



PTU Sensor – Pressure, temperature and humidity

818 390



This sensor measures air pressure, temperature and humidity.

- **Compact:**
easy integration
- **Rugged:**
for harsh marine environments
- **Simplified maintenance:**
interchangeable parts

This sensor comprises a microcontroller central processing unit handling measurement acquisition and processing, as well as adjustment and modification of the instrument's specific parameters.

The digital data are delivered via the MODBUS protocol.

Access to the modifications of the parameter settings is provided on a PC via a USB-RS485 interface and the associated software.



Measure up



For more than 30 years, **Chauvin Arnoux Energy** has been implementing **complete solutions** dedicated to ship operation, the defense system, and monitoring of the propulsion systems and electrical circuits.

Specifications of the serial link

- **Type** Isolated RS 485 as per EIA 485
- **Mode** Half Duplex
- **Protocol** MODBUS RTU
- **Speed** 9,600 bauds (1,200 to 38,400 Bd)
- **Transmission format** 1 start bit - 8 data bits
1 parity bit (even, odd or none) - 1 stop bit

Pressure

- **Type of sensor** Piezoresistive
- **Measurement range** 850 to 1,100 hPa
- **Resolution** 0.1 hPa
- **Accuracy** +/- 0.1 % end of scale +/- 0.1 hPa
- **Coefficient** 100 ppm/K
- **Acquisition time** 1.4 seconds

Dew point

- **Measurement range** 40 +80 °C
- **Resolution** 0.1 °C
- **Accuracy** Digital calculation
- **Acquisition time** 1.4 seconds

Humidity

- **Type of sensor** Polymer capacitor
- **Measurement range** 0 to 100% RH
- **Resolution** 0.1 %
- **Accuracy** +/- 4% RH
- **Coefficient** 100 ppm/K
- **Acquisition time** 1.4 seconds

Temperature

- **Type of sensor** Pt 1000 Ohms
- **Measurement range** -20 °C to +70 °C
- **Resolution** 0.1 °C
- **Accuracy** 0.4 % end of scale +/- 0.1 °C
- **Coefficient** 100 ppm/K
- **Acquisition time** 1.4 seconds

Environmental specifications

- **Temperature** -20 to +70°C in operation
- **Pressure** 700 mbar < P < 1,300 mbar
- **Hygrometry** 10 to 95% RH
- **Roll, pitch, list, trim** No effect

Mechanical specifications

- **Overall dimensions** 200 x 200 x 580 mm
- **Shelter material** ABS
- **Ingress protection** IP20
- **Weight** ~ 3 kg

Electrical specifications

- **Power supply** DC voltage from 12 to 35 V=
- **Consumption** 45 mA at 28V=
- **Connection** Output via cable gland and 5-contact cable



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