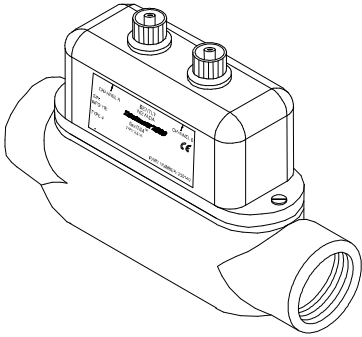


# 200140 flexiTIM™ Module

## Description

The 200140 flexiTIM module provides two channels on the Trendmaster® 2000 system for monitoring any static 0 to 5 volt transducer input. Each flexiTIM channel provides power and signal conditioning to the connecting transducer.



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## Specifications

All specifications are at  $25 \pm 5$  °C ( $+77 \pm 9$  °F) unless otherwise specified.

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

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### Electrical

#### 200140 flexiTIM

**Input Range:**

0.5 to 4.5 Vdc

**Input Over range:**

-0.5 to +5.5 Vdc

**Resolution:**

0.025 % of transducer's full scale rating

**DC Accuracy:**

$\pm 1.5$  % of the transducer's full scale rating over temperature (does not include ratio-metric or other transducer errors)

**Transducer OK**

No transducer OK check will be provided by the flexiTIM

**Transducer's Requirements****Transducer Type:**

Generic. Transducer case must be isolated from Transducer Power, Signal, and Common.

**Settling Time:**

The transducer must be able to provide valid data within 200 milliseconds after power is applied.

**Full Scale Output Range:**

+0.5 V to +4.5 V

**Current Draw:**

5 mA maximum

**Voltage:**

+4.77 V to +5.08V

**Output Resistance:**

$\leq 1$  M $\Omega$

**Cable:**

200151 or Cables With Pigtails

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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.

**Enclosure Type:**

4

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### Mechanical

**Housing Materials:**

Powder-Coated Aluminum.

**Weight:**

554 grams (20 oz) not including conduit body

**Dimensions:**

See diagram

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### Electromagnetic Compatibility

**Radiated Emissions:**

EN 55022 (1994). Class A.

**Electrostatic Discharge:**

EN 61000-4-2 (1995), Criteria A.

**Radiated Susceptibility:**

EN 61000-4-3 (1997) (ENV 50140 : 1993), Criteria A.

**Conducted Susceptibility:**

ENV 50141 (1993), Criteria A.

**Electrical Fast Transient:**

EN 61000-4-4 (1995), Criteria A.

**Surge Capability:**

ENV 50142 (1994), Criteria A.

**Magnetic Field:**

EN 61000-4-8 (1994), Criteria A.

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**Hazardous Area Approvals**

**CSA:**

Certificate Number: 1109252 (LR 26744-201)

Class I, Groups A, B, C & D  
Class II Groups E, F & G  
Class III  
Enclosure Type 4  
T<sub>4</sub>, T<sub>0</sub> = 100 °C  
When installed per drawing number 136925

Class I, Groups A, B, C & D  
Enclosure Type 3R  
T<sub>4</sub>, T<sub>0</sub> = 100 °C  
When installed per drawing number 136925

Ex nA IIC  
Class I, Div. 2  
Groups A, B, C & D  
Enclosure Type 4  
When installed per drawing number 136926

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**200151 and Pigtail Cables**

**Operating Temperature:**

-20 °C to +100 °C (-4 °F to +212 °F).

**Minimum Bend Radius:**

25.4 mm (1 in).

**Construction:**

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

**Connectors (200151 only):**

Screw-on, five-pin, keyed connector on the flexiTIM end and a PT06F8-4S (or equivalent) on the transducer end.

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**Ordering Information**

**200140 flexiTIM module**

(all conduit bodies have 1-inch hubs).

**200140-AXX-BXX**

**A: Conduit body style**

- 00** No conduit body
- 01** Appleton Style C body, Malleable Iron
- 02** Appleton Style E body, Malleable Iron
- 03** Appleton Style C body, Aluminum
- 04** Appleton Style E body, Aluminum
- 05** Weatherproof housing mount

**B: Approvals**

- 00** CSA, Class 1 DIV 2, no barriers

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**Transducer cable**

**200151-AXX-BXX**

**A: Cable Length**

- 20** 2.0 metre (6.6 feet) cable
- 40** 4.0 metre (13.1 feet) cable
- 60** 6.0 metre (19.7 feet) cable

**B: Cable Jacket Option**

- 00** Yellow cable
- 01** Stainless steel over braid (armored) cable with yellow ends.
- 02** Blue cable with black ends.
- 03** Stainless steel over braid (armored) cable with black ends.

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## Cables With Pigtails

For use with generic transducer connection. See figure below for detailed pin out

**02101203**

3 ± 0.15 metres (9.8 ± 0.5 feet)

**02103059**

6 ± 0.15 metres (19.69 ± 0.5 feet)

**02100014**

9 ± 0.15 metres (29.54 ± 0.5 feet)

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## Accessories

**126709-04**

Trendmaster 2000 Installation Guide (flexiTIM installation guide is included)

**137230-01**

flexiTIM installation Guide

**01620085**

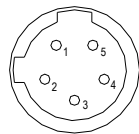
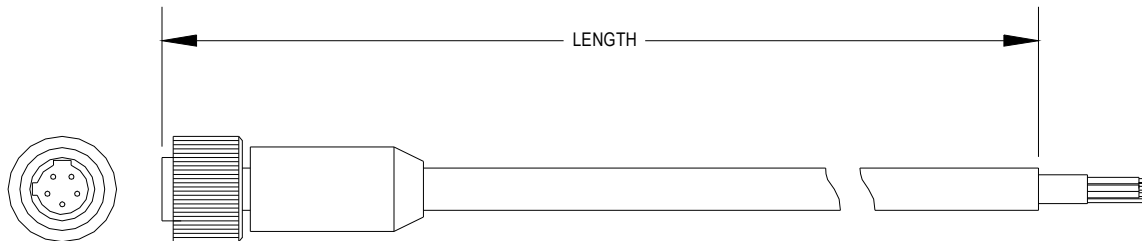
Extra terminal plugs for SPA line connection. 3 terminal plugs provided with each flexiTIM module.

**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)

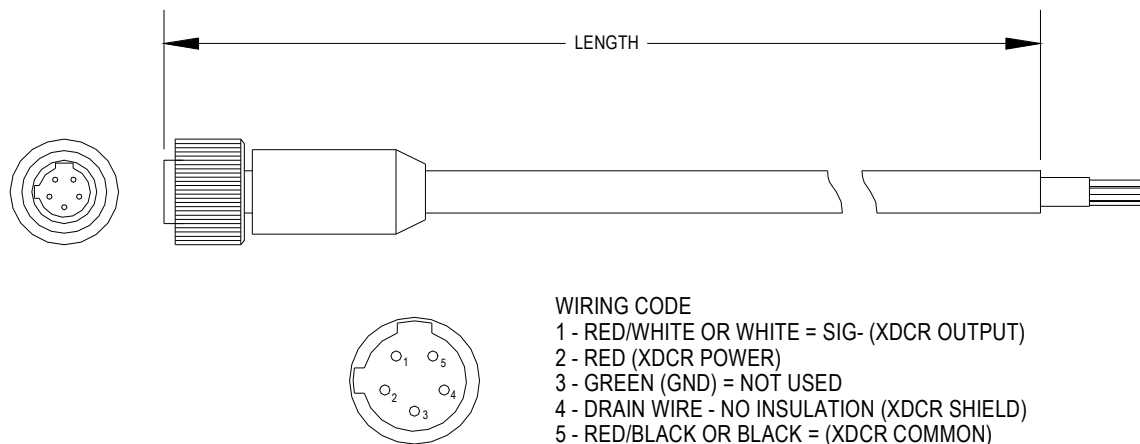


### WIRING CODE

- 1 - RED/WHITE OR WHITE = SIG- (XDCR OUTPUT)
- 2 - RED (XDCR POWER)
- 3 - GREEN (GND) = NOT USED
- 4 - DRAIN WIRE - NO INSULATION (XDCR SHIELD)
- 5 - RED/BLACK OR BLACK = (XDCR COMMON)

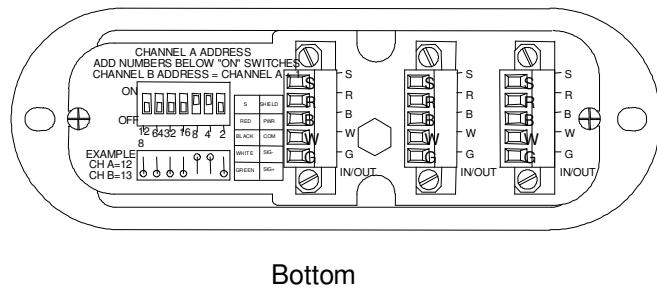
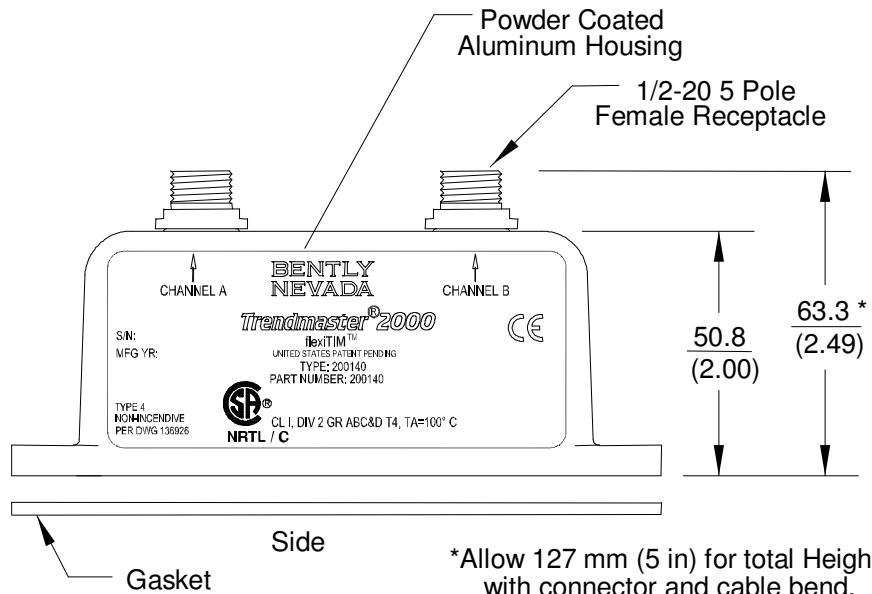
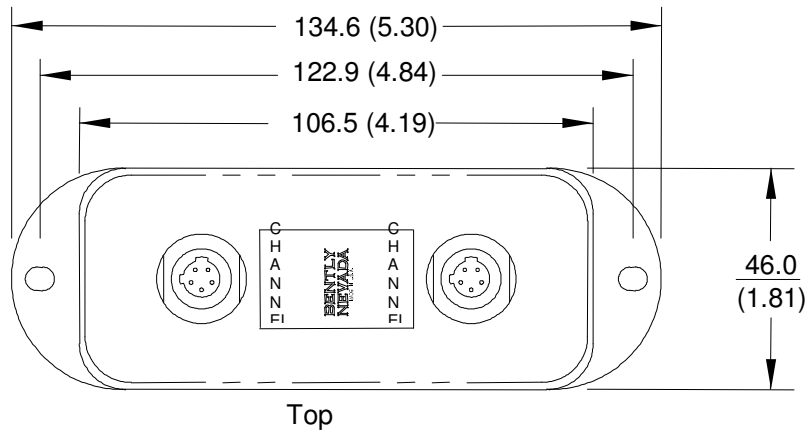
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## Dimensional diagrams



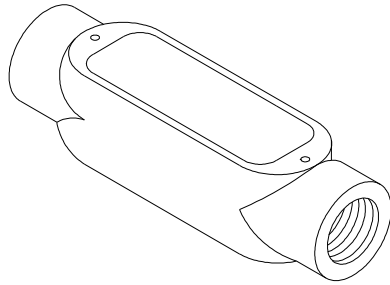
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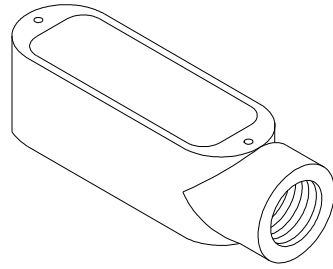


All dimensions are in millimetres (inches)

Figure 1: Dimensional diagram and wiring connection details



Style C Conduit Body



Style E Conduit Body

Figure 2: Conduit Body Styles provided with the flexiTIM modules

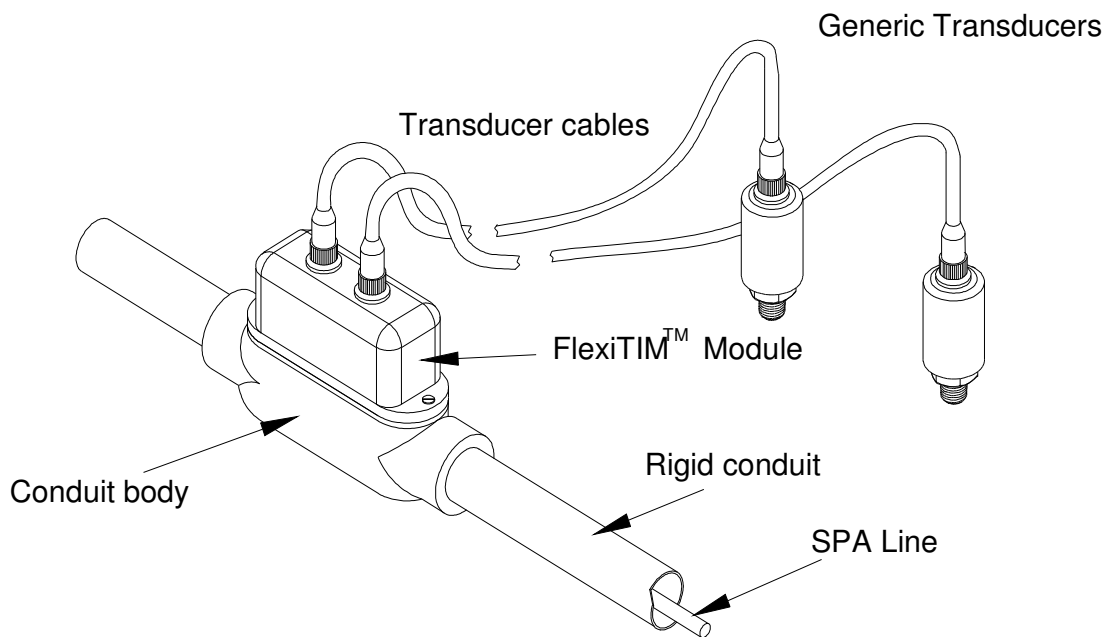


Figure 3: Installed 200140 flexiTIMmodule

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