T316
PROFIBUS/HART Field Device Management

The goal of this course is to learn the planning, configuration, and commissioning of automation solutions with PROFIBUS/HART devices in the Extended Automation System 800xA. This course also covers maintenance and optimization of these devices.

Course type and methods
This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 50% of the course is hands-on lab.

Student Profile
This training is targeted to application and instrumentation engineers, commissioning and maintenance personnel, service engineers and system integrators.

Prerequisites
Students should have attended either the Basic Configuration course T314 or the Engineering course T315 or have knowledge and experience associated with the content of these courses.

Course objectives
Upon completion of this course the participants will be able to:
• Explain the fundamentals of fieldbus technologies especially PROFIBUS/HART.
• Design and plan the topology of a System 800xA with PROFIBUS/HART devices.
• Configure and commission HART devices out of the ABB Device Library.
• Use DTMs and Fieldbus Builder for parameterization, diagnostic and simulation.

• Use PROFIBUS data in applications for control, alarms, graphics etc.
• Understand Wireless HART, Configuration of the Gateway and DTM Configuration.

Main topics
• PROFIBUS/HART Fundamentals.
• System 800xA topology with PROFIBUS/HART field devices.
• HART devices on Module bus and PROFIBUS.
• PROFIBUS DP slaves.
• PROFIBUS PA slaves.
• Wireless HART (Overview).
• Introduction to Wireless HART, Configuration of the Gateway and DTM Configuration.
• Asset Monitoring (Overview)

Duration
The duration is 4 days

Course Outline

Day 1	Day 2	Day 3	Day 4
• Course overview • Profibus/Hart Fundamentals • System 800xA Topology With Profibus/Hart Field Devices	• PROFIBUS DP Master • Web Interface • PROFIBUS DP slaves • HART devices •	• Introduction to Wireless HART • Configuration of the Gateway and DTM • PROFIBUS DP Slaves • PROFIBUS PA slaves	• PROFIBUS PA slaves (contd.) • Asset Monitoring Overview

—

ABB University
BU Process Control Platform

**abb.com/control systems
abb.us/abbuniversity**

—

800xA is a registered or pending trademark of ABB. All rights to other trademarks reside with their respective owners.
We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility for any errors or incomplete information in this document.

We reserve all rights to this document and the items and images it contains. The reproduction, disclosure to third parties or the use of the content of this document – including parts thereof – are prohibited without ABB's prior written permission.

Copyright© 2021 ABB
All rights reserved

2PAA102988