

# MINIATURE PRESSURE TRANSMITTER FOR LEVEL MEASUREMENT MTM/N10



15

CE

## Features

- Compact version with an outer diameter of **10 mm**
- For relative or absolute pressure measurement
- Any measuring ranges within 10 mH<sub>2</sub>O and 100 mH<sub>2</sub>O available
- High reliability

## Typical applications

- Level measurement in very small bores
- Wells
  - Boreholes
  - Dams

## Technical specifications for passive version

Pressure ranges	[bar]	1.0 ... 2.0	> 2.0 ... 4.0	> 4 ... 10
<b>Overpressure</b>		3 x FS	3 x FS (max. 12 bar)	12 bar
<b>Accuracy</b> <sup>1)</sup>	[± % FS]	≤ 0.5 (optional ≤ 0.25)	≤ 0.5 (optional ≤ 0.25)	≤ 0.5 (optional ≤ 0.25)
<b>Setting accuracy</b>	NP Span	± 1mV ± 2%	± 1mV ± 2%	± 1mV ± 2%
<b>Thermal shift</b>	[± % FS/°C]			
Zero	-5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span	-5...50°C	≤ 0.015	≤ 0.015	≤ 0.015
<b>Long-term stability</b> (1 year) - (typ./max)		≤ 0.2% FS/< 4mbar	≤ 0.1% FS/< 0.2% FS	≤ 0.1% FS/< 0.2% FS

## Technical specifications for active version<sup>3)</sup>

Pressure ranges	[bar]	1.0 ... 2.0	> 2.0 ... 4.0	> 4 ... 10
<b>Accuracy</b> <sup>2)</sup>	[± % FS]	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)
<b>Thermal shift</b>	[± % FS/°C]			
Zero	-5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span	-5...50°C	≤ 0.015	≤ 0.015	≤ 0.015

## Technical specifications with datalogger<sup>4)</sup>

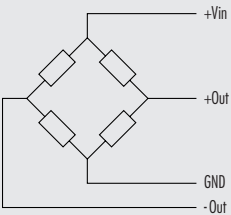
Pressure ranges	[bar]	1.0 ... 2.0	> 2.0 ... 4.0	> 4 ... 10
<b>Accuracy</b> <sup>2)</sup>	[± % FS]	≤ 0.1	≤ 0.1	≤ 0.1
<b>Thermal shift</b>	[± % FS/°C]			
Zero	-5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span	-5...50°C	≤ 0.015	≤ 0.015	≤ 0.015

## Electrical data for passive version

Pressure ranges	[bar]	1.0 ... 2.0	> 2.0 ... 4.0	> 4 ... 10
<b>Full scale signal typ.</b> (10V DC voltage supply)	[mV]	50	100	100

**Connection**

**Electrical connection**



**Input impedance** > 10kOhm  
**Bridge resistance** 3kOhm, typ.  
**Max. voltage supply** 15 V DC

Electrical data for active version: see ATM/N datasheet, Series 24

Electrical data for datalogger: see DL/N datasheet, Series 64/70

<b>Materials Fig.1 /Fig.2</b>	
<b>Pressure connection, diaphragm, housing</b>	Stainless steel 1.4435 (316L)
<b>Seals</b>	NBR

<sup>1)</sup> BSL

<sup>2)</sup> Zero based non-conformity according to DIN 16086, including hysteresis and repeatability

<sup>3)</sup> further specifications see ATM/N datasheet, Series 24

<sup>4)</sup> further specifications see DL/N datasheet, Series 64/70

## Ordering Information

		15	X	XXXX	XXXX	XX	XXX	
<b>Type</b>	MTM/N10	15						
<b>Pressure type</b>	Gauge	1						
	Absolute	2						
<b>Pressure range</b> <sup>1)</sup>	All pressure ranges between 0...10 mH2O and 0...100 mH2O available		XX					
<b>Version</b>	passive, with mV output signal (Fig. 1/2)					0		
	active, with analog amplifier (Fig. 3)					2		
	with datalogger DL/N Series 64 (Fig. 4)					3	2	
	with datalogger DL/N Series 70 (Fig. 5)					4	3	
<b>Electrical connection</b>	PUR cable <sup>2)</sup> (Fig. 1/2/3)					0		
	PE cable <sup>2) 3)</sup> (Fig. 1/2/3)					1		
	Lumberg RSF 4 connector, 4-pin (Fig. 4)					3	2	
	Lumberg RSF 8 connector, 8-pin (Fig. 5)					4	3	
<b>Version</b>	Closed						55	
	Open						56	
<b>Connecting cable</b> <sup>4)</sup>	PUR cable <sup>2)</sup> (Fig. 3/4/5)							
	PE cable <sup>2) 3)</sup> (Fig. 3/4/5)							
<b>Output signal</b>	0...50 mV (Fig. 1/2)						13	
	0...100 mV (Fig. 1/2)						14	
	0...20 mA (Fig. 3)						00	
	4...20 mA (Fig. 3)						05	
	0...5 V DC (Fig. 3)						46	
	0...10 V DC (Fig. 3)						47	
	RS232 (Fig. 4)					3	2	61
	RS485 (Fig. 5)					4	3	62
<b>Accuracy</b>	≤ ± 0.5 % FS (BSL) (Fig. 1/2)						0	
	≤ ± 0.5 % FS (Fig. 3)						0	
	≤ ± 0.25 % FS (BSL) (Fig. 1/2)						1	
	≤ ± 0.25 % FS (Fig. 3)						1	
	≤ ± 0.1 % FS (Fig. 3/4/5)						2	
<b>Temperature range</b>	-5...50°C compensated (max. medium temp. -5...50°C)						4	
<b>Options</b>	Seals: NBR						R	

<sup>1)</sup> All pressure units (e.g. bar, mWS etc.) available

<sup>2)</sup> Please specify the required cable length and medium

<sup>3)</sup> Suitable for drinking water (food approved), please specify the required cable length and medium

<sup>4)</sup> Connecting cable between submersible transmitter and electronics; please specify the required cable length and medium

## Dimensions

Fig. 1: Passive version, closed

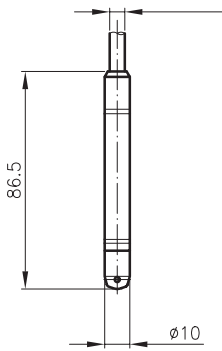


Fig. 3: Active version

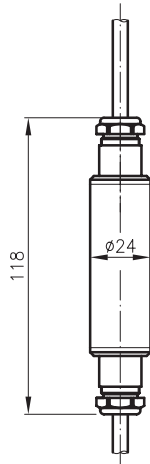


Fig. 4: Version with datalogger  
DL/N Series 64

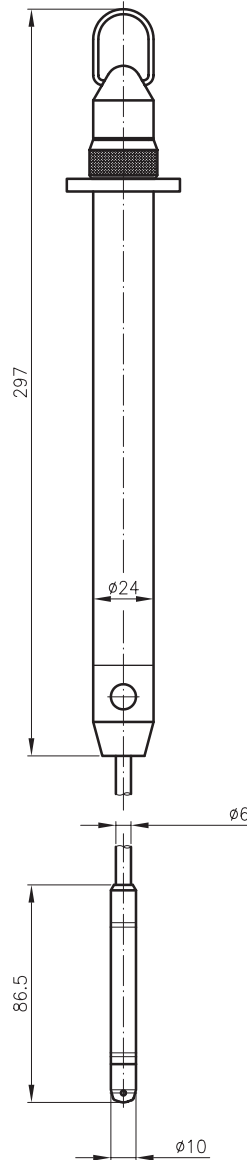


Fig. 5: Version with datalogger  
DL/N Series 70

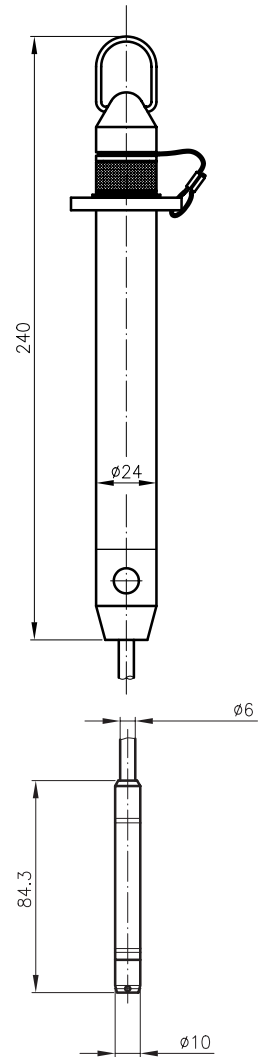
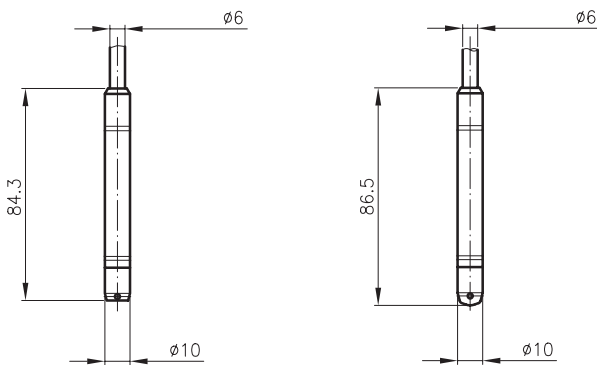


Fig. 2: Passive version, open



Colour	Connection configuration
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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