

The new standard for the level and temperature surveillance

- flange according to DIN 24557 T2
- qualified breather with replacable filter element
- visual surveillance of the breather optional
- combined, continuous surveillance of liquid level and oil temperature
- 4 switching outputs programmable optional as level or temperature signal
- alternative one analogue output (adjustable current or voltage) each for level and temperature plus 2 free programmable switching outputs
- highly visible LED display shows the actual temperature in the basic mode, with status indication of the switching outputs
- menu structure based on VDMA guideline 24574 ff
- switching output characteristic adjustable as window or hysteresis
- two switching outputs adjustable as frequency output (1 to 100 Hz)
- Min/Max memory, logbook function
- 2x M12 connector base 4-pol.
- reliable, dynamic float system
- immersion tube in matched lengths up to 1420 mm max., other lengths on request



Tecnical data

Basic unit

operating pressure
operating temperature
spec. density of fluid min.

lengths

Breather filter

grade of filter
accessories

Material / Building

display housing
float
immersion tube
flange / filter housing

Level transmitter

measuring resistor
resolution

Temperature measurement

measuring resistor

tolerance

Display and control unit

display
operation
storage
current consumption at power up
operating current consumption
supply voltage (U_b)

NV 77

max. 1 bar
-20 °C to +80 °C
0,80 kg/dm³, float SK 604
0,85 kg/dm³, float SK 221
280, 370, 500, 670, 820, 970,
1120, 1270 and 1420 mm
(other lengths upon request)

HY Typ Hydac BF 7
3 µm
filling protection cover
-not applicable for filling adapters

MS	VA*
PA	PA
hard PU (SK 604)	1.4571 (SK 221)
brass	1.4571
PA	PA

reed contact
5 mm

Pt 100 (RTD)
class B, DIN EN 60751
± 0,8 °C

XP
four digit seven segment- LED
bz 3 keys
Min. / Max. values
approx. 100 mA for 100 ms
approx. 50 mA
10 - 30 V DC
(rated voltage 24 V DC)

ambient temperature
protection class

-20 °C to +70 °C
IP65

units
displayed range

Level
%, cm, L, i, Gal
adjustable
e. g. 0-100%

Temperature
°C / °F
-20 °C to +120°C
or 4 to 248°F
0 °C to 100 °C
or 32 to 178°F

range of alarm indication

1% of the final value

accuracy

The following cards are optional available:

-4S
connector (base)
PNP transistor output,
alarm memory
current PNP output

2 x M12 - 4 pol
4 x free programmable, selectable
allocation for e.g.
2 x Level / 2 x Temperature
1 x PNP output allocable to alarm
logbook
max. 0,5 A per output
1 A over all

-2S-KN-KT
connector (base)
PNP transistor output
alarm memory
current PNP output

2 x M12 - 4 pol
2 x free programmable,
free selectable allocation
1 x PNP output allocable to alarm
logbook
max. 0,5 A per output

analogue output
programmable as
load max.

Level
1 x 4 - 20 mA, 2-10 V,
0-10 V, 0-5 V
(U_b - 8 V) / 0,02 A

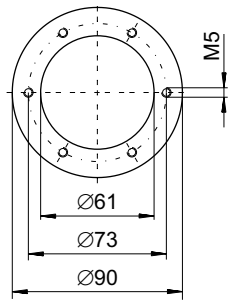
analogue output
programmable as
load max.

Temperature
1 x 4-20 mA, 2-10 V,
0-10 V, 0-5 V
(U_b - 8 V) / 0,02 A

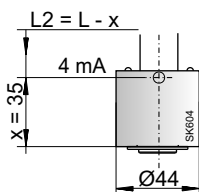
* not available in combination with option FCT

Design with options

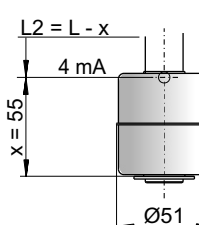
Flange picture
after DIN 24557/part 2



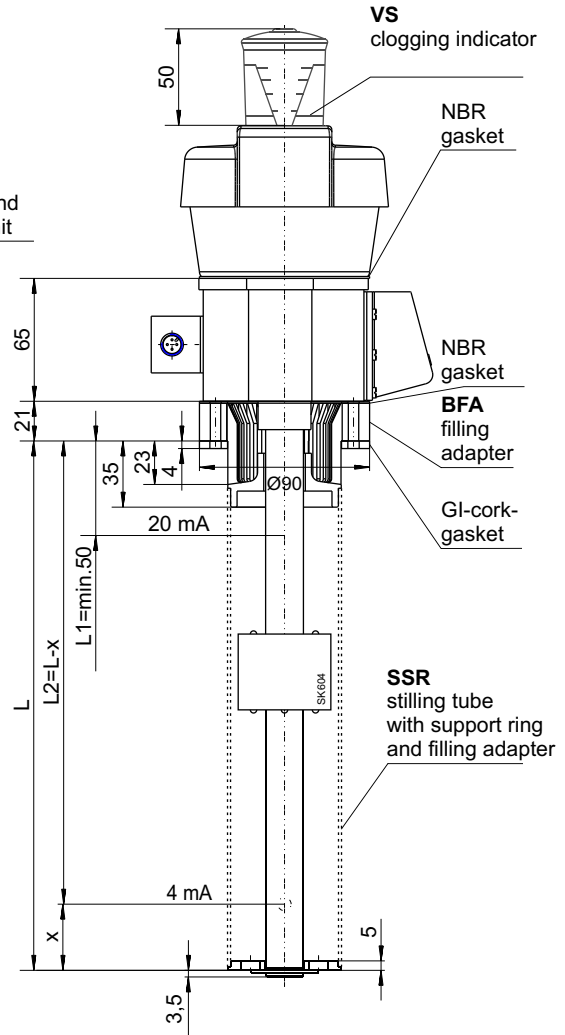
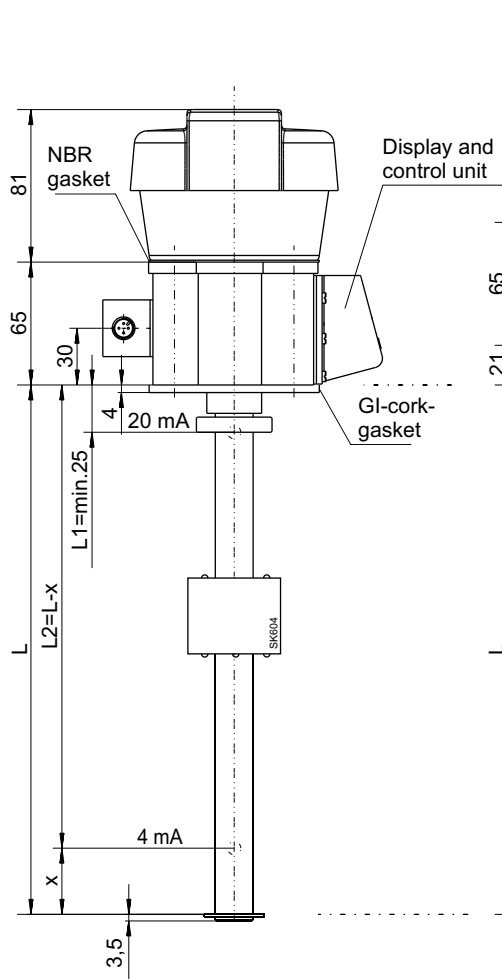
Float SK 604 for NV 77-XP-MS



Float SK 221 for NV 77-XP-VA



Basic version



Options / Accessories

- VS** clogging indicator visual for the breather: analogue underpressure indicator, display range 0,35 bar.
- BFA*** filling adapter incl. ribbed flange with sieve insert: this option allows that small oil quantities can be filled via the breather housing. Therefore the corresponding housing is equipped in that version.
- SSR*** stilling tube with support ring and filling adapter: This includes the option stilling tube as well as the option for filling as the **BFA**. The stilling tube is made of the same material as the requested immersion tube (MS/VA).
- MT** for integration in Multiterminal: The basic unit will be mounted to the Multiterminal. For specification we refer to data sheet DE 10 0201.
- MTS** for integration in Multiterminal including stilling tube: in addition to the basic unit, a stilling tube with support ring is mounted to the Multiterminal.
- FCT** Fluidcontrolterminal: The Fluidcontrolterminal (**FCT**) will be mounted to the basic product. For specification we refer to data sheet DE 10 0202.

* not available in combination with option **FCT** and **MT/MTS**

Product code for NV 77-XP

Series
Nivotemp **NV 77-XP-HY**
with display and control unit

Resolution
5 = 5 mm

Design
MS brass
VA* float and switching tube VA

Connector
2M12
S6

Length (max. 1420 mm)
280
370
500
670
820
970
1120
1270
1420

NV 77-XP-HY-5

Accessories
VS = clogging indicator

Optionen
BFA** = filling adapter
SSR** = stilling tube with filling adapter
FCT = Fluidcontrolterminal
MT = for Multiterminal
MTS = for Multiterminal incl. stilling tube

Card
-4S
4 x PNP transistor output
-2S-KN-KT
2 x PNP transistor output
1 x analogue output level
1 x analogue output temperature

* not available in combination with option **FCT**
** not available in combination with the option **FCT**, **MT** and **MTS**

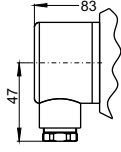
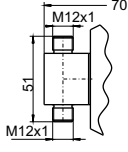
Accessories

Part-No.	4-pole Description
9144 05 0010	Connecting cable M12x1, 1,5 m, elbow connector (female) and straight connector (male)
9144 05 0046	Connecting cable M12x1, 3,0 m, elbow connector (female) and straight connector (male)
9144 05 0047	Connecting cable M12x1, 5,0 m, elbow connector (female) and wire

Example for order

You need: Level and temperature measurement with 5 mm resolution, design MS, 2xM12 connector, L=670mm, clogging indicator, display and control unit with 2 PNP - switching outputs and analogue signals for level and temperature


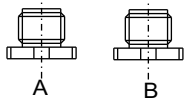
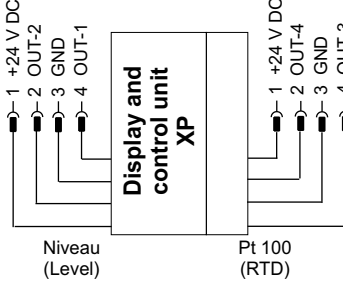
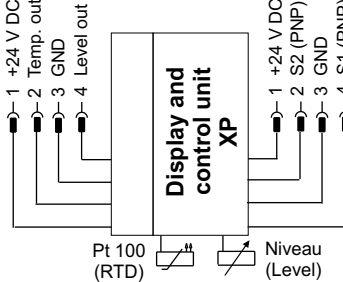
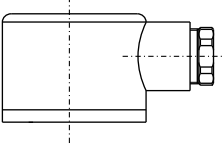
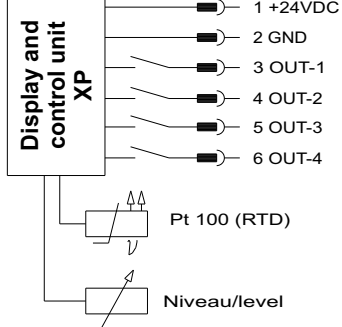
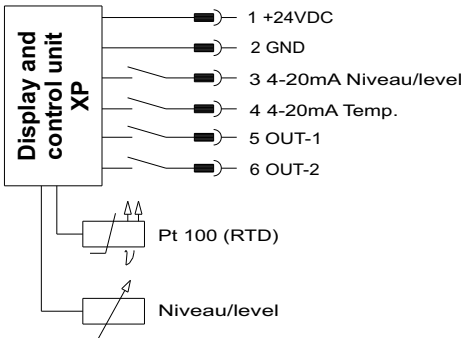
You order: NV 77-XP-HY-5-MS-2M12 / 670-2S-KN-KT-VS

Connection	S6	2x M12 (base)**
voltage max.	6 pol. + PE 30 VAC/DC	4 pol./4 pol. 30 V DC
contact load max over all max.	0,5A per output 1 A	0,5A per output 1 A
protection class	IP 65	IP67*
cable connection	M20x1,5	
		

*with connector mounted / on request other connectors available

** connectors are electrically isolated

Standard pin assignment NV 77-XP

	Type NV 77-XP..-4S 4 x PNP - transistor output	Type NV 77-XP..-2S-KN-KT 2 x PNP-transistor output 1 x analogue output level 1 x analogue temperature
Connector 2xM12  	Connector A  Niveau (Level) Pt 100 (RTD)	Connector A  Pt 100 (RTD) Niveau (Level)
Connector S6 	4 output switches, free programmable  Pt 100 (RTD) Niveau/level	2 output switches, free programmable + 2 analogue outputs 4-20mA  Pt 100 (RTD) Niveau/level