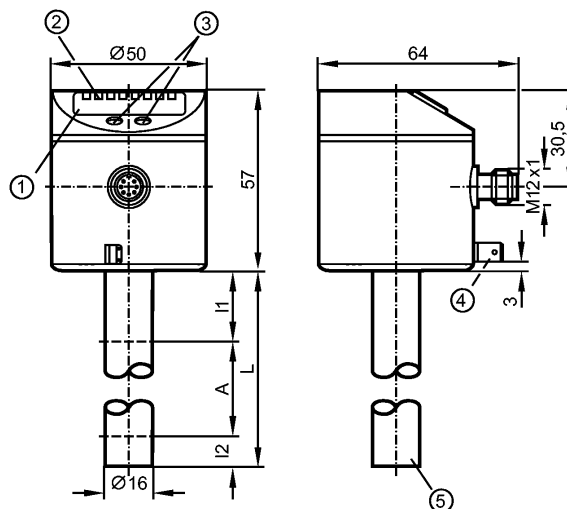


Technical note: PDF



- 1: 4-digit alphanumeric display
- 2: status LEDs
- 3: Programming buttons
- 4: Housing connection (flat-pin connector 6.3 mm following DIN 46244)
- 5: Position of the temperature measuring element



Product characteristics

Electronic level and temperature sensor

Quick disconnect

Probe length: L = 472 mm

2 outputs for level monitoring (OUT1, OUT2)
2 outputs for temperature monitoring (OUT3, OUT4)

4-digit alphanumeric display

Application

Application	oils
Recommended media	oils
Dielectric constant medium	> 2
Medium temperature oil	
- Continuous [°C]	0...70
- Short time [°C]	0...90
Maximum speed of the change of level [mm/s]	200

Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...30 DC 1)
Current consumption [mA]	< 60
Protection class	III
Reverse polarity protection	yes

Outputs

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Level sensors

Output	2 outputs for level monitoring (OUT1, OUT2) 2 outputs for temperature monitoring (OUT3, OUT4)	
Output function	2 x normally open / closed programmable (level) 2 x normally open / closed programmable (temperature)	
Current rating [mA]	200	
Voltage drop [V]	< 2.5	
Short-circuit protection	thermal, pulsed	
Overload protection	yes	
Measuring / setting range		
Probe length L [mm]	472	
Active range A [mm]	390	
Inactive range I1 / I2 [mm]	53 / 30	
Setting range		
Set point, SP [mm]	40...390	
Reset point, rP [mm]	35...385	
in steps of [mm]	5	
Hysteresis [mm]	5	
Reference point OP [mm]	139 - 163 - 188 - 212 - 236 - 261 - 285 - 310 - 334 - 358 - 383 - 407	
Hysteresis OP [mm]	3	
Temperature monitoring		
Measuring range [°C]	-10...100 **)	
Set point, SP [°C]	0.5...90	
Reset point, rP [°C]	0.0...89.5	
in steps of [°C]	0.5	
Hysteresis [K]	0.5	
Accuracy / deviations		
Deviations (% of value of measuring range)		
Switch point accuracy	± 5	
Repeatability	± 2	
Resolution [mm]	5	
Temperature monitoring		
Accuracy [K]	± 1	
Resolution [K]	0.5	
Dynamic response (T09) [s]	90 (DIN EN 60751)	
Reaction times		
Power-on delay time [s]	3	
Software / programming		
Programming options	hysteresis / window function; N.O. / N.C; position of SP/rP; position of OP; OP adjustment; medium adjustment; offset; display unit	
Environment		
Ambient temperature [°C]	0...60	
Storage temperature [°C]	-25...80	
Maximum vessel pressure [bar]	0.5 (mounted with mounting accessories E43001 - E43007)	
Protection	IP 67	
Tests / approvals		

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Level sensors

EMC	EN 61000-4-2 ESD:	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated:	10 V/m
	EN 61000-4-4 Burst:	2 kV
	EN 61000-4-5 Surge:	0.5/1 kV
	EN 61000-4-6 HF conducted:	10 V
Shock resistance	DIN EN 60068-2-29:	15 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	5 g (10...2000 Hz)
MTTF [Years]		195

Mechanical data

Materials (wetted parts)	PP (polypropylene)
Housing materials	FKM; NBR; PBT; PC; PP; TPE / V; stainless steel
Weight [kg]	0.398

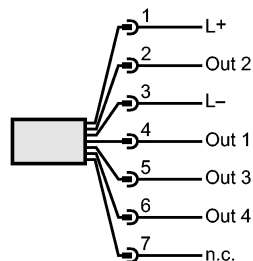
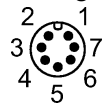
Displays / operating elements

Display	Display unit 4 x LED green (cm, inch, °C, °F) Switching status 4 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display
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Electrical connection

Connection	M12 connector (according to EN 61076-2-101); gold-plated contacts
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Wiring



n.c. = not connected

Remarks

Remarks	**) permissible medium temperature: see line "medium temperature" ¹) cULus - Class 2 source required
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Pack quantity [piece]	1
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