

MEASUREMENT

pH

Measuring range	-2000 ... 2000 mV 0 ... 14 pH
Accuracy	± 0.5 %
Repeatability	0.2 %
Temperature compensation	Automatic, manual
Reference temperature	15 ... 30 °C, 25 °C (default)

Temperature

Sensor	Pt1000, Class A
Measuring range	0 ... 140 °C
Accuracy	± 0.5 °C
Repeatability	0.1 °C
Response time	$t_{90} < 30$ s

ELECTRICAL

Analog Outputs

Number of channels	2
mV, pH, ORP, Temperature	4 - 20 mA, electrically isolated
Resolution	12-bit
Accuracy	± 0.3 %
Sampling time	500 ms
Maximum load impedance	600 Ω

Switch Output-1

Contact	Solid-state relay
Maximum load current	100 mA @ 24 VDC

Switch Output-2

Contact	Solid-state relay
Maximum load current	200 mA @ 24 VDC

Digital Input

Voltage range	18 ... 30 VDC
Input current	5 mA @ 24 VDC
Input signal type	Sinking, IEC61131-2 Type-3

IO-Link

IO-Link specification	Version 1.1
IO-Link smart sensor profile	2nd edition
SIO mode	Yes
Speed	COM2 (38.4 kBaud)
Minimum cycle time	30 ms
Process data width	17 bytes

Power

Supply	18 ... 30 VDC
Maximum power consumption	3 W @ 24 VDC
Reverse polarity protection	Yes
Electrical connection	M12, A Coded, 4-pin

MECHANICAL

Transmitter

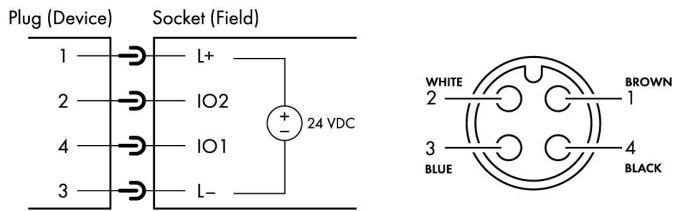
Enclosure	PA6-GF15
Seals	EPDM, TPE, NBR
Ambient temperature	0 ... 55 °C
Display window	PET

Weight	0.25 kg
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GENERAL

Display	TFT-LCD, 2.8", Resistive touch
Electromagnetic compatibility	IEC 61326, Class B
Environmental testing	IEC 60068

ELECTRICAL CONNECTION

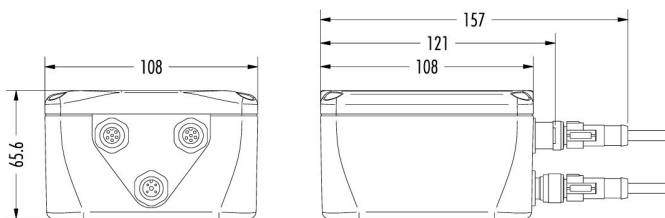


* M12 connector, connection diagram

Pin	Signal	Color	Description
1	L+	Brown	Supply voltage + (18 to 30 VDC / min. 3 W)
2	IO2	White	input / output 2, current output, switch output, digital input
3	L-	Blue	Supply voltage -
4	IO1	Black	input / output 1, IO-Link, current output, switch output,

* IO1 and IO2 can be configured independently.

DIMENSIONS



* Transmitter device dimensions in mm

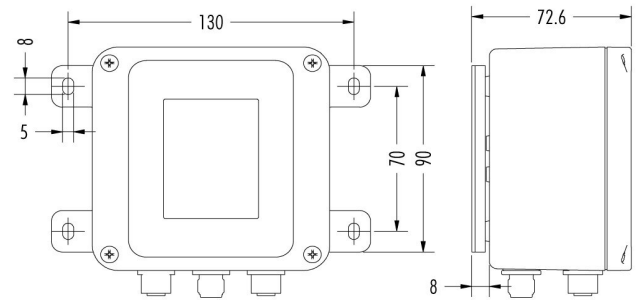
MAINTENANCE & CALIBRATION

Do not dry out the probe and keep them moist when not in use with medium.

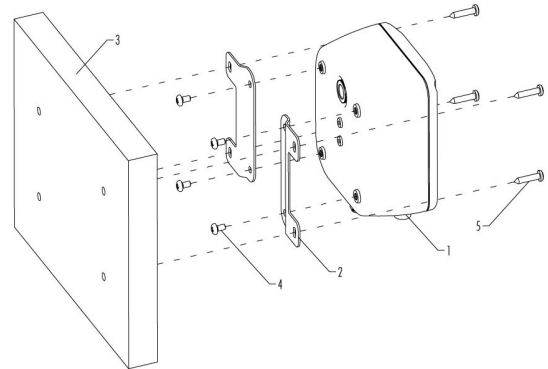
Potentiometric electrodes are sensitive to contaminants and periodic checking of the probes is essential for accuracy, especially in harsh environments. Rinse any deposits with water.

Calibration is performed with at least two standard buffer solutions that span the range of pH values to be measured. Please take care of the temperature dependence for the buffer solutions.

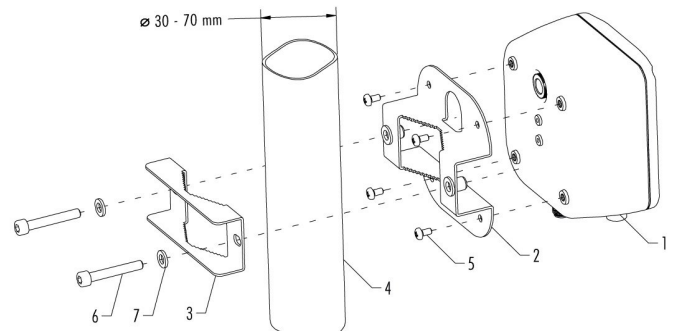
MOUNTING



* Wall mounting bracket hole dimensions.

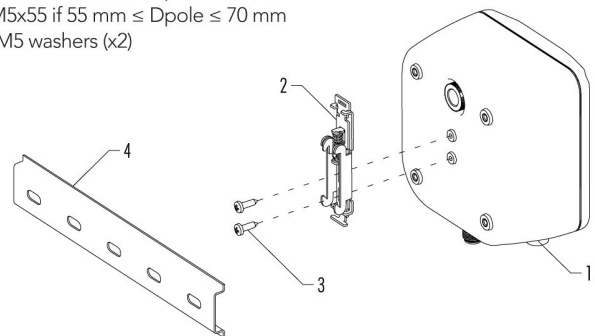


* Wall mounting of transmitter device with mounting bracket.
 (1) Transmitter device (2) Wall mounting bracket (x2) (3) Wall - panel
 (4) M4 x 8 screws (x4) (5) ST 4.2 self tapping screws (x4)



* Pole mounting of transmitter device.

- (1) Transmitter device
- (2) Pole mounting bracket - A
- (3) Pole mounting bracket - B
- (4) Pole (30 mm ≤ Dpole ≤ 70 mm)
- (5) M4 x 8 screws (x4)
- (6) M5 hexagon socket head screws (x2):
 - M5x30 if 30 mm ≤ Dpole ≤ 45 mm
 - M5x40 if 45 mm ≤ Dpole ≤ 55 mm
 - M5x55 if 55 mm ≤ Dpole ≤ 70 mm
- (7) M5 washers (x2)



*DIN rail mounting of transmitter device.

- (1) Transmitter device
- (2) DIN rail mounting bracket
- (3) ST 3.5 self tapping screws (x2)
- (4) DIN rail (TS-35)

(1) Device Code

PMT140 Potentiometric Transmitter (pH/ORP)

(2) Number of Channels

- 1 1 channel
- 2 2 channels

(3) User Interface

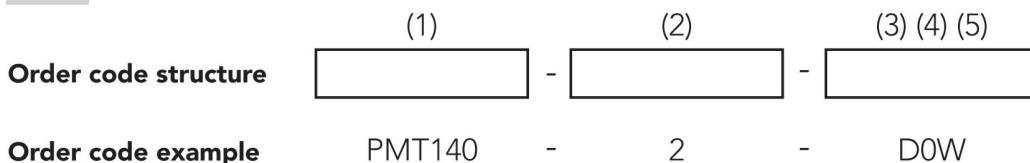
- D TFT-LCD Resistive Touch Screen Display
- 0 No

(4) IO-Link

- I Yes
- 0 No

(5) Wireless Connection

- W Wi-Fi and Bluetooth
- 0 No



Accessories

Transmitter Cables

- TC-M12-4FO-5 Transmitter cable, M12, A-Coded, 4-pin, female/open, 5 meters
- TC-M12-4FO-10 Transmitter cable, M12, A-Coded, 4-pin, female/open, 10 meters
- TC-M12-4FO-20 Transmitter cable, M12, A-Coded, 4-pin, female/open, 20 meters
- TC-M12-4FM-5 Transmitter cable, M12, A-Coded, 4-pin, female/male double ended, IO-Link, 5 meters
- TC-M12-4FM-10 Transmitter cable, M12, A-Coded, 4-pin, female/male double ended, IO-Link, 10 meters
- TC-M12-4FM-20 Transmitter cable, M12, A-Coded, 4-pin, female/male double ended, IO-Link, 20 meters

Transmitter Mounting Brackets

- TM-WL-11 Wall mounting bracket, stainless steel EN 1.4301 (AISI 304)
- TM-WL-40 Wall mounting bracket, galvanized steel
- TM-DR-40 DIN rail mounting bracket
- TM-PL-11 Pole mounting bracket, stainless steel EN 1.4301 (AISI 304)
- TM-PL-40 Pole mounting bracket, galvanized steel