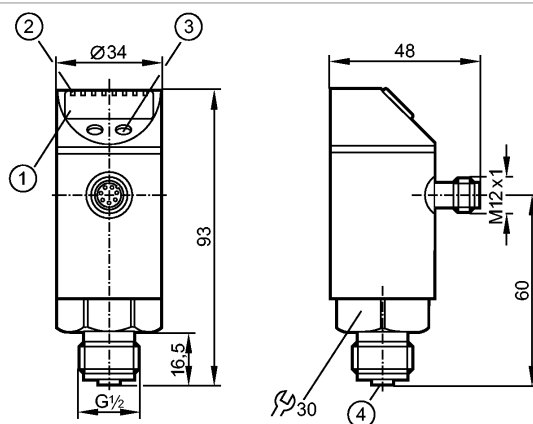


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TR-...KDBR12-SFPKG/US/...../V

Evaluation systems

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



- 1: 4-digit alphanumeric display
 2: LEDs
 3: Programming button
 4: connector for temperature sensor (M12 x 1)



Made in USA

Product characteristics

Evaluation unit for temperature sensors

Process connection: G 1/2 A

for Pt100 and Pt1000 measuring elements

Gold-plated contacts

4 switch points

4-digit alphanumeric display

Measuring range: -40...150 °C / -40...302 °F

Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...28 DC ¹⁾
Current consumption [mA]	< 90 **)
Protection class	III
Reverse polarity protection	yes

Outputs

Output	4 switch points
Output function	4 x normally open / closed programmable
Current rating [mA]	< 500 *)
Voltage drop [V]	< 2
Short-circuit protection	pulsed
Overload protection	yes

Measuring / setting range

Measuring range [°C/°F]	-40...150 / -40...302
Setting range	
Set point, SP [°C/°F]	-39.8...150 / -39.5...302
Reset point, rP [°C/°F]	-40...149.8 / -40...301.5
in steps of [°C/°F]	0.2 / 0.5
Resolution	

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Evaluation systems

Switching output	[K]	0.2
Display	[K]	0.2

Accuracy / deviations

Switch point accuracy	[K]	± 0.2
Display	[K]	± (0.2 + ½ Digit)
Temperature drift (/ 10 K)		0.1

Reaction times

Power-on delay time	[s]	1.5
Response time Switching output [ms]		200
Integrated watchdog		yes

Software / programming

Adjustment of the switch point	Programming button
Programming options	hysteresis / window; normally closed/open; min./max. memory reset; °C/°F selectable; adjustment up to ± 10 K

Environment

Ambient temperature	[°C]	-25...70
Storage temperature	[°C]	-40...85
Protection		IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m 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

Process connection	G ½ A
Housing materials	stainless steel (304S15); stainless steel (303S22); EPDM/X (Santoprene); PC (Makrolon); PBT (Pocan); FPM (Viton)
Weight	[kg] 0.256

Displays / operating elements

Display	Display unit 2 x LED green Switching status 4 x LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
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Electrical connection

Connection	M12 connector; Gold-plated contacts
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Wiring

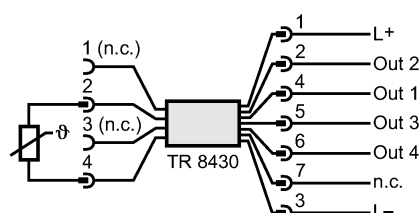
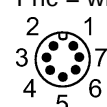
Programming of the output function:

Hno = hysteresis / N.O.

Hnc = hysteresis / N.C.

Fno = window function / N.O.

Fnc = window function / N.C.



Remarks

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Evaluation systems

Remarks

n.c. = not connected

¹⁾ to EN50178, SELV, PELV;

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).

*) max. value for each single output

total current rating of the unit: max. 1 A

2 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

**) when display is active

Pack quantity

[piece]

1

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