

# DYNISCO MODEL MRT463

## *Multi-Range, Flexible Stem Melt Pressure Transducer with Thermocouple*

### Description

Now, users can select from among four pressure ranges on one transducer with the new Dynisco MRT, the first multi-range pressure transducer. By simply turning a rotary switch via an access pot on the transducer, four potential pressure ranges can be selected. The transducer simultaneously measures both temperature and pressure. They can be ordered so that the equivalent psi, bar, Kg/cm<sup>2</sup> or MPa ranges can be chosen. This revolutionary melt pressure transducer offers maximum versatility to handle changing process conditions and materials.

### Features

- Accuracy of better than  $\pm 1.0\%$
- Four user selectable pressure ranges in one model
- Externally selectable range via rotary switch
- 3.33 mV/V FSO for selected range
- Internal 80% shunt calibration
- All stainless steel wetted parts
- Proven sensor design
- Type J thermocouple

### Benefits

- Reliable pressure measurement
- Maximizes inventory flexibility
- Maximum versatility for changing process conditions
- Standard low level output
- Easy set-up
- Corrosion resistant
- Good stability and repeatability
- Simultaneously measure pressure/temperature in one location



## Specifications

### Performance Characteristics

#### Ranges:

psi: 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000

bar: 0 - 200, 0 - 350, 0 - 500, 0 - 700

kg/cm<sup>2</sup>: 0 - 200, 0 - 350, 0 - 500, 0 - 700

MPa: 0 - 20, 0 - 35, 0 - 50, 0 - 70

Accuracy:  $\pm 1.0\%$  FSO

Repeatability:  $\pm 0.10\%$  FSO

Mounting torque: 500 inch - lbs. maximum

Overload rating: 20,000 psi (1,400 bar)

Material in contact with pressure media: 15 - 5 PH stainless steel, Dymax<sup>®</sup> coated

Weight: 2.5 lbs.

New  
Extended  
Life  
Coating

### Electrical Characteristics

Configuration: Four active arm bonded Wheatstone bridge strain gage

Bridge resistance: Input: 345 Ohms minimum; Output: 350 Ohms typical

Full scale output: 3.33 mV/V  $\pm 2\%$

Zero balance:  $\pm 10\%$  full scale

Excitation: 10 Vdc recommended, 12 Vdc maximum

Internal shunt calibration (R-Cal): 80% FSO  $\pm 1\%$

Insulation resistance: 100 megohms at 50 Vdc

### Temperature Characteristics

#### Transducer diaphragm:

Maximum diaphragm temperature: 750°F (400°C)

Zero shift due to temperature change: 15 psi/100°F typical

(27 psi/100°C)

#### Electronics housing:

Maximum temperature: 160°F (71°C)

Zero shift due to temperature change:  $\pm 0.05\%$  full scale/°F maximum

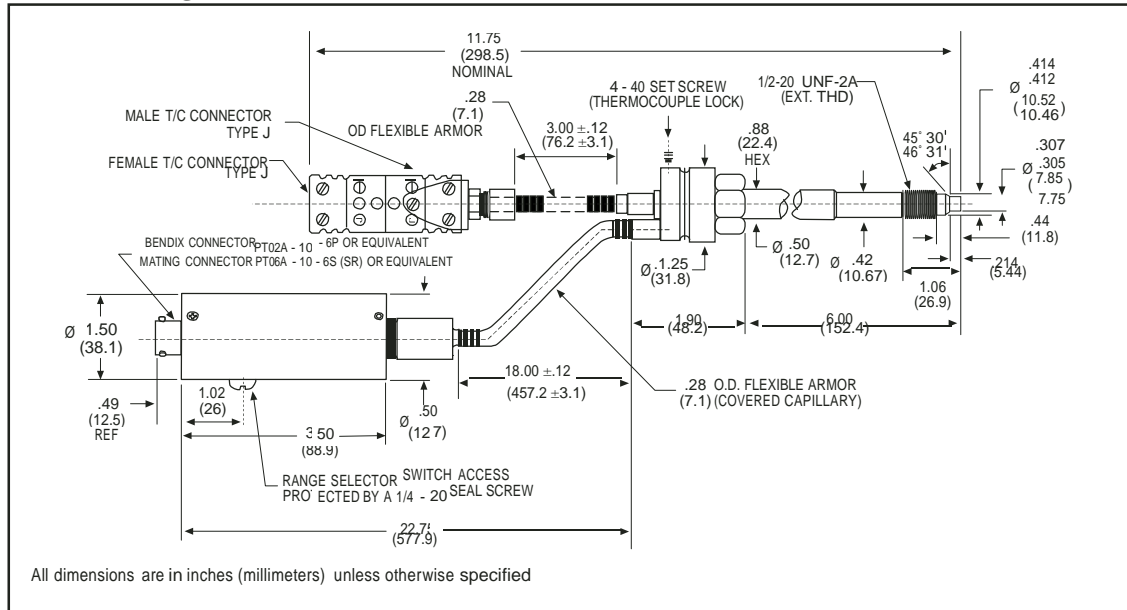
( $\pm 0.10\%$  full scale/°C)

Sensitivity shift due to temperature change:  $\pm 0.02\%$  full scale/°F maximum

( $\pm 0.04\%$  full scale/°C)

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## Ordering Guide

Model	Pressure Ranges		Rigid Stem		Flexible Stem	
	Code	Range	Code	Length	Code	Length
MRT463	XM	0 - 3,000 psi				
		0 - 5,000 psi				
		0 - 7,500 psi				
		0 - 10,000 psi				
	XB	0 - 200 bar				
		0 - 350 bar				
		0 - 500 bar				
		0 - 700 bar				
	XKg	0 - 200 Kg/cm <sup>2</sup>				
		0 - 350 Kg/cm <sup>2</sup>				
		0 - 500 Kg/cm <sup>2</sup>				
		0 - 700 Kg/cm <sup>2</sup>				
	XMPa	0 - 20 MPa				
		0 - 35 MPa				
		0 - 50 MPa				
		0 - 70 MPa				
			6	6"	18	18"

Ordering Example: MRT463 - XM - 6/18

- Mating connector P/N711600 or 6 - pin cable assembly sold separately.



<http://www.aptus-hmi.com/>

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