

Conductivity Transmitter / Controller PHC20

- ◆ DIN-rail mounting
- ◆ Operates with 2-electrode contacting cells
- ◆ 0.1...100000 µS measurement range
- ◆ Relay alarm / control output
- ◆ Analog retransmission output
- ◆ Pt1000 temperature compensation
- ◆ Fully programmable

PHC20 is a reliable conductivity transmitter, enclosed in a small housing for DIN-rail mounting, especially designed for clear, industrial, and sea water applications. It is compatible with COMECO's conductivity probes series CSK as well as other 2-electrode contacting conductivity cells within conductance range from 0.1 µS to 100 mS, and has an additional Pt1000 input for automatic temperature compensation. The transmitter provides linear current or voltage output and can also be equipped with a relay alarm/control output. All device parameters (preset conductance ranges, analog output range and direction, relay set point, hysteresis, and direction, temperature compensation parameters, etc.) are user-programmable via the RS232 interface and supplied free configuration software. Thanks to its wide measurement range, flexibility, programmability, and reliability, the PHC20 transmitter is very suitable for water treatment and processing applications in the food, pharmaceutical, and many other industries.



Technical specifications

Input

Input type	2-electrode contacting cell
Measurement range	0.1 µS to 100 mS
Selectable ranges	0.1...10 µS, 10...1000 µS, 1...100 mS
Temperature input	Pt1000
Temperature compensation	0.0...10.0 %/°C, selectable TDS

Accuracy

Total measurement error	± 2% from span (incl. non-linearity)
Temperature drift	0.06% from span for 1 °C

Analog output

Output signal	0(4)...20 mA, 0...10 V, reversible
Resolution	0.025%
Current load	max. 750 Ω at 20 mA
Voltage load	max. 2 kΩ at 10 V
Isolation from input	1500 VAC for 1 min

Relay output

MOS gate	0.1A/60V, optically isolated
Output function	ON/OFF, alarms
Set point	configurable via interface
Isolation from input	1500 VAC for 1 min

⁽¹⁾ Ordered separately (see 'Accessories')

Ordering code PHC20 - G5.G11

Code	Feature or option	Code values
G5	Relay output	X - none ⁽²⁾ , M - isolated MOS gate, Z - other (specify!)
G11	Analog output	X - none ⁽²⁾ , E - 0...20 mA, F - 4...20 mA, K - 0...10 V, Z - other (specify!)

⁽²⁾ At least one output must be ordered!

Interface

Interface type	RS232, requiring special cable ⁽¹⁾
Configuration software	free
Interface cable type ⁽¹⁾	K2, K2U, K12U

Power supply

Supply voltage	24 VDC ± 10%
Admissible variations	4 Vp-p at 50 Hz
Consumption	max. 60 mA
Isolation from input	1500 VAC for 1 min

Operating conditions

Ambient temperature	-10...65 °C
Operating humidity	0...85 %RH, non-condensing
Storage temperature	-20...85 °C

Design and materials

Case material	plastic
Mounting	on 35 mm DIN rail
Wiring	screw terminals
Dimensions	23x90x58 mm
Weight	max. 100 g
Protection class	IP20