

TAD161

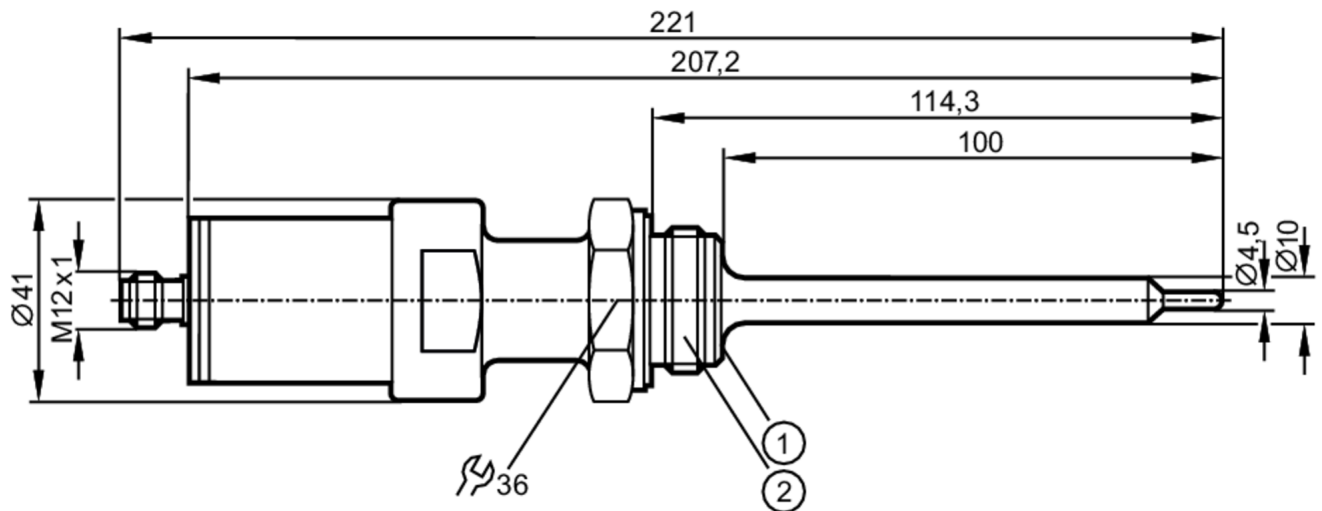


Temperature transmitter with drift detection

TAD100KLES30-A-DKG/US

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Alternative article: TAD191+E33403 When selecting an alternative article and accessories please note that technical data may differ! – 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	G 1 Aseptoflex Vario	
Installation length EL [mm]	100	

Application

Special feature	Gold-plated contacts	
Measuring element	1 x Pt 1000 + 1 x NTC; (thermally 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; (according to EN 50178 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 analogue outputs: 1
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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		diagnostic output for drift and fault monitoring	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20	
Max. load	[Ω]	(U _b - 10 V) x 50	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Probe length L	[mm]	100	
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	
Storage temperature	[°C]	-40...85	
Protection		IP 67; IP 69K	

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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)
MTTF [years]	220	
Note on approval	Including free 5-point calibration certificate.	

Mechanical data		
Weight [g]	0.468	
Materials	stainless steel (1.4404 / 316L); PEI; FKM	
Materials (wetted parts)	stainless steel (1.4404 / 316L)	
Process connection	G 1 Aseptoflex Vario	
Surface characteristics Ra/Rz of the wetted parts	Ra: < 0.6	
Installation length EL [mm]	100	

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)	
Notes	The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.	
Pack quantity	discontinued article	
	1 pcs.	

Electrical connection

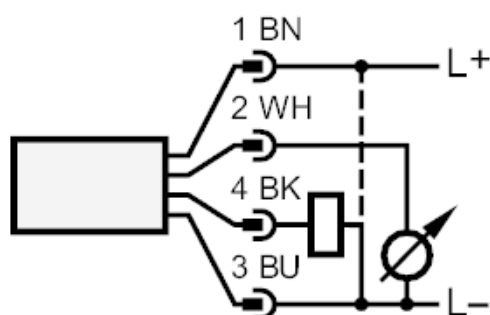
Connector: 1 x M12; Contacts: gold-plated



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Connection



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