

AST 20 Series

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



- Selectable measuring range from -195 to +650 °C (Optional others)
- Resistant up to 200Bar (for higher pressures please ask)
- Immersion length options ranging from 15 mm to 300 mm
- 0-20 mA, 4-20mA, 0-5V, 0-10V, 1-5V, 0.5-4.5V analog output or RTD (PT100, PT1000) 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 °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 (4-20 mA, 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.

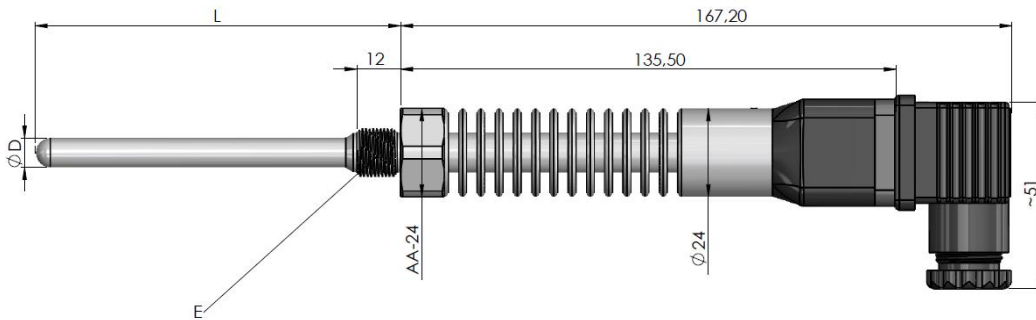
APPLICATIONS

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



MECHANICAL DIMENSIONS (mm)

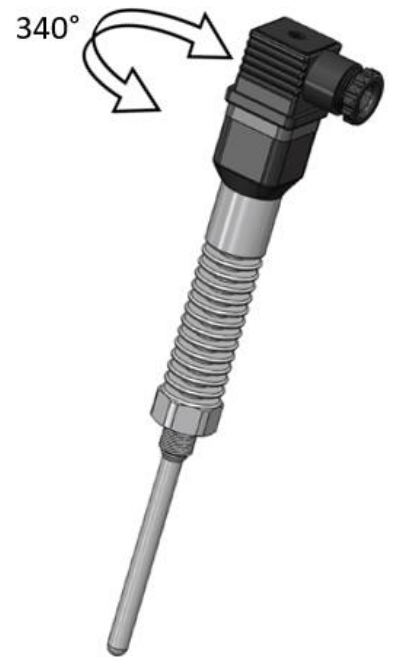
DIN43650-A CONNECTOR



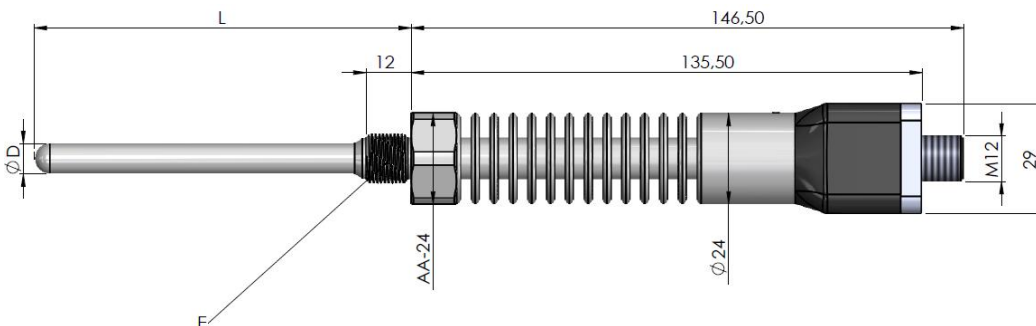
- E** : Process connection
L : Immersion length
ØD : Immersion diameter

* For dimensions, see Technical specifications

The rotation angle of the connector is maximum 340°.



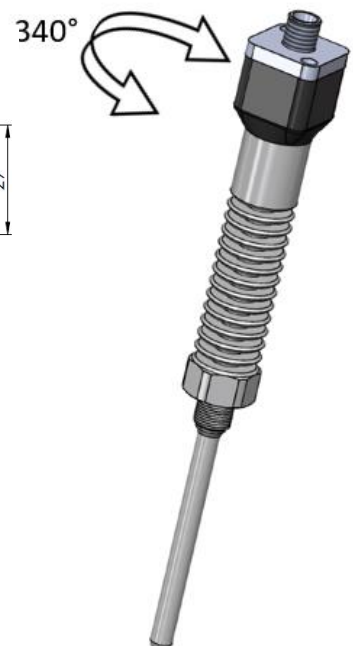
M12 CONNECTOR



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

* For dimensions, see Technical specifications

The rotation angle of the connector is maximum 340°.

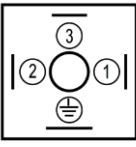
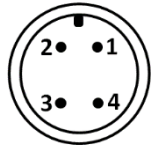



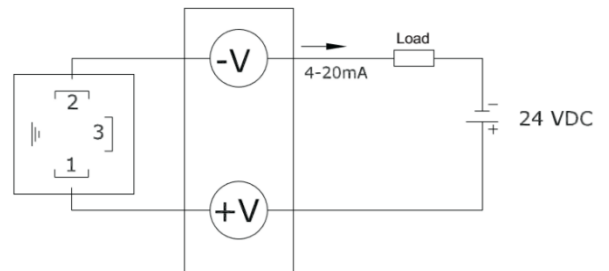
TECHNICAL SPECIFICATIONS

Sensor	PT100, PT1000 (Class B EN60751)
Measuring range	-195 ... +650 °C / -319 ... +1202 °F (Optional others)
Max. working pressure	200 Bar (for higher pressures please ask)
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	2 wire : 7-32VDC 3 wire : 12-30VDC
Current consumption	2 wire : ≤20 mA @24VDC 3 wire : <30 mA @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)	8mm 6mm (only for pressures up to 0...200 bar)
Material	304 Stainless steel
Operating Temp.	-40°C ... +85°C
Storage Temp.	-40°C ... +85°C
Protection Class	IP 65

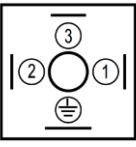
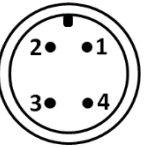

ELECTRICAL CONNECTION

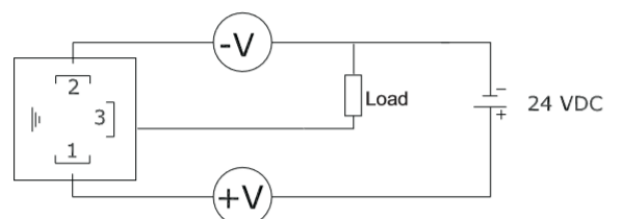
2 Wire 4-20mA Connection

								
DIN43650-A Connector	M12 4 Pin Male Connector	Signal						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">S17 Conn.</th> <th style="width: 50%;">S145 Conn.</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">4</td> </tr> </table>	S17 Conn.	S145 Conn.	1	1	2	4	
S17 Conn.	S145 Conn.							
1	1							
2	4							
1		+7...32 VDC (Supply)						
2		4-20mA						

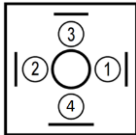

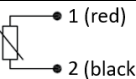
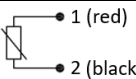
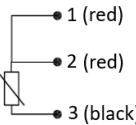
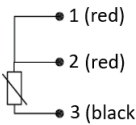
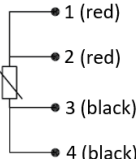
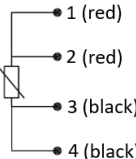


3 Wire 0-5V, 0-10V, 1-5V, 4-20mA, 0-20mA Connection

										
DIN43650-A Connector	M12 4 Pin Male Connector	Signal								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">S17 Conn.</th> <th style="width: 50%;">S145 Conn.</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> </tr> </table>	S17 Conn.	S145 Conn.	1	1	2	3	3	4	
S17 Conn.	S145 Conn.									
1	1									
2	3									
3	4									
1		+12...30 VDC (Supply)								
2		GND								
3		0-5V, 0-10V, 1-5V, 0-20mA								



RTD (1xPT100 & 1xPT1000) 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 -195 to +650 °C (Ask for others)		
3- Immersion Length		
015: 15mm	160: 160mm	
025: 25mm	200: 200mm	
050: 50mm	250: 250mm	
100: 100mm	300: 300mm	
*We do not recommend using small immersion lengths for air or gas temperature measurements, as the body absorbs heat due to the measurement probe being very close to the sensor body.		
4- Immersion Pipe Diameter		
8: 8mm		
6: 6mm (only for pressures up to 0...200 bar)		
5- Pressure Type		
Y: High Pressure (For pressures higher than 200 bar)		
D: Low Pressure (For pressures up to 0...200 bar)		
6- Sensor Type		
PT100 (available in analog or RTD output model)		
PT1000 (available in only RTD output model)		
7- Output Signal		
V : 0-10VDC	A: 4-20mA (2-wire)	RTD2 : 1xPT100 or 1xPT1000 (2- wire)
V1: 0-5VDC	A0: 0-20mA (3- wire)	RTD3 : 1xPT100 or 1xPT1000 (3- wire)
V3 : 0.5-4.5VDC	A7: 4-20mA (3- wire)	RTD4 : 1xPT100 or 1xPT1000 (4- wire)
V5 : 1-5VDC		
8- 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		
9- Electrical Connection		
S200 : DIN43650-A	S17 : M12 4 pin male connector (std)	S145 : M12 4 pin male connector
* Optional others		
10- Body Material		
E304 : 304 Stainless Steel		
* Optional others		

Sample Order Code: AST20 -40...+500 015 8Y PT100 V G1/4 S200 E304

BY PRODUCTS



EPA Series Measurement and Control Devices

[48x48mm model EPA 100](#)

[74x74mm model EPA 200](#)

[96x48mm model EPA 300](#)



[EPD 11 Plug-in Intelligent LCD Display with Alarm For Transmitters](#)