

Bently Nevada Service Manual

181M6049

1. Description

181M6049 Dual

3. Product Information

181M6049 Dual

Output Sensor

Specifications

Dynamic

Sensitivity, $\pm 5\%$ @25°C 100 mV/g

Acceleration range 60 g peak

Amplitude nonlinearity 1%

Frequency response

$\pm 5\%$: 3-5,000 Hz

$\pm 10\%$: 1-7,000 Hz

± 3 dB: 0.5-12,000 Hz

Resonant frequency 30 kHz

Transverse sensitivity, max $\pm 5\%$ of axial

Temperature response

-50°C : -10%

+120°C : +10%

Output sensitivity of the temperature sensor

10 mV/°C

Measurement range of the temperature sensor

2° to 120°C

Electrical

Voltage source 18-28 Vdc

Current regulating diode 2-10 mA

Broadband electrical noise

@ 2.5 Hz to 25 kHz 700 μ g

Spectral electrical noise @ 10 Hz 10 μ g/ $\sqrt{\text{Hz}}$

Spectral electrical noise @ 100 Hz 5 μ g/ $\sqrt{\text{Hz}}$

Spectral electrical noise @ 1000 Hz 5 μ g/ $\sqrt{\text{Hz}}$

Output Impedance, max 100 Ω

Bias output voltage 12 Vdc

Grounding

Case isolated, internally shielded

Environmental

Temperature range -50°C to +120°C

Vibration limit 500 g peak

Shock limit 5,000 g peak

Electromagnetic sensitivity, equiv g, max 70 μ g/gauss

Sealing Hermetic

Base strain sensitivity, max 0.0002 g/ μ strain

Physical

Sensing element design PZT ceramic / shear

Weight 90 grams

Case material 316L Stainless Steel

Mounting ¼-28 UNF tapped hole

Connector

Output: 3 pin,

MIL-C-5015

style

Recommended cabling

16925-XX:

Without Armor

16710-XX: With

Armor

Connections

Connector Pin Function

Shell ground/case

A

accelerometer

power/signal

B

accelerometer

and temp

sensor common

C

temp sensor

signal

Frequency response and spectral

noise values are typical.

