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). 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 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.

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

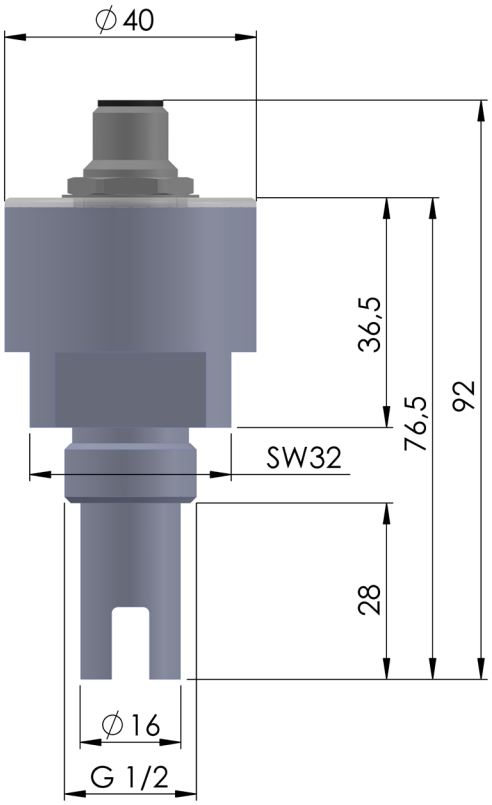
ACCURATE & RELIABLE
- Resistant against pollution
- Not influenced by polarisation effect or wire resistive

GREAT FLEXIBILITY
- 6 types of temperature compensation selectable

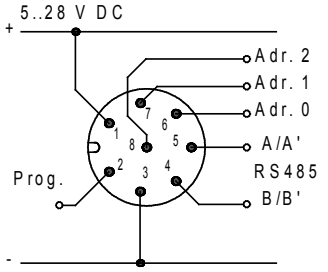
Technical Data

Power supply	
Supply voltage	4.7..28 V DC, max. 60 mA
Conformity	CE
Inputs	
Cell constant	C = 0.4 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	0.10%
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	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.

senseca

Ordering code

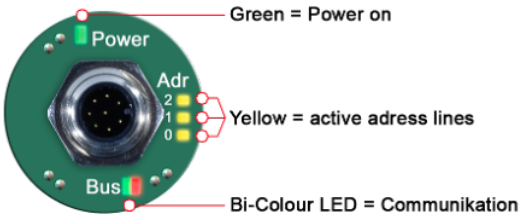
	1.		2.		3.		4.		5.
CONDIX		-		-		-		-	

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

Accessories

Art. No.	Type	Description
-	SENSware	Download: www.senseca.com
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.

Senseca Germany GmbH
Tenter Weg 2-8 | 42897 Remscheid | GERMANY
www.senseca.com | info@senseca.com