

# TA938 Series

**Class I, Division 2/Zone 2 Accelerometer, For Use In "Non-Arcing, Non-Sparking" Environments, Dual Output, Temperature/Acceleration, M8 Captive Bolt, Side Exit Connector/Cable, 100 mV/g, 10 mV/°C**

**CSA/ATEX Approved**



Actual Product Size Shown

**Must Use "Class I, Division 2" CB191 or CB212 Cable and D3Q Connector**

**REGULATORY INFORMATION**

Ex nA IIC T3 Gc  
AEx nA IIC T3 Gc  
CLI Groups A, B, C, D  
CLII Groups E, F, G; CLIII  
CL, Zone 2

Operating Temperature Code: T3  
Ambient Temperature Range = -40°C to +121°C  
Ui = 28 Vdc li = 100 mA  
CSA 221421

Sira 15ATEX2152X  
Ex nA IIC T3 Ga

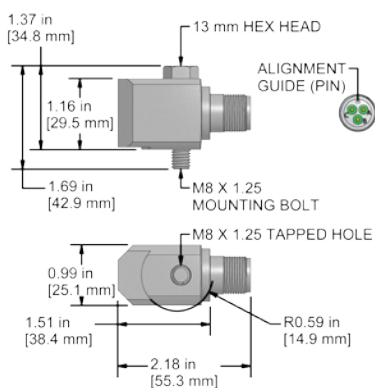


**Featuring an M8 Captive Bolt**

**TA938-1A**

3 Pin Connector

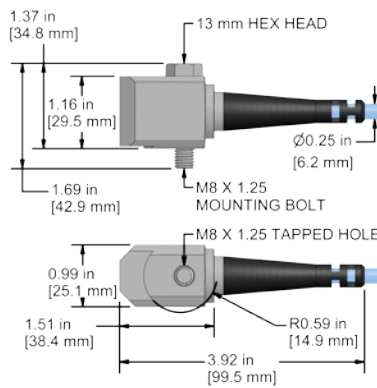
Connector Pin	Polarity
A	(+) Signal / Power
B	(-) Common
C	(+) Temperature Voltage



**TA938-2C**

Integral Cable

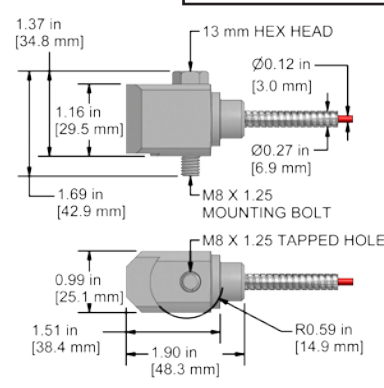
Conductor	Polarity
Red	(+) Signal / Power
Black	(-) Common
White	(+) Temperature Voltage
Shield	Cable Drain Wire



**TA938-3C**

Armored Integral Cable

Conductor	Polarity
Red	(+) Signal / Power
Black	(-) Common
White	(+) Temperature Voltage
Green	Not Used
Shield	Cable Drain Wire



Specifications	Standard	Metric
Part Number	TA938	
<b>Vibration</b>		
Sensitivity (±10%)	100 mV/g	
Frequency Response (±3dB)	30-600,000 CPM	0.5-10000 Hz
Frequency Response (±10%)	120-300,000 CPM	2.0-5000 Hz
Dynamic Range	± 50 g, peak	
Temperature Measurement Range	37° to 250° F	3° to 121° C
Temperature Output	10 mV/°C	
<b>Electrical</b>		
Settling Time	<2.5 seconds	
Voltage Source (IEPE)	18-28 VDC	
Constant Current Excitation	2-10 mA	
Spectral Noise @ 10 Hz	8 µg/√Hz	
Spectral Noise @ 100 Hz	0.82 µg/√Hz	
Spectral Noise @ 1000 Hz	0.3 µg/√Hz	
Output Impedance	<100 ohm	
Bias Output Voltage	10-14 VDC	
Case Isolation	>10 <sup>8</sup> ohm	

Specifications	Standard	Metric
<b>Environmental</b>		
Temperature Range	-40 to 250°F	-40 to 121°C
Maximum Shock Protection	5,000 g, peak	
Sealing	Welded, Hermetic	
<b>Physical</b>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight	6.3 oz	180 grams
Case Material	316L Stainless Steel	
Mounting	M8x1.25	
Connector (TA938-1A)	3 Pin MIL-C-5015	
Integral Cable (TA938-2C)	Blue TPE Jacketed Cable	
Armored Cable (TA938-3C)	Armor Jacketed Cable	
Resonant Frequency	1,260,000 CPM	21000 Hz
Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Mounting Hardware	M8 Captive Bolt	
Calibration Certificate	CA10	

**Ordering Information**

Metric	TA938-1A	TA938-2C /	TA938-3C /
	(M8x1.25 Captive Bolt)	(M8x1.25 Captive Bolt)	(M8x1.25 Captive Bolt)
		(length in feet) (termination)	(maximum armor length 100 ft.) (cable length in feet) (termination)

**Cable Terminations: L Z**

**Read Before Purchasing**  
Important information on Regulatory Approvals and Requirements on Page 87

**Backed by our Unconditional Lifetime Warranty**

[www.ctconline.com](http://www.ctconline.com)



SECTION 1 - VIBRATION SENSORS  
Class 1, Division 2/Zone 2 Accelerometers