



- Flexible body system
- Better than  $\pm 0.5\%$  accuracy
- 4 - 20mA, 0 - 10V or 3.33mV/V output options
- 0-35 to 0-2000 bar / 0-500 to 0-30000 psi
- Internal 80% shunt calibration
- Standard Inconel diaphragm
- Optional auto-zero function
- Applications with process temperature of up to 400°C
- Maximum Torque:30Nm (22lbf ft)
- Optional safe relay function

MPTS series melt pressure sensors are used to measure the pressure and temperature of hot fluids in the plastics, rubber, food, etc. sectors. In this way, the quality of the production is higher and damage due to the high pressure is provided to the machine. They are ideal for the measurement of melt pressure in extrusion processes at temperatures of up to 400°C.

The MPTS series are low cost and high quality products. The MPTS makes mercury measurements in the series. In products in the health and food sector, oily measurements are made.

Designed to work directly with DCS and PLC thanks to analog output signals. EPA Series Digital Measuring and Control Devices are also available with the measured value being displayed.

### TECHNICAL SPECIFICATIONS

<b>Pressure Range</b>	0~35 to 2000bar (0~500 to 0~30000psi)	<b>Maximum Overload Pressure Rating</b>	1.5 x FS(<1000bar) 1.2 x FS(>1000bar)
<b>Accuracy</b>	$\pm 0,5\%$ FS	<b>Pressure Units</b>	PSI, Bar, MPa or Kg/cm <sup>2</sup>
<b>Repeatability</b>	$\pm 0,2\%$ FS	<b>Internal Shunt Calibration</b>	80%FSO $\pm 1\%$ FSO
<b>Output Signal</b>	4-20 mA, 0-10 V, 3.33mV/V	<b>Measurement principle</b>	4-arm bonded foil strain gage Wheatstone bridge
<b>Supply Voltage</b>	4-20 mA and 0-10V output models: 24VDC (recommended), 9...36 VDC 3.33mV/V output models: 10VDC (recommended), 6...12 VDC	<b>Temperature sensor</b>	-
<b>Max. diaphragm temp.</b>	400°C	<b>Electrical Connection</b>	6PIN, 7PIN, 8PIN
<b>Zero shift due to temperature change</b>	0.15 MPa/100°C	<b>Max Torque</b>	30Nm
<b>Process Connection</b>	1/2-20 UNF (45° conical seal) M14x1.5, M18x1.5, M22x1.5	<b>Body</b>	Titanium Nitride
		<b>Diaphragm Material</b>	Inconel

#### Safe relay function

An optional function available for excess pressure protection. The relay threshold is selected by customer at time of order.

Relay specifications :

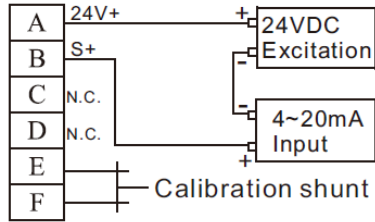
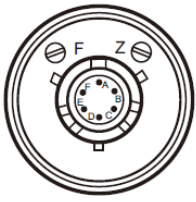
- Rated current:1A
- Rated voltage:24vdc
- The relay contacts will open when the system is detected that the pressure exceeds the relay threshold

#### Auto-zero function

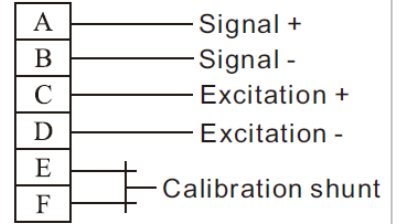
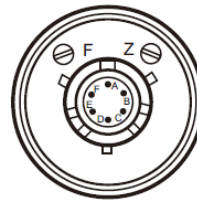
Sensors with an additional Auto-Zero function are extremely an high level of user-friendliness. The zero variations can be eliminated either directly on the unit itself or remotely from control room by shorting two pins.

## ELECTRICAL CONNECTIONS

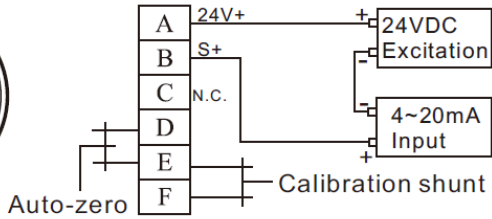
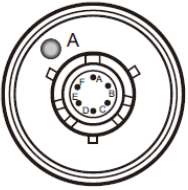
### Current Output (4-20 mA, 2 wires)



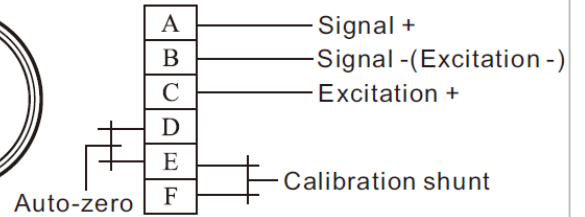
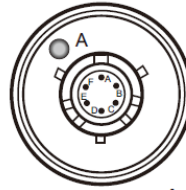
### Voltage Output (0-10V)



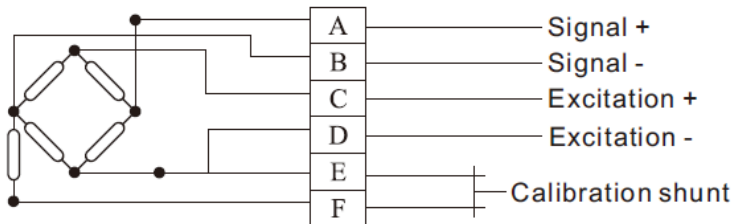
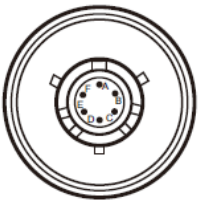
### Auto-Zero (4-20 mA, 2 wires)



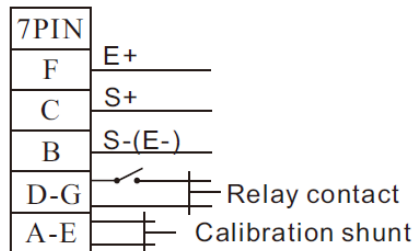
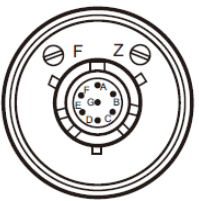
### Auto-Zero (0-10V)



### mV/V Output



### Safe Relay Switch (4-20 mA, 0-10V)



## ACCESSORIES

#### Connectors

5PIN mating connector  
6PIN mating connector  
8PIN mating connector

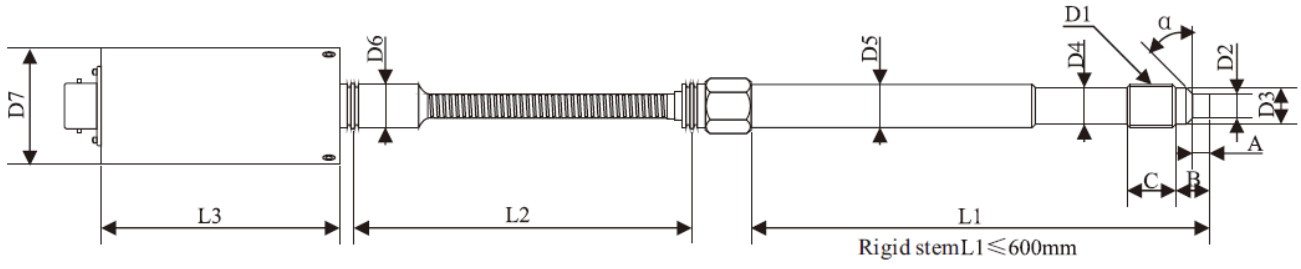
#### Extension cables

5PIN/6PIN connector with 5m cable  
5PIN/6PIN connector with 10m cable  
5PIN/6PIN connector with 15m cable  
5PIN/6PIN connector with 30m cable

#### Accessories

Mounting bracket  
Drill kit (1/2"-20UNF,M18X1.5 etc)  
Cleaning kit(1/2"-20UNF,M18X1.5 etc)  
Thread adaptors

## MECHANICAL DIMENSIONS



D1	M12X1.5	M14X1.5	1/2"-20	M18X1.5	M22X1.5	M28X1.5	G3/4"	PF3/8"	1½ -16"	3.25"	3.5"	
D2	Ø7.8	Ø7.8	Ø7.8	Ø9.8	Ø9.8 Ø15.8	Ø17.8	Ø17.8	Ø9.8	Ø23.5	Ø23.5	Ø23.5	
D3	Ø10	Ø11.8	Ø10.5	Ø15.5	Ø19.5	Ø24	Ø24	Ø14	Ø33.5	Ø33	Ø33	
D4	Ø10	Ø12	Ø10.8	Ø16	Ø19.5	Ø25	Ø24	Ø14				
D5	Ø11.7	Ø13.8	Ø12.7	Ø17								
D6	Standard dimension Ø17; other dimensions can be customized											
D7	Standard dimension Ø38; other dimensions can be customized											
α	Standard angle 45°, other angle can be customized											
A	5.5	5.5	5.5	6	10	11	11	8	13	13.5	13.5	
B	11	12.5	12	14	16	17	17	12	21	51	61	
C	17	17	17	20	35	28	40	25	37	19	19	
L1	Standard dimension 150 mm, other dimensions can be customized											
L2	Standard dimension 470 mm, other dimensions can be customized											
L3	Standard dimension 78 mm, other dimensions can be customized											
Gasket	45° slopes				plain end face				flange installation			

**WARNING (!)** : For installation use a maximum tightening torque of 40 Nm.

## ORDER CODE

### Pressure Range

350Bar : 0...350 Bar  
 500Bar : 0...500 Bar  
 700Bar : 0...700 Bar  
 1000Bar : 0...1000 Bar  
 2000Bar : 0...2000 Bar

### Body Length (L1/L2)

150/470 : 150 mm / 470mm

### Model

MPTS - 123BC - 350bar - 1/2 - 150/470 - V

### Body Model

123BC : Flexible Body (TiN Coating)

### Mechanical Connection

1/2-20 : ½"-20 UNF  
 M14 : M14 x 1,5

### Output Signal

0-10V : 0-10VDC  
 4-20mA : 4-20mA  
 3.33mV/V : 3,33mV/V

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