

AST 20 Series

“-195...+650°C Measuring Range, 15–300 mm Immersion Length, Analog Output”



- Selectable measuring range from -195 to $+650^{\circ}\text{C}$
- Resistant up to 600Bar
- Immersion length options ranging from 15 mm to 300 mm
- 0–20mA, 4–20mA, 0–5V, 0–10V, 1–5V, 0.5–4.5V analog output or RTD (PT100) output options
- G1/4, G1/2, NPT1/4, NPT1/2, M14x1, M20x1,5 etc. process connection options
- 304 stainless steel housing
- Easy installation and use

The AST 20 series high temperature transmitter is designed for precise temperature measurement of liquid and gaseous media in the range of -195 to $+650^{\circ}\text{C}$.

The detection principle is based on the variation of the electrical resistance of the conductor with temperature. The resistance signal receiving from the RTD element is converted into various analog output signals (4–20mA, 0–10V etc.) and integrated into automation systems.

It has a wide range of user-selectable specifications such as measuring range, process connection type, immersion length, output signal, connector type etc.

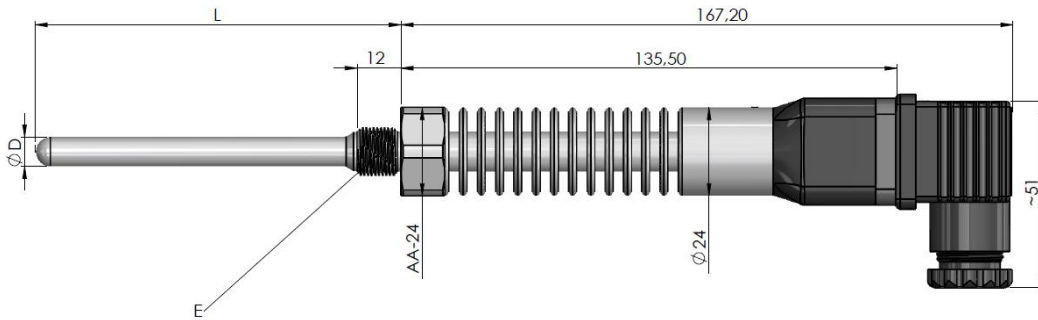
APPLICATIONS

- Machines
- Tanks
- Boilers
- Gas and liquid fluids
- Surface temp. measurement
- Ambient temp. measurement



MECHANICAL DIMENSIONS (mm)

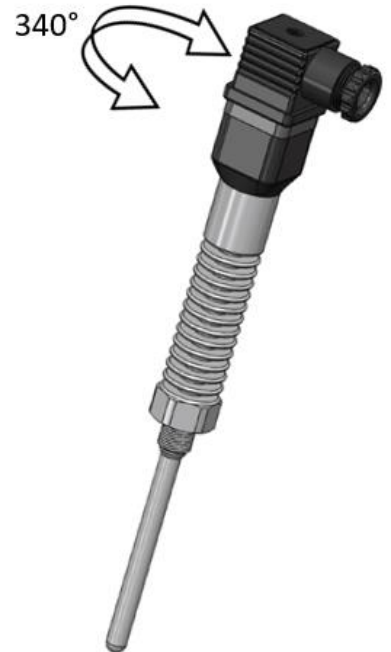
DIN43650-A CONNECTOR



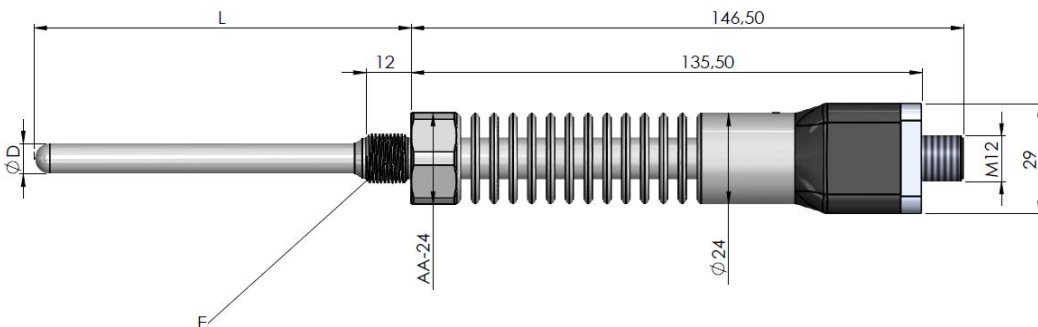
- E:** Process connection
L: Immersion length
ØD: Immersion diameter

* For dimensions, see Technical specifications

The rotation angle of the connector is maximum 340°.



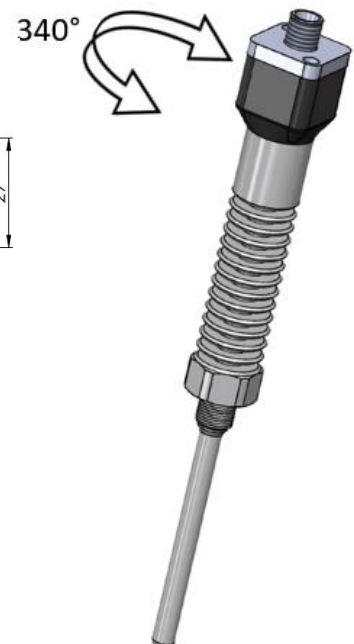
M12 CONNECTOR



- E:** Process connection
L: Immersion length
ØD: Immersion diameter

* For dimensions, see Technical specifications

The rotation angle of the connector is maximum 340°.

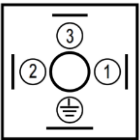




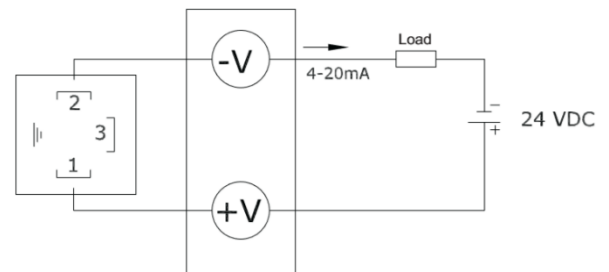
TECHNICAL SPECIFICATIONS

Sensor	PT100 (Class B EN60751)
Measuring range	-195 ... +650 °C / -319 ... +1202 °F
Max. working pressure	600 Bar
Linearity	±%0.1 FS
Response time	2 sn
Output	2 wire 4-20mA std. 3 wire 4-20mA, 0-20mA 0-5V, 1-5V, 0-10V 2 wire RTD, 3 wire RTD, 4 wire RTD
Load	2 wire : 250Ω 3 wire : 1K
Supply voltage	12 -30 VDC
Current consumption	2 wire : ≤20mA @24VDC 3 wire : <30mA @24VDC
Reverse polarity protection	Yes
Short circuit protection	Yes
Overload protection	Yes
Electrical connection	DIN 43650-A, M12 Connector
Process Connection (E)	G1/4, G1/2, NPT1/4, NPT1/2, M14x1, M20x1,5 (Optional others)
Immersion length (L)	Optional between 15 mm ... 300 mm
Immersion Diameter (D)	8 mm
Material	304 Stainless steel
Operating Temp.	-40°C ... +85°C
Storage Temp.	-40°C ... +85°C
Protection Class	IP 65

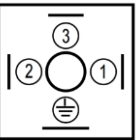
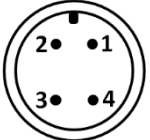

ELECTRICAL CONNECTION

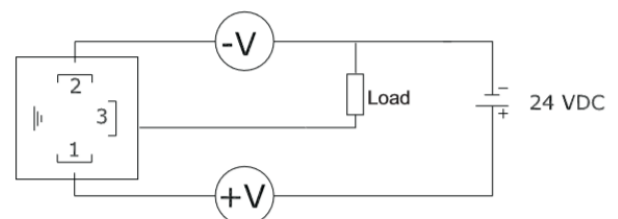
2 Wire 4-20mA Connection

		
DIN43650-A Conn.	M12 4 Pin Male Conn.	Signal
1	1	+12...30 VDC (Supply)
2	2	4-20mA

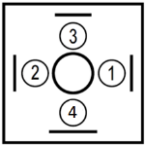

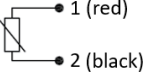
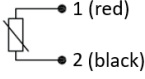
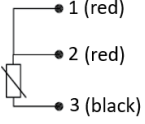
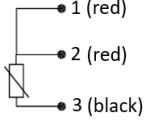
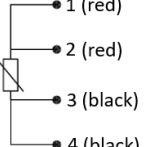
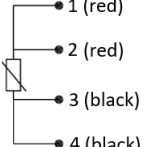


3 Wire 0-5V, 0-10V, 1-5V, 4-20mA, 0-20mA Connection

		
DIN43650-A Conn.	M12 4 Pin Male Conn.	Signal
1	1	+12...30 VDC (Supply)
2	2	GND
3	3	0-5V, 0-10V, 1-5V, 0-20mA, 4-20mA



RTD(1xPT100) Connection

	 DIN43650-A Connector	 M12 4 Pin Male Connector
2-Wire		
3-Wire		
4-Wire		

ORDER CODE

1-Model

AST20

2-Temperature Range

Selectable from -195to +650°C

3-Immersion Length

015: 15mm	160: 160mm
025: 25mm	200: 200mm
050: 50mm	250: 250mm
100: 100mm	300: 300mm

4-Immersion Pipe Diameter

8: 8 mm

5-Sensor Type

PT100

6-Output Signal

V : 0-10VDC	A: 4-20mA (2-wire)	RTD2 : 1xPT100 (2-wire)
V3 : 0.5-4.5VDC	A0: 0-20mA(3-wire)	RTD3 : 1xPT100 (3-wire)
V5 : 1-5VDC	A7: 4-20mA(3-wire)	RTD4 : 1xPT100 (4-wire)

7-Process Connection

G1/4 : G1/4	NPT1/2 : NPT1/2
G1/2 : G1/2	M14 : M14x1
NPT1/4 : NPT1/4	M20 : M20X1,5

* Optional others

8-Electrical Connection

S200 : DIN43650-A	S17: M12 4 pin male connector
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* Optional others

9-Body Material

E304: 304Stainless Steel
* Optional others

10-Pressure Resistance

L: Low pressure (<50Bar; less than 50Bar)
H: High pressure (≥50Bar; 50 Bar and more than 50Bar)

Sample Order Code: AST20 -40...+5000158PT100 V G1/4 S200 E304 L