

Diagnostic Switch PROmesh P10+

PROmesh P10+



Art.-Nr.: 114110203

HIGHLIGHTS

- Online line monitoring
- Network monitoring:
 - Network load
 - TCP / IP retransmissions
 - Discards
 - Errors
- Environmental monitoring:
 - Leakage current
 - Vibration
 - Humidity
 - Light
- High performance:
 - Transmission rates up to 2.5 Gbit/s
 - Quality of service
 - 8 priority queues

Your advantages

- Continuous diagnostics of the connected lines during operation.
- The PROmesh P10+ is a fully managed Industrial Ethernet/PROFINET/Ethernet IP switch for industrial automation systems.
- You can configure it easily and conveniently via its integrated web interface.
- Increased network security through integrated firewall function
- Connect your machines and production network using NAT
- Extensive diagnostic functions: Find out about your network status, the interference reserve of cables as well as EMC and environmental influences (e. g. vibration, humidity, ...) at any time.

Diagnostic Switch PROmesh P10+

technical details

network interfaces	
RJ45 ports	
■ interfaces	8
■ transfer rate	10 Mbps 100 Mbps 1 Gbps
■ status LED	link + data communication
SFP ports	
■ interfaces	2
■ transfer rate	100 Mbps 1 Gbps 2.5 Gbps
■ status LED	link + data communication
power supply, current consumption, power loss, alarm contact	
connections	
■ power supply	2 x 0,2 – 2,5 mm ²
■ redundant power supply	2 x 0,2 – 2,5 mm ²
■ PE-connection	1 x 0,2 – 2,5 mm ²
■ alarm contact	2 x 0,2 – 2,5 mm ²
operating parameters	
■ power supply (nominal value)	24 VDC, redundant
■ power supply (min.)	12 VDC
■ power supply (max.)	48 VDC
environmental parameters	
■ operating temperatur	-40°C ... 75°C
■ storage temperature	-40°C ... 75°C
■ humidity (relative)	<95% RHD, non-condensing
design, dimensions, weights	
■ design	compact passive cooling
■ material (housing)	anodized aluminum
■ fastening	35 mm DIN rail (0°, 90°)
■ broad	60 mm
■ height	110 mm
■ depth	132 mm
■ installation distance (vertical)	50 mm
■ installation distance (horizontal)	20 mm
other device interfaces	
■ status LED	VDC1 VDC2 Status Error
■ data storage	SD card
■ reset	button
function	
basic parameter	
■ switch mode	store & forward

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function	
basic parameter	
■ MAC address table	16 K
■ package storage	2 Mbit
■ backplane capacity	26 Gbps
■ throughput	19,3 Mpps
Quality of Service (QoS)	
■ Queues per port	8
■ prioritization methods	strict prioritization weighted prioritization
■ bandwidth limitation	incoming and outgoing
■ COS: class of service	yes
■ port prioritization	yes
■ TOS: type of services	yes
VLAN	
■ portbased	yes
■ tagged	yes
■ number	4096
protocols/services	
■ management access	HTTP HTTPS webmanagement CLI PROmanage NT®
■ network	SNMPv1 SNMPv2c SNMPv3
■ file transfer	TFTP
■ e-Mail	SMTP
■ time synchronization	SNTP client NTP server
■ neighborhood	LLDP
■ IP setting	static PROFINET ETHERNET/IP
■ multicast/broadcast	Static Multicast IGMP Snooping Broadcast Limitation
■ redundancy	MRP master MRP client STP RSTP MSTP static link aggregation dynamic link aggregation
■ eventlog	syslog
application specific	
PROFINET	
■ standard	V 2.4
■ conformance class	B
■ net load class	III
■ real-time-class	1

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application specific	
ETHERNET/IP	
<ul style="list-style-type: none"> ETHERNET/IP: 	yes
diagnosis	
<ul style="list-style-type: none"> online line diagnostics 	yes
<ul style="list-style-type: none"> port statistics 	errors discards network load/ms + network load/s neighborhood TCP/IP retransmission
<ul style="list-style-type: none"> leakage current monitoring: 	sampling rate 18 kHz bandwidth 25.6 kHz measuring range -25 – 25 A resolution 6.25 mA
<ul style="list-style-type: none"> supply voltage 	sampling rate 1 Hz measuring range 12 – 48 VDC resolution 0.3 V
<ul style="list-style-type: none"> temperature 	measuring range -40 – 120°C resolution 1°C
<ul style="list-style-type: none"> port mirroring 	incoming or incoming and outgoing packets multiple source ports possible
<ul style="list-style-type: none"> environmental sensors 	vibration light humidit
alerting	
<ul style="list-style-type: none"> triggers 	port (down, status change) cable quality network load leakage current neighborhood supply voltage temperature MRP error discard TCP/ IP retransmission vibration humidity light
<ul style="list-style-type: none"> recipient 	PROFINET email SNMP trap alarm contact (relay)
security	
<ul style="list-style-type: none"> security 	User accounts (individual login) IP filter port alarm firewall based on MAC and IP (black or white list)

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technical details

standards, guidelines, approvals	
EMC	
■ policy	2014/30/EU
■ interference emission	EN 55032
■ noise immunity	EN 61000-6-2
mechanical stability	
■ vibration	IEC 60068-2-6
■ shock	IEC 60068-2-27
■ Freefall	IEC 60068-2-32
permit	
■ Europe	CE
■ USA	UL
■ Canada	CSA
environment	
■ RoHS	2011/65/EU
■ REACH	1907/2006/EG

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	