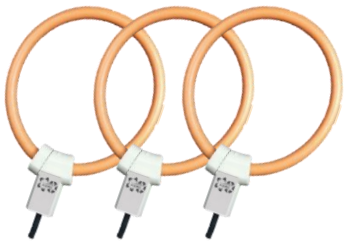
Power Meter – Din Rail with Display

Three phase, 24vDC Power Supply

Key Features

- Din Rail mounting
- 1.77 inch TFT screen display
- Accuracy: ±0.5%
- 3 Rogowski coil options: 500 Amps, 1,000 Amps or 3,000 Amps
- Power Supply: 24 vDC
- IP20 rating
- Output: Modbus RTU
- Measure:
    - Voltage (V), amps (A) and kilowatts (kW) for each phase and total
    - power factor (PF), reactive power (kVar), apparent power (kVa)
    - kilowatt hours (kWh) and electrical system harmonics (THD)
- Relay Output



About

This single or three phase power meter is simple to install and easy to configure via the display. The power meter can be connected to your SCADA via Modbus/RTU thereby giving you a better understanding of your energy use. Monitor your mains power supply, sub loads or individual equipment.

The power meter comes with 3 Rogowski coils. These lightweight, flexible coils are an excellent solution where a traditional current clamp is too difficult to fit. The coil is shielded against the influence of external magnetic fields, has wide dynamic range and high linearity.

Applications

- Manufacturing and industrial use
- Can be installed on mains supply provided the:
    - input (measured) voltage is less than 600 vAC and
    - measured current is less than 9,999 Amps
- Sub-metering individual equipment or sub loads
- Temporary or permanent installation
- Measure single or three phase power with the same meter

COMPRESSED AIR ALLIANCE

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Specifications

Input	
Input type	External CT (333mV only) or External Rogowski coil (500A or 1,000A or 3,000A)
Current - Channel Input Voltage Range	0-900 mVAC peak, 636 mV RMS
Current - VCT	0 – 99,999 A
Voltage - Channel Input Voltage Range	0~600 VAC Phase Voltage
Voltage - Maximum range	720 VAC Phase Voltage
Digital input	One-way dry contact input, optocoupler isolation (5kVrms)

Accuracy	
Current	±0.1% + accuracy of current sensor
Rated Current	500A 1,000A 3,000A
Rogowski coil accuracy	±0.5% (to 1% of full scale)
Voltage	±0.2% (60V to 600V AC)
Grid Frequency	±0.01% (45-65Hz)
Power Factor	±0.005
Active/Apparent Power	IEC62053-22 Level 0.5S
Reactive power	IEC62053-21 Level 1S

Accuracy can be affected by the quality of installation and on-site conditions such as high temperatures or pollution.

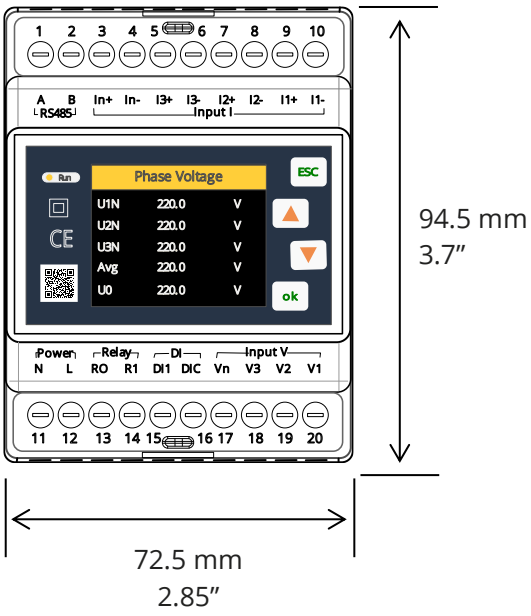
Power Supply	
Power Requirement	24 VDC, 45- 60 Hz
Max Power Consumption	3.5 VA
Electrical Connection	Screw terminals
Electromagnetic Compatibility	Meets IEC 61326-1

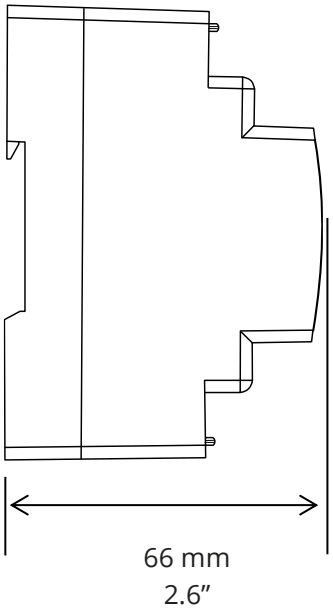
Output	
Output	Modbus RTU (RS485)
Interface type	2 wire, Half duplex
Output Signals	Over 220 channels available including: Voltage (V), Amps (A), Kilowatts (kW) (for each phase and total), power factor (PF), reactive power (kVar), apparent power (kVa), kilowatt hours (kWh) and electrical system harmonics
Alarm Relay Output	One way electromagnetic relay output. Contact capacity: 3A 30V DC, 3A 250V AC

Working Environment	
Ambient Temperature	-25°C to +60°C -13°F to +140°F
Relative Humidity	5% to 95% RH at 50℃ (non-condensing)
Altitude	3000m Max
Pollution Degree	2: Normally only nonconductive pollution occurs. Temporary conductivity caused by condensation is to be expected
Insultation	As per IEC61010-1, Doubled insulated front panel display
Overvoltage category	CAT III 1000V It is suitable for distribution systems below 277 / 480vAC

Other	
Mounting	Din Rail
IP Rating	IP20
Display	1.77 inch TFT screen display
Weight	259 grams
Installation	Permanent or Temporary
Warranty	12 months
Standard Compliance	EN 62052-11, EN61557-12, EN 62053-21, EN 62053-22, EN 62053-23, EN 50470-1, EN 50470-3, EN 61010-1, EN 61010-2, EN 61010-031

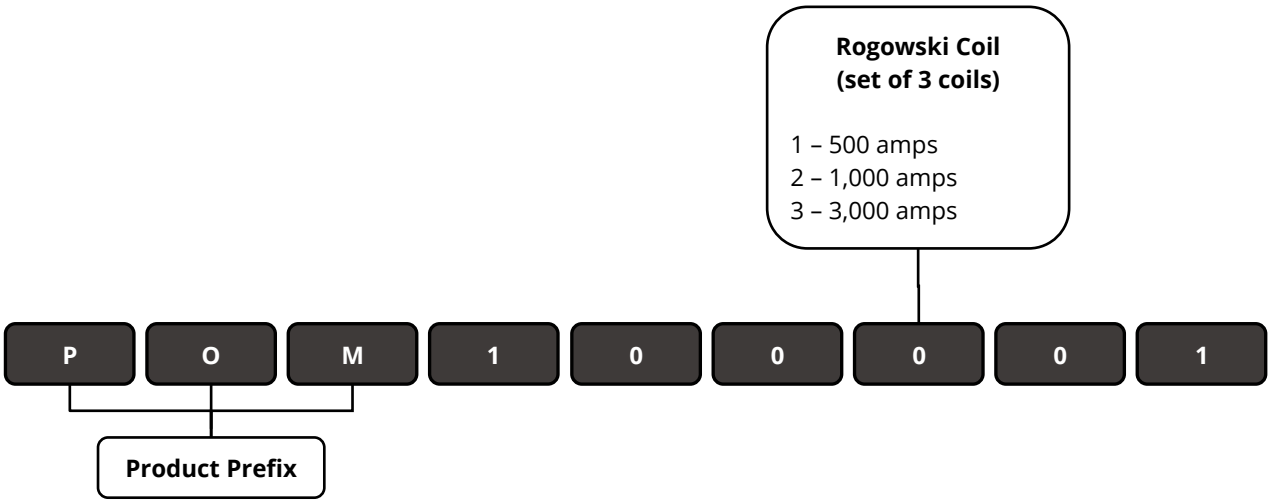
Dimensions





How to Order

Buy online: www.compressedairalliance.com/products



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)

Pressure Sensors

For compressed air and gas in manufacturing and industrial environments

Pressure Range

- 16 bar
- 50 bar

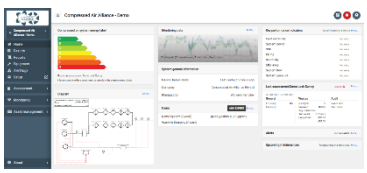
Power Supply
24vDC

Outputs
Modbus RTU (RS485) or 4-20mA

Data Logging
No

Display
No

Accuracy
±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

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