senseca

CONDIX4623

DIGITAL CONDUCTIVITY-CONVERTER

CHARACTERISTICS

The digital conductivity converter CONDIX4623 is used for the conductivity measurement of liquids. The integrated digital transmitter submits values and parameters to a master (e. g. PLC, SCADA).

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 C0.5 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 pipe thread DIN ISO 228 (DIN 259; BSP)

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

GREAT FLEXIBILITY
- 6 types of temperature compensation selectable

Making the unknown, known

Technical Data

Power supply

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

Inputs

Cell constant	C = 0.5 1/cm (exact cell constant labelled on the type plate)

Measuring range

Conductivity	0...500mS/cm
Temperature	-50..+200°C

Basic accuracy

Conductivity	1% of measured value (>2% of measured value for <20µS/cm)
Temperature	0.2 K

Linearization errors

Temperature	0.1%
Operating temperature	0..+60 °C
Ambient/storage temperature	-10...+60°C
Condensation	not allowed
Process connection	pipe thread DIN ISO 228 (DIN 259; BSP)
Process pressure	max. -1..16 bar

Material

Process material	PVDF, casting resin, graphite (electrodes)
Viewing window	Acrylic glass (PMMA)

Electrical connection

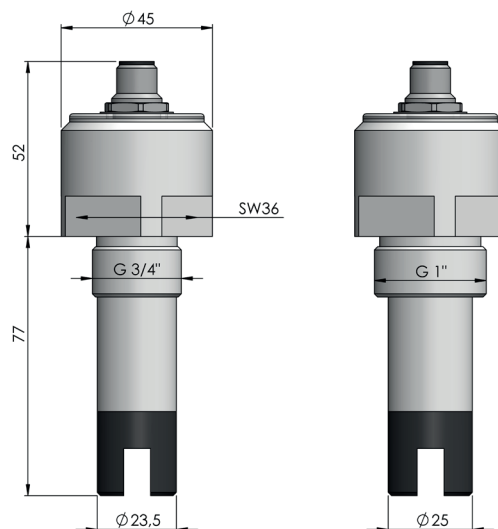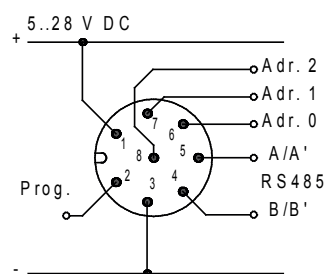|	
Design	8 pole round connector plug M12x1, IP67
Materials	brass nickel plated
Interface	RS485, Half-Duplex
Protokoll	MODBUS RTU
Baud rates	1200, 2400, 4800, 9600, 19200
Total weight	ca. 160 g
Protection class	IP67
Temperature comp. selectable	- without temperature compensation
	- linear temperature coefficient
	- compensation of natural waters
	- ASTM-D1125 ultra-pure water
	- NaCl diluted solution
	- ASTM-D5391 acidic pure water
	- ASTM-D5391 alkaline pure water

Dimensions

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.
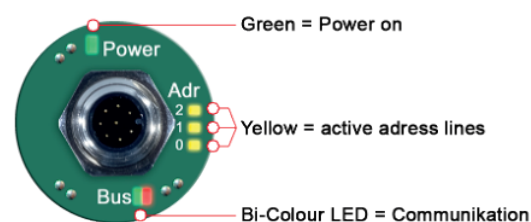
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Ordering code

CONDIX [1.] - [2.] - [3.] - [4.] - [5.] - [6.]

1.	Model	
	4623	

2.	Cell constant	
	C0.5	

3.	Process connection	
	G ¾ A	G ¾ A
	G 1 A	G 1 A

4.	Interface	
	MB	RS 485, MODBUS RTU

5.	Optionen	
	00	Without option

6.	Documentation	
	00 DE EN	Without Deutsch Englisch

Optical signalling

Top view CONDIX4623: Optical signalling for supply voltage, bus communication and addressing.

Accessories

Order No.	Type	Description
-	SENSware	Download: www.senseca.com
475291	EYY220	Programming adapter
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	8-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