Dual Pressure flexiTIM* System
Bently Nevada* Asset Condition Monitoring

Description

The Dual Pressure flexiTIM* module interfaces 2 individual pressure transducers to the Trendmaster® 2000 System and is intended for non-dynamic pressure applications.

The flexiTIM module and cable interfaces with pressure transducers using a 4-pin, locking bayonet connection. Compatible transducers are standard, millivolt output type devices with an output sensitivity of 10 mV/V. This flexibility allows the dual pressure flexiTIM system to measure a wide range of pressures under a variety of operating conditions. We offer a standard transducer for use with the flexiTIM module for convenience.
Specifications

All specifications are at 25 °C (77 °F) unless otherwise specified.

Operation outside the specified limits will result in false or inaccurate readings.

200130 Dual Pressure flexiTIM

Electrical

Full Scale Range

The pressure transducer sets the Trendmaster full-scale pressure range. The user enters the transducer's full-scale range into the Trendmaster software.

Accuracy

±8.5% of the transducer full-scale rating (transducer accuracy not included).

Transducer Excitation Voltage

4.98 Vdc ± 65 mVdc.

Maximum Transducer Supply Current

2.5 mA absolute maximum available over temperature.

Transducer OK Range

1 Vdc to 3 Vdc bias from transducer (nominal).

Resolution

0.025% of transducer's full scale rating.

Transducer

Bridge type meeting stated requirements.

Environmental Limits

Operating Temperature

-40 °C to +100 °C (-40 °F to +212 °F).

Humidity

100% condensing on exposed surfaces.

100% non-condensing on surfaces inside conduit.

Mechanical

Housing Materials

Powder-coated aluminum.

Weight

554 g (20 oz) not including conduit body.

Dimensions

See Figure 1 and Figure 2.

Compliance and Certifications

EMC

Standards:

EN 61000-6-2 Immunity for Industrial Environments
EN 55011/CISPR 11 ISM Equipment
EN 61000-6-4 Emissions for Industrial Environments

European Community Directives:

EMC Directive 2004/108/EC
Hazardous Area Approvals

CSA
Installed with Intrinsically Safe Zener Barriers per Drawing 136925
Class I, Div 1 Groups A, B, C & D
Class II, Div 1 Groups E, F & G
Class III, Div 1
Ex ia IIC; T4, T4a = 80 °C
AEx ia IIC T4 : T4a = 80 °C
Class I, Zone 0

Installed Without Barriers per Drawing 136926
Ex nA IIC, Class I, Zone 2
T4, Tα = 100 °C

Class I, Div 2, Groups A, B, C & D
T4a, Tα = 100 °C

ATEX
Installed with Intrinsically Safe Zener Barriers per Drawing 136925
II 1 G
EEx ia IIC T4
Tα = 100 °C

IECEx
Ex ia IIC T4

Brazil
Ex ia IIC T4 Ga

For further certification and approvals information please visit the following website:

200131 Cables

Operating Temperature
-20 °C to +100 °C (-4 °F to +212 °F).

Minimum Bend Radius
25.4 mm (1.0 in).

Construction
4-conductor (22 AWG) with foil shield and drain wire (100% coverage), yellow PVC outer jacket.

Connectors
Screw-on, 5-pin, keyed connector on the flexiTIM end and a PT06F8-4S (or equivalent) on the transducer end. The user should install the environmental boot over the transducer’s connector and body.

200132 Pressure Transducer

Pressure Ranges PSI SG
30, 50, 100, 300, and 500.

Sensitivity
10 mV/V ± 1%.

Zero Offset
±3mV (±6% of full scale range) at atmospheric pressure (14.7 PSI).

Absolute Accuracy
±4% over compensated temperature range.

Excitation
5 Vdc to 10 VDC (nominal).

Input Resistance
> 2 K Ω.
**Output Resistance**

< 6 kΩ.

**Operating Temperature**

-54 °C to +121 °C (-65 °F to +250 °F).

**Compensated Temperature**

+10 °C to +93 °C (+50 °F to +200 °F).

**Connector**

MS3113H8-4P, 4-position male or equivalent:

A = + Excitation
B = + Out
C = - Out
D = - Excitation

**Proof Pressure**

2X Full Pressure Scale.

**Burst Pressure**

3X Full Pressure Scale

**Pressure Fitting**

1/4 - 18 NPT male.

**Case Material**

316 Stainless Steel.

**Insulation resistance**

> 50 MΩ @ 50 VDC.

## Ordering Information

**200130 Dual Pressure flexiTIM Module (all conduit bodies have 1-inch hubs).**

**200130-AXX-BXX**

**A:** Conduit body style

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 0</td>
<td>No conduit body</td>
</tr>
<tr>
<td>0 1</td>
<td>Appleton® Style C body, malleable iron</td>
</tr>
<tr>
<td>0 2</td>
<td>Appleton Style E body, malleable iron</td>
</tr>
</tbody>
</table>

---

**200131-AXX**

**A:** Cable length

<table>
<thead>
<tr>
<th>Code</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 5</td>
<td>0.5 metres (1.6 feet)</td>
</tr>
<tr>
<td>1 0</td>
<td>1.0 metre (3.3 feet)</td>
</tr>
<tr>
<td>1 5</td>
<td>1.5 metres (4.9 feet)</td>
</tr>
<tr>
<td>2 0</td>
<td>2.0 metres (6.6 feet)</td>
</tr>
<tr>
<td>4 0</td>
<td>4.0 metres (13.1 feet)</td>
</tr>
<tr>
<td>6 0</td>
<td>6.0 metres (19.7 feet)</td>
</tr>
<tr>
<td>9 0</td>
<td>9.0 metres (29.5 feet)</td>
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</tbody>
</table>

**200132-AXXX**

**A:** Pressure rating

<table>
<thead>
<tr>
<th>Code</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>0 3</td>
<td>0 to 30 PSI SG</td>
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<tr>
<td>0 5</td>
<td>0 to 50 PSI SG</td>
</tr>
<tr>
<td>1 0</td>
<td>0 to 100 PSI SG</td>
</tr>
<tr>
<td>2 0</td>
<td>0 to 200 PSI SG</td>
</tr>
<tr>
<td>3 0</td>
<td>0 to 300 PSI SG</td>
</tr>
<tr>
<td>5 0</td>
<td>0 to 500 PSI SG</td>
</tr>
<tr>
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<tr>
<td>1500</td>
<td>0 to 1500 PSI SG</td>
</tr>
<tr>
<td>2000</td>
<td>0 to 2000 PSI SG</td>
</tr>
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</table>

**B:** Approvals

<table>
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<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>0 0</td>
<td>CSA, Class 1 DIV 2, no barriers</td>
</tr>
<tr>
<td>0 1</td>
<td>CSA approvals installed with barriers</td>
</tr>
<tr>
<td>0 2</td>
<td>CENELEC approvals installed with barriers</td>
</tr>
</tbody>
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Specifications and Ordering Information
Part Number 141576-01
Rev. L (07/11)

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<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>137230-01</td>
<td>flexiTIM installation Guide</td>
</tr>
<tr>
<td>01620085</td>
<td>Extra terminal plugs for SPA line connection. Each flexiTIM module includes 3 terminal plugs.</td>
</tr>
<tr>
<td>03814231</td>
<td>Compression fitting for 1-inch conduit body hubs. Seals for cables when installing flexiTIM modules without conduit.</td>
</tr>
<tr>
<td>04500006</td>
<td>Dow Corning® 4, Electrical Insulating Compound (5.3 Oz).</td>
</tr>
</tbody>
</table>
Dimensional diagrams

Note: All dimensions in millimetres [inches] except as noted.

Figure 1: Dual Pressure flexiTIM Module Dimensions (Top View)

1. 1/2-20 5-pole female receptacle
2. Powder-coated aluminum housing
3. 63.3 mm [2.49 in]. Allow 127 mm [5 in] for total height with connector and cable bend.
4. Gasket

Figure 2: Dual Pressure flexiTIM Module Dimensions (Side View)

Figure 3: Dual Pressure flexiTIM Module Bottom View
Figure 4: Conduit Body Style C Provided with flexiTIM Modules

Figure 5: Conduit Body Style E Provided with flexiTIM Modules

Figure 6: Installed Pressure flexiTIM Module

1. Transducer cables with environmental boots
2. Transducers
3. Conduit body
4. flexiTIM module
5. Rigid conduit
6. SPA line
1. 1/4-18 NPT
2. MS3113H8-4P, 4-position male or equivalent. A = + Excitation, B = + Out, C = - Out, D = - Excitation.

* Figure 7: Pressure Transducers

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