Electronic Sensors Learning System

85-MT5-D

ELECTRICAL



Optional Interactive Multimedia

Learning Topics:

- Inductive Proximity Sensors
- Capacitive Proximity Sensors
- Photoelectric Sensors
- Sensor Operation
- Sensor Function
- Sensor Performance Analysis
- Sensor Design
- Sensors in Circuit Design
- Sensor Schematic Symbols

Amatrol's Electronics Sensors Learning System (85-MT5-D) adds to the Motor Control Learning System (85-MT5) to teach the function and applications of a variety of electronic sensors in industries like automotive, packaging, and security. This learning system is comprised of heavy-duty, real-world industrial components such as capacitive, inductive, and infrared sensors that are built to stand up to heavy use.

Learners can connect and operate these sensors, study their design, and analyze their performance in order to build skills that can be applied to real-world job opportunities. Amatrol reinforces this skill-building practice with strong curriculum that thoroughly explains electronic sensor topics such as factors that affect a sensor's performance. This combination of hands-on skills and strong theoretical knowledge gives learners the ability to not only understand where to use a sensor in a circuit, but why it's there and what its function is.



Technical Data

Complete technical specifications available upon request.

Electronic Sensors Station Slide-in panel, 11-gauge steel Plug-in connections Safety-ground terminal and lead Industrial-grade photo electric sensor (115/230 VAC) Industrial-grade inductive sensor (115/230 VAC) Industrial-grade capacitive sensor (115/230 VAC) Target Set Wood Target (1) Plastic Target (1) Aluminum Target (1) Steel Target (1) Student Curriculum (B17404) Instructor's Guide (C17404) Optional Interactive Multimedia (M17404) Student Reference Guide (H19700) Additional Requirements: Motor Control Learning System (85-MT5) **Optional Multimedia Requires Computer** Requirements: http://www.amatrol.com/ support/computer-requirements Utilities:

Power supplied by the 85-MT5

Industry-Relevant Hands-On Skills

This learning system offers industry-standard components so that learners can get direct, handson practice with the installation, operation, performance analysis, and design of various electronic sensors. Specific industrial-relevant skills include designing

a level sensing control circuit that uses a capacitive proximity sensor, designing a drill motor control circuit that uses an inductive proximity sensor, troubleshooting a motor control circuit with an electronic sensor, and designing a motor control circuit that will sense product jams on a conveyor system. This learning system consists of an 11-gauge steel slide-in panel that features capacitive, inductive, and infrared sensors. These components are pre-wired and terminated to banana jacks to allow quick connection of control circuits. The 95-MT5-D also includes wood, plastic, aluminum, and steel targets for testing sensors.



85-MT5-D with Target Set

Strong Electronic Sensor Curriculum Provides Knowledge & Skills

In addition to hands-on skills, the 85-MT5-D's curriculum features a strong, thorough offering of electronic sensor knowledge and topics. For instance, learners will study the operation, function



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and applications of inductive proximity, capacitive proximity, and photoelectic sensors, the various characteristics that affect each sensor's operation, and schematic symbols for common sensors. This learning system's curriculum is also available in an optional interactive multimedia format. The 85-MT5-D's multimedia curriculum utilizes text, audio, 3D graphics, and interactions in order to fully engage the learner.

Optional Interactive Multimedia

Student Reference Guide

A sample copy of the Motor Control Options Student 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.





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