HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via Braided Cable

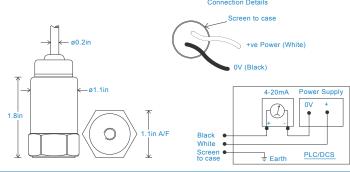
Key Features

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

Industries

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





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 Range Transverse Sensitivity Less than 5%

Mechanical

Case Material Stainless Steel Sensing Element/Construction PZT/Compression Mounting Torque 5.9ft. lbs 5.2 oz. (nominal) Weight Maximum Cable Length 3.280 ft. Standard Cable Length 16 ft. Shielded Cable Braided - length to be specified with order Mounting Threads see: 'How To Order' table

Electrical

Current Output Supply Voltage Settling Time Output Impedance Case Isolation

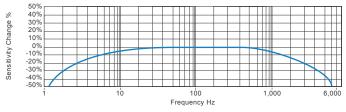
4-20mA DC proportional to Velocity Range 15-30 Volts DC (for 4-20mA) 2 seconds

Loop Resistance 600 Ohms max. at 24 Volts >108 Ohms at 500 Volts

Environmental

Operating Temperature Range see: attached certification details Sealing Maximum Shock **EMC**

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.)



IP65

5000g

EN61326-1:2013

Certifications











This product is certified in accordance with UL 913, 8th Ed. Rev. December 6, 2013 CAN/CSA C22.2 No. 157-92 (R2012) +Upd1 +Upd2



www.hansfordsensors.com sales@hansfordsensors.com



HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via Braided Cable

Intrinsically Safe Requirements

Maximum Cable Length nominal 100 metres see attached system drawings

Certificate details: Group I + II IECEx BAS08 0034X Baseefa08ATEX0086X

®II 1GD Ex ia IIC T6 Ga Ex ia IIIC T80°C IP65 Da

 □ I M1 Ex ia I Ma

 $(-40^{\circ}\text{C} \le \text{Ta} \le +60^{\circ}\text{C})$ **©II 1GD** Certificate details: Group II Ex ia IIC T4 Ga

> Ex ia IIIC T130°C IP65 Da $(-60^{\circ}C \le Ta \le +110^{\circ}C)$

Accelerometer System Certificate Baseefa08Y0087

> Ex ia IIC T6 (-40°C \leq Ta \leq +60°C) *On request - consult Sales Office

or Ui = 28V Ii = 115mA Pi = 0.65W Group I

Terminal Parameters Ui = 28V, Ii = 115mA, Pi = 0.65W Group II Ui = 16.5V Pi = 0.65W

500V Isolation Units Will Pass A 500V Isolation Test

Certified Temperature Range Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +60°C) (Gas) Ex ia IIC T4 Ga (- 40° C \leq Ta \leq + 110° C) (Gas) Ex ia IIIC T80°C IP65 Da (-40°C \leq Ta \leq +60°C) (Dust)

Ex ia IIIC T130°C IP65 Da (-40°C \le Ta \le +110°C) (Dust) Ex ia I Ma (-40° C \leq Ta \leq $+60^{\circ}$ C) (Mining)

Australia Approval Group 1 IECEx ITA 10.0003X

Ex ia I Ma $(-40^{\circ}\text{C} \le \text{Ta} \le +60^{\circ}\text{C})$

South African Approval Certificate No. MASC MS/16-0229X

Group I and II (As Baseefa/ATEX)

US/Canada Approvals Certificate No. SGSNA/18/SUW/0000231 Class I, II, III, Division 1, 2, Groups A - G, T4, -40°C to +110°C, Class I, Zone 0, AEx, ia, IIC, T4, Ga, -40°C to +110°C Zone 20, AEx, ia, IIIC, T130°C, IP65, Da, -40°C to +110°C

Barrier 1 x Pepperl + Fuchs Galvanic Isolator KFD2-STC4-Ex1, which has superseded KFD2-CR-Ex1.30300 (BAS00ATEX7164)

see attached system drawings

1 x MTL Zener Barrier MTL7787+ (BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Z787 (BAS01ATEX7005) or any other barrier that conforms to system drawings attached

System Connections for Zener Barrier see attached system drawings

System Connections for Galvanic Isolator see attached system drawings

Terminal Parameters Ui = Vmax = 28V Ii = Imax = 115mAPi = 0.65W

Notes Special conditions of safe use for Group II dust. The free end of the cable on the integral cable version of the apparatus must be terminated in an appropriately certified dust-proof enclosure.

The unit has no serviceable parts.

How To Order

