
Course Outline: Certified PROFIBUS PA 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 PA Engineer Course is a comprehensive three-day, hands-on training program designed to equip individuals with the skills to commission and troubleshoot a PROFIBUS PA network, providing an in-depth exploration of its fundamentals, characteristics, and network design principles.

This course provides a comprehensive understanding of PROFIBUS PA, covering basic principles and how to integrate PA into control systems. Participants learn about DP/PA and PN/PA couplers, including links and the migration from PA to Ethernet APL. The course also covers cabling rules, installation practices, and the importance of grounding and shielding in PROFIBUS PA installations, ensuring reliable and safe network setups. Practical exercises provide hands-on experience to reinforce these concepts.

In addition, the course delves into more advanced topics like PROFIBUS DP-V1, bus analysis, and PA profiles, enabling participants to analyse and optimise network performance. The course concludes with practical and theoretical examinations, ensuring attendees can effectively implement and maintain PROFIBUS PA networks.

Course Outline

Day 1

- Introduction to PROFIBUS PA
- Basic principles
- DP/PA couplers and links
- PN/PA couplers and links
- Ethernet APL migration from PA
- Integrating PA into the control system
- Practical 1
- MBP cabling rules and installation
- Practical 2

Day 2

- Practical 3
- Grounding and shielding
- PROFIBUS DP-V1
- DP-V1 class 2 bus analysis
- PA profiles
- Practical 4

Day 3

- Theory examination (08h30-11h00)
- Explosion safety
- Intrinsic safety
- Practical examination (13h00-15h00)
- PA in the market
- The PROFIBUS Organisation

Prerequisites

All students of the Certified PROFIBUS PA Engineer Course must first complete the Certified PROFIBUS Engineer Course.

Who Should Attend This Course

System programmers, control and instrumentation engineers, design and planning engineers, service and maintenance staff, installers, project managers.

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 PA Engineers. Those who do not pass will have the opportunity to schedule one additional attempt with the IDX Academy.

CPD Points

Students can earn three 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>.