

Conductivity Transmitter

- Type CONDUTEC - Separated version



FEATURES

- **PRODUCT MONITORING AND QUALITY CONTROL**
- **FOR STEERING AND CONTROL OF CIP PROCESSES, MEASURING SURFACTANTS CONCENTRATION, MONITORING OF CONDENSATE CYCLES**
- **2 SWITCHABLE MEASURING RANGES**
- **SEPARATED VERSION**
- **OUTPUT FOR CONDUCTIVITY AND TEMPERATURE, 4...20 mA EACH**
- **SMOOTH SENSOR, NO RISK OF CLOGGING**
- **RESISTANT AGAINST CONTAMINATION**

DESCRIPTION

The conductivity transmitter CONDUTEC is suited for the measurement of conductivity, purity or concentration of liquids in industry processes. With the hygienic process connection PZM, the CONDUTEC is predestined for use in applications with high hygiene processes, for example in the food and beverage industry.

High accuracy and resistance against contamination of the electrodes is achieved by using 4 electrode conductivity cells. Another advantage is the wide range of applications with only one measuring cell. The measuring cells are not influenced by polarization effects and line resistances.

Parametrizing is done by the membrane keyboard on the front combined with a 2-line LCD display. The alarm outputs can be programmed as min. or max. function, the switching states are shown in the LCD display. A second measuring range for conductivity can be activated with an external control signal.

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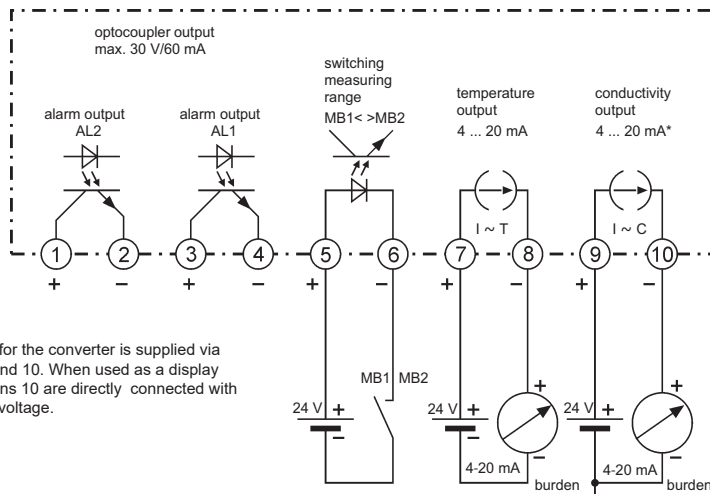
TECHNICAL DATA

General information	
Device type/measuring principle	CONDUTEC / conductivity measurement
Input	
Measuring range	0...500 mS/cm
Measuring rate	approx. 3 / s
Temperature sensor	Pt1000 acc. to DIN IEC 751
Temperature measuring range	-40...+160°C
Conductivity output	
Voltage supply	14...30 V DC
Output signal	2-wire: 4...20 mA
Cell constant	programmable in the range of 0,08...4,0
Standard error	± 0,5% from measure value ± 2 digit
Temperature coefficient	< 100ppm / °C
Temperature compensation	linear programmable in range 0,0...8,0% / °C
Temperature output	
Output signal	2-wire: 4...20 mA
Burden	$R_A = (U_B - 14 \text{ V}) / 0,02 \text{ A}$
Alarm output	
Transistor	2x transistor output, 14...30 V DC, max. 60 mA
Voltage drop	< 2 V
Measuring range switching	
R_i	> 10 kΩ
MB1 active	U = 0...3 V DC
MB2 active	U = 12...30 V DC
Conditions of use	
Installation position	unsuitable for mounting from above, otherwise arbitrarily
Medium temperature	-10...+120°C (short duration 140°C for max. 30 min)
Environmental temperature	0...+50°C
Protection class EN 60529	IP 65
Electromagnetic compatibility	acc. to EN 50022, DIN IEC 61000-4-3/4/5
Construction	
Electrical connection	- Standard: M20x1.5 cable screw connection - Optional: M12x1 round plug-in connector, nickel-plated brass
Process connection	- Modular system PZM with o-ring seal 28x2,5; material EPDM (FDA-compliant)
Materials	- Housing: Polyamide, PA6-GF/GK 15/15 - Front cover display: Polyester - Process connection/sensor: PEEK, PVDF, CrNi AISI 316L, graphite, EPDM
Type	- separated: sensor and transmitter separate; connected by 5m, 10m or 20m cable
Display	- LCD-dot display, 3.8mm height, 2 lines with 16 characters, 4 digits - Unit conductivity adjustable: μS/cm, mS/cm - Unit temperature adjustable: °C, °F

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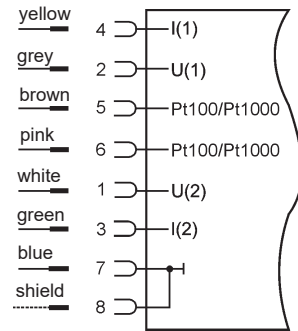
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ELECTRICAL CONNECTION

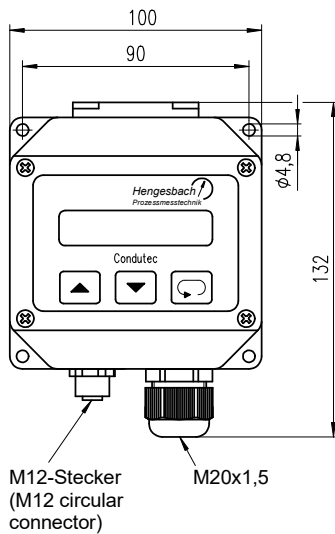


* The power for the converter is supplied via terminals 9 and 10. When used as a display terminals 9 and 10 are directly connected with the auxiliary voltage.

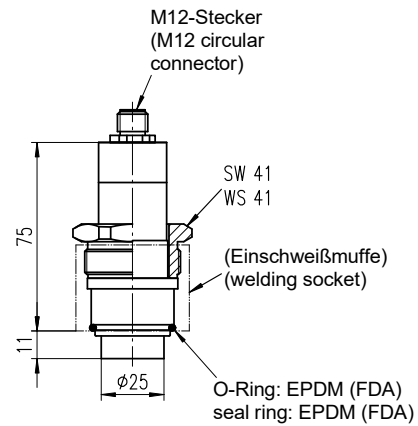
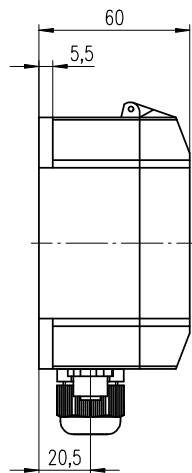
8-pole round plug connector for the measuring cell



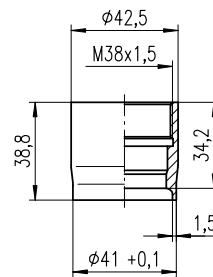
TECHNICAL DRAWING (dimensions in mm)



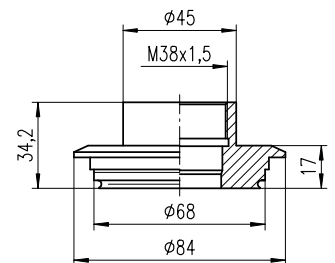
Converter-Gehäuse
converter housing



Modularsystem PZM (PZM)
modular system PZM (PZM)



PEM9FPZM
Aufschweißmuffe VPM - Rohr DN40
weld-on socket VPM - pipe DN40



PVA6FPZM
VARIVENT N -Flansch Ø68
VARIVENT N -flange Ø68

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ORDER INFORMATION for CONDUTEC

Device type CONDUTEC

G separated design

Process connection

PZM Modular system PZM, PN 16

Length reference cabel

05	5m, 8-pole, shielded PVC cable with round plug connector M12x1, 8 pin
10	10m, 8-pole, shielded PVC cable with round plug connector M12x1, 8 pin

Electrical connection sensor

S standard - nickel-plated brass

Electrical connection

00	cable screw connection M20x1,5
H4	round plug-in connector M12x1, 4-polig

CONDUTEC - **G** - **PZM** - - **S** -

ORDER INFORMATIONEN for accessories CONDUTEC

Accessories / process connection adapter (please order separately)

	Item number
VARIVENT®-flange Ø 68 mm, DN40-125/PN16, 1.4404 (AISI 316L)	Z-PVA6FPZM
VARIVENT®-flange Ø 68 mm, DN40-125/PN16, with 3 leakage drills, 1.4404 (AISI 316L)	Z-PVA6LPZM
welded socket for pipes DIN EN 10357 series A pipes, DN40, 1.4404 (AISI 316L)	Z-PEM9FPZM
welded socket for pipes DIN EN 10357 series A pipes, DN40, with 3 leakage drills, 1.4404 (AISI 316L)	Z-PEM9LPZM

Please observe the permissible nominal pressure of the process connection selected.
 All specifications and certifications specified are only guaranteed when Hengesbach original components are used.
 Our devices are subject to constant development; subject to technical modification.

A-CONDUTEC-E-25-1/4