# Industrial Ethernet Switch - FL SWITCH SMN 8TX-PN - 2989501

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Smart Managed Narrow Switch (SMN) with eight 10/100 Mbps RJ45 ports, PROFINET mode (default)

## Product Description

The Smart Managed Narrow switch (SMN) is an Ethernet switch suitable for industrial applications with eight Fast Ethernet ports in RJ45 format. (FL SWITCH SMN 8TX-PN) "PROFINET" mode is activated on the switch by default.

## Why buy this product

☑ Web-based management, SNMP

☑ Slim design

☑ VLANs

☑ PROFINET device

☑ MRP (client and master)

☑ SNMP

☑ RSTP

## Key Commercial Data

| Packing unit | 1 STK |
|---|---|
| Weight per Piece (excluding packing) | 780.000 g |
| Custom tariff number | 85176200 |
| Country of origin | Germany |

## Technical data

### Note

| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|---|---|

### Environmental Product Compliance

| China RoHS | Hazardous substances above threshold values; |
|---|---|

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## Technical data

### Environmental Product Compliance

|  | Environmentally Friendly Use Period = 50; |
|---|---|
|  | For details go to tab "Downloads", Category "Manufacturer's declaration" |

### Dimensions

| Width | 57 mm |
|---|---|
| Height | 133 mm |
| Depth | 125 mm |

### Ambient conditions

| Degree of protection | IP20 |
|---|---|
| Ambient temperature (operation) | 0 °C ... 55 °C (non-condensing) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Permissible humidity (operation) | 5 % ... 95 % (non-condensing) |
| Permissible humidity (storage/transport) | 5 % ... 95 % (non-condensing) |
| Air pressure (operation) | 86 kPa ... 108 kPa (2000 m above sea level) |
| Air pressure (storage/transport) | 66 kPa ... 108 kPa (3500 m above sea level) |

### Interfaces

| Interface 1 | Ethernet (RJ45) |
|---|---|
| No. of ports | 8 (RJ45 ports) |
| Connection method | RJ45 |
| Note on connection method | Auto negotiation and autocrossing |
| Transmission physics | Copper |
| Transmission speed | 10/100 MBit/s |
| Transmission length | 100 m (per segment) |
| Signal LEDs | Supply voltage, data transmission, error, link, activity |
| Interface 5 | Serial (RS-232) |
| Connection method | RS-232-C, 6-pos. MINI-DIN socket (PS/2) |

### Function

| Basic functions | Store-and-forward switch complies with IEEE 802.3 4 priority classes in acc. with IEEE 802.1 P TCP/IP protocol, BootP-capable, port-mirroring, integrated web server function, multicast filtering, IGMP snooping, VLAN, Rapid Spanning Tree (RSTP), PROFINET Device, Media Redundancy Protocol (MRP). |
|---|---|
| Management | Web-based management (HTTP) |
|  | SNMP v1/v2 |
|  | Serial interface (V.24) |
| Diagnostic functions | RMON History |
|  | N:1-Portmirroring |
|  | LLDP (Link Layer Discovery Protocol) |

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## Technical data

### Function

|  | SNMP-Traps |
|---|---|
| Filter functions | Quality of Service (4 priority classes) |
|  | Port-Priorisierung |
|  | VLAN |
|  | IGMP Snooping (128 groups) |
|  | IGMP Query |
|  | Auto-Query-Port |
|  | Extended Multicast Filtering |
|  | Static Multicast Filtering |
| Supported browsers | Internet Explorer 5.5 or higher |
| Redundancy | MRP (Media Redundancy Protocol) |
|  | RSTP (Rapid Spanning Tree Protocol) |
|  | FRD (Fast Ring Detection) |
|  | Large Tree Support |
| PROFINET IO device function | PROFINET device |
|  | Fast Startup |
| PROFINET IO conformance class | Conformance-Class B |
| Time synchronization | SNTP |
| Additional functions | BootP |
|  | DHCP-Client |
| Status and diagnostic indicators | LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex) |
| Signal contact control voltage | 24 V (typical) |
| Signal contact control current | 100 mA |

### Security functions

| Link Layer Discovery Protocol (LLDP) | As per protocol 802.2 |
|---|---|

### Network expansion parameters

| Cascading depth | Network, linear, and star structure: any |
|---|---|
| Maximum conductor length (twisted pair) | 100 m |

### Supply voltage

| Supply voltage | 24 V DC (redundant) |
|---|---|
| Residual ripple | 3.6 $V_{PP}$ (within the permitted voltage range) |
| Supply voltage range | 18 V DC ... 32 V DC |
| Typical current consumption | 250 mA (at $U_S$ = 24 V DC) |
| Current consumption | 320 mA |

### General

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## Technical data

### General

| Mounting type | DIN rail |
|---|---|
| Type AX | Book type |
| Net weight | 720 g |

### Connection data

| Connection method | Screw connection |
|---|---|
| Conductor cross section solid min. | 0.2 mm² |
| Conductor cross section solid max. | 2.5 mm² |
| Conductor cross section flexible min. | 0.2 mm² |
| Conductor cross section flexible max. | 2.5 mm² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 12 |
| Stripping length | 7 mm |

### Standards and Regulations

| Electromagnetic compatibility | Conformance with EMC Directive 2004/108/EC |
|---|---|
| Developed in acc. with standard | IEC 61000-6.2 |
| Test standard | IEC 61000-4-2 (ESD) |
| Test result | Criterion A |
| Test standard | IEC 61000-4-3 (electromagnetic fields) |
| Test result | Criterion A |
| Test standard | IEC 61000-4-4 (burst) |
| Test result | Criterion A |
| Test standard | IEC 61000-4-5 (surge) |
| Test result | Criterion A |
| Test standard | IEC 61000-4-6 (immunity to conducted interference) |
| Test result | Criterion A |
| Noise emission | EN 61000-6-3 +A11 |
| Noise immunity | EN 61000-6-2:2005 |
| Vibration (storage/transport) | 5g, 150 Hz, in acc. with IEC 60068-2-6 |
| Free from substances that could impair the application of coating | Yes |
| Vibration (operation) | In acc. with IEC 60068-2-6: 5g, 150 Hz |

## Classifications

### eCl@ss

| eCl@ss 4.0 | 24010504 |
|---|---|
| eCl@ss 4.1 | 24010504 |

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## Classifications

### eCl@ss

| eCl@ss 5.0 | 19030117 |
|---|---|
| eCl@ss 5.1 | 19030117 |
| eCl@ss 6.0 | 19170106 |
| eCl@ss 7.0 | 19170106 |
| eCl@ss 8.0 | 19170106 |
| eCl@ss 9.0 | 19170106 |

### ETIM

| ETIM 4.0 | EC000734 |
|---|---|
| ETIM 5.0 | EC000734 |

### UNSPSC

| UNSPSC 6.01 | 43172015 |
|---|---|
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11 | 43172015 |
| UNSPSC 12.01 | 43201410 |
| UNSPSC 13.2 | 43201410 |

## Approvals

### Approvals

#### Approvals

UL Listed / cUL Listed / EAC / EAC / cULus Listed

#### Ex Approvals

#### Approval details

UL Listed (UL) http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 140324

cUL Listed ᶜ(UL) http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 140324

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## Approvals

| EAC | EAC-Zulassung |
| --- | --- |

| EAC | RU *-DE.A*30.B.01735 |
| --- | --- |

cULus Listed

## Accessories

Accessories

Configuration memory

Configuration memory - FL MEM PLUG - 2891259

Exchangeable configuration memory of the device settings for simple device exchange and set-up

Configuration memory - FL MEM PLUG/MRM - 2891275

Exchangeable configuration memory of the device settings for simple device exchange and set-up In addition, the Media Redundancy Manager (MRM) license for use is stored within the Media Redundancy protocol (MRP).

Drivers and interfaces

Software - FL SNMP OPC SERVER V3 - 2701139

SNMP-OPC server, German and English, for monitoring and configuration of SNMP-capable equipment in HMI and SCADA systems

Network management software

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## Accessories

Software - FL VIEW 32 LITE - 2701744

FL VIEW, SNMP-based software in English, for the detection and display of Ethernet networks. 32 nodes (network devices) can be monitored in one Class C subnetwork with this version.

Patch cable

Patch cable - FL CAT6 PATCH 0,3 - 2891181

Patch cable, CAT6, pre-assembled, 0.3 m

Patch cable - FL CAT6 PATCH 0,5 - 2891288

Patch cable, CAT6, pre-assembled, 0.5 m

Patch cable - FL CAT6 PATCH 1,0 - 2891385

Patch cable, CAT6, pre-assembled, 1.0 m

Patch cable - FL CAT6 PATCH 1,5 - 2891482

Patch cable, CAT6, pre-assembled, 1.5 m

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## Accessories

Patch cable - FL CAT6 PATCH 2,0 - 2891589

Patch cable, CAT6, pre-assembled, 2.0 m

Patch cable - FL CAT6 PATCH 3,0 - 2891686

Patch cable, CAT6, pre-assembled, 3.0 m

Patch cable - FL CAT6 PATCH 5,0 - 2891783

Patch cable, CAT6, pre-assembled, 5.0 m

Patch cable - FL CAT6 PATCH 7,5 - 2891880

Patch cable, CAT6, pre-assembled, 7.5 m

Patch cable - FL CAT6 PATCH 10 - 2891877

Patch cable, CAT6, pre-assembled, 10 m

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## Accessories

Patch cable - FL CAT6 PATCH 12,5 - 2891369

Patch cable, CAT6, pre-assembled, 12.5 m

Patch cable - FL CAT6 PATCH 15,0 - 2891372

Patch cable, CAT6, pre-assembled, 15.0 m

Patch cable - FL CAT6 PATCH 20,0 - 2891576

Patch cable, CAT6, pre-assembled, 20.0 m

## Programming cable

Connecting cable - COM CAB MINI DIN - 2400127

Connecting cable, for connecting the controller to a PC (RS-232) for PC WORX with flow control, 3 m in length

Software - IPASSIGN - 2701094

IPAssign is an easy to use tool for setting the IP address of devices which rely on BOOTP. No installation or administrative rights are required to use IPAssign.

This product is free and only available from the "Downloads" tab.