

TA2531



Temperature transmitter

TA-100CLER12- - /US



Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1
Measuring range [°C]	-50...200
Communication interface	IO-Link
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
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Factory setting	-10...150 °C	
Resolution		
Resolution of analogue output	[K]	0.04
Accuracy / deviations		
Precision analogue output	[K]	± 0,3 + (± 0,1 % MS)
Temperature coefficient [% of the span / 10 K]	0,1; (in case of deviation from the reference condition 25 ± 5 °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	[°C]	-25...80
Note on ambient temperature	at medium temperature: < 160 °C	
	-25...60 °C	
	at medium temperature: < 200 °C	
Storage temperature	[°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 www.factory-certificate.ifm	
UL approval	UL Approval no.	K002
Mechanical data		
Weight	[g]	231.5
Dimensions	[mm]	Ø 18.7
Materials	stainless steel (316L/1.4404); PEI; FKM	
Materials (wetted parts)	stainless steel (316L/1.4404) 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

