

AC965 Series

Nonincendive, Intrinsically Safe, KC Zone 0,1,2 and ATEX / IECEx 0,1,2,22
Approved Accelerometer, Top Exit 2 Pin Connector, 100 mV/g, $\pm 10\%$



VIBRATION ANALYSIS HARDWARE



Regulatory Information

20-KA4B0-126X
Ex ia IIC T3/T4
Operating Temperature Code: T4
Ambient Temperature Range: -40 °C TO 80 °C
Operating Temperature Code: T3
Ambient Temperature Range: 40 °C TO 121 °C
Control Drawing INS10050
Vmax/UI = 28 V Imax/Ii = 120 mA

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

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 IS111-1B Intrinsic Safety Barrier

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

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

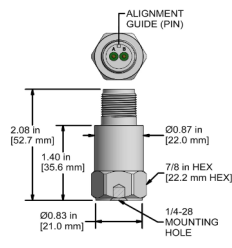
Connector Exit Entity Parameters:
Ui = 28 Vdc, Ii = 120 mA, Pi = 1W, Ci
= 0nF, Li = 0μH

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

AC965-1A

2 Pin Connector

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

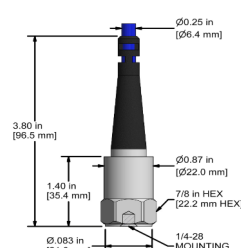


Stock Product

AC965-2C

CB193 Integral Cable

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

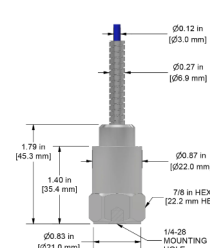


Built To Order

AC965-3C

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	AC965	M/ or M8/AC965	<u>Environmental</u>		
Sensitivity ($\pm 10\%$)	100 mV/g		Operating Temperature Range	-40 to 250 °F	-40 to 121 °C
Frequency Response ($\pm 3\text{dB}$)	30-900,000 CPM	0.5-15000 Hz	Maximum Shock Protection	5,000 g, peak	
Dynamic Range	± 50 g, peak		Electromagnetic Sensitivity	CE	
Transverse Sensitivity	$\leq 5\%$		Sealing	Welded, Hermetic	
<u>Electrical</u>			<u>Physical</u>		
Settling Time	<3 Seconds		Sensing Element	PZT Ceramic	
Voltage Source	18-28 VDC		Sensing Structure	Shear Mode	
Constant Current Excitation	2-10 mA		Weight	3.2 oz	91 grams
Spectral Noise @ 10 Hz	30 $\mu\text{g}/\sqrt{\text{Hz}}$		Case Material	316L Stainless Steel	
Spectral Noise @ 100 Hz	19 $\mu\text{g}/\sqrt{\text{Hz}}$		Mounting Thread	1/4-28 Blind Tapped Hole	
Spectral Noise @ 1000 Hz	15 $\mu\text{g}/\sqrt{\text{Hz}}$		Connector (Non-Integral)	2 Pin MIL-C-5015	
Output Impedance	<100 ohm		Resonant Frequency	1,380,000 CPM	23000 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 Stud	M6x1 or M8x1.25 Adapter Stud
			Calibration Certificate	CA10	

Typical Frequency Response

