TAD961

Temperature transmitter with drift detection

TAD040KLES30-A-DKG/US

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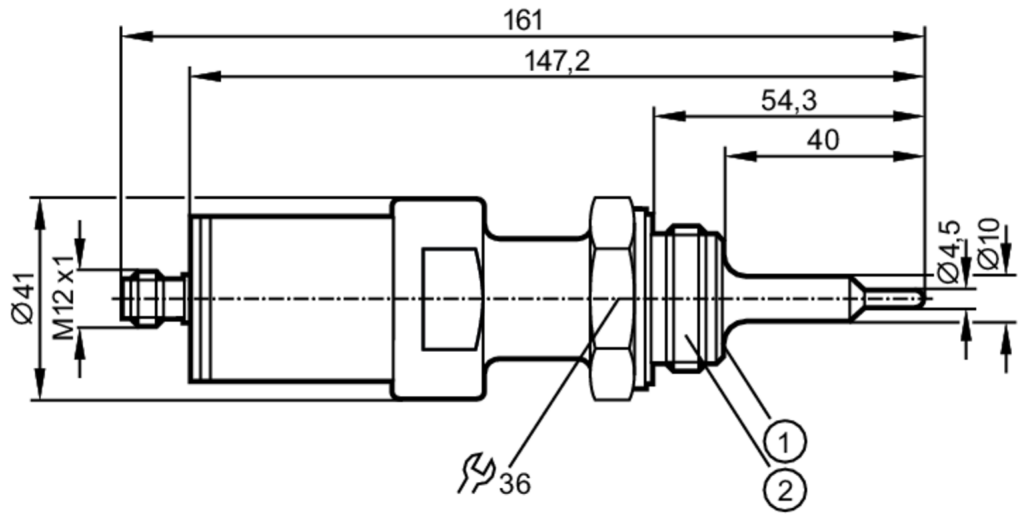
Alternative articles: TAD991 + E33403
When selecting an alternative article and accessories please note that technical data may differ!



1 sealing area
2 Aseptoflex thread

EHEDG Certified

Product characteristics		
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1
Measuring range	-25...160 °C	-13...320 °F
Process connection		Aseptoflex
Installation length EL	[mm]	40
Application		
Special feature		Gold-plated contacts
Measuring element		1 x Pt 1000 + 1 x NTC; (thermically coupled, with backup function (temperature measuring even if one element fails))
Media		liquids and gases
Pressure rating	[bar]	50
Minimum installation depth	[mm]	15
No dead space		yes
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

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Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analogue signal; (configurable)	
Electrical design		PNP/NPN	
Number of digital outputs		1	
Output function		normally open / normally closed / diagnostic signal; (parameterisable)	
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 analogue outputs		1	
Analogue current output	[mA]	4...20	
Max. load	[Ω]	(Ub - 10 V) x 50	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Probe length L	[mm]	40	
Measuring range		-25...160 °C	-13...320 °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 analogue output	[K]	0.05	
Accuracy / deviations			
Precision analogue 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)	
Response 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 analogue output; redundancy switching; performance diagnostic output; switching logic; normally open / normally 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	

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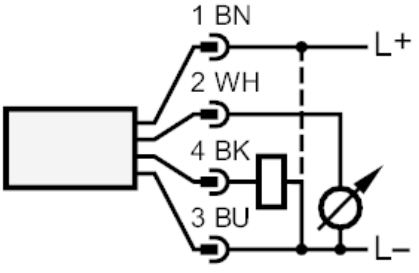
Storage temperature	[°C]	-40...85	
Protection		IP 67; IP 69K	
Tests / approvals			
EMC		DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
		EN 61000-4-3 HF radiated	10 V/m
		DIN EN 61000-4-4 Burst	2 kV
		EN 61000-4-6 HF conducted	10 V
Shock resistance		DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance		DIN EN 60068-2-6	20 g (10...2000 Hz)
Note on approval		Including free 5-point calibration certificate.	
Mechanical data			
Weight	[g]	0.456	
Materials		stainless steel (1.4404 / 316L); PEI; FKM	
Materials (wetted parts)		stainless steel (1.4404 / 316L)	
Process connection		Aseptoflex	
Surface characteristics Ra/Rz of the wetted parts		Ra: < 0.6	
Installation length EL	[mm]	40	
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)	
		The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.	
Pack quantity		1 pcs.	

Electrical connection

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

Connection