

HPT SERIES MELT PRESSURE TRANSDUCER AND TRANSMITTER

ADVANCED 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
- ⊙ External and optional magnetic auto-zero



INTRODUCTION

DWEL Melt Pressure Transducers and Transmitters are designed for accurate melt pressure measurement in extrusion and polymer processes, capable of withstanding temperatures up to 400 ° C. Manufactured with high-quality materials and alloyed elastic diaphragms, these devices undergo precise processing and calibration for exceptional reliability. Key features include external zero clearance or an optional magnetic auto-zero clearance, ensuring stable performance and minimal shifts in zero and span, even with temperature variations. Known for their high accuracy and stability, DWEL transducers are widely used in plastic extrusion lines, as well as the polymer and fiber industries. They provide an excellent alternative to brands like Dynisco, Gefran, and Graeff.

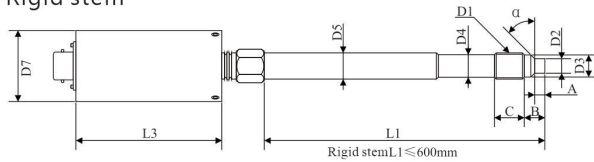
SPECIFICATIONS

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

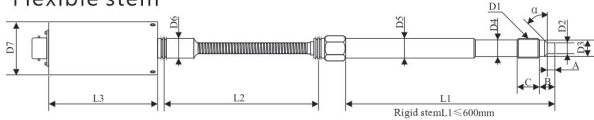
Zero shift due to temperature change	20 psi/100°C 0.15MPa/100°C
Process connection	1/2-20 UNF thread (45° conical seal) M14x1.5,M18x1.5,M22x1.5 etc
Maximum Overload Pressure Rating	1.5 x FS(<1000bar) 1.2 x FS(>1000bar)
Pressure Units	PSI, Bar, MPa or Kg/cm2
Internal Shunt Calibration	80% FSO
Measurement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

MECHANICAL DIMENSION

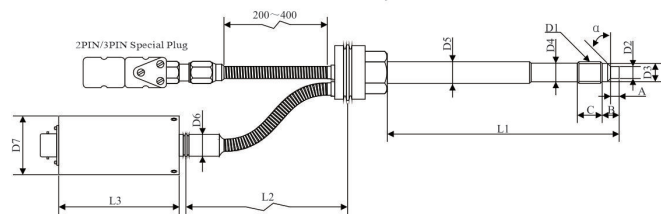
Rigid stem



Flexible stem



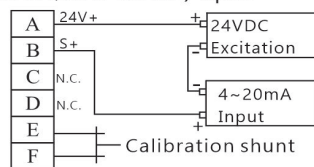
Flexible stem with thermocouple



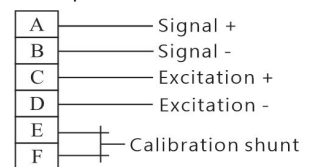
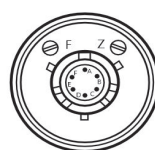
D1	M12x1.5	M14x1.5	1/2"-20	M18x1.5	M22x1.5	M22x1.5	G3/4"	PF3/8"	1½-16	3.25"	3.5"
D2	φ7.8	φ7.8	φ7.8	φ9.8	φ9.8 φ15.8	φ17.8	φ17.8	φ9.8	φ23.5	φ23.5	φ23.5
D3	φ10	φ11.8	φ10.5	φ15.5	φ19.5	φ24	φ24	φ14	φ33.5	φ33	φ33
D4	φ10	φ12	φ10.8	φ16	φ19.5	φ25	φ24	φ14			
D5	φ11.7	φ13.8	φ12.7	φ17							
D6	Standard dimension 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		

ELECTRICAL CONNECTION

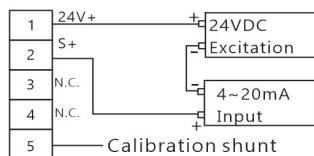
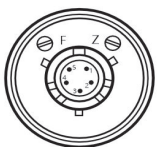
Current Output (4~20mA,two wires) 6pin



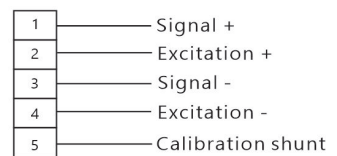
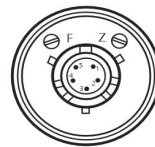
Voltage Output 0~10V 6pin



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



Voltage Output 0~10V 5pin



ORDER FORMAT

HPT136B - 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
6PIN connector	6
8PIN connector	8

Types	Code
Transducer	Null
Transmitter	B

Accuracy	Code
0.5% FS	M
0.25%FS	H

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

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:

HPT136B-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