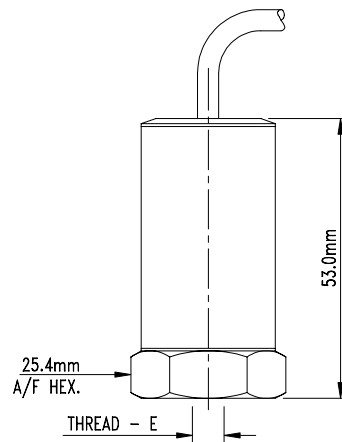




PZA2 SERIES ACCELEROMETER



- LOW COST
- LIGHT INDUSTRIAL
- INTERNAL AMPLIFIER
- STAINLESS STEEL HERMETICALLY SEALED DUAL CASE
- FREQUENCY RANGE 2.5Hz TO 11KHz (0.8Hz OPTION)
- INTERNALLY SHIELDED
- ELECTRICAL AND THERMAL ISOLATION
- FULLY SCREENED
- INTRINSICALLY SAFE OPTION

The PZA2 accelerometer is intended to satisfy the general specification requirements for a low cost vibration transducer for use in multi-point experimental or light industrial vibration monitoring applications.

The two-wire current-loop operating principle permits very long interconnecting cables to be used where necessary and at minimum expense since standard screened pair (or multi-pair) cables may be used.

The piezo-electric sensor and amplifier are contained within an inner metal enclosure, which is electrically and thermally insulated from the outer stainless steel body. The arrangement prevents earth loops and eliminates electrical interference, and minimises thermal shocks and base strain. The inner enclosure is connected to the 0V of the two wire system and is therefore an effective electrical screen. External connections are made via a top exit integral cable or electrical connectors.

DS1104

PZA2 ACCELEROMETER

SPECIFICATION

Operating Voltage/current	18 to 28 volts D. C. constant current source of 2 to 10mA
Output signal	100mV/g superimposed on 12Vdc +/- 20% (others available)
Dynamic Range	Up to 70g peak (at 24Vdc input)
Frequency Range	2.5Hz to 11KHz (better than 3dB) (standard) 0.8Hz to 11KHz (better than 3dB)
Transverse sensitivity	Less than 5%
Amplitude linearity	+/- 1% or better
Temperature sensitivity	Less than 5% up to 140°C 1% per 25°C over range -30°C to +140°C
Residual electrical noise	Less than 0.2mg (2.5Hz to 11KHz) or 0.5mg (0.8Hz to 11KHz)
Signal transmission	Two-wire system, electrically isolated from body up to 500Vac Three wire & connector variants, contact Sensonics for details
Weight.....	115 gms (nominal)

Environmental

Acceleration limit: Vibration	200g pk at 120Hz for 10 mins
Shock	500g half sine without connector
Temperature: Operation	-30°C to +140°C (Intrinsic version -30°C to +100°C)
Survival	-55°C to +170°C
	NB. Certain types of connector or cables may limit the temperature performance of the transducer, see IS. Sheet for details.
Protection (BS.EN60529).....	Sealed to IP.66 / IP.67

ORDERING INFORMATION

PZA2 -

A Electrical Configuration

- 2 wire ICP device

B Connection Method

- Integral Cable (80°C) Unarmoured
- Integral Cable (80°C) Armoured
- Integral Cable (140°C) Unarmoured
- Integral Cable (140°C) Armoured
- Integral Cable/Waterproof Gland (80°C)
Unarmoured (IP68 Option)

C Cable length (Specify in whole metres)

e.g. = 2 metres (max 25 metres)

D Output & Frequency band (3dB point)

- 100mV/g 5% (2.5Hz – 11KHz)
- 100mV/g 10% (2.5Hz – 11KHz)
- 100mV/g 10% (0.8Hz – 11KHz) low frequency option

E Mounting Thread (Female)

- ¼ UNF
- M6
- M8
- Quick Release

F Hazardous Area Approval

- Non Intrinsic
- Intrinsically Safe (contact Sensonics for details)