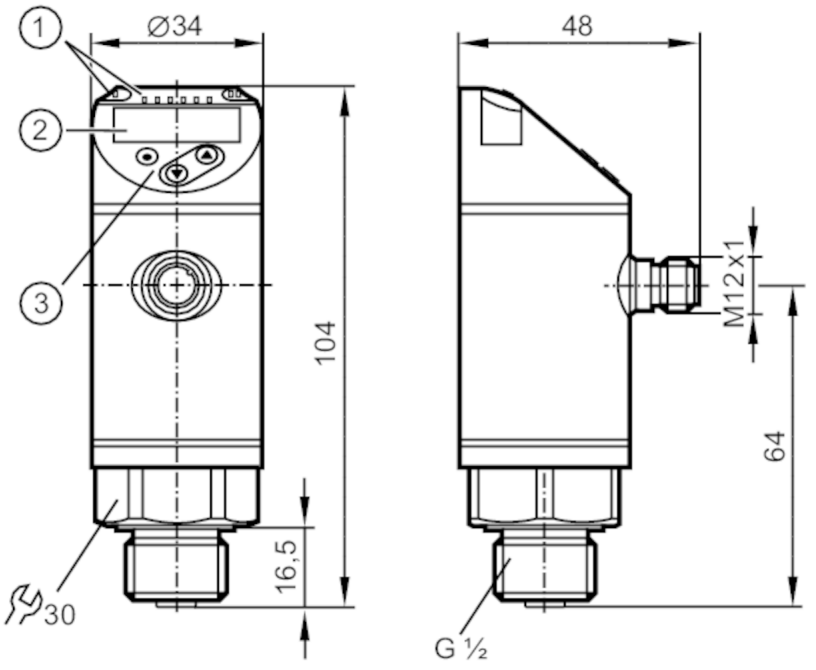
TR7439

Evaluation unit with display for PT100/PT1000 temperature sensors

TR-000KDBM12-QFPKG/US/



1 LEDs Display unit / switching status
2 alphanumeric display 4-digit red/green
3 programming buttons

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2	
Measuring range		-100...600 °C	-148...1112 °F
Communication interface		IO-Link	
Process connection		threaded connection G 1/2 external thread	
Application			
Special feature		Gold-plated contacts	
Application		for Pt100 and Pt1000 measuring elements	
Electrical data			
Operating voltage	[V]	18...32 DC; ("supply class 2" to cULus)	
Current consumption	[mA]	< 50	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	1	
Integrated watchdog		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2	
Outputs			
Total number of outputs		2	
Output signal		switching signal; IO-Link; (configurable)	
Electrical design		PNP/NPN	

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Number of digital outputs		2	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC	[V]	2.5	
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		-100...600 °C	-148...1112 °F
Set point SP		-99.8...600 °C	-147.6...1112 °F
Reset point rP		-100...599.8 °C	-148...1111.6 °F
In steps of		0.1 °C	0.1 °F
Resolution			
Resolution of switching output	[K]	0.1	
Resolution of display	[K]	0.1	
Accuracy / deviations			
Switch point accuracy	[K]	± 0,3 + (± 0,1 % MS)	
Display accuracy	[K]	± 0,3 + (± 0,1 % MS)	
Temperature coefficient [% of the span / 10 K]		0,1; (in case of deviation from the reference condition 25 ± 5 °C)	
Response times			
Response time	[ms]	390	
Software / programming			
Parameter setting options		hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping; Display unit	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
Profiles		Smart Sensor - SSP 0	Generic Profiled Sensor
		Function	Device identification
		Function	Process data variable
		Function	Device diagnosis
Min. process cycle time	[ms]	2.3	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	585
Operating conditions			
Ambient temperature	[°C]	-25...80	
Storage temperature	[°C]	-40...100	
Protection		IP 67	

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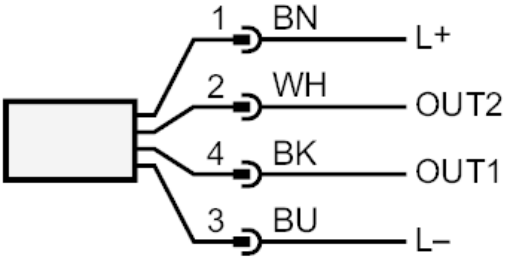
Tests / approvals			
EMC		DIN EN 61000-6-3	
		DIN EN 61000-6-2	
Shock resistance		DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance		DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	252	
Mechanical data			
Weight	[g]	198.5	
Housing		cylindrical	
Dimensions	[mm]	Ø 34 / L = 104	
Materials		Process connection: stainless steel (303/1.4305); housing: stainless steel (316L/1.4404); PBT+PC-GF30; PC; Connection: PEI; TPU; O-ring: FKM	
Process connection		threaded connection G 1/2 external thread	
Displays / operating elements			
Display		Display unit	2 x LED, green
		switching status	2 x LED, yellow
		measured values	alphanumeric display, red/green 4-digit
Remarks			
Remarks		MS = set measuring span	
Pack quantity		1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



OUT1: switching output / IO-Link
OUT2: switching output
colours to DIN EN 60947-5-2