Bently Nevada Service Manual

AS3100S2-Z2

1. Description

Bently Nevada AS3100S2-Z2 Case Mounted Accelerometers

3. Product Information

Bently Nevada AS3100S2-Z2 Case Mounted Accelerometers

Sensitivity, ± 5% @25°C 100 mV/g

Acceleration range 80 g peak

Amplitude nonlinearity 1%

Frequency response

±10%: 1.0-5,000

Hz

± 3 dB: 0.5-

10,000 Hz

Resonant frequency 22 kHz

Transverse sensitivity, max ±5% of axial

Temperature response

-55°C: -20%

+120°C: +10%

Electrical

Voltage source 18-30 Vdc

Current regulating diode 2-10 mA

Broadband electrical noise

@ 2.5 Hz to 25 kHz 700 µg

Spectral electrical noise @

10 Hz 10 µg/√Hz

Spectral electrical noise @

100 Hz 5 µg/√Hz

Spectral electrical noise @

1000 Hz 5 µg/√Hz

Output Impedance, max 100 Ω

Bias output voltage 12 Vdc

Grounding

case isolated,

internally

shielded

Environmental

Temperature range -55°C to 120°C

Vibration limit 500 g peak

Shock limit 5,000 g peak

Electromagnetic sensitivity,

equiv g, max

70 µg/gauss

Sealing Hermetic

Base strain sensitivity, max 0.002 g/µstrain

Physical

Sensing element design PZT ceramic /

shear

Weight 145 grams

Case material 316L Stainless

Steel

Mounting 1/4-28 UNF

tapped hole

Connector

Side exit, 2-pin,

MIL-C-5015

style

Recommended cabling

Shielded,

twisted pair, no

longer than 100

feet

Connections

Connector Pin Function

Shell ground

A power/signal

B common

Frequency response and spectral noise values are typical.