

FL SWITCH SMCS 16TX - Industrial Ethernet Switch



2700996

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Ethernet Smart Managed Compact Switch with 16 10/100 Mbps RJ45 ports



Product description

The Smart Managed Compact Switch (SMCS) is an Ethernet switch suitable for industrial applications with 16 Fast Ethernet ports in RJ45 format.

Your advantages

- MRP (client and manager)
- SNMP
- RSTP
- VLANs
- Web-based management, SNMP
- Extended temperature rating

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2700996 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | DN17 |
| Product key | DNN122 |
| Catalog page | Page 323 (C-6-2019) |
| GTIN | 4046356692007 |
| Weight per piece (including packing) | 1,133 g |
| Weight per piece (excluding packing) | 1,030 g |
| Customs tariff number | 85176200 |
| Country of origin | DE |

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Technical data

Dimensions

| | |
|--------|--------|
| Width | 214 mm |
| Height | 110 mm |
| Depth | 69 mm |

Material specifications

| | |
|---------------------|----------------------------------------|
| Color | gray aluminum |
| Material base plate | Die-cast aluminum, corrosion-resistant |
| Housing material | Stainless steel 1.4301 |

Mounting

| | |
|---------------|-------------------|
| Mounting type | DIN rail mounting |
|---------------|-------------------|

Interfaces

Ethernet (RJ45)

| | |
|-------------------------------|----------------------------------------------------------|
| Connection method | RJ45 |
| Note on the connection method | Auto negotiation and autocrossing |
| Transmission speed | 10/100 Mbps |
| Transmission physics | Copper |
| Transmission length | 100 m (per segment) |
| Signal LEDs | Supply voltage, data transmission, error, link, activity |
| No. of channels | 16 (RJ45 ports) |

Serial (RS-232)

| | |
|-------------------|-----------------------------------------|
| Connection method | RS-232-C, 6-pos. MINI-DIN socket (PS/2) |
|-------------------|-----------------------------------------|

Product properties

| | |
|----------------|----------------------------------------------------------------------------|
| Type | Block design |
| Product type | Switch |
| Product family | Managed Switch SMCS |
| MTTF | 406.72 Years (SN 29500 standard, temperature 25°C, operating cycle 21%) |
| | 200.07 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%) |
| | 30.21 Years |

Insulation characteristics

| | |
|------------------|----------------|
| Protection class | III (VDE 0106) |
|------------------|----------------|

Switch functions

| | |
|----------------------|--------------------------------------|
| Diagnostic functions | RMON History |
| | N:1-Portmirroring |
| | LLDP (Link Layer Discovery Protocol) |

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| | |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | SNMP-Traps |
| | ACD (Address Conflict Detection) |
| 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). |
| Signal contact control voltage | 24 V (typical) |
| Signal contact control current | 190 mA (maximum) |
| PROFINET conformance class | Conformance-Class B |
| PROFINET device function | PROFINET device |
| | Fast Startup |
| 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 |
| MAC address table | 16000 |
| Management | Web-based management (HTTP) |
| | SNMP v1/v2 |
| | Serial interface (V.24) |
| Redundancy | MRP (Media Redundancy Protocol) |
| | RSTP (Rapid Spanning Tree Protocol) |
| | FRD (Fast Ring Detection) |
| | Large Tree Support |
| Status and diagnostic indicators | LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex) |
| Supported browsers | Internet Explorer 5.5 or higher |
| Additional functions | BootP |
| | DHCP-Client |
| Time synchronization | SNTP |

Security functions

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

Electrical properties

| | |
|-------------------------------------------------|-------------------------|
| Maximum power dissipation for nominal condition | 4.56 W |
| Test voltage | 500 V DC |
| Test section | for one minute 500 V DC |

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| | |
|---------------------|--------|
| Transmission medium | Copper |
|---------------------|--------|

Supply

| | |
|-----------------------------|----------------------------------------------------------------|
| Supply voltage (DC) | 24 V DC (redundant) |
| Supply voltage range | 18 V DC ... 32 V DC |
| Power supply connection | Via COMBICON, max. conductor cross section 2.5 mm ² |
| Residual ripple | 3.6 V _{PP} (within the permitted voltage range) |
| Typical current consumption | 200 mA (at U _S = 24 V DC) |
| Current consumption | 190 mA |

Function

| | |
|--------------------------------|------------------|
| Signal contact control voltage | 24 V (typical) |
| Signal contact control current | 190 mA (maximum) |

Connection data

| | |
|-----------------------------------|---------------------------------------------|
| Connection method | Screw connection |
| Conductor cross section, rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section, flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 24 ... 12 |
| Stripping length | 7 mm |

Environmental and real-life conditions

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) |
| Vibration (operation) | in acc. with IEC 60068-2-6: 5g, 150 Hz |
| Air pressure (operation) | 86 kPa ... 108 kPa (2000 m above mean sea level) |
| Air pressure (storage/transport) | 66 kPa ... 108 kPa (3500 m above sea level) |

Standards and regulations

| | |
|-------------------------------------------------------------------|-----|
| Free from substances that could impair the application of coating | Yes |
|-------------------------------------------------------------------|-----|

EMC data

| | |
|---------------------------------|----------------------------------------------------------------|
| Conformance with EMC directives | IEC 61000-6-2 IEC 61000-4-2 (ESD) Criterion B |
| | IEC 61000-4-3 (electromagnetic fields) Criterion A |
| | IEC 61000-4-4 (burst) Criterion B |
| | IEC 61000-4-5 (surge) Criterion B |
| | IEC 61000-4-6 (immunity to conducted interference) Criterion A |
| Noise immunity | EN 61000-6-2:2005 |
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Noise emission | EN 61000-6-3 |

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System properties

Functionality

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).

System requirements

Supported browsers

Internet Explorer 5.5 or higher

Signaling

Status display

LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex)

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com