

## Product information

## Analysis - Conductivity

# Digital Conductivity- Converter CONDIX4623



- Digital, conductive 4-electrode flow-converter
- 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  $\mu\text{S}/\text{cm}$  up to 0..500  $\text{mS}/\text{cm}$
- Resistant against pollution
- Not influenced by polarisation effect or wire resistive

## 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 GHMware configuration software. Application dependent six different types of temperature compensation are available. The 4-electrode measurement principle with a cell constant of  $0.5 \text{ 1/cm}$  is suitable for a range of applications up to 500  $\text{mS}/\text{cm}$ . Applications can be found in the water treatment of landfill seeping water, seawater or black water treatment on ships.

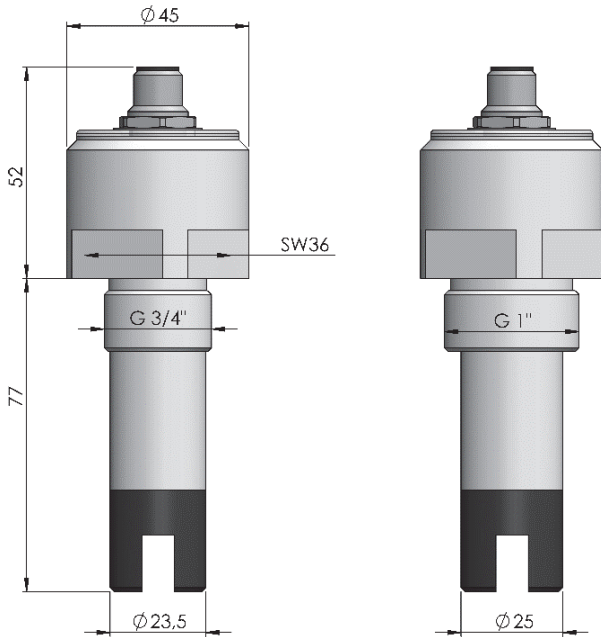
## Technical data

<b>Power supply</b>	
Supply voltage	: 4,7..28 V DC, max. 60 mA
CE-conformity	: EN 61326-1:2013 EN 61326-2-3:2013
<b>Inputs</b>	
Cell constant	: $C = 0,5 \text{ 1/cm}$ (exact cell constant labelled on the type plate)
<b>Measuring range</b>	
Conductivity	: 0..20 $\mu\text{S}/\text{cm}$ up to 0..500 $\text{mS}/\text{cm}$
Temperature	: -50..+200°C
<b>Basic accuracy</b>	
Conductivity	: 1% of the measuring value
Temperature	: 0,2 K
<b>Linearization errors</b>	
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
<b>Material</b>	
Process material	: PVDF, casting resin, graphite (electrodes)
Viewing window	: Acrylic glass (PMMA)
<b>Electrical connection</b>	
Design	: 8 pole round connector plug M12x1, IP67
Material	: brass nickel plated
Interface	: RS485, Half-Duplex
Protocol	: 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

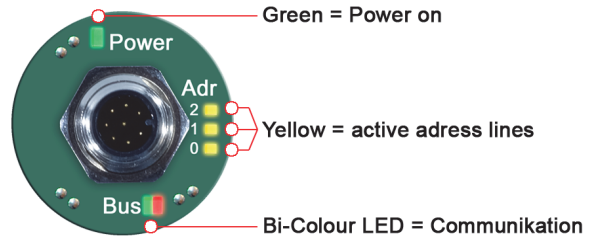
**Product information**

**Analysis - Conductivity**

**Dimensions**



**Optical signalling**



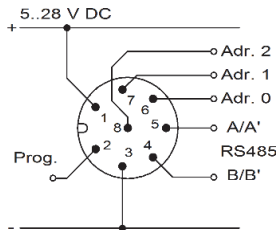
Top view CONDIX4623: Optical signalling for supply voltage, bus communication and addressing.

**Ordering code**

CONDIX 1. 2. 3. 4. 5.  
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**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.

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

**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