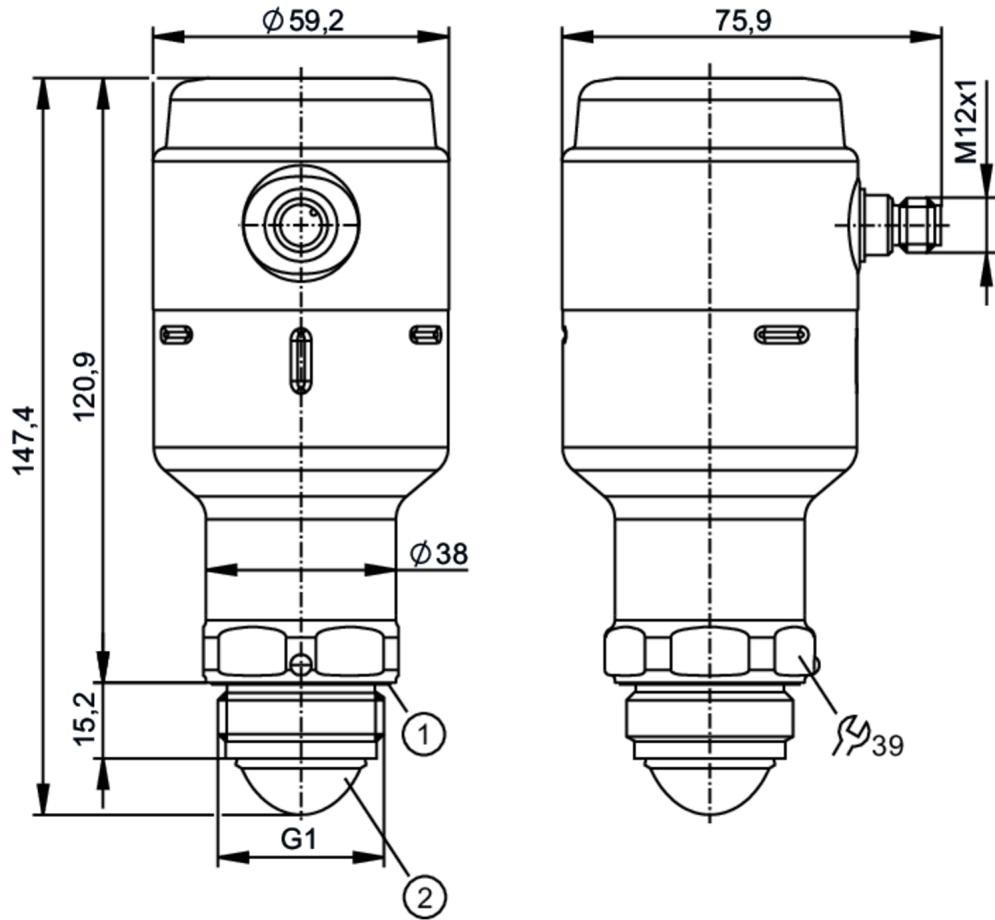


Continuous level sensor

NON-CONTACT LEVEL TRANSMITTER

An IO-Link master and a parameter setting software (e.g. moneo or LR DEVICE) are required for initial set-up.

For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher. use according to FDA compliance only in conjunction with a hygienic adapter



1 sealing
2 Antenna



Product characteristics

Number of inputs and outputs Number of digital outputs: 1; Number of analog outputs: 1

Process connection G 1 Aseptoflex Vario

Application

System gold-plated contacts

Dielectric constant of the medium ≥ 2

Recommended media water; water-based media

Process temperature $^{\circ}\text{C}$ -40...150; (see diagram and note under remarks)

Maximum speed of the change of level [mm/s] 200

Pressure rating [bar] 8

Note on pressure rating 0 bar at medium temperature $< -20\text{ C}$

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Continuous level sensor

NON-CONTACT LEVEL TRANSMITTER

Vacuum resistance	[mbar]	-1000
MAWP (for applications according to CRN)	[bar]	8
Radio approval for		EU/RED; Great Britain; South Korea; USA; Canada; Australia; New Zealand; Vietnam; Singapore; Argentina; Brazil; Japan; Taiwan; South Africa; Mexico
Note on radio approval		The list of countries applying the European Radio Equipment Directive 2014/53/EU (RED) can be found under "Downloads".
Electrical data		
Operating voltage	[V]	18...30 DC
Current consumption	[mA]	< 80
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	< 15
Measuring principle		FMCW (80 GHz technology); frequency range 77 - 81 GHz
Inputs / outputs		
Number of inputs and outputs		Number of digital outputs: 1; Number of analog outputs: 1
Outputs		
Total number of outputs		2
Output signal		switching signal; analog signal; IO-Link
Electrical design		PNP/NPN
Number of digital outputs		1; (2 configurable)
Output function		normally open / closed; (configurable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	50
Number of analog outputs		1
Analog current output	[mA]	4...20, invertible; (scalable)
Max. load	[Ω]	$43,5 * (U_b - 18) + 600 \Omega$
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
Overload protection		yes
Measuring/setting range		
Measuring range	[m]	10; (see diagram:)
Sampling rate	[Hz]	> 3
Accuracy / deviations		
Accuracy		± 2 mm
Resolution	[mm]	1
Zero signal (current)	[mA]	3.8
Full signal (current)	[mA]	20.5
Temperature drift per 10 K		± 1 mm
Reaction times		
Response time	[ms]	330

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Continuous level sensor

NON-CONTACT LEVEL TRANSMITTER



Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles	Smart Sensor - SSP 3.1 Common - I&D Function	Measuring Sensor Identification and Diagnosis Multiple switching signal
SIO mode		yes
Required master port class		A
Process data analog		1
Process data binary		2
Min. process cycle time [ms]		6
Supported DeviceIDs	Type of operation default	DeviceID 1611
Operating conditions		
Ambient temperature [°C]		-40...80
Note on ambient temperature		see diagram:
Storage temperature [°C]		-40...90
Protection		IP 68; IP 69K
Tests / approvals		
EMC	DIN EN 61326-1	group 1: Class A (IO-Link active); B (IO-Link not active, with analog and switching outputs)
Shock resistance	DIN EN 60068-2-27	50 g (11 ms) / 20 g (6 ms)
Vibration resistance	IEC 61298-3	2 g (10...1000 Hz)
MTTF [years]		330
Mechanical data		
Weight [g]		723.8
Material		stainless steel (1.4404 / 316L); PA; FKM; FVMQ
Materials (wetted parts)		PTFE; EPDM; FVMQ when used without Aseptoflex Vario adapter
Process connection		G 1 Aseptoflex Vario
Surface characteristics Ra/Rz of the wetted parts		Ra < 0.76 µm
Remarks		
Notes	An IO-Link master and a parameter setting software (e.g. moneo or LR DEVICE) are required for initial set-up.; For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.; use according to FDA compliance only in conjunction with a hygienic adapter	
Pack quantity	1 pcs.	

Continuous level sensor

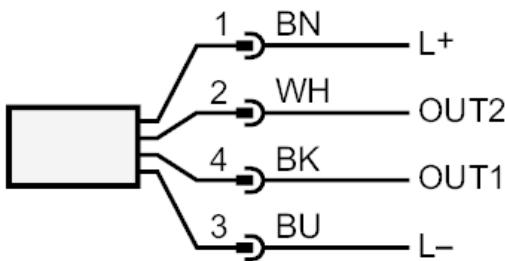
NON-CONTACT LEVEL TRANSMITTER

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



OUT1: Switching output IO-Link

OUT2: Switching output analog output

Colors to DIN EN 60947-5-2

Core colors :

BK = black

BN = brown

BU = blue

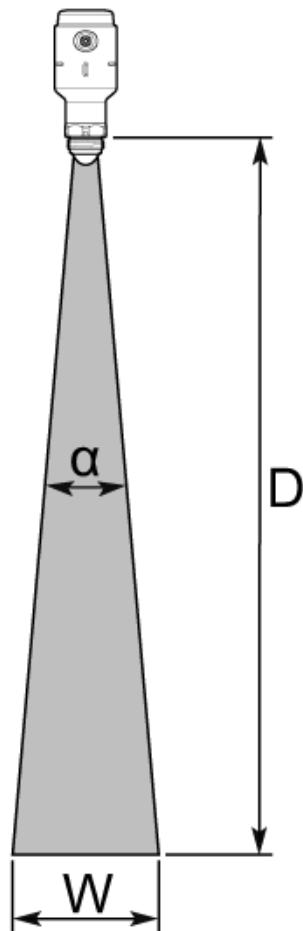
WH = white

Continuous level sensor

NON-CONTACT LEVEL TRANSMITTER

Diagrams and graphs

Angle of radiation



distance
(D) Beam width (W) 8° (with antenna extension) / 10° (without antenna extension)

2 m 0.3 m / 0.4 m

4 m 0.6 m / 0.7 m

6 m 0.8 m / 1.1 m

8 m 1.1 m / 1.4 m

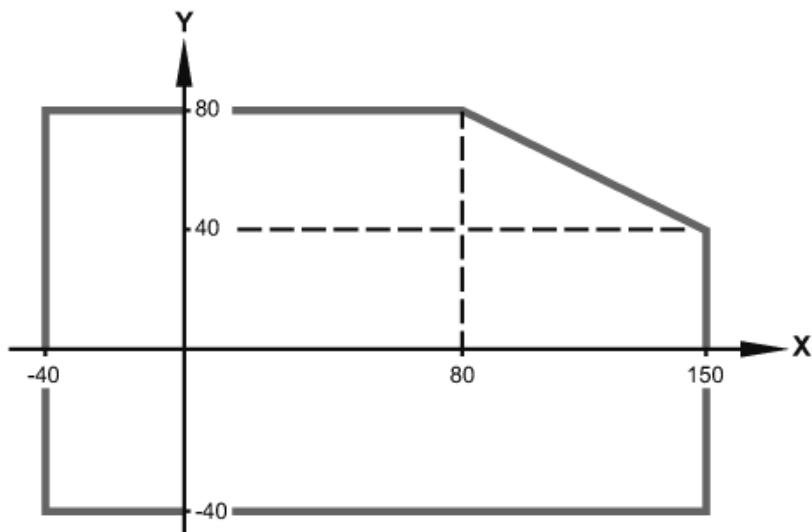
10 m 1.4 m / 1.8 m

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NON-CONTACT LEVEL TRANSMITTER



X process temperature °C

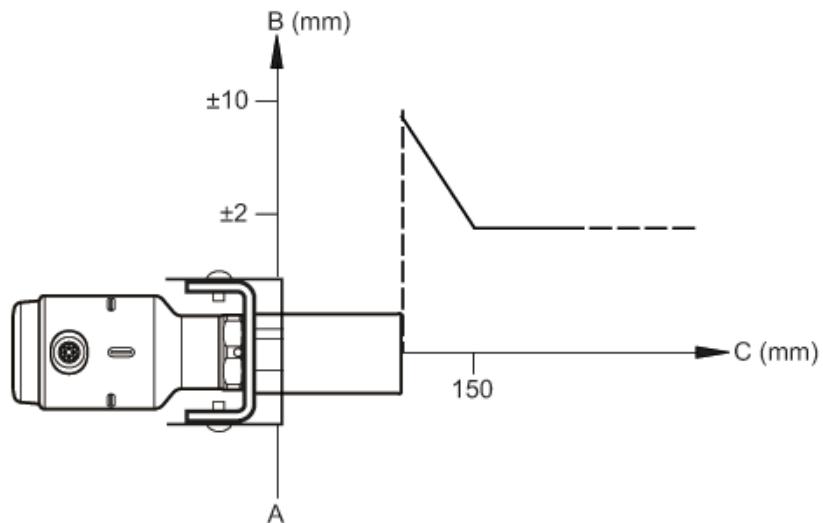
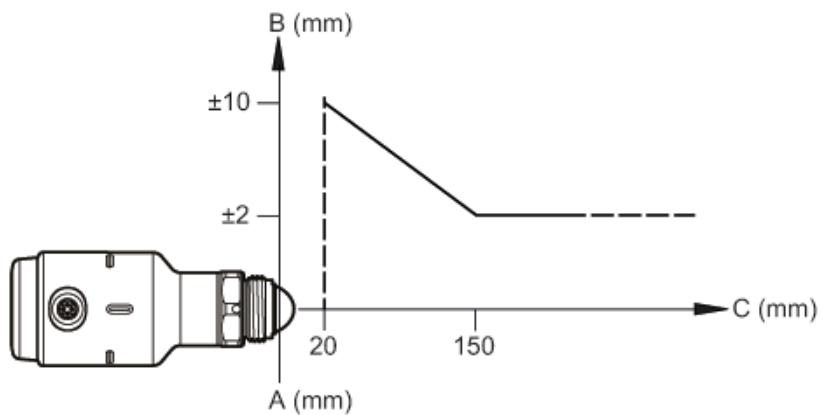
Y Ambient temperature °C

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Continuous level sensor

NON-CONTACT LEVEL TRANSMITTER



- A device reference point
- B Accuracy
- C distance