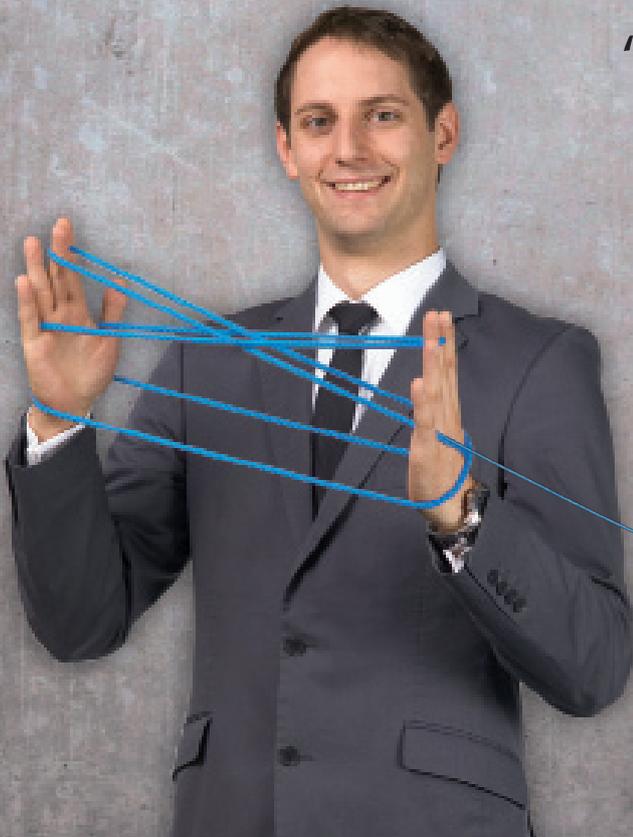


**PROFIBUS –  
the world's leading fieldbus:  
easy, flexible, consistent**

## PROFIBUS is easy ...



***"The reason why PROFIBUS is so successful worldwide is that every day, this fieldbus proves itself and pays off. The decision for PROFIBUS is the decision for usability, flexibility, and security."***

Steffen Ochsenreither,  
Endress+Hauser Process Solutions AG,  
Marketing Manager Fieldbus,  
PI, Head of PROFIBUS PA Marketing

The process and the manufacturing industry have very high demands on the productivity and efficiency of automation systems. Apart from their availability it is the reliable interplay of all systems and components in particular that ensures their profitable operation.

This is what you achieve with PROFIBUS. Communication via PROFIBUS enables the shift of ever more intelligence into the field devices – either through high-performance diagnostic functions for the improvement of the plant's availability or through integrated safety functionality for the cost-efficient implementation of legal safety requirements.

Its unique usability, flexibility, and consistency made PROFIBUS the most successful fieldbus. More than 40 million nodes in process and manufacturing industries all over the world are an impressive proof of its qualities. Every day, consistent PROFIBUS solutions contribute to the sustainable reduction of investment, operation, and maintenance costs and to the increase of plant availability and productivity.



# ... versatile ...

## Process industry

Reliability, scalability, and low wiring effort are only some of the demands on a fieldbus. PROFIBUS DP and PA meet them: The expenditure for installation is reduced significantly through the use of a single cable for communication and power supply. With cable lengths of up to 1900m, even large plants can be linked comfortably.

## Manufacturing industry

In the manufacturing industry, PROFIBUS DP is used for controlling sensors and actuators. The focus is on standard diagnostic options and the connection of "distributed intelligence", the linking of several field devices. Data rates of up to 12Mbit/s and cable lengths of up to 1200m can be achieved.

## Flexibility

From the supply of materials to production and all the way to packaging: PROFIBUS is the only fieldbus that can be employed in the manufacturing as well as in the process automation. Its modular design makes it adaptable to various applications and its strengths can be seen in all stages of production.

## Availability

PROFIBUS facilitates redundancy from the control system to the field device, diagnosis in the device but also for the bus itself, and easy application and operability in the process plant through standardization across supplier-boundaries. With more than 40 million currently installed nodes, PROFIBUS offers all options and is an important part of the success of every automation system around the world.

## Plants requiring explosion prevention

PROFIBUS DP and PA can be employed in areas subject to explosion hazards. PROFIBUS DP on the configuration level RS485-IS can be employed in Ex-Zone 1, PROFIBUS PA additionally in Zone 0.

## Functional safety

PROFIsafe is the worldwide standard for failsafe communication. This is how safe applications can be realized more cost efficient in combination with PROFIBUS. Standard communication and safety-related communication are both running on the same single cable, which significantly reduces wiring and engineering effort.



... and safe.

***"The international network and the experience of PI are unique. They provide our member companies with a significant competitive edge."***

Jörg Freitag  
PI and PNO chairman



With a presence on every continent, PROFIBUS & PROFINET International (PI) is the world's most influential interest group in the field of industrial communication. 27 Regional PI Associations (RPAs), 43 Competence Center, 23 Training Center, 10 Test Labs, and more than 1,400 member companies speak volumes.

For more than 20 years, PI has been the neutral platform on which all the relevant automation manufacturers from all over the world meet and define common technologies such as PROFIBUS with an outstanding degree of team spirit. Every one is invited to contribute ideas, propose changes, and intervene – what counts is the aim of the PI family: to support users with the best solutions at all times.





# This is why PROFIBUS is the number one fieldbus

**Easy handling** PROFIBUS is based on modularity and standards – you benefit from ease of use and highest flexibility. The consistent communication protocol combines continuous, discrete, and safety-related processes on the same bus. This eliminates the need for separate systems.

**Highest efficiency** Process efficiency requires a high level of plant availability. Consistent redundancy ensures uninterrupted operation. Diagnostic messages from the devices and the bus are supplied in addition to important process values. They provide information about the current plant status and enable timely intervention. The result: higher availability, less maintenance!

**Proactive plant management** PROFIBUS enables proactive management over the entire lifecycle of your plant. When more advanced device technology is to be deployed, plant operation must not be interrupted when installing the new devices. The solution: Starting in profile 3.02, new devices can adopt the functionalities of predecessor versions. In this way plant operation is not interrupted, and the additional functions are integrated during the next maintenance phase.

**Open for innovations** PROFIBUS is innovation: The high orientation toward customer requirements and the constant exchange with national and international committees lead to continuous advancement and improvement of the technology.

