

## Product information

# Digital Conductivity- Converter CONDIX4613



- Digital, conductive 4-electrode flow-converter
- Compact design
- 6 types of temperature compensation selectable
- Status LED
- RS485 Interface with MODBUS RTU-protocol
- Installation with pipe thread DIN ISO 228 (DIN 259; BSP)
- Suitable for conductivities in a range of 0..20 µS/cm up to 0..200 mS/cm
- Resistant against pollution
- Not influenced by polarisation effect or wire resistive

## Characterisitcs

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 GHMware configuration software. Application dependent six different types of temperature compensation are available.

The 4-electrode measurement principle with a cell constant of C0.4 1/cm is suitable for a range of applications up to 200 mS/cm. Applications can be found in the water treatment of landfill seeping water, seawater or black water treatment on ships.

## Technical data

### Power supply

Supply voltage : 4,7..28 V DC, max. 60 mA  
 CE-conformity : EN 61326-1:2013  
 EN 61326-2-3:2013

### Inputs

Cell constant : C = 0,4 1/cm (exact cell constant labelled on the type plate)

### Measuring range

Conductivity : 0..20 µS/cm up to 0..200 mS/cm  
 Temperature : -50..+200°C

### Basic accurac

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 60068-2-38:2010-6  
 Vibrations : EN 60068-2-6, GL test 2  
 Process connection : pipe thread DIN ISO 228 (DIN 259; BSP)  
 Process pressure : max. -1..16 bar

### Materials

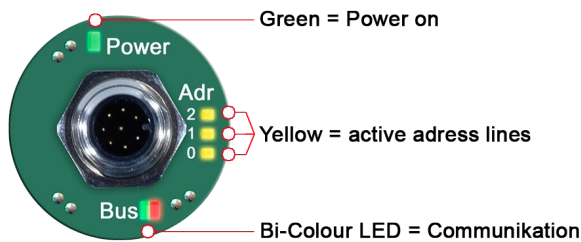
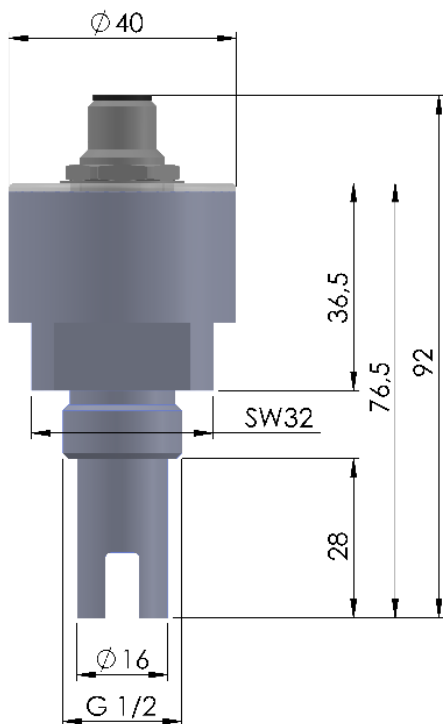
Process material : PVC-U, casting resin, graphite (electrodes)  
 Viewing window : Acrylic glass (PMMA)

### Electrical connection

Design : 8 pole round connector plug, 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

## Product information

### Dimensions



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

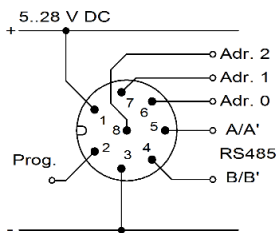
### Ordering code

CONDIX  1.  2.  3.  4.  5.

<b>1. Model</b>	4613
<b>2. Cell constant</b>	C0,4
<b>3. Process connection</b>	G ½ A G ½ A
<b>4. Interface</b>	MB RS 485, MODBUS RTU
<b>5. Options</b>	00 Without option

### 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

### Optical signaling

### Accessories

Art. No.	Type	Description
-	GHMware	Download: <a href="http://www.ghm-group.de/en/info-desk/">www.ghm-group.de/en/info-desk/</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