

Intrinsically safe certified accelerometer

780A-IS

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SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25°C	100 mV/g
Acceleration range	80 g peak
Amplitude nonlinearity	1%
Frequency response:	
$\pm 5\%$	1 - 7,000 Hz
$\pm 10\%$	0.7 - 9,000 Hz
± 3 dB	0.4 - 14,000 Hz
Resonance frequency	30 kHz
Transverse sensitivity, max	5% of axial
Temperature response:	
-55°C	-20%
+120°C	+10%
Power requirement:	
Voltage source	18 - 30 VDC
Current regulating diode	2 - 10 mA
Electrical noise, equiv. g:	
Broadband 2.5 Hz to 25 kHz	500 μ g
Spectral 10 Hz	7 μ g/ $\sqrt{\text{Hz}}$
100 Hz	4 μ g/ $\sqrt{\text{Hz}}$
1,000 Hz	2 μ g/ $\sqrt{\text{Hz}}$
Output impedance, max	100 Ω
Bias output voltage	12 VDC
Grounding	case isolated, internally shielded
Temperature range	-55° 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
Sensing element design	PZT, shear
Weight	62 grams
Case material	316L stainless steel
Mounting	1/4-28 UNF tapped hole
Output connector	2 pin, MIL-C-5015 style
Mating connector	R6 type
Recommended cabling	J9T2B

Note: Frequency response and spectral noise values are typical.

Accessories supplied: SF6 mounting stud; calibration data (level 2)

Optional accessories available: ISBS-STD-08: MTL 7728 + safety barrier

CERTIFICATIONS



Class I, Div 1 Groups A, B, C, D
Class II, Div 1 Groups E, F, G
Class III
Class I Zone 0 AEx/Ex ia IIC T4
Ta = -50°C to 120°C



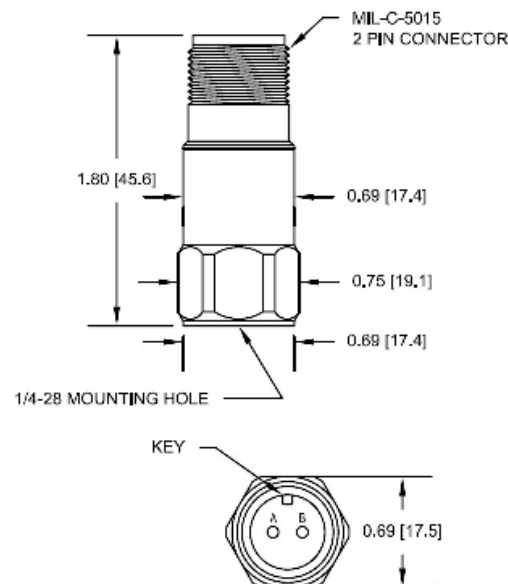
II 1 G
Ex ia IIC T4 Ga
Ta = -50°C to 120°C



Must be installed per document 12879. For application in explosive atmospheres caused by gases, vapours or mists and where the use of apparatus of category 1G is required, electrostatic charges on the cable and non-metallic parts of the enclosure shall be avoided. The ambient temperature range for these applications is -40°C to +80°C.

Key features

- Compact size
- Hazardous area certified - intrinsically safe
- API 670 compliant
- Manufactured in ISO 9001 facility



Connections	
Function	Connector pin
power/signal	A
common	B
ground	shell

Note: Due to continuous process improvement, specifications are subject to change without notice.
This document is cleared for public release.