MRT 463
Multiple Range Pressure Sensor

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 can be ordered so that the equivalent psi, bar, Kg/cm2 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 ±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
Maximum Versatility For Changing Process Conditions

### 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/cm²: 0 - 200, 0 - 350, 0 - 500, 0 - 700  
|         | MPa: 0 - 20, 0 - 35, 0 - 50, 0 - 70 |
| Accuracy: | ±1.0% FSO |
| Repeatability: | ±0.1% 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® coated |
| Weight: | 2.5 lbs. |

### Electrical Characteristics

| Configuration: | Four active arm bonded Wheatstone bridge strain gage |
| Bridge Resistance: | Input: 345 Ohms minimum; Output: 350 Ohms ±10% |
| Full Scale Output: | 3.33 mV/V ±2.0% |
| Zero Balance: | ±10% full scale |
| Excitation: | 10 Vdc recommended, 12 Vdc maximum |
| Internal Shunt Calibration (R-Cal): | 80% FSO ±1.0% |
| 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: ±0.05% full scale/°F maximum (±0.10% full scale/°C) |
|                       | Sensitivity Shift due to Temperature Change: ±0.02% full scale/°F maximum (±0.04% full scale/°C) |

### Ordering Guide for MRT463

| Pressure Range | MRT463 XX XX XX |
|               | Flexible Stem  |
| XM = 0 - 3,000 psi | 18 = 18" |
|     0 - 5,000 psi |  |
|     0 - 7,500 psi |  |
|     0 - 10,000 psi |  |
| XB = 0 - 200 bar | Rigid Stem  |
|     0 - 350 bar | 06 = 6" |
|     0 - 500 bar | 12 = 12" |
|     0 - 700 bar |  |
| XKg = 0 - 200 Kg/cm² |  |
|     0 - 350 Kg/cm² |  |
|     0 - 500 Kg/cm² |  |
|     0 - 700 Kg/cm² |  |
| XMMPa = 0 - 20 MPa |  |
|     0 - 35 MPa |  |
|     0 - 50 MPa |  |
|     0 - 70 MPa |  |

Standard mating connector Dynisco P/N 711600 or 6-pin mating connector cable assembly sold separately. For additional options please consult factory.
Dimensions

All dimensions are in inches (millimeters) unless otherwise specified.