

MPS580

Submersible Level Transmitters



OVERVIEW

Operation

MPS580 series submersible transmitters are specifically designed for depth and level measurements of groundwater wastewater and seawater. Relatively low water levels can be measured with the MPS580 submersible level transmitter despite its 27 mm diameter. This is possible by incorporating a highly sensitive miniature silicon diaphragm with a very thin isolation membrane back filled with silicone oil.

Features

- Compact design
- Protection type IP68 (up to 250 m depth)
- Corrosion resistant stainless steel design
- Wide measuring range
- Simple installation
- Various output signal
- PE, PUR, FEP sheathed cable with inner ventilation

Application

- Irrigation
- Sewage lift stations
- Rivers
- Oceanography
- Dams
- Wells



OPERATING DATA

Temperature Limit

-20°C... +80°C
-20°C...+120°C with electronic junction box

Compensated Temperature Limit

0...70°C

Stability

<0.1% of FS/year

Accuracy

±0,5% FS (base)
±0,2% FS as optional

Over Pressure

FS range up to 1,6 m H₂O-2x
Above 1,6 to 100 m H₂O-3x
Above 100 m H₂O-2x

Enclosure

IP68

Weight

0,7 kg without cable

Hysteresis, Repeatability

0,05% of FS

ATEX

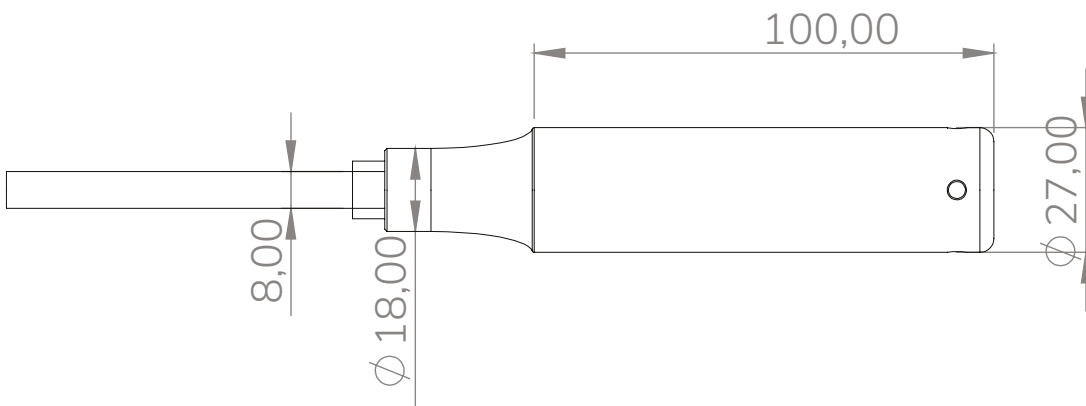
II 1/2 Ex ia IIC T1...T6 Ga/Gb (Optional)

MEASURING RANGES

Measuring Range

0...250 m H₂O

TECHNICAL DRAWINGS AND DIMENSIONS



ELECTRICAL DATA

Output

2 wires, 4-20 mA
0-5 VDC, 0-10 VDC as optional
(Supply should be min 14 VDC)

Power Supply

10-32 VDC

WIRING

4-20 mA		0-10 VDC or 0-5 VDC	
Cable Colour	Description	Cable Colour	Description
Red	Supply V+	Red	Supply V+
Blue	Supply V-	Blue	Supply V-
		Yellow	Output V+

MEASURING RANGES

Code	Range
001	0...1 m H ₂ O
002	0...1,6 m H ₂ O
003	0...2.5 m H ₂ O
004	0...4.0 m H ₂ O
005	0...6.0 m H ₂ O
006	0...10 m H ₂ O
007	0...16 m H ₂ O
008	0...25 m H ₂ O
009	0...40 m H ₂ O
010	0...60 m H ₂ O
011	0...100 m H ₂ O
012	0...160 m H ₂ O
013	0...250 m H ₂ O
XXX	Special Ranges



OPTIONS ELECTRONIC

Bab100.L

Inputs Analog

4...20 mA

Output Analog

4...20 mA, 0-5 VDC, 0-10 VDC selectable

Digital

4x SPDT relay, 5A max.

Optional Output Modules

2x 4-20 mA, 5x SPDT or others

Display Type

4.3" TFT full graphic colour display

Resolution

480x272 pixel resistive touchscreen

Refresh Rate

Fast or user selectable (1...99 sec.)

For Panel Mount

24 VDC $\pm$ 10%

Max Power Consumption

DC: <5W / AC: 20VA

Dimensions

144x144x94 mm DIN standart

Protection

IP65. Front

Max Humidity

80% non-condenstaining

Metric

lt, kg, m3, mm, cm, m

Non-Volatile Memory

All programmed settings are stored in non-volatile memory for a minimum of five years if power is lost.



Programming

By touch-screen or push-button

For Wall Mount

24 VDC $\pm$ 10% or 1000...240 VAC

Connections

Removable screw terminal blocks

Material

PC

Operating Temperature

-20...+70°C

Storage Temperature

-30...+80°C

Imperial

inch, feet

Recalibration

All ranges are calibrated at the factory. Recalibration is recommended at least every 12 months.



ORDERING

Model	
MPS580	Submersible Level Transmitters

Communication	
N	None
R	MODBUS RS485
H	HART

Measuring Range	
XXX	Please Look at Measuring Range Table

Accuracy	
05	±0.5% FS
02	±0.2% FS

Body Material	
1	AISI 304
2	AISI 316 L
3	PVC
4	PTFE
5	On request

Body Diameter	
1	27 mm (standard)
2	19 mm

Diaphragm Material	
SS	AISI 316 L (standard)
CR	Ceramic

Diaphragm Type	
1	Standard
2	Flush

Temperature Measuring	
N	None
X	4-20 mA (0-70°C)

Cable Material	
PE	PE
PU	PU
FE	FEP

Cable Length (meter)	
XXX	Please specify as unit is meter

Additional Weight	
N	None
W	Weight

Hazardous Area	
N	None
Xi	II 1/2G Ex ia IIC T4 Gb(Ga)

