

Diagnostic Switch PROmesh P10X



Art. No. 114110210

HIGHLIGHTS

Integrated diagnosis:

- Online line monitoring
- Network monitoring
 - Netload
 - Discards
 - Errors
- Leakage current monitoring

High Performance:

- Transfer rates up to 1 gbps
- Quality of Service
- 8 priority queues

Your advantages

- Continuous diagnosis of the connected wires during operation.
- The **PROmesh P10X** is a full-managed Industrial Ethernet/PROFINET switch for the IP67 area of industrial automation plants.
- You can configure it easily and conveniently via its integrated web interface.
- Thanks to the compact design, the simple attachment outside the control cabinet and its optimized thermal properties, all conceivable installation locations can be used.
- Extensive diagnostic functions:
Keep yourself informed at all times about your network status, cable fault reserve and EMC.

Diagnostic Switch PROmesh P10X

Technical details

Network Interfaces	
M12 D-coded Ports	
■ Interfaces	8
■ Transmission rates	10 mbps 100 mbps 1 gbps
■ Status LED	Link + data exchange Portspeed
M12 X-coded Ports	
■ Interfaces	2
■ Transmission rates	10 mbps 100 mbps 1000 mbps
■ Status LED	Link + data exchange Portspeed
Supply voltage, current consumption, power loss, alarm contact	
Interfaces	
■ Power supply (in)	M12 L-coded
■ Console	M12 A-coded (X3)
■ Functional earth (FE)	M4 screw connection
Operating parameters	
■ Supply voltage (nominal value)	24 VDC
■ Power supply (min.)	12 VDC
■ Power supply (max.)	48 VDC
■ Power consumption (max.)	1,66 A
■ Power loss (max.)	20 W
■ Fuse protection (power supply input)	6 A / 500 VDC
Further device interfaces	
■ Status LED	VDC Status Error
Functions	
Basic parameters	
■ Switching technology	Cut-Through
■ MAC address table	16 K
■ Packet buffer	2 Mbit
■ Backplane capacity	20 gbps
■ Throughput	14,88 mpps
Quality of Service (QoS)	
■ Queues per port	8
■ Prioritization functions	Port Class of Service (CoS) Type of Service (ToS)
■ Prioritization methods	Strict prioritization Weighted prioritization
■ Bandwidth control	Incoming and outgoing

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Functions	
VLAN	
■ Protocol function	Port based
■ Amount	4096
Protocols/services	
■ Web	HTTP HTTPS
■ Network	SNMPv1 SNMPv2 SNMPv3 DHCP Client DHCP Server
■ E-Mail	SMTP Client
■ Time synchronization	SNTP Client
■ Neighbourhood	LLDP
■ Redundancy	MRP Master MRP Client STP RSTP MSTP
■ Eventlog	Syslog
PROFINET	
■ Standard	PROFINET 2.4
■ Device Class	Device
■ Conformance Class	B
■ Netload Class	III
■ Realtime Class	1
Diagnosis	
Functions	
■ Wire diagnostic	Online quality analysis
■ Port statistics	Errors Discards Netload/ms + Netload/s Neighbourhood
■ Leakage current monitoring	Sampling rate 25 kHz Bandwidth 25.6 kHz Measuring range 0–10 A Resolution 1 mA
■ Power supply	Sampling rate 1 Hz Measuring range 12–48 VDC Resolution 0.1 V
■ Temperature	Measuring range –40–75 °C Resolution 1 °C
■ Port Mirroring	Ingress, egress or ingress and egress Multiple source ports possible

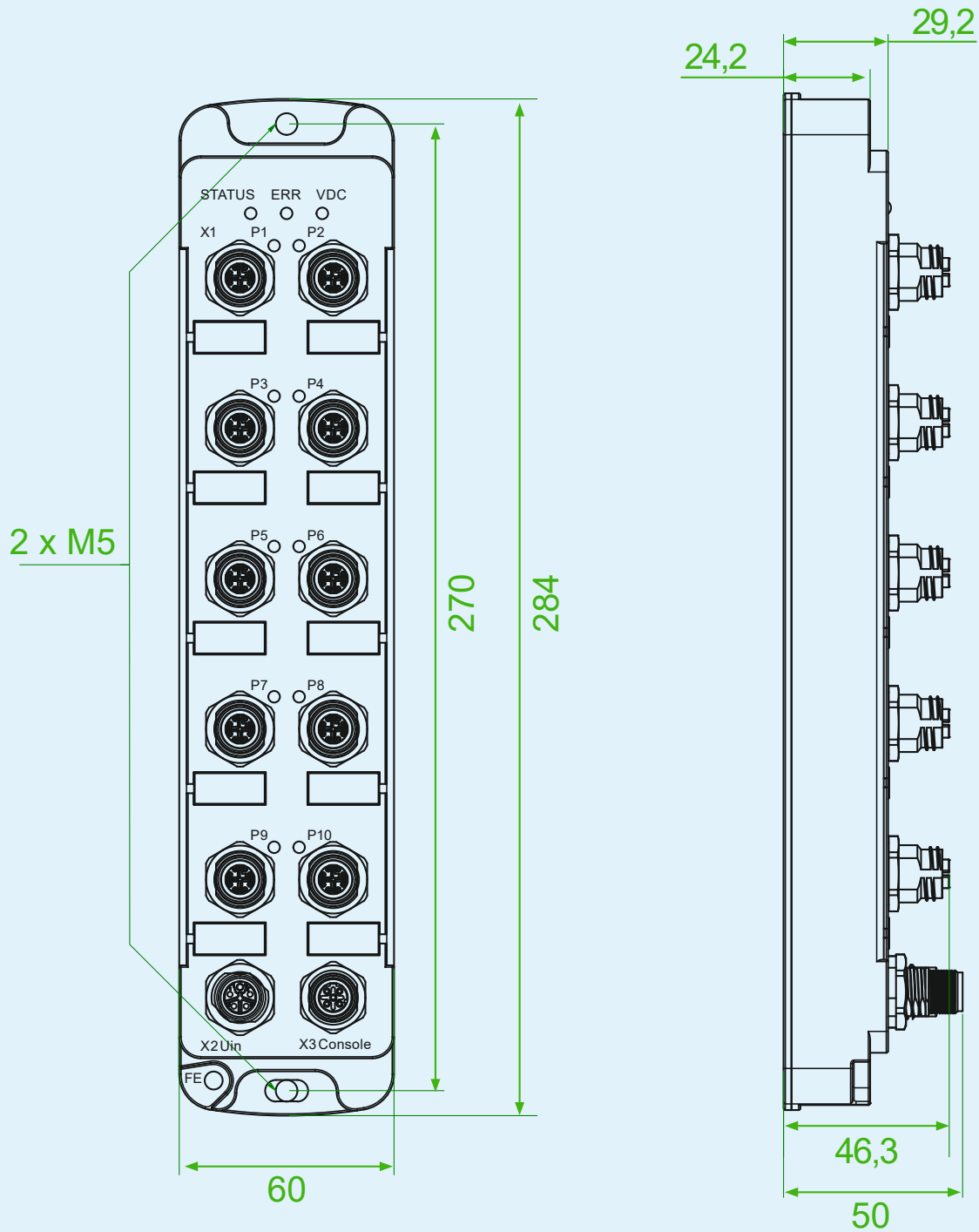
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Technical details

Diagnosis	
Alert	
<ul style="list-style-type: none"> Trigger 	Port (Up, Down, Status change) Wire quality Netload Leakage current Neighbourhood Power supply Temperature MRP Discards Errors
<ul style="list-style-type: none"> Receiver 	PROFINET Email SNMP Trap Alarm contact
Environmental conditions	
<ul style="list-style-type: none"> Operating temperature 	-40–75 °C
<ul style="list-style-type: none"> Storage temperature 	-40–85 °C
<ul style="list-style-type: none"> Air humidity, rel. 	5–95 % non-condensing
<ul style="list-style-type: none"> Protection Class 	IP67
<ul style="list-style-type: none"> MTBF 	44 years
Design, Dimensions, Weights	
<ul style="list-style-type: none"> Building type 	compact
<ul style="list-style-type: none"> Material (housing) 	Metal
<ul style="list-style-type: none"> Mounting 	Wall mounting
<ul style="list-style-type: none"> Width 	60 mm
<ul style="list-style-type: none"> Height 	284 mm
<ul style="list-style-type: none"> Depth 	28 mm
<ul style="list-style-type: none"> Installation distance (vertical) 	50 mm
<ul style="list-style-type: none"> Installation distance (horizontal) 	50 mm
<ul style="list-style-type: none"> Weight (net) 	0,8 kg
Standards, directives, approvals	
EMC	
<ul style="list-style-type: none"> Guideline 	2014/30/EU
<ul style="list-style-type: none"> Emitted interference 	EN 55032
<ul style="list-style-type: none"> Susceptibility 	EN 61000-6-2
<ul style="list-style-type: none"> ESD 	IEC 61000-4-2
Mechanical stability	
<ul style="list-style-type: none"> Vibration 	IEC 60068-2-6
<ul style="list-style-type: none"> Shock 	IEC 60068-2-27
<ul style="list-style-type: none"> Free fall 	IEC 60068-2-32
Approval	
<ul style="list-style-type: none"> Europe 	CE
Environment	
<ul style="list-style-type: none"> RoHS 	2011/65/EU
<ul style="list-style-type: none"> REACH 	1907/2006/EG
FCC	
<ul style="list-style-type: none"> Surge 	IEC 6100045, Level 3
<ul style="list-style-type: none"> EFT (electrical fast transient pulse) 	IEC 6100044

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Technical drawing



Technical drawing | Dimensions (mm)

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Pin assignment

X1 Data ports
8 x M12 D-kodiert
2 x M12 X-kodiert

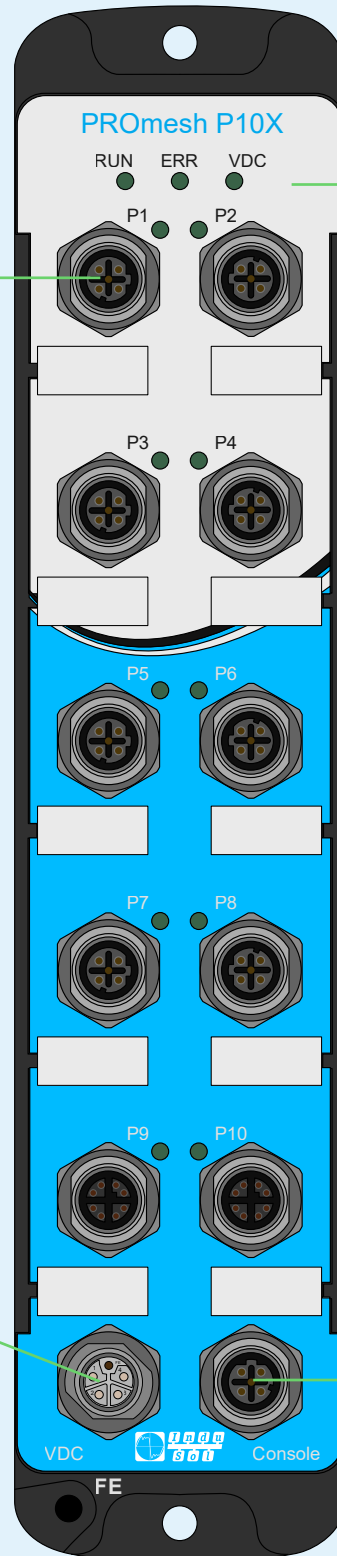
Status LEDs
Status | Error | VDC

X2 Power Supply

Pin 1: 24 V
Pin 2: 0 V
Pin 3: 0 V
Pin 4: 24 V
Pin 5: PE

X3 Console port

Pin 1: RX
Pin 2: NC
Pin 3: GND
Pin 4: TX



Device Connections