

Industrial Ethernet Switch - FL SWITCH SFNT 16TX



2891952

<https://www.phoenixcontact.com/us/products/2891952>

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High temperature Ethernet switch, 16 TP RJ45 ports, automatic detection of data transmission speed of 10/ 100 Mbps (RJ45), autocrossing function

Product Description

Standard function Ethernet switch with 16 RJ45 ports for extreme environments (-40°C ... +75°C). Provides automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function, 12 V DC ... 48 V DC input voltage, redundant power supply capable with remote alarming.

Your advantages

- RJ45 ports support a transmission speed of 10/100 Mbps
- Fiber-optic ports support 100 Mbps
- 16 ports in a narrow metal housing with redundant input voltage
- Security options with cable locking
- Local diagnostic indicators with LEDs
- Devices are available for the standard temperature range (0 °C ... 60 °C) and wide temperature range (-40 °C ... 75 °C)
- Auto negotiation and autocrossing detection simplifies installation and setup

Commercial Data

Item number	2891952
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	C23
Product Key	DNN113
Catalog Page	Page 293 (C-6-2019)
GTIN	4046356551618
Weight per Piece (including packing)	1,193.5 g
Weight per Piece (excluding packing)	1,193.5 g
Customs tariff number	85176200
Country of origin	TW

Technical Data

Dimensions

Width	70 mm
Height	135 mm
Depth	110 mm

Notes

Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.
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Material specifications

Housing material	Aluminum
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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	Ethernet in RJ45 twisted pair
Transmission length	100 m (per segment)
No. of channels	16 (RJ45 ports)

Product properties

Type	Block design
Product type	Switch
MTTF	55.9 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

Insulation characteristics

Protection class	III (VDE 0106, IEC 60536)
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Switch functions

Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store-and-forward switching mode, includes alarm contacts
Signal contact control voltage	24 V DC
Signal contact control current	1 A
Status and diagnostic indicators	LEDs: U _{S1} , U _{S2} (redundant voltage supply), link and activity per port
Additional functions	Autonegotiation

Security functions

Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store-and-forward switching mode, includes alarm contacts
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Electrical properties

Local diagnostics	US Supply voltage Green LED
	LNK/ACT Link status/data transmission Green LED
	100 Data transmission speed Yellow LED
Maximum power dissipation for nominal condition	8.4 W
Test section	500 V DC 1 min.
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC (redundant)
Supply voltage range	12 V DC ... 48 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)
Max. current consumption	700 mA (at 12 V DC)
Typical current consumption	350 mA (at U _S = 24 V DC)

Function

Signal contact control voltage	24 V DC
Signal contact control current	1 A

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	30 ... 12
Stripping length	7 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Shock	25g, in accordance with IEC 60068-2-27
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz
Air pressure (operation)	62 kPa ... 108 kPa (up to 4160 m above mean sea level)
Air pressure (storage/transport)	62 kPa ... 108 kPa (up to 4160 m above mean sea level)

Approval data

Conformity/Approvals

Conformance	CE-compliant
ATEX	<input type="checkbox"/> II 3 G Ex nA nC IIC T4 Gc

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EU-type examination certificate	DEMKO 16 ATEX 1617X
IECEEx	Ex nA nC IIC T4 Gc
IECEEx certificate	IECEEx UL 16.0093X
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D

EMC data

Conformance with EMC directives	IEC 61000-6-2
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2

LED signaling

Status display	LEDs: U _{S1} , U _{S2} (redundant voltage supply), link and activity per port
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Approvals



EAC

Approval ID: RU D-DE.GB09.B.00312



UL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324



IECEx

Approval ID: IECEx UL 16.0093X



cUL Listed

Approval ID: FILE E 199827



UL Listed

Approval ID: FILE E 199827



ATEX

Approval ID: DEMKO 16 ATEX 1617X

cULus Listed

cULus Listed

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Classifications

ECLASS

ECLASS-9.0	19170106
ECLASS-10.0.1	19170402
ECLASS-11.0	19170402

ETIM

ETIM 8.0	EC000734
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UNSPSC

UNSPSC 21.0	43222600
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

PCB connector

PCB connector - MSTB 2,5/ 2-ST - 1754449

<https://www.phoenixcontact.com/us/products/1754449>

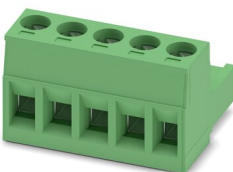


PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MSTB 2,5/...-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector

PCB connector - MSTB 2,5/ 5-ST - 1754504

<https://www.phoenixcontact.com/us/products/1754504>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTB 2,5/...-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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Surge protection device

Surge protection device - DT-LAN-CAT.6+ - 2881007

<https://www.phoenixcontact.com/us/products/2881007>



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE++ / 4PPoE) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

<https://www.phoenixcontact.com/us/products/2832263>



Patch cable, CAT5, assembled, 0.5 m

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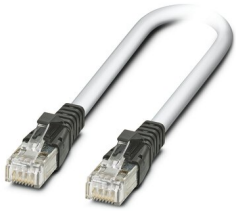
<https://www.phoenixcontact.com/us/products/2891952>

Patch cable

Patch cable - FL CAT5 PATCH 1,0 - 2832276

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

Patch cable, CAT5, assembled, 1 m



Patch cable

Patch cable - FL CAT5 PATCH 2,0 - 2832289

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Patch cable, CAT5, assembled, 2 m



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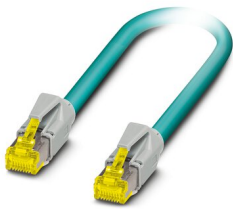
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Patch cable

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854

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

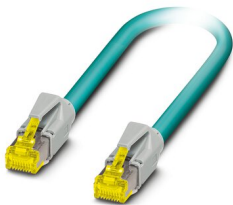


Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet

Patch cable

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

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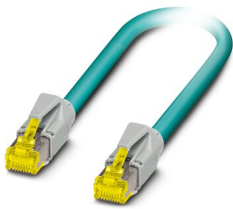
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Patch cable

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

Port Guard Security Element

Port Guard Security Element - FL SEC PAC 4TX - 2832865

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Layer1 security elements for four RJ45 network connections for use with patch boxes and panels

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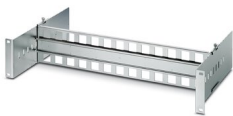
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DIN rail adapter

DIN rail adapter - FL DIN RA - 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.

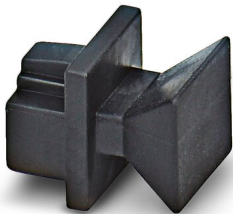


Dust protection

Dust protection - FL RJ45 PROTECT CAP - 2832991

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

Dust protection caps for RJ45 socket



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End clamp

End clamp - E/NS 35 N - 0800886

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

End clamp, width: 9.5 mm, color: gray



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