

# 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). 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.



[www.senseca.com](http://www.senseca.com)



#### 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

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

Temperature -50..+200°C

### Basic accuracy

Conductivity 1% of the measuring value

Temperature 0.2 K

### Linearization errors

Temperature 0.1%

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 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

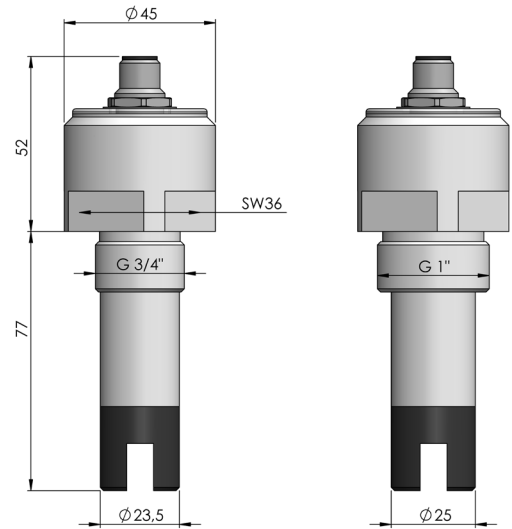
- ASTM-D1125 ultra-pure water

- NaCl diluted solution

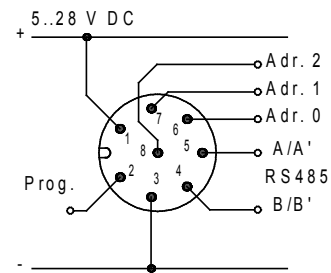
- ASTM-D5391 acidic pure water

- 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.

## Ordering code

CONDIX

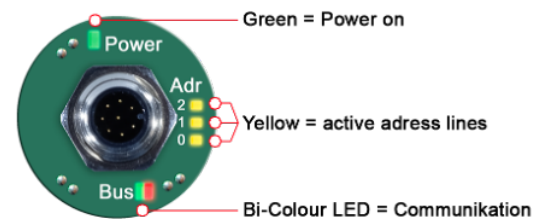
1.		-	2.		-	3.		-	4.		-	5.	
----	--	---	----	--	---	----	--	---	----	--	---	----	--

<b>1.</b>	<b>Model</b>	
	4623	
<b>2.</b>	<b>Cell constant</b>	
	C0.5	
<b>3.</b>	<b>Process connection</b>	
	G ¾ A	G ¾ A
	G 1 A	G 1 A
<b>4.</b>	<b>Interface</b>	
	MB	RS 485, MODBUS RTU
<b>5.</b>	<b>Optionen</b>	
	00	Without option

## Accessories

Art. No.	Type	Description
-	SENSware	Download: <a href="http://www.senseca.com">www.senseca.com</a>
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

## Optical signalling



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