# ABB Field Indicators

JDFx00 Models

**ABB**

# What does the customer needs?
## JDFx00 Field Indicators

**Voice of the Customer**

- I need to check on variables from a remote location, cannot keep going back to the control room
- I need to have access to measurement points that are difficult to reach
- I need a device reliable and simple to control
- I work with an analog device or a FOUNDATION™ Fieldbus and I have devices of different brands in my system / plant
- I need to operate / configure FF devices from the field in case of necessity
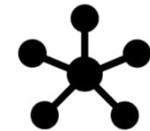- I need to set process controls when in front of measurement points

**Customer Needs**

Remote Visibility

Delocalization of process control and indicator configuration in the field

Fitting into the existing network

ABB

# Target Markets and Potential Applications
## JDFx00 Field Indicators

- Indicators must be designed for all-weather performances are needed.

- Indicators must be vibration and corrosion-resistant, as well as certified for use in hazardous areas

- Potential applications/plants can be:
  - Steel plants
  - Oil and gas refining
  - Transportation
  - Storage tank indication
  - Chemical processing
  - Storage stations
  - Ideally any process that requires remote measures visibility

**ABB**

# JDF300 – Foundation Fieldbus indicator

# Introduction

## JDF300 – Multivariable FOUNDATION™ Fieldbus Field Indicator

### Business Context

- ABB offering in FOUNDATION™ Fieldbus frameworks has been historically composed by FF-based field measurement devices plus an indicator, the former code named 264IB.

- As 264IB has been discontinued, the current solution in case of projects was to mitigate the absence of a true indicator via the delivery of a full FF pressure transmitter "downgraded" to serve the purpose.

- In order to close the above range gap, ensure coherence with the global ABB FID platform and provide a common ITK registered version across FF offering, the project of JDF300 has been initiated.



264IB FF Indicator

ABB

# Product Look and Feel

## JDF300 – Multivariable FOUNDATION™ Fieldbus Field Indicator

Macro specs

- 2600T family look and feel

- L1 display with common HMI operational logics, including Easy Setup

- Hazardous Area  Certified
  - ATEX
  - IECEx
  - FM

- IP67 protection

- C5 corrosion protection painting

- Additional external push-button for haz-loc configuration

ABB

# How do we answer the call?
## JDF300 – Multivariable FOUNDATION™ Fieldbus Field Indicator

### Remote Visibility

Multivariable display visibility

- Up to 8 variables, including measure goodness
- Single variable (P) displayed multiple times
- Set of variables (P, T, flow) displayed in sequence

Local display configuration

- Tailored for specific visualization

Multipurpose bracket system

- One bracket for wall & pipe installation

### Delocalized Control

Library of function block available

- 1 Arithmetic (+, -, average, etc)
- 1 Input selector (returns output based on rules on input received)
- 1 Control selector (as 'input selector' but with input from control blocks)
- 2 PID (Proportional, integral, derivative)

Backup LAS capability (Link Active Scheduler)

- JDF300 is able to auto-activate schedule of the planned activities on the network

### FF Network Fit

FOUNDATION™ Fieldbus architecture allows JDF300 to process/receive any variable from existing FF network devices including:

- Pressure
- Temperature
- Flow
- Setpoint
- PID output (control variable %)

From both ABB and competitors' products

# What are the benefits for the customer?

## JDF300 – Multivariable FOUNDATION™ Fieldbus Field Indicator

### Cost Saving

- Lower operating cost: monitoring system can be designed in a simpler way

- Lower installation cost: store one bracket code for pipe and wall installation

- Lower cost of ownership: combined certification and modular spare parts reduce immobilized capital

### Improved Control

- Faster in field diagnostic improved by multiple simultaneously available data

- System failure recovery and stops avoidance through LAS capability

### Enhanced Productivity

- No operators running around: more data in the same place

- No costs for training: operating the devices is the same as ABB 266 models

- Improved operators' safety level due to elimination of need to reach difficult measurement points

# In a nutshell...4 things to remember

## JDF300 – Multivariable FOUNDATION™ Fieldbus Field Indicator

Less operating cost: more data in the same place at the same time

Less installation cost: a simpler system with a simple device

Perfect fit in any FF network, no matter the devices brands

Improved diagnostics and control (LAS)

# JDF200 – Analog indicator

# Introduction

## JDF200 – Analog Field Indicator

### Context

- JDF200 has been conceived to replace the former 695FI

- JDF200 is featuring the ABB common, menu-controlled HMI

# Product Look and Feel
## JDF200 – Analog Field Indicator

## Key Features

- Loop-powered device

- 4…20 mA signal not to be interrupted in case of failure

- The menu-controlled LCD will allow intuitive configuration

- Square root and most common transfer functions are available

- Alarm on failure notified by flashing icon on display

- Compatible with all 4 to 20 mA, 2-wire systems

- Rugged, compact, lightweight, enclosure compliant to IP67 and NEMA 4x

- Corrosion resistant painting (C5 level)

**ABB**

# Performance Overview

## JDF200 – Analog Field Indicator

### Key Features

- Indication accuracy

  - Digital: ±0,10% of span (16 mA) ± 1 digit

  - Bar graph: ±1%

- Resolution

  - 16-bit conversion

- Ambient temperature effect

  - ±0,15% of span (16 mA)

### Potential

By applying an appropriate input scaling, JDF200 shows:

      Current

      Pressure

      Temperature

      Level

      Mass and Volume Flow

      Heat Transfer Rate

      Custom variable

Since JDF200 is compatible with all 4 to 20 mA, 2-wire systems and allows visualization of different variable types, it can be coupled to all field devices where indication at eye-level is required.

**ABB**

# HMI and Board Overview

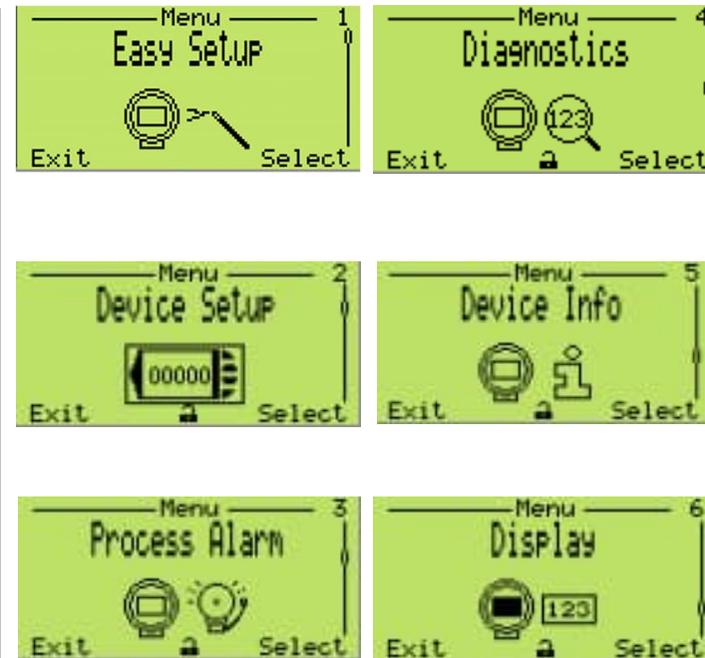## JDF200 – Analog Field Indicator

### Modularity

In-field replaceable conversion board

In case of failure, it can be replaced in seconds without removing the field indicator from the process

Part number printed on the terminal block for quicker reference.



### Common HMI for better usability



### Easy setup

Allows easy and quick installation and startup without the need to use complicated additional tools.

### Multilanguage menu

Wherever the transmitter will end up, thanks to its multi-language interface, the user will be able to navigate in English, German, Italian, French and Spanish

ABB

# What are the benefits for the customer (1 of 2)?

JDF200 – Analog Field Indicator

## Installation

- Installation is easy thanks to the V-Bolt supplied as standard.

- In case of wall mounting, four, casted, accessible holes will grant total ease of installation

## Installation Benefits

- Optimal flexibility

- No need of over-specifying

- Ease of operation

## Operation

- Wide, easy-to-read display with 90° step rotation possibility

- Multilingual, intuitive, guided device configuration menu

- Compatible with all 4-20mA devices (P, T, flow, level, current or heat transfer rate)

## Operation Benefits

- The measure you need where you need
- JDF200 set-up in a minute
- Minimal need of referring to documentation
- Perfect match regardless from the measurement type
- Enhanced flexibility

# What are the benefits for the customer (2 of 2)?

JDF200 – Analog Field Indicator

## Diagnostics

- Flashing icons and error codes according to NAMUR standard

- Customizable alarm messages acc.to input signal thresholds (saturation and fail)

## Maintenance

- 4...20 mA will not be interrupted in case of failure

- Conversion board easily accessible

## Diagnostics Benefits

- Clear indication with relevant troubleshooting

- Field issues can be approached easily with meaningful alarm strings

## Maintenance Benefits

- Comprehensive asset protection

- Fast operations on the field reduce maintenance costs