Accelerometers in the Series

Part Number	Cable exit	Sensitivity	Accel range	Frequency Range (3dB)	Haz-area rating
AM3100T2-Z2	Top exit sensor	100 mV/g	80 g	0.4-14,000 Hz	Zone 2 rated
AS3100S2-Z2	Side exit sensor	100 mV/g	80 g	0.5-10,000 Hz	Zone 2 rated
AP3500T2-Z1	Top exit sensor	500 mV/g	10 g	0.2-10,000 Hz	Zone 1 rated
AP3500S2-Z1	Side exit sensor	500 mV/g	10 g	0.2-14,000 Hz	Zone 1 rated
AM3100T2-Z0	Top exit sensor	100 mV/g	80 g	0.4-14,000 Hz	Zone 0 rated
AS3100S2-Z0	Side exit sensor	100 mV/g	80 g	0.7-10,000 Hz	Zone 0 rated
181M6049	Top exit sensor	100 mV/g	60 g	0.5-12,000 Hz	Zone 0 rated

AM3100T2-Z2 Specifications

Dynamic

Sensitivity, ± 5% @25°C	100 mV/g
Acceleration range	80 g peak
Amplitude nonlinearity	1%
Frequency response	±10%: 0.7-9,000 Hz ± 3 dB: 0.4-14,000 Hz
Resonant frequency	30 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	500 µg
Spectral electrical noise @ 10 Hz	7 µg/√Hz
Spectral electrical noise @ 100 Hz	4 µg/√Hz
Spectral electrical noise @ 1000 Hz	2 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	0.0002 g/µstrain

Physical

Sensing element design	PZT ceramic / shear
Weight	62 grams
Case material	316L Stainless Steel
Mounting	¼-28 UNF tapped hole
Connector	Top 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.

Baker Hughes

Compliance and Certifications

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

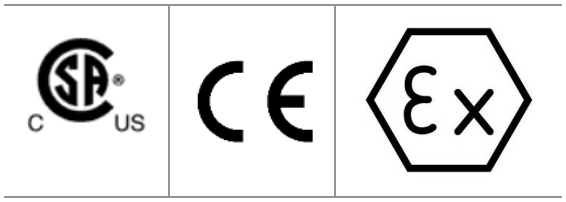
European Community Directives

ATEX Directive 2014/34/EU
EMC Directive 2014/30/EU
LV Directive 2014/35/EU
Reach Directive 1907/2006/EC
ROHS Directive 2011/65/EU

Standards

EN 61326-1
EN 60079-0
EN 60079-15

Hazardous Area Approvals



CSA/NRTL/C

Class I, Div 2, Groups A, B, C, D
Class I, Zone 2, AEx/Ex nA IIC T4
Install per drawing 117M2767

Atex/IECEx

II 3G Ex nA nC IIC T4 Gc

Ordering Information

Part Number	Cable exit	Sensitivity	Accel range	Frequency Range (3dB)	Haz-area rating
AM3100T2-Z2	Top exit sensor	100 mV/g	80 g	0.4-14,000 Hz	Zone 2 rated
AS3100S2-Z2	Side exit sensor	100 mV/g	80 g	0.5-10,000 Hz	Zone 2 rated
AP3500T2-Z1	Top exit sensor	500 mV/g	10 g	0.2-10,000 Hz	Zone 1 rated
AP3500S2-Z1	Side exit sensor	500 mV/g	10 g	0.2-14,000 Hz	Zone 1 rated
AM3100T2-Z0	Top exit sensor	100 mV/g	80 g	0.4-14,000 Hz	Zone 0 rated
AS3100S2-Z0	Side exit sensor	100 mV/g	80 g	0.7-10,000 Hz	Zone 0 rated
181M6049	Top exit sensor	100 mV/g	60 g	0.5-12,000 Hz	Zone 0 rated

Accessories supplied:

- ¼-28 to ¼-28 mounting stud
- Calibration Data (AM3100T2-Z0 and AM3100T2-Z2)

Mounting Studs

Dimensional diagrams of all available mounting studs are shown in Mounting Stud Dimensional Drawings on page 24.

164373	¼-28 Mounting Stud
164372	¼-28 to M6x1 Mounting Stud
167559	¼-28 to M8X1.25 Mounting Stud (Beryllium Copper)
287844	¼-28 to M8X1.25 Mounting Stud (Stainless Steel 303)

Adhesive Mounting Kits

Adhesive studs are sold in kits containing two threaded studs and two mounting pads. Also in the kit is a packet of acrylic adhesive and materials to mix its two components. A scouring pad and alcohol wipe are provided for preparing the mounting surface.

Temperature Range	-67°F to +250 °F (-55°C to 121 °C)
Cure Time	24 hours

Graphs and Figures

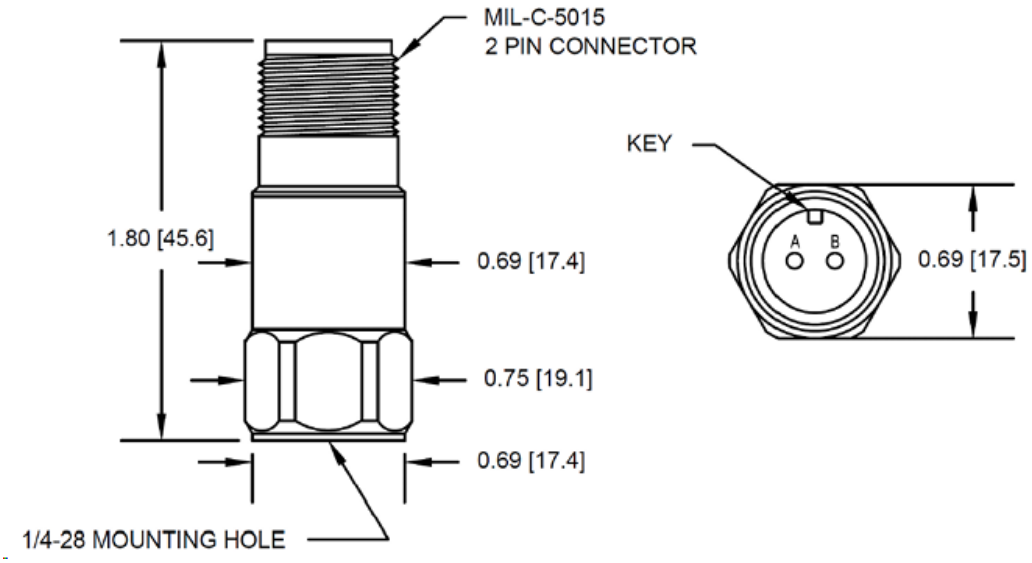


Figure 1: AM3100T2-Z2 & AM3100T2-Z0 dimensions

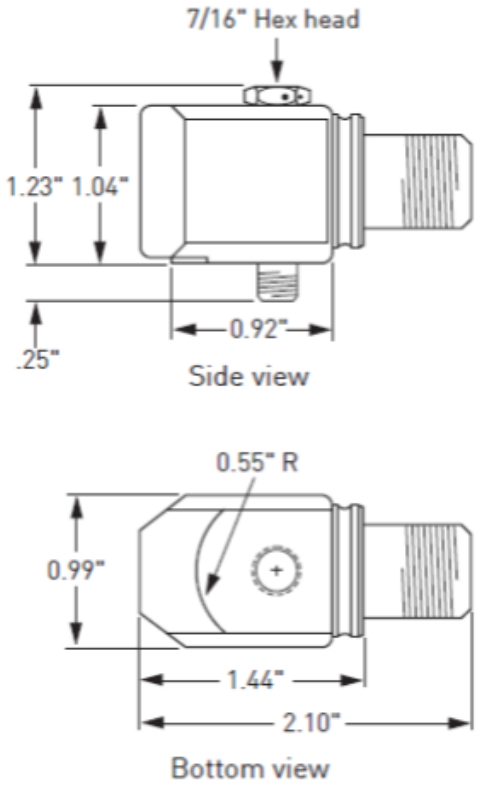


Figure 2: AS3100S2-Z2 & AS3100S2-Z0 Dimensions