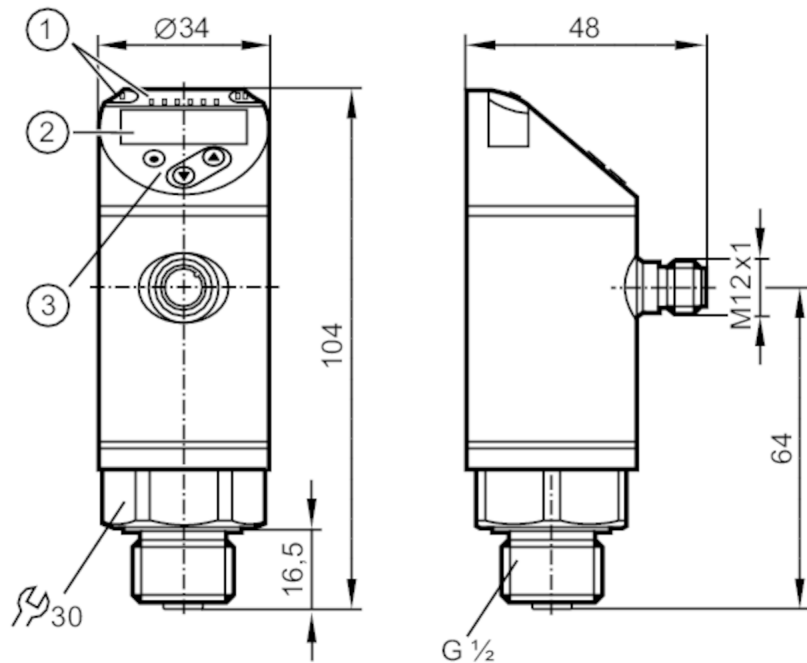


TR2439



Evaluation unit with display for PT100/PT1000 temperature sensors

TR-000KDBM12-MFPKG/US/



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



Application

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



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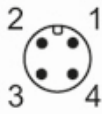
Outputs		
Total number of outputs		2
Output signal		switching signal; analogue signal; IO-Link; (configurable)
Electrical design		PNP/NPN
Number of digital outputs		1
Output function		normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	250
Number of analogue outputs		1
Analogue current output	[mA]	4...20
Max. load	[Ω]	500
Analogue voltage output	[V]	0...10
Min. load resistance	[Ω]	2000
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Measuring/setting range		
Measuring range		-100...600 °C -148...1112 °F
Factory setting		-40...300 °C / -40...572 °F
Set point SP		-99.8...600 °C -147.6...1112 °F
Reset point rP		-100...599.8 °C -148...1111.6 °F
Analogue start point		-100...595 °C -148...1103 °F
Analogue end point		-95...600 °C -139...1112 °F
In steps of		0.1 °C 0.1 °F
Resolution		
Resolution of switching output	[K]	0.1
Resolution of analogue output	[K]	current output: MS / 4096; voltage output: MS / 3561
Resolution of display	[K]	0.1
Accuracy / deviations		
Switch point accuracy	[K]	± 0,3 + (± 0,1 % MS)
Precision analogue output	[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
Max. response time analogue output	[ms]	390
Software / programming		
Parameter setting options		hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping; Display unit; current/voltage output

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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]	233	
UL approval	UL Approval no.	K011
Mechanical data		
Weight [g]	199.2	
Materials	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	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		
		

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Evaluation unit with display for PT100/PT1000 temperature sensors

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Connection



OUT1: switching output / IO-Link

OUT2: analogue output

colours to DIN EN 60947-5-2