

VE902 Series

Nonincendive Intrinsically Safe Velocity Sensor, CSA North America Class 1
Div 1, Class II Div 1, Class III and IECEx/ATEX Zone 0,1 Approved Piezo
Velocity Sensor, Side Exit 2 Pin Connector, 100 mV/in/sec, ±10%



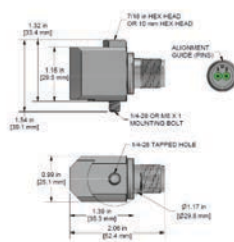
Regulatory Information

CSA 221421	Refer to product manual MNX10134
CSA 26CA80263367X	
CL I, DIV 1, GRP A, B, C and D	Sira 15ATEX2152X
CL II, DIV 1, GRP E, F and G; CL III	Ex ia IIC T3 -T4 Ga
Ex ia IIC T3-T4 Ga	T3: Ta @ -40°C to +121°C
Ex ib IIC T135°C...T147°C Db	T4: Ta @ -40°C to +80°C
CL I, ZN 0, AEx ia IIC T3-T4 Ga	Ex ib IIC T135°C ... T147°C Db
ZN 21, AEx ib IIC T135°C...T147°C Db	T147°C: Ta @ -40°C to +121°C
T3: Ta = -40°C to +121°C	T135°C: Ta @ -40°C to +80°C
T4: Ta = -40°C to +80°C	Ex ia I Ma
T147°C: Ta = -40°C to +121°C	Ta @ -40°C to +121°C
T135°C: Ta = -40°C to +80°C	Install per drawing INS10211
Install per drawing INS10187	Refer to product manual MNX10135
Refer to product manual MNX10127	
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
Ex ia I Ma	
T3: Ta @ -40°C to +121°C	Integral Cable Entity Parameters
T4: Ta @ -40°C to +80°C	Ui = 28 Vdc, li = 120 mA, Pi = 1W, Ci =
Mining Group I: Ta @ -40°C to +121°C	80.4nF, Li = 336μH
T147°C: Ta @ -40°C to +121°C	
T135°C: Ta @ -40°C to +80°C	
Install per drawing INS10210	

VE902-1A

2 Pin Connector

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

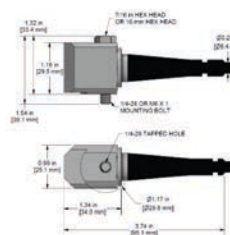


Stock Product

VE902-2A

CB193 Integral Cable

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

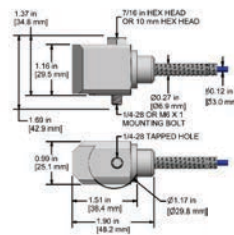


Built To Order

VE902-3A

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	VE902	M/VE902	Environmental		
Sensitivity (±10%)		100 mV/in/sec	Operating Temperature Range	-58 to 250 °F	-50 to 121 °C
Frequency Response (±3dB)	90-420,000 CPM	1,5-7000 Hz	Maximum Shock Protection		5,000 g, peak
Frequency Response (±10%)	120-240,000 CPM	2,0-4000 Hz	Electromagnetic Sensitivity		CE
Dynamic Range		± 50 in/sec. pk	Sealing		Welded, Hermetic
Transverse Sensitivity		*Vsource ≥ 22V, 12Vbias	Submersible Depth	200 ft.	60 m
		≤5%	SIL Rating		SIL 3
Electrical			Physical		
Settling Time		<5 seconds	Sensing Element		PZT Ceramic
Voltage Source		18-30 VDC	Sensing Structure		Shear Mode
Constant Current Excitation		2-10 mA	Weight	5.1 oz	145 grams
Spectral Noise @ 10 Hz		25 μIPS/√Hz 2 μIPS/√Hz	Case Material		316L Stainless Steel
Spectral Noise @ 1000 Hz		0.5 μIPS/√Hz	Connector (Non-Integral)		2 Pin MIL-C-5015
Output Impedance		<100 ohm	Resonant Frequency	1,320,000 CPM	22000 Hz
Bias Output Voltage		10-14 VDC	Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Case Isolation		>10 ⁸ ohm	Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
			Calibration Certificate		CA10

Typical Frequency Response

