TAD171

Temperature transmitter with drift detection

TAD096KLER12-A-DKG/US

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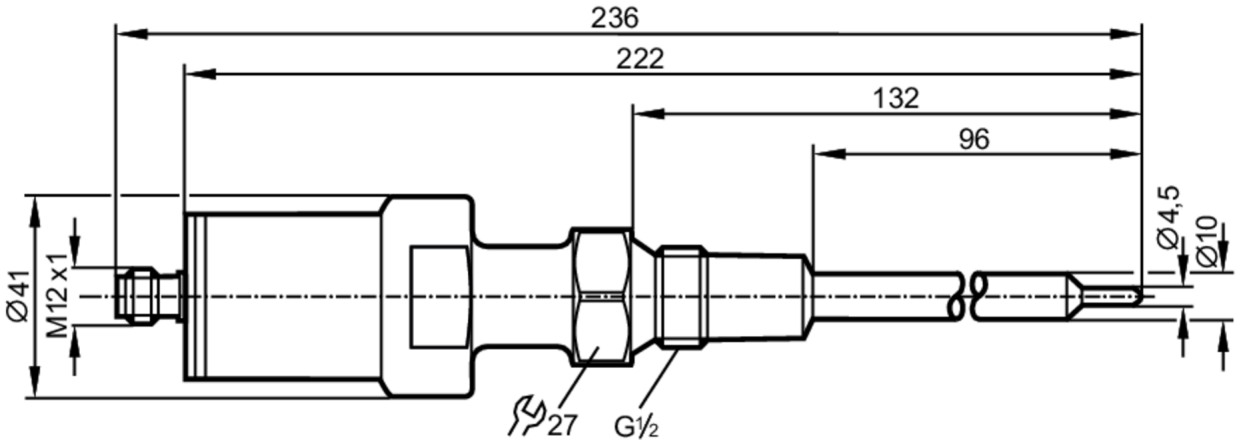
Alternative articles: TAD191

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



EHEDG Certified

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	
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]	(Ub - 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]	96	
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; (In case of deviation from the reference condition 25 ± 5 °C)	
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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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 Imax = 100/Ub (Ub = voltage of the circuit)
Pack quantity	1 pcs.

Electrical connection

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

Connection