

Managed Industrial Ethernet Switch PROmesh P20



Art. No. 114110150

HIGHLIGHTS

- PROFINET IO, Conformance Class B
- PROFINET Netload, Class III
- Interoperable in Layer 2 and Layer 3 networks
- Secure NAT-Routing
- Flexible Media Access via Mini-GBIC SFP Transceiver
- Redundant media access with up to 1Gbit/s
- Full Network Statistics incl. Discards & Errors
- Integrated Alarm Management with Multi-Path Distribution: Relais, SNMP, DCP, I&M
- Prevent unwanted EMC currents

Your advantages

- The PROmesh P20 is a full-managed Industrial Ethernet Switch for industrial automation systems.
- You can easily and conveniently configure it via its integrated web interface.
- Due to its Single-Connection concept, it enables you the uncomplicated realization of star and ring structures with switching functionality.
- The compact design, the flexible mounting on the DIN rail as well as its optimized thermal properties, save you space in the control cabinet.
- Extensive diagnostic features: Find out about your network status and EMC at any time.

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Technical Details

Power conditions	
Nominal voltage	24VDC, redundant
Voltage input range	12VDC .. 48VDC (-10% ..+10%)
Current consumption, max.	0,9A
Power consumption, max.	11,7W
Environmental conditions	
Operation temperature	0°C .. +75°C
Storage temperature	-40°C .. +85°C
Relative humidity	5~95% RHD non-condensing
Protection class	IP30
MTBF	40 years
altitude above sea level	up to 3000 m
Mechanical features	
Housing	
■ Casing	compact, passive cooling
■ Mounting	35 mm DIN-Hutschiene (0°, 90°)
Size	
■ W x H x D	68 mm x 138 mm x 130 mm
■ Distances to other modules, min.	vertical: 50 mm; horizontal: 20 mm
■ Weight	0,94kg
General physical interfaces	
Voltage supply	4 Pins of the 7-Pin, 5,0mm terminal block
PE - Connection	1 Pin of the 7-Pin 5,0mm terminal block
Alarm contact	2 Pins of the 7-Pin 5,0mm terminal block
Data ports	
Total	20
Thereof RJ45	16 (10/100Base-Tx)
Thereof SFP	4 (10/100/1.000Base-X)
Basic switch parameter	
Switching Mode	Store & Forward
MAC address table	8K (16.384 adresses)
PROFINET	
PROFINET Standard / PROFINET-IO	V2.33
PROFINET Conformance Class	Class B
PROFINET Netload Class	Class III
Device management	
Web-Based Management	HTTP, HTTPs
Micro SDHC (8GB, CL10)	Firmware, Backup, Config
File Transfer Protocol	TFTP, HTTP
SNMP	v1, v2c, v3
Time synchronisation	NTP Client
SMTP	SMTP Sent, EMail Alarm
IP configuration	Static IP, Dynamic IP (DHCP Client)
Neighbourhood	LLDP, IEEE 802.1ab

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Software functions	
Multicast & Broadcast	
■ Static Multicast	yes
■ IGMP Snooping v1	yes, RFC 4541
■ Broadcast Limiter / Broadcast Storm Control	yes
Traffic diagnosis	
■ Port-Mirroring	Tx, Rx, Tx+Rx, port configurable
Net segmentation	
■ LACP: Link Aggregation Control Protocol	yes, IEEE 802.3ad
■ Port Trunking	yes
■ Spanning Tree Protocol	STP, RSTP, MSTP, IEEE 802.1d/w/s
■ VLAN - portbasiert	yes
■ VLAN - tagged	yes, IEEE 802.1q
■ Software Ring	yes
■ NAT: Network Address Translation	yes
Redundancy	
■ MRP: Media Redundancy Protocol	yes, <200 ms reconfig, IEC 62439-3
QoS: Quality of Service	
■ COS: Class of Service	Strict Priority & Weighted RR, IEEE 802.1p
■ TOS: Type of Service	yes
■ Port prioritisation	yes, four queues configurable
■ Bandwidth management	yes
Security	
■ Classification of User Permission, User groups	yes
■ User accounts (individual login)	yes
■ Port alarm	yes
■ MAC filter	yes
■ IP filter	yes
■ E-Mail alarm	yes
Diagnosis	
Status & alarm	
■ Alarm relay	yes, opening
■ Status LEDs	yes, (LINK, VDC1, VDC2, Error, Status)
■ E-Mail, SMTP	yes
■ SNMP send	yes (v1, v2c, v3)
■ Fitting monitoring software	Indu-Sol PROmanage® NT
Diagnostic data	
■ SysLog	yes, opening
■ Port monitoring	yes
■ Port load factor (min., max., aktuell, Mittelwert)	yes
■ Voltage supply	yes
■ LLDP Error	yes
■ System temperature	yes
■ Ring status	yes
■ Leakage current detection	Peak, RMS, Delta (0A..25A, Abtastrate: 25kHz)

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Technical compatibility

EMC Resistance	
Burst Impulse	EN 61000-4-4
Immited E-fields	EN 61000-4-6
Immited HF energy	EN 61000-4-3
ESD	EN 61000-4-2
Surge Impulse	EN 61000-4-5
EMC Emmission	
Emmitted E-field	DIN EN 55032 A
Emission on conductor	DIN EN 55032 A

Compliance

Normen, Richtlinien, Zulassungen	
Environment	
IP Protection Class	IP30
Other	
RoHS	yes
REACH	yes
FCC	no
Approval	
■ Europe	CE
■ USA	UL
■ Canada	CSA