

HS-173IR Premium ATEX Triaxial Accelerometer

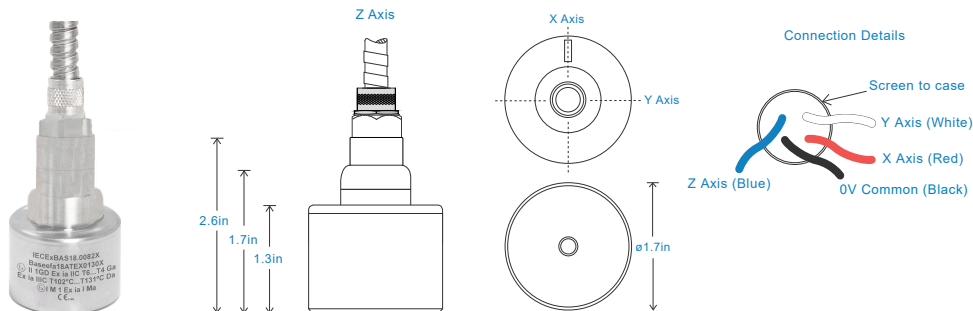
Three AC outputs via PUR cable with Protective Conduit

Key Features

- Intrinsically Safe with European, USA and Australian approvals
- Output via three axes
- For use with data collector
- Protective Conduit

Industries

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



Technical Performance

Mounted Base Resonance	see 'How To Order' table (nominal)
Sensitivity	see: 'How To Order' table $\pm 10\%$ Nominal 80Hz at 72°F per axes
Frequency Response	120cpm (2Hz) to 600kcpm (10kHz) $\pm 5\%$ 90cpm (1.5Hz) to 720kcpm (12kHz) $\pm 10\%$ 48cpm (0.8Hz) to 900kcpm (15kHz) $\pm 3\text{dB}$
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Mounting Torque	5.9ft. lbs
Weight	6.8 oz. (nominal)
Maximum Cable Length	See certificate
Standard Cable Length	16 ft.
Screened Cable	PUR - length to be specified with order
Mounting Threads	see: 'How To Order' table
Mounting Stud	HS-AS226, HS-AS221 or HS-AS222
Submersible Depth	328 ft. max (10 bar)

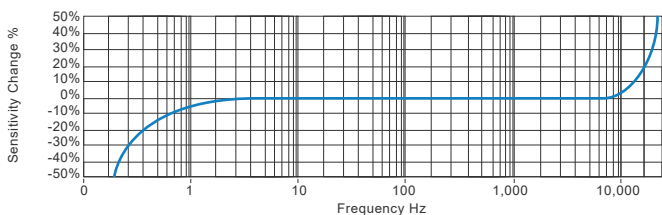
Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10 - 12 Volts DC
Settling Time	1 second
Output Impedance	200 Ohms max.
Case Isolation	$>10^8$ Ohms at 500 Volts

Environmental

Operating Temperature Range	see: attached certification details
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

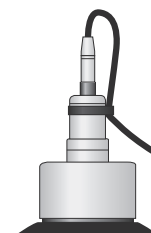
Typical Frequency Response (at 100mV/g)



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 60079-0, 6th Ed. Rev. July 26, 2013
 UL 60079-11, 6th Ed. Rev. September 6, 2013
 CAN/CSA C22.2 No. 60079-0:15 Rev. October 2015
 CAN/CSA C22.2 No. 60079-11:14
 UL 913, 8th Ed. Rev. October 16, 2015



www.hansfordsensors.com
sales@hansfordsensors.com

We reserve the right to alter the specification of this product without prior notice

TS1067U.6



HS-173IR Premium ATEX Triaxial Accelerometer

Three AC outputs via PUR cable with Protective Conduit

Intrinsically Safe Requirements

Certificate details: Group II and III	IECExBAS 18.0082X Baseefa18ATEX0130X Ex II 1GD Ex ia II T6...T4 Ex ia IIIC T135°C Da Ex ia IIIB T102°C...T131°C Da	Certified Temperature Range	Ex ia IIC T6 Ga (-55°C ≤ Ta ≤ +69°C) (Gas) Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +104°C) (Gas) Ex ia IIIB T102°C Da (-55°C ≤ Ta ≤ +69°C) (Dust) Ex ia IIIB T131°C Da (-55°C ≤ Ta ≤ +98°C) (Dust) Ex ia IIIC T135°C Da (-55°C ≤ Ta ≤ +70°C) (Dust) Ex ia I Ma (-55°C ≤ Ta ≤ +104°C) (Dust)
Certificate details: Group I	IECEX 18.0082X Baseefa18ATEX0130X Ex I M 1 Ex ia I Ma Ex ia IIIC T110°C...T145°C Da	Australia Approval Group I	IECEX ExTC 18.0032X Ex ia I Ma (-55°C ≤ Ta ≤ +104°C)
Terminal Parameters 10m of cable	Ui = 28V, Ii = 93mA, Pi = 0.65W Ci = 7.4nF Li = 7.2μH	US/Canada Approvals	Certificate No. SGSNA/19/BAS/00005 CI I, II, III, Div 1, 2 Gr A-G T* CI I Zn 0 AEx ia IIC T6...T4 Ga CI II Zn 20 AEx ia IIIC T135°C Da Ex ia IIC T6...T4 Ga Ex ia IIIC T135°C Da
Terminal Parameters 92m of cable	Ui = 28V, Ii = 93mA, Pi = 0.65W Ci = 38.3nF Li = 66μH		Or CI I, II, III, Div 1, 2 Gr A-D G and F T* CI I Zn 0 AEx ia IIC T6...T4 Ga CI II Zn 20 AEx ia IIIC T135°C Da CI II Zn 20 AEx ia IIIB T102°C...T131°C Da Ex ia IIC T6...T4 Ga Ex ia IIIC T135°C Da Ex ia IIIB T102°C...T131°C Da
500V Isolation	Units Will Pass A 500V Isolation Test		
Standards Applied to Product	EN IEC 60079-0:2018 EN 60079-11:2012 IEC 60079-0 Edition 7 2017 IEC 60079-11 Edition 6 2011	Control Drawing	M06-088-A
Barrier	1 x Pepperl + Fuchs Galvanic Isolator KFD2-VR4-Ex1.26 (BAS02ATEX7206) 1 x MTL Zener Barrier MTL7728+ (BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Z728 (BAS01ATEX7005) or any other barrier that conforms with the terminal parameters		

Special conditions of use: When a sensor is supplied with integral cable, this must be terminated in an enclosure providing at least degree of protection IP20.

Note: If the equipment is to be used in unusual environments or aggressive substances are likely to be encountered, contact the manufacturer to discuss suitability.

How To Order

Product Prefix		Product Series											
HS - Hansford Sensors		173I - Premium Intrinsically Safe Triaxial Industrial Vibration Sensor											
H	S	1	7	3	I	R	X	X	X	X	X	X	X
Extra Options (if required)				Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
A - Australia (Group I)				010 - 10mV/g		±800g		1,200kcpm (20kHz)		01C - PUR with Conduit		02 - ¼-28" UNF Male	
G - SGS (US/Canada Approval)				030 - 30mV/g		±250g		1,140kcpm (19kHz)				06 - M6 x 1mm Male	
R - Round Design				050 - 50mV/g		±160g		1,080kcpm (18kHz)				08 - M8 x 1.25mm Male	
I - Intrinsically Safe (Group II)				100 - 100mV/g		±80g		1,020kcpm (17kHz)					
L - 316L Stainless Steel				250 - 250mV/g		±32g		960kcpm (16kHz)					
M - Mining (Group I)				500 - 500mV/g		±16g		900kcpm (15kHz)					
Y - 5% tolerance on sensitivity													