CONDUCTIVITY METER

PCE-ECC 50



- **Conductivity electrode with 3/4-inch NPT thread**
- **Integrated temperature compensation**
- **3-inch colour display with 800 x 480 pixels**
- **2 x 4–20 mA analogue outputs**
- **3 relay outputs (SPDT)**
- **RS485 (Modbus RTU)**
- **Storage of measurement and calibration data**
- **Sensor protection rating: IP68**
- **Controller protection rating: IP55**

The conductivity meter is a versatile measuring and control device for the continuous monitoring of conductivity and salinity in liquids. With a measuring range of 0 to 200 µS/cm and a high resolution of 0.001 µS/cm, the conductivity meter enables precise analysis in industrial applications. The integrated temperature measurement from 0 to 60 °C and automatic temperature compensation ensure reliable measurement results even under changing environmental conditions. The conductivity meter features a 3-inch color display with a resolution of 800 x 480 pixels, which clearly displays all relevant measured values and status indicators.

For integration into process control systems, the conductivity meter offers numerous interfaces: two 4–20 mA analogue outputs, three relay outputs (SPDT, 250 V AC/30V DC, max. 5 A) and an RS485 interface with Modbus RTU protocol enable flexible connection and control. The storage of measurement and calibration data, along with adjustable storage intervals, supports comprehensive documentation and traceability of the measured values. Parameters such as temperature compensation, alarm limits, relay functions and communication addresses can be conveniently set via the intuitive menu.

The conductivity meter is equipped with a robust sensor which, thanks to its IP68 protection rating, operates reliably even under demanding conditions. Installation is possible in both pipework and open channels or tanks.

Specification

Conductivity	
Measuring range	0 ... 200 µS/cm
Resolution	0,001 µS/cm
Accuracy	±1% of Rd
Temperature sensor	
Measuring range	0 ... 60 °C
Resolution	0,01 °C
Accuracy	±1% of Rd
Electrode	
Temperature range	0 ... 60 °C
Application	Aqueous non-corrosive media
Shank material	Stainless steel
Shank length	90 mm
Shank diameter	13 mm
Min. immersion depth	25 mm
Cable length	9,5 m
Connection	Electrically via terminal block, mechanically via 3/4-inch NPT thread
Dimensions	Length: 160 mm Diameter: 30 mm

General technical data	
Repeat accuracy	1 %
Outputs	4 ... 20 mA, SPDT Relay 250V AC / 30V DC / max. 5 A
Outputs	3 x SPDT relays 2 x analogue output 4–20 mA (max. load 500 Ω)
Display type	TFT colour display
Display size	3 Inch
Display resolution	800×480
Storage medium	Internal memory
Storage capacity	229248 Values
Storage interval from	1 min.
Storage interval to	60 min.
Interface	RS485
Response time	20 s
Alarm modes	Below, above
Panel cut-out	92 x 92 mm
Calibration	Cycle: approximately 3 months (depending on the medium)
Drift	less than ±1% of full scale
Menu language	English (GB), English
Protection class (device)	IP55
Power supply	85 ... 265V AC
Connector type	Euro plug
Operating conditions	-10 ... 60 °C , 10 ... 90 % RH
Storage conditions	-20 ... 70 °C , 10 ... 90 % RH
Dimensions (L x W x D)	98 x 98 x 120 mm
Weight	445 g

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