

## ***Level and temperature switch with display NT-MD***

- Two fixed switch outputs for liquid level monitoring
- Highly visible LED display indicates the switching outputs, able to rotate 270°
- Menu structure based on VDMA guidelines
- 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-M***

- G3/4" connection thread
- Multiple connector options
- Level and temperature control
- Up to four outputs
- Compact design with small dimensions
- Reliable dynamic float system
- Housing material brass or stainless steel

## Technical data

## NT-M

### Basic unit

max. operating pressure		1 bar	
operating temperature		-20 °C to +80 °C	
min. density of fluid		0.8 kg/dm <sup>3</sup>	
standard lengths	mm	280, 370, 500, variable up to max. 1000	
weight at L=280 mm		<b>MS</b>	<b>VA</b>
with NT-M	app.	290 g	220 g
with NT-MD	app.	390 g	320 g
plus per 100 mm	app.	15 g	15 g

### Material

	<b>MS</b>	<b>VA</b>
immersion tube	MS	1.4571
flange G 3/4	MS	1.4571
float	PU	PU

### Level contacts

	<b>K8</b>	<b>W9</b>
function	NC / NO*	change over
min. distance of contacts	40 mm	40 mm
max. operating voltage	230 V	48 V
max. current	0.5 A	0.5 A
max. contact load	10 VA	20 VA

\* NC = normally closed / NO = normally open, all figures with empty reservoir

### Temperature contact

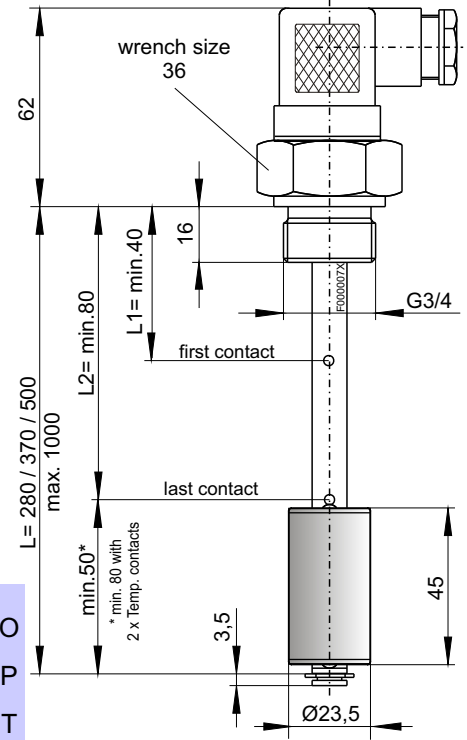
	<b>TM</b>	
max. operating voltage	230 V	
max. current	2 A	
max. contact load	100 VA	
switch-point tolerance	± 5 K	
function	<b>NC*</b>	<b>NO*</b>
switch-point in °C	50 / 60 / 70 / 80	50/60/70/80
Hysteresis	18 K ± 5 K	26/35/40/45 K ± 5 K

\* NC = normally closed / NO = normally open at **low temperature**  
(other temperatures on request)

### Temperature sensor

	<b>RTD (Pt 100)</b> class B, DIN EN 60 751
tolerance	± 0.8 °C
G1	Adapter G3/4 to G1
OV	Adapter on oval flange incl. gasket and counter nut

## Nivotemp NT-M



OPTI ONAL

Adapter on oval flange

## Product code for NT-M

<p><b>Series</b> Nivotemp <b>NT-M</b></p> <p><b>Material</b> <b>MS</b> <b>VA</b></p> <p><b>Connector</b> <b>M3</b> <b>GS4</b> <b>M12 (accessories see page 4)</b> <b>C7</b></p> <p><b>Length max. 1000 mm</b> <b>280</b> <b>370</b> <b>500</b> Variable (please quote)</p> <p><b># level contacts</b> <b>1-4</b></p> <p><b>Level contact type</b> <b>K</b> = NC/NO <b>W</b> = change over (max. 2 pieces)</p>		<p><b>Option</b> <b>OV</b> = oval flange <b>G1</b> = Adapter on G1"</p> <p><b>only for double temp. contact</b> <b>B</b> 2. Temperature contact NC NO TM50NC TM50NO = 50 °C TM60NC TM60NO = 60 °C TM70NC TM70NO = 70 °C TM80NC TM80NO = 80 °C</p> <p><b>A Temperature</b> Pt 100* = Temperature sensor</p> <p>Temperature contact NC NO TM50NC TM50NO = 50 °C TM60NC TM60NO = 60 °C TM70NC TM70NO = 70 °C TM80NC TM80NO = 80 °C</p>	<p>OPTI ONAL</p>
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\* not available with temperature contact

### Example for order

You need: Level switch with connector G3/4, brass design, length L= 500 mm, 2 level contacts, 1st contact 100 mm NC, 2nd contact 450 mm NO  
You order: NT-M-MS-M3 / 500-2K L1=100 NC , L2 = 450 NO

# Nivotemp

# NT-MD

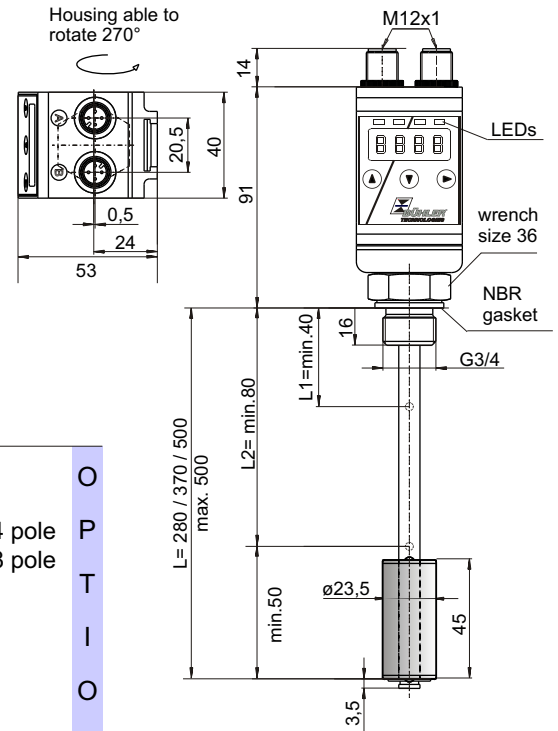
## Display

display housing	PA
temperature display range	-20 °C to +120 °C (4 °F to 248 °F)
alarm indicator range	0 °C to 100 °C (32 °F to 178 °F)
accuracy	1%
resolution	0.5 °C (1 °F)
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 <sub>B</sub> )	10 V to 30 V DC (nominal voltage 24 V DC)
ambient temperature	-20 °C to +70 °C
<b>Temperature sensor</b>	Pt 100 (RTD) class B DIN / IEC 751

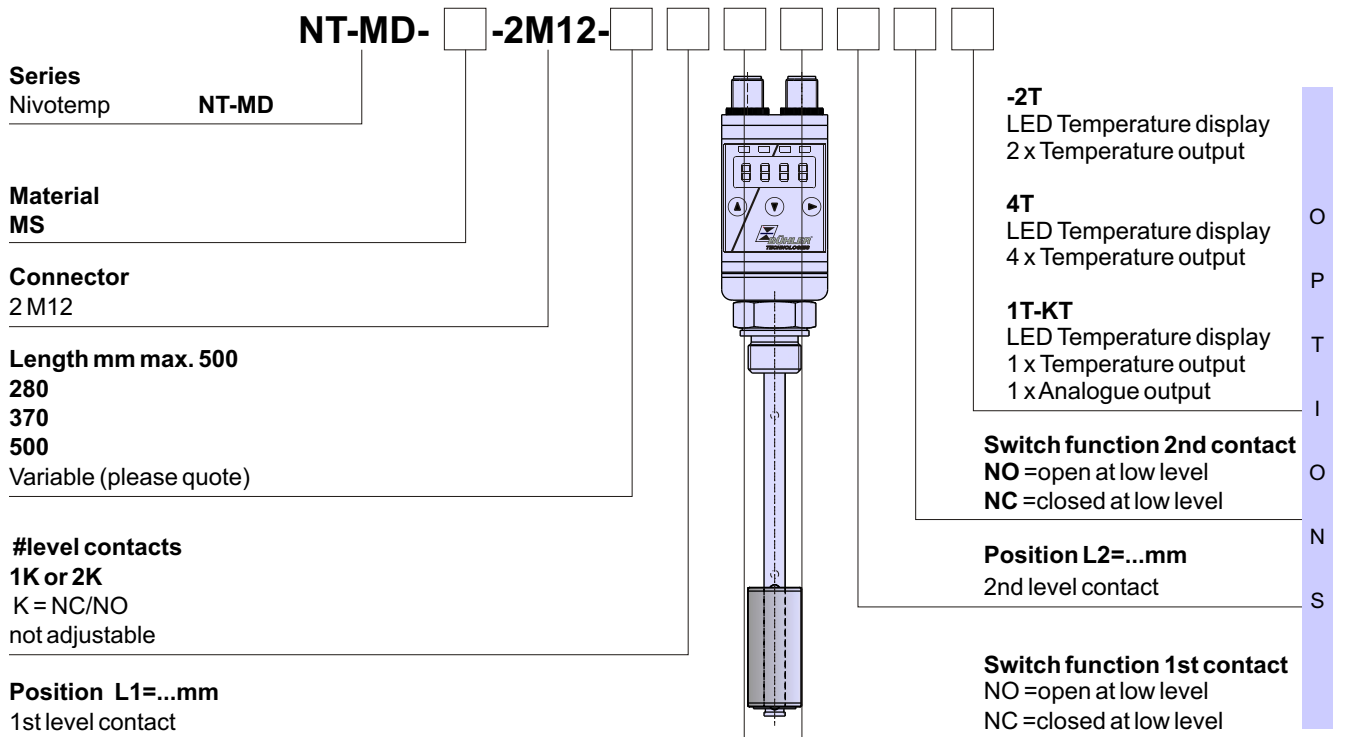
Following output options are available:

Type	-2T	-1T-KT	-4T	O P T I O N S
connector (base)	2 x M12, 4 pole	2x M12, 4 pole	1x M12, 4 pole 1x M12, 8 pole	
PNP transistor output, free programmable	2	1	4	
max. current per output	0.5 A	0.5 A	0.5 A	
sustained short circuit-proof				
max. contact load (overall)	1 A	1 A	1 A	
analogue output		1x 4-20 mA / 2-10 V / 0-10 V / 0-5 V		
load analog output		max. 500 Ω		

# Nivotemp NT-MD



## Product code for NT-MD



## Accessories

Part-No. 4-pole	Part-No. 8-pole	Connecting Cable
9144 05 0010	9144 05 0048	M12x1, 1.5 m, elbow connector (female) and straight connector (male)
9144 05 0046	9144 05 0049	M12x1, 3.0 m, elbow connector (female) and straight connector (male)
9144 05 0047	9144 05 0033	M12x1, 5.0 m, elbow connector (female) and wire

## Example for order

You need: Level switch with connector G3/4, brass design, length L= 500 mm, 2 level contacts, 1st contact 100 mm closed at low level, 2nd contact 450 mm open at low level, temperature analysis with display and 2 programmable outputs

You order: NT-MD-MS-2M12 / 500-2K-100 NC-450 NO-2T

# Nivotemp NT-M

Connector	M3 (DIN EN 175301-803) 3 pol. + PE 230 V* IP 65 PG 11	GS4 4 pol. 30 V IP 65 PG 7	M12 (base) 4 pol. 30 V IP 67**	C7 (DIN EN 175201-804) 7 pol. + PE 230 V* IP 65 PG 11
max. voltage protection class cable gland				
Standard pin assignment				
level contact(s) only type K8				
level contact(s) only type W9				
level contact(s) K8 and temperature contact (TM)				
level contact(s) W9 and temperature contact (TM)				
level contact(s) K8 and temperature contact (TM)				

\* max. 48V at change over contact

\*\* with casted connector head

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Standard pin assignment	Type NT-MD-2T Level contact(s) 2 x Temperature output	Type NT-MD-1T-KT Level contact(s) 1 x Temperature output 1 x Analogue output	Type NT-MD-4T Level contact(s) 4 x Temperature output
Connector A: Level 			
Connector B: Temperature 			