

## Industrial Ethernet Switch - FL SWITCH SMN 6TX/2POF-PN - 2700290

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Smart Managed Narrow switch with six 10/100 Mbps RJ45 ports und two 100 Mbps POF SC-RJ ports, PROFINET mode (default)

### Product Description

The Smart Managed Narrow switch (SMN) is an industrial Ethernet switch with six Fast Ethernet ports in RJ45 format and two fiber optic ports in POF format. (FL SWITCH SMN 6TX/2POF-PN) By default upon delivery the switch operates in "PROFINET" mode.

### Why buy this product

- Web-based management, SNMP
- Slim design
- VLANs
- PROFINET device
- MRP (client and master)
- SNMP
- RSTP



Ethernet **PROFI** NET EtherNet/IP

### Key Commercial Data

Packing unit	1 STK
Weight per Piece (excluding packing)	840.000 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
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#### Dimensions

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## Technical data

### 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
No. of ports	6 (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 2	POF/PCF
No. of ports	2 (SCRJ)
Connection method	POF SC-RJ
Transmission physics	POF-SCRJ
Transmission speed	10/100 MBit/s (full duplex)
Transmission length	up to 250 m (depending on the fiber used)
Wavelength	650 nm
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

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## Technical data

### Function

	Serial interface (V.24)
Diagnostic functions	RMON History
	N:1-Portmirroring
	LLDP (Link Layer Discovery Protocol)
	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
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### 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 <sub>PP</sub> (within the permitted voltage range)

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## Technical data

### Supply voltage

Supply voltage range	18 V DC ... 32 V DC
Typical current consumption	340 mA (at $U_s = 24$ V DC)
Current consumption	320 mA

### 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 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
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, 10 Hz ... 150 Hz, in accordance with IEC 60068-2-6
Free from substances that could impair the application of coating	Yes
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz

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## Classifications

### eCl@ss

eCl@ss 4.0	27250501
eCl@ss 4.1	27250501
eCl@ss 5.0	27250501
eCl@ss 5.1	27250501
eCl@ss 6.0	19170106
eCl@ss 7.0	19170106
eCl@ss 8.0	19170106
eCl@ss 9.0	19170106

### ETIM

ETIM 2.0	EC000734
ETIM 3.0	EC000734
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

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#### Approvals


UL Listed / cUL Listed / cULus Listed

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#### Ex Approvals


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### Approval details

UL Listed  <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> FILE E 140324
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## Approvals

cUL Listed  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 140324

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).

#### Data cable preassembled

FO patch cable - FL MM PATCH 1,0 SCRJ-SCRJ - 2901823



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: SC-RJ/SC-RJ, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 m

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### Accessories

FO patch cable - FL MM PATCH 2,0 SCRJ-SCRJ - 2901824



Assembled FO cable, break out cable, multimode fiberglass 50/125  $\mu\text{m}$  (OM2), connector: SC-RJ/SC-RJ, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 SCRJ-SCRJ - 2901825



Assembled FO cable, break out cable, multimode fiberglass 50/125  $\mu\text{m}$  (OM2), connector: SC-RJ/SC-RJ, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m

### 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

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

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### Accessories

Patch cable - FL CAT6 PATCH 0,3 - 2891181



Patch cable, CAT6, pre-assembled, 0.3 m

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Patch cable - FL CAT6 PATCH 0,5 - 2891288



Patch cable, CAT6, pre-assembled, 0.5 m

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Patch cable - FL CAT6 PATCH 1,0 - 2891385



Patch cable, CAT6, pre-assembled, 1.0 m

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Patch cable - FL CAT6 PATCH 1,5 - 2891482



Patch cable, CAT6, pre-assembled, 1.5 m

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Patch cable - FL CAT6 PATCH 2,0 - 2891589



Patch cable, CAT6, pre-assembled, 2.0 m

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## Industrial Ethernet Switch - FL SWITCH SMN 6TX/2POF-PN - 2700290

### Accessories

Patch cable - FL CAT6 PATCH 3,0 - 2891686



Patch cable, CAT6, pre-assembled, 3.0 m

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Patch cable - FL CAT6 PATCH 5,0 - 2891783



Patch cable, CAT6, pre-assembled, 5.0 m

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Patch cable - FL CAT6 PATCH 7,5 - 2891880



Patch cable, CAT6, pre-assembled, 7.5 m

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Patch cable - FL CAT6 PATCH 10 - 2891877



Patch cable, CAT6, pre-assembled, 10 m

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Patch cable - FL CAT6 PATCH 12,5 - 2891369



Patch cable, CAT6, pre-assembled, 12.5 m

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## Industrial Ethernet Switch - FL SWITCH SMN 6TX/2POF-PN - 2700290

### Accessories

Patch cable - FL CAT6 PATCH 15,0 - 2891372



Patch cable, CAT6, pre-assembled, 15.0 m

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Patch cable - FL CAT6 PATCH 20,0 - 2891576



Patch cable, CAT6, pre-assembled, 20.0 m

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### 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

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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.

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