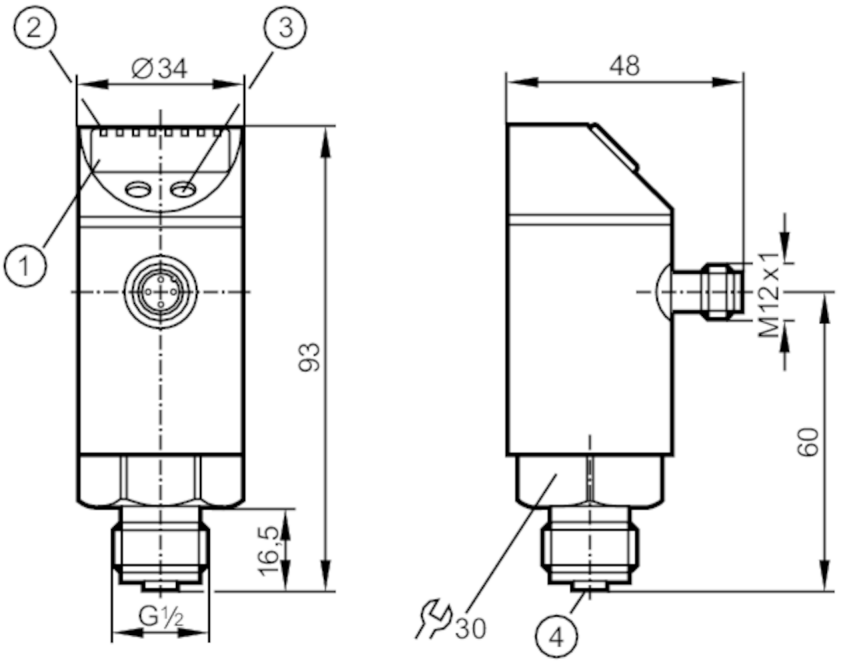
TR2432

Evaluation unit with display for PT100/PT1000 temperature sensors

TR-...KDBR12-MFRKG/US/...../V

phase-out article

Alternative articles: TR2439
When selecting an alternative article and accessories please note that technical data may differ!



1 alphanumeric display 4-digit
2 status LEDs
3 programming button
4 connector for temperature sensor M12 x 1

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range		-40...300 °C	-40...572 °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: 1; Number of analogue outputs: 1	

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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	
Permanent current rating of switching output DC	[mA]	250	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20; (response time analogue output: 384 ms)	
Max. load	[Ω]	(Ub - 10 V) x 50	
Analogue voltage output	[V]	0...10; (response time analogue output: 384 ms)	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		-40...300 °C	-40...572 °F
Set point SP		-39.8...300 °C	-39.6...572 °F
Reset point rP		-40...299.8 °C	-40...571.6 °F
Analogue start point		-40...295 °C	-40...563 °F
Analogue end point		-35...300 °C	-31...572 °F
In steps of		0.1 °C	0.1 °F
Resolution			
Resolution of switching output	[K]	0.1	
Resolution of analogue output	[K]	0.1	
Resolution of display	[K]	0.1	
Accuracy / deviations			
Switch point accuracy	[K]	± 0,3	
Precision analogue output	[K]	± 0,3	
Display accuracy	[K]	± 0,3	
Temperature drift per 10 K	[K]	0.1	
Response times			
Response time	[ms]	130	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.0	
Min. process cycle time	[ms]	2.3	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	89

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Operating conditions			
Ambient temperature	[°C]	-25...70	
Storage temperature	[°C]	-40...85	
Protection		IP 67	
Tests / approvals			
EMC		DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
		EN 61000-4-3 HF radiated	10 V/m
		DIN EN 61000-4-4 Burst	2 kV
		DIN EN 61000-4-5 Surge	1 kV
		EN 61000-4-6 HF conducted	10 V
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]	207	
Mechanical data			
Weight	[g]	231.2	
Housing		cylindrical	
Dimensions	[mm]	Ø 34 / L = 93	
Materials		stainless steel (304/1.4301); EPDM/X; PC; PBT; FKM	
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, 4-digit
		programming	alphanumeric display, 4-digit
Remarks			
Pack quantity		1 pcs.	
Electrical connection			

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated

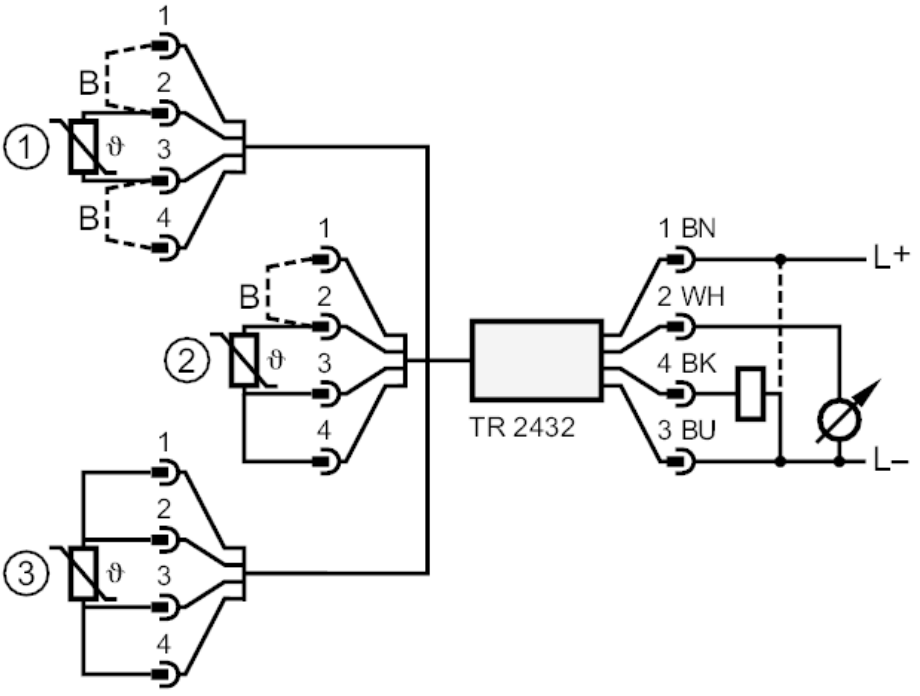


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Connection



1 =	two-wire sensor
2 =	three-wire sensor
3 =	four-wire sensor
B =	link