

AC914 Series

Nonincendive Intrinsically Safe Accelerometer, CSA North America Class I Div 1, Class II Div 1, Class III and IECEx/ATEX Zone 0,1,2 and 21,22 Approved Accelerometer, Side Exit 2 Pin Connector, 50 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 IIC T135°C...T147°C Db
CLI, ZN 0, AEx ia IIC T3-T4 Ga
ZN 21, AEx ib 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

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-IB Intrinsic Safety Barrier

IECEx SIR 15.0060X
Ex ia IIC T3-T4 Ga
Ex ib IIC 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 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

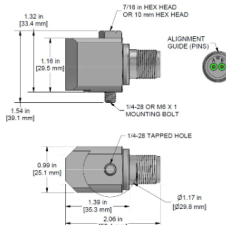
Connector Exit Entity Parameters:
Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci =
0nF, Li = 0μH

Integral Cable Entity Parameters
Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci =
80.4nF, Li = 336μH

AC914-1A

2 Pin Connector

Connector Pin	Polarity
A	(+) Signal/Power
B	(-) Common

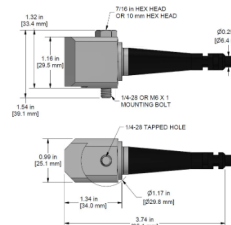


Stock Product

AC914-2C

CB193 Integral Cable

Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire

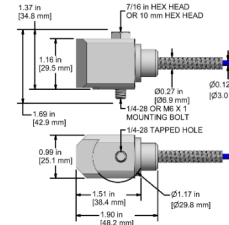


Built To Order

AC914-3C

CB296 Armored Integral Cable

Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



Built To Order

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	AC914	M/AC914	Environmental		
Sensitivity (±10%)	50 mV/g		Operating Temperature Range	-40 to 250 °F	-40 to 121 °C
Frequency Response (±3dB)	60-600,000 CPM	1.0-10000 Hz	Maximum Shock Protection	5,000 g, peak	
Dynamic Range	± 160 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	9 μg/√Hz		Sensing Structure	Shear Mode	
Spectral Noise @ 100 Hz	2 μg/√Hz		Weight	5.3 oz	150 grams
Spectral Noise @ 1000 Hz	1.6 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)	2 Pin MIL-C-5015	
Case Isolation	>10 ⁹ 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

