

## Submersible Transmitters

# MTM/N 10 - Miniature Level Transmitter



### CUSTOMER BENEFITS

- Miniature submersible level transmitter with a diameter of 10mm
- Available in relative or absolute version
- Titanium version with PE cable for use in aggressive media
- Passive option for use in low power applications (logger)

# Technical specifications for passive version

## PRESSURE MEASURING RANGE (MH<sub>2</sub>O)

	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) 1year (typ. / max.)

## TYPICAL OUTPUT SIGNAL (MH<sub>2</sub>O)

	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 (MH<sub>2</sub>O)

	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 error (± % FS/°C)			
-5 ... 50°C compensated	0.075	0.045	0.03
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

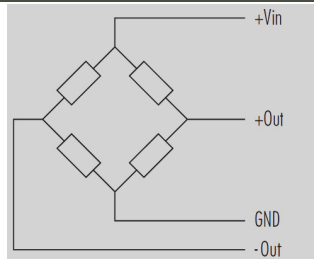
(1) For further specifications see ATM/N

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

# Electrical specifications for passive version

## PRESSURE RANGE

Circuit diagram



Input impedance	> 10 k $\Omega$
Bridge resistance, (typ.)	3 k $\Omega$
Supply voltage, output signal 0 ... 5 VDC	10 ... 30 VDC
Supply voltage, output signal 0 ... 10VDC / 0 ... 20mA / 4 ... 20mA	15 ... 30 VDC
Cable length (max.)	200 m

## PHYSICAL SPECIFICATIONS, (1), (2)

Materials

Transducer	Stainless steel (316L / 1.4435), Titanium (Gr. 2)
Housing	Stainless steel (316L / 1.4435), Titanium (Gr. 2)
Seals	NBR
Cable	PUR, PE
Weight (3)	150 g

(1) Only for level transmitter MTM/N10

(2) Stainless steel only in clean water applications

(3) Specification for a MTM/N10, closed, cable

## Equipment

### OVERVIEW

10.00.0091

Accessories overview

# Additional documents

---

## OPERATING AND SAFETY INSTRUCTIONS

	Article number
10.88.0369	DMM030

---

# Ordering information

	X.	XX XX.	XXXX.	XX.	XXX
<b>Type</b>					
	MTM/N 10	15			
<b>Pressure type</b>					
	Gauge	1			
	Absolute (vacuum)	2			
<b>Pressure measuring range (1)</b>					
	1 bar ... 10 bar	XX			
	Offset, special adjustment	99			
<b>Model</b>					
	Standart passive, with mV output signal, (Fig. 1/2)	0			
	Active, with analog amplifier, (Fig. 3)	2			
<b>Electrical connection</b>					
	PUR cable, black IP 68, (2)	0			
	PE cable, black, IP 68, (2)	1			
<b>Version</b>					
	Closed, (Fig. 1)		55		
	Open, (Fig. 2)		56		
<b>Connecting cable (4)</b>					
	PE cable				1
	PUR cable				0
<b>Output signal</b>					
	0...mV (specified by the customer), (Fig. 1 / 2), (8)		13		
	0...100 mV		14		
	0...5 VDC, (Fig. 3), (9)		46		
	0...10 VDC, (Fig. 3), (9)		47		
	0...20 mA, (Fig. 3), (9)		00		
	4...20 mA, (Fig. 3), (9)		05		
	RS485, (Fig. 5), (6), (9)		62		
<b>Accuracy</b>					
	≤ ± 0.5 % FS, BSL (passive version only) (7), (8)			0	
	≤ ± 0.5 % FS, (with option separate electronic) (9)			0	
	≤ ± 0.25 % FS, BSL (passive version only) ( (7), (8)			1	
	≤ ± 0.25 % FS, (with option separate electronic) (9)			1	
	≤ ± 0.1 % FS, (with option separate electronic) (9)			2	
<b>Temperature range</b>					
	-5 ... 50 °C compensated (allowed process temperature: -5...50 °C)			4	
<b>Option</b>					
	Seals: NBR (Standard)				R
	Titanium				K
	Humidity filter element for gauge versions (only for PUR and PE cable)				Z

(2) Please specify the required cable length and medium

(7) BSL: Best Straight Line

(8) Passive version

(9) Active version

# Technical drawings

## Dimensions

Fig. 1: Passive version, closed

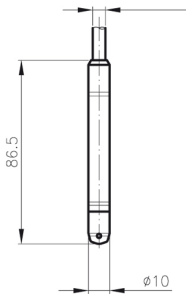


Fig. 3: Active version

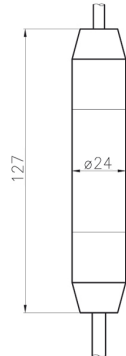
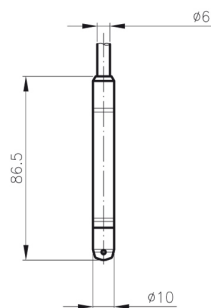
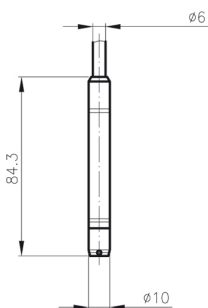


Fig. 2: Passive version, open



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

Connection configuration with separate electronics, see datasheet ATM/N

Specifications may change without notice.

**STS Headquarters, Switzerland:**  
 STS Sensor Technik Sirmach AG  
 Rütihofstrasse 8 | 8370 Sirmach | Switzerland  
 sales@stssensors.com | www.stssensors.com

**STS China:**  
 STS Sensor Technology (Shanghai) Co. Ltd  
 Room 2603-2606 | North Building, Fortune | 108 Square  
 Lane 1839 | Qixin Road | Minhang District | Shanghai | China  
 sales@stssensors.com | www.stssensors.com.cn

**STS France:**  
 STS France  
 844 Route de la Caille | 74350 Allonzier la Caille | France  
 info-fr@stssensors.com | www.stssensors.fr

**STS Germany:**  
 STS Sensoren Transmitter Systeme GmbH  
 Poststrasse 7 | 71063 Sindelfingen | Germany  
 info-de@stssensors.com | www.stssensors.de

**STS Great Britain:**  
 STS Great Britain Ltd.  
 Box 3942 | Warwick | CV34 9AE | United Kingdom  
 contact@stssensors.com | www.stssensors.co.uk

**STS Italy:**  
 STS Italia s.r.l.  
 Via Lambro 36 | 20090 Opera (MI) | Italy  
 info-italia@stssensors.com | www.stssensors.it




**SCIGATE AUTOMATION (S) PTE LTD**  
 No.1 Bukit Batok Street 22 #01-01 Singapore 659592  
**Tel: (65) 6561 0488 Fax: (65) 6562 0588**  
 Email: sales@scigate.com.sg Web: www.scigate.com.sg  
 Business Hours: Monday - Friday 8.30am - 6.15pm