



item-prs-a infrasonic sensors

The item-prs series sensors are compact broadband (0.1-100 Hz) infrasonic sensors ideally designed for easy field deployment in medium noise sites and covering varying ranges of excess pressure.

Specifications

Sensitivity

- differential pressure measurement

prs0100a: 25 mv/Pascal @1 Hz, \pm 100 Pa full scale range
prs0250a: 10 mv/Pascal @1 Hz, \pm 250 Pa full scale range

- broadband

Output

- single ended

pressure analogue output

Analogue Output Single Ended: 0-5 volts
Frequency Response: 0.1-100 Hz (all models)
- 3dB @ 0.1 Hz
Self Noise:
-50 dB rel to 1 Pa (prs0100a)
-40 dB rel to 1 Pa (prs0250a)

Power & Case

Power Supply: 5-12 V DC
Current: 20 mA @ 12 V
Operating Temperature: -25 - 85 °C
Dimensions: 100x76x52 mm
(including inlet and connector)
Weight: 0.5 kg
Case: Alluminium
Connector: Hirshmann CM MILC5015/4

Features

The Item-prs series infrasonic sensors are based on differential pressure transducers specifically adapted for efficient field deployment.

The Item-prs series infrasonic sensors are differential pressure transducers measuring air pressure fluctuations with respect to the pressure in the backing volume. Within the backing volume a capillary is mounted that acts as leak back to the atmosphere. The acoustic resistance of the capillary determines the lowest frequency the microbarometer can measure, longer term fluctuations are compensated by the capillary.

Operation

The item-prs series infrasonic sensors are equipped with a screw on the sensor top. In order to avoid any rapid pressure differential that may damage the sensor, related to extreme weather or rapid altitude changes, leave the screw open when the instrument is not in operation.



**fasten the operation screw
before sensor operation**

item s.r.l.

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Connections**Sensor connector (Hirshmann CM MILC5015/4):**

A	Pressure signal output +
B	Power supply +12 V
C	Power supply GND
D	Pressure signal output GND

Open end cable:

Yellow	Pressure signal output +
Red	Power supply +12 V
Black	Power supply GND
White	Signal output GND

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