HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via Silicon Cable

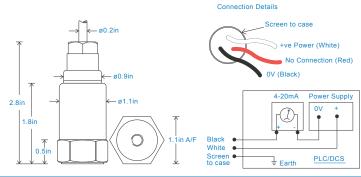
Key Features

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

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

Range 50g peak

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 Silicon - length to be specified with order Mounting Threads see: 'How To Order' table Submersible Depth 328 ft. max (10 bar)

Electrical

Current Output Supply Voltage Settling Time Output Impedance Case Isolation

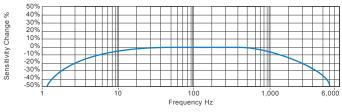
4-20mA DC proportional to Velocity Range
15-30 Volts DC (for 4-20mA)
2 seconds

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

Environmental

Operating Temperature Range	see: attached certification details
Sealing	IP68
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











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



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HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via Silicon Cable

Intrinsically Safe Requirements

Maximum Cable Length nominal 100 metres see attached system drawings

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

Baseefa08ATEX0086X

Ex ia IIIC T80°C IP65 Da

Ex ia IIIC T80°C IP65 Da

Ex ia I Ma

(-40°C ≤ Ta ≤ +60°C)

> Ex ia IIIC T130°C IP65 Da (-60°C ≤ Ta ≤ +110°C)

Accelerometer System Certificate Baseefa08Y0087

Ex ia IIC T6 (-40°C ≤ Ta ≤ +60°C)

*On request - consult Sales Office

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

Ui = 16.5V Pi = 0.65W or Ui = 28V Ii = 115mA Pi = 0.65W Group I

500V Isolation Units Will Pass A 500V Isolation Test

Certified Temperature Range Ex ia IIC T6 Ga (-40°C \leq Ta \leq +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 \leq Ta \leq +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

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

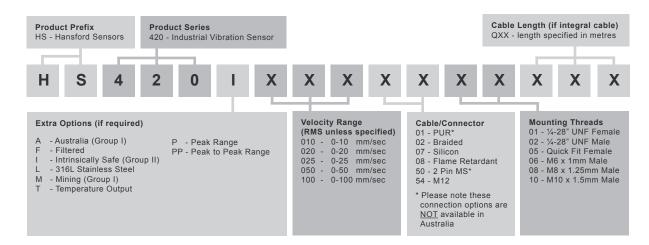
Ii = Imax = 115mA Pi = 0.65W

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





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