HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via Braided Cable

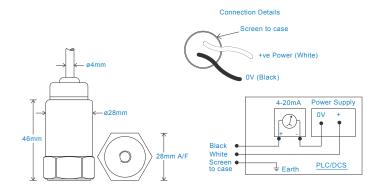
Key Features

- Intrinsically Safe with European, USA, 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 22°C

Frequency Response 10Hz (600cpm) to 1kHz (60kcpm) ± 5% - ISO10816
Isolation Base isolated
Range 50g peak

Transverse Sensitivity Less than 5%

Mechanical

Stainless Steel Case Material Sensing Element/Construction PZT/Compression Mounting Torque 8Nm Weight 150gms (nominal) Maximum Cable Length 1000 metres Standard Cable Length 5 metres Screened Cable Braided - length to be specified with order see: 'How To Order' table Mounting Threads

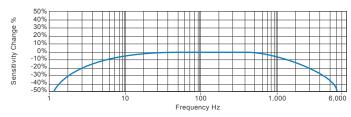
Electrical

Current Output 4-20mA DC proportional to Velocity Range Supply Voltage 15-30 Volts DC (for 4-20mA) Settling Time 2 seconds Output Impedance Loop Resistance 600 Ohms max. at 24 Volts Case Isolation >108 Ohms at 500 Volts

Environmental

Operating Temperature Range	see: attached certification details
Sealing	IP65
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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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 $(-40^{\circ}\text{C} \le \text{Ta} \le +60^{\circ}\text{C})$

Accelerometer System Certificate Baseefa08Y0087

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

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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 ≤ Ta ≤ +60°C) (Gas) Ex ia IIIC T80°C IP65 Da (-40°C ≤ Ta ≤ +60°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°C \leq Ta \leq +60°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, T6, -40°C to +60°C, IP65

Class I, Zone 0, AEx, ia, IIC, T6, Ga, -40°C to +60°C

Zone 20, AEx, ia, IIIC, T80°C, IP65, Da, -40°C to +60°C

3arrier 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

lotes: 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

Terminal Parameters

