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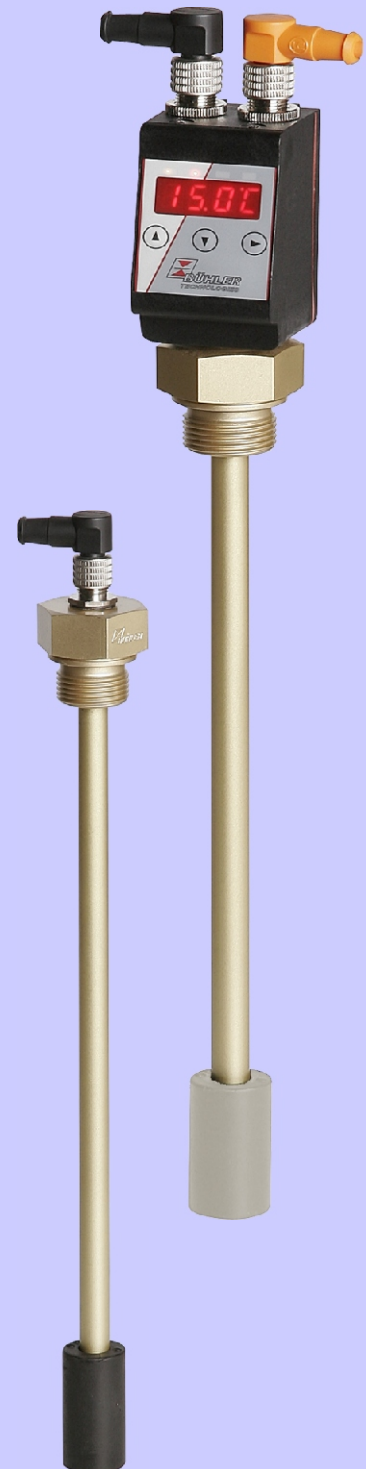
Измерители уровня и температуры Nivotemp NT-M Buhler

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 ³	
standard lengths	mm	280, 370, 500, variable up to max. 1000
weight at L=280 mm	MS	VA
	app. 290 g	220 g
plus per 100 mm	app. 15 g	15 g

Material

	MS	VA
immersion tube	MS	1.4571
flange G 3/4	MS	1.4571
float	NBR	NBR

Level contacts

	K8	W9
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

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

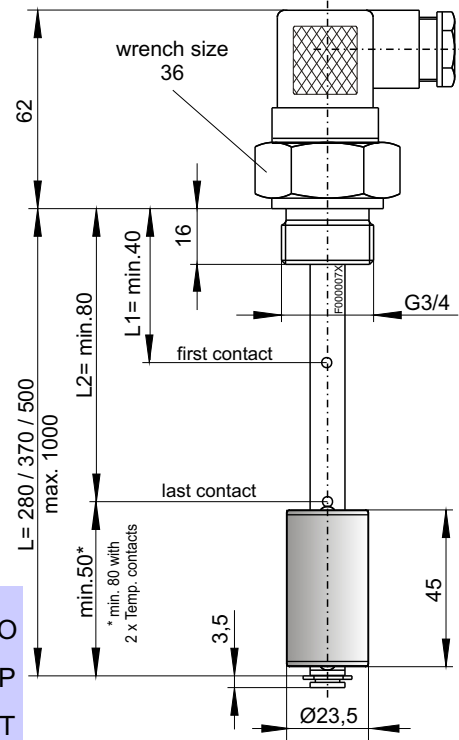
* NC = normally closed / NO = normally open at **low temperature**

(other temperatures on request)

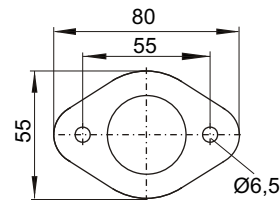
Temperature sensor

	RTD (Pt 100) 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



Adapter on oval flange



Product code for NT-M

NT-M- [] [] [] [] [] **A** **B** []

Series

Nivotemp **NT-M**

Material

MS

VA

Connector

M3

GS4

M12 (accessories see page 4)

C7

Length max. 1000 mm

280

370

500

Variable (please quote)

level contacts

1-4

Level contact type

K = NC/NO

W = change over (max. 2 pieces)

Option

OV = oval flange

G1 = Adapter on G1"

only for double temp. contact

B 2. Temperature contact

NC	NO
TM50NC	TM50NO = 50 °C
TM60NC	TM60NO = 60 °C
TM70NC	TM70NO = 70 °C
TM80NC	TM80NO = 80 °C

A Temperature

Pt 100* = Temperature sensor

Temperature contact

NC	NO
TM50NC	TM50NO = 50 °C
TM60NC	TM60NO = 60 °C
TM70NC	TM70NO = 70 °C
TM80NC	TM80NO = 80 °C

* 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

Technical data

NT-MD

Basic unit

max. operating pressure	1 bar
operating temperature	-20 °C to +80 °C
min. density of fluid	0.8 kg/dm ³
standard lengths	mm 280, 370, 500, variable up to max. 500

weight at L=280 mm	MS
	app. 390 g
plus per 100 mm	app. 15 g

Material

immersion tube	MS
flange G 3/4	MS
float	PU

Level contacts

function	K8
min. distance of contacts	NC / NO*
min. distance of contacts	40 mm
max. operating voltage	230 V
max. current	0.5 A
max. contact load	10 VA

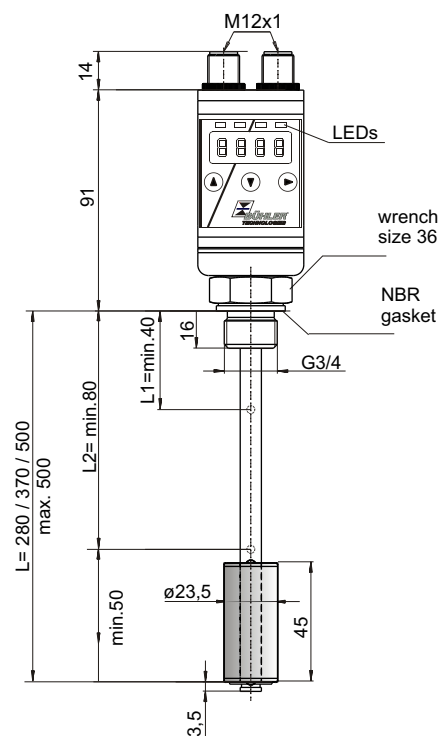
* NC = normally closed / NO = normally open, all figures with empty reservoir

Display

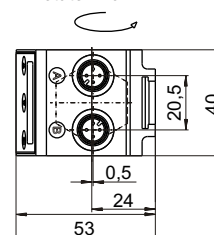
display housing	PA
temperature display range	-20 °C to +120 °C (4 °F to 248 °F)
alarm indicator range	0 °C to 100 °C (32 °F to 178 °F)
accuracy	1%
resolution	0.5 °C (1 °F)
protection class	IP65
display	4 digit 7 segment LED display
operation	3 button keypad
current consumption at power up	approx. 100 mA for 100 ms
operating current consumption	approx. 50 mA
supply voltage (U _B)	10 V to 30 V DC (nominal voltage 24 V DC)

ambient temperature	-20 °C to +70 °C
Temperature sensor	Pt 100 (RTD) class B DIN / IEC 751

Nivotemp NT-MD



Housing able to rotate 270°



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 analogue output		max. 500 Ω		

Product code for NT-MD

Series
Nivotemp **NT-MD**

Material
MS

Connector
2 M12

Length mm max. 500
280
370
500
Variable (please quote)

#level contacts
1K or 2K
K = NC/NO
not adjustable

Position L1=...mm
1st level contact

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 NC, 2nd contact 450 mm NO, temperature analysis with display and 2 programmable outputs
You order: NT-MD-MS-2M12 / 500-2K-100 NC-450 NO-2T

NT-MD- **-2M12-**

-2T
LED Temperature display
2 x Temperature output

4T
LED Temperature display
4 x Temperature output

1T-KT
LED Temperature display
1 x Temperature output
1 x Analogue output

Switch function 2nd contact
NO = open at low level
NC = closed at low level

Position L2=...mm
2nd level contact

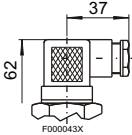
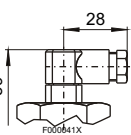
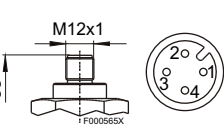
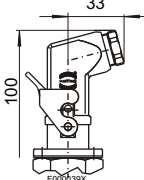
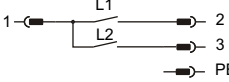
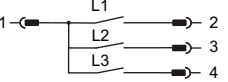
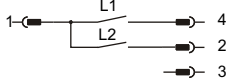
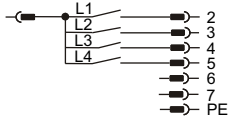
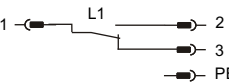
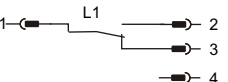
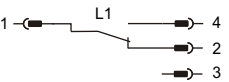
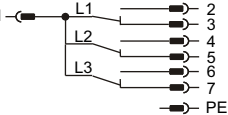
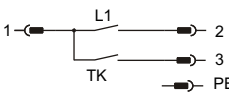
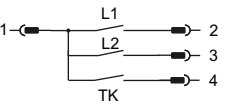
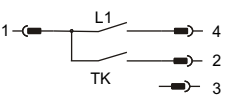
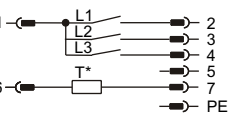
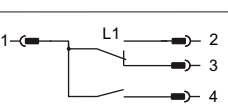
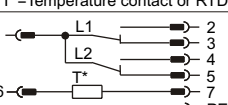
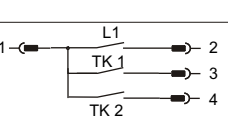
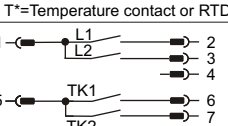
Switch function 1st contact
NO = open at low level
NC = closed at low level

O
P
T
I
O
N
S

Nivotemp NT-MD

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
<p>Connector A: Level</p>			
<p>Connector B: Temperature</p>			

Nivotemp NT-M

Connector max. voltage protection class cable gland	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
Standard pin assignment				
level contact(s) only type K8				
level contact(s) only type W9				
level contact(s) K8 and temperature contact (TM)				 <p>T*=Temperature contact or RTD</p>
level contact(s) W9 and temperature contact (TM)				 <p>T*=Temperature contact or RTD</p>
level contact(s) K8 and temperature contact (TM)				

* max. 48V at change over contact

** with casted connector head

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