# **ASPT-11**

# High Temperature Pressure Transmitter 150 Deg C | 250 Deg C | 350 Deg C



# **Product Overview**

ASPT-11t High Temperature Pressure Transmitter adopts the high temperature resistant pressure sensor as the signal measuring element, and through the heat dissipation structure for the transmitter, the measured medium pressure is transmitted to the sensor; the high-precision signal processing circuit is located in the stainless steel housing, and transforms the sensor output signal into the standard output signal.



#### **FEATURES**

- SS316L diaphragm structure
- Using the imported high temperature resistant chip
- Applicable to wide medium temperature range
- Strong anti-interference, good long-term stability
- Directly contacting with the measured high temperature medium, and improving the pressure response frequency
- Anti-vibration, shock resistance, and corrosion resistance

## **APPLICATIONS**

- Process control
- Aerospace
- Chemical product and chemical industry
- Servo valve and transmission

## **SPECIFICATIONS:**

Pressure range Pressure reference Gauge pressure, Absolute pressure, Sealed gauge pressure Supply & output  4~20mA, 0~5V, 1~5V, 0~10V, 1~10V (12~30VDC) 0.5~4.5V R/M(5VDC)  Accuracy 2%FS (pressure range -5~5kPa) 0.5%FS (the rest)  Hysteresis and repeatability  Temperature drift  ±1.5%FS(-20°C~85°C)  Response time ≤1ms (Up to 90%FS)  Overpressure 150%FS  Service life ≥10×10 <sup>6</sup> pressure cycles  Ambient temperature -20°C~85°C  Medium temp30°C~350°C  Storage temp. EC 61000-6-3  Insulation resistance  ≥10MΩ/250VDC(200MΩ/500VDC)  Anti-vibration Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6  Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64	SPECIFICATIONS.			
Supply & output  4~20mA, 0~5V, 1~5V, 0~10V, 1~10V (12~30VDC) 0.5~4.5V R/M(5VDC)  Accuracy  2%FS (pressure range -5~5kPa) 0.5%FS (the rest)  Hysteresis and repeatability  Temperature drift  ±1.5%FS(-20°C~85°C)  Response time ≤1ms (Up to 90%FS)  Overpressure 150%FS  Service life ≥10×10 <sup>6</sup> pressure cycles  Ambient temperature -20°C~85°C  Medium temp30°C~350°C  Storage temp40°C~125°C  EMC-interference IEC 61000-6-3  Insulation resistance ≥100MΩ/250VDC(200MΩ/500VDC)  Anti-vibration  Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6	Pressure range	-1 Bar onwards upto 600 Bar		
$0.5 \sim 4.5 \text{ V R/M(5VDC)}$ Accuracy $2\% \text{FS (pressure range } -5 \sim 5 \text{kPa})$ $0.5\% \text{FS (the rest)}$ Hysteresis and $\text{repeatability}$ $\text{Temperature drift}$ $\pm 1.5\% \text{FS}(-20^{\circ}\text{C} \sim 85^{\circ}\text{C})$ Response time $\leq 1 \text{ms (Up to } 90\% \text{FS)}$ Overpressure $150\% \text{FS}$ Service life $\geq 10 \times 10^6 \text{ pressure cycles}$ Ambient temperature $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$ Medium temp. $-30^{\circ}\text{C} \sim 350^{\circ}\text{C}$ Storage temp. $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ EMC-interference $ \text{EC } 61000\text{-}6\text{-}3$ $ \text{Insulation resistance} $ $\geq 100\text{M}\Omega/250\text{VDC}(200\text{M}\Omega/500\text{VDC})$ Anti-vibration $ \text{Sine curve: } 20g, 25\text{Hz} \sim 2\text{kHz; IEC } 60068\text{-}2\text{-}6$	Pressure reference	Gauge pressure, Absolute pressure, Sealed gauge pressure		
Accuracy 2%FS (pressure range -5~5kPa) $0.5\%FS$ (the rest)  Hysteresis and repeatability $0.1\%FS$ Temperature drift $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Response time $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Response time $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Service life $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Ambient temperature $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Medium temp. $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Medium temp. $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Medium temp. $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Storage temp. $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ EMC-interference $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ EMC-interference $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Insulation resistance $\pm 1.0\%FS(-20^{\circ}C \sim 125^{\circ}C)$ Anti-vibration Sine curve: $\pm 1.5\%FS(-20^{\circ}C \sim 125^{\circ}C)$ Sine curve: $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$	Supply & output	4~20mA, 0~5V, 1~5V, 0~10V, 1~10V (12~30VDC)		
0.5%FS (the rest)  Hysteresis and crepeatability  Temperature drift ±1.5%FS(-20°C~85°C)  Response time ≤1ms (Up to 90%FS)  Overpressure 150%FS  Service life ≥10×10 <sup>6</sup> pressure cycles  Ambient temperature -20°C~85°C  Medium temp30°C~350°C  Storage temp40°C~125°C  EMC-interference   IEC 61000-6-3    Insulation resistance ≥100MΩ/250VDC(200MΩ/500VDC)  Anti-vibration   Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6		0.5~4.5V R/M(5VDC)		
Hysteresis and repeatability $0.1\%FS$ Temperature drift $\pm 1.5\%FS(-20^{\circ}C \sim 85^{\circ}C)$ Response time $\leq 1ms$ (Up to $90\%FS$ )Overpressure $150\%FS$ Service life $\geq 10 \times 10^6$ pressure cyclesAmbient temperature $-20^{\circ}C \sim 85^{\circ}C$ Medium temp. $-30^{\circ}C \sim 350^{\circ}C$ Storage temp. $-40^{\circ}C \sim 125^{\circ}C$ EMC-interferenceIEC $61000-6-3$ Insulation resistance $\geq 100M\Omega/250VDC(200M\Omega/500VDC)$ Anti-vibrationSine curve: $20g$ , $25Hz \sim 2kHz$ ; IEC $60068-2-6$	Accuracy	, , ,		
repeatability  Temperature drift $\pm 1.5\%$ FS( $-20^{\circ}$ C $\sim 85^{\circ}$ C)  Response time $\leq 1$ ms (Up to $90\%$ FS)  Overpressure $150\%$ FS  Service life $\geq 10\times 10^6$ pressure cycles  Ambient temperature $-20^{\circ}$ C $\sim 85^{\circ}$ C  Medium temp. $-30^{\circ}$ C $\sim 350^{\circ}$ C  Storage temp. $-40^{\circ}$ C $\sim 125^{\circ}$ C  EMC-interference IEC $61000-6-3$ Insulation resistance $\geq 100M\Omega/250VDC(200M\Omega/500VDC)$ Anti-vibration Sine curve: $20g$ , $25Hz\sim 2kHz$ ; IEC $60068-2-6$		0.5%FS (the rest)		
Temperature drift $\pm 1.5\%$ FS( $-20^{\circ}$ C $\sim 85^{\circ}$ C)  Response time $\leq 1$ ms (Up to 90%FS)  Overpressure $150\%$ FS  Service life $\geq 10\times 10^6$ pressure cycles  Ambient temperature $-20^{\circ}$ C $\sim 85^{\circ}$ C  Medium temp. $-30^{\circ}$ C $\sim 350^{\circ}$ C  Storage temp. $-40^{\circ}$ C $\sim 125^{\circ}$ C  EMC-interference   IEC 61000-6-3    Insulation resistance $\geq 100M\Omega/250VDC(200M\Omega/500VDC)$ Anti-vibration   Sine curve: $20g$ , $25Hz\sim 2kHz$ ; IEC 60068-2-6	Hysteresis and	0.1%FS		
Response time $\leq 1 \text{ms} \text{ (Up to 90\%FS)}$ Overpressure $150\%\text{FS}$ Service life $\geq 10 \times 10^6 \text{ pressure cycles}$ Ambient temperature $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$ Medium temp. $-30^{\circ}\text{C} \sim 350^{\circ}\text{C}$ Storage temp. $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ EMC-interference IEC $61000$ - $6$ - $3$ Insulation resistance $\geq 100\text{M}\Omega/250\text{VDC}(200\text{M}\Omega/500\text{VDC})$ Anti-vibration Sine curve: $20g$ , $25\text{Hz} \sim 2k\text{Hz}$ ; IEC $60068$ - $2$ - $6$	repeatability			
Overpressure $150\%FS$ Service life $\geq 10 \times 10^6$ pressure cycles         Ambient temperature $-20^{\circ}C \sim 85^{\circ}C$ Medium temp. $-30^{\circ}C \sim 350^{\circ}C$ Storage temp. $-40^{\circ}C \sim 125^{\circ}C$ EMC-interference       IEC 61000-6-3         Insulation resistance $\geq 100M\Omega/250VDC(200M\Omega/500VDC)$ Anti-vibration       Sine curve: $20g$ , $25Hz \sim 2kHz$ ; IEC 60068-2-6	Temperature drift	±1.5%FS(-20°C~85°C)		
Service life $\ge 10 \times 10^6$ pressure cycles  Ambient temperature $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$ Medium temp. $-30^{\circ}\text{C} \sim 350^{\circ}\text{C}$ Storage temp. $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ EMC-interference IEC 61000-6-3  Insulation resistance $\ge 100\text{M}\Omega/250\text{VDC}(200\text{M}\Omega/500\text{VDC})$ Anti-vibration Sine curve: $20g$ , $25\text{Hz} \sim 2\text{kHz}$ ; IEC 60068-2-6	Response time	≤1ms (Up to 90%FS)		
Ambient temperature $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$ Medium temp. $-30^{\circ}\text{C} \sim 350^{\circ}\text{C}$ Storage temp. $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ EMC-interference   IEC 61000-6-3    Insulation resistance   $\geq 100\text{M}\Omega/250\text{VDC}(200\text{M}\Omega/500\text{VDC})$ Anti-vibration   Sine curve: $20g$ , $25\text{Hz} \sim 2k\text{Hz}$ ; IEC 60068-2-6	Overpressure	150%FS		
Medium temp. $-30^{\circ}$ C ~ $350^{\circ}$ CStorage temp. $-40^{\circ}$ C ~ $125^{\circ}$ CEMC-interferenceIEC 61000-6-3Insulation resistance≥100MΩ/250VDC(200MΩ/500VDC)Anti-vibrationSine curve: $20g$ , $25$ Hz ~ $2$ kHz; IEC 60068-2-6	Service life	≥10×10 <sup>6</sup> pressure cycles		
Storage temp. $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ EMC-interference IEC 61000-6-3  Insulation resistance $\geq 100\text{M}\Omega/250\text{VDC}(200\text{M}\Omega/500\text{VDC})$ Anti-vibration Sine curve: $20g$ , $25\text{Hz} \sim 2\text{kHz}$ ; IEC 60068-2-6	Ambient temperature	-20°C∼85°C		
EMC-interference IEC 61000-6-3 Insulation resistance $\geq$ 100MΩ/250VDC(200MΩ/500VDC) Anti-vibration Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6	Medium temp.			
Insulation resistance $\geq 100 M\Omega/250 VDC(200 M\Omega/500 VDC)$ Anti-vibration Sine curve: 20g, 25Hz ~ 2kHz; IEC 60068-2-6	Storage temp.	-40°C∼125°C		
Anti-vibration Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6	EMC-interference	IEC 61000-6-3		
	Insulation resistance	≥100MΩ/250VDC(200MΩ/500VDC)		
performance Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64				
	performance	Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64		
Shock resistance Shock: 200g/1ms; IEC 60068-2-27	Shock resistance	Shock: 200g/1ms; IEC 60068-2-27		
Free falling body: 1m; IEC 60068-2-32		Free falling body: 1m; IEC 60068-2-32		
Protection grade IP65	Protection grade	IP65		
Medium compatibility All kinds of media compatible with SS316L	Medium compatibility	All kinds of media compatible with SS316L		
Net weight 220~360g	Net weight	220~360g		
Cooling fan 3 pieces, 5 pieces, 7 pieces	Cooling fan	3 pieces, 5 pieces, 7 pieces		

Cooling fan code	3 pieces	5 pieces	7 pieces
Dimension In mm	18.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	3.5 1.5	38.5
Cooling fan	Medium	150°C <medium< td=""><td>250°C<medium< td=""></medium<></td></medium<>	250°C <medium< td=""></medium<>
selection	temperature≤150°C	temperature≤250°C	temperature≤350°C

Note: For the cooling fan selection, please consider the on-site ventilation environment.