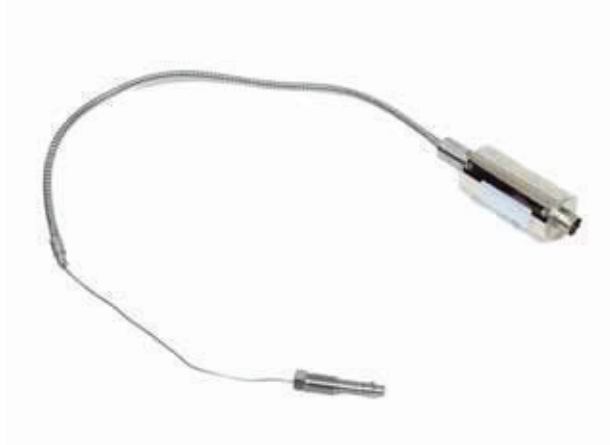


## Introducing the TD4 Series (Narrow Space) Melt Pressure Transducers.



SERIES:TD4 (10" capillary)



SERIES:TD4 (0" capillary)

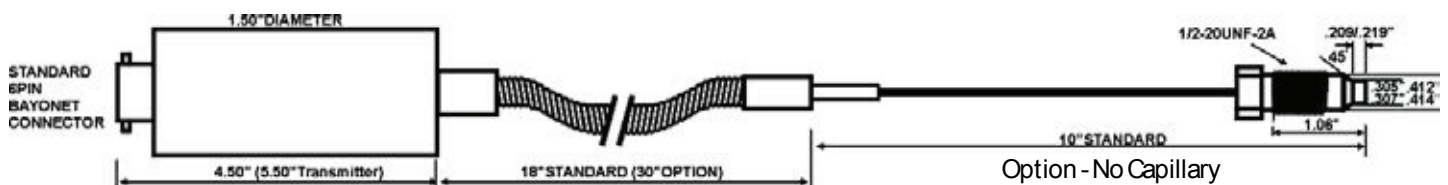
### FEATURES

- Fluid filled system
- Standard 3.33mV/V
- 6pin Bayonet Connector
- 10" Exposed Capillary
- 18" Flex
- 0.5% Combined Error
- 80% Output Calibration
- Industry Standard Housing
- 750°F (400°C) Rating
- Ranges from 3000 to 20,000psi
- 15-5 Stainless Steel Diaphragm

### TD4 OPTIONS

- OUTPUT OPTIONS
  - 4-20mA
  - 0-10VDC
- CONNECTOR OPTIONS
  - 8pin Threaded
  - No Capillary /Complete Armour

### DIMENSIONS



## SPECIFICATIONS

|   |   |
|---|---|
| Mechanical Ranges                         | 3000, 5000, 7500,<br>10,000, 15,000, 20,000             |
| Accuracy                                  | +/- 0.5%  |
| 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) – Mercury Fill                          |
| Zero/Span Shift (Diaphragm Temp Change)   | Mercury Fill: 28 psi / 100° F (60 psi / 100° C) typical |
| Maximum Housing Temp                      | 185° F (85° C)  |
| Zero/Span Shift (Electronics Temp Change) | 0.03% F.S / ° C MAX                                     |
| Electrical Outputs                        | 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       |
| Insulation Resistance                     | 1000 megohms @ 50 VDC                                   |
| Zero & Span (Trim pots)                   | ± 15%   |
| Internal Shunt Calibration                | 80% ± 0.2% Of Full Scale                                |
| Update Rate                               | < 25ms  |

This product contains mercury and must be disposed of properly as hazardous waste.

## ORDERING

| Series | Fill       | Output                                 | Pressure  | Accuracy           | Capillary        | Flex              | Thread                       | Connector                              | Diaphragm                | Tip Length                                     |
|--------|------------|--|---|--------------------|------------------|-------------------|------------------------------|--|--------------------------|--|
| TD4    | M          | 3                                      | 10M   | 5                  | 6                | 18                | U                            | 6B                                     | T                        | 1  |
| TD4    | M= Mercury | 3= 3.33mV/V<br>4= 4-20mA<br>1= 0-10VDC | M= PSI x1000<br>3M<br>5M<br>7.5M<br>10M<br>15M<br>20M | 6= 1.5%<br>5= 0.5% | 0= 0"<br>10= 10" | 18=18"<br>30= 30" | U= 1/2" x 20<br>M= M18 x 1.5 | 6B= 6 PIN Bendix<br>8T= 8 PIN Threaded | T = 15-5 stainless steel | 1 = 0.125" tip length<br>2 = 0.215" tip length |

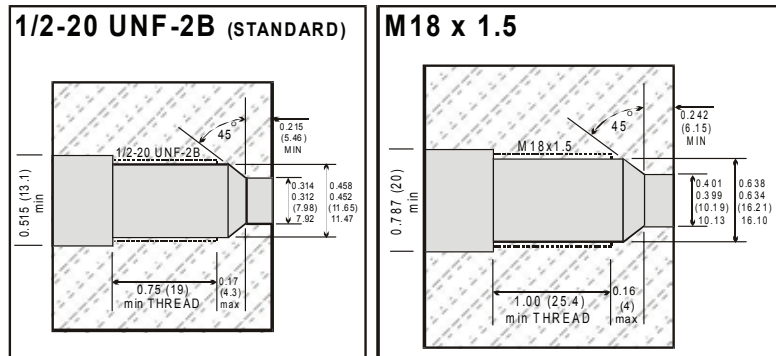
\*Contact factory for additional optional/custom modifications.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use. While we provide application assistance personally, through our literature and the Transducers Direct web site, it is up to the customer to determine the suitability of the product in the application.

REV: 5.21

**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 - 160°F)**  
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

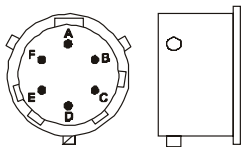
**ELECTRICAL INSTALLATION**

- 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.

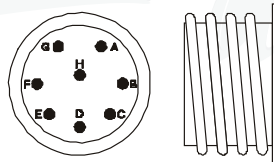
TRANSDUCER - 3.33 mV/V

**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     |

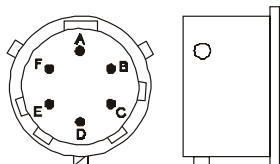
**8 PIN SCREW**



| 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     |

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 Analysis

### 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).

