



CMCP760T/IS Intrinsically Safe Triaxial Accelerometer, M12 Connector



Features

- Side Exit Triaxial Intrinsically Safe Accelerometer
- ATEX and IECEx Approved
- 100 mV/g $\pm 10\%$
- 150°C Max Temperature Range
- ± 80 g Dynamic Range
- 1 Second Settling Time
- Stainless Steel Case
- M12 Eurofast Connector
- $\frac{1}{4}$ "-28 UNF or M8x1.25 Captive Mounting Bolt
- Sealed to IP68



Typical Applications

Trains, Fans, Motors, Pumps, Compressors, Centrifuges, Conveyors, Air Handlers, Gearboxes, Rolls, Dryers, Presses, Cooling, HVAC, Spindles, Machine Tooling, Process Equipment and many more.

Technical Performance

Mounted Base Resonance:	17 kHz (1,020 kcpm)
Sensitivity:	100 mV/g $\pm 10\%$ Nominal 80 Hz at 22°C
Frequency Response:	2.0 Hz to 10 kHz $\pm 5\%$ (180 cpm to 600 kcpm)
	1.5 Hz to 12 kHz $\pm 10\%$ (90 cpm to 720 kcpm)
	0.8 Hz to 15 kHz ± 3 dB (48 cpm to 900 kcpm)
Isolation:	Base Isolated
Measurement Range:	± 80 g
Transverse Sensitivity:	Less than 5%

Electrical

Supply Voltage:	18-30 VDC
Current Range:	0.5 mA to 8 mA
Bias Voltage:	10-12 VDC
Electrical Noise:	0.1 mg max
Settling Time:	1 Second
Output Impedance:	200 Ohm max.
Case Isolation:	$> 10^8$ Ohm at 500 Volt

Environmental

Operating Temperature Range:	-67 to 302°F (-55 to 150°C)
Sealing:	IP67
Maximum Shock:	5000 g
Approvals:	CE Approved Intrinsically Safe (SGS, ATEX, IECEx)

Mechanical

Case Material:	Stainless Steel
Sensing Element:	PZT/Shear
Mounting Torque:	5.9 ft-lbs (8 Nm)
Weight:	8.3 Oz (235 gram)
Mounting:	$\frac{1}{4}$ "-28 UNF or M8x1.25 Captive Mounting Bolt
Mating Connector:	4 Pin M12 Eurofast Connector
Recommended Cable Assembly:	CMCP605M Series M12

Hazardous Location Ratings

Class I, II, III, Division 1 and 2, Groups A-G, T4, -55°C to + 110°C IP65
Class 1, Zone 0, AEx, ia, IIC, T4, Ga, -55°C to + 110°C
Zone 20, AEx, ia, IIIC, T130°C, IP65, Da, -55°C to + 110°C
Class I, II, III, Division 1, 2, Groups A-G, T6, -55°C to + 110°C
Zone 20, AEx, ia, IIIX, T80°C, IP65, DA, -55°C to + 110°C

Intrinsically Safe Requirements

Certificate details: Group I

IECEx 18.0082X
Baseefa18ATEX0130X
EI M 1
Ex ia I Ma

Certificate details: Group II and III

IECEx 18.0082X
Baseefa18ATEX0130X
Ex II 1GD
Ex ia IIC T6..T4 Ga
Ex ia IIIC T135°C Da
Ex ia IIIB T110°C..T145°C Da

Terminal Parameters Connector

Ui = 28V, Ii = 93mA, Pi = 0.65W
Ci = 1.2nF
Li = 0

500V Isolation

Units Will Pass A 500V Isolation Test

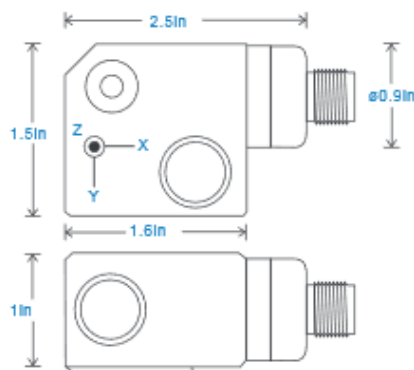
Standards Applied to Product

EN IEC 60079-0:2018
EN 60079-11:2012
IEC 60079-0 Edition 7 2017
IEC 60079-11 Edition 6 2011

Barrier

3 x Pepperl + Fuchs Galvanic Isolator
KFD2-VR4-Ex1.26 (BAS02ATEX7206)
3 x MTL Zener Barrier MTL7728+ (CMCP245-02)

Dimensions



or any other barrier that conforms with the terminal parameters

Certified Temperature Range

Ex ia IIC T6 Ga (-55°C ≤ Ta ≤ +57°C) (Gas)
Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +103°C) (Gas)
Ex ia IIIB T110°C Da (-55°C ≤ Ta ≤ +57°C) (Dust)
Ex ia IIIC T135°C Da (-55°C ≤ Ta ≤ +70°C) (Dust)
Ex ia IIIB T145°C Da (-55°C ≤ Ta ≤ +92°C) (Dust)
Ex ia I Ma (-55°C ≤ Ta ≤ +103°C) (Mining)

Australian Approval Group I

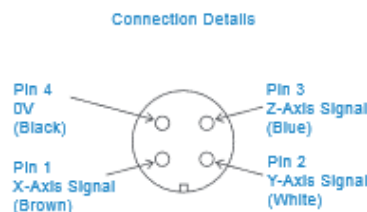
IECEx ExTC 18.0032X
Ex ia I Ma
(-55°C < Ta < +104°C)

US/Canada Approvals

Certificate No. SGSNA/19/BAS/00005
Cl I, II, III, Div 1, 2 Gr A-G T*
Cl I Zn 0 AEx ia IIC T6...T4 Ga
Cl II Zn 20 AEx ia IIIC T135°C Da
Ex ia IIC T6...T4 Ga
Ex ia IIIC T135°C Da
Or
Cl I, II, III, Div 1, 2 Gr A-D G and F T*
Cl I Zn 0 AEx ia IIC T6...T4 Ga
Cl II Zn 20 AEx ia IIIB T110°C...T145°C Da
Ex ia IIC T6...T4 Ga
Ex ia IIIC T110°C...T145°C Da

Control Drawing

CMCP760T(Connector) System Connections



Ordering Information

CMCP760T/IS	Intrinsically Safe Triaxial Accelerometer, ¼"-28 UNF Mounting, 4 Pin M12 Connector
CMCP760T/IS-M8	Intrinsically Safe Triaxial Accelerometer, M8x1.25 Mounting, 4 Pin M12 Connector

Note: Due to STI's continuous process improvement, specifications are subject to change without notice.