

Barometric Pressure Sensor AB 60 / AB 100

S31100 / S31200

سنسور اندازه گیری فشار هوا

شماره سفارش

- Piezoelectric barometric pressure sensor
- Low power consumption
- Operating pressure:
 AB 60 (S31100) 800 ... 1100 hPa (mbar)
 AB 100 (S31200) 600 ... 1100 hPa (mbar)



Measurement principle and mounting

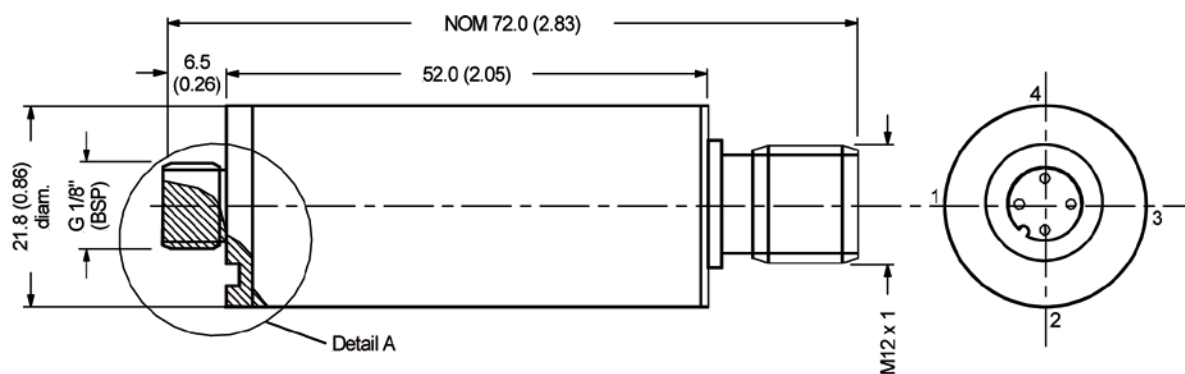
The piezoelectric pressure sensor's signal is electronically amplified to provide an output signal of 0...5 VDC. The sensor is mounted in a stainless steel housing, protection class IP64 when the connector is plugged in.

The connecting cable is included in delivery. If required it will be ready for connection in an Ammonit steel cabinet.

When mounted outside the central steel cabinet we recommend protective housing with pressure compensation.

In measurement operation the sensor needs an external supply of at least 9 VDC.

Dimensional drawing



mass: appr. 80g

dimensions in mm

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Specifications

| Characteristics | AB 60 | AB 100 |
|--------------------------------|---|---|
| Order-No. | S31100 | S31200 |
| Operating pressure | 800 ... 1100 hPa (mbar) (Altitude: ≤ 1400 m) | 600...1100 hPa (mbar) (Altitude: ≤ 3700 m) |
| Slope | 60 hPa/V | 100 hPa/V |
| Offset | 800 hPa | 600 hPa |
| Temperature operation range | -40 ... 85 °C | |
| Humidity range | 0 ... 98 %RH | |
| Accuracy | | |
| Total accuracy (-10 ... 60 °C) | ±1 % FSO* (±3 hPa; FSO is 300 hPa) | ±1 % FSO* (±5 hPa; FSO is 500 hPa) |
| Repeatability | ±0.1 % FSO* | ±0.2 % FSO* |
| Long term stability | ±0.1 % FSO* | ±0.1 % FSO* |
| Electrical data | | |
| Output voltage | 0 ... 5 VDC | |
| Supply voltage | 9 ... 32 V | |
| Current consumption | 5 mA | |
| General | | |
| Dimensions | Length 72 mm, diameter 22 mm | |
| Weight | 80 g | |
| Housing | Stainless steel | |
| Connection | 4-pole plug (M12) | |
| Protection class | IP 64 - when connector is plugged in | |
| Vibration (5 ... 500 Hz) | 2 gRMS | |
| Mechanical shock | 50 g | |
| Atmosphere | non-ionic, non-corrosive | |

* FSO (Full Scale Output) describes the difference of the upper and the lower limit of the pressure range.

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Sensor connection to Ammonit Meteo-40 data logger

| Sensor | Plug Pin No. | Ammonit Cable Wire Colour | Meteo-40 Analog Voltage | Supply Sensor |
|-----------------------------|--------------|---------------------------|-------------------------|---------------|
| Air Pressure Output Voltage | 2 | white | Ax A | |
| Ground | 4 | blue | Ax B | |
| Supply | 1 | red | | 9 ... 32 VDC |
| Ground | 4 | black | | Main Ground |

Cable type: LiYCY 4 x 0.25 mm²

Connect the shield logger-sided to Ground (GND)

Sensor connection diagram to Ammonit Meteo-40 data logger

