

## 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.
- The compact design, flexible mounting on the top-hat rail as well as its optimized thermal properties save space in the control cabinet.
- 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
■ 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	M12 L-coded
■ Console (5 pins)	M12 A-coded
■ Functional earth (FE)	1 x 0,2 - 2,5 mm <sup>2</sup>
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	VDC1 Status Error
Functions	
Basic parameters	
■ Switching technology	Store and Forward
■ 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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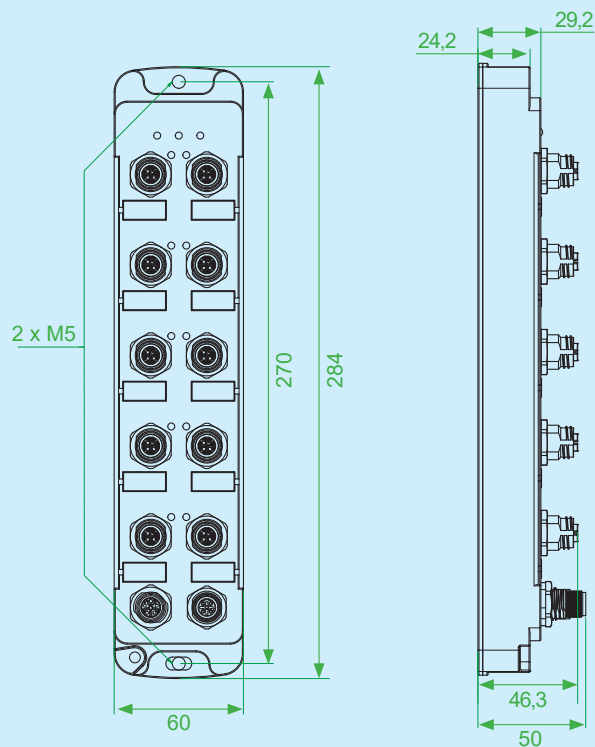
Functions	
VLAN	
■ Protocol function	Port based
■ Amount	4096
Protocols/services	
■ Web	HTTP HTTPS
■ Network	SNMPv1 SNMPv2 SNMPv3 DHCP Client DHCP Server
■ E-Mail	SMTP Client
■ Time synchronization	SNTP Client
■ Neighbourhood	LLDP
■ Redundancy	MRP Master MRP Client STP RSTP MSTP
■ Eventlog	Syslog
PROFINET	
■ Standard	PROFINET 2.4
■ Device Class	Device
■ Conformance Class	B
■ Netload Class	III
■ Realtime Class	1
Diagnosis	
Functions	
■ Wire diagnostic	Online quality analysis Offline wire test
■ Port statistics	Errors Discards Netload/ms + Netload/s Neighbourhood
■ Neighbourhood	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 - 48VDC Resolution 0.1V
■ 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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Diagnosis	
Alert	
<ul style="list-style-type: none"> <li>Trigger</li> </ul>	Port (Up, Down, Status change) Wire quality Netload Leakage current Neighbourhood Power supply Temperature MRP Discards Errors
<ul style="list-style-type: none"> <li>Receiver</li> </ul>	PROFINET Email SNMP Trap Alarm contact
Environmental conditions	
<ul style="list-style-type: none"> <li>Operating temperature</li> </ul>	-40°C ... 75°C
<ul style="list-style-type: none"> <li>Storage temperature</li> </ul>	-40°C ... 85°C
<ul style="list-style-type: none"> <li>Air humidity, rel.</li> </ul>	5 - 95% non-condensing
<ul style="list-style-type: none"> <li>Protection Class</li> </ul>	IP67
<ul style="list-style-type: none"> <li>MTBF</li> </ul>	44 years
Design, Dimensions, Weights	
<ul style="list-style-type: none"> <li>Building type</li> </ul>	compact
<ul style="list-style-type: none"> <li>Material (housing)</li> </ul>	Metal
<ul style="list-style-type: none"> <li>Mounting</li> </ul>	Wall mounting
<ul style="list-style-type: none"> <li>Width</li> </ul>	60 mm
<ul style="list-style-type: none"> <li>Height</li> </ul>	284 mm
<ul style="list-style-type: none"> <li>Depth</li> </ul>	28 mm
<ul style="list-style-type: none"> <li>Installation distance (vertical)</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>Installation distance (horizontal)</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>Weight (net)</li> </ul>	0,8 kg
Standards, directives, approvals	
EMC	
<ul style="list-style-type: none"> <li>Guideline</li> </ul>	2014/30/EU
<ul style="list-style-type: none"> <li>Emitted interference</li> </ul>	EN 55032
<ul style="list-style-type: none"> <li>Susceptibility</li> </ul>	EN 61000-6-2
<ul style="list-style-type: none"> <li>ESD</li> </ul>	IEC 61000-4-2
Mechanical stability	
<ul style="list-style-type: none"> <li>Vibration</li> </ul>	IEC 60068-2-6
<ul style="list-style-type: none"> <li>Shock</li> </ul>	IEC 60068-2-27
<ul style="list-style-type: none"> <li>Free fall</li> </ul>	IEC 60068-2-32
Approval	
<ul style="list-style-type: none"> <li>Europe</li> </ul>	CE
Environment	
<ul style="list-style-type: none"> <li>RoHS</li> </ul>	2011/65/EU
<ul style="list-style-type: none"> <li>REACH</li> </ul>	1907/2006/EG
FCC	
<ul style="list-style-type: none"> <li>Surge</li> </ul>	IEC 6100045, Level 3
<ul style="list-style-type: none"> <li>EFT (electrical fast transient pulse)</li> </ul>	IEC 6100044

## Diagnostic Switch PROmesh P10X



Technical drawing | Dimensions (mm)