

TAD971



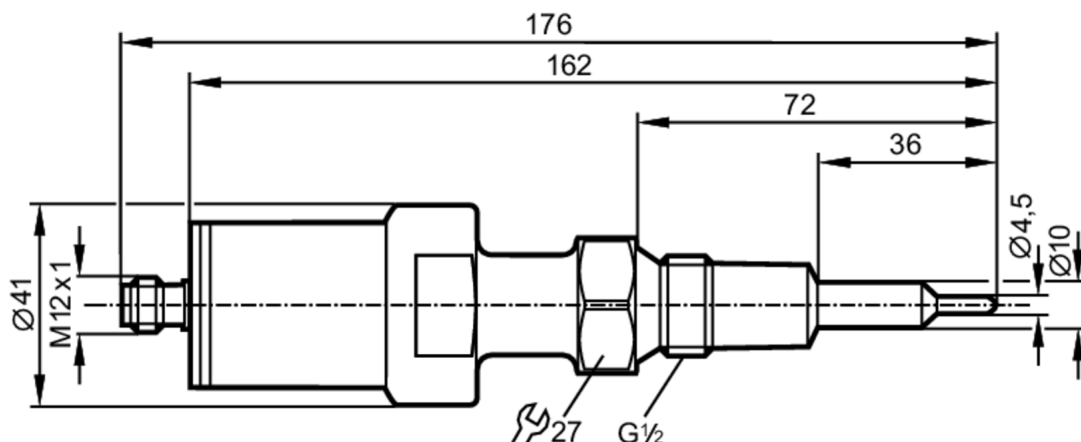
Temperature transmitter with drift detection

TAD036KLER12-A-DKG/US

Article no longer available - archive entry

Alternative articles: TAD991

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



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1	
Measuring range	0...150 °C	32...302 °F
Process connection	threaded connection G 1/2 external thread	

Application

System	gold-plated contacts	
Measuring element	1 x Pt 1000 + 1 x NTC; (thermically coupled, with backup function (temperature measuring even if one of the two sensor elements fails))	
Media	liquids and gases	
Pressure rating [bar]	50	
Minimum installation depth [mm]	15	

Electrical data

Operating voltage [V]	20...32 DC; (to SELV/PELV)	
Current consumption [mA]	23; (24 V)	
Protection class	III	
Reverse polarity protection	yes	
Power-on delay time [s]	4	
Integrated watchdog	yes	

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analog signal; (configurable)
Electrical design	PNP/NPN



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Number of digital outputs	1	
Output function	normally open / normally closed / diagnostic signal; (configurable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	250	
Diagnostic output	Drift monitoring; Fault monitoring	
Number of analog outputs	1	
Analog current output [mA]	4...20	
Max. load [Ω]	(U _b - 10 V) x 50	
Short-circuit protection	yes	
Type of short-circuit protection	yes (non-latching)	
Overload protection	yes	
Measuring/setting range		
Probe length L [mm]	36	
Measuring range	0...150 °C	32...302 °F
Drift warning	0.2...5 °C	0.4...9 °F
Drift alarm	0.2...5 °C	0.4...9 °F
In steps of	0.05 °C	0.1 °F
Resolution		
Resolution of analog output [K]	0.05	
Accuracy / deviations		
Precision analog output [K]	± 0,2 (-10...100°C); ± 0,3 (-25...-10/100...150°C); (probe completely inserted into the measured medium up to the sealing chamfer)	
Drift monitoring [K]	± 0,2 (-10...100°C); ± 0,3 (-25...-10/100...150°C *); (probe completely inserted into the measured medium up to the sealing chamfer)	
Temperature coefficient [% of the span / 10 K]	< ± 0,01	
Reaction times		
Dynamic response T05 / T09 [s]	6 / 13	
Software / programming		
Parameter setting options	drift warning/drift alarm threshold; Fail-Safe; Display unit; scaling of the analog output; redundancy switching; performance diagnostic output; switching logic; normally open / closed; Programmable via EPS interface	
Operating conditions		
Ambient temperature [°C]	-25...70	
Note on ambient temperature	electronics: -25...70 °C	
	Process connection: -32...170 °C	
Storage temperature [°C]	-40...85	
Protection	IP 67; IP 69K	
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)

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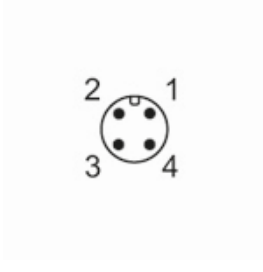
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Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
Note on approval	Including free 5-point calibration certificate.	
Mechanical data		
Material	stainless steel (1.4404 / 316L); PA; PBT	
Materials (wetted parts)	stainless steel (1.4404 / 316L)	
Process connection	threaded connection G 1/2 external thread	
Surface characteristics Ra/Rz of the wetted parts	Ra: < 0.6	
Remarks		
Remarks	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)	
Pack quantity	1 pcs.	

Electrical connection

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



Connection

