
Course Outline: Certified PROFIBUS Engineer

Process Field Bus (PROFIBUS) is the world's leading fieldbus technology, developed by industry experts to connect and control devices within industrial environments. It enables communication between field devices such as sensors, actuators, and controllers, ensuring efficient data exchange across systems. Known for its reliability and scalability, PROFIBUS plays a vital role in optimising industrial processes.

Course Information

The Certified PROFIBUS Engineer Course is a comprehensive four-day, hands-on training program designed to equip individuals with the skills to troubleshoot technical difficulties that may accompany a PROFIBUS installation.

This course provides a comprehensive understanding of PROFIBUS technology, covering its history, protocol positioning, and physical layers. Participants engage in practical exercises to reinforce their knowledge, including site audit checklists and hands-on experience with DPV0 interactions and extensions such as DPv1. Key topics include system debugging, network components, and functional earthing and bonding, ensuring a thorough grasp of PROFIBUS DP and PA functionalities.

As the course progresses, participants focus on system timing, troubleshooting techniques, and advanced DP network components. The course concludes with a revision session and trial examination, followed by an internationally recognised certification exam, equipping participants with the skills to implement and maintain reliable PROFIBUS networks.

Course Outline

Day 1

- History of PROFIBUS and the PI Organisation
- Overview and protocol positioning
- Practical 1
- Practical 2
- PROFIBUS DP physical layers
- Practical 3
- Checklist for site audit
- Practical 4

Day 3

- System debugging
- Practical 8
- System timing
- Practical 9
- Useful DP network components
- PROFIBUS PA overview
- Functional earthing and bonding

Day 2

- DPV0 overview
- Practical 5
- Details of DPv0 interactions
- Practical 6A
- Practical 6B
- The PROFIBUS DP protocol extensions (DPv1)
- Practical 7

Day 4

- Revision and trial examination
- Theory examination
- Practical examination

Prerequisites

All students of the Certified PROFIBUS Engineer Course must first complete the Certified PROFIBUS Installer Course. For those who have not, the Certified PROFIBUS Installer Course is scheduled for the same week. The combined course runs for five days.

Who Should Attend This Course

Application engineers, system integrators, technical support/maintenance staff, project leaders, installers, suppliers.

Certification

On the final day of the course, attendees must demonstrate their proficiency by completing an open-book multiple-choice theory test and a practical assessment. Candidates who pass both tests will be registered with PROFIBUS and PROFINET International (PI) as Certified PROFIBUS Engineers. Those who do not pass will have the opportunity to schedule one additional attempt with the IDX Academy.

CPD Points

Students can earn four ECSA-accredited CPD points for this course.

Venue

All courses are conducted at the IDX Academy in Fourways, Johannesburg, South Africa. Onsite training is available upon request, in collaboration with your Safety, Health, Environment, and Quality (SHEQ) team to ensure safe interactions.

Capacity

Given the technical nature of the course, training groups are capped at a maximum of eight participants to ensure a high pass rate.

Course Date and Booking

Click [here](#) to view the training schedule. To book, complete the [application form](#) and email it to academy@idx.co.za. For additional inquiries, contact +27 (11) 548 9960 or visit <https://www.idx.co.za>.