

Industrial Ethernet Switch - FL SWITCH SMCS 14TX/2FX - 2700997

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Ethernet Smart Managed Compact Switch with 14 10/100 Mbps RJ45 ports and two 100 Mbps FX-SC multi-mode ports



Product Description


The Smart Managed Compact Switch (SMCS) is an Ethernet switch suitable for industrial applications with 14 Fast Ethernet ports in RJ45 format and two fiber optic ports in SC multi-mode format.

Your advantages

- Web-based management, SNMP
- Extended temperature range
- VLANs
- MRP (client and master)
- SNMP
- RSTP



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 692014 |
| GTIN | 4046356692014 |
| Weight per Piece (excluding packing) | 1,340.000 g |
| Custom tariff number | 85176200 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|-------|--------|
| Width | 214 mm |
|-------|--------|

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Technical data

Dimensions

| | |
|--------|--------|
| Height | 110 mm |
| Depth | 69 mm |

Ambient conditions

| | |
|--|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 70 °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 | Ethernet (RJ45) |
| No. of ports | 14 (RJ45 ports) |
| Note on the connection method | Auto negotiation and autocrossing |
| Transmission physics | Copper |
| Transmission speed | 10/100 Mbps |
| Transmission length | 100 m (per segment) |
| Signal LEDs | Supply voltage, data transmission, error, link, activity |
| Interface | Ethernet FO |
| No. of ports | 2 (SC multi-mode) |
| Transmission physics | multi-mode fiberglass |
| Transmission speed | 100 Mbps (full duplex) |
| Transmission length | 10000 m (depending on the fiber used) |
| | 6400 m (fiberglass with F-G 50/125 0.7 dB/km F1200) |
| | 3000 m (fiberglass with F-G 62.5/125 2.6 dB/km F600) |
| | 2800 m (fiberglass with F-G 50/125 1.6 dB/km F800) |
| Wavelength | 1310 nm |
| Interface | 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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Function

| | | |
|----------------------------------|---|-------------------------------------|
| | Serial interface (V.24) | |
| Diagnostic functions | RMON History | |
| | N:1-Portmirroring | |
| | LLDP (Link Layer Discovery Protocol) | |
| | SNMP-Traps | |
| | ACD (Address Conflict Detection) | |
| 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 | |
| | Redundancy | MRP (Media Redundancy Protocol) |
| | | RSTP (Rapid Spanning Tree Protocol) |
| FRD (Fast Ring Detection) | | |
| Large Tree Support | | |
| Additional functions | BootP | |
| | DHCP-Client | |
| Supported browsers | Internet Explorer 5.5 or higher | |
| MAC address table | 16000 | |
| PROFINET device function | PROFINET device | |
| | Fast Startup | |
| PROFINET conformance class | Conformance-Class B | |
| Time synchronization | SNTP | |
| 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 | 260 mA (maximum) | |

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

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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 | 290 mA (at U _S = 24 V DC) |
| Current consumption | 260 mA |

General

| | |
|---------------|---|
| Mounting type | DIN rail |
| Type AX | Block design |
| Net weight | 1004 g |
| MTTF | 286.27 Years (SN 29500 standard, temperature 25 °C, operating cycle 21 % (5 days a week, 8 hours a day)) |
| | 149.5 Years (SN 29500 standard, temperature 40 °C, operating cycle 34.25 % (5 days a week, 12 hours a day)) |
| | 21.69 Years (SN 29500 standard, temperature 70 °C, operating cycle 100 % (7 days a week, 24 hours a day)) |

Connection data

| | |
|---------------------------------------|---------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| 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 2014/30/EU |
| Noise emission | EN 61000-6-3 |
| 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 |

Environmental Product Compliance

| | |
|------------|---|
| | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

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Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 19170401 |
| eCl@ss 4.0 | 27250500 |
| eCl@ss 4.1 | 27250500 |
| eCl@ss 5.0 | 19030100 |
| eCl@ss 5.1 | 19030100 |
| eCl@ss 6.0 | 19170100 |
| eCl@ss 7.0 | 19170106 |
| eCl@ss 8.0 | 19170106 |
| eCl@ss 9.0 | 19170106 |

ETIM

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|----------|----------|
| ETIM 3.0 | EC000734 |
| ETIM 4.0 | EC000734 |
| ETIM 5.0 | EC000734 |
| ETIM 6.0 | EC000734 |
| ETIM 7.0 | EC000734 |

UNSPSC

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|---------------|----------|
| UNSPSC 6.01 | 43172015 |
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11 | 43172015 |
| UNSPSC 12.01 | 43201410 |
| UNSPSC 13.2 | 43222612 |
| UNSPSC 18.0 | 43222612 |
| UNSPSC 19.0 | 43222612 |
| UNSPSC 20.0 | 43222612 |
| UNSPSC 21.0 | 43222612 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

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Approvals

Approval details

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

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

| | | | |
|-----|--|--|---------------------|
| EAC | | | RU*-DE.*.B.00741/19 |
|-----|--|--|---------------------|

| | | | |
|--------------|--|--|--|
| 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

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Accessories

FO patch cable - FL MM PATCH 1,0 SC-SC - 2901805



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

FO patch cable - FL MM PATCH 2,0 SC-SC - 2901807



Assembled FO cable, break out cable, multimode fiberglass 50/125 μm (OM2), connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

FO patch cable - FL MM PATCH 5,0 SC-SC - 2901808



Assembled FO cable, break out cable, multimode fiberglass 50/125 μm (OM2), connector: SC duplex/SC duplex, degree of protection: IP20, for installation in cable ducts or control cabinets, length: 5 m

FO patch cable - FL MM PATCH 1,0 SC-ST - 2901809



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

FO patch cable - FL MM PATCH 2,0 SC-ST - 2901810



Assembled FO cable, break out cable, multimode fiberglass 50/125 μm (OM2), connector: SC duplex/B-FOC(ST), degree of protection: IP20, for installation in cable ducts or control cabinets, length: 2 m

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Accessories

FO patch cable - FL MM PATCH 5,0 SC-ST - 2901811



Assembled FO cable, break out cable, multimode fiberglass 50/125 µm (OM2), connector: SC duplex/B-FOC(ST®), 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

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

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Accessories

Patch cable - FL CAT6 PATCH 1,5 - 2891482



Patch cable, CAT6, pre-assembled, 1.5 m

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

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Accessories

Patch cable - FL CAT6 PATCH 10 - 2891877



Patch cable, CAT6, pre-assembled, 10 m

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

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Accessories

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.