

Evaluation unit with display for PT100/PT1000 temperature sensors

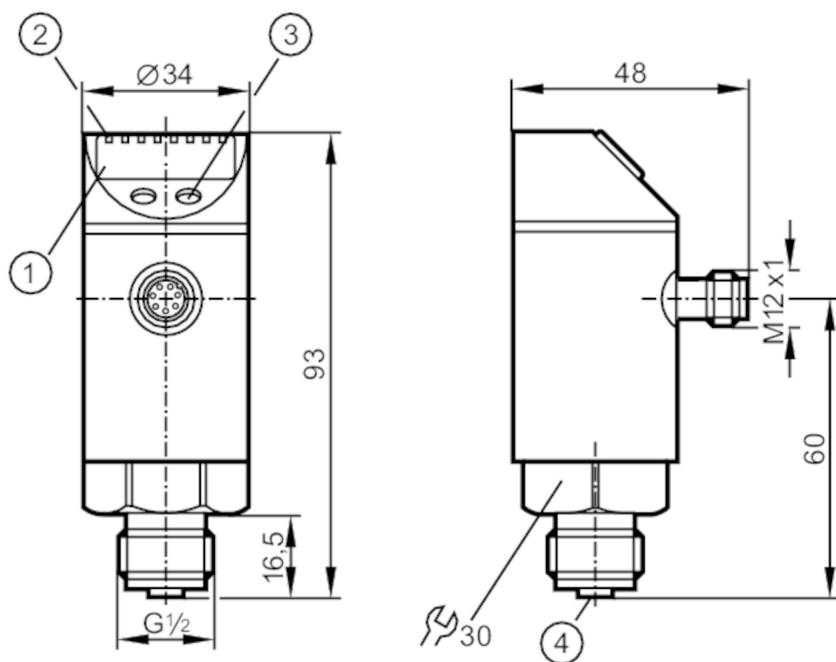
TR-...KDBR12-SFPKG/US/...../V

phase-out article

Alternative articles: TR7439

When selecting an alternative article and accessories please note that technical data may differ!

For 8-pole sockets the core colours are not standardised.
Please note the wiring of the sensor and the sockets (see data sheet).



- 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: 4	
Measuring range	-40...150 °C	-40...302 °F
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...28 DC; (to SELV/PELV)
Current consumption	[mA]	< 90; (when display is active)
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	1.5
Integrated watchdog		yes



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Inputs / outputs		
Number of inputs and outputs	Number of digital outputs: 4	
Outputs		
Total number of outputs	4	
Output signal	switching signal	
Electrical design	PNP	
Number of digital outputs	4	
Output function	normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	500; (max. value for each single output)	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Overload protection	yes	
Measuring/setting range		
Measuring range	-40...150 °C	-40...302 °F
Set point SP	-39.8...150 °C	-39.5...302 °F
Reset point rP	-40...149.8 °C	-40...301.5 °F
In steps of	0.2 °C	0.5 °F
Resolution		
Resolution of switching output [K]	0.2	
Resolution of display [K]	0.2	
Accuracy / deviations		
Switch point accuracy [K]	± 0,2	
Display accuracy [K]	± (0,2 + ½ Digit)	
Temperature drift per 10 K [K]	0.1	
Temperature coefficient [% of the span / 10 K]	in case of deviation from the reference condition 25 ± 5 °C	
Response times		
Response time [ms]	200	
Software / programming		
Adjustment of the switch point	programming button	
Parameter setting options	hysteresis / window; normally open / normally closed; min/max memory reset; Display unit; zero-point calibration	
Operating conditions		
Ambient temperature [°C]	-25...70	
Storage temperature [°C]	-40...85	
Protection	IP 67	



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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
	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]		175

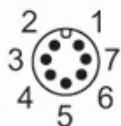
Mechanical data		
Weight [g]		265.5
Materials	stainless steel (304/1.4301); stainless steel (303/1.4305); EPDM/X; PC; PBT; FKM	
Process connection	threaded connection G 1/2 external thread	

Displays / operating elements		
Display	Display unit	2 x LED, green
	switching status	4 x LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit

Remarks		
Remarks	n.c. = not used	
	referring to UL: for use on a low voltage circuit with overcurrent protection	
	in accordance with UL873 tab. 28.1 or $I_{max} = 100/U_b$ (U_b = voltage of the circuit)	
	total current rating of the unit: max. 1 A	
	Two outputs can be switched in parallel to achieve a total current rating of 1 A.	
	Switch-on points and switch-off points and the programming of the outputs must correspond exactly.	
Pack quantity	1 pcs.	

Electrical connection

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



TR8430



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Connection

