

FL SWITCH 7008-EIP - Industrial Ethernet Switch



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

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Technical data

Dimensions

Width	60 mm
Height	130 mm
Depth	135.5 mm

Mounting

Mounting type	DIN rail mounting
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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)
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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	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
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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 mm ²

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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
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Approvals

Conformity/Approvals

Noxious gas test	ISA S71.04.2013 G3 Harsh Group A
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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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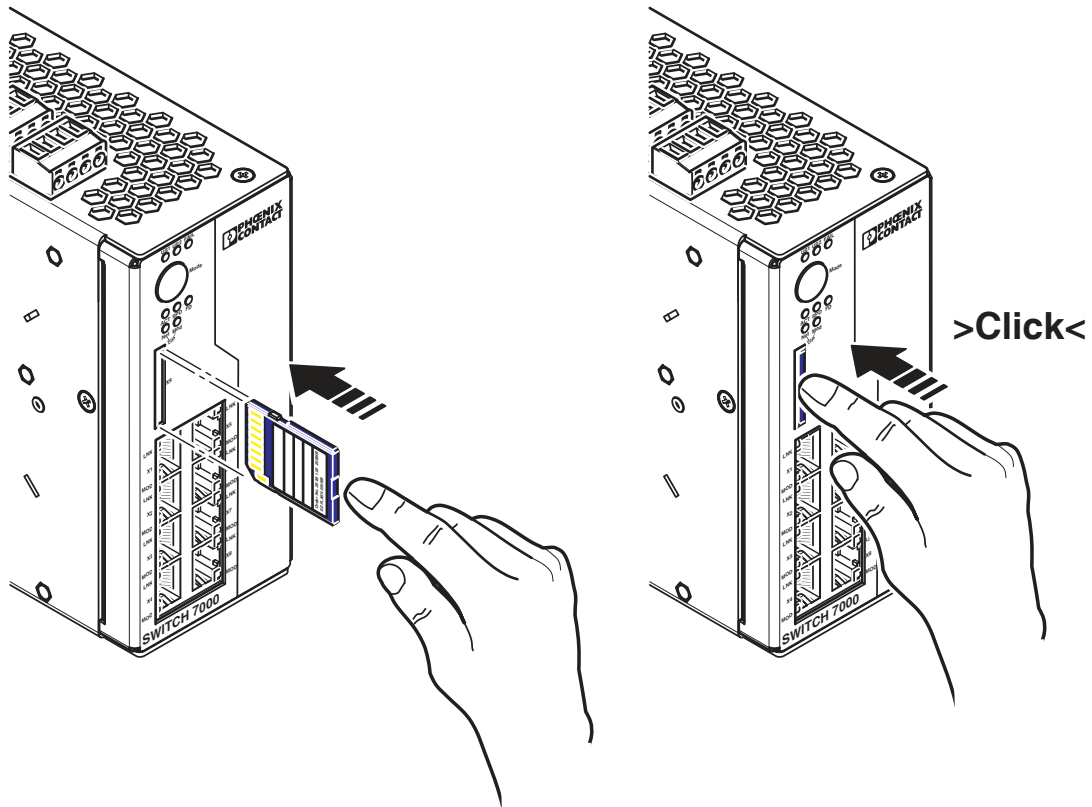


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Drawings

Schematic diagram



Inserting/removing the SD card

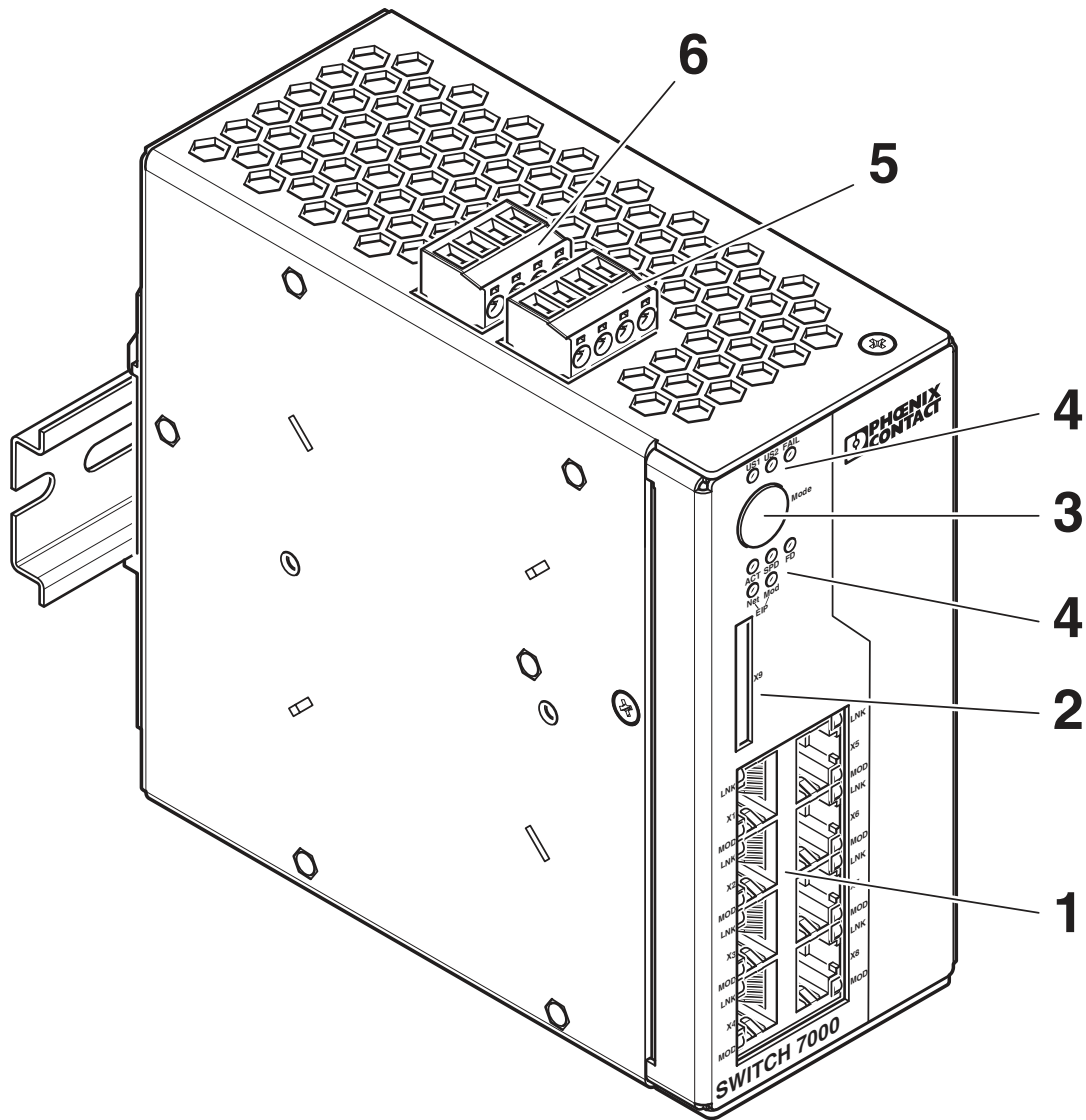
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Schematic diagram



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

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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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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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FL RJ45 PROTECT CAP - Dust protection

2832991

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Dust protection caps for RJ45 socket

FL DIN RA - DIN rail adapter

2891053

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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

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



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

1408360

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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: 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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