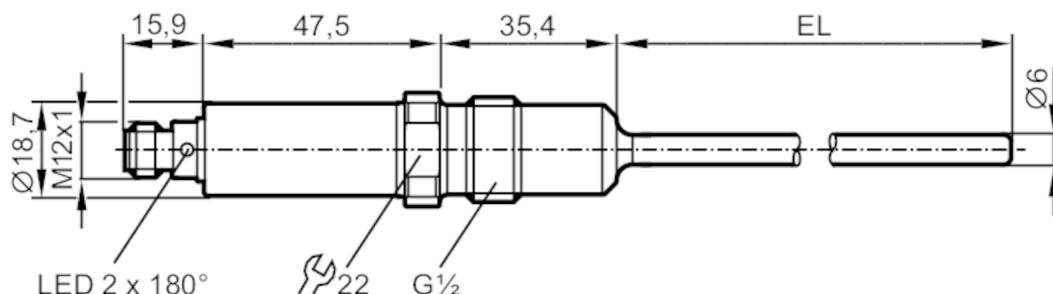


# TA2531



## Temperature transmitter

TA-100CLER12- - /US



EC 1935/2004

EHEDG Certified

FCM

FDA

IO-Link

UK CA

### Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1
Measuring range [°C]	-50...200
Process connection	threaded connection G 1/2 sealing cone
Installation length EL [mm]	100

### Application

Measuring element	1 x Pt 1000; (to DIN EN 60751, class A)
Media	liquids and gases
Pressure rating [bar]	160
Vacuum resistance [mbar]	-1000
MAWP (for applications according to CRN) [bar]	160

### Electrical data

Operating voltage [V]	18...32 DC; ("supply class 2" to cULus)
Current consumption [mA]	< 50
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	2

### Inputs / outputs

Number of inputs and outputs	Number of analogue outputs: 1
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### Outputs

Total number of outputs	1
Output signal	analogue signal; IO-Link; (configurable)
Number of analogue outputs	1
Analogue current output [mA]	4...20
Max. load [Ω]	250; ((18...19 V); 19...32 V: 300 Ω)
Short-circuit protection	yes
Overload protection	yes

### Measuring/setting range

Measuring range [°C]	-50...200
Factory setting	-10...150 °C

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Resolution		
Resolution of analogue output	[K]	0.04
Accuracy / deviations		
Precision analogue output	[K]	$\pm 0,3 + (\pm 0,1 \% \text{ MS})$
Temperature coefficient [% of the span / 10 K]		0,1; (in case of deviation from the reference condition $25 \pm 5 \text{ }^{\circ}\text{C}$ )
Response times		
Dynamic response T05 / T09	[s]	$< 0,5 / < 2$
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
Operating conditions		
Ambient temperature	[ $^{\circ}\text{C}$ ]	-25...80
Note on ambient temperature		at medium temperature: $< 160 \text{ }^{\circ}\text{C}$
		-25...60 $^{\circ}\text{C}$
		at medium temperature: $< 200 \text{ }^{\circ}\text{C}$
Storage temperature	[ $^{\circ}\text{C}$ ]	-40...100
Protection		IP 67; IP 68; IP 69K
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	10 g (10...2000 Hz)
MTTF	[years]	334
Note on approval		factory certificate available as download at <a href="http://www.factory-certificate.ifm">www.factory-certificate.ifm</a>
UL approval	UL Approval no.	K002
Mechanical data		
Weight	[g]	231.5
Dimensions	[mm]	$\varnothing 18.7$
Materials		stainless steel (1.4404 / 316L); PEI; FKM
Materials (wetted parts)		stainless steel (1.4404 / 316L) electropolished
Tightening torque	[Nm]	30...50
Process connection		threaded connection G 1/2 sealing cone
Surface characteristics Ra/Rz of the wetted parts		Ra: $< 0.8$
Probe diameter	[mm]	6
Installation length EL	[mm]	100
Remarks		
Remarks		MS = set measuring span
		The values for accuracy apply to flowing water.
Pack quantity		1 pcs.

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### Electrical connection

Connector: 1 x M12; coding: A



### Connection

