

# PRODUCT GUIDE

Instrumentation for compressed air and gas systems



Cloud-based monitoring

Leak Detection

Dew Point Sensors

Flow Meters

and more ....



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# About Us

## About Compressed Air Alliance

Compressed Air Alliance Pty Ltd is an Australian owned company that works with manufacturers and industry to improve the efficiency and reliability of site utilities.

## Products

We provide a full range of products to measure and monitor site utilities including sensors for:

- Electricity
- Water
- Natural gas
- Compressed air
- Steam
- Liquids
- Industrial gases
- Temperature
- Flow
- Pressure

## Product Features

Compressed Air Alliance products are suitable for all industrial applications. Our sensors are:

- Accurate
- High quality
- Reliable
- Interconnectable
- Suitable for temporary or permanent applications

Our sensors can be daisy chained together and connected to a local display, our cloud-based monitoring program (GEMS) or your SCADA.

## Our Difference

We use the products we sell. As a result, we have real world knowledge and experience of how our products perform.

Our product range is backed up with over a decade of experience working directly with industrial systems and utilities. We are leaders in leakage surveys, system audits, training, monitoring, measurement, repairs and system upgrades.

## More Information

For more information on Compressed Air Alliance and our products or services:

- visit our website [www.compressedairalliance.com](http://www.compressedairalliance.com)
- email us at [sales@compressedairalliance.com](mailto:sales@compressedairalliance.com)
- or call us: +61 494 095 632



# Where to Install

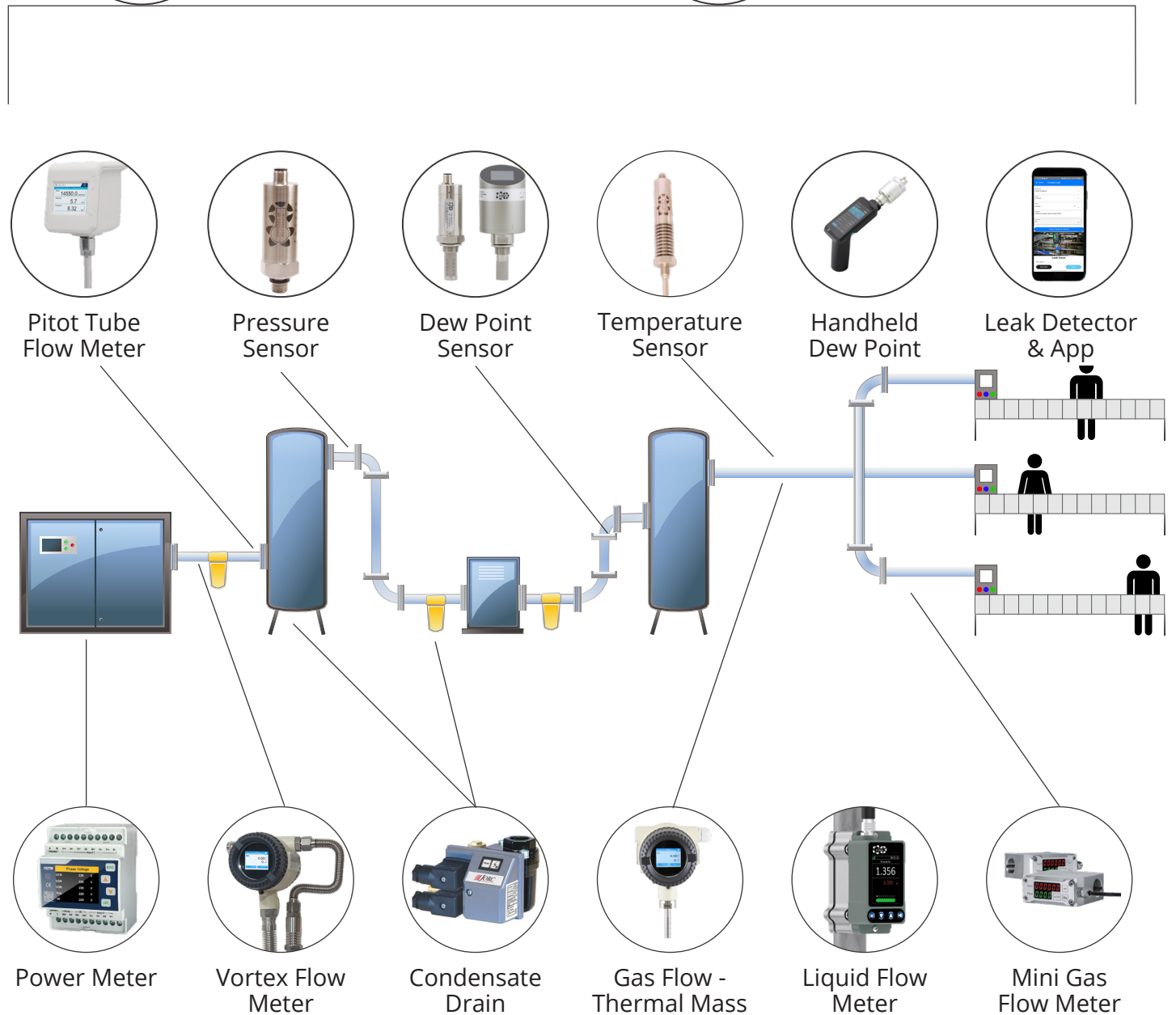
The diagram below shows where our sensors & equipment can be installed



GEMS - Global Energy Management System  
Cloud-based



HMI / Display  
Connect to your SCADA



# GEMS - Global Energy Management System



More Information

Remotely monitor and measure your site utilities



The Global Energy Management System (GEMS) is our cloud-based approach for measuring and monitoring all your utilities including: compressed air, gas, steam, electricity and water usage.

## Key Features

- Robust industrial design for industry and manufacturing
- Easy to install and set up
- Data available in real time, 24 hours per day, 7 days per week
- Access data on your computer or phone via an internet connection
- High data frequency and endless logging capacity
- Set alarms with SMS and/or email notifications
- Set service schedules and notifications
- Document system schematics
- Receive monthly reports
- Track performance against targets
- Energy management tools – Specific power, M/T, analysis
- Secure internet connection between device and web application
- Download data in CSV format
- Remote software upgrade capability
- LTE cellular modem or LAN connection

## Data Module

- Connect up to 20 Modbus devices to one Data Module
- Connect unlimited Data Modules to your cloud platform
- Suitable for temporary and permanent monitoring
- Power requirement = 24vDC

## What do you need to get started?

- 1 or more Data Modules (one-off purchase)
- 1 or more sensors (eg flow meter, dew point sensor, power meter)
- Annual Subscription to the cloud based platform

# HMI / Displays

View and log data from multiple sensors



More Information

## HMI / Display and Data Logger for multiple sensors

Connect and view data from multiple sensors



### Display

7" IPS touch LCD, 1280 × 800 resolution

### Inputs

- 2 × RS485 inputs, up to 255 Modbus registers
- 4 × channels:
  - 0-20mA / 4-20mA / 0-1VDC / 0-10VDC
- Wi-SUN wireless communication

### Outputs

- Modbus RTU (RS485)
- Modbus TCP (Ethernet)
- USB Type-C

### Power

24 - 30 vDC

### Suitable for

- All Compressed Air Alliance sensors
- Third party sensors with Modbus RTU

### Mounting

- Wall Mount
- Panel Mount

### Alarm

2 x alarm relays

### Data Logging

Up to 2,000,000,000 values

More than 1 year of 1 second data for 60 channels

## HMI / Display for a single sensor

For use with Compressed Air Alliance Flow Meters and Dew Point Sensors



### Display

4.3" TFT LCD, 480 × 272 resolution

### Inputs

Digital - RS485 input

### Outputs

Digital - RS485 input

### Power

85 - 264 VAC

Plug into a wall socket or hard wire

### Suitable for

- Compressed Air Alliance sensors

### Mounting

- Wall Mount

Alarm

Optional

### Data Logging

No

# Dew Point Sensors

Measure pressure dew point (PDP), ambient dew point, relative humidity, temperature and pressure.



More Information

## Desiccant / Membrane Dryers & Nitrogen Systems

PDP Range: -110 to +20°C | -166 to +68°F



### Pressure Dew Point Range Options

- -110°C to +20°C (-166°F to +68°F) or
- -80°C to +20°C (-112°F to +68°F)

### Gas Contamination

Minimal contamination

### Power

10 - 30 vDC

### Operating Pressure

Up to 50 bar (725 psi)

### Outputs

Modbus & 4-20mA

### Accuracy

Up to ±2%

### Options

- Display
- Integrated pressure sensor
- Data cable with M12 connector

## Membrane, Drum, Refrigerant & Hybrid Dryers

PDP Range: -60 to +60°C | -76 to +140°F



### Pressure Dew Point Range

- -60°C to +60°C (-76°F to +140°F)

### Gas Contamination

Some contamination

### Power

10 - 30 vDC

### Operating Pressure

Up to 50 bar (725 psi)

### Outputs

Modbus & 4-20mA

### Accuracy

±2%

### Options

- Display
- Integrated pressure sensor
- Data cable with M12 connector

## Membrane, Drum & Refrigerant Dryers

PDP Range: -60 to +60°C | -76 to +140°F. Compact sensor



### Pressure Dew Point Range

- -60°C to +60°C (-76°F to +140°F)

### Gas Contamination

Some contamination

### Power

10 - 30 vDC

### Operating Pressure

Up to 50 bar (725 psi)

### Outputs

Modbus & 4-20mA

### Accuracy

±2%

### Options

- Stainless Steel Casing or
- Aluminium Casing

# High Purity Gases operating below -80°C (-112°F)

PDP Range: -120 to +20°C | -184 to +68°F



### Pressure Dew Point Range

- -120°C to +20°C (-184°F to +68°F)

### Gas Contamination

Minimal to no contamination

### Power

10 - 30 vDC

### Operating Pressure

Up to 17 bar (246 psi)

### Outputs

Modbus & 4-20mA

### Accuracy

Up to ±2%

### Options

- Data cable with M12 connector

# Outdoor Sensor - IP67 rating and Display

PDP Range: -110 to +60°C | -166 to +140°F. Outdoor or harsh environments



### Pressure Dew Point (PDP) Range Options

- -110°C to +20°C (-166°F to +68°F) or
- -60°C to +60°C (-76°F to +140°F)

### Gas Contamination

Minimal contamination

### Power

16 - 30 vDC

### Operating Pressure

Up to 50 bar (725 psi)

### Outputs

Modbus & 4-20mA

### Accuracy

Up to ±2%

### Options

- Integrated pressure sensor

# Hand-held, Portable Dew Point Meter

Ideal for temporary measurements



### Pressure Dew Point (PDP) Range Options

- -110°C to +60°C (-166°F to +140°F) or
- -60°C to +60°C (-76°F to +140°F)

### Gas Contamination

Minimal contamination

### Power

Rechargeable lithium battery

### Operating Pressure

Up to 17 bar (246 psi)

### Outputs

USB

### Accuracy

Up to ±2%

### Included

Measurement Chamber, teflon tube, charger, quick connect, data logger

### Data Logger

200 million recording points

# Wall Mount with Alarm and Large Display

Ideal for situations that need a large display and audio-visual alarm



### Pressure Dew Point (PDP) Range Options

- -110°C to +20°C (-166°F to +68°F) or
- -80°C to +20°C (-112°F to +68°F) or
- -60°C to +60°C (-76°F to +140°F)

### Power

110 - 240 vAC

### Operating Pressure

Up to 17 bar (246 psi)

### Outputs

- 4-20mA output
- Alarm relay

### Accuracy

Up to ±2%

### Included

Power cable, teflon tube, alarm light & siren

### Options

- Integrated pressure sensor



# Flow Meters - Gas

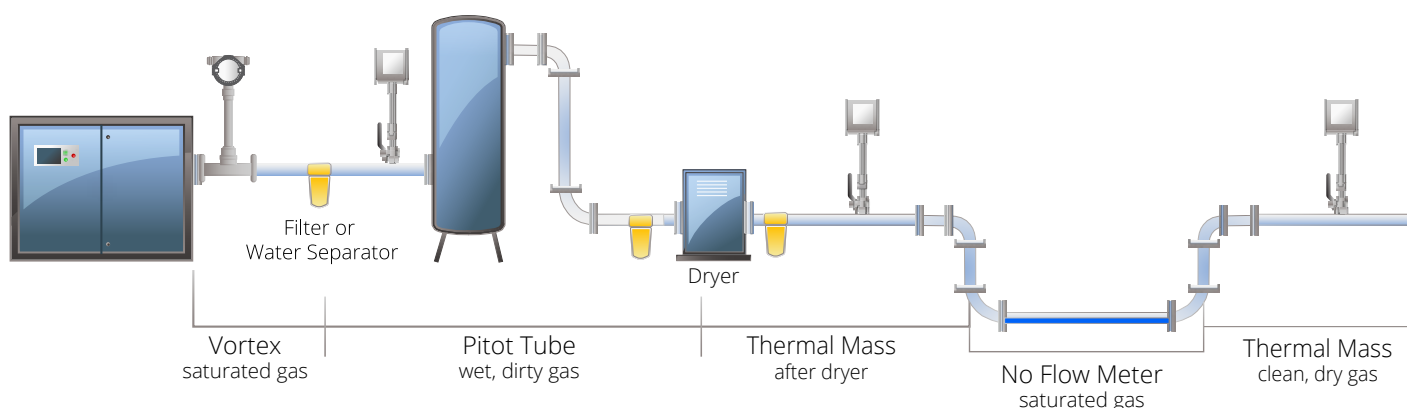
Gas and steam meters

Measure flow, consumption and temperature



More Information

## Flow Meter Locations



## Vortex Flow Meter (Gas and Steam)

Install on compressor outlets, steam systems or dirty gases



### Gas Quality

Saturated, wet and dirty gas, Steam

### Power

18 - 30 vDC

### Operating Pressure

Up to 63 bar (913 psi)

### Gas Flow Range

1.5 - 300 Nm (5 - 984 ft/sec)

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Inline style (Flange or R-Thread): DN15 to DN300

### Accuracy

$\pm(1.5\% \text{ RD} + 0.3\% \text{ FS})$

## Pitot Tube (Gas)

Ideal for damp or lightly contaminated gas. Install before a dryer



### Gas Quality

Wet and dirty gas (non-condensing)

### Power

18 - 30 vDC

### Operating Pressure

Up to 17 bar (246 psi)

### Gas Flow Range

5 - 300 Nm (17 - 984 ft/sec)

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Insertion style: DN25 to DN600

### Accuracy

$\pm(1.5\% \text{ RD} + 0.3\% \text{ FS})$

### Bi-directional

Optional

## Mini Flow Meter (Gas)

Ideal for point of use monitoring. Install in dry gas



### Gas Quality

Dry, clean gas

### Power

24 vDC

### Operating Pressure

Up to 16 bar (232 psi)

### Gas Flow Range

0.1 - 250 Nm (0.3 - 820 ft/sec)

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Inline style: DN3 to DN40

### Accuracy

±(1.5% RD + 0.3% FS)

## Thermal Mass (Gas)

For dry, clean gas. Install in clean, dry gas (eg after a dryer)



### Gas Quality

Dry, clean gas

### Power

18 - 30 vDC

### Operating Pressure

Up to 50 bar (725 psi)

### Gas Flow Range

0.1 - 250 Nm (0.3 - 820 ft/sec)

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Insertion style: DN25 to DN600

Inline style (Flange or R-Thread): DN15 to DN80

### Accuracy

±(1.5% RD + 0.3% FS)

## Outdoor Thermal Mass (Gas) - Insertion Style

Ideal for outdoor or harsh environments. Install in clean gas. IP67 rating



### Gas Quality

Dry, clean gas

### Power

18 - 30 vDC

### Operating Pressure

Up to 50 bar (725 psi)

### Gas Flow Range

0.1 - 250 Nm (0.3 - 820 ft/sec)

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Insertion style: DN20 to DN300

### Accuracy

±(1.5% RD + 0.3% FS)

## Outdoor Thermal Mass (Gas) - Inline Style

Ideal for outdoor or harsh environments. Install in clean gas. IP67 rating



### Gas Quality

Dry, clean gas

### Power

18 - 30 vDC

### Operating Pressure

Up to 50 bar (725 psi)

### Gas Flow Range

0.1 - 250 Nm (0.3 - 820 ft/sec)

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Inline style (Flange or R-Thread): DN15 to DN80

### Accuracy

±(1.5% RD + 0.3% FS)

# Flow Meters - Liquids

Industrial water, domestic water and non-aggressive liquids  
Measure flow and consumption



More Information

## Electromagnetic Flow Meter

Electromagnetic flow meter for industrial water and non-aggressive liquids



### Liquid Quality

- Electrically conductive, non-corrosive liquids
- Industrial and domestic water
- Sea and salt water
- Sewage, sludge

### Minimum Flow

0.5m/s

### Power

24 vDC

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Inline style (Flange): DN15 to DN150

### Accuracy

±0.5%

### Operating Pressure

Up to 16 bar (232 psi)

## Clamp on Ultrasonic Flow Meter

Clamp on unit with display. For small pipes



### Liquid Quality

- Clean liquids with minimal bubbles or solids
- Industrial and domestic water
- Sea and salt water

### Minimum Flow

0.1m/s (0.328 ft/s)

### Power

24 vDC

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Clamp-on: DN6 to DN100

### Accuracy

±2%

## Ultrasonic Flow Meter

Wall mount display with clamp-on transducers. For larger pipes



### Liquid Quality

- Clean liquids with minimal bubbles or solids
- Industrial and domestic water
- Sea and salt water

### Minimum Flow

0.1m/s (0.328 ft/s)

### Power

24 vDC

### Outputs

Modbus & 4-20mA

### Connection and Pipe Size

Clamp-on: DN25 to DN5000

### Accuracy

±0.5%

# Power Meters

Measure amps (A), voltage (V), kilowatts (kW), kilowatt hours (kWh), power factor (PF) and more



More Information

## 3 Phase Power Meter - Din Rail mounting

Monitor your mains power supply, sub loads or individual equipment



### Inputs

- Input voltage up to 600 vAC
- Input current up to 9,999 Amps

### Features

Three phase or single phase measurement  
Display  
Alarm relay

### Power

24 vDC

### Outputs

Modbus RTU (RS485)  
Over 220 channels available

### Accuracy

±0.5%

### Rogowski Coils included. Choose from:

- 500 amps
- 1,000 amps
- 3,000 amps

## 3 Phase Power Meter - Panel Mount

Monitor your mains power supply, sub loads or individual equipment



### Inputs

- Input voltage up to 600 vAC
- Input current up to 9,999 Amps

### Features

Three phase or single phase measurement  
Display  
Alarm relay

### Power

18 - 36 vDC

### Outputs

Modbus RTU (RS485)  
Over 220 channels available

### Accuracy

±0.5%

### Rogowski Coils included. Choose from:

- 500 amps
- 1,000 amps
- 3,000 amps

## Rogowski Coil with Modbus or 4-20mA Output

Single phase - Amps (Current) only



### Inputs

- Input voltage up to 600 vAC
- Input current up to 9,999 Amps

### Features

Single phase - measure Amps (A)  
Perfect for temporary measurement

### Power

24 vDC

### Outputs

Modbus RTU (RS485) OR 4-20mA

### Accuracy

±0.5%

### Rogowski Coil Options

- 500 amps
- 1,000 amps
- 3,000 amps

# Pressure & Temperature

Pressure sensors for wet and dry gas

Temperature sensors for gases, liquids, ambient air



More Information

## Pressure Sensors for Gas and Non-Aggressive Liquids

Pressure Range: 16 bar (232 psi) or 50 bar (725 psi)



### Pressure Range Options

- 0 to 16 bar (232 psi)
- 0 to 50 bar (725 psi)

### IP Rating

IP65

### Power

24 vDC

### Outputs

- 0 to 16 bar sensor has Modbus & 4-20mA
- 0 to 50 bar sensor has 4-20mA only

### Accuracy

±1%

### Options

- Data cable with M12 connector

## Temperature Sensors for Gas, Liquid and Air

Measurement Range: -50 to +200°C | -58 to +392°F



### Pressure Range

- -50°C to +200°C
- -58°F to +392°F

### IP Rating

IP65

### Power

24 vDC

### Outputs

Modbus RTU (RS485) OR 4-20mA

### Accuracy

±0.5% FS

### Options

- Data cable with M12 connector

# Leak Detection

Find and record leaks in compressed air, gas and steam systems



More Information

## Ultrasonic Leak Detector

Find leaks in compressed air, gas and steam systems



### Description

- Basic Ultrasonic Leak Detector
- Simple to use, no screen to distract you

### Power

- 1 x 9v Alkaline Battery
- Up to 10 days operation on one battery

### Handset weight

0.3 kg (11 oz)

### Includes

Handset, headphones, focusing probes and carry case

## Visual and Ultrasonic Leak Detector

Find leaks in compressed air, gas and steam systems



### Description

- Visual Leak Detector
- Detect leaks up to 120 meters away

### Power

- 1 x 6600mAH@7.2V Rechargeable Battery
- Up to 6 hours operation on one charge

### Handset weight

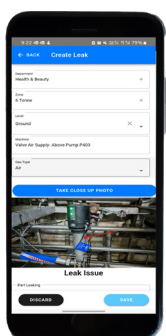
1.7 kg (60 oz)

### Includes

Handheld device

## Leak Survey App

Record leaks and parts. Download reports



### Simple to use

- Record leaks, inappropriate use and other opportunities
- Take photos
- Record parts required to fix leaks
- Quantify leak costs (cost and flow rate)
- Create customised reports
- Download reports
- Download parts lists

### Leak App

- Android and iOS phones
- Use with any leak detector

# Other Equipment

Condensate drains, dust collector controllers  
hot tap drill, portable measurement, accessories



More Information

## Electronic Zero Loss Drains

For receivers, filters or anywhere you need to drain condensate



### Maximum Compressor Capacity

For applications up to 100 m<sup>3</sup>/min

### Pressure Range

- 0 - 16 bar
- 0 - 50 bar

### Voltage

24vDC, 24vAC, 115vAC, 230vAC

### Inlet / Outlet size

- Inlet 1/2"
- Outlet 1/4"

### Test Feature

Yes

### Alarm Feature

Yes

### Service Kit

Yes

## Magnetic Zero Loss Drains

For filters, refrigerated dryers, and receivers where power is unavailable



### Maximum Compressor Capacity

Any size

### Pressure Range

0 - 16 bar

### Voltage

NA

### Inlet / Outlet size

- Inlet 1/2"
- Outlet 1/8"

### Test Feature

Yes

### Alarm Feature

No

### Service Kit

Yes

## Timed Drains

For receivers, filters or anywhere you need to drain condensate



### Maximum Compressor Capacity

Any size

### Pressure Range

- 0 - 16 bar
- 0 - 40 bar
- 0 - 80 bar
- Higher pressures available on request

### Voltage

24vDC, 24vAC, 115vAC, 230vAC

### Inlet / Outlet size

- 16 bar = 1/4", 3/8", 1/2"
- 40 and 80 bar = 1/4"

### Test Feature

Yes

### Alarm Feature

No

### Service Kit

Yes

# Dust Collector Controller

Demand based controller for industrial dust collectors



## Mode of Operation

On demand or timed pulse

## Number of Valves

Up to 60 valves

## Valve Sequencing

Sequential or Arbitrary  
Series or Parallel

## Power

24vDC or 100-240vAC

## Features

- Reduce dust collector compressed air use by 10-50%
- Maintenance mode, fault detection
- Alarm relay

# Hot Tap Drill

Hand drill connection points on pressurised pipes



## Pressurised Pipe

Hot tap drill can be operated under pressure up to 20 bar (290 psi)

## Drilling Depth

200 mm or 7.87"

## Options

Tapping saddles / clamps  
Ball valves

## Interchangeable Dill Bits

- 8.5mm (1/4") drill bit suits 1/4" ball valve
- 14.5mm (1/2") drill bit suits 1/2" ball valve
- 19.5mm (3/4") drill bit suits 3/4" ball valve
- 24.5mm (1") drill bit suits 1" ball valve

# Portable Measurement Kit

Temporary measurement kit for compressed air and gas systems



## Suitable for

Consultants and auditors

## Kit comes with

- 1 x Data Acquisition Module
- 1 year subscription to the Data Acquisition System / cloud based platform
- Cables and connectors for each sensor
- Carry Case

## Select your Measurement Equipment

- Dew Point Sensor
- Flow Meter
- Pressure Sensor
- Rogowski Coils
- Temperature Sensor

# Accessories

Get your sensors connected and powered



## M12 Connectors

Male, Female, Tees and Y's

## Data Cables - 5 core

- Suitable for 24 vDC power, Modbus and 4-20mA
- 5 meter, 10 meter or 30 meter lengths

## Flow Meter Protection

Clear, hard plastic protective housing to protect thermal mass and pitot tube flow meter heads

## Power Adapter with M12 connector

- 100-240vAC input, 24vDC output
- Interchangeable power plugs - USA, Euro, UK or Australia

## Other

- NPT to BSP adapter
- Wi-Sun Modules
- Fittings and Push fittings





## Product Warranty

Compressed Air Alliance provides a 1 year warranty for all products listed in this catalogue. For more information, refer to our website: [www.compressedairalliance.com](http://www.compressedairalliance.com)

## Recalibration & Exchange Program

Sensors should be calibrated regularly. We offer a recalibration and exchange service. For more information, refer to our website: [www.compressedairalliance.com](http://www.compressedairalliance.com)

## Become a Distributor

Please contact Compressed Air Alliance if you are interested in becoming a distributor or reseller of our products.

## More Information

For more information on Compressed Air Alliance and our products or services:

- visit our website [www.compressedairalliance.com](http://www.compressedairalliance.com)
- email us at [sales@compressedairalliance.com](mailto:sales@compressedairalliance.com)
- or call us: +61 494 095 632

# How to Order



Order Online

Contact your distributor

Phone / WhatsApp:  
+61 494 095 632

Via our website:

[www.compressedairalliance.com/products](http://www.compressedairalliance.com/products)

Email: [sales@compressedairalliance.com](mailto:sales@compressedairalliance.com)



# Compressed Air Alliance

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