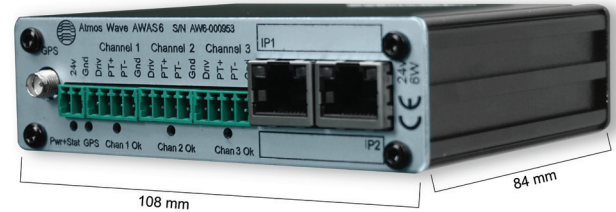
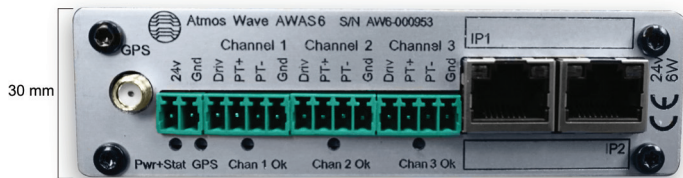


Atmos Wave AWAS-6



3 channel, high-speed, high-resolution, pressure data acquisition unit



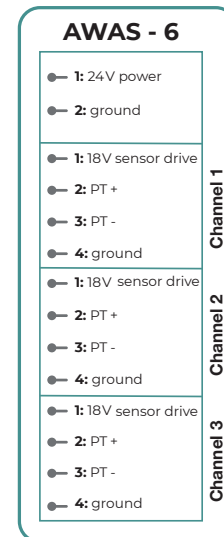
An AWAS-6 unit is located at each sensor site

Robust solution for fast data acquisition and signal-noise filtering of pressure data

This data acquisition unit samples pressure data at high speed. The unit filters signal noise before passing the data to a central processor for analysis by the Atmos Wave rarefaction wave leak detection system. The AWAS-6 stores up to 4.5 hours of data and has built-in network redundancy to maximize system uptime with no data loss during a communication outage.

Technical details

- Pressure input channels: three 4-20mA
- Input impedance: 70Ω
- Data acquisition rate: 480Hz
- Data width: 24-bit
- GPS time-stamped data
- Dual redundant: TCP/IP ports
- Power input: 24VDC 6watts
- Industrial temperature range: -40°C to 80°C
- 95% relative humidity - non-condensing
- Conformal coated for humidity and corrosion resistance. ISA 71.04
- Diagnostic system status LEDs
- 4.5 hours of local data storage protects data during a communication failure





GPS antenna

The AWAS-6 uses antennas such as the Tallysman Accutenna. Temperature range: -55°C to +85°C



Tallysman Accutenna antenna



Wika IS-3 sensor



Wika E-10 sensor



GE Druck UNIK 5000 sensor

Pressure Sensors (optional)

The type of pressure sensor used with the AWAS-6 depends on the project application. The following are examples of pressure sensors that complement the leak detection system to optimize performance.

Atmos offers three sensors:

- GE Druck UNIK 5000
- WIKA E-10
- WIKA IS-3

These sensors share common characteristics, including:

- High resolution
- Very low noise
- Bandwidth: 1.5kHz
- Range: 100 Barg (standard)
- ATEX/IECE approved: Intrinsically safe (Ex'ia IIC) or flameproof (Ex'd IIC)
- Rated: Up to IP68
- Easy to retrofit
- SS³¹⁶ wetted parts
- Process media: -20° to +80°C
- Output: 4-20mA
- ½" NPT male pressure connection (standard)

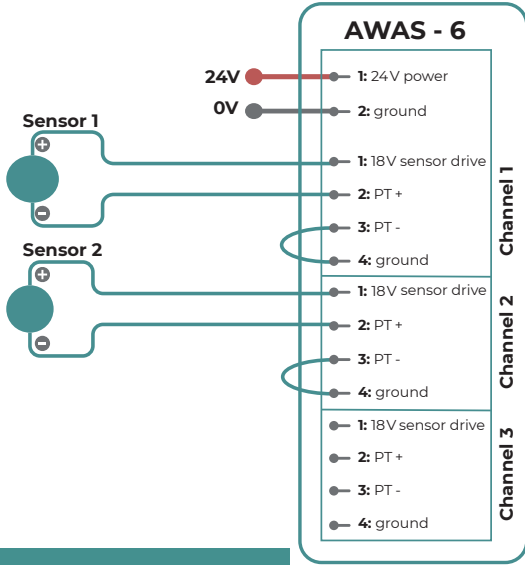
Atmos International engineers will work with you to select the best components for your specific project requirements.



Wiring diagrams

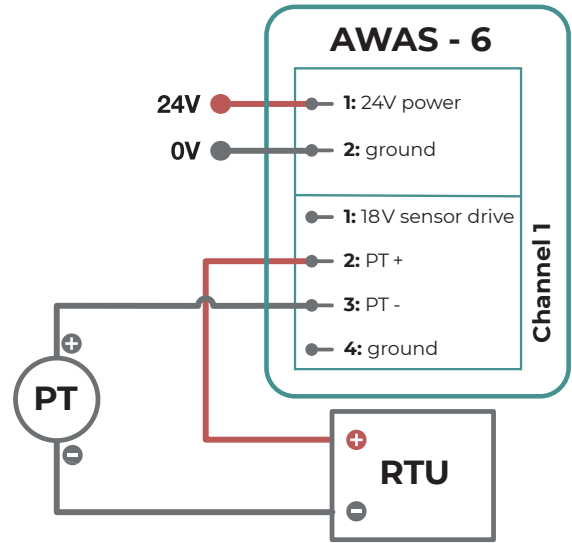
These diagrams show three different ways that the AWAS-6 can be wired to the sensors via the barriers. These are just some of the arrangements that can be used in line with the system.

Explosion proof sensors

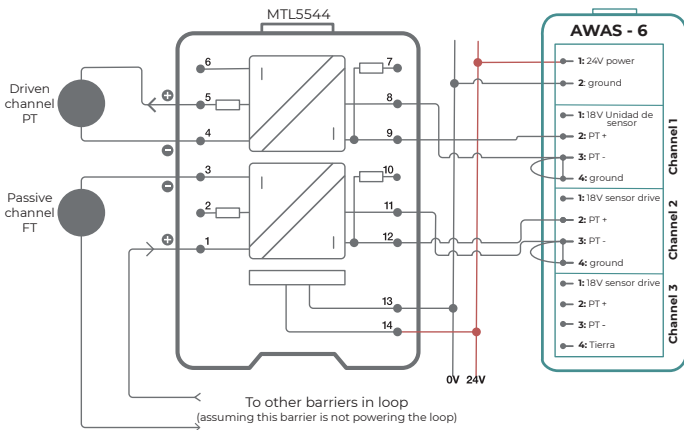


Typical explosion proof and barrier arrangement

Tapping into existing RTU signals

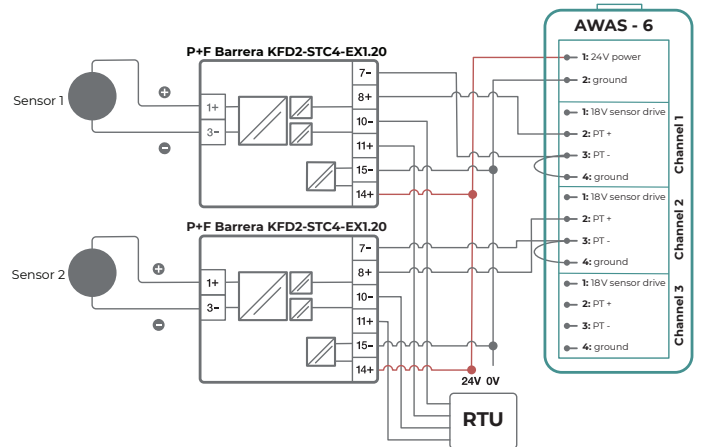


MTL5544 barriers



Intrinsically safe arrangements using MTL5544 barriers. This top sensor is driven and the bottom sensor is passive

Intrinsically safe sensors



Intrinsically safe arrangements using P&F barriers to slave a secondary output to the RTU



Frequently asked questions

What comes with the AWAS unit as standard?

AWAS-6 units are supplied as part of an Atmos Wave or Atmos Wave Flow installation.

Provided by Atmos (as standard)

- The AWAS-6 units
- GPS antenna
- Instruction manual

Provided by Atmos (optional extras)

- Power supply: 24V
- High-performance pressure sensors, normally 2 per station
- The leak detection server and workstations
- Optional IS barriers fitted between sensor and AWAS-6 for intrinsically safe installations
- 'Isolating barriers' (one per sensor or one per 2 sensors depending on customer requirements) if intrinsic safety is the hazardous area requirement
- 'Dual output barriers' to provide two signal outputs from a single pressure sensor (e.g. send the signal to the AWAS and to the SCADA via an existing RTU) 2 x TCP/IP cable
- ATEX packaging options available
 - (ATEX Zone 1 is equivalent to Class 1, Division 1 in Canada (CEC) and the USA (NEC), and the international IECEx Zone 1 classification)

Requirements from the operating company

The operating company shall provide:

- Connectivity from the pressure sensors to AWAS-6 units
- Power to the AWAS-6 units
- Communication connectivity (19.2k baud or faster) from the AWAS-6 units to the Atmos Wave PC host

Where do the cables connect to?

The cables connect pressure sensors to a local junction-box and connect the junction-box back to the AWAS-6 unit's Phoenix connector. The AWAS-6 connects to the communication network via TCP/IP.

What is the maximum cable length between the pressure sensors and the AWAS-6 unit?

The cable between the AWAS-6 and pressure sensors should not exceed 200m in total length.

How far from the unit can the antenna reach?

The GPS antenna comes with a 10m cable as standard but Atmos can supply different lengths of cable as required. Lengths over 75m will require inline amplification.

Where is the AWAS-6 located and how is it attached?

AWAS-6 unit is din-rail mounted in the operating company's cabinet.

Quality assurance

Each device is manufactured under the scrutiny and supervision of Atmos in accordance with our quality system requirements.

To learn more about Atmos International please visit: www.atmosi.com

Atmos International (Atmos) provides pipeline leak detection and simulation technology to the oil, gas, water, and associated industries. The company was founded in 1995 in the UK by the inventor of the statistical pipeline leak detection system – Atmos Pipe,

now one of a suite of leak and theft detection solutions from Atmos. These technologies are implemented on hundreds of pipelines in over 50 countries, including major oil and gas companies such as Shell, BP, ExxonMobil, and Total.

With associated offices in the USA, China, Russia, Singapore and Costa Rica, and local agents in 28 countries, the multi-cultural and multilingual team can provide effective support all over the world.

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