ³ [in ³]	46.8 [2.86]
Nominal pressure	bar [psi]	6.0 [87]
Minimum pressure	bar [psi]	2.0 [29]
Maximum pressure	bar [psi]	8.0 [116]
Closing time	s	0.12
Opening time	s	0.12
Max. permitted finger length	mm [in]	140.0 [5.512]
Max. permitted weight per finger	kg [lbs]	1.0 [2.20]
IP rating		30
Min. ambient temperature	°C [°F]	-10.0 [14]
Max. ambient temperature	°C [°F]	90.0 [194]
Repeat accuracy	mm [in]	0.03 [0.0012]

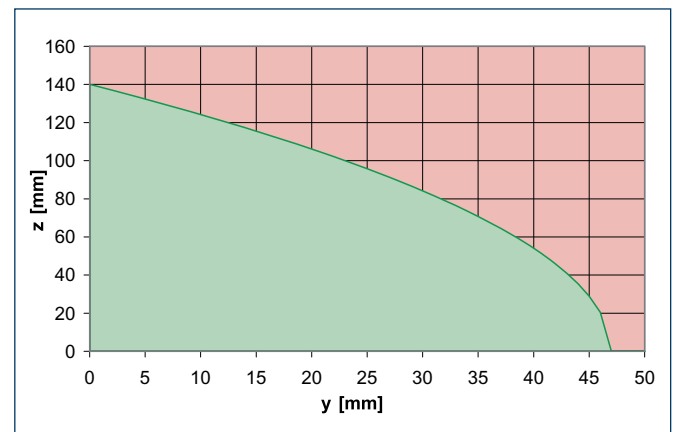
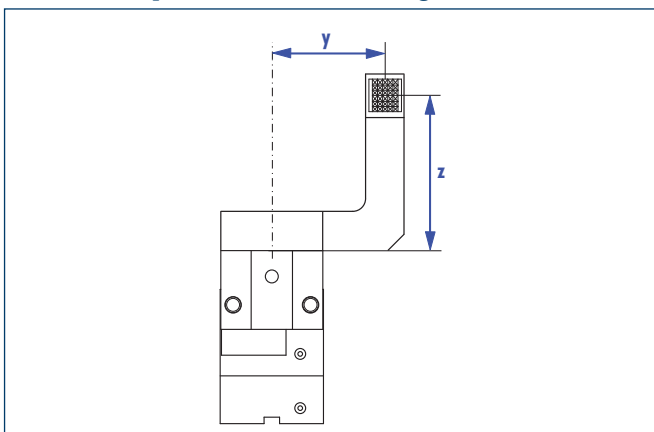
Main views



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

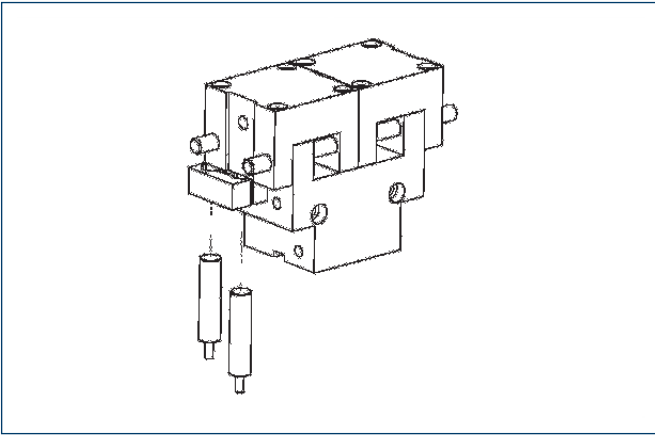
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

- ① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.