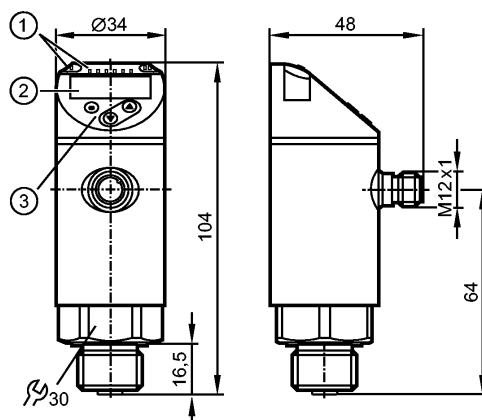


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TR-000KDBM12-MFPKG/US/

Evaluation systems



- 1: LEDs (display unit / switching status)
- 2: 4-digit alphanumeric display / alternating indication of red and green
- 3: Programming buttons



Product characteristics

Evaluation unit for temperature sensors

Process connection: G ½ A

for Pt100 and Pt1000 measuring elements

Switching output, analogue output 4...20 mA or 0...10 V

4-digit alphanumeric display

Measuring range: -100...600 °C / -148...1112 °F

Factory setting: -40...300 °C / -40...572 °F

Electrical data

Electrical design	DC PNP/NPN
Operating voltage [V]	18...32 DC; "supply class 2" to cULus.
Current consumption [mA]	< 50
Protection class	III
Reverse polarity protection	yes

Outputs

Output	Switching output, analogue output 4...20 mA or 0...10 V
Output function	1 x normally open / closed programmable + 1 x analogue (4...20 mA / 0...10 V, scalable)
Current rating [mA]	250
Voltage drop [V]	< 2.5
Short-circuit protection	pulsed
Overload protection	yes
Analogue output	4...20 mA / 0...10 V
Max. load [Ω]	4...20 mA: 500
Min. load [Ω]	0...10 V: 2000

Measuring / setting range

Measuring range	-100...600 °C	-148...1112 °F
Factory setting	-40...300 °C / -40...572 °F	
Setting range		
Set point, SP	-99.8...600 °C	-147.6...1112 °F

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Reset point, rP	-100...599.8 °C	-148...1111.6 °F
Analogue start point, ASP	-100...595 °C	-148...1103 °F
Analogue end point, AEP	-95...600 °C	-139...1112 °F
in steps of	0.1 °C	0.1 °F
Resolution		
Switching output [K]	0.1	
Analogue output [K]	MS / 4096 *) MS / 3561 **)	
Display [K]	0.1	

Accuracy / deviations

Switch point accuracy [K]	± 0.3 + (± 0.1 % MS)
Analogue output [K]	± 0.3 + (± 0.1 % MS)
Display [K]	± 0.3 + (± 0.1 % MS)
Temperature drift (/ 10 K)	0.1 % MS

Reaction times

Power-on delay time [s]	1
Response time Switching output[ms]	390
Response time analogue output	390 [ms]
Integrated watchdog	yes

Software / programming

Programming options	hysteresis / window function; NO / NC; on delay, off delay; damping; display unit; current/ voltage output
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Interfaces

IO-Link device	
Transfer type	COM2 (38.4 Kbaud)
IO-Link revision	1.1

Environment

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 number	K011

Mechanical data

Process connection	G ½ A
Housing materials	304 / 1.4301 (V2A); EPDM/X; PC; PBT; FPM
Weight [kg]	0.199

Displays / operating elements

Display	Display unit 2 x LED green Switching status LED yellow 4-digit alphanumeric display / alternating indication Measured values of red and green
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Electrical connection

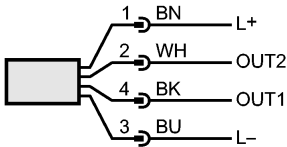
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Evaluation systems

Connection	M12 connector; Gold-plated contacts
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Wiring



OUT1: switching output or IO-Link
OUT2: Analogue output
Colours to DIN EN 60947-5-2

Remarks

Remarks	*) current output **) voltage output MS = set measuring span cULus - Class 2 source required
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Pack quantity	[piece]	1
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