

MPT SERIES MELT PRESSURE TRANSDUCER AND TRANSMITTER

GENERAL TYPE

FEATURES

- ◎ Better than $\pm 0.5\%$ accuracy
- ◎ 4~20mA, 0~10V, 3.33mV/V outputs
- ◎ 0-35 to 0-2000 bar / 0-500 to 0-30000 psi
- ◎ Optional safe substance filled
- ◎ Internal 80% shunt calibration
- ◎ Standard Inconel diaphragm
- ◎ Temperature compensation



INTRODUCTION

DWEL melt pressure transducers and transmitters are ideal for the measurement of melt pressure in extrusion and polymer processes at temperatures up to 400 °C . This series are produced with high quality materials and alloyed elastic diaphragm together with delicate processing and debugging. The main characteristics are stable performance, high accuracy and small zero and span shifts caused by changes in process temperatures. It's widely used in plastic extrusion production line, polymer and fiber industries. It's an ideal option to replace Dynisco, Gefran and Graeff.

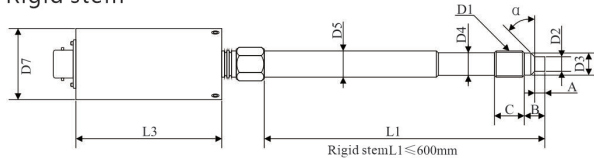
SPECIFICATIONS

Pressure range	0~35 to 2000bar(0~500 to 0~30000psi)
Accuracy	$\pm 0.25\%$ FS, $\pm 0.5\%$ FS, $\pm 1.0\%$ FS
Repeatability	0.2% FS, 0.4%, 0.8% FS
Input excitation	Transmitter: 24Vdc recommended, 9-36Vdc Transducer: 10Vdc recommended, 6-12 Vdc
Output signal	0~10V, 4~20mA, 3.33mV/V
Maximum diaphragm temperature	350°C (662F°) for rigid stem 400°C (752F°) for flexible 550°C (1022F°) for Alloy or NaK filled

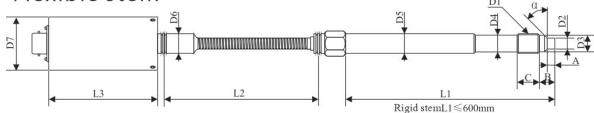
Zero shift due to temperature change	20 psi/100°C 0.15MPa/100°C
Process connection	1/2-20 UNF thread (45° conical seal) M14x1.5,M18x1.5,M22x1.5 etc
Maximum Overload Pressure Rating	1.5 x FS(<1000bar) 1.2 x FS(>1000bar)
Pressure Units	PSI, Bar, MPa or Kg/cm2
Internal Shunt Calibration	80% FSO
Measurement principle	4-arm bonded foil strain gage Wheatstone bridge
Electrical Connection	5PIN,6PIN
Max Torque	30Nm(22lbf ft)
Temperature sensor	E,J,K type or Pt100

ELECTRICAL CONNECTION

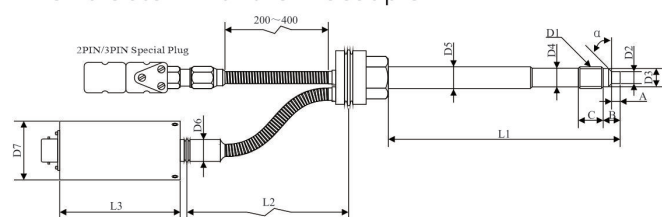
Rigid stem



Flexible stem



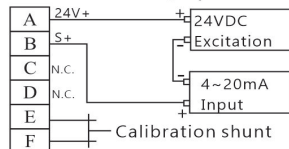
Flexible stem with thermocouple



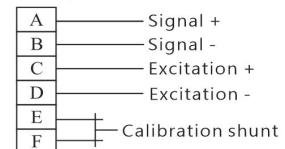
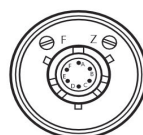
D1	M12x1.5	M14x1.5	1/2"-20	M18x1.5	M22x1.5	M22x1.5	G3/4"	PF3/8"	1½-16	3.25"	3.5"
D2	φ7.8	φ7.8	φ7.8	φ9.8	φ9.8 φ15.8	φ17.8	φ17.8	φ9.8	φ23.5	φ23.5	φ23.5
D3	φ10	φ11.8	φ10.5	φ15.5	φ19.5	φ24	φ24	φ14	φ33.5	φ33	φ33
D4	φ10	φ12	φ10.8	φ16	φ19.5	φ25	φ24	φ14			
D5	φ11.7	φ13.8	φ12.7	φ17							
D6	Standard dimension φ17; other dimensions can be customized										
D7	Standard dimension φ18; other dimensions can be customized										
α	Standard angle 45°/90° ; 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 150mm; other dimensions can be customized										
L2	Standard dimension 470mm; other dimensions can be customized										
L3	Standard dimension 78mm; other dimensions can be customized										
Seal	45° slopes				plain end face				flange installation		

ELECTRIC CONNECTION

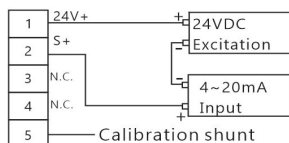
Current Output (4~20mA,two wires) 6pin



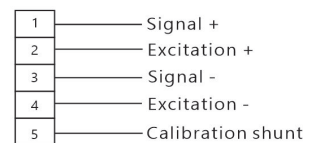
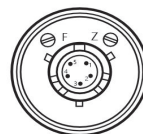
Voltage Output 0~10V 6pin



Current Output (4~20mA,two wires) 5pin



Voltage Output 0~10V 5pin



ORDER FORMAT

MPT136B - M - 7CB - 1/2 - 6/18 - J - mA

Filling materials	Code
Mercury filled	1
Alloy filled	2
Silicone oil filled	3
NaK filled	4

Version	Code
Rigid stem	1
Rigid stem+Flexible	2
Flexible + Temperature	3

Electrical Connection	Code
5PIN connector	5
6PIN connector	6

Types	Code
Transducer	Null
Transmitter	B

Accuracy	Code
0.5% FS	M
0.25%FS	H
1.0%FS	E

Code	Pressure range
3.5MPa/35B/500P	0~3.5MPa/0~35bar/0~500psi*
5MPa/50B/750P	0~5MPa/0~50bar/0~750psi
10MPa/1CB/1M5	0~10MPa/0~100bar/0~1500psi
20MPa/2CB/3M	0~20MPa/0~200bar/0~3000psi
35MPa/3.5CB/5M	0~35MPa/0~350bar/0~5000psi
50MPa/5CB/7M5	0~50MPa/0~500bar/0~7500psi
70MPa/7CB/10M	0~70MPa/0~700bar/0~10000psi
100MPa/10CB/15M	0~100MPa/0~1000bar/0~15000psi
150MPa/15CB/20M	0~150MPa/0~1500bar/0~20000psi
200MPa/20CB/30M	0~200MPa/0~2000bar/0~30000psi

Code	Output signal
MV	3.33mV/V
MA	4~20mA
V	0~10V

Code	Temperature type
Null	No thermocouple
J	J type (Standard)
K	K type
P	Pt100

Code	Flexible stem length
Null	None
18	460mm(18") Standard
30	760mm(30")
Other size on request	

Code	Rigid stem length
6	152mm(6") Standard
3	76mm(3")
9	228mm(9")
12	305mm(12")
Other size on request	

Code	Process connection
1/2	1/2"-20UNF(Standard)
M12	M12x1.5
M14	M14x1.5
M18	M18x1.5
M22	M22x1.5
Other size on request	

*35bar is only available with transmitter(4~20mA or 0~10V outputs)

EXAMPLE:

MPT136B-M-7CB-1/2-6/18-J-mA

Melt pressure transmitter,mercury filled type with thermocouple J type, 6-pin connector, 0.5% accuracy, 700 bar pressure range,1/2-20UNF thread,152 mm (6") rigid rod, 457 mm (18") flexible stem, 4~20mA output.

RECOMMENDATION

Cleaning tool kit



Drilling tool kit



Rupture disk