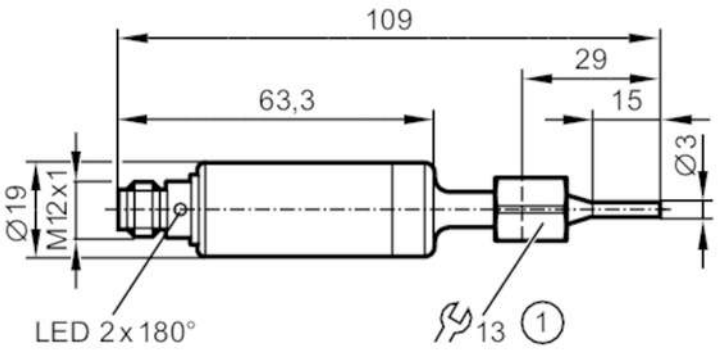
TA1602

Temperature transmitter

TA-015C2EM81-A-ZVG/US



1 G 1/8 internal thread

EC 1935/2004

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 1/8 internal thread
Installation length EL	[mm]	15
Application		
Measuring element		1 x Pt 1000; (to DIN EN 60751, class A)
Media		liquids and gases
Vacuum resistance	[MPa]	-0.1
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
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		
Probe length L	[mm]	15
Measuring range	[°C]	-50...200
Factory setting		0...200 °C

TA1602

Temperature transmitter

TA-015C2EM81-A-ZVG/US

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]	< 0,25 / < 1	
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	20 g (10...2000 Hz)
MTTF	[years]	334	
Mechanical data			
Weight	[g]	46.193	
Housing		cylindrical	
Dimensions	[mm]	Ø 19 / L = 109	
Materials		stainless steel (316L/1.4404); stainless steel (1.4122); PEI; FKM	
Process connection		threaded connection G 1/8 internal thread	
Surface characteristics Ra/Rz of the wetted parts		Ra: < 0.8	
Probe diameter	[mm]	3	
Installation length EL	[mm]	15	
Displays / operating elements			
Display		operation	1 LED, green
Remarks			
Remarks		MS = set measuring span	
		The values for accuracy apply to flowing water.	
Pack quantity		1 pcs.	

TA1602

Temperature transmitter

TA-015C2EM81-A-ZVG/US

Electrical connection

Connector: 1 x M12; coding: A



Connection

