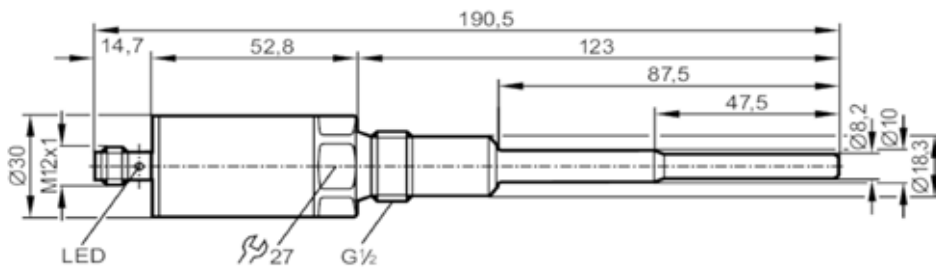


Temperature Transmitter TAA431



Product characteristics	
Number of inputs and outputs	Number of analogue outputs: 1
Measuring range	-10...150 °C / 14...302 °F
Installation length EL [mm]	threaded connection G 1/2 external thread
Installation length EL [mm]	87.5
Application	
Special feature	Gold-plated contacts
Measuring element	1 x Pt 1000; (to DIN EN 60751, class A)
Media	liquids and gases
Medium temperature	< 150; (< 40 min) °C / < 302; (< 40 min) °F
Pressure rating	300 bar / 30 MPa
Note on pressure rating	sensor When mounted in adapters the specifications of the adapter data sheet apply.
Minimum installation depth [mm]	15
Electrical data	
Operating voltage [V]	18...31.6 DC
Current consumption [mA]	< 25
Protection class	III
Reverse polarity protection	yes
Inputs / outputs	
Number of inputs and outputs	Number of analogue outputs: 1
Outputs	
Total number of outputs	1
Output signal	analogue signal
Electrical design	AS-i
Number of analogue outputs	1
Overload protection	yes
Measuring/setting range	
Probe length L [mm]	87.5
Measuring range	-10...150 °C / 14...302 °F
Resolution	
Resolution of analogue output [K]	0.05
Accuracy / deviations	
Precision analogue output [K]	$\pm 0,1$ (60°C / 140°F) / $\pm 0,3$ (0...140°C / 32...284°F)
Temperature coefficient [% of the span / 10 K]	< $\pm 0,1$; (in case of deviation from the reference condition 25 ± 5 °C)

Response times		
Dynamic response T05 / T09 [s]	1 / 3; (to DIN EN 60751)	
Interfaces		
Ambient temperature [°C]	-25...70	
Storage temperature [°C]	-40...100	
Protection	IP 68; IP 69K	
Operating conditions		
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
	DIN EN 61000-4-5 Surge	0,5/1 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]	348	
AS-i classification		
AS-i version	2.11	
AS-i I/O configuration [hex]	7	
AS-i ID code [hex]	3.C	
Mechanical data		
Weight [g]	258.5	
Housing	cylindrical	
Dimensions [mm]	Ø 30 / L = 190.5	
Materials	stainless steel (316L/1.4404); stainless steel (304/1.4301); stainless steel (303/1.4305); PA	
Materials (wetted parts)	stainless steel (316L/1.4404)	
Tightening torque [Nm]	30...50	
Process connection	threaded connection G 1/2 external thread	
Probe diameter [mm]	10	
Installation length EL [mm]	87.5	
Displays / operating elements		
Display	operation	1 x LED, green
	failure	1 x LED, red
Remarks		
Remarks	The values for accuracy apply to flowing water.	
	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)	
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		



Connection

