

RPT SERIES MELT PRESSURE TRANSMITTER

SAFETY RELAY TYPE

FEATURES

- ◎ Better than $\pm 0.5\%$ accuracy
- ◎ PL'c' and SIL2 certified
- ◎ 4~20mA, 3.33mV/V outputs
- ◎ Safe relay function
- ◎ Optional safe substance filled
- ◎ E-connection 7pin & 8pin
- ◎ Short-circuited auto zero function
- ◎ Temperature compensation
- ◎ External and optional magnetic auto-zero
- ◎ Special coating diaphragm corrosion resistance



INTRODUCTION

DWEL RPT Series Melt Pressure Transmitters are equipped with high-performance digital chips and feature a circuit design that meets SIL2 and PL 'c' safety performance standards. The transmitters are equipped with relay outputs that control the range limits, ensuring the safety of extrusion equipment and production lines. This design helps to prevent equipment damage and reduce the risk of unpredictable safety accidents due to pressure overload. The RPT Series is an excellent alternative to brands like Dynisco, Gefran, and Graeff.

SPECIFICATIONS

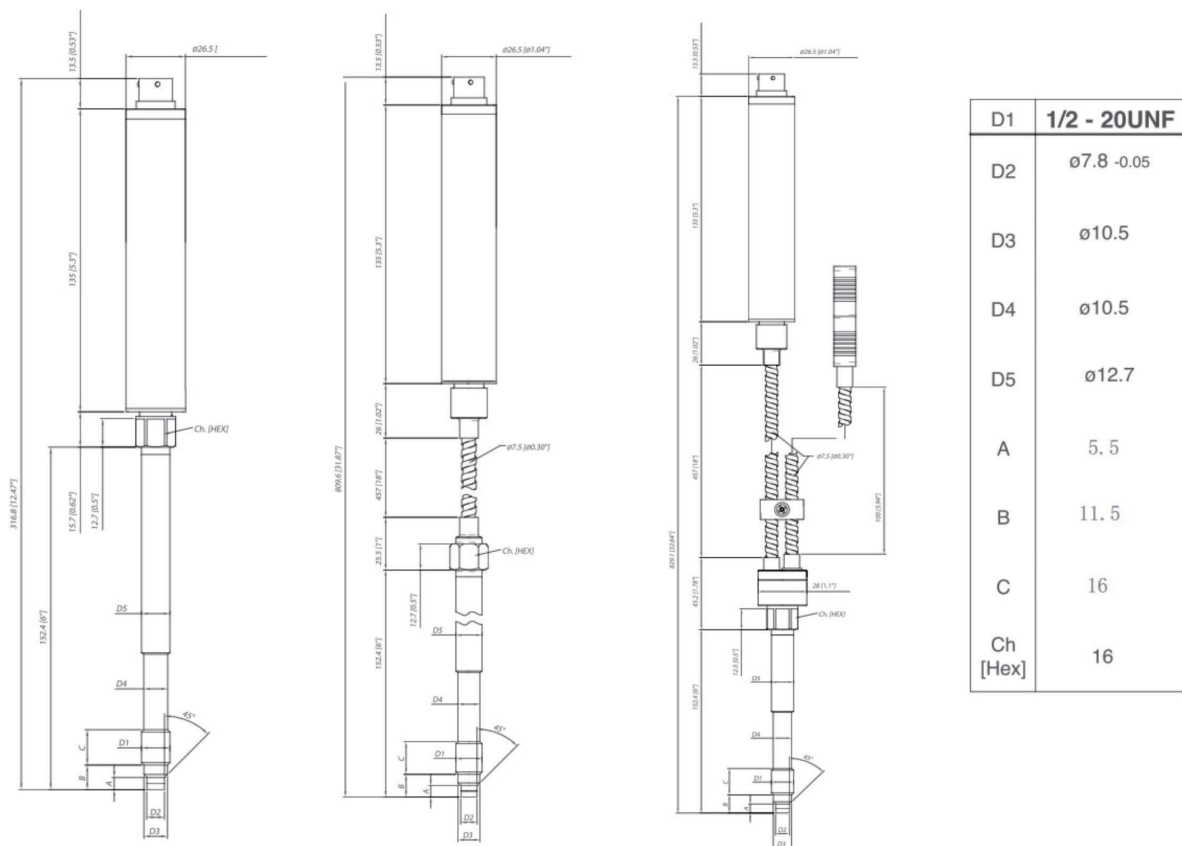
Pressure range	0~35 to 2000bar(0~500 to 0~30000psi)
Accuracy	$\pm 0.25\%$ FS, $\pm 0.5\%$ FS
Repeatability	0.2% FS, 0.4%FS
Input excitation	15~36VDC(4~20mA), 6~12VDC (3.33mV/V)
Output signal	4~20mA, 3.33mV/V
Relay output	Open, 10%,20%...100% optional

Relay contact performance	5~220VDC, 1A, 0.2%FSO
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	7PIN,8PIN
Max Torque	30Nm(22lbf ft)
Temperature sensor	E,J,K type or Pt100

ALARM OUTPUT

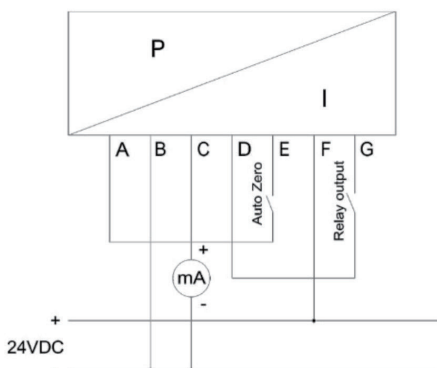
Power	Output	Relay status
Power off	No signal	On
Power off	<Alarm point	Off
Power off	≥ Alarm point	On
Power off	<3.6mA	On

MECHANICAL DIMENSION

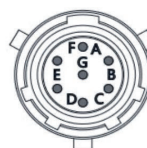


ELECTRICAL CONNECTION

4~20mA (3 wires)

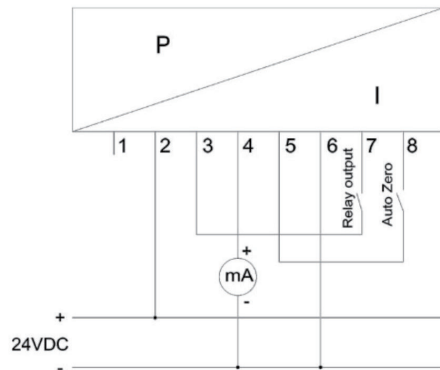


(S3)7 pin connector

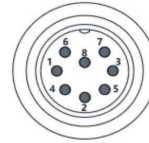


PIN	Function	Wire Color
A	Shorting A&E to rezero +	Red
B	Power - /Signal -	Black
C	Signal +	White
D	Relay output +	Green
E	Shorting A&E to rezero -	Blue
F	Power +	Yellow
G	Relay output -	Grey

4~20mA (3 wires)

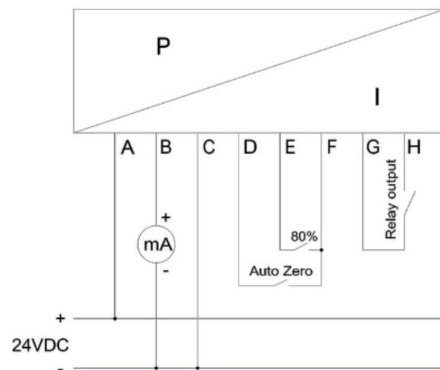


(S9)8 pin connector



PIN	Function	Wire Color
1		Green
2	Power +	Red
3	Relay output +	Yellow
4	Signal +	Black
5	Shorting 5&8 to rezero +	Grey
6	Power - /Signal -	White
7	Relay output -	Blue
8	Shorting 5&8 to rezero -	Brown

4~20mA (3 wires)

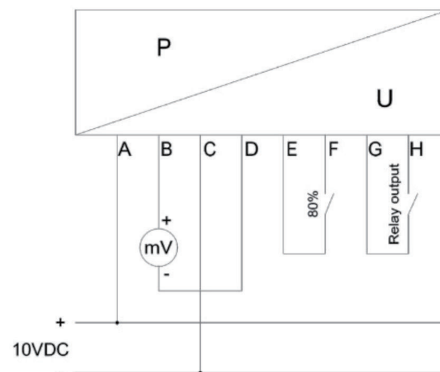


(S6)8 pin connector

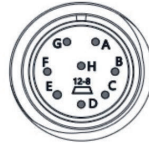


PIN	Function	Wire Color
A	Power +	Red
B	Power +	Black
C	Power - /Signal -	White
D	Shorting D&F to rezero +	Green
E	80% +	Blue
F	Shorting D&F to rezero - /80% -	Yellow
G	Relay output +	Grey
H	Relay output -	Brown

3.33mV/V



(S8)8 pin connector



PIN	Function	Wire Color
A	Power +	Red
B	Signal +	Black
C	Power -	White
D	Signal -	Green
E	80% +	Blue
F	80% -	Yellow
G	Relay Output +	Grey
H	Relay Output -	Brown

ORDER FORMAT

RPT XXXX - X - XXX - XXX - XXX/XXX - X - XXX - XX - XX

Filling materials	Code
Mercury filled	1
Alloy filled	2
NaK filled	4

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

Electrical Connection	Code
7PIN	7
8PIN	8

Diaphragm	Code
17-4PH(Standard)	A
Inconel 718(Anti-abrasive)	B
C276 (Anti-corrosive)	C

Accuracy	Code
0.5% FS	M
0.25%FS	H

Pressure range		
MPa	BAR	PSI
3.5MPa	35B	500 500P
10MPa	1CB	1500 1M5
20MPa	2CB	3000 3M
35MPa	3.5CB	5000 5M
50MPa	5CB	7500 7M5
70MPa	7CB	10000 10M
100MPa	10CB	15000 15M
200MPa	20CB	30000 30M
Other ranges on request		

Code	Process connection
1/2	1/2"-20UNF
M14	M14x1.5
M18	M18x1.5
Other size on request	

Code	Customization
Null	Standard version Special or customized versions available on request

Code	Relay alarm
GC7	70%
GC8	80%
GC9	90%

Code	Output Signal
S3	4~20mA 7PIN
S6	4~20mA 8PIN
S8	3.33mV/V 8PIN
S9	4~20mA 8PIN binder

Code	Thermocouple
Null	No thermocouple
J	J type Standard
K	K type
P	Pt100

Code	Flexible stem length
None	0
18	460mm(18") Standard
30	760mm(30")
Other size on request	

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

EXAMPLE:

RPT128A-M-7CB-1/2-6/18-J-S6-GC8

Melt pressure transmitter safe relay type,mercury filled type with thermocouple J type, standard 17-4PH diaphragm, 8-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, 80% relay output.