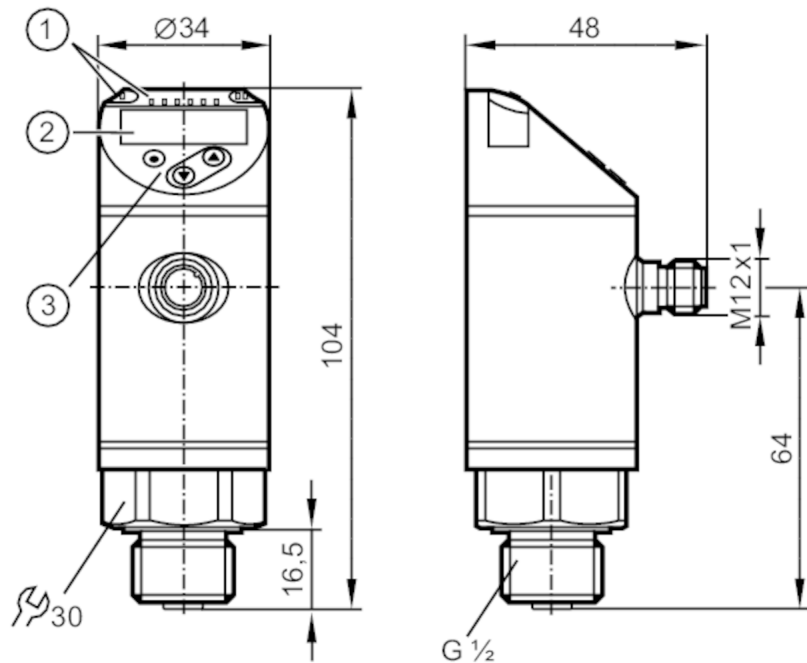




Evaluation unit with display for PT100/PT1000 temperature sensors

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

System	gold-plated contacts
Application	for Pt100 and Pt1000 measuring elements

Electrical data

Operating voltage	[V]	18...32 DC; (cULus - Class 2 source required)
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
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Outputs

Total number of outputs	2
Output signal	switching signal; IO-Link; (configurable)
Electrical design	PNP/NPN



Evaluation unit with display for PT100/PT1000

temperature sensors

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Number of digital outputs		2
Output function		normally open / closed; (configurable)
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		yes (non-latching)
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]	$\pm 0,3 + (\pm 0,1 \% \text{ MS})$
Display accuracy	[K]	$\pm 0,3 + (\pm 0,1 \% \text{ MS})$
Temperature coefficient [% of the span / 10 K]		0,1; (In case of deviation from the reference condition $25 \pm 5 \text{ °C}$)

Reaction times

Response time	[ms]	390
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Software / programming

Parameter setting options		hysteresis / window; normally open / closed; switching logic; switch-on/switch-off delay; Damping; Display unit
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Interfaces

Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1

Operating conditions

Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67

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
UL approval	UL approval number	K012

Mechanical data

Weight	[g]	198.5
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TR7439



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Material	stainless steel (1.4404 / 316L); stainless steel (1.4301 / 304); PBT+PC-GF30; PBT-GF20; PC
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

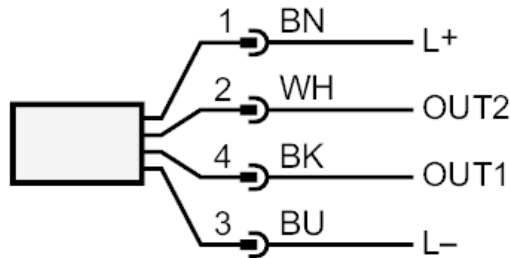
Remarks	MS = set measuring span
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1: Switching output / IO-Link
OUT2: Switching output
Colors to DIN EN 60947-5-2