

CONDIX4213

DIGITAL CONDUCTIVITY- CONVERTER

CHARACTERISTICS

The digital conductivity converter CONDIX4213 is used for the conductivity measurement of liquids. The integrated digital transmitter submits values and parameters to a master (e.g. PLC, SCADA). The Modbus RTU protocol on RS485 is used for communication. This enables integration into existing networks as well as use with the multichannel controller MULTICON-H. Device parameters and input configuration are adjustable via the interface or SENSware configuration software.

Application dependent six different types of temperature compensation are available. The 4-electrode measurement principle with a cell constant of 0.5 1/cm is suitable for a range of applications up to 500 mS/cm .

Applications can be found in the water treatment of landfill seeping water, seawater or black water treatment on ships.



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SMART TECHNOLOGY

- Provides process values, identification data, diagnostic data
- RS485 Interface with MODBUS RTU-protocol



EASY TO SET UP & QUICK TO INSTALL

- Installation with PVC-U standard fittings



ACCURATE & RELIABLE

- Resistant against pollution
- Not influenced by polarisation effect or wire resistive



GREAT FLEXIBILITY

- 6 types of temperature compensation selectable

Technical Data

Power supply

Supply voltage 4.7..28 V DC, max. 60 mA

Conformity CE

Inputs

Cell constant $C = 0.5 \text{ 1/cm}$ (exact cell constant labelled on the type plate)

Measuring range

Conductivity 0..20 $\mu\text{S/cm}$ up to 0..500 mS/cm

Temperature -50..+200°C

Basic accurac

Conductivity 1% of the measuring value

Temperature 0.2 K

Linearization errors

Temperature 0.10%

Operating temperature 0..+60 °C

Ambient temperature -10..60 °C

Storage temperature -10..60°C

Condensation not allowed

Climate classification EN 60068-2-38

Vibrations EN 60068-2-6, GL test 2

Process connection PVC fitting with cap nut

Process pressure max. -1..16 bar

Materials

Process material PVC-U, casting resin, graphite (electrodes)

Viewing window Acrylic glass (PMMA)

Electrical connection

Design 8 pole round connector plug

Materials brass nickel plated

Interface RS485, Half-Duplex

Protokoll MODBUS RTU

Baud rates 1200, 2400, 4800, 9600, 19200

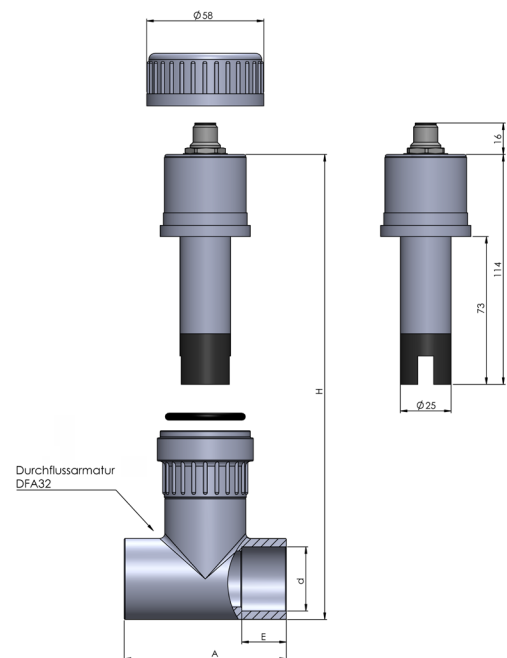
Total weight ca. 160 g

Protection class IP67

Temperature comp. Selectable

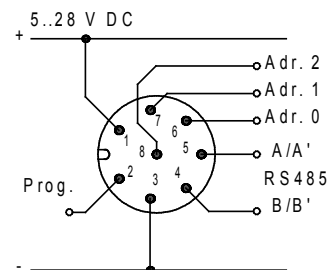
- without temperature compensation
- linear temperature coefficient
- compensation of natural waters
- ASTM-D1125 ultra-pure water
- NaCl diluted solution
- ASTM-D5391 acidic pure water
- ASTM-D5391 alkaline pure water

Dimensions



d	H	A	E
20	135	78	22
25	135	78	22
32	135	78	22
40	140	98	26
50	155	118	31
63	169	144	38

Connection diagram



MB-type with RS485, MODBUS RTU interface

PIN	Signal	Cable color ACI113
1	+ Supply voltage	White
2	Programming PIN (normally not connected)	Brown
3	- Supply voltage, Ground (C / C')	Green
4	B / B' Bus	Yellow
5	A / A' Bus	Grey
6	Adr. 0	Pink
7	Adr. 1	Blue
8	Adr. 2	Red (shield)

The addressing of the CONDIX can be realized with a field attachable female connector (see accessories) or in a junction box.

Ordering code

CONDIX 1. 2. 3. 4.

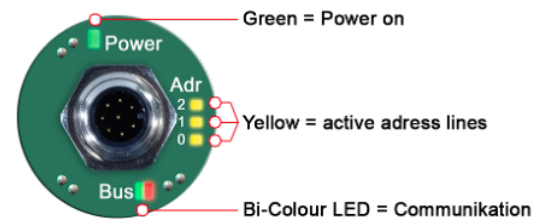
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1.	Model	
	4213	
2.	Cell constant	
	C0.5	
3.	Interface	
	MB	RS 485, MODBUS RTU
4.	Options	
	00	Without option

Accessories

Art. No.	Type	Description
-	SENSware	Download: www.senseca.com
475291	EYY220	Programming adapter
Diverse	DFA32	Flow fitting for CONDIX4213
476332	ACI113-00	Field attachable 8-pole female connector, Belden RKC8/9, Brass nickel plated
476331	ACI113-VA	Field attachable 8-pole female connector, Binder 713, stainless steel
476533	ACI113-002-1-00	-pole female connector M12 (Brass nickel plated) with shielded cable and wire-end ferrules: 2 m
476116	ACI113-005-1-00	8-pole female connector M12 (Brass nickel plated) with shielded cable and wire-end ferrules: 5 m
476117	ACI113-010-1-00	8-pole female connector M12 (Brass nickel plated) with shielded cable and wire-end ferrules: 10 m
476118	ACI113-025-1-00	8-pole female connector M12 (Brass nickel plated) with shielded cable and wire-end ferrules: 25 m

Optical signaling



Top view CONDIX4213: Optical signalling for supply voltage, bus communication and addressing.