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## COURSE DESCRIPTION

# G5952e – DCS880 Functional Safety (STO) Internet Course (EN)

### Course Duration

1.0 hour, depending on personnel knowledge

### Course type

This course includes self-study material.  
The language of the course is English.

### Course Goal

The goal of this course is to get the most important information of the DCS880 Functional Safety (STO).

The training covers the following topics in 2 units:

- DCS880 Functional Safety STO Part I
  - Legal Framework
  - Relevant EU Directives
  - Relevant Standards
  - Declaration of conformity and certification
  - Customer documentation
  - Emergency OFF and Emergency Stop
  - Drive based safety functions (IEC61800-5-2)
- DCS880 Functional Safety STO Part II
  - STO in DC drives
  - Major concerns for STO in DC drives
  - The fault shutdown path
  - Safety performance with DCS880 STO
  - STO detailed timing (normal operation / fault shutdown path)
  - Standard operation and reset indication
  - E-Stop circuit calculation
  - Typical implementations
  - Repetitive function test

### Student Profile

Field service engineers and technical support of the DCS880 DC drive.

### Prerequisites and Recommendations

The student should have:

- Basic knowledge about electrical wiring
- Basic knowledge of DC drives
- Physical understanding for drives application

### Preparation e-Learning courses

E-learning courses **G570e – DC drives fundamentals**, **G5950e – Basics Hardware (H1 – H4)** and **G5951e – DCS880 Standard Firmware** to attending this course is needed.

### Course Objectives

Upon completion of this course, students will be able to:

- Know the safety functions of the DCS880 converter module
- Know the typical implementations of functional safety
- Know the major concerns and the fault shutdown path of the DCS880

### Main Topics

- Legal Framework, relevant EU directives and standards
- Stop categories and drive-based safety functions
- E-Stop circuit calculation
- STO in DC drives
- Safety performance with DCS880 STO
- Repetitive function test

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