Dynisco’s MDT-series amplified transducers convert process pressure into an amplified signal for long distance transmission free of noise interference. All models are available in 4-20 mA, 0-5 VDC and 0-10 VDC, 2-, 3- and 4-wire high level outputs. Many of the features found in Dynisco’s standard MDA-series have been incorporated into the amplified MDT-series, including proven bonded strain gauge construction for stable operation, a flexible armored capillary between the rigid stem and the amplifier housing and a flush diaphragm. Another advantage is the electrical built-in calibration.

Features

- Installation for media temperature up to 400°C
- Flexible capillary between rigid stem and housing
- Electrical built-in calibration
- Various high level outputs
- 4-20 mA, 2-wire 0-10 V DC, 3/4-wire and other volt output signal ranges
### Electrical Characteristics

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Four-arm Wheatstone bridge strain gage (DMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Shunt-Calibration</td>
<td>80% of full scale ±5%</td>
</tr>
<tr>
<td>Leakage Resistance</td>
<td>1000 MΩ at 50 V DC</td>
</tr>
</tbody>
</table>

**MDT422F 2-wire mA:**

- **Output Signal:** 4-20 mA
- **Supply Voltage:** 10-36 V DC
- **Zero Balance:** 2% ±5% of full scale adjustable
- **Load Resistance:** Maximum 1.2Ω at 36 V

**MDT422 K/L/M/N 3-wire V DC**

- **Output Signal:**
  - K: 0-5 V DC, M: 1-6 V DC, L: 0-10 V DC, N: 1-11 V DC
- **Supply Voltage:** 15-32 V DC
- **Load Resistance:**
  - K: >5 kΩ, M: >5 kΩ, L: >10 kΩ, N: >10 kΩ

**MDT422 G/H**

- **Output Signal:** G: 0-5 V DC, H: 0-10 V DC
- **Supply Voltage:** dual ±10 to ±16 V DC
- **Load Resistance:** G: >5 kΩ, H: >10 kΩ

### Temperature Influence

**Diaphragm:**

- Max. Temperature: 400ºC
- Zero Shift (due to temperature change):
  - MDT422 X < 0.2 bar/10ºC
  - MDT462 X < 0.4 bar/10ºC

**Housing:**

- Max. Temperature: 85ºC
- Zero Shift (due to temperature change):
  - ±0.2% f.s.v./10ºC
- Sensitivity Shift (due to temperature change):
  - MDT422 X ±0.1% f.s.v./10ºC
  - up to 50 bar ±0.2% f.s.v./10ºC
  - MDT462 X ±0.4% f.s.v./10ºC

### Technical Data and Operating Data

**Pressure Range:**

- 0 - 17 bar to 0 - 2000 bar

**Accuracy:**

- MDT 422 X ±0.5% f.s.v.
- up to 50 bar ±1% f.s.v.
- MDT 462 X ±1.0% f.s.v.

**Repeatability:**

- MDT 422 ±0.1% f.s.v.
- up to 50 bar ±0.2% f.s.v.
- MDT 462 X ±0.2% f.s.v.

**Resolution:**

- Infinite

**Maximum Overload (without influencing operating data):**

- 2 x pressure range for range
  - 1000 and 1400 bar max. 1750 bar and max. 2400 bar for range
  - 2000 bar

**Burst Pressure:**

- 6 x pressure range
- max. 3000 bar

**Material in Contact with Media:**

- 15-5 Mat. No. 1.4545, DyMAX coated
Ordering Guide for MDT422 Pressure Sensors

**Dimensions**

<table>
<thead>
<tr>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
<th>D5</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>SW</th>
</tr>
</thead>
</table>
| 1/2"-20UNF-2A
M18 x 1.5 | 7.8 ±0.05 | 10.5 ±0.05 | 11.0 ±0.05 | 12.5 | 5.3 ±0.05 | 11 | 16 | 16 |

All dimensions are inches (mm) unless otherwise specified.

**ACCESSORIES**

Cleaning Tool Kit, Machining Tool Kit, Indicator 1490, Process Readout UPR900, Process Controller ATC990. For additional options please contact the factory.