

## AST 40 Series

“-195...+650°C Measuring Range, 25-500 mm Immersion Length, Analog 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 25 mm to 500 mm
- 0-20 mA, 4-20mA, 0-5V, 0-10V, 1-5V, 0.5-4.5V analog output options
- G1/4, G1/2, NPT1/4, NPT1/2, M14x1, M20x1,5 etc. process connection options
- Aluminum alloy housing
- Easy installation and use

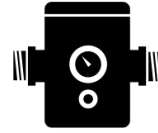
The AST 40 serie head type temperature transmitter is designed for precise temperature measurement of liquid and gaseous media in the range of -195 to +650 °C.

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.

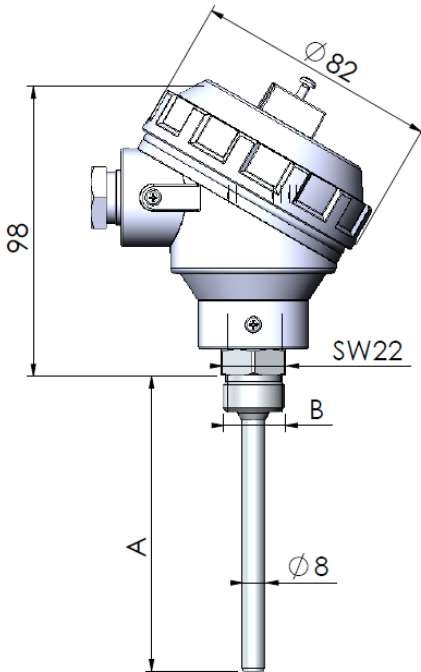
## APPLICATIONS

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



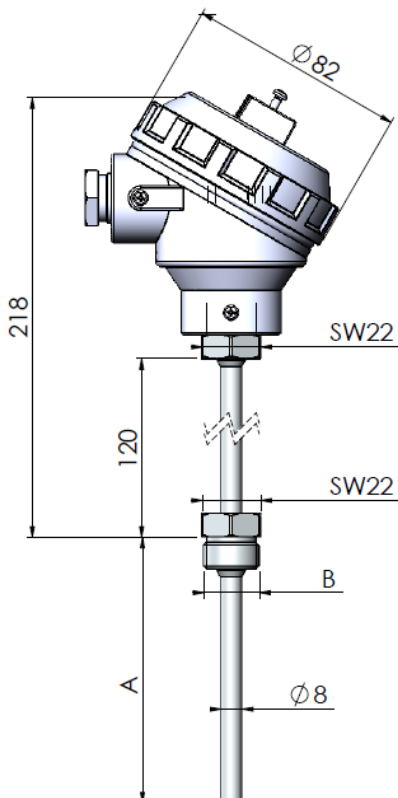
## MECHANICAL DIMENSIONS (mm)

### For Low Temperatures ( $\leq +200^{\circ}\text{C}$ )



STROKE	A	B
025	25	G1/2 G1/4 NPT1/4 NPT1/2 M14x1 M20x1,5  *Optional others
050	50	
075	75	
100	100	
125	125	
150	150	
175	175	
200	200	
225	225	
250	250	
275	275	
300	300	
325	325	
350	350	
375	375	
400	400	
425	425	
450	450	
475	475	
500	500	

### For High Temperatures ( $> +200^{\circ}\text{C}$ )



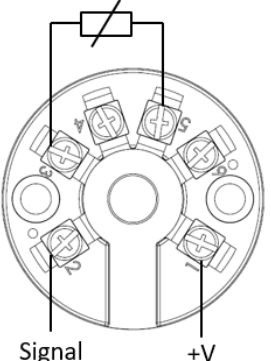
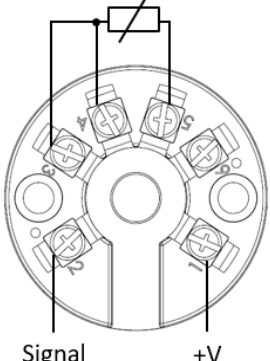
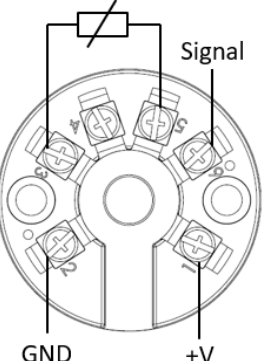
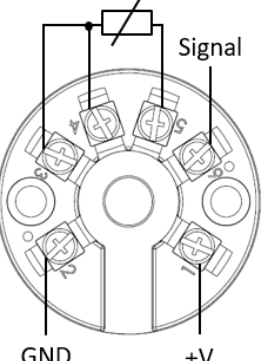
STROKE	A	B
025	25	G1/2 G1/4 NPT1/4 NPT1/2 M14x1 M20x1,5  *Optional others
050	50	
075	75	
100	100	
125	125	
150	150	
175	175	
200	200	
225	225	
250	250	
275	275	
300	300	
325	325	
350	350	
375	375	
400	400	
425	425	
450	450	
475	475	
500	500	

## TECHNICAL SPECIFICATIONS

<b>Sensor</b>	PT100 (Class B EN60751)
<b>Measuring range</b>	-195 ... +650 °C / -319 ... +1202 °F (Optional others)
<b>Max. working pressure</b>	200 Bar (for higher pressures please ask)
<b>Linearity</b>	±%0.1 FS
<b>Response time</b>	2 sn
<b>Output</b>	2 wire 4-20mA std. 3 wire 4-20mA, 0-20mA 0-5V,1-5V,0-10V
<b>Load</b>	2 wire : 250Ω 3 wire : 1K
<b>Supply voltage</b>	2 wire : 7-32VDC 3 wire : 12-30VDC
<b>Current consumption</b>	2 wire : ≤20 mA @24VDC 3 wire : <30 mA @24VDC
<b>Reverse polarity protection</b>	Yes
<b>Short circuit protection</b>	Yes
<b>Overload protection</b>	Yes
<b>Electrical connection</b>	Terminal
<b>Process Connection</b>	G1/4, G1/2, NPT1/4, NPT1/2, M14x1, M20x1,5 (Optional others)
<b>Immersion length</b>	Optional between 25 mm ... 500 mm
<b>Immersion Diameter</b>	8mm 6mm (only for pressures up to 0...200 bar)
<b>Material</b>	Head: Aluminum alloy Immrsion pipe: 304 Stainless steel
<b>Operating temp. (head)</b>	-40°C ... +85°C
<b>Protection</b>	IP65

## ELECTRICAL CONNECTION

### AST-40 TRANSMITTER CONNECTION DIAGRAM

Transmitter Type	2-wire 4-20mA		3-wire 0-5V, 0-10V, 1-5V, 0-20mA, 4-20mA	
<b>RTD Type</b>	2-wire PT100 Connection	3- wire PT100 Connection	2- wire PT100 Connection	3- wire PT100 Connection
<b>Connection</b>				

## ORDER CODE

### 1-Model

AST40

### 2- Temperature Range

Selectable from -195 to +650 °C (Ask for others)

### 3- Immersion Length

025: 25mm	150: 150mm	275: 275mm	400: 400mm
050: 50mm	175: 175mm	300: 300mm	425: 425mm
075: 75mm	200: 200mm	325: 325mm	450: 450mm
100: 100mm	225: 225mm	350: 350mm	475: 475mm
125: 125mm	250: 250mm	375: 375mm	500: 500mm

**\*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

### 7- Output Signal

V : 0-10VDC

A: 4-20mA (2-wire)

V1: 0-5VDC

A0: 0-20mA (3-wire)

V3 : 0.5-4.5VDC

A7: 4-20mA (3-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

**Sample Order Code:** AST40 -40...+500 025 8Y PT100 V G1/4

## BY PRODUCTS



### EPA Series Measurement and Control Devices

[48x48mm model EPA 100](#)

[74x74mm model EPA 200](#)

[96x48mm model EPA 300](#)