
Specifications

Inputs

Compatible transducers

Bently Nevada 200150 and 190520 Accelerometers.

Input Sensitivity

100 mV/g

Maximum acceleration

20 g peak

Maximum differential input voltage

4 volts peak to peak

Power

AC/HDC Power Version

AC Voltage:

85 to 264 Vac

DC Voltage:

110 to 370 Vdc

Current Draw:

60 mA. typ.
120 mA max.

Frequency:

47 Hz to 440 Hz, or DC.

Inrush:

20A typ. @ Vin=100Vac
40A typ. @ Vin=200Vac

+24 Vdc Power Version

Voltage:

18 to 36 Vdc

Current Draw:

300 mA max.

Signal Conditioning

Monitor Full-scale: (Below 614Hz)

English Units:

2.0 in/s zero-to-peak

Metric Units:

50.8 mm/s zero-to-peak

Note: Full scale is limited by maximum input above 614 Hz. The maximum input is 2 volts peak, or 20 g peak. 20 g at 614 Hz is equivalent to 2 inch per second (the full scale range of the monitor). For frequencies above 614 Hz, Full scale is equal to (1228/frequency).

Frequency Response:

High pass corner frequency

-3 dB corner @ 8 Hz less than 1% error due to high pass corner above 30 Hz

Low pass corner

Greater than 4 kHz less than 1% error due to low pass corner below 4kHz

Accuracy

Liquid Crystal Display and Buffered output.

30 Hz – 4 kHz:

±3% of full scale, Maximum

8 Hz – 30 Hz

-30% , + 3% of full scale
4-20 mA Recorder.

30 Hz – 4 kHz:

±5% of full scale, Maximum

8 Hz – 30 Hz

-30% , + 5% of full scale

Outputs

Buffered Transducer Output

Output Sensitivity:

19.7 mV/mm/s (500 mV/in/s)

Output Impedance:500 Ω **Full-scale Range:**

50.8 mm/s (2 in/s) zero-to-peak

4-20 mA Output**Full-scale Range:**

20 mA @

50.8 mm/s (2 in/s)

Overrange:

63.5 mm/s (2.5 in/s)

Accuracy:

Adjusted with trimpot

Galvanic Isolation:

Optical @ 1000 Vac or 707 Vdc

Relays**Type**

Single-pole, double-throw.

Contact Ratings*Switched
Power:*

180 watts, 1800 VA Maximum

*Maximum
Voltage and
Current*

300 Vac at 6 A

28 Vdc at 6 A

*Dielectric
Strength
(at sea level):*

Contact to Contact: 750 Vrms

Contact to Coil: 1500 Vrms

Life Expectancy*Electrical:*180,000 operations at 6 A, 120
Vac

Displays**Liquid Crystal
Display****Size:**

50.8 mm wide x 22.8 mm high

(2.0 inches wide x 0.9 inches high)

Full-scale:

50.8 mm/s (1.999 in/s)

Refresh Rate:

0.8 s

LED Indicators**OK:**

One constant ON green LED indicates OK condition of monitor, transducers, and field wiring. Constant OFF indicates NOT OK condition. OK LED flashing at 2 Hz indicates monitor has been NOT OK, but is now OK.

Alert:

One yellow LED indicates an Alert condition. Flashing at 2 Hz indicates an Alert condition has occurred and gone away. (Only occurs when the Alert relay is configured as nonlatching.)

Danger:

One of the two red LEDs indicates a Danger condition. Flashing at 2 Hz indicates a Danger condition has occurred and gone away. (Only occurs when the Danger relay is configured as nonlatching.)

BYPASS:

The other red LED indicates the monitor is in BYPASS mode.

Controls**Display Mode
Switch:**

Three positions: Normal, Alert Setpoint, and Danger Setpoint. Controls what is shown on the LCD display.

**Relay Mode
Switch:**

Specifications and Ordering Information
Part Number 141486-01
Rev. D (04/07)

Two positions; controls whether monitor is in normal or BYPASS mode.

Reset Button:

Push to reset latching relays and flashing LEDs.

Configuration Switch

Used to set Alert and Danger Time Delay, Alert relay drive conditions, display units, and to initiate a monitor self-test.

Environmental Limits

Operating Temperature:

-20°C to +70°C (-4°F to +158°F)

Storage Temperature:

-30°C to +90°C (-22°F to +194°F)

Relative Humidity:

To 95%, non-condensing

Hazardous Area Approvals

CSA/NRTL/C:

Class1, Division 2, Groups A, B, C, D T4 @ Ta=70 °C

Physical

Dimensions

Height x Width x Depth:

132 mm x 132 mm x 71.1 mm
(5.20 in x 5.20 in x 2.80 in)

Weight

400 g (0.85 lb).

Ordering Information

1900/27-AXX

A: Power Supply Option

01 85 - 264 Vac, 110 - 370 DC
03 +24 Vdc

Field-programmable Options

These options are either field-changeable or programmed via internal jumpers. **Bold text** indicates options as shipped from the factory.

Alarm Time Delay Option:

3 seconds

5 seconds

10 seconds

15 seconds

Alert Relay Configuration Option:

Alert relay

Alert or NOT OK relay

NOT OK relay

Danger relay

Units Option:

English

Metric

Monitor Self-test Option:

Off

On

Relay Mode Option:

Normal

BYPASS

Normal Relay State Option:

Normally de-energized

Normally energized

Relay Reset Option:

Latching

Nonlatching

4-20 mA Output Behavior Option:

The 4-20 mA output can be set to clamp to 2 mA when the monitor is placed in BYPASS.

BYPASS 2 mA clamp enabled

BYPASS 2 mA clamp disabled