

AC916-M12A Series

Nonincendive Intrinsically Safe Accelerometer, CSA North America Class 1
Div 1, Class II Div 1, Class III and IECEx/ATEX Zone 0,1,2,21,22 Approved
Accelerometer, Side Exit 4 Pin M12 Connector, 100 mV/g, ±10%



Regulatory Information

CSA 221421
CSA 26CA80263367X
CLI, DIV 1, GRP A, B, C and D
CLII, DIV 1, GRP E, F and G; CLIII
Ex ia IIC T3-T4 Ga
Ex ib IIIC T135°C...T147°C Db
CLI, ZN 0, AEx ia IIC T3-T4 Ga
ZN 21, AEx ib IIIC T135°C...T147°C Db
T3: Ta = -40°C to +121°C
T4: Ta = -40°C to +80°C
T147°C: Ta = -40°C to +121°C
T135°C: Ta = -40°C to +80°C
Install per drawing INS10187
Refer to product manual MNX10127

1600 ft (488 m) Maximum Allowable
Integral Cable Length
Approved Cabling: CB102, CB103*, CB111, CB190*,
CB193*, CB206, CB296 (*Approved for Use in T4
Applications Only)
Requires one IS111-1B Intrinsic Safety Barrier

IECEx SIR 15.0060X
Ex ia IIC T3-T4 Ga
Ex ib IIIC T135°C ... T147°C Db

Ex ia I Ma
T3: Ta @ -40°C to +121°C
T4: Ta @ -40°C to +80°C
Mining Group I: Ta @ -40°C to +121°C
T147°C: Ta @ -40°C to +121°C
T135°C: Ta @ -40°C to +80°C
Install per drawing INS10210
Refer to product manual MNX10134

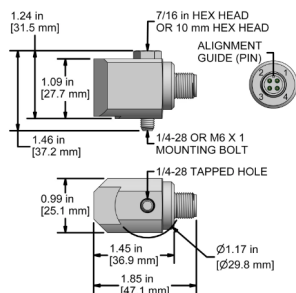
Sira 15ATEX2152X
Ex ia IIC T3 -T4 Ga
T3: Ta @ -40°C to +121°C
T4: Ta @ -40°C to +80°C
Ex ib IIIC T135°C ... T147°C Db
T147°C: Ta @ -40°C to +121°C
T135°C: Ta @ -40°C to +80°C
Ex ia I Ma
Ta @ -40°C to +121°C
Install per drawing INS10211
Refer to product manual MNX10135

Connector Exit Entity Parameters:
Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci =
0nF, Li = 0μH

AC916-M12A

4 Pin Connector

Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	Not Used
4	Not Used



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC916-M12A	M/AC916-M12A	Environmental		
Sensitivity (±10%)		100 mV/g	Operating Temperature Range	-65 to 257 °F	-54 to 125 °C
Frequency Response (±3dB)	30-600,000 CPM	0.5-10,000 Hz	Maximum Shock Protection		5,000 g, peak
Dynamic Range		± 80 g, peak	Electromagnetic Sensitivity		CE
Transverse Sensitivity		≤5%	Sealing		Welded, Hermetic
Electrical			Submersible Depth	200 ft.	61 m
Settling Time	<3 Seconds		SIL Rating		SIL 2
Voltage Source	18-28 VDC		Physical		
Constant Current Excitation	2-10 mA		Sensing Element		PZT Ceramic
Spectral Noise @ 10 Hz	6.5 μg/√Hz		Sensing Structure		Shear Mode
Spectral Noise @ 100 Hz	2 μg/√Hz		Weight	5.3 oz	150 grams
Spectral Noise @ 1000 Hz	1.8 μg/√Hz		Case Material		316L Stainless Steel
Output Impedance	<100 ohm		Mounting Thread		1/4-28
Bias Output Voltage	10-14 VDC		Connector (Non-Integral)		4 Pin M12 Connector
Case Isolation	>10 ⁸ ohm		Resonant Frequency	1,320,000 CPM	22000 Hz
			Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
			Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
			Calibration Certificate		CA10

Typical Frequency Response

