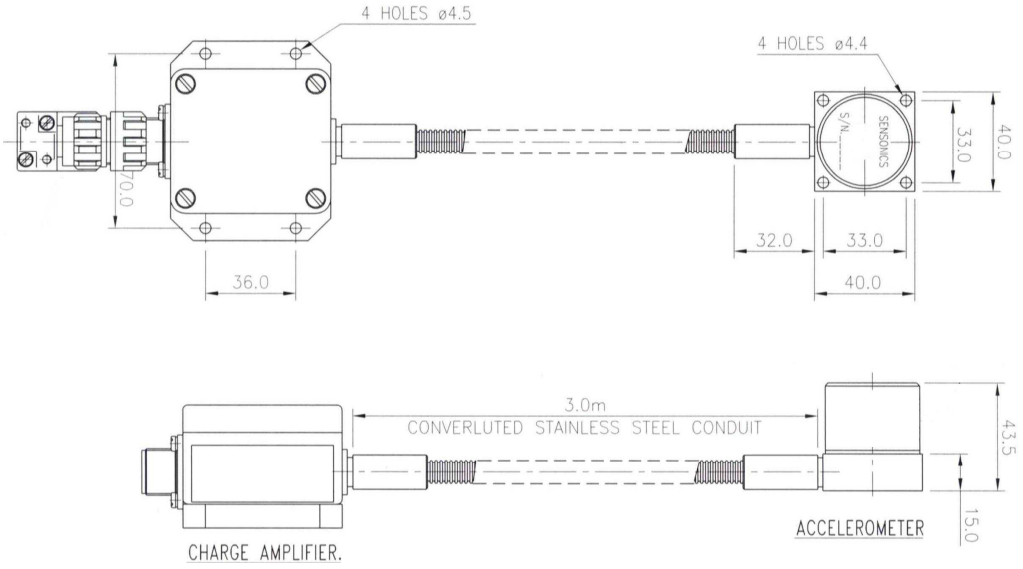
TECHNICAL INFORMATION

PREDICTIVE MAINTENANCE SYSTEMS

SENSONICS LTD

PZHT 240ºC ACCELEROMETER



- **Gas Turbine / Aero Derivative Applications**
- **100mV/g or 10mV/g sensitivity**
- **240ºC Transducer Operation**
- **Integral low noise cable with separate charge amplifier**
- **Fully sealed transducer and conduit assembly**
- **Field proven design for heavy industrial environments**

The PZHT accelerometer is a robust, hermetically sealed instrument suitable for operation in high temperature, heavy industrial environments, such as those found in gas turbine applications. The vibration transducer consists of a piezoelectric sensor, integral low noise cable contained in a stainless steel convoluted flexible conduit connected to a charge amplifier unit. This arrangement removes the electronic signal conditioning components from the high temperature environment and provides a 3-wire voltage arrangement at an industry standard sensitivity.

The accelerometer head sensing elements and charge amplifier circuits are completely isolated from the external components, offering excellent low noise performance in conjunction with immunity to high electrical noise environments. Field proven and established for over 15 years this design also offers ATEX approval to the highest standard for use in intrinsically safe applications.

PZHT 240ºC ACCELEROMETER SPECIFICATION

Electrical

Operating Voltage/Current	12 to 15 volts dc, 10mA max
Output signal sensitivity	100mV/g ± 5% (10mV/g option)
Bias Voltage	6.0Vdc ± 1.0V
Dynamic Range	±40g peak for 100mV/g ±100g peak for 10mV/g
Frequency Range	8Hz to 10kHz (better than 3dB)
Mounted Resonance	>10kHz
Transverse sensitivity	Less than 5%
Amplitude linearity	±1% or better
Residual electrical noise	<1mg rms (8Hz to 10 kHz)

Mechanical

Transducer Material	Stainless Steel BS 970 303S
Weight	Accelerometer head: 140gm Signal Conditioning Module: 250gm
Transducer Mounting	4-off M4, 33mm pitch
Charge Amplifier Mounting	4-off M4, 70mm x 36mm pitch
Connector	Mil style 4-pin connector (MIL-C-5015)

Environmental

Shock Survival	<1000g
Accelerometer Head Temperature Range	-20ºC to +240ºC
Charge Amplifier Temperature Range	-20ºC to +90ºC
Protection (BS.EN60529)	Sealed to IP.67
Certification ATEX	CE Ex II 1G (EEx ia IIC T2-T6) contact sales for certification details

Ordering Information

	A	*B*	*C*	*D*	*E*	*F*
PZHT -	1	8 E	0	1	0	

A Electrical Configuration

1 - Integral Charge Amplifier

B Connection Method

8 E - 3 wire, 4-pin MIL

C Cable length

0 3 - 3 metres. Standard set length

0 6 - 6 metres. Standard set length

D Output & Frequency band (3dB point)

1 - 100mV/g ± 5% (8Hz – 10KHz) 3- wire

2 - 10mV/g ± 5% (8Hz – 10KHz) 3- wire

E Mounting

0 - As above

F Hazardous Area Approval

0 - Non Intrinsic

1 - Intrinsic

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