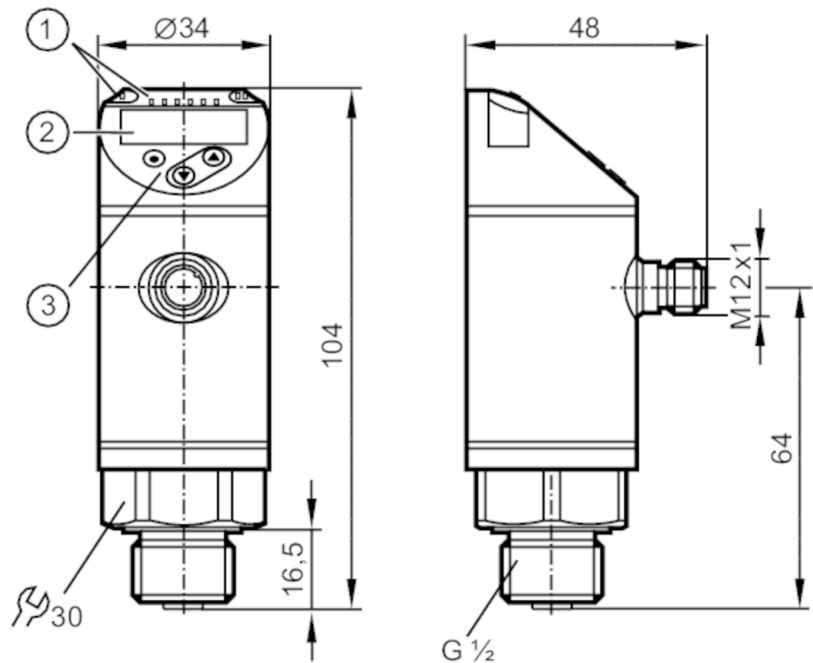




Evaluation unit with display for PT100/PT1000
temperature sensors

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 [°C]	-100...600
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
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Outputs

Total number of outputs	2
Output signal	switching signal; IO-Link; (configurable)



Evaluation unit with display for PT100/PT1000

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Electrical design		PNP/NPN
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	[°C]	-100...600
Set point SP	[°C]	-99.8...600
Reset point rP	[°C]	-100...599.8
In steps of	[°C]	0.1

Resolution

Resolution of switching output	[K]	0.1
Resolution of display	[K]	0.1

Accuracy / deviations

Switch point accuracy	[K]	$\pm 0,3 + (\pm 0,1 \% MS)$
Display accuracy	[K]	$\pm 0,3 + (\pm 0,1 \% MS)$
Temperature coefficient	[X22]	0,1; (in case of deviation from the reference condition 25 °C)

Response times

Response time	[ms]	390
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Software / programming

Parameter setting options		hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping
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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	[ANN]		252
UL approval		UL Approval no.	K012

TY7439



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Mechanical data		
Weight	[g]	190
Materials	stainless steel (1.4301 / 304); EPDM/X; PC; PBT; FPM	
Process connection	threaded connection G 1/2 external thread	

Displays / operating elements		
Display	Display unit	1 x LED, green
	switching status	2 x LED, yellow
	measured values	alphanumeric display, red/green 4-digit

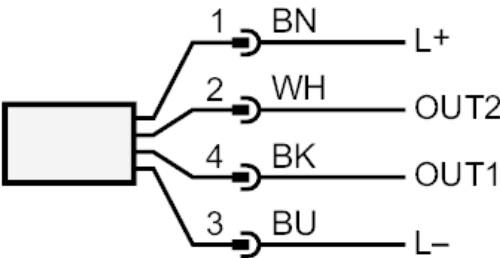
Remarks		
Remarks	MS = set measuring span	
Pack quantity	1 pcs.	

Electrical connection

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



Connection



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