

AST 10 Series

“-50...+200°C Measuring Range, 15-1000 mm Immersion Length, Analog or RTD Output”



- Selectable measuring range from -50 to +200 °C (For temperatures above 200 °C, [click for AST 20 series with cooler which can measure up to 650 °C](#))
- Resistant up to 200Bar (for higher pressures please ask)
- Immersion length options ranging from 15 mm to 1000 mm
- 0-20 mA, 4-20mA, 0-5V, 0-10V, 1-5V 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 10 series temperature transmitter is designed for precise temperature measurement of liquid and gaseous media in the range of -50 to +200 °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.

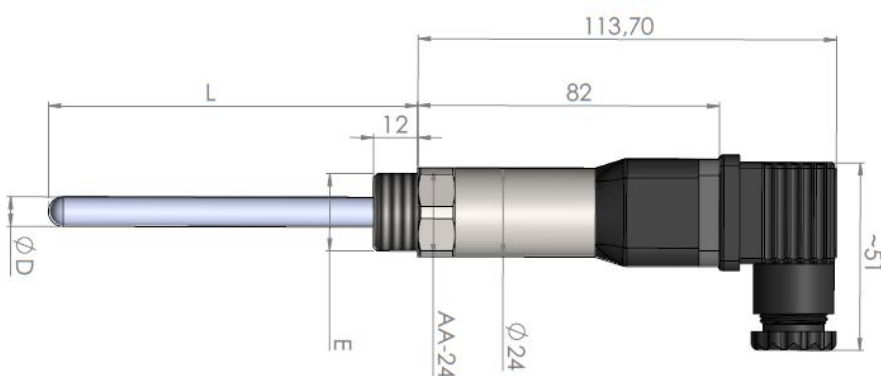
APPLICATIONS

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

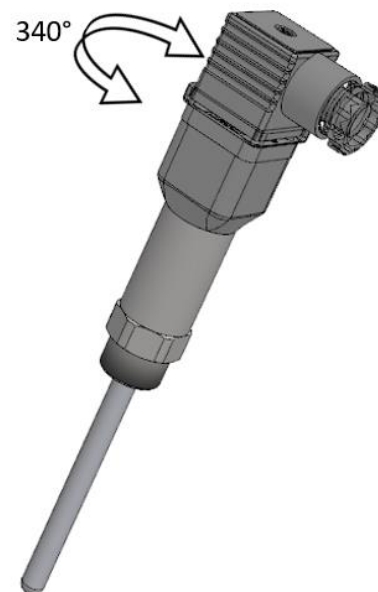


MECHANICAL DIMENSIONS (mm)

DIN43650-A CONNECTOR



The rotation angle of the connector is maximum 340°.



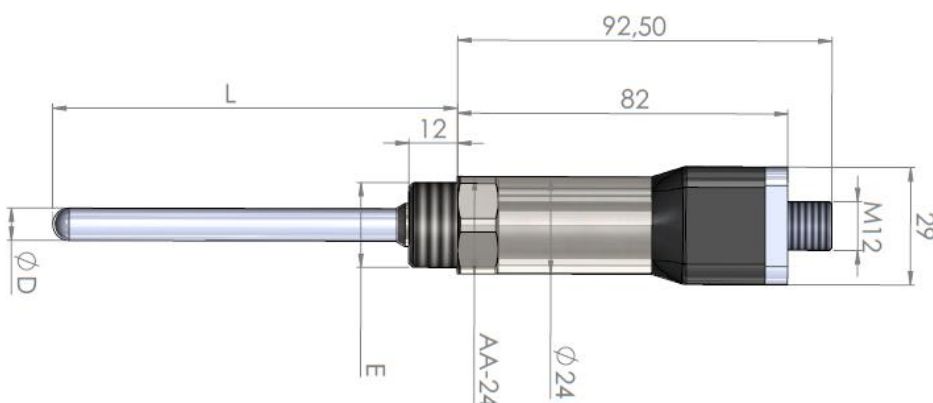
E : Process connection

L : Immersion length

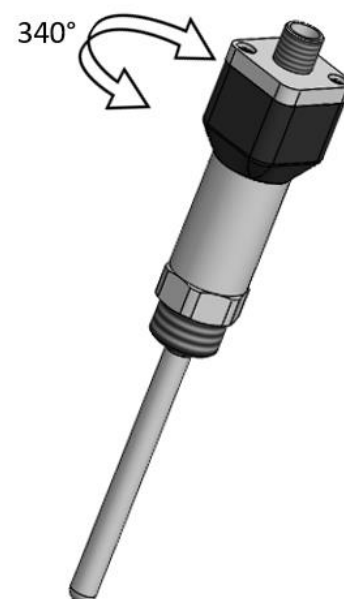
ØD : Immersion diameter

* For dimensions, see Technical specifications

M12 CONNECTOR



The rotation angle of the connector is maximum 340°.



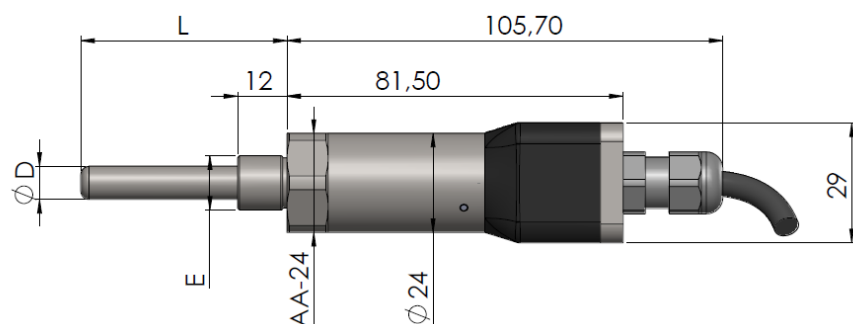
E : Process connection

L : Immersion length

ØD : Immersion diameter

* For dimensions, see Technical specifications

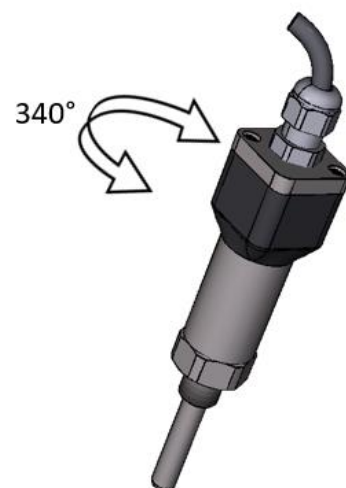
CABLE



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

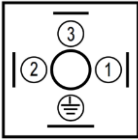
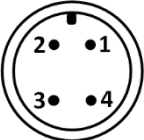
Sensor	PT100, PT1000 (Class B EN60751)				
Measuring range	-50 ... +200 °C / -58 ... +392 °F (Optional others)				
Max. working pressure	200 Bar (for higher pressures please ask)				
Response time	2 sn				
Output	2 wire 4-20mA std.	3 wire 4-20mA, 0-20mA	0-5V, 1-5V	0-10V	2 wire RTD, 3 wire RTD, 4 wire RTD
Load	250Ω	250Ω	≥2.5K	≥5K	-
Supply voltage	7-32VDC	16-30VDC	12-30VDC	16-30VDC	-
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, Cable				
Process Connection (E)	G1/4, G1/2, NPT1/4, NPT1/2, M14x1, M20x1,5 (Optional others)				
Immersion length (L)	Optional between 15 mm ... 1000 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				

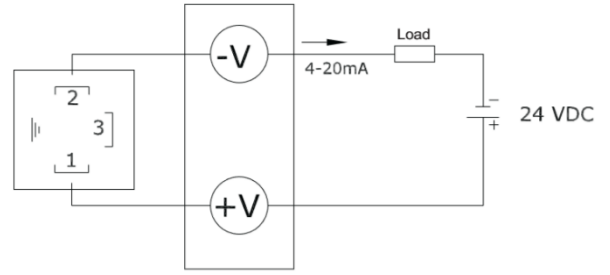
TEMPERATURE SENSOR TOLERANCE TABLE (Class B EN60751)

TEMPERATURE (°C)	±°C	±OHM
-200	1.3	0.56
-100	0.8	0.32
0	0.3	0.12
100	0.8	0.30
200	1.3	0.48
300	1.8	0.64
400	2.3	0.79
500	2.8	0.93
600	3.3	1.06
650	3.6	1.13

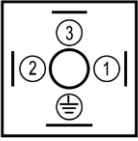
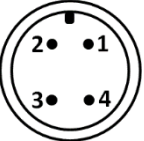
ELECTRICAL CONNECTION

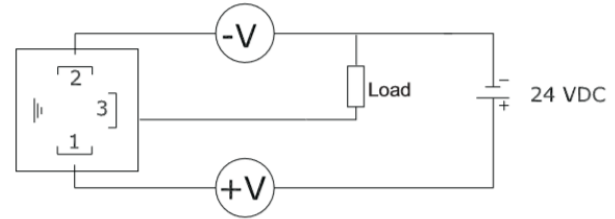
2 Wire 4-20mA Connection

			
DIN43650-A	M12 4 pin Male Conn.		
S200 Conn.	S15 Conn.	S17 Conn.	S145 Conn.
1	1	1	1
2	3	2	4
		Cable Color	Signal
		Red	+VDC (Supply)
		Black	4-20mA

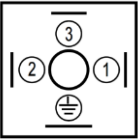
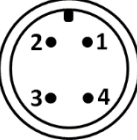
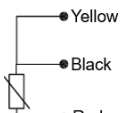
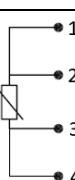
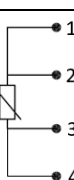
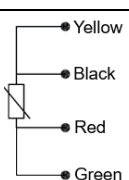


3 Wire 0-5V, 0-10V, 1-5V, 4-20mA, 0-20mA Connection

			
DIN43650-A	M12 4 pin Male Conn.		
S200 Conn.	S15 Conn.	S17 Conn.	S145 Conn.
1	1	1	1
2	3	2	3
3	2	3	4
		Cable Color	Signal
		Red	+VDC (Supply)
		Black	GND
		Yellow	0-5V, 0-10V, 1-5V,



RTD (1xPT100 & 1xPT1000) Connection

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

ORDER CODE

1-Model

AST10

2- Temperature Range

Selectable from -50 to +200 °C (Ask for others)

3- Immersion Length

015: 15mm	160: 160mm	350: 350mm	550: 550mm	750: 750mm
025: 25mm	200: 200mm	400: 400mm	600: 600mm	800: 800mm
050: 50mm	250: 250mm	450: 450mm	650: 650mm	900: 900mm
100: 100mm	300: 300mm	500: 500mm	700: 700mm	1000: 1000mm

***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)
V5 : 1-5VDC	A7: 4-20mA (3-wire)	RTD4 : 1xPT100 or 1xPT1000 (4- wire)

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)	1M : 1 meters cable
* Optional others	S145 : M12 4 pin male connector	

10- Body Material

E304 : 304 Stainless Steel

* Optional others

Sample Order Code: AST10 -20...+150 015 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](#)