



Small. Simple. Smart.

Scale it up with FALCON D //

Several NDT technologies in a single instrument

FALCON D // is the great all-rounder of the dual-probe eddy current instruments. Small and convenient to carry, it provides two boards to perform a full inspection from the simple bobbin probe to highest coils count array probes. In addition to the most commonly used eddy current (EC) and eddy current array (ECA) methods, FALCON D // can also perform motor rotating eddy current inspection (MRPC), remote field testing (RFT), near field testing (NFT), magnetic flux leakage (MFL) and optionally with an additional electronics module - internal rotating inspection system (IRIS).



Efficient air-cooling system for high-temperature and contaminated environments

FALCON D // has been thermally enhanced with the additional externally applied forced air-cooling solution that increases cooling efficiency. This improvement allows the device to withstand very high environmental temperatures. The device is completely sealed and passively cooled with no air intake to the internals of the instrument, making operation much simpler in harsh and contaminated area.

Fast and easy use and inspection setup

The instrument is designed to make the inspection setup fast and easy. It is at least twice smaller than the most compact dual board (dual probe) instrument on the market and capable of driving very long probe cables with multiple extensions and interconnections, for both boards simultaneously. With a single robust handle, it can be carried in one hand without hand fatigue through all tight places.

FALCON^D //



The small 2.8" display shows the instrument's current acquisition status with the information on the IP addresses of the boards. If the IP address is manually changed to fit other equipment on the same subnet, the next time the operator can just read it from the display and quickly connect to the instrument. The IP address is easily changed in INETEC **EddyOne** Acquisition software.

FALCON^D // also features integrated Ethernet switch with two RJ45 connectors available to the operator. That way, using only one UTP/STP cable from the PC, it is possible to acquire data from both boards simultaneously and also have the RJ45 port available to connect other equipment (e.g., pusher unit). This makes the inspection setup quite simple.

Cost-effective by all means

FALCON^D // offers the highest quality of data that can be easily collected by EddyOne acquisition, evaluated in Eddy One data analysis and managed in EddyOne management. Interconnected functionalities of EddyOne software package bring out the best out of FALCON^D // enabling quick and reliable inspection. The practical architecture of FALCON^D // ensures seamless functionality with all INETEC's inspection systems and ensures easy integration into any inspection regardless of its complexity. This feature minimizes adaptation and integration time and costs.

Key benefits:

- ▶ **several NDT technologies in single instrument**
- ▶ **smallest on market, compact dual board instrument**
- ▶ **fast and easy inspection setup**
- ▶ **practical to carry and use**
- ▶ **one handle for being carried in one hand with no hand fatigue**
- ▶ **air-tight, no inner contamination**
- ▶ **accessories include adapters for probes, power supply cord and Ethernet cable**

FALCON[®] //

Convenient for inspections

- EC Eddy current
- ECA Eddy current array



- MRPC Motor rotating eddy current inspection
- RTF Remote field testing
- NFT Near field testing
- MFL Magnetic flux leakage
- IRIS Internal rotating inspection system *optional





Small. Simple. Smart. Scale it up with FALCON^D //

Overview of Features:

- durable
- shock resistant
- industrial grade housing
- completely sealed enclosure
- easy to carry
- 9 kg - lightweight
- 2.83" display for general status - IP address, connect/acquisition status operates in the most demanding conditions
- simultaneous inspection
- two single electronic units
- supports large number of coils and channels - up to 640 each board
- exceptional signal quality
- applicable for tubing and surface array inspection
- internal electronics passively cooled by external heatsinks
- power - 100-230 VAC
- frequency 50-60 Hz
- ethernet connectivity

Auxiliary connectors

- 2 x 27 contacts
- 4 encoder inputs support all encoder types connection- x,y scanning
- 8+8 digital isolated inputs and outputs
- power supply for encoders or additional equipment

Connectivity

- connect to a PC using Inetec eddyone acquisition and analysis software

Supported methods

- eddy current (EC)
- bobbin probes, rotation probes, pencil probes and others
- eddy current array (ECA)
- tubes array probes, surface array probes and others
- remote field testing (RTF)
- all standard RFT probes
- magnetic flux leakage (MFL)
- all standard MFL probes
- near field testing (NFT)
- all standard NFT probes
- IRIS (optional module)

Probe connectors

- 2 x 41 contacts
- 16 physical EC inputs
- up to 5 frequencies simultaneously sampled
- up to 640 multiplexed time slotted channels each
- 2x2 powerful generators up to 30 Vp-p and 1 A each
- 10 Hz - 6 MHz bandwidth
- multiple probe capability

Earth link

- ground connection for safe operation
- exceptional signal quality even in noisy industrial environments