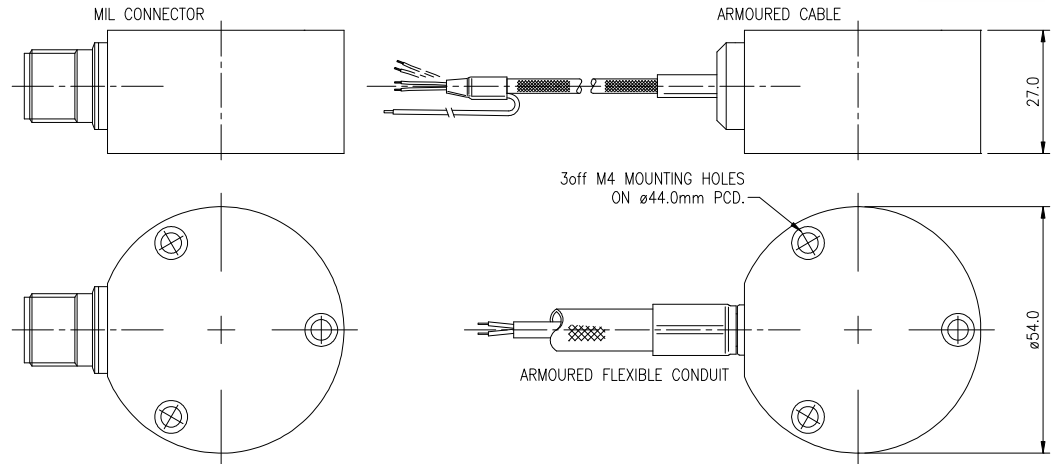


PZS5 SERIES ACCELEROMETER



- RUGGED, LOW PROFILE, SIDE ENTRY
- THREE POINT MOUNT, EASY INSTALLATION
- DUAL CASE, LOW NOISE
- STAINLESS STEEL HERMETICALLY SEALED OUTER CASE
- FREQUENCY RANGE 0.4Hz TO 8kHz
- HIGH LEVEL OF PHYSICAL PROTECTION
- ELECTRICAL AND THERMAL ISOLATION
- SHEAR MODE OPERATION
- INTRINSICALLY SAFE - ATEX CE Ex II 1G (EEx ia IIC T4)

The PZS5 accelerometer is intended to satisfy the general specification requirements for a robust, yet versatile vibration transducer for use in heavy industrial vibration monitoring applications.

The signal current-loop operating principal 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 shear mode 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, as well as minimising thermal shocks and base strain. The inner enclosure is connected to the 0V of the wiring system and is therefore an effective electrical screen. External connections are made via a side exit integral cable or electrical connectors.

The PZS5 is a direct replacement for the obsolete QZJ range and PZA3 range of Sensonic products

PZS5 ACCELEROMETER

SPECIFICATION

Signal transmission options	Two-wire or Three-wire systems
Two-wire 18-28V DC	Constant current source of 2 to 10mA, Bias 12V DC \pm 20%
Three-wire 12V DC	6V DC Bias Voltage \pm 20%
Three-wire 24V DC	12V DC Bias Voltage \pm 20%
Output signal	100mV/g
Dynamic Range	Up to 70g peak (at 24Vdc input)
Frequency Range	0.4Hz to 8kHz (better than 3dB)
Transverse sensitivity	Less than 5%
Amplitude linearity	\pm 1% or better
Temperature sensitivity	Less than 8% up to 140°C
Residual electrical noise	Less than 0.2mg (0.4Hz to 8KHz)
Weight.....	450 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 +160°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
Certification ATEX		CE Ex II 1G (EEx ia IIC T4) Tamb = 100°C

ORDERING INFORMATION

PZS5 -

A Electrical Configuration

- 2 - 2 wire 18-28 VDC
- 3 - 3 wire 12 VDC 8 - 3 wire 24 VDC

B Connection Method

- 6 A Integral Economy PVC Cable (80°C) Unarmoured
- 6 B Integral Economy PVC Cable (80°C) Armoured
- 6 C Integral Cable (140°C) Unarmoured
- 6 D Integral Cable (140°C) Armoured
- 7 G Integral Economy Unarm'ed Cable/Waterproof Gland
- 8 E Integral Connector, 2 pin, MIL, threaded
- 9 C Integral Cable Unarm'ed/Braided Flexible Conduit

C₂ Conduit Length Over Cable

For 9C only, excess cable in 0.5m increments

- 0 2 A e.g.2m conduit, 0.5m excess cable from free end (Std)
- 0 2 B e.g.2m conduit, 0.3m excess cable from free end
- 0 2 C e.g.2m conduit, 1.0m excess cable from free end
- 0 2 D e.g.2m conduit, 1.5m excess cable from free end
- 0 2 E e.g.2m conduit, 2.0m excess cable from free end

D Cable/Conduit End Fitting

- 0 - No cable/conduit end fitting.
- 1 - ¼" BSP female
- 2 - M16 male
- 3 - M20 male

E Output & Frequency band (3dB point)

- 1 100mV/g \pm 5% (2.5Hz - 8kHz)
- 2 100mV/g \pm 10% (2.5Hz - 8kHz)

C₁ Cable length (Specify in whole metres)

- 0 2 e.g. = 2m Total length, from TxD to free end
- 0 0 for no cable, i.e. connector versions of instrument

F Hazardous Area Approval

- 0 - Non Intrinsic 1 - Intrinsically Safe

DS1179_2



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