# **HS-420I/M Intrinsically Safe Accelerometer**

Less than 5%

2 seconds

4-20mA velocity output via M12 Connector

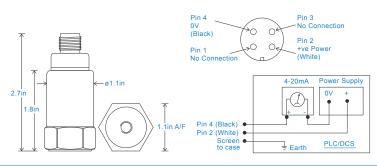
## **Key Features**

- · Intrinsically Safe with European, USA and South African approvals
- · For use with PLC/DCS systems
- · Customizable features

#### Industries

Building services, Pulp and Paper, Mining, Metals, Utilities, Automotive, Water, Pharmaceutical





Connection Details

## **Technical Performance**

Mounted Base Resonance 5kHz min Velocity Ranges see: 'How To Order' table ±10% Nominal 80Hz at 72°F Frequency Response 600cpm (10Hz) to 60kcpm (1kHz) ± 5% - ISO10816 Isolation Base isolated 50g peak

## Mechanical

Case Material Stainless Steel Sensing Element/Construction PZT/Compression Mounting Torque 5.9ft. lbs Weight 5.2 oz. (nominal) Sheilded Cable Assembly HS-AC010 - straight HS-AC011 - right angle Mounting Threads see: 'How To Order' table

#### **Electrical**

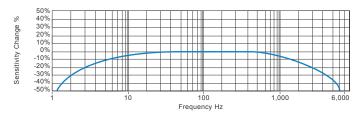
Transverse Sensitivity

**Current Output** 4-20mA DC proportional to Velocity Range Supply Voltage 15-30 Volts DC (for 4-20mA) Settling Time **Output Impedance** Loop Resistance 600 Ohms max. at 24 Volts >108 Ohms at 500 Volts Case Isolation

#### Environmental

Operating Temperature Range see: attached certification details **IP67** Sealing Maximum Shock 5000g **EMC** EN61326-1:2013

## Typical Frequency Response



#### **Applications**

Fans, Motors, Pumps, Compressors, Centrifuges, Conveyors, Air Handlers, Gearboxes, Rolls, Dryers, Presses, Cooling, VAC, Spindles, Machine Tooling, Process Equipment

Vibration sensor should be firmly fixed to a flat surface (spot face surface may be needed to be produced and cable anchored to sensor body.)



#### Certifications













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# HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via M12 Connector

## Intrinsically Safe Requirements

nominal 100 metres Maximum Cable Length US/Canada Approvals Certificate No. USTC/15/FAI/01350 see attached system drawings Class I, II, III, Division 1, 2, Groups A - G, T6, -40°C to +60°C, IP65 Class I, Zone 0, AEx, ia, IIC, T6, Ga, -40°C to +60°C Certificate details: Group I + II Zone 20, AEx, ia, IIIC, T80°C, IP65, Da, -40°C to +60°C IECEx BAS08 0034X Baseefa08ATEX0086X Barrier **⊌II 1GD** 1 x Pepperl + Fuchs Galvanic Isolator KFD2-STC4-Ex1, which has superseded Ex ia IIC T6 Ga Ex ia IIIC T80°C IP65 Da KFD2-CR-Ex1.30300 (BAS00ATEX7164) □ I M1 see attached system drawings Fx ia I Ma  $(-40^{\circ}\text{C} \le \text{Ta} \le +60^{\circ}\text{C})$ 1 x MTL Zener Barrier MTL7787+ (BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Accelerometer System Certificate Z787 (BAS01ATEX7005) or any other barrier that Baseefa08Y0087 Ex ia IIC T6 (-40°C  $\leq$  Ta  $\leq$  +60°C) conforms to system drawings attached \*On request - consult Sales Office System Connections for Zener Barrier see attached system drawings Terminal Parameters Ui = 28V, Ii = 115mA, Pi = 0.65W Group II Ui = 16.5V Pi = 0.65W System Connections for Galvanic Isolator see attached system drawings or Ui = 28V Ii = 115mA Pi = 0.65W Group I Terminal Parameters Ui = Vmax = 28V 500V Isolation Units Will Pass A 500V Isolation Test Ii = Imax = 115mAPi = 0.65W Certified Temperature Range Ex ia IIC T6 Ga (-40°C  $\leq$  Ta  $\leq$  +60°C) (Gas) Ex ia IIIC T80°C IP65 Da (-40°C  $\leq$  Ta  $\leq$  +60°C) (Dust) Special conditions of safe use for Group II dust. Ex ia I Ma ( $-40^{\circ}$ C  $\leq$  Ta  $\leq$   $+60^{\circ}$ C) (Mining) The free end of the cable on the integral cable version of the apparatus must be terminated in South African Approval Certificate No. MASC MS/16-0229X an appropriately certified dust-proof enclosure. Group I and II (As Baseefa/ATEX) The unit has no serviceable parts.

## How To Order

