

# Basic Temperature

Temperature Measurement

## Z215e – Web-based training (External version)

### Course duration

2.0 hours, depending on personnel knowledge

### Course type

This is a web-based training course. The course includes self-study material and self-assessment questions. The language of the course is English.

### Course goal

The goal of this course is to introduce the basics of temperature measurement.

The training covers the following topics:

- Basic Technical Principles
- Technology and Product Portfolio
- Applications
- Thermowell
- Multipoint

### Student profile

All ABB stakeholders (customers, universities, partners, ...)

### Course objectives

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

- Recall that temperature and heat are different things
- Recognize the different measurement scales
- Describe how temperature can be measured
- Explain the basic electronic measurement principles
- Explain the construction of an industrial thermometer
- Decide which of the product ranges is best suited to your application
- Explain the wired and wireless transmitter portfolio
- Explain the difference between the TSP100 and TSP300 products
- Explain the difference between invasive and non-invasive measurement
- Explain the TSH and TSC product range
- Explain how to approach an application for Oil & Gas product, nuclear power plants and OEM solutions
- Explain different application types
- Apply ABB product to the appropriate application
- Recall where ABB product has been successfully used
- Describe what a thermowell is
- Distinguish between different thermowell designs and
- Recall the critical manufacturing requirements
- State the importance of stress calculation
- Describe what a multipoint is
- Name some applications for multipoint
- Recall where high temperature sensors are needed

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### BU Measurement & Analytics

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