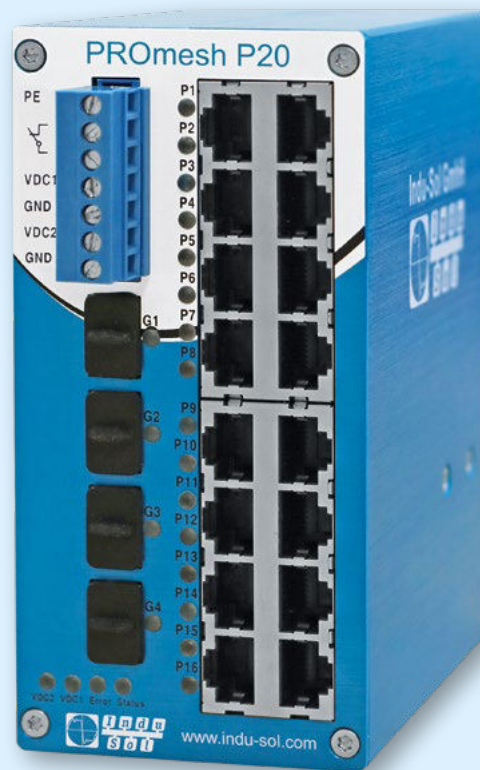


Managed Industrial Ethernet Switch PROmesh P20



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.

Managed Industrial Ethernet Switch PROmesh P20

Technical Details

Power conditions	
Nominal voltage	24 VDC, redundant
Voltage input range	12 VDC .. 48 VDC (-20% ..+20%)
Current consumption, max.	0,92A
Power consumption, max.	22W
Environmental conditions	
Operation temperature	0°C .. +75°C
Storage temperature	-40°C .. +85°C
Relative humidity	<95% RHD, non-condensing
Protection class	IP30
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	0,96kg
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	16K (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
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

Managed Industrial Ethernet Switch PROmesh P20

Technical Details

Software functions	
Multicast & Broadcast	
■ Static Multicast	yes
■ GMRP: GARP Multicast Registration Protocol	yes, IEEE 802.1p
■ 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
■ DiffServ: Differentiated Services	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, (Data, LNK, VDC1, VDC2, Error, Status)
■ E-Mail, SMPT	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)

Managed Industrial Ethernet Switch PROmesh P20

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

Market	
CE	yes
Environment	
IP Protection Class	IP30
Other	
RoHS	yes
REACH	yes
FCC	no

SFP-Tranceiver-Module

Technische Details

Product								
Module	100Mbit/s 2km MM	100Mbit/s 10km SM	1 Gbit/s 550m MM	1 Gbit/s 20 km SM	1 Gbit/s 100m RJ45	2,5Gbit/s 10km SM	10 Gbit/s 10km SM	
Artikelnummer	114120006	114120007	114120005	114120004	114120003	114120021	114120008	
Geschiedt voor PROmesh Switch	PROmesh P10 / P10+ PROmesh P20	PROmesh P10 / P10+ PROmesh P20	PROmesh P10 / P10+ PROmesh P20 PROmesh P28-R PROmesh P28-RL	PROmesh P10 / P10+ PROmesh P20 PROmesh P28-R PROmesh P28-RL	PROmesh P10 / P10+ PROmesh P20 PROmesh P28-R PROmesh P28-RL	PROmesh P10 / P10+	PROmesh P28-RL	
Eigenschappen								
Datasnelheid	100 Mbit/s	100 Mbit/s	1 Gbit/s	1 Gbit/s	10/100/1000 Mbit/s	2,5 Gbit/s	10 Gbit/s	
Kabeltype	Multi Mode	Single Mode	Multi Mode	Single Mode	Twisted Pair	Single Mode	Single Mode	
Bereik	2 km	10 km	550 m	20 km	100 m	10 km	10 km	
Aansluiting	LC	LC	LC	LC	RJ45	LC	LC	
Interne Interface	SGMII	SGMII	SerDes	SerDes	SGMII	SerDes	SerDes	
Externe Interface	100Base-FX	100Base-LX	1000Base-SX	1000Base-LX	10Base-T 100Base-TX 1000Base-T	2,5GBase-LX	10GBase-LR	
Golflengte zenden	1260 nm tot 1360 nm	1260 nm tot 1360 nm	830 nm tot 860 nm	1280 nm tot 1360 nm		1270 nm tot 1340 nm	1260 nm tot 1355 nm	
Golflengte ontvangen	1260 nm tot 1360 nm	1260 nm tot 1360 nm	770nm tot 860 nm	1100 nm tot 1600 nm		1260 nm tot 1610 nm	1260 nm tot 1355 nm	
Zendvermogen	-15 dBm tot -8 dBm	-15 dBm tot -8 dBm	-9,5 dBm tot -4 dBm	-9 dBm tot -1 dBm		-4 dBm tot 0 dBm	-8,2 tot 0,5 dBm	
Ontvangstintensiteit	-31 dBm tot -24 dBm	-28dBm tot -8 dBm	-18 dBm	-23 dBm		-20 dBm	-14,4 dBm	
Opslagtemperatuur	-40°C tot +85°C	-40°C tot +85°C	-40°C tot +85°C	-40°C tot +85°C	-40°C tot +100°C	-40°C tot +85°C	-40°C tot +85°C	
Bedrijfstemperatuur	0°C tot +70°C	0°C tot +70°C	-40°C tot +85°C	-40°C tot +85°C	-40°C tot +85°C	-40°C tot +85°C	-40°C tot +85°C	
Normering								
CE-EMC	EN61000-6-1:2007 EN61000-6-3:2007/ A1:2011/AC:2012 EN61000-3-2:2014	EN61000-6-1:2007 EN61000-6-3:2007/ A1:2011/AC:2012 EN61000-3-2:2014	EN61000-6-1:2007 EN61000-6-3:2007/ A1:2011/AC:2012 EN61000-3-2:2014	EN61000-6-1:2007 EN61000-6-3:2007/ A1:2011/AC:2012 EN61000-3-2:2014	EN61000-6-1:2007 EN61000-6-3:2007/ A1:2011/AC:2012 EN61000-3-2:2014	EN61000-6-1:2007 EN61000-6-3:2007/ A1:2011/AC:2012 EN61000-3-2:2014	EN61000-6-1:2007 EN61000-6-32011 EN55022/A1:2007	EN61000-6-1:2007 EN61000-6-32011 EN55022/A1:2007
CE-LVD	EN60825-1:2007 EN60825-2:2010	EN60825-1:2007 EN60825-2:2010	EN60825-1:2007 EN60825-2:2010	EN60825-1:2007 EN60825-2:2010	EN60825-1:2007 EN60825-2:2010	EN60825-1:2007 EN60825-2:2010	EN60825-1:2007 EN60825-2:2010	
C-Tick	AS/NZS CISPR 22:2009	AS/NZS CISPR 22:2009	AS/NZS CISPR 22:2009	AS/NZS CISPR 22:2009	AS/NZS CISPR 22:2009	AS/NZS CISPR 22:2009	AS/NZS CISPR 22:2009	
RoHS	2011-65-EU	2011-65-EU	2011-65-EU	2011-65-EU	2011-65-EU	2011-65-EU	2011-65-EU	
REACH	SVHC	SVHC	SVHC	SVHC	SVHC	SVHC	SVHC	