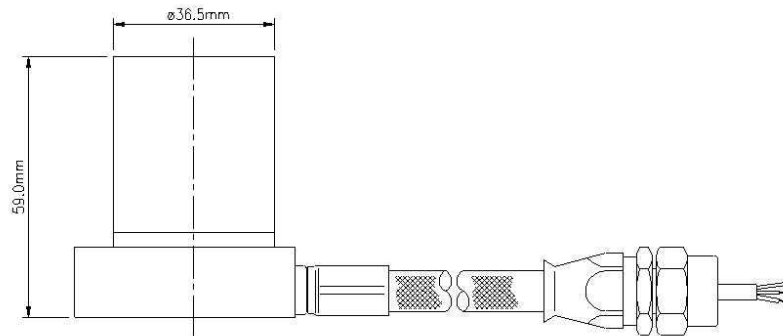


## PZV3 SERIES VELOMETER



- DIRECT VELOCITY VIBRATION OUTPUT
- HEAVY INDUSTRIAL
- STAINLESS STEEL HERMETICALLY SEALED DUAL CASE
- FREQUENCY RANGE 2.5Hz TO 6KHz
- INTERNALLY SHIELDED
- ELECTRICAL AND THERMAL ISOLATION
- FULLY SCREENED
- HIGH LEVEL OF PHYSICAL PROTECTION
- INTRINSICALLY SAFE OPTION

The PZV3 velometer is intended to satisfy the general specification requirements for a low cost vibration transducer for use in multi-point industrial vibration monitoring applications and is suitable for use with any modern monitoring system, fixed or portable.

The two-wire ICP 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, eliminating 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, making the unit particularly suitable for use in electrical field environments, e.g. on electrical motors and generators. External connections are made via a top exit integral cable or electrical connectors.

# PZV3 ACCELEROMETER

## SPECIFICATION

Operating Voltage/current .....	18 to 28 volts D. C. constant current source of 3.5 to 10mA
Output Signal .....	4mV/mm/sec, superimposed on 12Vdc $\pm 20\%$
Dynamic Range .....	Up to 200g peak (at 24Vdc input)
Frequency Range .....	5Hz to 3.5KHz (better than 1dB)
.....	2.5Hz to 6KHz (better than 3dB)
Transverse sensitivity .....	5%
Amplitude linearity .....	5%
Temperature sensitivity .....	5% over the temp range
Residual electrical noise .....	$10^{-4}$ mm/sec (10Hz)
Signal transmission .....	Two-wire system, electrically isolated from body up to 500Vac
	Three wire & connector variants, contact Sensonics for details
Weight.....	420 g (nominal)
Transducer mounting .....	3 point mounting, 3xM4 cap hd, Screw on 44.0mm PCD
Certification ATEX .....	CE Ex II 1G (EEx ia IIC T4) Tamb = 80°C

## Environmental

Acceleration limit: Vibration .....	200g
Shock .....	500g
Temperature: Operation .....	-30°C to +100°C (BNC connector version -30 to +80°C)
Survival .....	-55°C to +140°C (short periods)
	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.68 (Depending on connection method)

## ORDERING INFORMATION

PZV3 - 

A	B	C	D	E	F
---	---	---	---	---	---

### A Electrical Configuration

2
---

 - 2 wire ICP device

### 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, circular, threaded

9	C
---	---

 Integral Cable Unarm'ed/Braided Flexible Conduit

### C<sub>1</sub> 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

### C<sub>2</sub> Conduit Length Over Cable

*For connection method 9 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
---

 4mV/mm/s  $\pm 5\%$

### F Hazardous Area Approval

0
---

 - Non Intrinsic

1
---

 - Intrinsically Safe Option.