



Evaluation unit with display for PT100/PT1000 temperature sensors

TR-...KDBR12-QFRKG/US/...../V

phase-out article

Alternative articles: TR7439
When selecting an alternative article and accessories please note that technical data may differ!

Technical drawing of the evaluation unit showing front and side views with dimensions and callouts.

Front view dimensions: Ø34, 93, 16.5, G1/2.

Side view dimensions: 48, 60, M12 x 1, 30.

Callouts: 1 (alphanumeric display 4-digit), 2 (status LEDs), 3 (programming button), 4 (connector for temperature sensor M12 x 1).

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: 2	
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: 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	
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	-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
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]	± 0,3	
Display accuracy [K]	± 0,3	
Temperature drift per 10 K [K]	0.1	
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	90
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)



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MTTF	[years]	240
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Mechanical data		
Weight	[g]	232.6
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 93
Materials		stainless steel (304/1.4301); stainless steel (303/1.4305); 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	2 x LED, yellow
	measured values	alphanumeric display, 4-digit
	programming	alphanumeric display, 4-digit

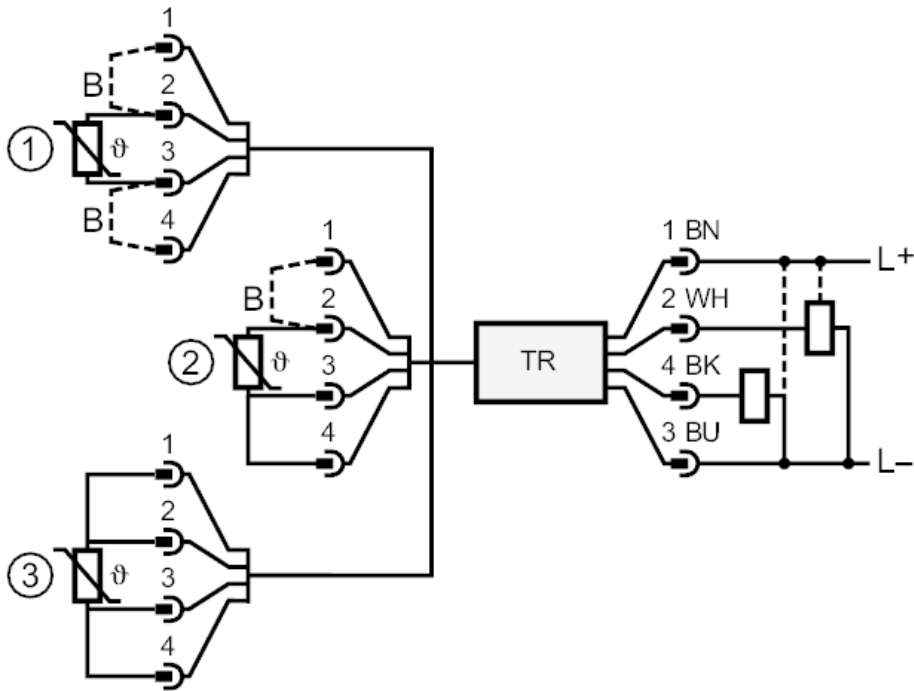
Remarks	
Pack quantity	1 pcs.

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



Connection



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