

FL SWITCH SMCS 6TX/2SFP

Order No.: 2989323




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Smart Managed Compact Switch with six RJ45 Fast Ethernet ports and two glass fiber interfaces

Ethernet



Commercial data	
GTIN (EAN)	 4 046356 454919
sales group	K000
Pack	1 pcs.
Customs tariff	85176200
Catalog page information	Page 99 (AX-2011)

Product notes

WEEE/RoHS-compliant since:
11/05/2008



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Product description

Installation notes

The device is designed for installation in zone 2.

Installation, operation, and servicing may only be carried out by qualified personnel.

Follow the installation instructions described in the operating instructions.

When installing and operating the device, the applicable safety directives (including national safety directives), accident prevention regulations, as well as general technical regulations, must be observed. The safety-relevant data can be found in the package slip.

Access to the circuits within the device is not permitted. Do not repair the device yourself, but replace it with an equivalent device. Repairs may be carried out only by the manufacturer.

The IP20 protection (IEC 60529/EN60529) of the device is intended for use in a clean and dry environment. The device must not be subject to mechanical strain and/or thermal loads, which exceed the limits described. The device is not designed for use in environments with danger of dust explosions.

The DIN rail must be connected to protective earth ground.

Installation in zone 2

Observe the specified conditions for use in potentially explosive areas! At the time of installation, use an approved housing (minimum protection IP54), which meets the requirements of EN 60079-15. Observe the requirements of the EN 60079-14.

The snapping of the switches and the connection and disconnecting lines are permissible only if they are not live.

The unintentional disconnection from the RJ45 plug is prevented by appropriate measures, for example with a FL PATCH GUARD or the FL PATCH SAFE CLIP.

In zone 2, only connect devices to the supply and signal circuits that are suitable for operation in potentially explosive areas of zone 2 and the conditions at the installation location.

The device should be switched off and immediately removed from the Ex area if it is damaged, or has been overloaded, inappropriately stored or has malfunctions.

Technical data

Interfaces

Interface 1	Ethernet
No. of ports	6
Connection method	RJ45
Transmission physics	Copper
Transmission speed	10/100 MBit/s
Transmission length	100 m (per segment)
Interface 2	Serial (V.24 (RS-232))
Connection method	V.24 (RS-232-C), 6-pos. MINI-DIN female connector (PS/2)
Interface 3	Fiber optic interface
No. of ports	2
Connection method	SFP ports
Transmission physics	Depending on the SFP module
Transmission speed	1000 MBit/s (full duplex)
Transmission length	Up to 80 km (Depending on the fiber/SFP module used)

Function	
Basic functions	Store-and-forward switch complies with IEEE 802.3 2 priority classes as per 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 IO Device, media redundancy protocol (MRP).
Management	Web based management, SNMP or over V.24 (RS-232)
Supported browsers	Internet Explorer 5.5 or higher
Redundancy	Spanning Tree 802.1d, Rapid Spanning Tree 802.1w, Fast Ring Detection, Media Redundancy Protocol (MRP) as per IEC 62439
Status and diagnostic indicators	Per Ethernet 2 status LEDs: LINK and status activity with switch-over, 100, full duplex, supply voltage U_{s1} and U_{s2} (redundant supply voltage) and FAIL
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
Residual ripple	3.6 V _{PP} (within the permitted voltage range)
Supply voltage range	18 V DC ... 32 V DC
Typical current consumption	650 mA (at $U_s = 24$ V DC)
General data	
Width	128 mm
Height	100 mm
Depth	69 mm
Mounting type	DIN rail
Type AX	Block-oriented
Weight	650 g
Degree of protection	IP20
Ambient temperature (operation)	0 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (no condensation)
Permissible humidity (storage/transport)	5 % ... 95 % (no condensation)
Air pressure (operation)	86 kPa ... 108 kPa (1500 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)
Noise emission	EN 61000-6-3:2001+A11
Noise immunity	EN 61000-6-2:2005

Certificates / Approvals



Certification

CUL Listed, UL Listed

Accessories

Item	Designation	Description
Cable/conductor		
2891181	FL CAT6 PATCH 0,3	Patch cable, CAT6, pre-assembled, 0.3 m
2891288	FL CAT6 PATCH 0,5	Patch cable, CAT6, pre-assembled, 0.5 m
2891385	FL CAT6 PATCH 1,0	Patch cable, CAT6, pre-assembled, 1.0 m
2891482	FL CAT6 PATCH 1,5	Patch cable, CAT6, pre-assembled, 1.5 m
2891877	FL CAT6 PATCH 10	Patch cable, CAT6, pre-assembled, 10 m
2891369	FL CAT6 PATCH 12,5	Patch cable, CAT6, pre-assembled, 12.5 m
2891372	FL CAT6 PATCH 15,0	Patch cable, CAT6, pre-assembled, 15.0 m
2891589	FL CAT6 PATCH 2,0	Patch cable, CAT6, pre-assembled, 2.0 m
2891576	FL CAT6 PATCH 20,0	Patch cable, CAT6, pre-assembled, 20.0 m
2891686	FL CAT6 PATCH 3,0	Patch cable, CAT6, pre-assembled, 3.0 m
2891783	FL CAT6 PATCH 5,0	Patch cable, CAT6, pre-assembled, 5.0 m
2891880	FL CAT6 PATCH 7,5	Patch cable, CAT6, pre-assembled, 7.5 m
2989158	FL MM PATCH 1,0 LC-LC	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/LC, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2989161	FL MM PATCH 1,0 LC-SC	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2989174	FL MM PATCH 1,0 LC-ST	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/B-FOC (ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2989255	FL MM PATCH 2,0 LC-LC	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/LC, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 meters

2989268	FL MM PATCH 2,0 LC-SC	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 meter
2901803	FL MM PATCH 2,0 LC-SCRJ	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, plug: LC / SCRJ, protection type: IP20, for installation in cable ducts or control cabinets, length: 2 meters
2989271	FL MM PATCH 2,0 LC-ST	Assembled fiber optic cable, break-out cable, glass fiber multi-mode 50/125 µm, connector: LC/B-FOC (ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 meters
2901799	FL MM PATCH 5,0 LC-LC	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, plug: LC / LC, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901800	FL MM PATCH 5,0 LC-SC	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, plug: LC / SC-Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901804	FL MM PATCH 5,0 LC-SCRJ	Assembled FO cable, break out cable, fiberglass single-mode 50/125 µm, plug: LC / SCRJ protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901801	FL MM PATCH 5,0 LC-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, plug: LC / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901801	FL MM PATCH 5,0 LC-ST	Assembled FO cable, break out cable, multi-mode glass fiber 50/125 µm, plug: LC / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2989187	FL SM PATCH 1,0 LC-LC	Assembled fiber optic cable, break-out cable, glass fiber single mode 9/125 µm, connector: LC/LC, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2989190	FL SM PATCH 1,0 LC-SC	Assembled fiber optic cable, break-out cable, glass fiber single mode 9/125 µm, connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2989242	FL SM PATCH 1,0 LC-ST	Assembled fiber optic cable, break-out cable, glass fiber single mode 9/125 µm, connector: LC/B-FOC (ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 1 meter
2989284	FL SM PATCH 2,0 LC-LC	Assembled fiber optic cable, break-out cable, glass fiber single mode 9/125 µm, connector: LC/LC, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 meters
2989297	FL SM PATCH 2,0 LC-SC	Assembled fiber optic cable, break-out cable, glass fiber single mode 9/125 µm, connector: LC/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 meters
2989349	FL SM PATCH 2,0 LC-ST	Assembled fiber optic cable, break-out cable, glass fiber single mode 9/125 µm, connector: LC/B-FOC (ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 meters

2901826	FL SM PATCH 5,0 LC-LC	Assembled FO cable, break out cable, single-mode glass fiber 9/125 µm, connector: LC / LC, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901827	FL SM PATCH 5,0 LC-SC	Assembled FO cable, break out cable, single-mode glass fiber 9/125 µm, connector: LC / SC Duplex, protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
2901828	FL SM PATCH 5,0 LC-ST	Assembled FO cable, break out cable, single-mode glass fiber 9/125 µm, connector: LC / B-FOC (ST), protection type: IP20, for installation in cable ducts or control cabinets, length: 5 meters
1402193	FOC-GDM-RUGGED-1016/...	rugged GOF installation cable for inner areas with highly tear-proof aramid strain-relief elements. Individual elements consist of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.
2901558	FOC-GDM-RUGGED-1016/IP20/...	rugged GOF installation cable (IP20 heads only) for inner areas with highly tear-proof aramid strain-relief elements. Individual elements consist of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.
1402194	FOC-GDO-1017/...	Highly rugged GOF round cable for assembly and for outdoor installation with integrated moisture barrier as well as rodent-proof scrim. Individual elements made from highly flexible FRNC material. The wire is ozone and UV resistant with a very rugged polyethylene outer sheath.
2901559	FOC-GDO-1017/IP20/...	Highly rugged GOF round cable (IP20 heads only) for assembly and for outdoor installation with integrated moisture barrier as well as rodent-proof scrim. Individual elements made from highly flexible FRNC material. The wire is ozone and UV resistant with a very rugged polyethylene outer sheath.
1402189	FOC-PN-HCS-GI-1005/...	HCS-GI installation cable for assembly for fixed installation in the inner area, with gradient index fibers for the highest performance requirements, as well as individual elements made of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.
2901554	FOC-PN-HCS-GI-1005/IP20/...	HCS-GI installation cable (IP20 heads only) for assembly for fixed installation in the inner area, with gradient index fibers for the highest performance requirements, as well as individual elements made of highly flexible FRNC material. The cable is halogen-free, ozone and UV resistant and has a rugged polyurethane (PUR) outer sheath.
2730611	PRG CAB MINI DIN	Connection cable, to connect Remote Field Controllers to a PC (RS-232) for PC WORX, 3 m in length
2799322	PSM-LWL-GDM-RUGGED-50/125	Glass fiber cable, duplex 50/125 µm, by the meter, without connector, for indoor installation
2799432	PSM-LWL-GDO- 50/125	Glass fiber cable, duplex 50/125 µm, by the meter, without connector, for outdoor installation
2744911	PSM-LWL/GDM-RUGGED	Glass fiber cable, duplex 50/125 µm, by the meter, with connector, for indoor installation

2744924	PSM-LWL/GDO	Glass fiber cable, duplex 50/125 µm, by the meter, with connector, for outdoor installation
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General

2891068	FL PF 2TX CAT 6	Patch field with two RJ45 CAT6 network connections
2891071	FL PF 8TX CAT 6	Patch field with eight RJ45 CAT6 network connections
2989912	FL SFP LH	Smallform-Factor-Pluggable module is a pluggable input/output module for FO and is used in Gigabit Ethernet. Longhaul communication network
2891767	FL SFP LX	Small form factor pluggable module is a plug-in input/output module for FO and is used in Gigabit Ethernet. Glass fiber module with wavelengths of 1300 nm (long).
2891754	FL SFP SX	Small form factor pluggable module is a pluggable input/output module for FO and is used in Gigabit Ethernet. Glass fiber module with a wavelength of 850 nm (short).

Memory

2891259	FL MEM PLUG	Exchangeable configuration memory of the device settings for simple device exchange and set-up
2891275	FL MEM PLUG/MRM	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).

Address

PHOENIX CONTACT Inc., USA
586 Fulling Mill Road
Middletown, PA 17057, USA
Phone (800) 888-7388
Fax (717) 944-1625
<http://www.phoenixcon.com>



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