HS-422I/M Intrinsically Safe Accelerometer

4-20mA acceleration output via Flame Retardant Cable

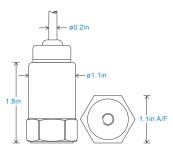
Key Features

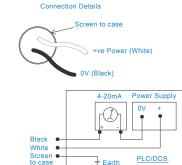
- · Intrinsically Safe with European, USA and South African approvals
- · For use with PLC/DCS systems
- · Low smoke, halogen free cable

Industries

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







Technical Performance

Mounted Base Resonance 10kHz min Acceleration Ranges see: 'How To Order' table ±10% Nominal 80Hz at 72°F Frequency Response 600cpm (10Hz) to 300kcpm (5kHz) ± 5% - ISO10816 Isolation Base isolated Range 50g peak Less than 5% Transverse Sensitivity

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 Sheilded Cable Flame Retardant - length to be specified with order Mounting Threads see: 'How To Order' table

Electrical

Current Output Supply Voltage Settling Time **Output Impedance** Case Isolation

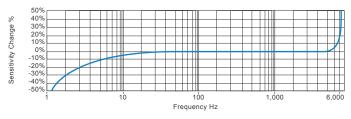
4-20mA DC proportional to acceleration 15-30 Volts DC (for 4-20mA) 2 seconds

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

Environmental

Operating Temperature Range see: attached certification details Sealing Maximum Shock 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.)



IP65

Certifications













www.hansfordsensors.com sales@hansfordsensors.com



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Intrinsically Safe Requirements

Maximum Cable Length nominal 100 metres 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 Ex ia IIC T6 Ga KFD2-STC4-Ex1, which has superseded 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 Baseefa08Y0087 Z787 (BAS01ATEX7005) or any other barrier that 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 ≤ Ta ≤ +60°C) (Gas)

South African Approval

Certificate No. MASC MS/16-0229X

Group I and II (As Baseefa/ATEX)

Ex ia IIIC T80°C IP65 Da (-40°C \leq Ta \leq +60°C) (Dust)

Ex ia I Ma (-40° C \leq Ta \leq +60 $^{\circ}$ C) (Mining)

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

