

FBS-01Bx PRESSURE MEASUREMENT DEVICE



Introduction

FBS-01Bx Pressure Measurement Device is an integrated electronic device that can measure low air pressure and differential air pressure from 0 Pascal up to 10,000 Pascal (=10 kPa = 0.1 Bar).

The device includes an MPS01DP pressure sensor and an analog electronic circuit board that measures the analog voltage values produced with the highest accuracy. The pressure values measured from the sensor are displayed on the built-in LCD display of the device.

There are two different models of the Pressure Measurement System. The analogue output model (FBS-01Ba) provides the measured pressure value in both 4÷20 mA and 0÷10 Volt process signals as output. The digital communication output model (FBS-01Bh) exports data digitally through the Modbus protocol and the RS-232 / RS-485 interfaces. In this way, the measured pressure value can be easily transferred to either an external measuring device-PLC system or to SCADA software system.

Technical Information

Measurement Accuracy: (Applied Pressure ≤ 500 Pa)	1.5% + ±2 Pa
Measurement Accuracy: (Applied Pressure > 500 Pa)	1,5%
Offset calibration:	With an instant push button on device
Unit of Measurement:	Pascal (Pa)
Supply Voltage:	24 VDC ±10% or 24% VAC ±10%
Avg. Energy Consumption:	≤ 1.0 W (when 4-20 mA current output is disconnected)
Signal Output (Analogue Model):	0... 10 VDC4... 20 mA
Operating temperature range:	-20... 50 °C (automatic offset calibration limit -5...50 °C)
Update Time:	4 sec.
Protection Class:	IP54 (optional IP65 model available)
LCD Display Size	8x2 Characters, 58 mm x 27 mm.

Connection Schema



Pressurized air (input)

Vacuum air (output)

Electrical connections



Measurement

M. Range

Null Offset

Range
selection key

Terminals

24 Vdc In
Gnd
0-10V output
4-20 mA output
Gnd