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## MICROSENS



# **ROBUST NETWORKS**

for Rail and Power Substation Applications



# **ROBUST NETWORKS**

#### Reliability even under the most unfavourable conditions

A networked power supply is dependent on components that work without compromises: robust and reliable, powerful and flexible, compact and modularly extensible, with intelligent redundancy concepts and the shortest recovery times – in a nutshell: Profi Line. The Profi Line series from MICROSENS was developed for networks which depend on top reliably even under the most unfavourable conditions. With certainty, as proven by the extensive security features with which the Profi Line devices are equipped.



#### **TOP FEATURES**

- n Gigabit performance with Energy-Efficient Ethernet
- n Power-over-Ethernet+ (802.3at), maximum of 30 W per port
- n Extended temperature range
- n Compact metal housing for DIN rail assembly
- n Robust design, extension modules available
- n Redundant power inputs
- n Linux kernel, open standards, long-term availability
- n SD card for firmware and configuration
- n Fault tolerance with minimum recovery times

#### **Quality Made in Germany**

The Profi Line series was developed from scratch at the German site – with its own development team for hardware and software and proprietary expertise. Development and processing "Made in Germany" significantly contribute to product quality.

The Profi Line series from MICROSENS is the ideal choice wherever the highest demands are placed on fault tolerance, availability and the shortest possible recovery times.

#### Profi Line Rack MS400890MX-BS

The Profi Line Rack makes the advantages of the Profi Line available in a 19" design. Like devices for mounting on DIN rails, the Profi Line Rack Switch was developed for use in harsh environments. It offers a total of 25 Gigabit Ethernet ports of which eight can be expanded to fiber optic connections as combo ports with SFP modules. A total of 16 copper ports offer PoE/PoE+ functionality with which the terminal devices connected can be supplied with electricity economically and without additional cabling work. With its compact design of 1 HU, like Profi Line Modular it has two alarm inputs and outputs respectively.

As with all Profi Line series switches, the Profi Line rack switch was designed for the greatest availability and shortest recovery times. Redundant ring structures can be established both via SFP ports or with copper connections. In the event of failure, a special mechanism detects a faulty network node or interruption of the connection and ensures automatic reconfiguration of the network within milliseconds.



#### Profi Line + MS650919PM-BS

Efficiency and economy without compromises: The Profi Line + series of switches offer seven Gigabit ports with extremely compact dimensions at an attractive price. Here performance and security are top priorities, both in network and access security, alongside the various switch functions themselves. Applications like Wireless LAN and IP video surveillance profit from the integrated power supply of terminal devices with PoE+ according to the IEEE 803.3at standard with up to 30 W per port, which the switch provides on

four 10/100/1000Base-T connections. Furthermore, the switch has two combo ports with RJ-45 connection and SFP slot. These allow a redundant uplink either constructed with copper cables or fiber optic lines. In the event of a line break, the ring protocol ensures continuing availability. The Switch itself can be supplied via the RJ-45 uplink port as a powered device with Power-over-Ethernet thus ensuring enhanced switch availability if the conventional power supply fails.

Sensors and actuators can be integrated via the two I/O ports of the switchor the switch can be connected to an existing alarm solution.

#### Profi Line Modular MS652119PM-BS

The Profi Line Modular switches from MICROSENS offer top performance and flexibility in confined spaces. The modular design enables expansions tailored to needs, which limits the initial investment to the minimum necessary.

Even the basic switch module offers thirteen gigabit ports, of which four, as combo ports, can be expanded to fiber optic connections. Despite its space-saving design, it has two alarm inputs/outputs, for example for cabinet monitoring or integrating a sensor/actuator. The copper ports offer PoE/PoE+ with which the terminal devices connected can be supplied with electricity economically and without additional cabling work. The switches themselves can also work without their own power supply, supplied via PoE/PoE+ as powered devices.

For maximum scalability, expansion modules with six or twelve Gigabit Ethernet ports are available that can simply be connected on the side to match demand. The expansion modules also have Gigabit combo ports with which an impressive number of fiber optic connections can be achieved economically and in dependent on usage.





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Dependable automation Maximum availability

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### **MICROSENS IS KNOWN** FOR COMPETENCE ON THE SECTOR OF ACTIVE FIBER OPTIC SOLUTIONS

For 25 years, MICROSENS has been offering highquality, active fiber optic components for corporate networks, manufacturing companies, the industrial sector, and access networks. Development and manufacture "Made in Germany" make a significant contribution to the product quality.



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## **MICROSENS**

MICROSENS GmbH & Co. KG Küferstr. 16 59067 Hamm / Germany

Tel. +49 (0)2381/9452-0 Fax +49 (0)2381/9452-100 info@microsens.com www.microsens.com