

# Bently Nevada Service Manual

## AS3100S2-Z2

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### 1. Description

Bently Nevada AS3100S2-Z2 Case Mounted Accelerometers

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### 3. Product Information



## Bently Nevada AS3100S2-Z2 Case Mounted Accelerometers

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

$\pm 3$  dB: 0.5-

10,000 Hz

Resonant frequency 22 kHz

Transverse sensitivity, max  $\pm 5\%$  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  $\mu\text{g}$

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  $\Omega$

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

Sealing Hermetic

Base strain sensitivity, max 0.002 g/ $\mu\text{strain}$

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.

