



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

PROFIBUS - Training Brochure 2

Courses in 2010

- Certified PROFIBUS Installer



Endress+Hauser 

People for Process Automation

Course objectives

Your plant design is not worth very much, if the actual PROFIBUS installation process has not followed the recommended PROFIBUS guidelines and fails to produce a plant that runs as well as you have planned. Our experience in fieldbus technology over many years has shown us time and again that those who actually put the plant together are often not completely informed about how they should do it. Although 90% of the reasons a plant does not run well can be traced to faulty physical installation, very often the critical points of the new plant have simply not been adequately discussed with the installing technicians.

The two-day course closes this gap. Not only does it provide the necessary background theory but it emphasizes good practice and the tools involved.

Prerequisites:

Basic knowledge of electronics and ability to use a computer.

Target audience:

Any technicians involved in building or installing parts or all of an automated plant, service personnel and electricians involved in installing or testing PROFIBUS DP and PA networks.

Goals:

Avoidance of typical installation mistakes on the physical layer of PROFIBUS DP and PA segments. The participant learns to use diverse tools, guidelines and good practice procedures that lead to time and cost savings for the new plant from the very beginning.

Extensive time is spent on hands-on tasks so that implementation of the plant design is both efficient and well-done. The course closes with an internationally accredited examination. Once the participant passes the exam, he/she receives the internationally recognized certificate and his/her name is listed on the homepage of PROFIBUS International.

Please keep in mind that many project contracts actually specify that installers be Certified PROFIBUS Installers before they are allowed to work on the project.



Venue:

Endress+Hauser Process Solutions AG,
PROFIBUS International Competence and
Training Center,
Kägenstrasse 2,
4153 Reinach,
Switzerland

Also at our Training Hubs in Singapore,
Canada, Shanghai, Kuala Lumpur.

Fee Certified PROFIBUS Installer:

Please contact your local Endress+Hauser
Sales Center.

Contact and registration:

Stephanie Madoerin Tel: +41 (0)61 715 7378
stephanie.madoerin@solutions.endress.com

Course content

Theory I:

- Overview of PROFIBUS technology
- PROFIBUS DP physical layer
- Cable types and their characteristics
- Cable specifications
- Signal characteristics
- RS-485 PROFIBUS DP
- Topology requirements, segment lengths
- Spurs
- Connectors
- Active termination
- Repeaters and components

Theory II:

- MBP PROFIBUS PA
- Connecting PROFIBUS DP to PA
- Power supply, coupler, link
- Cable specifications and characteristics
- Signal characteristics
- Topology, segment lengths
- Junction boxes
- Passive termination



The following tools and systems are used during the course:

- FieldCare (FDT/DTM)
- OPC Server/Client
- ProfiTrace bus analyzer
- P+F Advanced Diagnostic Tool
- Other tools on the market
- Oscilloscope

Practice:

- Wiring of a PROFIBUS DP/PA segment
- How to measure a signal
- What is a good or bad signal
- External influences on the bus cable
- Good cable practices
- Grounding / shielding concepts
- Simulation of electromagnetic interference
- Measuring with a handheld oscilloscope
- Use of diverse tools on the market
- Steps to a well-functioning PROFIBUS



Dates 2010

Certified PROFIBUS Installer 2010

Feb. 26th – 27th / Reinach (German)

May 19th – 20th / Reinach (German)

Dec. 1st – 2nd / Reinach (German)

For dates in Singapore, Canada, Shanghai and Kuala Lumpur, please contact the local Endress+Hauser sales center.

Customized classes ...

can also be arranged on request.

Certified PROFIBUS Installer

After successfully passing (min. 70% correctly answered), the participant receives an internationally recognized certificate and the right to use the title “Certified PROFIBUS Installer”. All successful participants are listed on the official PROFIBUS International homepage.

Final examination includes:

- Multiple choice questions
- Demonstration of ability to solve actual physical layer issues



PROFIBUS International Competence and Training Center, Reinach

PC Process Solutions

12.06/11.

Endress+Hauser
Process Solutions AG
Kaegenstrasse 2
4153 Reinach
Switzerland
Tel. +41 61 715 23 01
Fax +41 61 715 28 00
<http://www.endress.com>
info@solutions.endress.com