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Integrated Technologies for Environmental Monitoring

Prs0025f Datasheet

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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 micro-barometer can measure, longer term fluctuations are compensated by the capillary.

The sensor is designed to be operated in very hostile environment with stainless steel case and fiber optic output to match our FIBRA receiver/analyzer. The fiber optic output prevents significant signal loss even for large array deployment and dramatically reduces the risk of system damages caused by lightning.

Sensor Specification

Sensitivity

400 mv/Pa, 25 Pa full scale range

Output

Type : Fiber Optic ST
Frequency Response: 0.2-100 Hz -3dB @0.2 Hz
Self Noise: < -55 dB rel to 1 Pa

Power and Case

Power Supply: 9-18 V DC
Current: < 50 mA @ 12.5 V
Operating Temperature: -25°C to 85 °C
Dimensions: 90mm diameter (+ inlets), 185mm height
Weight: 1.7 kg
Case: Stainless Steel