

Control Specialists Ltd

A PI-Certified Competency and Training Center



# Certified PROFIBUS Installer

*An Internationally accredited introductory course for PROFIBUS installers and all people involved with PROFIBUS at a technical level.*

## **Do you want to ensure a reliable and maintainable PROFIBUS installation?**

Then make sure that your installation team is fully qualified by attending the Certified PROFIBUS Installer Course. The course has become the accepted basic standard for many industries. For example most water and waste water treatment companies in the UK now insist that anyone involved with PROFIBUS at a technical level is trained to at least the Certified Installer level.

The Certified PROFIBUS Installer Course is a one-day course that teaches the layout, installation and testing of complete PROFIBUS networks. The course is accredited by PROFIBUS and PROFINET International and is recognised across the world as the best introductory course in PROFIBUS technology.



On-site Installer Training in Brisbane Australia

The course provides a practical, hands-on approach to fieldbus network layout and installation and covers the essential requirements for a successful and maintainable PROFIBUS network. Examples and case study materials are used throughout to highlight the many common, but potentially very costly, pitfalls and mistakes that are made in laying out and installing PROFIBUS systems.

## **Why bother with Certified training?**

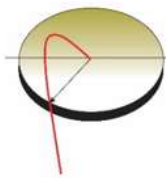
Fieldbus, and particularly PROFIBUS, provides a reliable and cost-effective solution for a wide range of instrumentation and control equipment used in manufacturing, materials handling, automated storage, building and process industries. However, fieldbus installation is fundamentally different from other types of electrical installation because it uses high-speed digital communications. It is a well-documented fact that most of the faults that we find in fieldbus installations are caused by simple errors in layout and installation. With this training, such problems can be avoided at the outset, rather than after the installation is complete, when correction may require expensive re-routing or re-wiring.

The course incorporates theory and practical tests fully accredited by PROFIBUS and PROFINET International (PI) and is offered across the world as the standard in PROFIBUS installation training.



## **Who should attend the course?**

Perhaps confusingly, the course is not just for installers, but provides the basic but essential information for anyone who is involved with PROFIBUS at a technical level: i.e. designers, commissioning engineers, maintenance technicians and of course installers. The course also provides an essential pre-requisite to more advanced training like the PROFIBUS Commissioning and Maintenance Course, the System Design Course or the Certified PROFIBUS Engineer Course. Although centred on the most widely used fieldbus technology, PROFIBUS, most of the course content is equally applicable to other fieldbus technologies.



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Installer training in Wales

- Interference pickup (EMC), cable routing and earthing considerations, earth potential problems and their avoidance.

Practical and multiple-choice theory tests at the end of the course ensure that the attendees understand the material and are competent in wiring and testing PROFIBUS networks. Successful candidates will be awarded Certified PROFIBUS Installer status and can elect to have their name and company affiliation listed on the profibus.com web site.

No prior knowledge of fieldbus systems is required before attending. Nevertheless, even very experienced fieldbus engineers who have previously attended the course say that they have gained valuable knowledge on how to avoid problems.

## What does the course cover?

A practical approach to the layout of PROFIBUS networks is used to show how to apply the basic rules to design real factory and plant layouts. Topics such as connection technologies, cable and network testing are covered using a hands-on approach with up-to-date equipment.

The course starts with the basics of PROFIBUS DP & PA transmission technologies, including RS485, MBP and fibre-optics, then goes on to cover in detail:

- Basic PROFIBUS DP and PA network technology, station types and addressing, network configuration and start-up.
- Causes, effects and avoidance of transmission-line reflections and the importance of correct line-termination.
- Network and segment size and layout limitations and the effect of transmission rate.
- Common wiring and layout pitfalls, modern cable and connector systems.
- Considerations for network maintenance and commissioning.
- Correct use of repeaters, couplers, link modules and fibre-optic segments.
- Wiring and installation testing and the use of bus test tools.

## Available Online

Although this course is usually delivered in a conventional face-to-face format, it also offered online, but you will need a PC / Laptop with a webcam / microphone and a reliable internet connection.

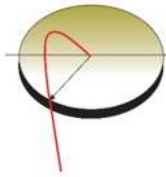
**Online Course Content:** The course is delivered using pre-recorded video sessions that you are given access to for an agreed time period, usually one week. You will also be given a .pdf copy of the course notes for reference purposes during the course and for use during the exam..

**Online Course Examinations:** When you have finished watching the pre-recorded video content you will need take a practical and theory test. The practical test is basically a repeat of the practical you did during the course but must be done with the instructor able to both see and hear you via your webcam / microphone. The theory test is an online multiple-choice exam lasting one hour. You will be allowed to refer to your course notes during the test but it must be done with the instructor able to both see and hear you via your webcam / microphone.

**Online Course Equipment:** In order to complete the practical aspect of the online course, a delegate will need access to the following equipment.

- 1 \* Approved PROFIBUS DP Cable Tester.
- 2 \* 2m length of PROFIBUS DP cable (solid core)
- 3 \* Profibus DP IDC Sub-D Connectors.
- 1 \* PROFIBUS DP cable stripping tool.
- 1 \* Flat-head screw driver and pair of cutters.

Control Specialists Ltd can provide all of these at cost if necessary.



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## **A sample of comments from previous attendees**

- "Excellent course. Recommended to anyone who is involved in fieldbus installation."
- "For one day we covered much more than I would have expected."
- "The course was excellent and added much of value to my PROFIBUS experience."
- "It is imperative that installers of PROFIBUS networks attend this course"
- "Really enjoyed it and learned a lot; can't wait to come back for the Engineers Course"
- "Very well structured course ... A really full day packed with useful and practical information"
- Great course, a long day, but well worth it"

## **Booking Information – for dates, costs and booking information, please contact:**



**Control Specialists Ltd**

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Control Specialists Ltd are a PROFIBUS and PROFINET International Training Centre (PITC) who also provide site-based support on PROFIBUS networks. They also provide training and support on PROFINET, AS-i and CAN and EMC

Peter Thomas of Control Specialists Ltd is the technical officer of PI UK and chairman of the PITC working group which, amongst other things, is responsible for defining the learning outcomes of PI-certified training courses.



Endress+Hauser training centre in Manchester