



Fardux

# AirWave

*Flexibility, visibility, control*

Fardux's AirWave, in conjunction with our modular field units, provides a secure and reliable wireless data acquisition solution that works in conjunction with our FieldView monitoring and control systems.

## OVERVIEW

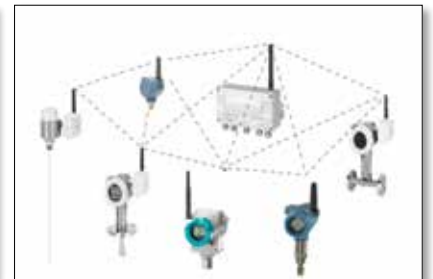
Fardux is recognised by many as the industry leader when it comes to Surface Data Acquisition systems. Our Fardux cabled system, coupled with our multi-platform software, is robust and field-proven, having operated in some of the harshest environments. Fardux remains the choice of preference for discerning clients.

Recognising that some applications can benefit from a non-cabled solution, we have introduced FieldView, a secure low cost wireless alternative that works to the industry standardised HART protocol, the world's leading process communication protocol for smart instruments.

At the heart of the system is our WirelessHART gateway – AirWave. It communicates with the WirelessHART instrumentation, manages security and connectivity, and exports data in a format that is compatible with our FieldView software package.

The gateway is designed for use in a safe area environment or with a remote zone 1 hazardous area certified antenna. An integral or remote antenna can be mounted according to the needs of the application.

Whether it's a new deployment or an upgrade to existing instrumentation, AirWave delivers a flexible and reliable way to remotely manage field assets whilst offering significant reductions in deployment time and cost, together with improved functionality.



AirWave also supplies more information than just the raw measured values. In-built diagnostics ensures the health of the network can be monitored, helping to further reduce overall operational costs such as unnecessary field and plant downtime.

System reliability is ensured by use of a mesh topology network to provide a 'self-building, self-healing' communications link with redundant pathways that adapt to any changes in the local signal environment.

AirWave works in conjunction with:

- **FWA001 WirelessHART Adaptor** – these convert HART devices to operate wirelessly
- **DataCapture** – manages data flow between AirWave and FieldView
- **Power Supply Unit** – the PSU provides regulated power for the devices

# AirWave

WirelessHART is the industry standard and, with demands on the industry for continual process improvements, plant modifications, increasing regulatory requirements and greater safety levels, it offers unrivalled benefits. Developed to meet requirements of wireless communication at field level, it consistently fulfills all specific requirements for reliability, security, cost-efficiency and ease of use.

The wireless meshing chip employed to interface with the Fardux single board computer is developed by DUST Networks in the same way that most major wireless transducer products carries the same chip. The wireless stack is fully WirelessHART compliant and ensures compatibility with WirelessHART compliant instrumentation.

In conjunction with our range of wireless transducers and adaptors, FieldView brings new freedom and versatility for production and well integrity monitoring, with applications including plant monitoring, process optimisation, well testing, and tank and silo monitoring.

## KEY BENEFITS

- **Faster deployment.** Rapid installation as no need to plan, install and commission cable runs.
- **Lower costs.** Reduced time and materials delivers significant cost savings, including additional expenses such as obtaining work permits.
- **Improved visibility.** The ability to quickly and easily add additional monitoring sensors provides enhanced process visibility and control.
- **Greater flexibility.** Wireless sensors can be managed alongside wired sensors, enabling a phased upgrade to existing infrastructure.

## KEY FEATURES

- **Proven technology.** Builds upon existing HART protocol used by more than 24 million installed instruments worldwide.
- **Mesh network.** Provides a highly resilient and fault tolerant 'self-healing' communications link between the sensor and gateway.
- **More data.** Using a WirelessHART adaptor, information retained inside existing 4-20mA intelligent field instruments such as device diagnostics is unlocked.
- **Security.** WirelessHART protocol employs robust security measures to protect the network and secure data at all times.

## MAIN FUNCTIONS

### FAW001 Airwave Gateway

- Compliant with the WirelessHART specification
- Works with all WirelessHART adaptors and devices – not tied to any single manufacturer
- Ethernet and RS-485 interfaces with support of HART and MODBUS allows easy integration into existing system
- Web interface providing a clear presentation of network, measured values and diagnosis information
- Local or remote antenna options enabling easy adaptation to local installation conditions
- Acquisition of data from network devices and presentation to the connected system
- Web server supporting MODBUS protocol for data transfer

## Fardux

### WHY FARDUX?

We have always believed that the supply of our oil and gas data acquisition products and solutions is just the beginning of our relationship with our customers.

We endeavour to provide support from the moment the decision is made to purchase any product, and then throughout the product's lifecycle. We always work hard to ensure our customers are provided with the best solutions, support and advice.

*All the data, when and where you want it*



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