



- ROBUST INDUSTRIAL DESIGN
- 4 – 20 mA LOOP POWERED
- VELOCITY VIBRATION UP TO 50mm/s
- LINEARITY WITHIN  $\pm 1\%$
- ATEX APPROVAL Ex ia IIC T4
- FREQUENCY RANGE 2.5Hz to 6KHz
- 120 °C OPERATION

The PZDC series of vibration transducers are compact and robust sealed instruments providing a process output of 4-20mA proportional to RMS velocity vibration. The series are designed for applications requiring direct integration in to SCADA systems (PLC/DCS) and provide an extremely cost effective solution for measuring overall vibration performance.

A simple two-wire loop signal proportional to current provides the electrical interface; the velocity vibration range is factory set between 15mm/s and 50mm/s. Utilising Sensonics compression mode technology the sensors offer an extremely linear performance over the full dynamic range and accuracy to within a few percent.

The outer case is constructed from stainless steel and is hermetically sealed and electrically isolated from the signal connectors which are made by top exit cable or a 2 pin MIL style connector. The transducer is mounted by means of a single threaded hole in the base of the cylindrical body; this accepts a mounting stud which can be supplied by Sensonics.

# PZDC VELOCITY TRANSDUCER

## SPECIFICATION

Operating Voltage.....	16 to 32 volts DC.
Output signal.....	4-20mA proportional to output ranges
Output ranges.....	0 – 15mm/s, 20mm/s, 25mm/s & 50mm/s (g available)
Accuracy .....	±5%
Frequency Range .....	10Hz to 1kHz (1dB), 2.5Hz to 6kHz (3dB)
Transverse sensitivity .....	Less than 5%
Temperature sensitivity .....	0.05% per °C
Residual electrical noise .....	Less than 0.2mg (2.5Hz to 10kHz)
Signal transmission .....	Two-wire system, electrically isolated from body up to 500Vac.
Weight.....	225 gms (nominal)
Certification ATEX .....	CE Ex II 1G (Ex ia IIC T4) Tamb = 80°C

## **Environmental**

Acceleration limit: Vibration.....	200g pk at 120Hz for 10 mins
Temperature: Operation .....	-30°C to +120°C (IP68 version -30°C to +80°C)
Survival .....	-55°C to +140°C
	NB. Certain types of connector or cable may limit the temperature performance of the transducer, see IS. Sheet for details.
Protection (BS.EN60529).....	Sealed to IP.66 / IP.67 (also IP68 version available)

## ORDERING INFORMATION

PZDC - 

A	
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B	
---	--

C	
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D	
---	--

E	
---	--

F	
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### A Electrical Configuration

5
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 - 2 wire ICP 4-20mA loop power

### B Connection Method

- |   |   |
|---|---|
| 6 | A |
|---|---|
- Integral Cable (80°C) Unarmoured
- 
- |   |   |
|---|---|
| 6 | B |
|---|---|
- Integral Cable (80°C) Armoured
- 
- |   |   |
|---|---|
| 6 | C |
|---|---|
- Integral Cable (140°C) Unarmoured
- 
- |   |   |
|---|---|
| 6 | D |
|---|---|
- Integral Cable (140°C) Armoured
- 
- |   |   |
|---|---|
| 7 | G |
|---|---|
- Integral Cable/Waterproof Gland (80°C)
- 
- Unarmoured (IP68 Option)
- 
- |   |   |
|---|---|
| 8 | E |
|---|---|
- Integral MIL Conn

### C Cable length (Specify in whole metres)

0	2
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 e.g. = 2 metres (max 25 metres)

### D Output Range

- |   |
|---|
| 1 |
|---|
- 0-15 mm/sec
- 
- |   |
|---|
| 2 |
|---|
- 0-20 mm/sec
- 
- |   |
|---|
| 3 |
|---|
- 0-25 mm/sec
- 
- |   |
|---|
| 4 |
|---|
- 0-50 mm/sec

### E Mounting Thread (Female)

- |   |
|---|
| 1 |
|---|
- M8
- 
- |   |
|---|
| 2 |
|---|
- ¼ UNF

### F Hazardous Area Approval

- |   |
|---|
| 0 |
|---|
- Non Intrinsic
- 
- |   |
|---|
| 1 |
|---|
- Intrinsically Safe Option

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