PROmesh
Industrial Switches
Performance meets diagnostics

Products

Design
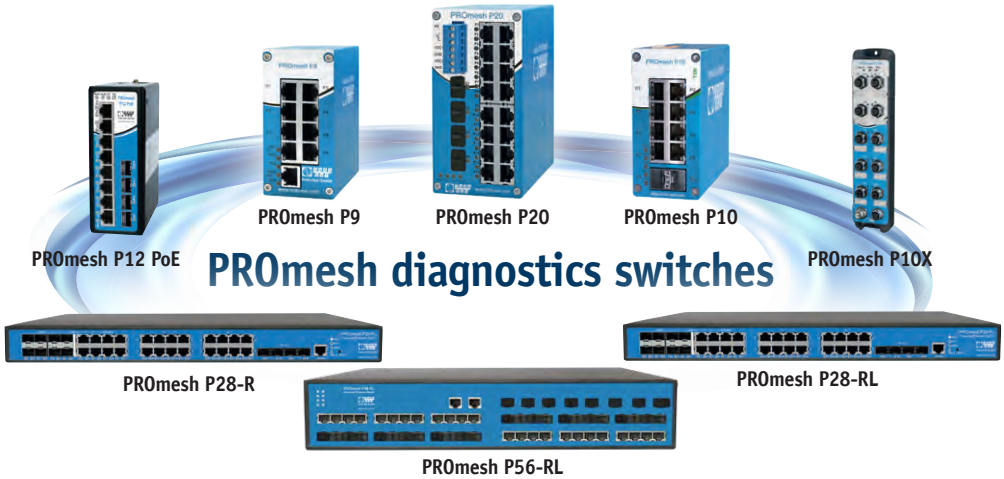
Diagnostics

Monitoring

Consulting

Training

PERFORMANCE MEETS DIAGNOSTICS

The choice of infrastructure components significantly influences the **stability of your network**! Whether heavily loaded / ageing data lines, higher EMC loads, growing data volumes or increased security requirements – at Indu-Sol you will find the right components for **stable and secure data communication**!

PROmesh P12 PoE

PROmesh P9

PROmesh P20

PROmesh P10

PROmesh P10X

PROmesh diagnostics switches

PROmesh P28-R

PROmesh P28-RL

PROmesh P56-RL

RECOMMENDED FEATURES

Online Cable Diagnostics
Trace ageing of cables and plan their replacement

EMC-Monitoring
Monitor earth currents and send an alarm if limit value exceeded

Netload Class
Compatibility of the network devices with the data volume

Data Throughput (TP)
Processing speed of a switch (Mpps)

Backplane Capacity (BC)
How much data can be transmitted simultaneously (Gbps)

Port Number and Type
Define available ports and required optical fibre and SFP ports

VLAN
Physically connected networks logically separated by VLAN

Performance Monitoring
Display of important diagnostic and performance parameters per port

PROmesh PORTFOLIO

General data	PROmesh P9	PROmesh P10	PROmesh P20	PROmesh P10X	PROmesh P12 PoE	PROmesh P28-R	PROmesh P28-RL	PROmesh P56-RL
Device front view								
Cable diagnostics	×	✓	×	✓	×	×	×	×
EMC monitoring	✓	✓	✓	✓	×	×	×	×
Performance monitoring	✓	✓	✓	✓	×	×	×	×
Number of ports	9	10	20	10	12	28	28	56
Port speed	9 x 100 mbps	8 x 1 Gbit/s 2 x 2.5 Gbit/s	16 x 100 mbps 4 x 1 Gbit/s	8 x 100 mbps 2 x 1 Gbit/s	10 x 1 Gbit/s 2 x 2.5 Gbit/s	28 x 1 Gbit/s	24 x 1 Gbit/s 4 x 10 Gbit/s	8 x 10 Gbit/s 48 x 1 Gbit/s
Port type	9 x RJ45	8 x RJ45 2 x SFP	16 x RJ45 4 x SFP	8 x M12 d-coded 2 x M12 x-coded	8 x RJ45 4 x SFP	16 x RJ45 8 x Combo (SFP or RJ45) 4 x SFP	16 x RJ45 8 x Combo (SFP or RJ45) 4 x SFP+	8x SFP+ 48 x selectable (SFP/copper)
PROFINET Standard	V 2.3	V 2.4	V 2.3	V 2.4	×	×	×	×
PROFINET Conformance Class	B	B	B	B	×	×	×	×
Netload Class	III	III	III	III	×	×	×	×
Routing	×	×	NAT	×	×	×	VRRP, RIP, OSPF, BGP	VRRP, RIP, OSPF, BGP, PIM, DVMRP
PoE	×	×	×	×	30 W (max. 120 W)	×	×	×
VLAN	✓	✓	✓	✓	✓	✓	✓	✓
Redundancy	MRP, RSTP	MRP, RSTP	MRP, RSTP, MSTP	MRP, RSTP	RSTP	RSTP, MSTP	RSTP	RSTP, MSTP
QoS	✓	✓	✓	✓	✓	✓	✓	✓
SNMP	v1, v2	v1, v2	v1, v2, v3	v1, v2, v3	v1, v2, v3	v1, v2, v3	v1, v2, v3	v1, v2, v3
LLDP	✓	✓	✓	✓	✓	✓	✓	✓
Protection rating	IP 20	IP 20	IP 30	IP 67	IP 40	IP 30	IP 30	IP 40
Operating temperature	-40°C to 70°C	-40°C to 60°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C
Storage temperature	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Power supply	24 V	24 V	24 V	24 V	24 V	100 - 240 V	100 - 240 V	100 - 240 V
Dimensions (H x W x D) in mm	105 x 49 x 112	105 x 49 x 112	138 x 130 x 68	284 x 60 x 28	138 x 53 x 110	44 x 440 x 305	44 x 440 x 305	88 x 440 x 330
Weight	490 g	490 g	960 g	800 g	692 g	3940 g	3940 g	3940 g
Assembly type	Top-hat rail	Top-hat rail	Top-hat rail	Wall assembly	Top-hat rail	19 inch rack	19 inch rack	19 inch rack
Backplane [Gbps]	3.2	51.2	12.8	20	30	56	128	256
Throughput [Mpps]	1.4	19.3	8.5	14.9	35.7	65.5	95.2	176
Shared buffer [mbps]	1	2	4	2	2	12	12	12
Art. no.	114110190	114110200	114110150	114110210	11411250	114110100	114110110	114110300

+++ Discover the next generation of switches +++ more at www.indu-sol.com/en/promesh +++
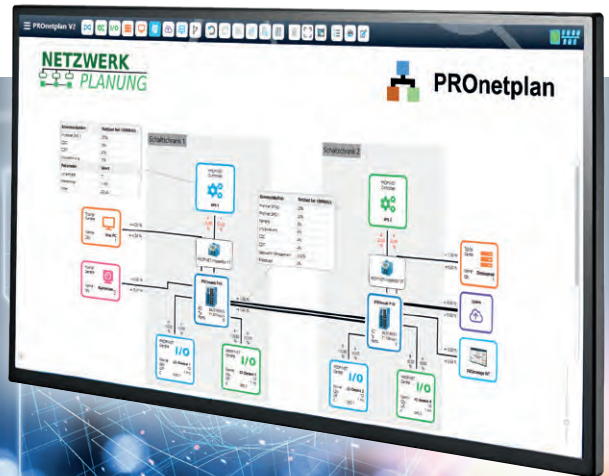
NETWORKS REQUIRE PLANNING

The network areas of IT and OT are increasingly merging because of digitalisation. As a result, formerly standalone application networks like PROFINET are becoming heterogeneous or **convergent networks**.

This development necessitates a **rethink of component selection**, but also **a new type of network planning**. The objective of this planning is to define the necessary functional and performance requirements of the (overall) network, and to realise this with **suitable switches,** while at the same time maintaining economic efficiency. This planning is reflected, among other things, in the functional selection of the switches to be used.

(See recommended features)

READY FOR THE NETWORKS OF THE FUTURE WITH INDU-SOL

- **Consulting** from planning to operation of your system network
- Manufacturer neutral **planning of OT networks**
- Network planning software **PROnetplan V2**
- **Seminars** on network planning, PROFINET, EMC & Co.

Ordering specifications for PROnetplan V2	Art. no. 114010012

More on network planning

www.indu-sol.com/network-planning
or use the QR code directly

More on the PROmesh switches

www.indu-sol.com/en/promesh
or use the QR code directly

Video: How does a switch work?

www.indu-sol.com/network-planning
or use the QR code directly

Indu-Sol GmbH
Blumenstraße 3
04626 Schmoelln

Phone: +49 (0) 34491 580-0
Fax: +49 (0) 34491 580-499

info@indu-sol.com
www.indu-sol.com

Certified according to DIN EN ISO 9001:2015

InduSol America, LLC
980 Birmingham Rd. Ste 721
Alpharetta, GA 30004, USA

Phone: +1.678.880.6910
           +52 (55) 8526-6442

info@indusolamerica.com
www.indusolamerica.com

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