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SIAP+MICROS
Environmental Monitoring Solutions

BAROMETRIC PRESSURE Sensor

t011 TBAR-IVS



Customizable measurement range
Accuracy and reliability of data

Description

TBAR-IVS is a sensor for the measurement of atmospheric pressure which can be used for the most common meteorological applications, thanks to its good performance in terms of accuracy and sensitivity.

TBAR-IVS is equipped with a piezoresistive electronic transducer with linear output. An internal electronic system compensates automatically the variation in temperature, ensuring a high precision over the whole measurement range.

The transducer is based on a micro-processor chip that executes many functions. Mainly it performs assuring for instance the correct control functioning, or data pre-processing and electrical signal A/D conversion.

TBAR-IVS is housed into an IP-65 box that guarantees a proper functioning of the sensor in outdoor installations, even in harsh environmental conditions.

The sensor is supplied with power and signal cable (4m).



Main Features

- Customizable measurement range
- Accuracy and reliability of data
- Protection against overvoltages
- Low power consumption

Technical Specifications*

Measurement performance

Atmospheric pressure [hPa]

| | Min | Typical | Max |
|---------------------------------|------|------------------|------|
| Linearity | | 0.2 | |
| Hysteresis | 1 | 0.1 | 1 |
| Calibration uncertainty at 20°C | 0.06 | 0.1 | 0.11 |
| Measurement range | | 300 ÷ 1100 hPa | |
| Accuracy | | 0.4 (-15 ÷ 50°C) | |
| Resolution | | 0.1 | |
| Long term stability | | 1 for one year | |

Operating conditions

| | |
|-------------|--------------|
| Temperature | -40 ÷ +60 °C |
| Humidity | 0% ÷ 100% |

Outputs

| | |
|--------------|----------------|
| RS485-Modbus | Pressure [hPa] |
| SDI 12 | Pressure [hPa] |

Power supply and consumption

| | |
|------------------------|---------------|
| Voltage supply | 7 ÷ 30 Vdc |
| Power consumption (mA) | 4 mA @ 24 Vdc |

Mechanical specifications

| | |
|------------------------|---|
| Protective body | Plastic material IP-65 and stainless steel screws |
| Weight | 350 g |
| Dimensions | 119 x 123 x 61.5 mm |
| Electrical connections | IP67 / 7 male poles |

Ordering codes

| | |
|--|----------------------|
| Sensor with serial output RS485-Modbus | PSM-t011d-TBAR-IVS |
| Sensor with serial output SDI 12 | PSM-t011g-TBAR-SDI12 |

*Changes on technical performances can be applied upon request of specific calibration