

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, $\pm 10\%$



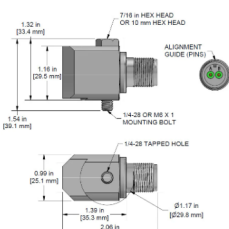
Regulatory Information

CSA 221421	T4: Ta @ -40°C to +80°C
CSA 26CA80263367X	Mining Group I: Ta @ -40°C to +121°C
CL I, DIV 1, GRP A, B, C and D	T147°C: Ta @ -40°C to +121°C
CL II, DIV 1, GRP E, F and G; CL III	T135°C: Ta @ -40°C to +80°C
Ex ia IIC T3-T4 Ga	Install per drawing INS10210
Ex ib IIIC T135°C...T147°C Db	Refer to product manual
CL I, ZN 0, AEx ia IIC T3-T4 Ga	MX10134
ZN 21, AEx ib IIIC T135°C...T147°C Db	
T3: Ta = -40°C to +121°C	
T4: Ta = -40°C to +80°C	Sira 15ATEX2152X
T147°C: Ta = -40°C to +121°C	Ex ia IIC T3 -T4 Ga
T135°C: Ta = -40°C to +80°C	T3: Ta @ -40°C to +121°C
Install per drawing INS10187	T4: Ta @ -40°C to +80°C
Refer to product manual MNX10127	Ex ib IIIC T135°C ... T147°C Db
	T147°C: Ta @ -40°C to +121°C
1600 ft (488 m) Maximum Allowable	T135°C: Ta @ -40°C to +80°C
Integral Cable Length	Ex ia I Ma
Approved Cabling: CB102, CB103*, CB111,	Ta @ -40°C to +121°C
CB190*, CB193*, CB206, CB296 (*Approved for	Install per drawing INS10211
Use in T4 Applications Only)	Refer to product manual
Requires one IS111-1B Intrinsic Safety Barrier	MX10135
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 IIIC T135°C ... T147°C Db	= 0nF, Li = 0μH
Ex ia I Ma	
T3: Ta @ -40°C to +121°C	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

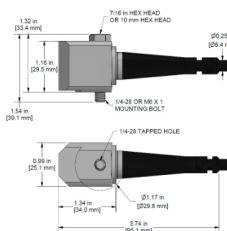


Stock Product

AC914-2C

CB193 Integral Cable

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

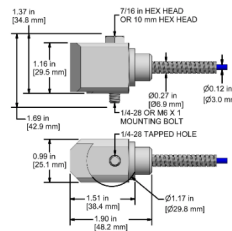


Built To Order

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 ($\pm 10\%$)		50 mV/g	Operating Temperature Range	-40 to 250 °F	-40 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	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		$\leq 5\%$	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	9 $\mu\text{g}/\sqrt{\text{Hz}}$		Sensing Structure		Shear Mode
Spectral Noise @ 100 Hz	2 $\mu\text{g}/\sqrt{\text{Hz}}$		Weight	5.3 oz	150 grams
Spectral Noise @ 1000 Hz	1.6 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material		316L Stainless Steel
Output Impedance	<100 ohm		Mounting Thread		1/4-28
Bias Output Voltage	10-14 VDC		Connector (Non-Integral)		2 Pin MIL-C-5015
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

