

FL SWITCH 7008-EIP - Industrial Ethernet Switch



2701418

<https://www.phoenixcontact.com/us/products/2701418>

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Managed Switch 7000, 8 RJ45 ports 10/100 Mbps, PROFINET Conformance-Class A, EtherNet/IP™

Your advantages

- RSTP with fast switch-over
- VLANs
- DHCP client, DHCP server (pool-based and port-based), DHCP option 82
- Common Industrial Protocol (CIP)
- Device Level Ring (DLR)
- Ambient temperature -40 °C ... 70 °C
- Web-based management, SNMP
- Slim design

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2701418 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | DN17 |
| Product key | DNN122 |
| Catalog page | Page 326 (C-6-2019) |
| GTIN | 4046356749732 |
| Weight per piece (including packing) | 1,050.5 g |
| Weight per piece (excluding packing) | 900 g |
| Customs tariff number | 85176200 |
| Country of origin | DE |

Technical data

Dimensions

| | |
|--------|----------|
| Width | 60 mm |
| Height | 130 mm |
| Depth | 135.5 mm |

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 | Data receive, link status |
| No. of channels | 8 (RJ45 ports) |

Product properties

| | |
|--------------------|--|
| Type | Book type |
| Product type | Switch |
| Product family | Managed Switch 7000 |
| MTTF | 209.8 Years (SN 29500 standard, temperature 25°C, operating cycle 21%) |
| | 105.79 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%) |
| | 14.78 Years (SN 29500 standard, temperature 70°C, operating cycle 100%) |
| Special properties | EtherNet/IP™ |

Insulation characteristics

| | |
|------------------|---------------------------|
| Protection class | III (VDE 0106, IEC 60536) |
|------------------|---------------------------|

Switch functions

| | |
|----------------------------------|--|
| Diagnostic functions | Remanente Event-Table |
| | RMON History |
| | N:1-Portmirroring |
| | LLDP (Link Layer Discovery Protocol) |
| | SNMP-Traps |
| | ACD (Address Conflict Detection) |
| EtherNet/IP™ supported protocols | Common Industrial Protocol (CIP) |
| Basic functions | Store-and-forward switch, complies with IEEE 802.3 |
| Signal contact control voltage | 24 V DC (typical) |

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| | |
|----------------------------------|--|
| Signal contact control current | 1 A (maximum) |
| PROFINET conformance class | Conformance-Class A |
| PROFINET device function | Fast Startup |
| Filter functions | Quality of Service (8 priority classes) |
| | Port-Priorisierung |
| | VLAN (up to 32 VLANs) |
| | IGMP Snooping/Querier (v1/v2) |
| | Auto-Query-Port |
| | Extended Multicast Filtering |
| | Static Multicast Filtering (32 groups) |
| IP parameterization | Link Aggregation (up to 4 trunks) |
| | DHCP-Client |
| | DHCP Option 82 (Relay Agent) |
| | DHCP server (pool-based, port-based) |
| MAC address table | BootP |
| | 16k |
| Management | Web-based management (HTTP/HTTPS) |
| | SNMPv1/v2/v3 |
| Redundancy | DLR (Device Level Ring) |
| | 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) EtherNet/IP™ status LED: Net, Mod |
| Additional functions | MAC-based Port-Security |
| Time synchronization | PTP 1588 (Transparent clock on the DLR ports) |

Security functions

| | |
|-----------------|--|
| Basic functions | Store-and-forward switch, complies with IEEE 802.3 |
|-----------------|--|

Electrical properties

| | |
|---|---|
| Power consumption | 8.4 W |
| Local diagnostics | US1/2 Supply voltage US1, US2 Green LED |
| | FAIL Div. LED red |
| | LINK Link status Green LED |
| Maximum power dissipation for nominal condition | 8.4 W (at $U_S = 24$ V DC) |
| Test voltage | 500 V DC |
| Test section | for one minute 500 V DC |
| Transmission medium | Copper |

Supply

| | |
|-------------------------|--|
| Supply voltage (DC) | 24 V DC (redundant) |
| Supply voltage range | 12 V DC ... 58 V DC |
| Power supply connection | Via COMBICON, max. conductor cross section 2.5 mm² |

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| | |
|-----------------------------|--|
| Residual ripple | 3.6 V _{PP} (within the permitted voltage range) |
| Typical current consumption | 333 mA (at U _S = 24 V DC) |

Function

| | |
|--------------------------------|-------------------|
| Signal contact control voltage | 24 V DC (typical) |
| Signal contact control current | 1 A (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 |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Permissible humidity (operation) | 10 % ... 95 % (non-condensing) |
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing) |
| Vibration (operation) | in acc. with IEC 60068-2-6: 5g, 150 Hz |
| 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) |

Standards and regulations

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

Approvals

Conformity/Approvals

| | |
|------------------|----------------------------------|
| Noxious gas test | ISA S71.04.2013 G3 Harsh Group A |
|------------------|----------------------------------|

EMC data

| | |
|---------------------------------|--|
| Conformance with EMC directives | IEC 61000-6-2 IEC 61000-4-2 (ESD) Criterion B |
| | IEC 61000-6-2 EN 61000-4-3 (electromagnetic fields) Criterion A |
| | IEC 61000-6-2 IEC 61000-4-4 (burst) Criterion A |
| | IEC 61000-6-2 IEC 61000-4-5 (surge) Criterion A |
| | IEC 61000-6-2 IEC 61000-4-6 (immunity to conducted interference) Criterion A |
| Noise immunity | EN 61000-6-2:2005 |
| Electromagnetic compatibility | Conformance with EMC Directive 2004/108/EC |
| Noise emission | EN 61000-6-4 |

System properties

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Functionality

| | |
|-----------------|--|
| Basic functions | Store-and-forward switch, complies with IEEE 802.3 |
|-----------------|--|

Signaling

| | |
|----------------|--|
| Status display | LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex) EtherNet/IP™ status LED: Net, Mod |
|----------------|--|

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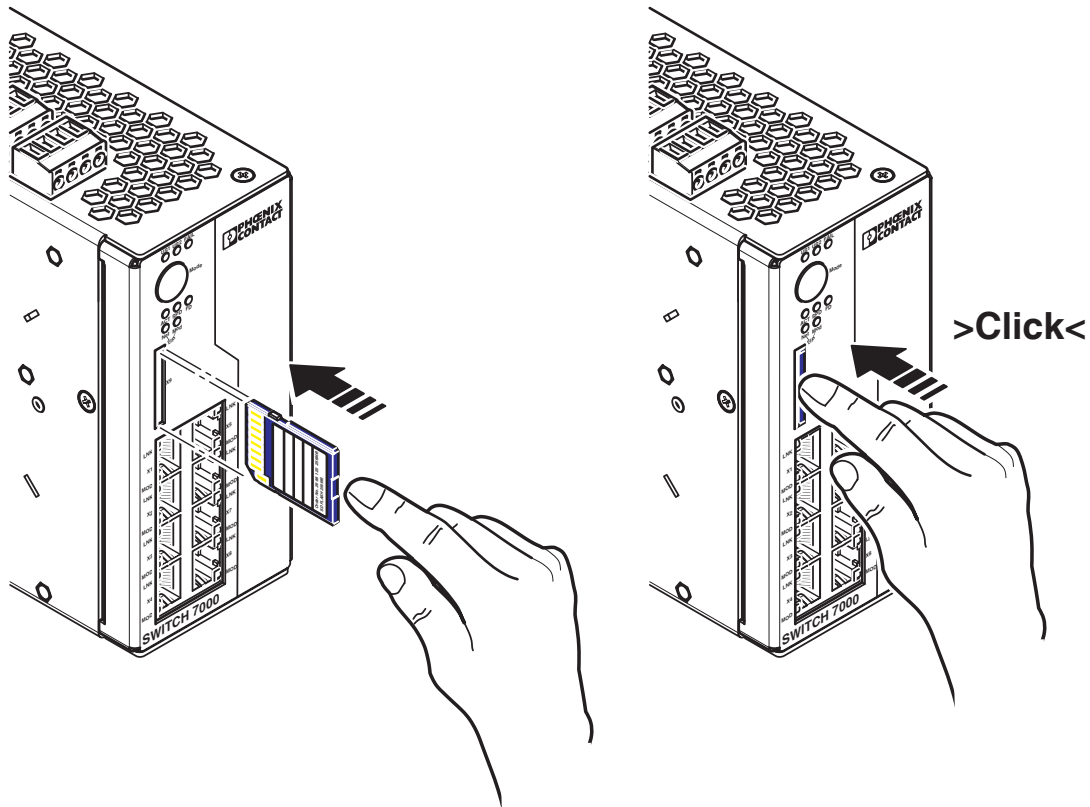


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Drawings

Schematic diagram



Inserting/removing the SD card

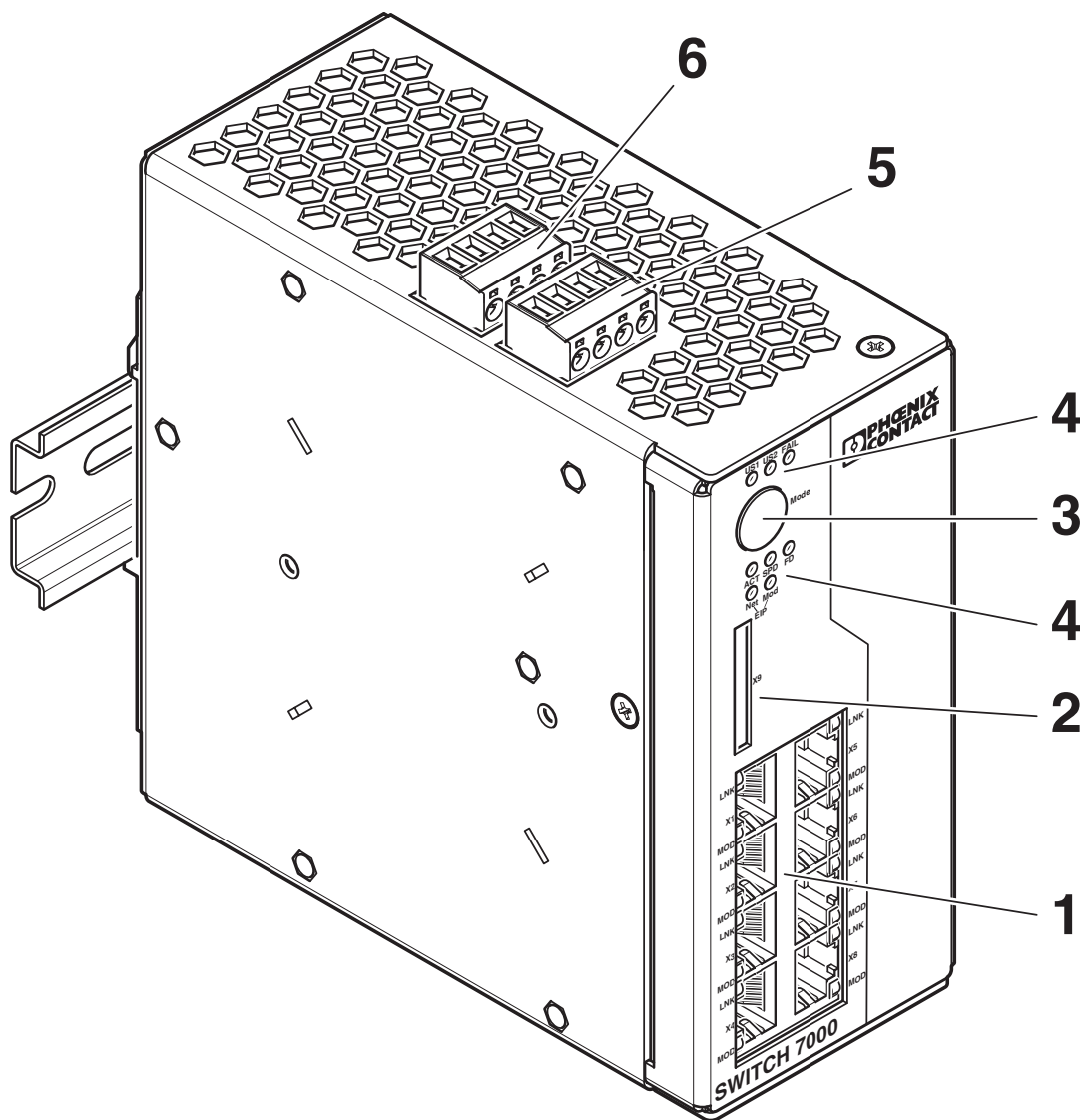
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Schematic diagram



Key:

- 1 Ethernet ports
- 2 Slot for optional SD memory card
- 3 Mode switch with LEDs
- 4 Diagnostics and status indicators
- 5 Connection of the supply voltage
- 6 Floating signal contact

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2701418>




UL Listed
Approval ID: FILE E 140324




cUL Listed
Approval ID: FILE E 140324

EtherNet/IP CONFORMANCE TESTED TM
Approval ID: 11221.01



cUL Listed
Approval ID: FILE E 199827



UL Listed
Approval ID: FILE E 199827

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 19170401 |
|-------------|----------|

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC000734 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 43222600 |
|-------------|----------|

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Environmental product compliance

| | |
|------------|--|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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Accessories

SD FLASH 512MB - Program / configuration memory

2988146

<https://www.phoenixcontact.com/us/products/2988146>

Program and configuration memory, plug-in, 512 Mbyte.



SD FLASH 2GB - Program / configuration memory

2988162

<https://www.phoenixcontact.com/us/products/2988162>

Program and configuration memory, for extending the internal flash memory, pluggable, 2 GB.



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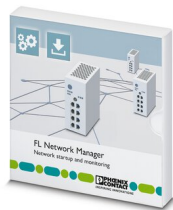
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FL NETWORK MANAGER BASIC - Network management software

2702889

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SNMP-based software for easy commissioning and monitoring of network components such as switches, routers, and WLAN access points

FL SNMP OPC SERVER V3 - Driver and interface software

2701139

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

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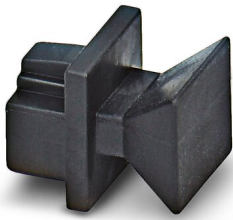
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FL RJ45 PROTECT CAP - Dust protection

2832991

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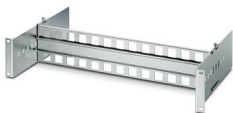
Dust protection caps for RJ45 socket

FL DIN RA - DIN rail adapter

2891053

<https://www.phoenixcontact.com/us/products/2891053>

The FL DIN RA is installed in a standard, 19-inch rack (EIA-310-D, IEC 60297-3-100) to allow DIN rail mounted equipment to be rack mounted.



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FL CAT5 PATCH 0,5 - Patch cable

2832263

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Patch cable, CAT5, assembled, 0.5 m



FL CAT5 PATCH 1,0 - Patch cable

2832276

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Patch cable, CAT5, assembled, 1 m



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FL CAT5 PATCH 2,0 - Patch cable

2832289

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Patch cable, CAT5, assembled, 2 m

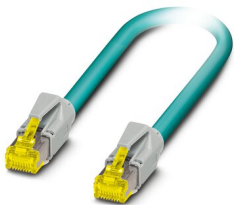


NBC-R4AC-R4AC-IE8A/.../... - Patch cable

1411854

<https://www.phoenixcontact.com/us/products/1411854>

Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet



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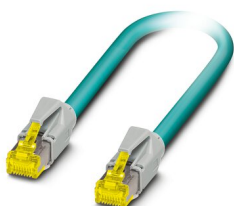
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NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable

1408360

<https://www.phoenixcontact.com/us/products/1408360>

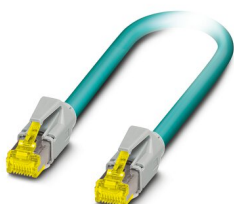


Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

NBC-R4AC/10G-R4AC/10G-94F/3,0 - Patch cable

1408365

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Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

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NBC-R4AC/1,0-93B/R4AC - Patch cable

1408968

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Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

NBC-R4AC/2,0-93B/R4AC - Patch cable

1408969

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Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

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NBC-R4AC/5,0-93B/R4AC - Patch cable

1408970

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Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

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