

# Registration

Hereby I apply for the three days PROFIsafe training class  
from

October 16-18, 2012 in Karlsruhe/Germany

The attendance fee is 500 €.

Soft drinks and lunch are free of charge.

Minimum number of participants is 15.

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_

ZIP/PLZ: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Fon: \_\_\_\_\_

Fax: \_\_\_\_\_

Place, Date:

Signature:

Please fax to:

PROFIBUS Nutzerorganisation e.V. (PNO)

Fax +49 721 96 58 589

or register online at:

[www.profibus.com/PROFIsafeTraining2](http://www.profibus.com/PROFIsafeTraining2)



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## 3 days training class



## PROFIsafe Certified Designer

**October 16-18, 2012**  
**PNO, Room H120**  
**Haid-und-Neu-Str. 7**  
**Karlsruhe/Germany**

## Status of PROFIsafe

Several years ago, the decentralized factory and process automation using PROFIBUS and PROFINET had to live with the unsatisfactory situation that for safety applications a second layer of conventional wired technologies or proprietary safety busses had to be used. With the advent of PROFIsafe, a holistic and open solution is available for all kinds of PROFIBUS und PROFINET applications needing additional safety features.

PROFIsafe specifies how safety-related field devices are communicating with safety controllers across PROFIBUS or PROFINET in such a manner that they can be deployed in safety-related automation tasks up to Category 4 (EN 954), SIL3 (IEC 61508), or PL„e“ (ISO 13849). PROFIsafe realizes this safety communication without changing the underlying transmission channels („Black Channel“) as a profile, i.e. via supplementary processing data formats and a plain and powerful protocol.

The specification has been jointly developed by renowned manufacturers, users, standardization and safety bodies (e.g. TÜV, IFA). It is based on relevant safety standards, mainly the IEC 61508, which covers software and communication issues for safety. In the meantime PROFIsafe has proven itself to be an enabling technology for new safety functions in field devices and as a facilitator for new safety applications. Besides cost savings through easier wiring, PROFIsafe supports higher production flexibility and goes for more availability. Via the new „Life Cycle“ concept more risk areas can be covered with the result of increased safety. Numerous certified PROFIsafe products are available. PROFIsafe took over the worldwide market lead with more than 1.150.000 PROFIsafe nodes.

## Objectives and the training class

This huge dissemination of PROFIsafe technology increases the need for correspondingly knowledgeable persons. One of the general safety principles is the systematic training and education of those persons. Thus, PI is offering training in conjunction with TÜV-Süd. The objectives are:

- Deep insight in all the aspects of the design and usage of PROFIsafe
- Learning about the PROFIsafe-Starterkit and its tools
- Overview of the development process according IEC 61508

The training requires three days. A 90 minutes written test will take place at the end of each day.



The benefits for the participants:

- To get the most actual information about PROFIsafe
- To understand modern safety aspects
- To become a „PROFIsafe certified designer“
- To get a TÜV certificate
- To become a member of the worldwide PROFIsafe knowledge network
- To increase the person's market value

## Program

Program:

Day 1

- PROFIsafe Policy
- PROFIsafe specifications
- PROFIsafe technology (including iPar-Server, wireless, security, etc.)
- PROFIsafe environmental aspects
- Safety applications

Day 2

- Overview of IEC 61508
- Functional Safety Management
- Life Cycle and assessments
- Safety Functions and architectures
- Measures to avoid faults and failures
- Safe Failure Fraction and FMEDA
- Validation and Verification

Day 3

- Content of the PROFIsafe Starterkit
- Driver software
- Architectures
- Example development
- How to develop a GSD
- Test and certification

**Target groups:**

- Design engineers of PROFIBUS/PROFINET devices
- HW and SW development engineers
- Test engineers and safety assessors

Time:

Start: 09:00 am

End of day: 06:00 pm