

# Dual Pressure flexiTIM\* System

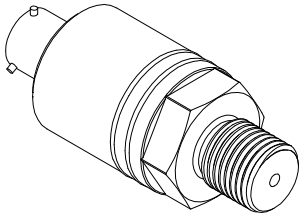
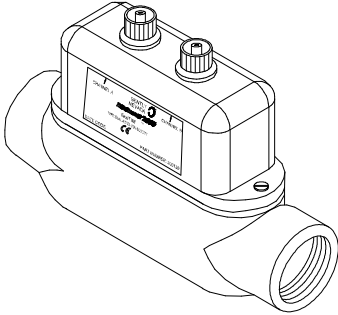
Bently Nevada\* Asset Condition Monitoring

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## 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.



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## Specifications

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

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

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### 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.

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## 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.

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## Mechanical

#### Housing Materials

Powder-coated aluminum.

#### Weight

554 g (20 oz) not including conduit body

#### Dimensions

See Figure 1 and Figure 2.

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## 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

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## 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, Ta = 100 °C

Class I, Div 2, Groups A, B, C & D

T4, @ Ta = 100 °C

### ATEX

**Installed with  
Intrinsically  
Safe Zener  
Barriers per  
Drawing 136925**

 II 1 G

EEx ia IIC T4

Ta = 100 °C

### IECEX

Ex ia IIC T4

### Brazil

Ex ia IIC T4 Ga

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

[http://www.ge-energy.com/prod\\_serv/products/oc/en/bently\\_nevada.htm](http://www.ge-energy.com/prod_serv/products/oc/en/bently_nevada.htm)

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## 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.

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## 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.

<b>Output Resistance</b>	< 6 K $\Omega$ .
<b>Operating Temperature</b>	-54 °C to +121 °C (-65 °F to +250 °F).
<b>Compensated Temperature</b>	+10 °C to +93 °C (+50 °F to +200 °F).
<b>Connector</b>	MS3113H8-4P, 4-position male or equivalent: A = + Excitation B = + Out C = - Out D = - Excitation
<b>Proof Pressure</b>	2X Full Pressure Scale.
<b>Burst Pressure</b>	3X Full Pressure Scale
<b>Pressure Fitting</b>	1/4 - 18 NPT male.
<b>Case Material</b>	316 Stainless Steel.
<b>Insulation resistance</b>	> 50 M $\Omega$ @ 50 VDC.

<b>03</b>	Appleton Style C body, aluminum
<b>04</b>	Appleton Style E body, aluminum
<b>05</b>	Weatherproof housing mount
<b>B:</b>	Approvals
<b>00</b>	CSA, Class 1 DIV 2, no barriers
<b>01</b>	CSA approvals installed with barriers
<b>02</b>	CENELEC approvals installed with barriers

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### Transducer Cables

#### 200131-AXX

<b>A:</b>	Cable length
<b>05</b>	0.5 metres (1.6 feet)
<b>10</b>	1.0 metre (3.3 feet)
<b>15</b>	1.5 metres (4.9 feet)
<b>20</b>	2.0 metres (6.6 feet)
<b>40</b>	4.0 metres (13.1 feet)
<b>60</b>	6.0 metres (19.7 feet)
<b>90</b>	9.0 metres (29.5 feet)

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### Pressure Transducer

#### 200132-AXXX

<b>A:</b>	Pressure rating
<b>030</b>	0 to 30 PSI SG
<b>050</b>	0 to 50 PSI SG
<b>100</b>	0 to 100 PSI SG
<b>200</b>	0 to 200 PSI SG
<b>300</b>	0 to 300 PSI SG
<b>500</b>	0 to 500 PSI SG
<b>1000</b>	0 to 1000 PSI SG
<b>1500</b>	0 to 1500 PSI SG
<b>2000</b>	0 to 2000 PSI SG

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## Ordering Information

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

#### 200130-AXX-BXX

<b>A:</b>	Conduit body style
<b>00</b>	No conduit body
<b>01</b>	Appleton® Style C body, malleable iron
<b>02</b>	Appleton Style E body, malleable iron

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## Accessories

126709-04

**Trendmaster 2000  
Installation Guide.** Includes  
flexiTIM Installation Guide.

137230-01

**flexiTIM installation Guide**

01620085

**Extra terminal plugs for SPA  
line connection.** Each flexiTIM  
module includes 3 terminal  
plugs.

03814231

**Compression fitting for 1-  
inch conduit body hubs.** Seals  
for cables when installing  
flexiTIM modules without  
conduit.

04500006

**Dow Corning® 4, Electrical  
Insulating Compound (5.3  
Oz).**

## Dimensional diagrams

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

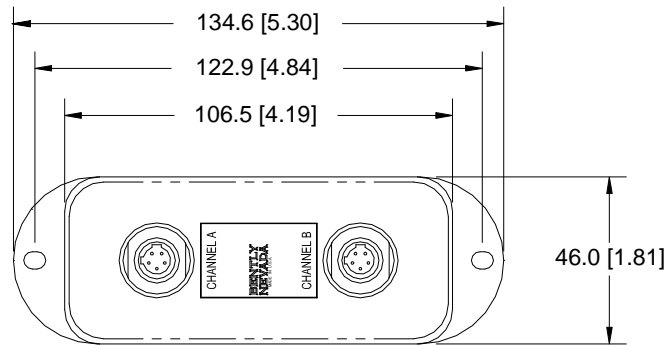
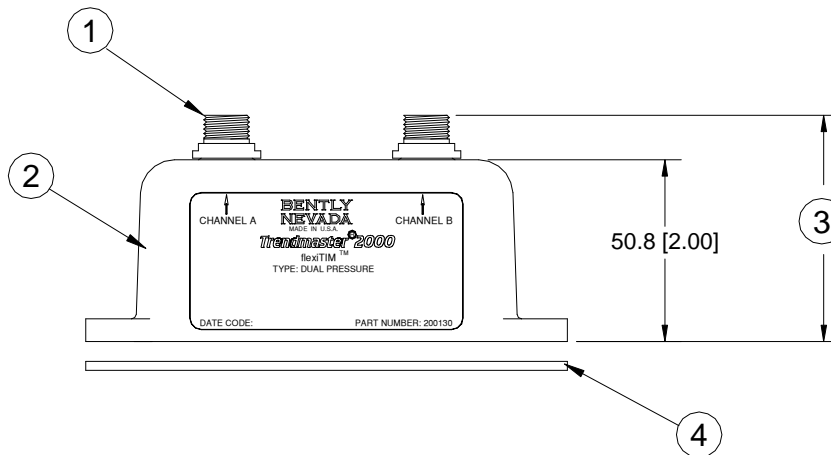


Figure 1: Dual Pressure flexiTIM Module Dimensions (Top View)



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)

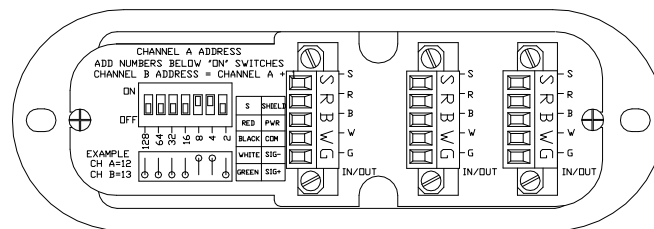
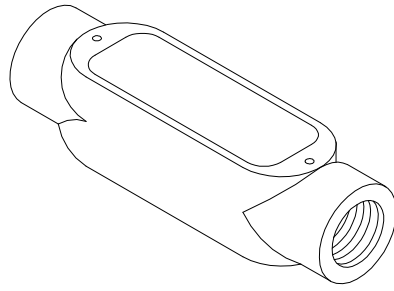
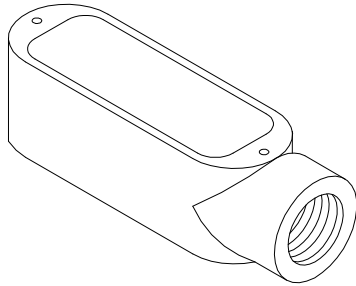


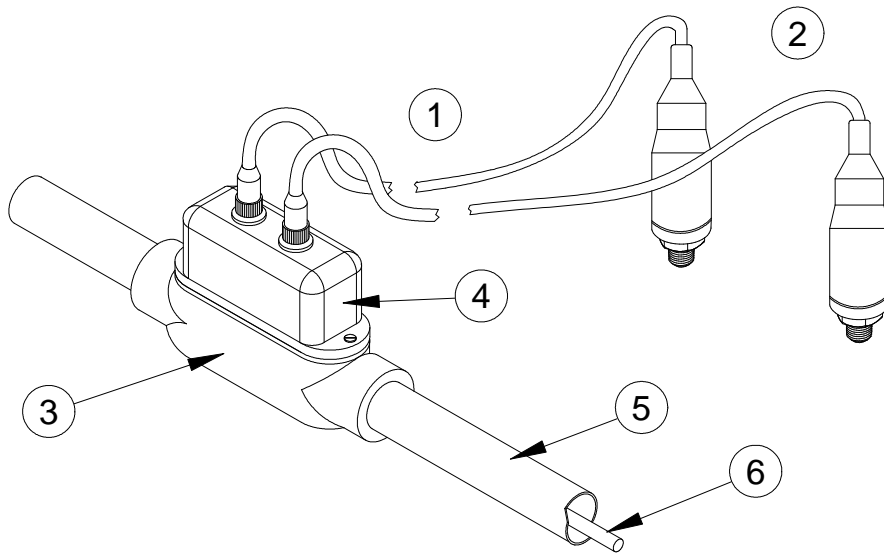
Figure 3: Dual Pressure flexiTIM Module Bottom View



**Figure 4: Conduit Body Style C Provided with flexiTIM Modules**

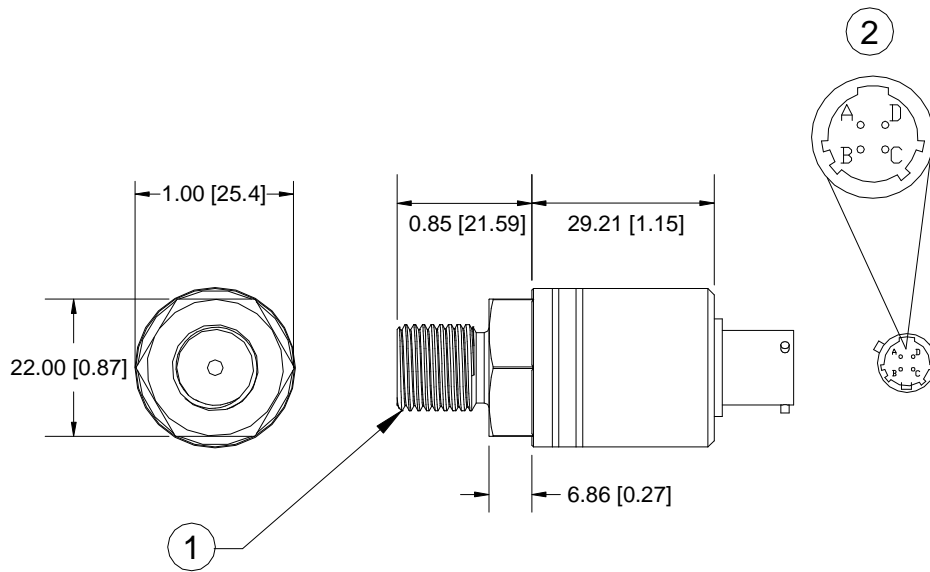


**Figure 5: Conduit Body Style E Provided with flexiTIM Modules**



1. Transducer cables with environmental boots
2. Transducers
3. Conduit body
4. flexiTIM module
5. Rigid conduit
6. SPA line

**Figure 6: Installed Pressure flexiTIM Module**



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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