



# FieldMate / EJX910A Multivariable Transmitter

Course #1601



## Course Description

This course consists of lectures, demonstrations, hands-on exercises, and question and answer sessions designed to teach the student how to use FieldMate configuration software to properly configure both Yokogawa and alternate vendor instrumentation.

In the second half of the course, the technician and/or engineer will learn how to configure the **EJX910A multivariable flow (MV) transmitter** for mass flow measurement using the MVTool software.

## Duration

1-1.5 days

## Objectives/Outcomes

Upon completing the course, the learner will be able to exhibit the ability to:

- Utilize actual process data to properly set up and configure field instruments utilizing FieldMate PC-based configuration tool
- Utilize actual primary element sizing data to configure the EJX910A multivariable transmitter for mass flow calculation

## Intended Audience

Plant engineering technicians, I & E technicians, system configuration engineers and plant maintenance personnel that have responsibility for the design, specification, loop commissioning, and maintenance of smart process instrumentation.

## Course Prerequisites

Basic understanding of process instrumentation, PC's, digital communications, electronics, chemistry, physical properties, and fluid dynamics

## Technical Requirements

Basic file/folder manipulation in a Windows environment

## Materials

Each learner will be provided with the appropriate course workbook and laptop with appropriate software for the duration of the class.



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## Day 1 –AM

### FieldMate & Digital Communications Basics

- FieldMate, YHC, HHT 475 – Why FieldMate?
- Downloading and Registering FieldMate
- HART Communications – Basics
- Foundation Fieldbus Communications – Basics, Device Descriptions, FDT, Device Type Manager, and DTM's
- Adding communication driver files (DD and Capabilities fields), DTM's, SYM, CFF, FFO, etc. to FieldMate
- Registering Devices to the on-board database
- User Administration – Adding and setting up multiple users and audit trail
- Navigating FieldMate
- Q & A

## Day 1 –PM

### Fluid Dynamics and Flow Concepts / EJX910A Design / MVTool Basics

- Flow Basics
- Primary Devices Supported
- Standards Supported
- EJX / EJX910A
- Mass Flow Accuracy
- *Basic EJX910A Configuration Using FSA120 MVTool Flow Configuration Software*
- Utilizing the Primary Element Sizing Sheet
- Using the DTM Online Parameter and Offline Parameter Window
- Creating a new configuration or loading an existing file
- Flow Configuration
- Downloading to the Device
- Obtain Flow Coefficient – Simulating Process Conditions and Checking Results Against Primary Element Sizing Sheet
- Q & A

## Day 2 –AM

### EJX910A Multivariable Advanced Flow Configuration Applications

#### (Optional Engineering and Service Personnel Only)

- Custom Flow Element Configuration and Setup
- EJX910A Foundation Fieldbus Configuration (Instructor Only)
- Custom Gas Configuration
- Using Primary Element Flow Sizing Software to Size, Resize, or Verify Customer Sizing
- EJX910A, MVTool Software Limitations
- Q & A



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