

Bently Nevada Service Manual

AS3100S2-Z0

1. Description

Dynamic

3. Product Information

Dynamic

Sensitivity, $\pm 5\%$ @25°C 100 mV/g

Acceleration range 80 g peak

Amplitude nonlinearity 1%

Frequency response

$\pm 10\%$: 1.0-5,000

Hz

± 3 dB : 0.7-

10,000 Hz

Resonant frequency 22 kHz

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

Temperature response

-55°C: -8%

+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 $\mu\text{g}/\sqrt{\text{Hz}}$

Spectral electrical noise @

100 Hz 5 $\mu\text{g}/\sqrt{\text{Hz}}$

Spectral electrical noise @

1000 Hz 5 $\mu\text{g}/\sqrt{\text{Hz}}$

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 $\mu\text{g}/\text{gauss}$

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 captive

hex head

ascREW

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.

