FL NAT 2008 - Industrial Ethernet Switch

2702881

https://www.phoenixcontact.com/us/products/2702881

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Managed NAT Switch 2000, 8 RJ45 ports 10/100 Mbps, PROFINET Conformance-Class A, 1:1-NAT, Virtual NAT, IP-Masquerading

Your advantages

- 1:1 NAT, virtual NAT, IP masquerading, port forwarding
- MRP client
- Ambient temperature -40 °C ... 70 °C
- VLANs
- DHCP client, DHCP server (port-based)
- RSTP
- Flexible distribution into several LAN and WAN areas
- Configuration memory
- Slim design
- Web-based management, SNMP
- Easy and fast startup and commissioning with the FL NETWORK MANAGER software
- Suitable for PROFINET and EtherNet/IP™ networks

Commercial data

Item number	2702881
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN17
Product key	DNN131
Catalog page	Page 328 (C-6-2019)
GTIN	4055626376622
Weight per piece (including packing)	383.1 g
Weight per piece (excluding packing)	240 g
Customs tariff number	85176200
Country of origin	DE

Technical data

Dimensions

Width	45 mm
Height	130 mm
Depth	115 mm

Notes

General	Support by phone or on-site (fee is charged)

Material specifications

Housing material	Polycarbonate fiber reinforced

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

Product type	Switch
Product family	Managed NAT Switch 2000
Type	Book type
MTTF	507.8 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	246.55 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	56.66 Years (SN 29500 standard, temperature 55°C, operating cycle 100%)
Special properties	1:1-NAT, Virtual NAT, IP-Masquerading
Signal delay	≥ 6.5 µs (Store and Forward mode, 10/100 Mbps, depending on the frame size)

Insulation characteristics

Protection class	III (VDE 0106)

Switch functions

	RMON History

Diagnostic functions	LLDP (Link Layer Discovery Protocol)
	SNMP-Traps
	N:1-Portmirroring
	ACD (Address Conflict Detection)
	SysLog
	CRC-Surveillance
Basic functions	Router for standard routing, NAT, 1:1-NAT and port forwarding
NAT functions	1:1-NAT
	Virtual-NAT
	IP-Masquerading
	Port forwarding
PROFINET conformance class	Conformance-Class A
Filter functions	Quality of Service (8 priority classes)
	Class of Service
	DiffServ/DSCP
	Port-Priorisierung
	VLAN (up to 8 VLANs)
	IGMP Snooping/Querier (v1/v2)
	Auto-Query-Port
	Extended Multicast Filtering
IP parameterization	DHCP-Client
	DHCP server (port based)
	BootP
MAC address table	8k
Management	Web-based management (HTTP/HTTPS)
	Role-based user management (LDAP, RADIUS)
	SNMPv1/v2/v3
	Command Line Interface (Telnet, SSH)
Redundancy	MRP (Media Redundancy Protocol)
	RSTP (Rapid Spanning Tree Protocol)
Status and diagnostic indicators	LEDs: US (power supply), 2 LEDs per Ethernet port (Link/Activity and Speed)
Time synchronization	SNTP (Simple Network Time Protocol)

Security functions

Basic functions	Router for standard routing, NAT, 1:1-NAT and port forwarding

Electrical properties

Local diagnostics	US Supply voltage Green LED
	LNK/ACT Link status Green LED
	SPD Data transmission speed Green LED
Maximum power dissipation for nominal condition	4.86 W (At U_S = 18 V DC and 60°C ambient temperature)
Test voltage	500 V DC
Test section	for one minute 500 V DC
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC (single)
Supply voltage range	18 V DC ... 32 V DC
Power supply connection	via COMBICON, max. conductor cross section 1.5 mm²
Residual ripple	3.6 V_{PP} (within the permitted voltage range)
Max. current consumption	0.35 A (At U_S = 18 V DC and 60°C ambient temperature)
Typical current consumption	180 mA (at U_S = 24 V DC and 25 °C ambient temperature)
Current consumption	180 mA

Connection data

Connection method	Screw connection
Note on the connection method	Use only copper connecting cables providing the permitted temperature range (-40 °C ... 75 °C).
Conductor cross section, rigid	0.08 mm² ... 1.5 mm²
Conductor cross section, flexible	0.08 mm² ... 1.5 mm²
Conductor cross section AWG	28 ... 16
Stripping length	7 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	0 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
Shock (operation)	30g (EN 60068-2-27)
Vibration (operation)	2g, according to IEC 60068-2-6
Air pressure (operation)	86 kPa ... 108 kPa (1500 m above sea level)
Air pressure (storage/transport)	86 kPa ... 108 kPa

Standards and regulations

Free from substances that could impair the application of coating	Yes

Approvals

Conformity/Approvals

UL, USA	UL 61010-1, Ed.3 / UL 61010-2-201, Ed.1
UL, Canada	CSA C22.2 NO.61010-2-201:14, Ed.1 / CSA C22.2 NO.61010-1-12, Ed.3

EMC data

Conformance with EMC directives	EN 61000-6-2 EN 61000-4-2 (ESD) Criterion B
	EN 61000-6-2 EN 61000-4-3 (electromagnetic fields) Criterion A
	EN 61000-6-2 EN 61000-4-4 (EFT burst) Criterion A
	EN 61000-6-2 EN 61000-4-5 (surge) Criterion B

	EN 61000-6-2 EN 61000-4-6 (line noise immunity) Criterion A
	EN 61000-6-2 EN 61000-6-4 (interference) Class A
	EN 61000-6-2 EN 61000-6-4 (conducted interference) Class A
Noise immunity	EN 61000-6-2
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 61000-6-4

System properties

Functionality

Basic functions	Router for standard routing, NAT, 1:1-NAT and port forwarding

Signaling

Status display	LEDs: US (power supply), 2 LEDs per Ethernet port (Link/Activity and Speed)

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2702881

EAC
Approval ID: RU*-DE.*.B.00741/19

UAE-RoHS
Approval ID: 23-02-63230

cULus Listed
Approval ID: E238705

Classifications

ECLASS

ECLASS-11.0	19170401
ECLASS-12.0	19170401
ECLASS-13.0	19170401

ETIM

ETIM 9.0	EC000734

UNSPSC

UNSPSC 21.0	43222600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	32343c0b-ae97-4d47-8cf0-e57836e114b1

EF3.0 Climate Change

CO2e kg	10.11 kg CO2e

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.

FL NETWORK MANAGER BASIC - Network management software

2702889

https://www.phoenixcontact.com/us/products/2702889



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

https://www.phoenixcontact.com/us/products/2701139



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

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.

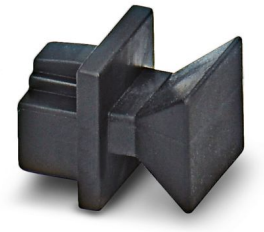


FL RJ45 PROTECT CAP - Dust protection

2832991

https://www.phoenixcontact.com/us/products/2832991

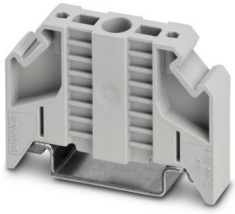
Dust protection caps for RJ45 socket



E/NS 35 N - End bracket

0800886

https://www.phoenixcontact.com/us/products/0800886



End clamp, width: 9.5 mm, color: gray

FK-MCP 1,5/ 5-ST-3,81GY35BD1-5 - PCB connector

1015782

https://www.phoenixcontact.com/us/products/1015782

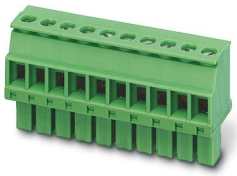


PCB connector, nominal cross section: 1.5 mm^2, color: light grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: FK-MCP 1,5/..-ST, pitch: 3.81 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

MCVW 1,5/ 5-ST-3,81GY7035BD2US - PCB connector

1034103

https://www.phoenixcontact.com/us/products/1034103



PCB connector, nominal cross section: 1.5 mm^2, color: light grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MCVW 1,5/..-ST, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

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

https://www.phoenixcontact.com/us/products/2832276



Patch cable, CAT5, assembled, 1 m

FL CAT5 PATCH 2,0 - Patch cable

2832289

https://www.phoenixcontact.com/us/products/2832289

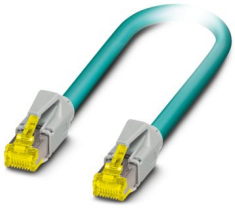


Patch cable, CAT5, assembled, 2 m

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

1411854

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

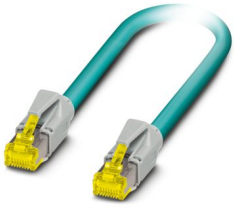


Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, $CAT6_A$, cable outlet: straight, Ethernet

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

1408360

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

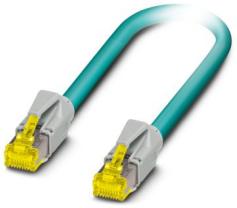


Patch cable, $CAT6_A$, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

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

1408365

https://www.phoenixcontact.com/us/products/1408365



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

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

1408968

https://www.phoenixcontact.com/us/products/1408968



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

https://www.phoenixcontact.com/us/products/1408969



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

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

1408970

https://www.phoenixcontact.com/us/products/1408970



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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