Introducing the TD1, 2, 3 Series Melt Pressure Transducers.

SERIES: TD1-Rigid Stem

SERIES: TD2-Stem/Flex

SERIES: TD3-Stem/Flex with Thermocouple

FEATURES

- Industry Standard Housing
- Standard 3.33mV/V , 6pin Bendix Connector
- 6" Stem (standard) , 18" Flex (standard) (TD2M)
- 0.5% combined error (standard for mercury fill)
- Ranges from 1000-20,000psi
- 750ºF (400ºC) Rating, Standard 15-5 SS Tip
- 660°F (350°C) Rating, Standard I5-5 SS Tip (Oil Fill)
- Thermocouple Type J (TD3M)
- 80% Output Cal

TD1, TD2, TD3 OPTIONS

- Connectors : 8pin, 6pin-SCREW
- 12" Stem, 30" Flex (TD2M)
- Outputs : 4-20mA, 0-10VDC

SPECIFICATIONS

Mechanical	
Ranges	1000, 1500, 3000, 5000, 7500, 10,000, 15,000, 20,000 psi
Standard Fill	Mercury (M), optional oil fill (O)
Max Error	+/- 0.5% (mercury), 1% (oil)
Repeatability	+/-0.2% Of Full Scale
Overload Capability	2x Full Scale
Mounting Torque	150 Inch-lbs MIN 500 Inch-lbs MAX
Temperature Effects	
Maximum Diaphragm Temp	750°F(400° C), [660° F (350° C) Oil Fill]
Zero Shift Of Diaphragm	15 psi/100° F (38° C), [30 psi/100° F (38° C) Oil Fill]
Maximum Housing Temp	250° F (121° C)
Zero Shift Of Electronics	1% / 100° F
Electrical	
Measuring Sensor	Output 3.33 Mv/v (optional 4-20ma and 0-10 vdc)
Supply Voltage	10 vdc for Mv/v and 16-36 vdc for amplified units
Element Resistance	± 1% Of Full Scale
Zero & Span (Transmitter)	± 15%
Internal Shunt Calibration	80% ± 0.2% Of Full Scale
Zero Balance (Transducer)	± 5% Full Scale
Oil Fill Temperature Drift (thermal expansion)	Up to 125 psi @ 250° F (121° C), Up to 250 psi @ 500° F (260° C)

ORDERING

Series	Output	Pressure	Accuracy	Stem	Flex	Thread	Connector	Diaphragm
TD2M	3	5M	5	6	18	U	6B	T
TD1M= RIGID STEM	3= 3.33mV/V	M= PSI x1000	1= 1% (oil fill)	6= 6″	18= 18″	U= 1/2″ x 20	6B= 6 PIN Bendix	T= 15-5 stainless steel
TD2M= STEM FLEX	4= 4-20mA	C= PSI x100	5= 0.5%	12= 12″	30= 30″	M= M18 x 1.5	6T= 6 PIN Threaded	
TD3M= STEM FLEX T/C	1= 0-10VDC	5C					8T= 8 PIN Threaded	
TD1O= Rigid Stem (Oil Fill)		7.5C					8C=8 PIN Threaded	
TD2O= Stem/Flex (Oil Fill)		1M					(Barber Colman)	
TD3O= Stem/Flex w/TC (Oil Fill)		1.5M						
		3M						
		5M						
		7.5M						
		10M						
		15M						
		20M						

*Contact factory for additional optional/custom modifications.

MECHANICAL INSTALLATION

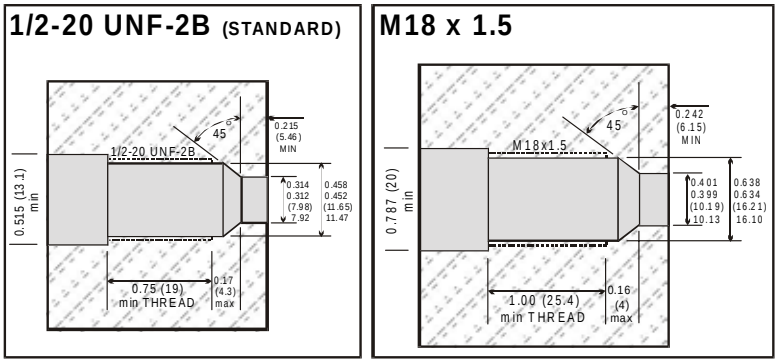
1. MOUNTING HOLE
All holes must be concentric within 0.002"
AVAILABLE DRILL KITS : Page 4

2. PROTECTIVE CAP
Leave cap on until installation - FRAGILE tip

3. LUBRICATE THREADS with EITHER :
1. NEVERSEEZ by BOSTIK
2. C5A by FELRO
3. MOLYKOTE by DOW CORNING

4. CLEAN HOLE OF ALL PLASTIC MATERIALS
Any residue can damage tip on installation.
AVAILABLE CLEAN KITS : Page 4

5. TRANSDUCER HOUSING (Max Temp - 160ºF)
Install in low vibration area.
MOUNTING BRACKET: TDMP-MTG-BRACKET



6. MOUNTING TORQUE
MIN 150inch-lbs MAX 500inch-lbs
Install finger tight then turn 1/4 TURN with wrench

ELECTRICAL INSTALLATION

1. WIRING DIAGRAM
Depending on connector below :

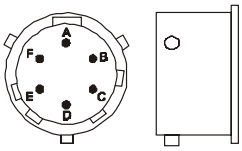
2. CABLE+GROUND (26AWG, 6WIRE, SHIELD)
Shield may have to be connected to ground in a high noise environment. Do not connect to meter.

3. ZERO ADJUSTMENT
To compensate for pressure drift caused by temp changes. At operating temperature with no pressure on transducer, adjust the pressure indicating device to read "0"

4. SPAN ADJUSTMENT
To calibrate readout device to transducer.
Press "CALIBRATE" and adjust reading to read 80% SPAN.

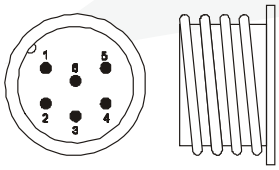
TRANSDUCER - 3.33 mV/V

6 PIN BAYONET



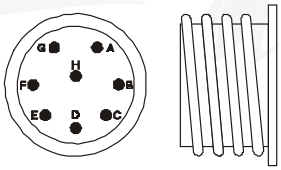
LEAD	COLOR	6 PIN
SIGNAL+	RED	A
SIGNAL-	BLACK	B
EXCITATION+	WHITE	C
EXCITATION-	GREEN	D
CALIBRATION	BLUE	E
CALIBRATION	ORANGE	F

6 PIN SCREW



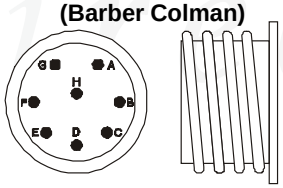
LEAD	COLOR	6 PIN
SIGNAL+	RED	1
SIGNAL -	BLACK	2
EXCITATION -	GREEN	3
EXCITATION+	WHITE	4
CALIBRATION	BLUE	5
CALIBRATION	ORANGE	6

8 PIN SCREW



LEAD	COLOR	8 PIN
EXCITATION+	WHITE	A
SIGNAL+	RED	B
EXCITATION-	GREEN	C
SIGNAL-	BLACK	D
CALIBRATION	BLUE	E
CALIBRATION	ORANGE	F
NOT USED		G
NOT USED		H

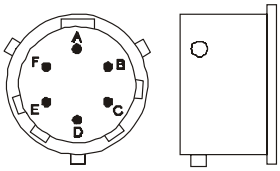
8 PIN SCREW (Barber Colman)



LEAD	COLOR	8 PIN
EXCITATION+	WHITE	A
SIGNAL+	RED	B
SIGNAL-	BLACK	C
EXCITATION-	GREEN	D
CALIBRATION	BLUE	E
CALIBRATION	ORANGE	F
NOT USED		G
NOT USED		H

TRANSDUCER - 3.33 mV/V

6 PIN BAYONET



4-20mA OUTPUT

LEAD	COLOR	6 PIN
SUPPLY/SIGNAL+	RED	A
SUPPLY/SIGNAL-	BLACK	B
N/A	WHITE	C
N/A	GREEN	D
CALIBRATION	BLUE	E
CALIBRATION	ORANGE	F

VOLTAGE OUTPUT 0-10VDC

LEAD	COLOR	6 PIN
SIGNAL+	RED	A
SIGNAL-	BLACK	B
EXCITATION+	WHITE	C
EXCITATION-	GREEN	D
CALIBRATION	BLUE	E
CALIBRATION	ORANGE	F

GENERAL OPERATIONAL GUIDES

1. START UP
Before starting the extruder drive, ensure that the extruder is at operational temperature and plastic at tip is molten.
A cold start can literally rip off the fragile diaphragm.

2. REMOVAL
Only remove transducer when barrel is at operational temperature and zero pressure.
Always clean hole of all solids before re-installing.
Check hole dimensions with thread gauge of cleaning kit to ensure proper hole. Hole size at tip can reduce over time.
Always remove transducer before cleaning inside barrel with abrasive cleaner or wire brush.

3. CLEANING TIP
Clean tip lightly with a dry cloth while tip is still hot.
Do not use any sharp tools (screwdriver, chisel, knife, wire brush etc.)

TROUBLESHOOTING

1. Indicator Full Scale	Check Continuity Of Cables
2. Indicator Unstable Reading	Check Continuity Of Cables
3. Indicator Reads Only "0"	Perform Calibration. If Doesn't Change - Send Instrument In For Anaysis
4. Indicates Wrong Pressure	Perform Calibration If Still Incorrect - Send Transducer In For Analysis

HOLE CLEANING KIT

TDMP-1-CLEANKIT
Kit is used to clean transducer hole before insertion to prevent diaphragm damage.

HOLE CUTTING KIT

TDMP-1-CUTTINGKIT
All the Drills, Reamers and Taps required to drill a proper hole for standard transducers (1/2-20UNF).