

# CONDIX4613

## DIGITAL CONDUCTIVITY- CONVERTER

### CHARACTERISTICS

The digital conductivity converter CONDIX4613 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  $0.4 \text{ 1/cm}$  is suitable for a range of applications up to  $200 \text{ mS/cm}$ .

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 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  $C = 0.4 \text{ 1/cm}$  (exact cell constant labelled on the type plate)

### Measuring range

Conductivity 0...200mS/cm

Temperature -50...+200°C

### Basic accurac

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...1.6 bar

### Material

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

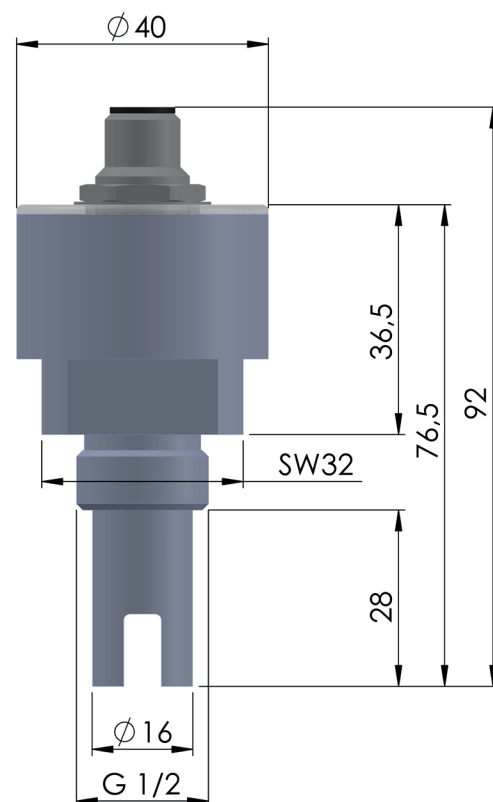
Total weight ca. 160 g

Protection class IP67

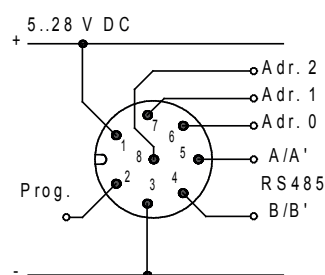
Temperature comp. Selectable

- 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



## 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

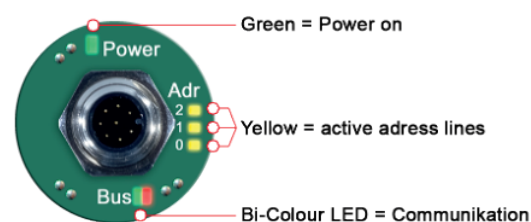
1.	2.	3.	4.	5.	6.

1.	Model	
	4613	
2.	Cell constant	
	C0.4	
3.	Process connection	
	G ½ A	G ½ A
4.	Interface	
	MB	RS 485, MODBUS RTU
5.	Options	
	00	Without option
6.	Documentation	
	00 DE EN	Without Deutsch Englisch

## Accessories

Order 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 con-nector, Belden RKC8/9, Brass nickel plated
476331	ACI113-VA	Field attachable 8-pole female con-nector, 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 signaling



Top view CONDIX4613: Optical signalling for supply voltage, bus communication and addressing.