



- Flexible body system
- Thermocouple (temperature sensor)
- 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

Pressure Range	0~35 to 2000bar (0~500 to 0~30000psi)	Maximum Overload Pressure Rating	1.5 x FS(<1000bar) 1.2 x FS(>1000bar)
Accuracy	$\pm 0,5\%$ FS	Pressure Units	PSI, Bar, MPa or Kg/cm ²
Repeatability	$\pm 0,2\%$ FS	Internal Shunt Calibration	80%FSO $\pm 1\%$ FSO
Output Signal	4-20 mA, 0-10 V, 3.33mV/V	Measurement principle	4-arm bonded foil strain gage Wheatstone bridge
Supply Voltage	4-20 mA and 0-10V output models: 24VDC (recommended), 9...36 VDC 3.33mV/V output models: 10VDC (recommended), 6...12 VDC	Temperature sensor	E, J, K, S type or PT100
Max. diaphragm temp.	400°C	Electrical Connection	6PIN, 7PIN, 8PIN
Zero shift due to temperature change	0.15 MPa/100°C	Max Torque	30Nm
Process Connection	1/2-20 UNF (45° conical seal) M14x1.5, M18x1.5, M22x1.5	Body	Titanium Nitride
		Diaphragm Material	Inconel

Safe relay function

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

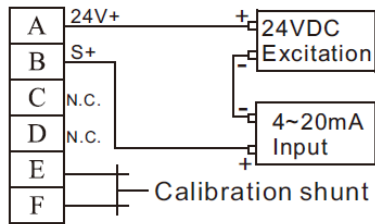
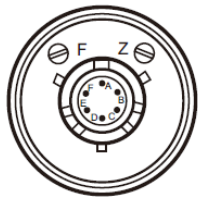
Relay specifications :

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

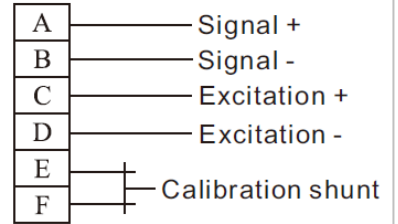
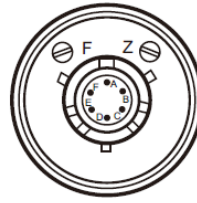
Auto-zero function

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.

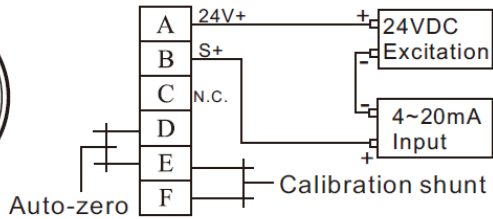
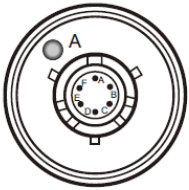
Current Output (4-20 mA, 2 wires)



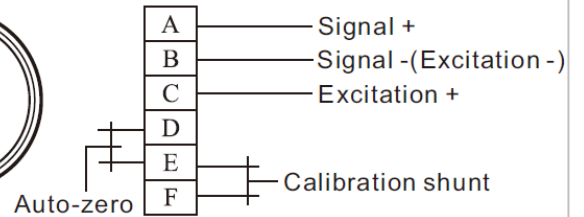
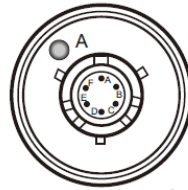
Voltage Output (0-10V)



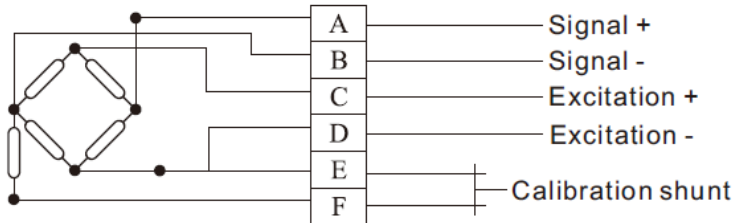
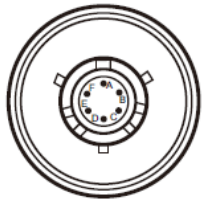
Auto-Zero (4-20 mA, 2 wires)



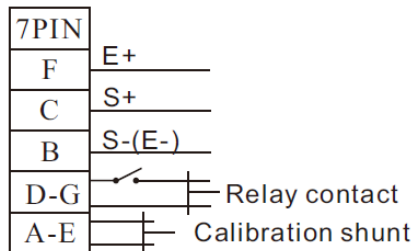
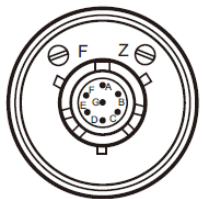
Auto-Zero (0-10V)



mV/V Output



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



MPTS 133 - ACCESSORIES

Connectors

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

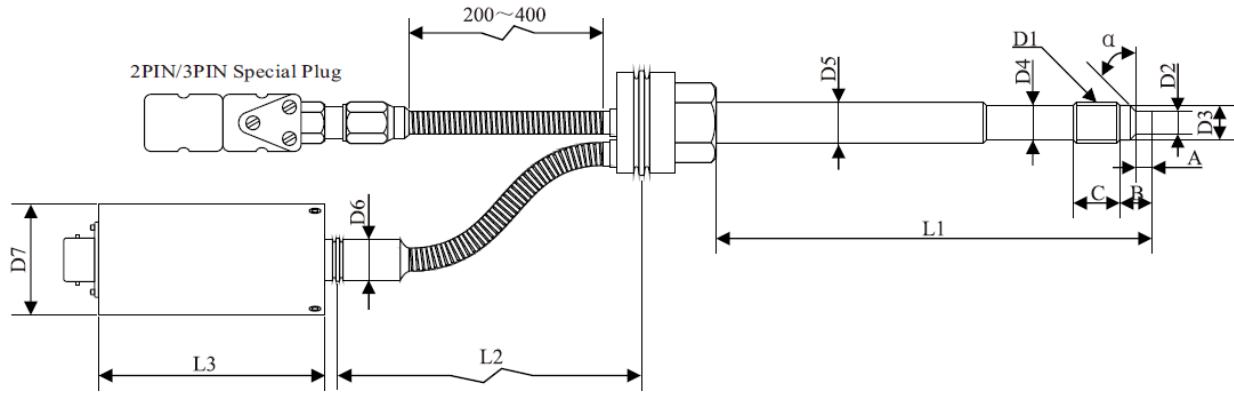
Extension cables

- 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

MPTS 133 - MECHANICAL DIMENSIONS



D1	M12X1.5	M14X1.5	1/2"-20	M18X1.5	M22X1.5	M28X1.5	G3/4"	PF3/8"	1 1/2 -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.

MPTS 133 - ORDER CODE

Model	Pressure Range				Body Length (L1/L2)				Output Signal			
	350Bar : 0...350 Bar 500Bar : 0...500 Bar 700Bar : 0...700 Bar 1000Bar : 0...1000 Bar 2000Bar : 0...2000 Bar				150/470 : 150 mm / 470mm				0-10V : 0-10VDC 4-20mA : 4-20mA 3.33mV/V : 3,33mV/V			
MPTS	-	133BC	-	350bar	-	1 / 2	-	150/470	-	J	-	V
Body Model				Mechanical Connection				Thermocouple Type				
133BC : Flexible Body with Thermocouple (TiN Coating)				1/2-20 : 1/2"-20 UNF M14 : M14 x 1,5				J : J type thermocouple K : K type thermocouple				