

170180 FieldMonitor™ External Transducer I/O Module

Bently Nevada™ Asset Condition Monitoring

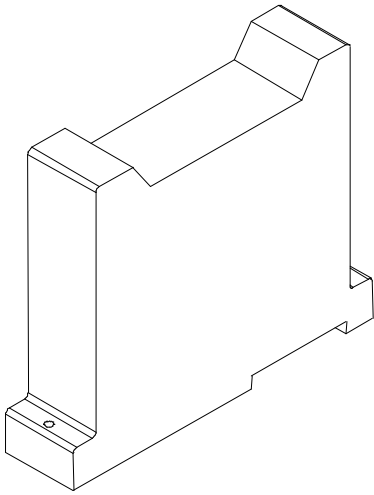
Description

An external transducer I/O module is used to connect the following transducer types to their respective 2-channel monitoring module:

- Proximity probes using external Proximitor® sensors (see note)
- All supported acceleration and velocity transducers

Each external transducer I/O module occupies one slot in a FieldMonitor terminal base, and can accommodate up to two transducer inputs.

Note: For proximity probes without external Proximitor sensors, refer to specification and ordering information sheets 141481-01 and 141482-01.



Specifications and Ordering Information
Part Number 141480-01
Rev. E (11/08)

Specifications

Signal Inputs

170180-01-XX:

Channel A

One Proximitor

or

Accelerometer with -24 Vdc
Supply

Channel B

One Proximitor

or

Accelerometer with -24 Vdc
Supply

170180-02-XX:

Channel A

One 2-wire Velocity Transducer

Channel B

One 2-wire Velocity Transducer

170180-03-XX:

Channel A

One Velomitor® Velocity
Transducer

Channel B

One Velomitor Velocity
Transducer

170180-04-XX:

Channel A

One Velomitor Velocity
Transducer

Channel B

One 2-wire Velocity Transducer

170180-05-XX:

Channel A

One Proximitor sensor with -18
Vdc supply

Channel B

One Proximitor sensor with -18
Vdc supply

Physical

Operating Temperature:

-34°C to +85°C (-30°F to +185°F)

Storage Temperature:

-40°C to +85°C (-40°F to +185°F)

Relative Humidity:

100% condensing nonsubmerged
from +7°C to +85°C (+45°F to
+185°F) when the connector is
protected.

Weight :

277g (0.61 lb) typical

Proximitor Sensor/ Accelerometer Interface Module

Input Signal Voltage Range:

0 to -Vt

Output Voltage Range:

0 to -Vt

Frequency Response:

-5% at >25 kHz

Current draw (without transducer):

2.0 mA maximum

Current Limit Setpoint:

33.6 mA min, 37.6 mA max at
25°C (77°F)

Specifications and Ordering Information
Part Number 141480-01
Rev. E (11/08)

2-Wire Velocity Transducer Interface Module**Input Signal****Voltage Range:**

0 to -Vt

**Output Voltage
Range:**

0 to -Vt

**Frequency
Response:**

-5% at >25 K Hz

**Input
Impedance:** $9.98 \pm 0.02 \text{ K}\Omega$ **Current draw
(without
transducer):**

2.0 mA maximum

Velomitor Piezo-Velocity Transducer**Input Signal****Voltage Range:**

0 to -Vt

**Output Voltage
Range:**

0 to -Vt

**Transducer
Nominal Bias
Voltage:**

-12 Vdc

**Transducer
Regulated
Current:**

3.00 to 4.10 mA

**Frequency
Response:**

-5% at >25 K Hz

**Current draw
(without
transducer):**

1.5 mA maximum

-18 V Proximitor Interface Module**Input Signal****Voltage Range:**

0 to -Vt

**Output Voltage
Range:**

0 to -Vt

**Transducer
Supply Voltage:**

-17.75 to -18.24 Vdc

**Frequency
Response:**

-5% at >25 kHz

**Current draw
(without
transducer):**

2.0 mA maximum

Hazardous Area Approvals

-00 Approvals Ordering Option


North America

Ex nA IIC T4
Class I, Zone 2
Class I, Div 2
Groups A, B, C, D
T4 @ -30°C = Ta = +70°C
per dwg 139255

*Certification
Number*

CSA 1166985

European/ATEX

 II 3G EEx nA [L] IIC T4
LCIE 00ATEX6016X
T4 @ -30°C = Ta = +70°C

Brazil

Br-Ex nA [nL] IIC T4
MC, AEX-8304-X
T4 @ -30°C = Ta = +70°C

-05 Approvals Ordering Option


North America

Ex nA [ia] IIC T4
Class I, Zone 2(0)
Class I, Div 2
Groups A, B, C, D
T4 @ -30°C = Ta = +70°C
per dwg 141265

*Certification
Number*

CSA 1166985

European/ATEX

 II 1/3 G EEx nA[ia] ia IIC T4
LCIE 00ATEX6017X
T4 @ -30°C = Ta = +70°C

Ordering Information

Transducer I/O Module

170180-XX-XX

A: I/O Module Type

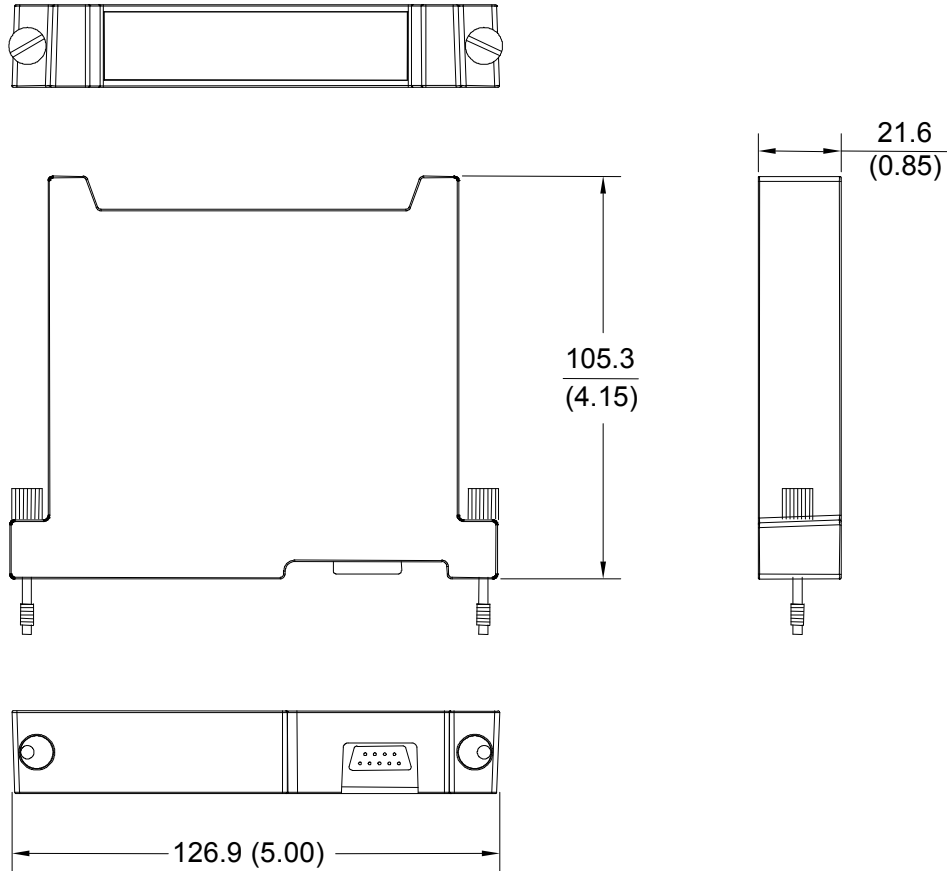
- 01** Dual Proximito/
Accelerometer I/O Module
- 02** Dual Velocity I/O Module
- 03** Dual Velomitor I/O Module
- 04** Velomitor A and Velocity B I/O
Module
- 05** Dual -18V Proximito I/O
Module

B: Hazardous Area Approval

Use the **05** option in the 1701/06 Isolator Terminal Base

- 00** Division 2/Zone 2
- 05** Division 2/Zone 2 for Monitor
Division 1, Zone 0/1 for
Transducers

Dimensional Drawing



Dimensions are in millimetres (inches)

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