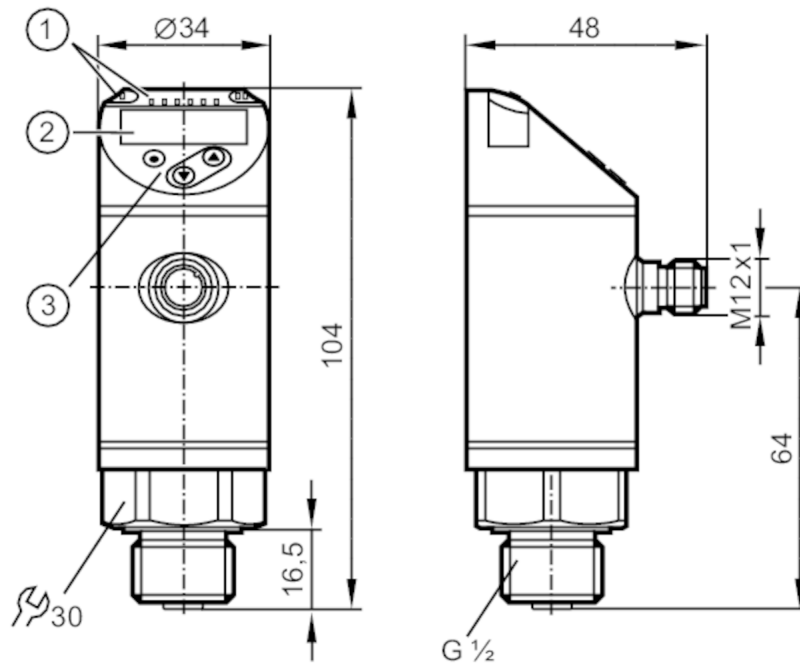




## Evaluation unit with display for PT100/PT1000 temperature sensors

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
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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

TR-000KDBM12-QFPKG/US/

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]	$\pm 0,3 + (\pm 0,1 \% MS)$
Display accuracy	[K]	$\pm 0,3 + (\pm 0,1 \% MS)$
Temperature coefficient [% of the span / 10 K]		0,1; (in case of deviation from the reference condition $25 \pm 5 \text{ °C}$ )

### 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; 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 no.	K012

### Mechanical data

Weight	[g]	198.5
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# TR7439



## Evaluation unit with display for PT100/PT1000 temperature sensors

TR-000KDBM12-QFPKG/US/

Materials	stainless steel (316L/1.4404); stainless steel (304/1.4301); 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

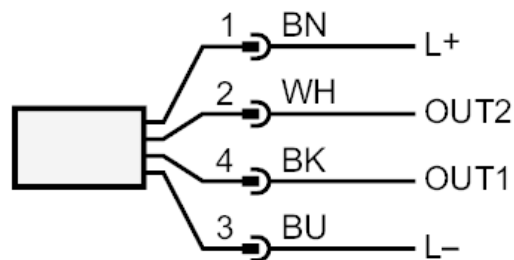
Remarks	MS = set measuring span
Pack quantity	1 pcs.

### Electrical connection

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



### Connection



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