

MDA 410 | 412 | TDA 410 Pressure Sensors

IDEAL CHOICE FOR NON-MERCURY, FOOD AND MEDICAL EXTRUSION
APPLICATIONS



Description

Dynisco's MDA 410 | 412 | TDA 410 Series of pressure transducers are the ideal choice for non-mercury, food and medical extrusion applications requiring a fill material that meets FDA and USDA requirements. Model MDA 410 | 412 | TDA 410 uses a special high temperature fill (NaK, Potassium Sodium) and an Inconel diaphragm to allow accurate pressure measurements in processes with temperatures as high as 1000°F. The transducers are supplied with a high accuracy (0.25%), great repeatability and reliability. An 6-pin bendix-style connector is used for easy connect and disconnect. The MDA410 is the most commonly used alternate fill melt pressure transducer in the world.

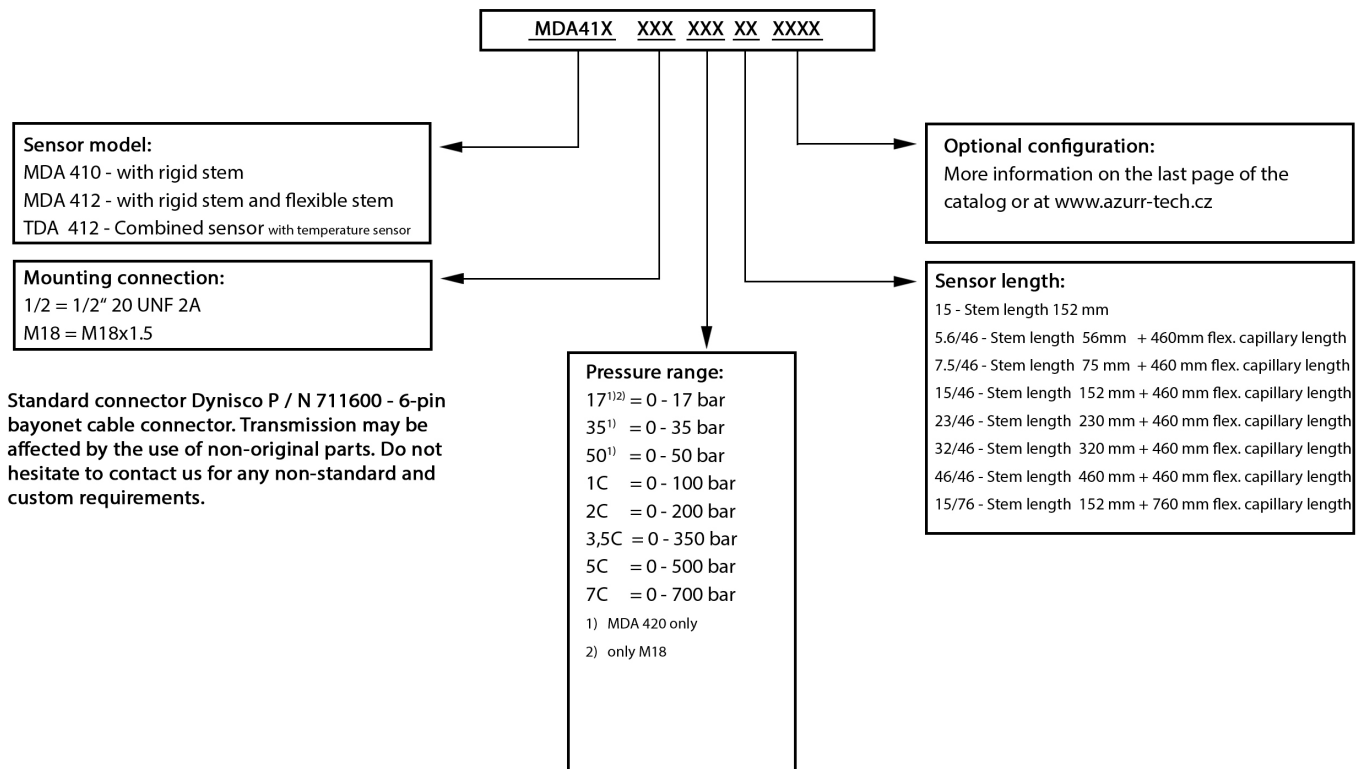
Features

- 3.33 mV/V full scale output
- Accuracy of better than $\pm 0.25\%$
- Pressure ranges from 0 - 35 BAR to 0 - 700 BAR
- Handles temperatures up to 1000°F
- Superior thermal compensation
- Inconel diaphragm
- Internal 80% shunt calibration
- CE Approved

Technical Data and Operating Data	
Pressure Range:	0 - 35 bar to 0 - 700 bar
Temperature Measurement:	Thermocouple Type J (TDA412)
Accuracy:	±0.5% f.s.v. up to 50 bar ±1% f.s.v.
Repeatability:	±0.1% f.s.v. up to 50 bar ±0.2% f.s.v.
Resolution:	infinite
Maximum Overload (without influencing operating data):	2 x pressure range
Burst Pressure:	6 x pressure range max. 3000 bar
Material in Contact with Media:	Inconel 718
Electrical Characteristics	
Configuration:	Four-arm Wheatstone bridge strain gage (DMS)
Strain Resistance:	350Ω
Output Signal:	3.33 mV/V ±2%
Zero Balance:	±5% f.s.v. adjustable
Supply Voltage:	10 V DC, max. 12 V DC
Internal Shunt-Calibration:	80% f.s.v. ±0.5%
Leakage Resistance:	1000 MΩ at 50 V DC

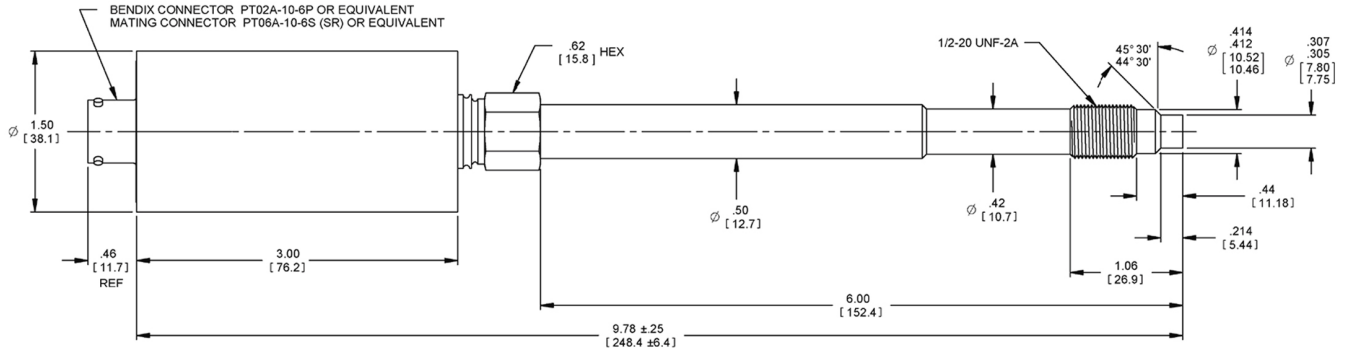
Temperature Influence	
Diaphragm:	
Max. Temperature:	540°C
Zero Shift (due to temperature change):	< 0.4 bar/10°C
Housing:	
Max. Temperature:	120°C
Zero Shift (due to temperature change):	±0.2% f.s.v./10°C
Sensitivity Shift (due to temperature change):	±0.1% f.s.v./10°C up to 50 bar ±0.2% f.s.v./10°C

Ordering Guide for MDA410 Pressure Sensors

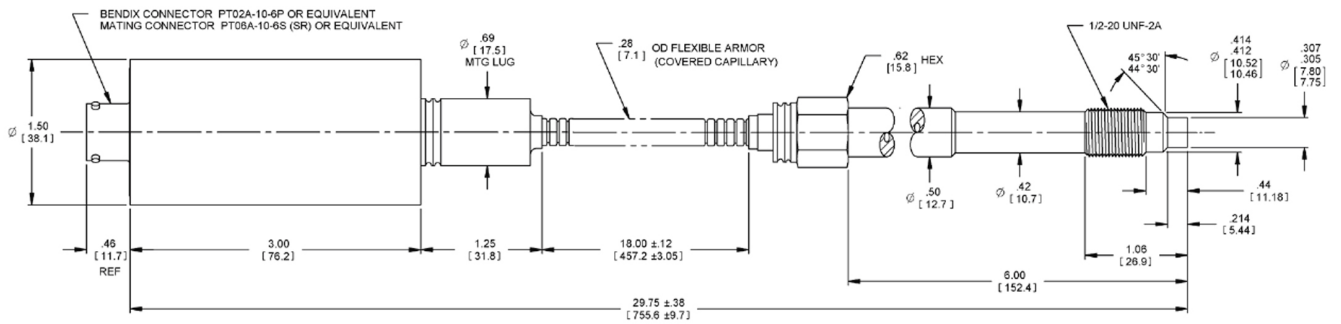


Dimensions

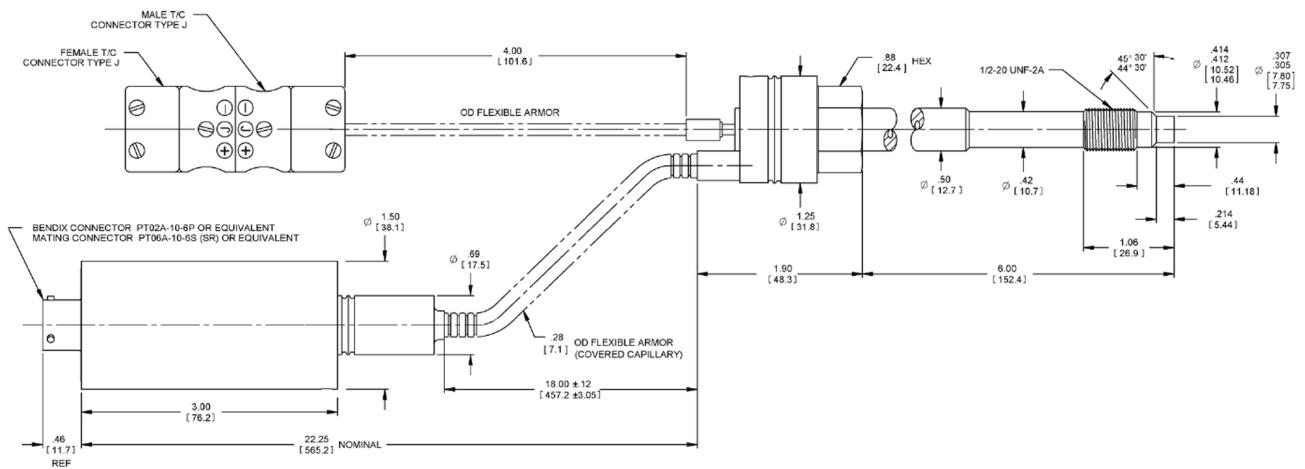
MDA410



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