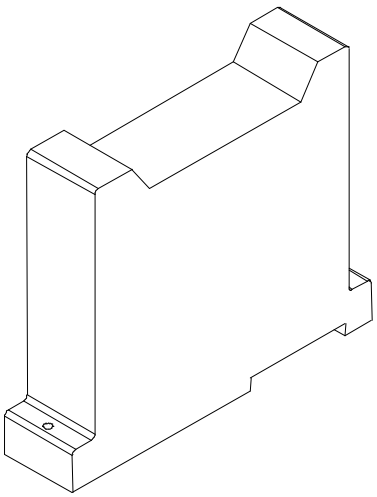
170180 FieldMonitor™ External Transducer I/O Module

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.

imagination at work

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)

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 ± 0.02 KΩ

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

- **0 1** Dual Proximitor/ Accelerometer I/O Module
- **0 2** Dual Velocity I/O Module
- **0 3** Dual Velomitor I/O Module
- **0 4** Velomitor A and Velocity B I/O Module
- **0 5** Dual -18V Proximitor I/O Module

B: Hazardous Area Approval

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

- **0 0** Division 2/Zone 2
- **0 5** Division 2/Zone 2 for Monitor Division 1, Zone 0/1 for Transducers