

# MDA410 Pressure Sensors

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



## Description

Dynisco's MDA410 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 MDA410 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**

<b>Pressure Range:</b>	0 - 35 bar to 0 - 700 bar
<b>Temperature Measurement:</b>	Thermocouple Type J (TDA412)
<b>Accuracy:</b>	±0.5% f.s.v. up to 50 bar ±1% f.s.v.
<b>Repeatability:</b>	±0.1% f.s.v. up to 50 bar ±0.2% f.s.v.
<b>Resolution:</b>	infinite
<b>Maximum Overload (without influencing operating data):</b>	2 x pressure range
<b>Burst Pressure:</b>	6 x pressure range max. 3000 bar
<b>Material in Contact with Media:</b>	Inconel 718

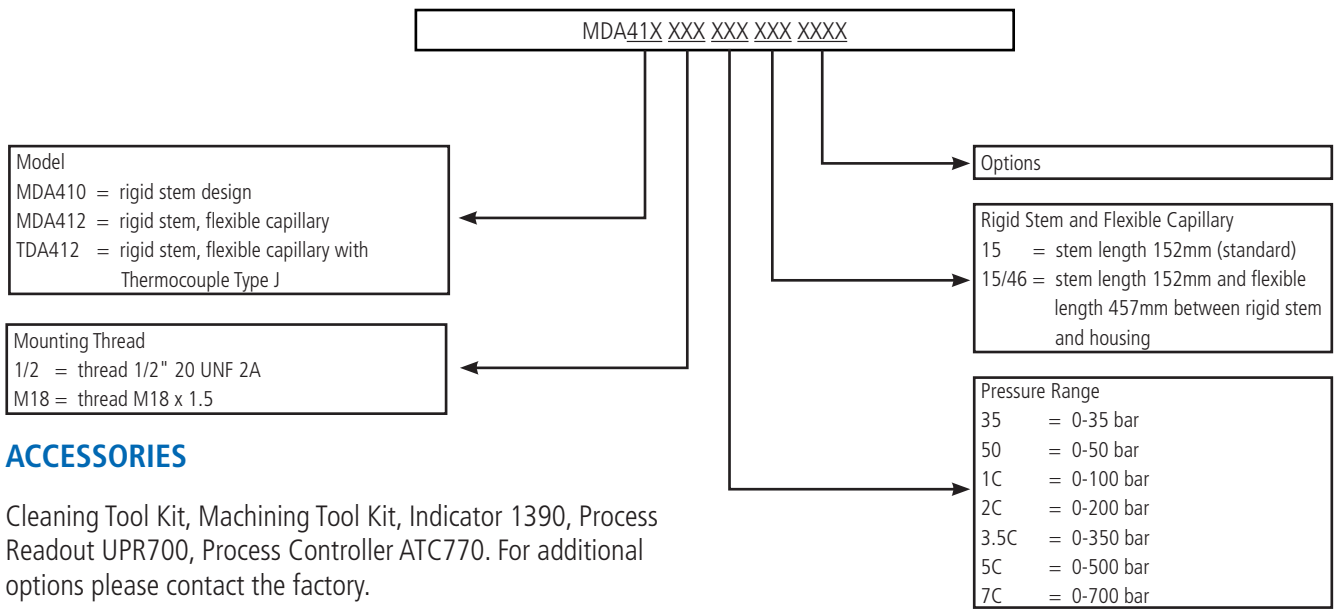
**Electrical Characteristics**

<b>Configuration:</b>	Four-arm Wheatstone bridge strain gage (DMS)
<b>Strain Resistance:</b>	350Ω
<b>Output Signal:</b>	3.33 mV/V ±2%
<b>Zero Balance:</b>	±5% f.s.v. adjustable
<b>Supply Voltage:</b>	10 V DC, max. 12 V DC
<b>Internal Shunt-Calibration:</b>	80% f.s.v. ±0.5%
<b>Leakage Resistance:</b>	1000 MΩ at 50 V DC

**Temperature Influence**

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

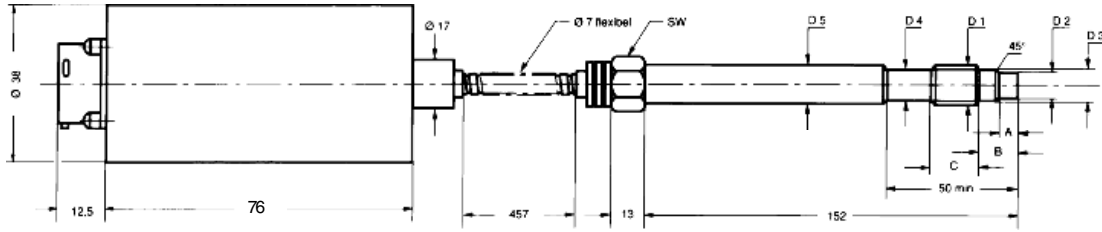
**Ordering Guide for MDA410 Pressure Sensors**



**ACCESSORIES**

Cleaning Tool Kit, Machining Tool Kit, Indicator 1390, Process Readout UPR700, Process Controller ATC770. For additional options please contact the factory.

## Dimensions



D1	D2	D3	D4	D5	A	B	C	SW
1/2"-20UNF-2A M18 x 1,5	7,8 <sup>-0,05</sup> 10 <sup>-0,05</sup>	10,5 <sup>-0,05</sup> 16 <sup>-0,1</sup>	11 <sup>-0,5</sup> 16 <sup>-0,5</sup>	12,5 18	5,3 <sup>+0,25</sup> 6 <sup>+0,25</sup>	11 14	16 20	16 19

All dimensions are inches (mm) unless otherwise specified.



All dimensions are inches (mm) unless otherwise specified.  
 ©2016. Dynisco reserves the right to make changes without notice.  
 Refer to [www.dynisco.com](http://www.dynisco.com) for access to Operator Manual and other support documentation.  
 DSMDA410  
 Rev: 0117



[www.dynisco.com](http://www.dynisco.com)

**Dynisco**  
 38 Forge Parkway  
 Franklin, MA 02038  
 USA

Hotline 1-800-Dynisco  
[www.dynisco.com](http://www.dynisco.com)  
 Phone +1 508 541 9400  
 Fax +1 508 541 6206  
 Email [infoinst@dynisco.com](mailto:infoinst@dynisco.com)

### Dynisco Europe, GmbH

Pfaffemstr. 21 Phone +49 7131 297 0  
 74078 Hellbronn Fax +49 7131 297 166  
 Germany Email [dyniscoeurope@dynisco.com](mailto:dyniscoeurope@dynisco.com)

### Dynisco Shanghai

Building 7A, No. 568 Phone +86 21 34074072-819  
 Longpan Rd Malu Toll Free +86 400 728 9117  
 Jiading, 201801 China Fax +86 21 34074025