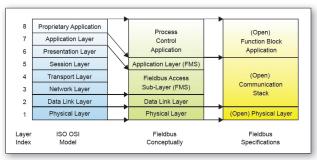
# Foundation Fieldbus Process Control 1 Learning System T5552-FF1A T5552-FF1A



Student Reference Guide



T5552-FF1 Foundation Fieldbus



Foundation Fieldbus to ISO OSI Model Relationship

Foundation Fieldbus

Process Control 1

Student Reference

\*\*Distributed Control Systems

Objection 1: Describe the Basis Operation of a Fieldbus DCS

Distributed Control Systems

Distributed Control Systems

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A DCS distributed control Systems

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A DCS distributed control Systems

Objection 1: Describe the Basis Operation of a Field Desires

Field Devices

Field Devices

Field Devices

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Interactive Multimedia Curriculum

# **Learning Topics:**

- Foundation Fieldbus Technology
- Operation of a Fieldbus DCS
- Communication Protocols
- Fieldbus Components
- Foundation Fieldbus Wiring and Connections
- Fieldbus Power Supply
- Fieldbus Segment Cabling
- Device Configuration
- Configuring a Fieldbus Device
- Field Device Calibration and Operation
- Fieldbus Diagnostic and Maintenance Capability

Amatrol's Foundation Fieldbus Process Control 1 Learning System covers a popular industrial method for calibrating and troubleshooting valves and transmitters connected to a network. Foundation Fieldbus is an all-digital, multi-drop communication system used for basic and advanced flow control, temperature control, and tank level control utilized primarily in places like oil refineries, chemical plants, and paper mills. Specifically, this learning system covers major Foundation Fieldbus topics including an overview of Foundation Fieldbus technology, H1 Foundation Fieldbus wiring and connections, device configuration, and field device calibration and operation.

The T5552-FF1 teaches highly-effective communication protocol and connects to the Level/Flow Process Control Learning System (T5552) and the Portable PLC Learning System (990-PAB53), which utilizes the Allen-Bradley CompactLogix L32 processor. The T5552-FF1A connects to the Portable PLC Learning System (990-PAB53A), which utilizes the Allen-Bradley CompactLogix L16 processor. Learners will also use Amatrol's world-class, highly interactive multimedia to gain insight into the theoretical aspects of Foun-

dation Fieldbus and to follow along with step-by-step explanations of hands-on skills, such as identifying the components of a Foundation Fieldbus segment and configuring a Foundation Fieldbus field device.



## **Technical Data**

Complete technical specifications available upon request.

### T5552-FF1 Assembly

EtherNet to Foundation Fieldbus Linking Device
Differential Pressure Transmitter
Transmitter Mounting Hardware
24 VDC Power Supply
Portable Storage Case
Intelligent FF Interface Unit

Power Cord Foundation Fieldbus H1 Cable Multimedia Curriculum (M33331) Instructor's Guide (C33331) Install Guide (D33331) Student Reference Guide (H33331) Supplemental Disc (S33331) Additional Requirements:

Level/Flow Process Control Learning System (T5552)

Flow Transducer (T5552-F1C)
Portable PLC Learning System
(990-PAB53) and Ethernet Cable (20704)
RS Logix 5000 PLC Programming Software –
Version 20

Personal Computer with EtherNet port. Requirements: http://www.amatrol.com/ support/computer-requirements

Utilities:

Electric (120VAC/60Hz)

### T5552-FF1A Assembly

EtherNet to Foundation Fieldbus Linking Device Differential Pressure Transmitter Transmitter Mounting Hardware 24 VDC Power Supply Portable Storage Case Intelligent FF Interface Unit

Power Cord Foundation Fieldbus H1 Cable Multimedia Curriculum (M33332) Instructor's Guide (C33332) Install Guide (D33332) Student Reference Guide (H33332) Supplemental Disc (S33332) Additional Requirements:

Level/Flow Process Control Learning System (T5552) Flow Transducer (T5552-F1C)

Portable PLC Learning System (990-PAB53) and Ethernet Cable (20704) RS Logix 5000 PLC Programming Software – Version 20

Personal Computer with EtherNet port. Requirements: http://www.amatrol.com/ support/computer-requirements

Utilities:

Electric (120VAC/60Hz)

# **Develop Real Skills Using Industrial Foundation Fieldbus System**

This system includes a variety of real-world industrial components like a differential pressure transmitter, EtherNet to Foundation Fieldbus linking device, Foundation Fieldbus H1 cable, 24 VDC power supply, and Intelligent FF interface unit. These real-world components found in process control and power plant environments can be used by learners to practice actual skills that they'll use in the field. These skills include configuring a Foundation Fieldbus linking device to

control communication on an H1 segment; calibrating a Foundation Fieldbus field device; and monitoring the operation of a Foundation Fieldbus field device.



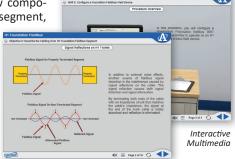
T5552-FF1 Foundation Fieldbus shown with T5552 and 990-PAB53

# **Study Real-World Foundation Fieldbus Process Control Applications**

The interactive curriculum focuses on combining the theoretical knowledge behind the function and operation of a Foundational Fieldbus network and how this knowledge will help in under-

standing the hands-on skills. As an example of the curriculum's depth, learners will study topics like how components are connected to a Foundation Fieldbus segment,

the cabling requirements for Foundation Fieldbus segments, the function of user layer blocks and objects, how a device is configured to perform process control functions and Foundation Fieldbus diagnostic and maintenance capability. This curriculum is presented within a stunning, highly interactive multimedia format that allows learners to explore the presented topics through text, audio narration, 3D animation, video, and interactive quizzes and games.



# **Amatrol's Process Control Communication Protocol Learning Systems**



In addition to Foundation Fieldbus, Amatrol also offers learning systems for two other process control communication protocols, HART (T5552-H1) and SCADA (T5552-S1). Amatrol has developed a full line of process control learning systems and will continue developing new products to meet industrial training needs.

# **Student Reference Guide**

A sample copy of the Foundation Fieldbus Process Control 1 Learning System Reference Guide is also included with the system for your evaluation. Sourced from the system's multimedia curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfect-bound book. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training making it the perfect course takeaway.



