



Decibels Electronics Pvt. Ltd, Hyderabad



Specifications of Digital Atmospheric Pressure Sensor

- a) Basic Sensor : MEMS Pressure sensor.
- b) Pressure Range : 600-1100 hpa.
- c) Temperature Range : -20°C to +80°C.
- d) Operating Voltage : 9 V to 24 V dc @(<10 mA)
- e) Output : RS 485 –Digital Communication
(RS 485 interface Protocol conforming to existing data logger for weather stations).
- f) Response time : <1 sec for each reading
- g) Accuracy : ± 0.5 mbar
- h) Resolution : 0.1 hpa.
- i) Type of Assembly : For each digital pressure sensor all the required electronic components and the MEMS Pressure sensor mounted on a single PCB. The wired PCB with conformal coating enclosed in suitable ABS enclosure. All the electrical & Communication connections terminated to a 9 pin D- sub Connector mounted on the enclosure. 60cms long interface cable with mating connector is provided.



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- j) Software** : Each assembled digital pressure sensor consists of RS- 485 Communication Software/interface in Half-Duplex mode.
Adjustment of calibration off-set though software is provided. The sensors id can also be set with the same software.
- k) Calibration** : Each pressure sensor having calibration Pressure range of 600-1100 hpa.
- l) Document** : Calibration document contains serial no. of the transducer, date of calibration, atmospheric (ambient) pressure value, with QA seal & sign will be provided.
- m) Features** : The digital pressure sensor is compatible with data logger (used in ISRO's Automatic weather stations.)
- With 16 bit micro controller
 - Application Software shall incorporate Pressure and Temperature readout throughout the operating temperature range: -20°C to $+80^{\circ}\text{C}$.
 - Correction of Pressure offset to achieve $\pm 0.5\text{mbar}$ accuracy.
 - Smaller size. (compact design)
 - Pre-fabricated interface cable provided.
 - Reverse Voltage Protection provided.
 - Surge protection on RS-485 line provided.

Note: We have supplied 660pcs to ISRO Bangalore between 2009~2010.