

# Ethernet and Analog Wiring Training | eLearning Course

HMI, Ethernet, and Analog Wiring - W17469-AA01UEN-E1


Objective 6: Describe How to Install and Test an Ethernet Switch

Ethernet Switch Overview

Network switches are small devices that connect multiple devices together to form a local area network (LAN).

Industrial Ethernet switches can be rack mounted or DIN rail mounted. The DIN rail mount is more popular in manufacturing and process control facilities.

They are often installed in enclosures and are used to connect local and remote PLCs, HMI's, and drives. They also provide additional interface points for maintenance and programming PCs.



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## eLearning Course: M17469

Amatrol's Multimedia Courseware - Ethernet and Analog Wiring (M17469) eLearning course covers a variety of topics like HMI panel installation, wiring, interfacing, and testing; Ethernet wiring and switch installation; and analog wiring and interfacing.

## In-Depth Ethernet and Analog Wiring Curriculum

### Comprehensive Ethernet and Analog Wiring Curriculum Connected to Real-World Skills

Amatrol's Ethernet and analog wiring eLearning course covers important topics, such as:

#### HMI Panel Installation

Learners begin with an introduction to Ethernet and analog wiring systems, including HMI panel installation. Individual lessons focus on topics like how to mount an HMI panel, and how to wire and test HMI panel ground and power circuits. Learners will also practice skills, including wiring and testing HMI panel ground and power circuits.

#### HMI Panel Interfacing and Testing

Following installation guidelines, learners will move on to HMI panel interfacing and testing. Individual lessons focus on how to construct and test a Cat 5 Ethernet cable, and how to interface and test an HMI panel and PLC via Ethernet II. Learners will also practice skills, including constructing and testing a Cat 5 Ethernet cable, and interfacing and testing an HMI panel and PLC via Ethernet.

#### Ethernet Switch Installation

In this module, learners will focus on Ethernet switch installation. Individual lessons focus on how to install and test an Ethernet switch. Learners will also practice installing and testing an Ethernet switch.

#### Analog Interfacing

To conclude this module, learners will study analog interfacing. Individual lessons focus on how to install and wire power to a 2-wire DIN rail-mounted transmitter, how to interface a 2-wire, DIN rail-mounted transmitter to an analog input, and how to interface a thermocouple to a transmitter. Learners will also practice skills, including installing and wiring power to a 2-wire DIN rail-mounted transmitter, interfacing a 2-wire, DIN rail-mounted transmitter to an analog input, and interfacing a themocouple to a transmitter.

## **Interactive eLearning with Learning Management System**

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### **Highly-Interactive Multimedia Format Appeals to All Learning Styles**

Amatrol's Ethernet and analog wiring eLearning course features interactive eLearning curriculum that integrates various types of learning methods to create an engaging, effective learning experience. Amatrol's multimedia [eLearning](#) curriculum includes text with voiceovers, videos, 3D animations, pictures, and interactive activities, quizzes, and self-reviews.

### **Free Learning Management System (LMS)**

Amatrol eLearning is easy-to-use for both students and instructors. Its web-based interface is simple to navigate and available on any WebGL-compatible Internet browser. Instructors love Amatrol eLearning for its simple, yet sophisticated Learning Management System (LMS). The LMS allows instructors to create custom courses, monitor student participation, track course progress, assess knowledge levels prior to a course, and test knowledge levels after completion. Learners appreciate the fact that they can start and stop as needed, moving through each Amatrol course at their own pace. If a self-review reveals that they didn't understand a particular topic as well as they thought they did, they can revisit it before moving on.

## **Additional Info**

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### **Requires:**

- Computer (see [Computer Requirements](#))

### **Options:**

- Ethernet and Analog Wiring Learning System (85-MT6BC)

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#### **Address**

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#### **Contacts**

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