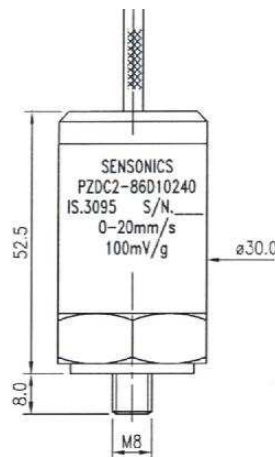


PZDC2 VELOCITY TRANSDUCER



- ROBUST INDUSTRIAL DESIGN
- 4 – 20 mA LOOP POWERED
- ADDITIONAL 100mV/g OUTPUT
- VELOCITY VIBRATION UP TO 50mm/s
- IDEAL FOR SIMULTANEOUS ANALYSIS & SCADA
- LINEARITY WITHIN $\pm 1\%$
- FREQUENCY RANGE 2.5Hz to 6KHz
- 120 °C OPERATION

The PZDC2 vibration transducer is a compact and robust sealed instrument providing a processed output of 4-20mA proportional to RMS velocity vibration in addition to a buffered 100mV/g acceleration vibration signal. The transducer is designed for applications requiring direct integration in to a SCADA system (PLC/DCS), as well as a raw vibration signal for more detailed waveform analysis or machine protection applications.

A three wire system is employed to connect to the device. Two wires make up the current loop signal proportional to the velocity vibration; range is factory set between 15mm/s and 50mm/s. The third wire is used in conjunction with the current loop 'low' to provide the acceleration waveform. Note: when connected to a datacollector or signal processing unit the built in current source must be disabled, as the acceleration output is powered through the 4-20mA interface.

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 3 pin connector. The transducer is mounted by means of a single threaded stud in the base of the cylindrical body.

PZDC2 VELOCITY TRANSDUCER

SPECIFICATION

Operating Voltage.....	16 to 32 volts DC.
Output signal 1.....	4-20mA proportional to output ranges.
Output signal 1.....	100mV/g
Output 1 ranges.....	0 – 15mm/s, 20mm/s, 25mm/s & 50mm/s
Output 2 range.....	±50g
Accuracy.....	±5% both outputs
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.....	Three-wire system, electrically isolated from body up to 500Vac.
Weight.....	225 gms (nominal)

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 +150°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	B	C	D	E	F
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A Electrical Configuration

8

 - 3 wire, 4-20mA loop power & 100mV/g

B Connection Method

6	A
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 Integral Cable (80°C) Unarmoured

6	B
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 Integral Cable (80°C) Armoured

6	C
---	---

 Integral Cable (140°C) Unarmoured

6	D
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 Integral Cable (140°C) Armoured

7	G
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 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 (Male)

1

 - M8

2

 - ¼ UNF

F Hazardous Area Approval

0

 - Non Intrinsic

DS1166



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