

TN7430

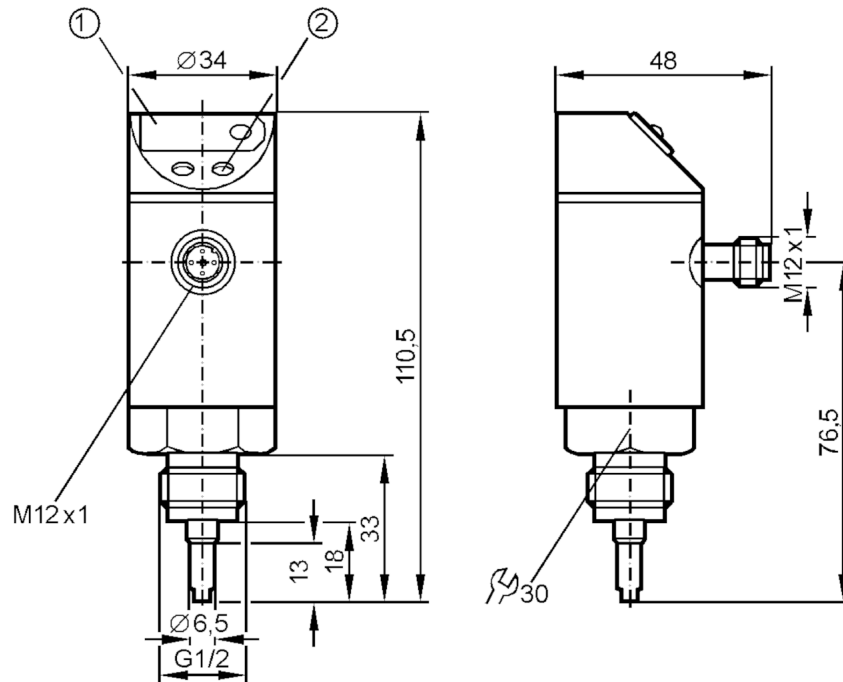


Temperature sensor with display

TN-013KBBR12-QFPKG/US/ IV

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replaced by: TN2405



- 1 7-segment LED display
2 programming button



Application

Measuring element	1 x Pt 1000; (to DIN EN 60751, class B)
Media	Liquids
Pressure rating [bar]	400
Minimum installation depth [mm]	15

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 50
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	1.5
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2
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Outputs		
Total number of outputs		2
Output signal		switching signal
Electrical design		PNP
Number of digital outputs		2
Output function		normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching output DC	[mA]	250
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Measuring/setting range		
Measuring range	-40...125 °C	-40...257 °F
Set point SP	-39.5...125 °C	-39...257 °F
Reset point rP	-40...124.5 °C	-40...256 °F
In steps of	0.5 °C	1 °F
Resolution		
Resolution of switching output	[K]	0.5
Resolution of display	[K]	0.5
Accuracy / deviations		
Switch point accuracy	[K]	± (Pt 1000 + 0,2 K)
Display accuracy	[K]	± (Pt 1000 + 0,2 K + ½ Digit)
Temperature drift per 10 K	[K]	0.1
Response times		
Dynamic response T05 / T09	[s]	5 / 20; (to DIN EN 60751)
Software / programming		
Adjustment of the switch point		programming button
Parameter setting options		hysteresis / window; normally open / normally closed; min/max memory reset; Display unit; zero-point calibration
Operating conditions		
Ambient temperature	[°C]	-25...70
Storage temperature	[°C]	-40...100
Protection		IP 67
Tests / approvals		
EMC	DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)

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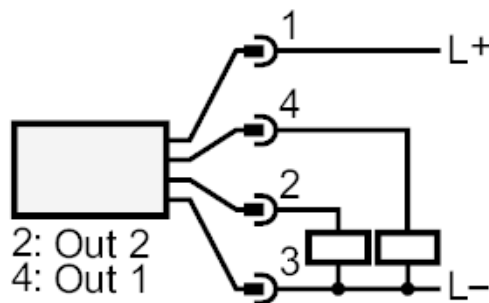
Mechanical data		
Materials	stainless steel (1.4301 / 304); EPDM/X; CO-PC; PBT; FKM; PA	
Materials (wetted parts)	stainless steel (1.4305 / 303)	
Process connection	threaded connection G 1/2 external thread	
Displays / operating elements		
Display	switching status	2 x LED, red
	function display	7-segment LED display
	measured values	7-segment LED display
Remarks		
Remarks	The values for accuracy apply to flowing water.	
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



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