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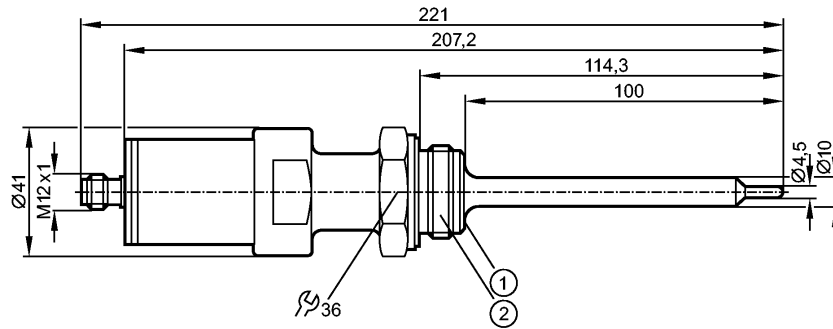
efector 600

TAD161



TAD100KLES30-A-DKG/US

Temperature sensors



1: sealing area

2: Aseptoflex thread



EHEDG Certified

Including free 5-point calibration certificate.

Product characteristics

Temperature transmitter

with diagnostic output

Process connection: for Aseptoflex adapter

Installation length EL: 100 mm

no dead space

Redundant sensor elements

with backup function

Analog output 4...20 mA

(NAMUR NE43, NE89)

Diagnostic output for drift and fault monitoring

Measuring range: -25...160 °C / -13...320 °F

Measuring element: 1 x Pt 1000 + 1 x NTC, thermally coupled, with backup function (temperature measuring even if one of the two sensor elements fails)

Application

Application

liquids and gases

Pressure rating

[bar]

50

Minimum installation depth

[mm]

15

Electrical data

Electrical design

DC PNP/NPN

Operating voltage

[V]

20...32 DC 1)

Current consumption

[mA]

23 (24 V)

Protection class

III

Reverse polarity protection

yes

Outputs

Output

Analog output 4...20 mA

(NAMUR NE43, NE89)

Diagnostic output for drift and fault monitoring

normally open / normally closed / heartbeat programmable, 4...20 mA analog

Output function

Current rating

[mA]

250

Voltage drop

[V]

< 2

Short-circuit protection

yes (non-latching)

Overload protection

yes

Analog output

4...20 mA: Rmax [Ω]: (Ub - 10 V) x 50

Measuring / setting range

Measuring range

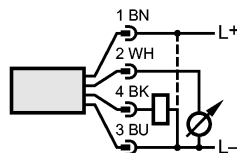
-25...160 °C

-13...320 °F

TAD161 - Temperature transmitter with diagnostic output - eclass: 27200208 / 27-20-02-08

Drift warning	°C / °F	0.20...5.00 / 0.4...9.0
Drift alarm	°C / °F	0.20...5.00 / 0.4...9.0
Setting range in steps of		0.05 °C 0.1 °F
Resolution		0.05
Analog output	[K]	0.05
Accuracy / deviations		
Analog output	[K]	± 0.2 (-10...100°C); ± 0.3 (-25...-10/100...150°C) *
Temperature coefficients (in % of the span per 10 K)		< ± 0.01 **)
Drift monitoring	[K]	± 0.2 (-10...100°C); ± 0.3 (-25...-10/100...150°C) *
Reaction times		
Power-on delay time	[s]	4
Dynamic response	T05 / T09 [s]	6 / 13
Integrated watchdog		yes
Software / programming		
Programming options		Drift warning / drift alarm threshold; Fail-Safe; display unit; scaling of the analog output; redundancy switching; behaviour of the diagnostic output; output polarity; normally open / normally closed; Programmable via EPS interface
Environment		
Ambient temperature	[°C]	-25...70, operating temperature electronics: -25...70 °C operating temperature process connection: -32...+170 °C
Storage temperature	[°C]	-40...85
Protection		IP 67 / IP 69K
Tests / approvals		
EMC		EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m 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
Mechanical data		
Process connection		for Aseptoflex adapter
Materials (wetted parts)		stainless steel 316L / 1.4404; surface characteristics Ra: < 0.6
Probe length L	[mm]	100
Installation length EL	[mm]	100
Housing materials		stainless steel 316L / 1.4404; PEI; FPM
Weight	[kg]	0.468
Electrical connection		
Connection		M12 connector; gold-plated contacts

Wiring



Remarks

Remarks

The measuring range can be scaled:

-25...150 °C / -13...302 °F

1) to EN50178, SELV, PELV;

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).

*) probe completely inserted into the measured medium up to the sealing chamfer

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**) In case of deviation from the reference condition $25 \pm 5 \text{ }^\circ\text{C}$
The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.

Pack quantity	[piece]	1
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