



BAROsense PBS860... / PBS880... series

BAROMETRIC PRESSURE TRANSMITTER

INTRODUCTION

Introducing the PBS860... and PBS880... series – the ultimate analog output barometers for precision measurements.

These barometers aren't just high-performing; they're also cost-effective solutions tailored for a wide range of applications. From meteorological monitoring to environmental data logging, altitude measurements, barometric pressure compensation in engine performance, cleanroom environments, and vehicle emissions testing.

FEATURES

Precision technology

Engineered with a cutting-edge piezoresistive sensor element, these barometers deliver unparalleled accuracy, stability, and repeatability, ensuring your atmospheric pressure readings are consistently on point.

Built to last

Crafted for durability and reliability, their sturdy polycarbonate housing protection ensures resilience against harsh conditions. Mount them effortlessly on panels or walls with pre-drilled holes, and rest assured knowing that measurement accuracy remains unaffected, regardless of positioning.

Minimize interference

Maximize accuracy while minimizing interference. Mount the transmitter facing downward to reduce dust and dirt accumulation on the filter, and in open environments, employ a special static port to mitigate errors induced by wind flow – ensuring precise readings every time.

Optional static port

Designed to meet the stringent standards of the World Meteorological Organization (WMO), the optional static port guarantees accuracy and reliability, even in the presence of snow or ice. Crafted from UV-resistant materials, it withstands extreme temperatures ranging, ensuring durability and performance in any environment.

CONFIGURATION & MEASUREMENT

Versatile outputs

Powerful yet efficient, the PBS860... and PBS880... operate on low power consumption (< 4 mA), making it the ideal choice for portable, remote, or battery-powered setups, even solar-powered applications. With versatile analog output options including 0...1 Vdc, 0...5 Vdc, 0...10 Vdc or 4...20 mA (two wires), you have the flexibility to adapt to diverse environments and requirements.

Calibration confidence

Experience seamless integration with their factory-calibrated setup, allowing you to dive straight into your applications without hassle. Need adjustments? Simply utilize the zero adjustments potentiometer for precise offset calibration to match station elevation.



RELIABILITY

Benefit from factory-calibrated precision and outstanding stability for consistently accurate measurements.



EASY INSTALLATION AND MAINTENANCE

Minimal maintenance requirements simplify upkeep, allowing users to focus on their measurements without distractions.



EFFICIENCY AND FLEXIBILITY

By operating on low power consumption. Additionally, the range of analog output options offers flexibility to adapt to diverse environments and integration requirements.



DURABILITY

Built to withstand harsh conditions. The optional static port available acts as a reliable filter against dynamic wind pressure, minimizing errors and fluctuations in barometric readings.

Measurement specifications

| | | |
|---------------------|--|----------------|
| Sensor | Piezoresistive | |
| Measuring range | PBS860 | 600...1100 hPa |
| | PBS880 | 800...1100 hPa |
| Accuracy | ± 0.5 hPa @ 20°C | |
| Temperature drift | < 1 % F.S., zero | |
| | < 1 % F.S., span over -20 to +60 °C (-4 to 140 °F) | |
| Long-term stability | < 0.25 % F.S. over 6 months at 20 °C | |

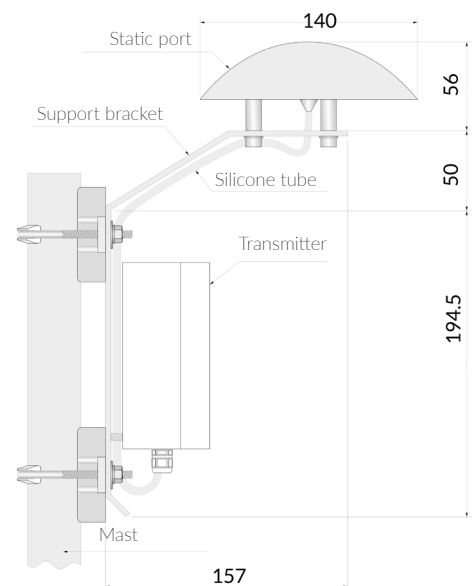


Ordering codes

| | | |
|-----|---|---|
| PBS | 0 | Analog output D = 4...20 mA (2-wire) W = 0...1 V X = 0...5 V Y = 0...10 V |
| | | Measuring range 86 = 600...1100 mbar 88 = 800...1100 mbar |

General specifications

| | |
|----------------------|--|
| Output | Depending on the model: <ul style="list-style-type: none"> • 0...1 Vdc • 0...5 Vdc • 0...10 Vdc • 4...20 mA (2-wire) |
| Power supply | 8...35 Vdc 15...30 Vdc for 0...10 V output |
| Power consumption | < 4 mA for models with voltage output Equal to output for models 4...20 mA (2-wire) |
| Connection | Internal screw terminal header / PG7 cable gland for power supply and output. |
| Operating conditions | -30...+60 °C |
| Compatible media | Air and dry gases |
| Housing dimensions | 120 x 80 x 55 mm |
| Weight | 250 g approx. (+ 570 g approx. for static port) |
| Material | Housing: polycarbonate Pressure input: AISI 304 |
| Protection degree | IP 65 |



V 1.0