

Solenoid Basics

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The THORS *Solenoid Basics* course introduces learners to the various components of a solenoid, their characteristics, and solenoid classification. This course also explains the working principle of a solenoid along with the different characteristics that affect solenoid operation.

Credit Hours **1.5**

Learning Objectives

- Identify the different components that make up a solenoid along with their functions.
- Understand the classification of solenoids.
- Define the overall working principle of a solenoid.
- Describe the different characteristics of a solenoid.
- Analyze the characteristics that influence solenoid operation.

Table of Contents

I. Solenoid Concepts

- **Components**
 - ▣ Coil
 - ▣ Core
 - Classification Based on Material
 - Classification Based on Laminations
 - ▣ Plunger
- **Classification**
 - ▣ Based on Input Power Supply
 - AC Solenoid
 - DC Solenoid
 - ▣ Based on Output Motion

II. Solenoid Operation

- **Working Principle**
- **Characteristics**
 - Magnetic Characteristics
 - Electrical Characteristics
 - Structural Characteristics

