

AC968-M12A Series



Nonincedive, Intrinsically Safe, 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, M8x1.25 Captive Bolt, 100 mV/g, ±10%

VIBRATION ANALYSIS HARDWARE



Regulatory Information

CSA 221421
CSA 26CA80263367X
CLI, DIV I, GRP A, B, C and D
CLII, DIV I, GRP E, F and G; CLIII
Ex II IIC T3-T4 Ga
Ex II IIC T135°C...T147°C Db
CLI, ZN Q, AEx II IIC T3-T3-T4 Ga
ZN 2I, AEx II IIC 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

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:
 $U_i = 28 \text{ Vdc}$, $I_i = 120 \text{ mA}$, $P_i = 1 \text{ W}$, $C_i = 0 \text{ nF}$, $L_i = 0 \mu\text{H}$

Integral Cable Entity Parameters
 $U_i = 28 \text{ Vdc}$, $I_i = 120 \text{ mA}$, $P_i = 1 \text{ W}$, $C_i = 80.4 \text{ nF}$, $L_i = 336 \mu\text{H}$

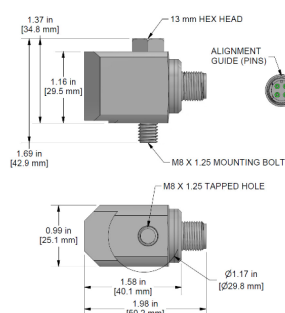
1600 ft (488 m) Maximum Allowable
Integral Cable Length
Approved Cabling: CB102, CB103*, CB111, CB190*,
CB193*, CB296 (*Approved for Use in T4
Applications Only)
Requires one IS111-1B Intrinsic Safety Barrier

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

AC968-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		AC968-M12A		<u>Environmental</u>			
Sensitivity (±10%)		100 mV/g		Operating Temperature Range		-40 to 250 °F	-40 to 121 °C
Frequency Response (±3dB)		30-480,000 CPM	0,5-8000 Hz	Maximum Shock Protection		5,000 g, peak	
Dynamic Range		± 50 g, peak		Electromagnetic Sensitivity		CE	
Transverse Sensitivity		≤5%		Sealing		Welded, Hermetic	
<u>Electrical</u>				<u>Physical</u>			
Settling Time		<3 Seconds		Submersible Depth		200 ft.	61 m
Voltage Source		18-28 VDC		Sensing Element		PZT Ceramic	
Constant Current Excitation		2-10 mA		Sensing Structure		Shear Mode	
Spectral Noise @ 10 Hz		6.5 µg/√Hz		Weight		5.3 oz	150 grams
Spectral Noise @ 100 Hz		2 µg/√Hz		Case Material		316L Stainless Steel	
Spectral Noise @ 1000 Hz		1.8 µg/√Hz		Mounting Thread		M8x1.25 Captive Bolt	
Output Impedance		<100 ohm		Connector (Non-Integral)		4 Pin M12	
Bias Output Voltage		10-14 VDC		Resonant Frequency		1,320,000 CPM	
Case Isolation		>10^8 ohm		Mounting Torque		2 to 5 ft. lbs.	
				Mounting Hardware Supplied		M8x1.25 Captive Bolt	
				Calibration Certificate		CA10	

Typical Frequency Response

