

PROFINET / ETHERNET Switch PROmesh P9

Intelligent networking of the latest generation

Products 

Diagnosis 

Monitoring 

Training 

Consulting 



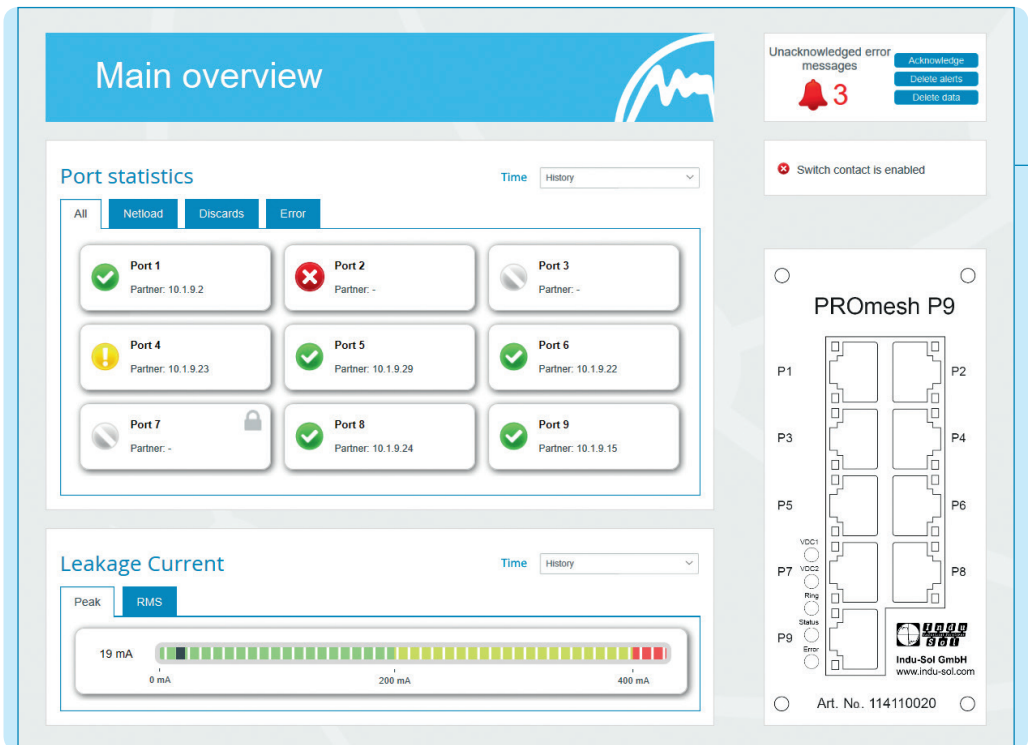
PROFINET/ETHERNET Switch PROmesh P9

Characteristics

The Indu-Sol PROFINET Switch **PROmesh P9** is the first full PROFINET switch that is equipped for the increased performance requirements in the PROFINET and conforms to Conformance Class B and Netload Class III requirements. This functionality makes it possible to integrate the switch into the automation system (Step7, TIA Portal) by an engineering tool in order to make a comprehensive network diagnostic feasible. This feature supports numerous necessary and useful functions as opposed to standard switches:

- Sending of device diagnostics to the controller (PN-RTA)
- Neighbourhood detection (LLDP)
- Port-related network statistics (PDEV)
- Network diagnostics via IT mechanisms (SNMP)
- Higher availability thanks to ring redundancy (MRP)

With its optimised shielding contacts in the RJ45 jacks and leakage current monitoring, the **PROmesh series** not only meets the requirements for PROFINET functionality but also fulfils highest demands for EMC resistance in the industrial environment.



Highlights

- Full PROFINET functionality (Conformance Class B)
- Netload Class III Certification (highest requirement for high network traffic ruggedness)
- Leakage current monitoring, incl. frequency spectrum
- Graphic display of the port utilisation (with millisecond precision)
- Optimised shielding contact of ports
- Display of discards on the web interface
- Simple exchange of devices with removable media
- Mirror port, VLAN, SNMP, SMTP, DHCP
- 9x 100 Mbit/s RJ45 Ports
- Redundant power supply
- Compact design



Conformance Class

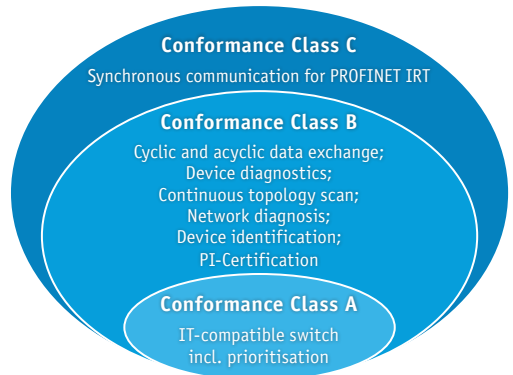
The functionality of PROFINET IO devices is divided in clear conformance classes. These summarise different minimum characteristics. For infrastructure components like switches the conformance class B is of special importance as it includes the fundamental PROFINET functionalities and therefore covers the requirements of 99% of all the PROFINET networks installed in the field.

Diagnosis function

The **PROmesh P9** can be adapted individually to your needs and network specifications. If requested you get notified about any changes in the network to be up-to-date and swift to react. The clear structured web interface of the **PROmesh P9** shows at a glance all relevant information to evaluate the data traffic quality on a central position in the network.

Special attention is drawn to the following quality parameters:

- Number of error telegrams
- Number of discarded telegrams
- Network load level
- Correct port configuration
- Leakage current level



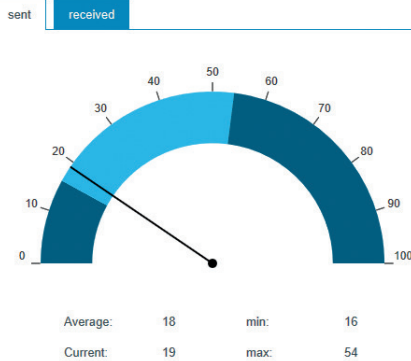
Netload Class III

Netload classes define the sturdiness of a device in regard of the intensity of the data traffic. The **PROmesh P9** is certified for the highest netload class III which is the first time a switch with more than 4 ports fulfils these requirements. Therefore, the new switch is the foundation for a frictionless operation thanks to stable network communication.

Network utilisation with millisecond precision

In PROFINET networks even briefest peaks in the network utilization can lead to a malfunction in the data communication and thus cause faults. To properly detect these network peaks, the **PROmesh series** determines the network utilisation with millisecond precision and presents them graphically on the web interface or issues an appropriate alarm if exceeded.

Netload for port 1

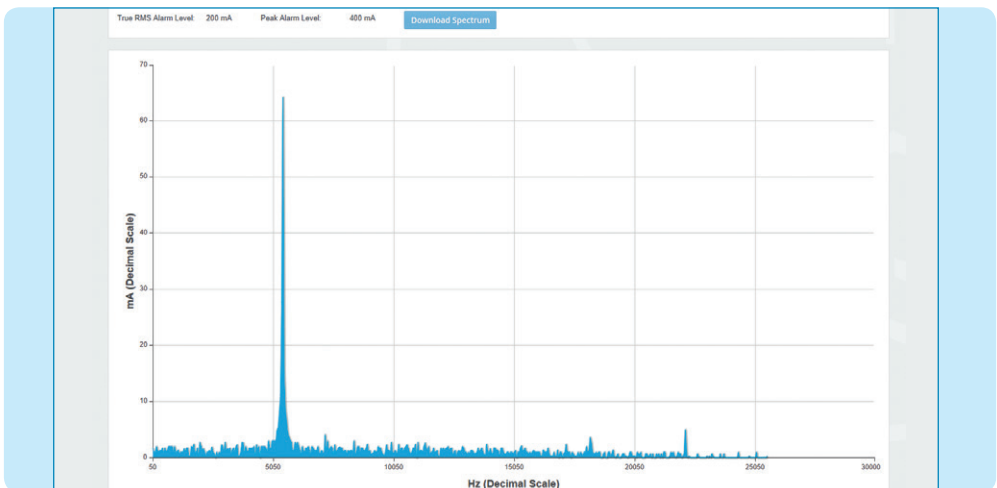


Technical data

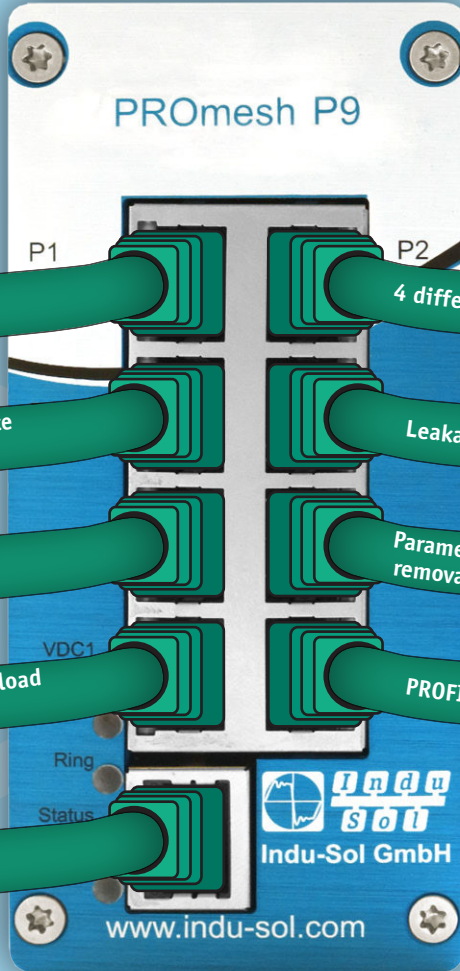
- Input voltage: 24V DC +20%, redundant power supply
- Max. power consumption: 800 mA
- Max. power loss: 8 W
- Dimensions (HxWxD): 105 x 49 x 112 mm
- Weight: 490 g
- Casing: aluminum, anodised
- Storage temperature: -40°C bis +85°C
- Operating temperature: 0°C bis +55°C
- Protection class: IP20
- Mounting: TS35 DIN top-hat rail

Leakage current monitoring

Leakage current monitoring makes it possible to permanently record and evaluate the sum of all shielding currents of the PROFINET lines. The corresponding spectrum with the respective frequency components is specified for this in addition to the current value. Using this integrated function, the **PROmesh series** also offers mechanisms for detecting EMC faults or couplings in addition to the complete PROFINET diagnostics.



Intelligent networking of the latest generation



Simple diagnostic overview

Highest network load resilience
(Netloadclass III certified)

Counts number of discards
on the web interface

Graphic display of network load
with millisecond precision

Band with control to avoid
peaks in network load

4 different queues per port

Leakage current monitoring

Parameter memory on
removable media

PROFINET CC-B

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Certified according to DIN EN ISO 9001:2008