

MEASUREMENT

Conductivity

Measuring range 0 ... 100 $\mu\text{S/cm}$
 0 ... 1000 $\mu\text{S/cm}$
 0 ... 10000 $\mu\text{S/cm}$

Accuracy $\pm 0.5\%$

pH

Measuring range -2000 ... 2000 mV
 0 ... 14 pH

Accuracy $\pm 0.5\%$

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 $\pm 0.5\text{ °C}$

Repeatability 0.1 °C

Response time $t_{90} < 30\text{ s}$

ELECTRICAL

Analog Outputs

Number of channels 2

Conductivity, resistivity, mV, pH, ORP, temperature 4 - 20 mA, electrically isolated

Resolution 12-bit

Accuracy $\pm 0.3\%$

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

Repeatability 0.2 %

Temperature compensation solute-specific matrix-based (NaCl etc.), linear, non-linear TC curve (6-point), freely programmable custom table

Linear temperature coefficient 0 ... 5.4 %/°C

Reference temperature 15 ... 30 °C, 25 °C (default)

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 3W @ 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

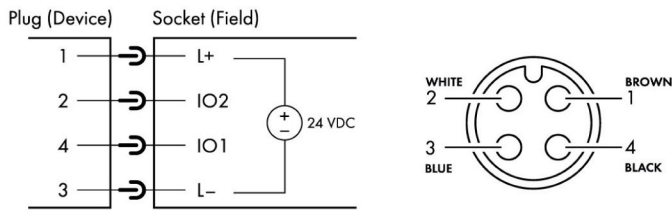
GENERAL

Display TFT-LCD, 2.8", Resistive touch

Electromagnetic compatibility IEC 61326, Class B

Environmental testing IEC 60068

ELECTRICAL CONNECTION

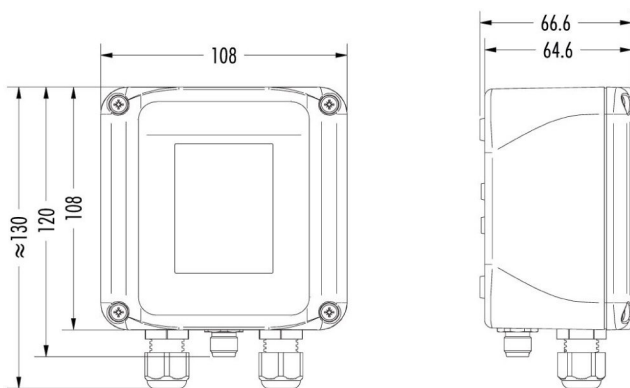


* M12 connector, connection diagram

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

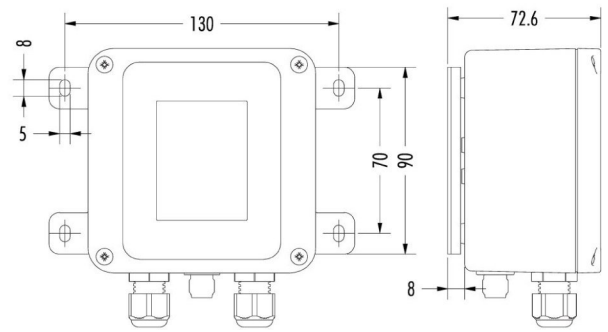
MAINTENANCE & CALIBRATION

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

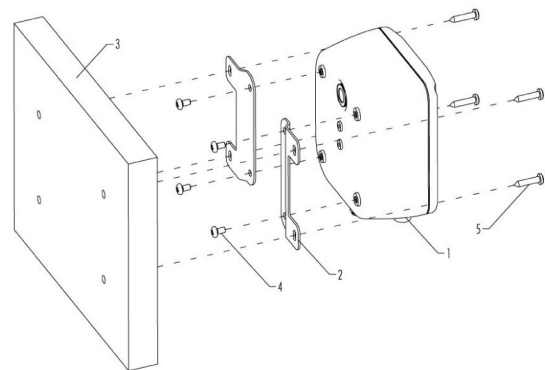
Potentiometric electrodes are sensitive to contaminants and periodic checking of the probes is essential for accuracy, especially in harsh environments. Rinse any deposits with water.

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

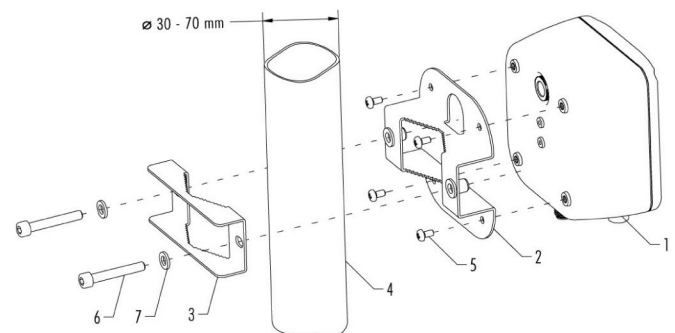


* Wall mounting bracket hole dimensions.



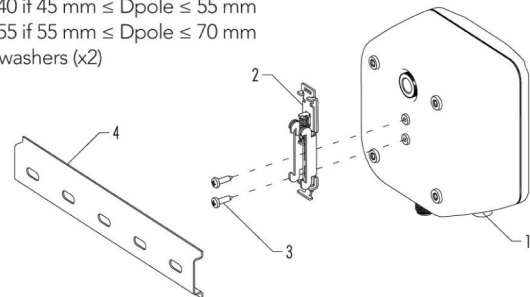
* Wall mounting of transmitter device with mounting bracket.

(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

CPT150 Conductivity & Potentiometric Transmitter

(2) Number of Channels

- 1 1 channel (Conductive conductivity)
- 2 2 channels (pH/ORP)

(3) User Interface

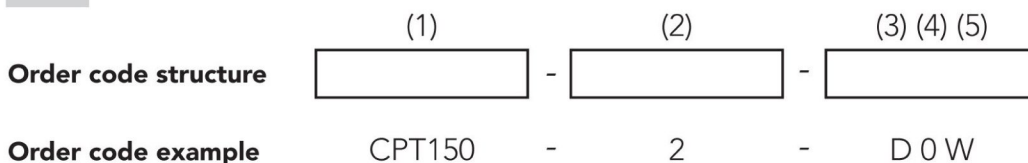
- D TFT-LCD Resistive Touch Screen Display
- 0 No

(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