Pressure Sensor – 16 Bar

Gas and non-aggressive liquids

Key Features

- Pressure Range: 0 to 16 bar (232 psi)
- IP65 rating
- Accuracy: ±1%
- Power Supply: 24 vDC
- Output
  - o Digital: Modbus RS485
  - o Analogue: 4...20 mA
- Measure: pressure
- Ceramic core, resistant to moisture

About

Compressed Air Alliance's pressure sensor can be used to measure pressure in compressed air, gas and non-aggressive liquids. It can be installed in both wet and dry gases up to 16 bar (232 psi). The sensor has 4-20mA or Modbus output.

For effective measurements, we recommend you install at least two pressure sensors – (i) one pressure sensor on the wet side of the system to monitor compressor output and (ii) one on the dry side of the system to measure the system supply pressure. Other pressure sensors can be installed to measure pressure drop at key locations such as near any high compressed air or gas consumers and at the far ends of the system.

Applications

- Manufacturing and industrial use
- Gas and non-aggressive liquids
- Temporary or permanent installation
- Gas pressure up to 16 bar (232 psi)

Specifications

Sensor Information	
Technology	Ceramic core, resistant to moisture
Medium	Gas Non-aggressive liquids
Measurement Range:	0 to 16 bar 0 to 232 psi
Units of Measure	kPa, MPa, Bar, PSI, mBar, mH2O @ 20°C
Accuracy	±1%

The accuracy and response time of the sensor can be affected by the on-site conditions, contaminates in the gas and incorrect installation.

Power	
Power Requirement	≤10mA, 24V DC
Electrical Connection	5 pin M12, female

Output	
Output	Analogue: 4 to 20mA (2 wire) Digital: Modbus RTU
Output Signals	Pressure

Other	
Process Connection	ISO G1/4" thread
IP Rating	IP65
Housing Material	Stainless Steel
Ambient Temperature	-30°C to +80°C -22°F to +176°F
Dimensions	100 mm L x 33 mm W 3.9" L x 1.3" W
Installation	Permanent or Temporary
Warranty	12 months

Wiring

4-20mA Connection		Cable Colour
Pin 1	Not used	Brown
Pin 2	Not used	White
Pin 3	Not used	Blue
Pin 4	+24vDC	Black
Pin 5	4-20mA and 0vDC	Grey

Cable Colour	Modbus Connection	
Brown	Pin 1	A port of RS485 (Data +)
White	Pin 2	B port of RS485 (Data -)
Blue	Pin 3	Not used
Black	Pin 4	+24vDC
Grey	Pin 5	0vDC

4-20mA Scaling

Pressure Range	4 mA	20mA
0-16 bar (232 psi)	0	16

Default Modbus Settings

Address	Baud Rate	Data / Parity / Stop Bits
1	9600	8/N/1

How to Order

Connection
1 – M12 connector only (no cable)
2 – 5-meter data cable with M12 connector

P	R	E	1	1	0	0	0	1

Product Prefix
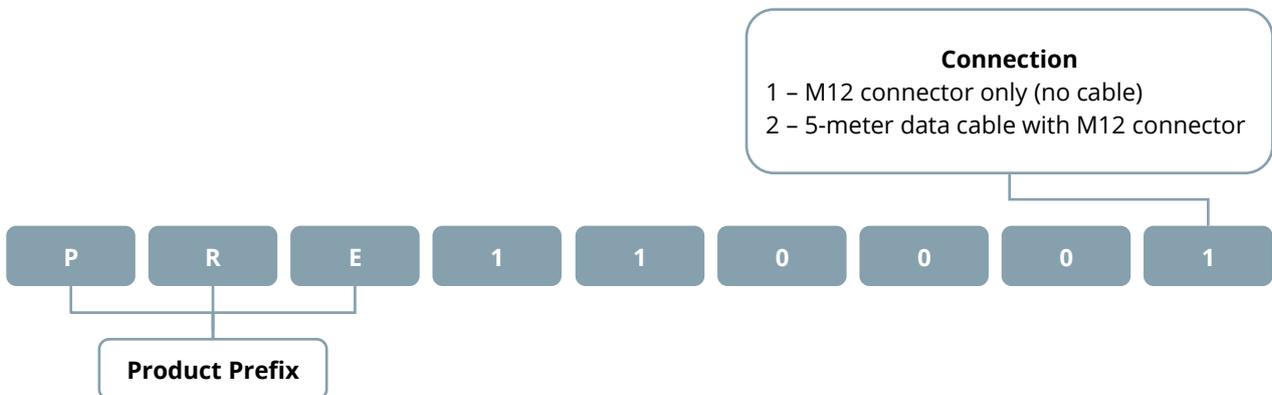
Other Sensors

Dew Point Sensors

For compressed air and gas in manufacturing and industrial environments

Pressure Dew Point (PDP) Range

- -60 to +60°C (-76°F to +140°F)
  - for refrigerant, drum, membrane and desiccant dryers
- -80 to +20°C (-112°F to +68°F)
  - for membrane and desiccant dryers and Nitrogen systems
- -110 to +20°C (-166 °F to +68°F)
  - for membrane and desiccant dryers

Power Supply
24vDC

Outputs
Modbus RTU (RS485) and 4-20mA

Data Logging
No

Display
Optional

Accuracy
up to ±2%

Flow Meters

For compressed air and gas in manufacturing and industrial environments

Flow Meter Range

- Vortex – for very wet gas and steam
- Pitot Tube – for wet gas and high velocity gas
- Thermal Mass – for dry, clean gas

Power Supply
24vDC

Outputs
Modbus RTU (RS485) and 4-20mA

Data Logging
Yes

Display
Yes

Accuracy
±(1.5% RD + 0.3% FS)

Power Meters

For compressed air and gas in manufacturing and industrial environments

Type

- 3 Phase
- Single Phase

Power Supply
24vDC

Outputs
Modbus RTU (RS485)

Data Logging
No

Display
Yes

Accuracy
±0.1%

Online Monitoring

Get online access to your data via a laptop, tablet or mobile phone. Monitor energy, water, gas and other data in real time, 24 hours per day, 7 days per week.

- Suitable for all Compressed Air Alliance products as well as other brands
- View and analyse data and graphs
- Set alarms and SMS and/or email notifications
- Track performance against targets
- Download data in csv format
- Self-assessments to compare your system against best practice

Strength

- We export to almost 100 countries.
- We have more than 2000 global customers.
- We can provide a total filtration solution.

Filter-Online & Nordic Filtration offers a wide selection of filtration products for Domestic and Industrial Application.

You can buy our products on our websites or by contacting us by phone or e-mail.
Information about our products as well as brochures and manuals can be found on our websites:

www.filter-online.com for Domestic Products

nordicfiltration.com for Industrial Products

We distribute many of our products from our stock in Denmark.
Some products are shipped from remote stock.