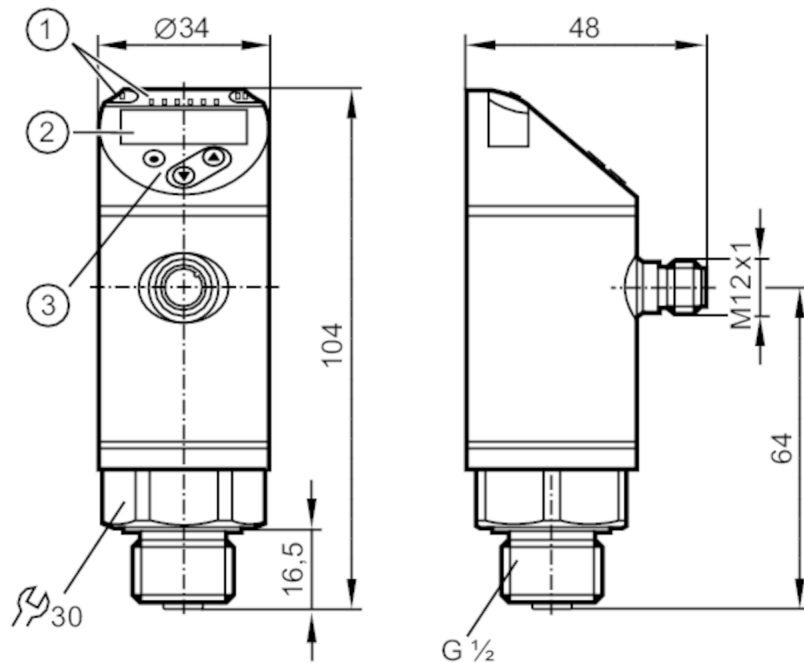




Evaluation unit with display for PT100/PT1000 temperature sensors

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
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
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 [% of the span / 10 K]		0,1; (in case of deviation from the reference condition 25 °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
Interfaces		
Communication interface		IO-Link
Transmission type		COM 2 (38,4 kBaud)
IO-Link revision		1.1
Operating conditions		
Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67

TY7439



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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
UL approval	UL Approval no.	K012

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

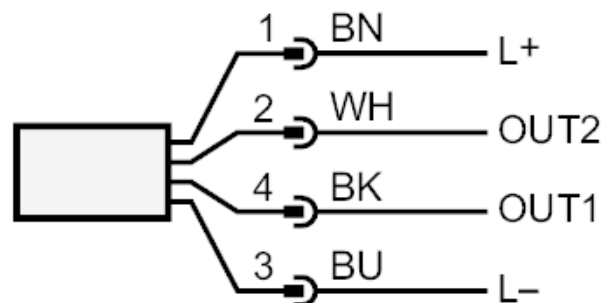
Remarks	MS = set measuring span
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



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