



Fardux

# Field Instrumentation

*Flexibility, visibility, control*

Fardux is recognised by many as the industry leader when it comes to Surface Data Acquisition systems. Our data acquisition systems, coupled with our multi-platform software, is robust and field-proven, having operated in most of the world's harshest environments.

## OVERVIEW

Recognising that some applications can benefit from a non-cabled solution, Fardux has introduced FieldView, a secure low cost wireless alternative that works to the industry standardised WirelessHART protocol. Whether it is a new deployment or an upgrade to existing instrumentation, any compatible 4-20mA transducer can be converted to wireless with the use of our FWA001 Adaptor.

Parameter measurement accuracy, resolution and repeatability are important corner stones to any data acquisition system, and the Fardux instrumentation architecture allows industry standard, field-proven devices to be employed to provide high quality data for assured analysis and decision making.

At the front end instrumentation point, Fardux provides a wireless data acquisition solution that works in conjunction with the Fardux Airwave Gateway. WirelessHART transducers or 4-20mA transducers with a HART output connected via a Fardux Adaptor are system compatible. This flexible approach to instrumentation provides extended cross-company compatibility and, for those operators with an existing inventory of HART output 4-20mA devices, considerable cost savings on field instrumentation.

WirelessHART field transducers also supply 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. Our systems are also centred around the world renown Dust Networks chipset and network architecture.



Field Instrumentation consists of three component parts:

- **WirelessHART Transducers** – industry standard protocol, accuracy, resolution and repeatability
- **FWA001 Adaptors** – convert 4-20 mA signals (with HART output) to WirelessHART
- **SMART 4-20 mA Transducers** – existing inventory that can be re deployed wirelessly

# WirelessHART Transducers and Adaptor

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 fulfils all specific requirements for reliability, security, cost-efficiency and ease of use.

The FieldView software application displays, distributes and reports well site data measured by field instrumentation which is then transmitted via a series of hardware and associated firmware. FieldView brings new freedom and versatility for production and well integrity monitoring, with applications including plant monitoring, process optimisation, well testing, and tank farm monitoring.

## KEY BENEFITS

- **Faster deployment.** Rapid installation with no need to plan, install and commission cable runs.
- **Lower costs.** Reduced time and materials delivers significant cost savings.
- **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.
- **Reliability** even in the presence of interference, thanks to technology like mesh networking, channel hopping and time-synchronized messaging. WirelessHART coexistence with other wireless networks is assured.
- **More data.** Using our 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.
- **Effective power management.** Through Smart Data Publishing and other techniques that make batteries, solar and other low-power options practical for wireless devices.

## MAIN FUNCTIONS

### FWA001 Adaptor

- Compatible with Fardux IDEA Enterprise, IDEA Lite and FieldView
- Add-on to any HART or 4-20mA device for rapid upgrade to WirelessHART technology
- Burst mode and event notification data transmission maximises battery life
- Option for remote mounting from transducer to ensure better wireless networking
- Data encryption, authentication checks and channel hopping to prevent data snooping
- Powering options include battery and solar power with internal battery monitoring
- Small size enables adaptors to be added in confined spaces

## 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*



### HEAD OFFICE

Crossways Business Centre,  
Stalham Road,  
Hoveton,  
Norwich,  
UK,  
NR12 8DJ  
Tel: +44 (0)1603 777980  
Email: sales@fardux.co.uk  
Web: www.fardux.co.uk

### UAE OFFICE

Office E-7 (DAFZA),  
PO Box 293815,  
Dubai,  
UAE  
Tel: +971 (4) 2555003  
Email: sales@fardux.ae  
Web: www.fardux.ae