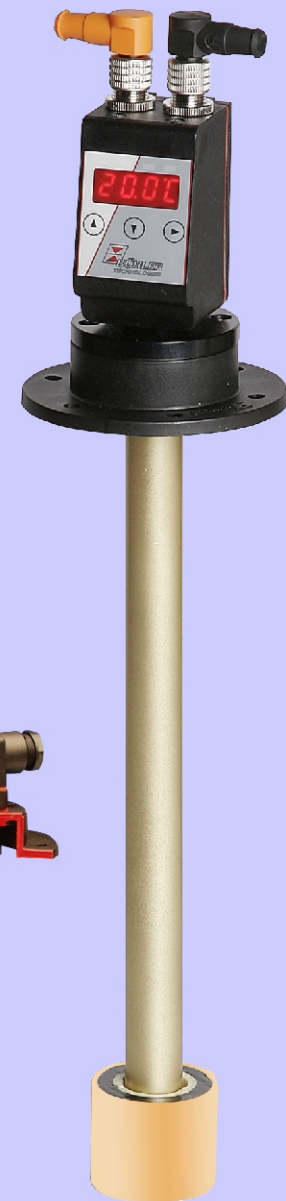


Level and temperature switch with display NV64D

- Highly visible LED display indicates the switching outputs, able to rotate 270°
- Menu structure based on the VDMA guidelines
- Two wireless, adjustable level contacts
- Up to four programmable temperature switching outputs
- Continuous temperature signal (adjustable current or voltage) plus one programmable output
- Switching output adjustable as window or hysteresis
- Two switching outputs adjustable as frequency output (1 to 100 Hz)
- Min/Max memory, logbook function



Level and temperature switch NT 64

- Wireless, adjustable level contacts
- Flange according to DIN 24557 part 2
- Multiple connector options
- Up to four level contacts or two outputs for level plus RTD or analogue output for temperature
- Reliable dynamic float system
- Stainless steel option for temperatures up to 150 °C
- Probe length up to 1.5 m (longer on request)
- 24 V standard, 230 V on request



Technical data

NT 64

Basic unit

max. operating pressure
operating temperature
min. density of fluid

1 bar
-20 °C to +80 °C
0.80 kg/dm³ with float SK 601
0.85 kg/dm³ with float SK 221
280, 370, 500

Material / Design

float
immersion tube
flange (DIN 24557)

MS

hard PU (SK 601)
brass
PA

VA

1.4571 (SK 221)
1.4571
PA

Level contacts

function
max. #
max. voltage
max. current
max. contact load
min. distance of contact

K

NO/NC*
4
30 V
0.5 A
10 VA
40 mm

W

change over
2
30 V
0.5 A
20 VA
40 mm

*NO = normally open / NC = normally closed

included in delivery

mounting bolts M5 (6 pieces) and GI cork-gasket

Temperature contact

max. voltage
max. current
max. contact load

TK

30 V
2.5 A
100 VA

Function

switching point in °C
switching point tolerance
max. hysteresis

NC

50 / 60 / 70 / 80
± 3 K
10 K ± 3 K

NO

50 / 60 / 70 / 80
± 5 K
10 K ± 3 K

NO = normally open / NC = normally closed (figures at increasing temperature)

Temperature sensor

tolerance

Pt 100 (RTD), class B, DIN EN 60751
± 0.8 °C

Temperature transmitter

probe element
measuring range
operating voltage (U_B)
output
load Ω max.

KT

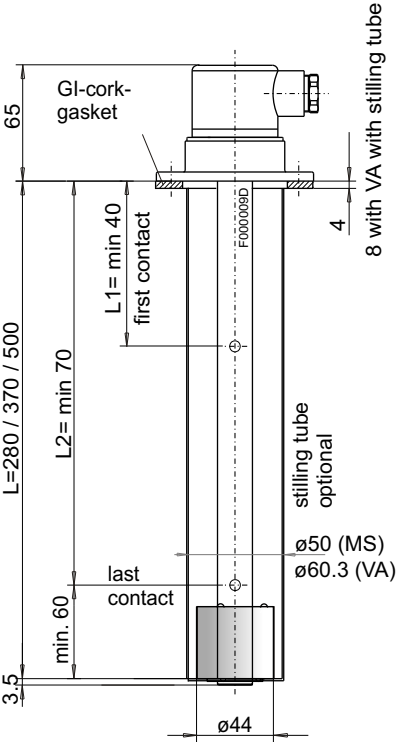
Pt 100 (RTD), class B, DIN EN 60751
0 °C to +100 °C
10 - 30 V DC
4 - 20 mA
= (U_B - 7.5 V) / 0.02 A

other measurement ranges on request

Option

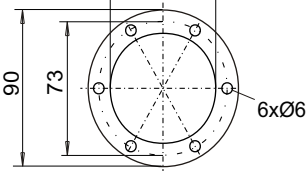
SSR - stilling tube

material same as immersion tube

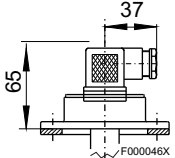
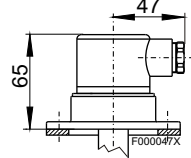
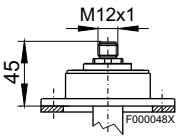
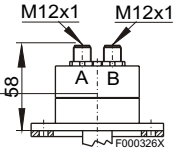


O
P
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S

Installation dimension
min. Ø60
min. Ø61 with
stilling tube



according to DIN 24557 / Part 2

Connector	M3	S6	M12 (base)	2 x M12 (base)
	3 pol. + PE DIN EN175301-803	6 pol. + PE DIN EN 175201-804	4 pol.	2 x 4 pol.
max. voltage	30 V AC/DC	30 V AC/DC	30 V DC	30 V DC
protection class	IP 65	IP 65	IP 67**	IP 67**
cable connection	PG 11	M20 x 1.5		
				
max. # of contacts	1 x K / 1 x TK	3 x K / 1 x TK	1 x K / 1 x TK	3 x K 10 / 1 x TK
- level / temp. contact	- / -	1 x W / 1 x TK	- / -	1 x W11 / 1 x TK
- level only	2 x K 1 x W	4 x K 2 x W	2 x K 1 x W	4 x K 2 x W

**with casted connector head / other connectors on request

Product code for NT 64

NT 64-

Series

Nivotemp NT 64

Design

MS brass

VA float and immersion tube stainless steel

Connector

M3

S6

M12

2M12

Length (mm)

280

370

500

of level contacts

1-4

Level contact

K = NO/NC

W = change over

Accessories

SSR = stilling tube

Temperature

Pt 100 = Temperature sensor (RTD)

KT = Temperature transmitter

TK = Temperature contact

T50NO = 50 °C

T60NO = 60 °C

T70NO = 70 °C

T80NO = 80 °C

T50NC = 50 °C

T60NC = 60 °C

T70NC = 70 °C

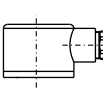
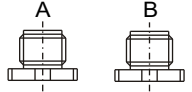
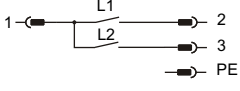
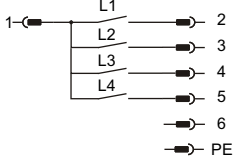
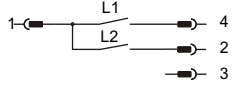
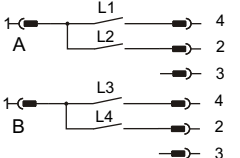
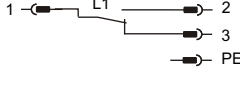
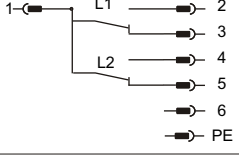
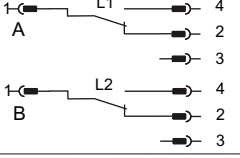
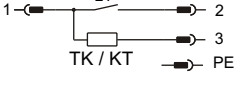
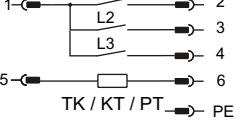
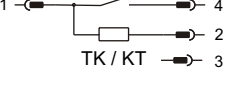
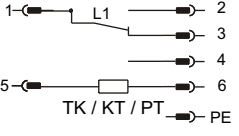
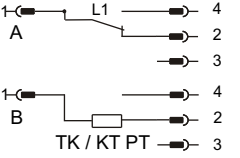
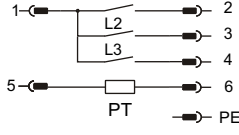
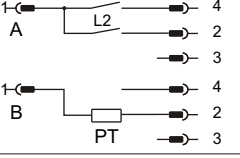
T80NC = 80 °C

Example for order

You need: Level switch with flange, brass, connector S6, length L= 500 mm, 2 x level contacts and temperature contact TK80 as NC, 1st contact 100 mm) NC, 2nd contact 420 mm NO

You order: NT 64-MS-S6/ 500 - 2K -T80NC, L1=100 NC, L2 = 420 NO

Standard pin assignment NT 64

Connector	M3	S6	M12 (base)	2 x M12 (base)
				
only level contact(s) Type K				
only level contact(s) Type W				
Level contact(s) Type K and temperature				
Level contact(s) Type W and temperature				
Level contact(s) Type K and Pt 100 (RTD)				

TK = Thermo contact

KT = Temperature transmitter

PT = Temperature sensor Pt 100 (RTD)

other assignments on request

NT 64D

Basic unit

max. operating pressure	1 bar
operating temperature	-20 °C to +80 °C
min. density of fluid	0.80 kg/dm ³ , float SK 601 0.85 kg/dm ³ , float SK 221
lengths mm	280, 370, 500

Material / Design

display housing	PA	PA
float	hard PU (SK 601)	1.4571 (SK 221)
immersion tube	brass	1.4571
flange (DIN 24557)	PA	PA
SSR (option)	brass	stainless steel

Level contacts

max. #	2
function	NO / NC*
max. voltage	30 V
max. current	0.5 A
max. contact load	10 VA
min. distance of contact	40 mm

*NO = normally open / NC = normally closed

included in the delivery

mounting bolts M5 (6 pieces) and GI cork-gasket

Display

temperature display range	-20 °C to +120 °C
alarm indicator range	0 °C to 100 °C
accuracy	1%
resolution	0.5 °C
protection class	IP65
display	4 digit 7 segment LED display
operation	3 button keypad
current consumption at power up	approx. 100 mA for 100 ms
operating current consumption	approx. 50 mA
supply voltage (U _s)	10 - 30 V DC (nominal voltage 24 V DC)
ambient temperature	-20 °C to +70 °C

Temperature sensor:

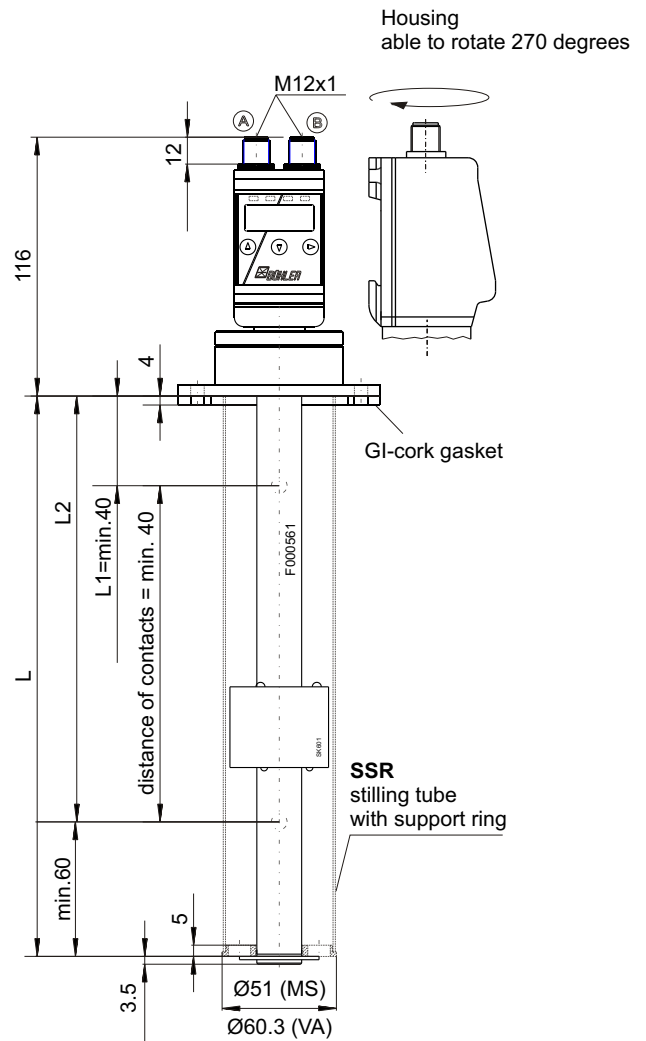
Pt 100 (RTD) class B, DIN EN 60751

The following temperature outputs are available:

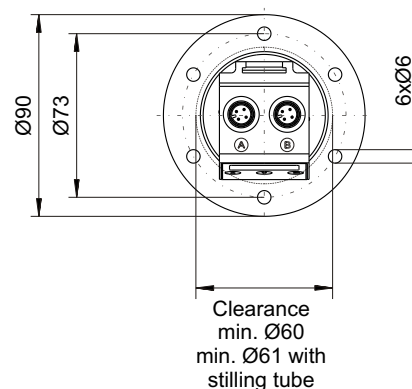
connector (base)	-2T
max. contact load	2 x M12 - 4 pol
PNP transistor output,	1 A
max. current PNP output	2 x free programmable 0.5 A per output
1T-KT	
connector (base)	2 x M12 - 4 pol
max. contact load	1 A
PNP transistor output,	1 x free programmable
max. current PNP output	0.5 A per output
analog output	1 x 4-20 mA, 2-10 V, 0-10 V or 0-5 V
load analog output max.	500 Ω
-4T	
connector (base)	1 x M12 - 4 pole
	1 x M12 - 8 pole
max. contact load	1 A
PNP transistor output,	4 x free programmable
max. current PNP output	0.5 A per output / 1 A overall

Option

Option stilling tube	SSR Material same as immersion tube
-------------------------	---



top view:



[illegible]

NT 64D

VA float / immersion tube stainless steel

2xM12

500

$$K = NO/NC$$

1st level contact

NC = normally closed

LED Temperature display
2 x Temperature output

LED Temperature display
4 x Temperature output

LED Temperature display
1 x Temperature output
1 x Analogue output

NC = normally closed

2nd level contact

91 44 05 0010	Connecting cable M12x1, 4-pol., 1.5 m, elbow connector (female) and straight connector (male)
91 44 05 0046	Connecting cable M12x1, 4-pol., 3.0 m, elbow connector (female) and straight connector (male)
91 44 05 0047	Connecting cable M12x1, 4-pol., 5.0 m, elbow connector (female) and wire
91 44 05 0048	Connecting cable M12x1, 8-pol., 1.5 m, elbow connector (female) and straight connector (male)
91 44 05 0049	Connecting cable M12x1, 8-pol., 3.0 m, elbow connector (female) and straight connector (male)
91 44 05 0033	Connecting cable M12x1, 8-pol., 5.0 m, elbow connector (female) and wire

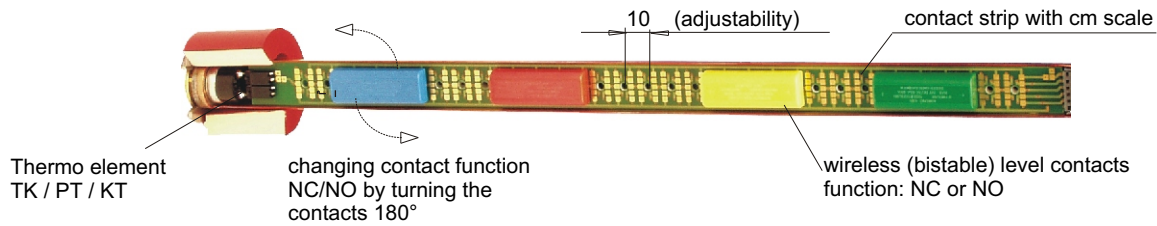
Example for order: Level switch with flange, design MS, connector S6, length L= 500 mm, 2 x level contacts; 1st contact 100 mm NC, 2nd contact 420 mm NO, with temperature display and 2x programmable temperature output

You order: NT 64D-MS-2M12/500-2K-100NC-420NO-2T

A B	Type NT 64D-2T Level contact(s) 2 x Temperature output	Type NT 64D-1T-KT Level contact(s) 1 x Temperature output 1 x Analogue output	Type NT 64D-4T Level contact(s) 4 x Temperature output
Connector A = level			
Connector B = temperature			

If the switching output is measured with high-impedance measuring equipment or if the frequency output is used, connect a 10 kΩ resistor between output and ground to avoid faulty measurements.

The EasyJust System



Using adjustable level contacts allows the application of standardized immersion tubes in oil tanks of different sizes and geometrical shapes.

The switching points are changeable to the requirement of the individual application at any time without purchasing a specific level switch.

This facilitates design and logistics for the users and OEMs.

The Easy Just System is based on a wireless structure of the contacts.

The contacts are designed of closed and color coded housings. They are positioned on a printed circuit board with gold plated contacts. The colors are used for the coding of the different contacts and assure the allocation of the connector's assignments.

The contacts' function (NC or NO) is determined by the 180° rotation on the printed circuit board.

An adjusted temperature switch (bi-metal, NO or NC), a Pt 100 (RTD) or a 4-20 mA transmitter is fixed at the lower end of the printed circuit board, depending on the chosen option for the temperature monitoring.