

Miniature submersible level transmitters

MTM/N 10



Technical specifications for passive version

Pressure measuring range (mH₂O)

	10 ... 20	> 20 ... 40	> 40 ... 100
Overpressure	3 x FS	3 x FS (≤ 12 bar)	12 bar
Accuracy, (1) (± % FS)	≤ 0.5 / ≤ 0.25	≤ 0.5 / ≤ 0.25	≤ 0.5 / ≤ 0.25
Setting accuracy			
Zero point	± 1mV	± 1mV	± 1mV
Span	± 2 %	± 2 %	± 2 %
Thermal shift, (± % FS/°C)			
Zero point -5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span -5...50°C	≤ 0.015	≤ 0.015	≤ 0.015
Long term stability, (2)	≤ 0.2% FS / < 4 mbar	≤ 0.1% FS / < 0.2% FS	≤ 0.1% FS / < 0.2% FS

(1) Best Straight Line (BSL) at ambient temperature

(2) 1 year (typ. / max.)

Typical output signal (mH₂O)

	10 ... 20	> 20 ... 40	> 40 ... 100
Output signal, (1), (mV)	50	100	100

(1) At nominal pressure, 10 V DC

Technical specifications for active version, (1)

Pressure measuring range (mH₂O)

	10 ... 20	> 20 ... 40	> 40 ... 100
Accuracy, (2) (± % FS)	≤ 0.5 / ≤ 0.25 / ≤ 0.1	≤ 0.5 / ≤ 0.25 / ≤ 0.1	≤ 0.5 / ≤ 0.25 / ≤ 0.1
Thermal shift, (± % FS/°C)			
Zero point -5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span -5...50°C	≤ 0.015	≤ 0.015	≤ 0.015

(1) For further specifications see ATM/N

(2) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

Technical specifications with datalogger, (1)

Pressure measuring range (mH₂O)

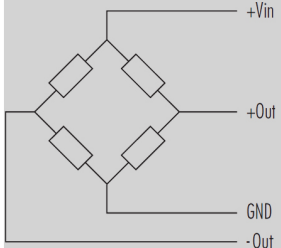
	10 ... 20	> 20 ... 40	> 40 ... 100
Accuracy, (2) (± % FS)	≤ 0.1	≤ 0.1	≤ 0.1
Thermal shift, (± % FS/°C)			
Zero point -5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span -5...50°C	≤ 0.015	≤ 0.015	≤ 0.015

(1) For further specifications see DL or DL/N70

(2) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

Electrical specifications for passive version

Pressure range

Circuit diagram	
Input impedance	> 10 kOhm
Bridge resistance, (typ.)	3 kOhm
Supply voltage, (typ. / max.)	10 / 15 V DC
Cable length (max.)	200 m

Physical specifications, (1)

Materials	
Transducer	Stainless steel (316L / 1.4435)
Housing	Stainless steel (316L / 1.4404)
Seals	NBR
Cable	PUR, PE

(1) Only for level transmitter MTM/N10

Equipment

Overview

10.00.0091	Accessories overview
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Additional documents

Operating and safety instructions

	Article number
10.88.0369	DMM030

Ordering information

		X. XXXX. XXXX. XX. XXX			
Type					
	MTM/N 10	15			
Pressure type					
	Gauge	1			
	Absolute (vacuum)	2			
Pressure measuring range					
	Any pressure measuring ranges between 0...10 mH ₂ O and 0...100 mH ₂ O available, (1)	XX			
Process connection					
	Closed, (Fig. 1)	55			
	Open, (Fig. 2)	56			
Electrical connection					
	PE cable, IP 68, (2), (3)		0		
	PUR cable, IP 68, (2)		1		
	PE cable, IP 68, (2), (3), (4)		X		
	PUR cable, IP 68, (2), (4)		X		
	Connectable version, IP 68, (Fig. 5), (5), (6)		3		
Output signal					
	0...mV (specified by the customer), (Fig. 1 / 2), (8)		13		
	4...20 mA, (Fig. 3), (9)		05		
	0...20 mA, (Fig. 3), (9)		00		
	0...5 V DC, (Fig. 3), (9)		46		
	0...10 V DC, (Fig. 3), (9)		47		
	RS485, (Fig. 5), (6), (9)		62		
Accuracy					
	≤ ± 0.5 % FS, (7), (8)			0	
	≤ ± 0.5 % FS, (9)			0	
	≤ ± 0.25 % FS, (7), (8)			1	
	≤ ± 0.25 % FS, (9)			1	
	≤ ± 0.1 % FS, (on request), (9)			2	
Temperature range					
	-5...50 °C compensated (allowed process temperature: -5...50 °C)			4	
Option 1					
Option 2					
Option 3					
	Version titanium				K

(1) mH₂O, mWS, mWC etc. available

(2) Please specify the required cable length and medium

(3) Suitable for drinking water (food approved)

(4) Connecting cable between MTM/N10 and electronics

(5) Connector with required cable has to be ordered separately (KART100)

(6) Only with datalogger DL/N70

(7) BSL: Best Straight Line

(8) Passive version

(9) Active version

Technical drawings

Dimensions

Fig. 1: Passive version, closed

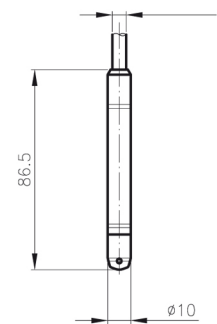


Fig. 2: Passive version, open

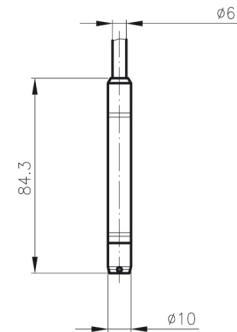


Fig. 3: Active version

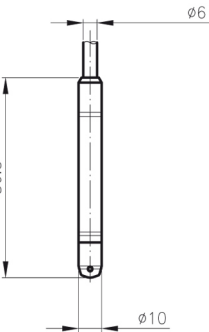
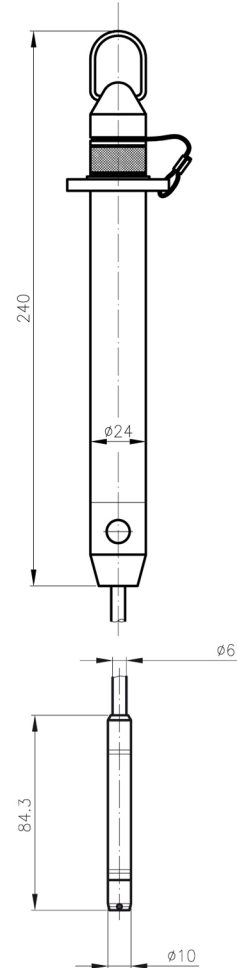


Fig. 5: Version with datalogger
DL/N Series 70



Colour	Connection configuration
	Passive version
white	+Vin
yellow	GND
brown	+Out
green	- Out

Connection configuration with separate electronics, see datasheet ATM/N, Series 24
 Connection configuration with datalogger, see datasheet DL/N, Series 64/70

Specifications may change without notice.
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