

AC916-M12A Series



VIBRATION ANALYSIS HARDWARE

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, $\pm 10\%$



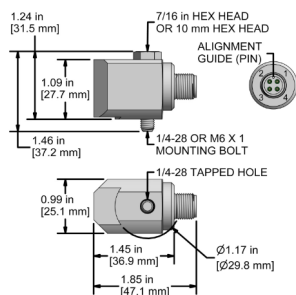
Regulatory Information

CSA 221421	Ex ia I Ma
CSA 26CA80263367X	T3: Ta @ -40°C to +121°C
CL I, DIV 1, GRP A, B, C and D	T4: Ta @ -40°C to +80°C
CL II, DIV 1, GRP E, F and G; CL III	Mining Group I: Ta @ -40°C to +121°C
Ex ia IIC T3-T4 Ga	T147°C: Ta @ -40°C to +121°C
Ex ib IIC T135°C...T147°C Db	T135°C: Ta @ -40°C to +80°C
CL I, ZN 0, AEx ia IIC T3-T4 Ga	Install per drawing INS10210
ZN 21, AEx ib IIC T135°C...T147°C Db	Refer to product manual
T3: Ta = -40°C to +121°C	MNX10134
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	Sira 15ATEX2152X
Approved Cabling: CB102, CB103*, CB111, CB190*, CB193*, CB206, CB296 (*Approved for Use in T4 Applications Only)	Ex ia IIC T3 -T4 Ga
Requires one IS111-1B Intrinsic Safety Barrier	T3: Ta @ -40°C to +121°C
	T4: Ta @ -40°C to +80°C
	Ex ib IIC 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
IECEx SIR 15.0060X	Connector Exit Entity Parameters:
Ex ia IIC T3-T4 Ga	Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci
Ex ib IIC T135°C ... T147°C Db	= 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 ($\pm 10\%$)	100 mV/g		Operating Temperature Range	-65 to 257 °F	-54 to 125 °C
Frequency Response (± 3 dB)	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	$\leq 5\%$		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 μ g/ $\sqrt{\text{Hz}}$		Sensing Structure	Shear Mode	
Spectral Noise @ 100 Hz	2 μ g/ $\sqrt{\text{Hz}}$		Weight	5.3 oz	150 grams
Spectral Noise @ 1000 Hz	1.8 μ g/ $\sqrt{\text{Hz}}$		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

