



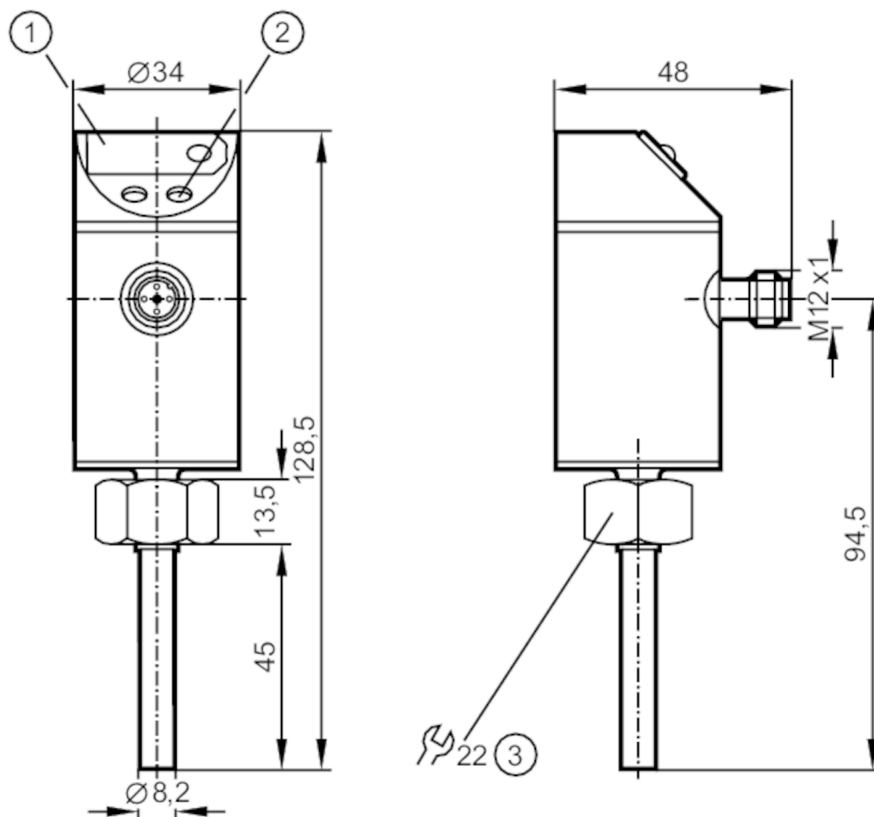
Temperature sensor with display

TN-013KBBD10-QFPKG/US/ IV

Article no longer available - archive entry

Alternative articles: TN7511

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



- 1 7-segment LED display
- 2 programming button
- 3 internal thread M18 x 1.5



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	-40...125 °C	-40...257 °F
Process connection	threaded connection M18 x 1,5 internal thread	

Application

Special feature	Gold-plated contacts	
Measuring element	1 x Pt 1000; (to DIN EN 60751, class B)	
Media	liquids and gases	
Pressure rating [bar]	300	
Minimum installation depth [mm]	15	

Electrical data

Operating voltage [V]	18...30 DC	
Current consumption [mA]	< 50	



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Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	1.5
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
Electrical design	PNP
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

Probe length L [mm]	45
Measuring range	-40...125 °C -40...257 °F
Set point SP	-39.5...125 °C -39...257 °F
Reset point rP	-40...124.5 °C -40...256 °F
In steps of	0.5 °C 1 °F

Resolution

Resolution of switching output [K]	0.5
Resolution of display [K]	0.5

Accuracy / deviations

Switch point accuracy [K]	± (Pt 1000 + 0,2 K)
Display accuracy [K]	± (Pt 1000 + 0,2 K + ½ Digit)
Temperature drift per 10 K [K]	0.1

Response times

Dynamic response T05 / T09 [s]	1 / 3; (to DIN EN 60751)
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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...100

TN7530



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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)

Mechanical data

Housing	for adapter
Materials	stainless steel (1.4301 / 304); EPDM/X; CO-PC; PBT; FKM; PA
Materials (wetted parts)	stainless steel (316L/1.4404)
Process connection	threaded connection M18 x 1,5 internal thread

Displays / operating elements

Display	switching status	2 x LED, red
	function display	7-segment LED display
	measured values	7-segment LED display

Remarks

Remarks	The values for accuracy apply to flowing water.
Pack quantity	1 pcs.

Electrical connection

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



Connection

