FL SWITCH 3016T - Industrial Ethernet Switch

2891059

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Managed Ethernet switch with 16 RJ45 ports at 10/100 Mbps and operating temperature of -40°C ... +75°C

Product description

FL SWITCH 3000 managed industrial Ethernet switches combine extensive network performance and securtiy features with complete IEEE redundancy (STP/RSTP/MST) and 15 ms recovery time extended ring redundancy. Unique web customization provides a simplified user interface for today's applications and scalable functionality for future needs. A comprehensive mix of fiber optic and copper port connections meets a wide range of applications.

Your advantages

- -40 to 75°C and -10 to 60°C ambient temperature versions
- RJ45 ports support a transmission speed of 10/100 Mbps
- Fiber-optic ports support 100 Mbps
- Security options with cable locking
- Extensive web diagnostics with configurable LED and remote alarm contacts
- Secure web-based and SNMP-based management
- Unique cleanup function hides unused configuration pages, reducing complexity, maintenance and startup times
- Auto negotiation and autocrossing detection simplifies installation and setup

Commercial data

Item number	2891059
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN17
Product key	DNN125
Catalog page	Page 314 (C-6-2019)
GTIN	4046356764278
Weight per piece (including packing)	1,533 g
Weight per piece (excluding packing)	1,133 g
Customs tariff number	85176200
Country of origin	TW

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Technical data

Dimensions

Width	66 mm
Height	173 mm
Depth	140 mm

Notes

Note on application

Note on application	Only for industrial use

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Utilization restriction

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

Material specifications

Housing material	Aluminum

Mounting

Mounting type	DIN rail mounting
Thread type	()

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
No. of channels	16 (RJ45 ports)

Product properties

Product type	Switch
Product family	Managed Switch 3000
Type	Block design
MTTF	47.5 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

Insulation characteristics

Protection class	III (VDE 0106, IEC 60536)

Switch functions

Basic functions	Store and forward switch, Extended Ring and IEEE redundancy, Multicast control, IGMP snooping, trunking, Port and Tagging VLANs, Port and IEEE 802.1x security, SNMP V3 and Https security, SNTP, web customization, user accounts
Signal contact control voltage	24 V DC
Signal contact control current	100 mA
Redundancy	ERR (Extended ring redundancy)
Status and diagnostic indicators	LEDs: U_{S1}, U_{S2} (redundant voltage supply), link and activity per port

Security functions

Basic functions	Store and forward switch, Extended Ring and IEEE redundancy, Multicast control, IGMP snooping, trunking, Port and Tagging VLANs, Port and IEEE 802.1x security, SNMP V3 and Https security, SNTP, web customization, user accounts

Electrical properties

Local diagnostics	US1, US2 Supply voltage Green LED
	LNK/ACT Link status/data transmission Green LED
Maximum power dissipation for nominal condition	7.49 W
Test section	Supply voltage/functional ground 500 V 1 min.
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC (redundant)
Supply voltage range	12 V DC ... 48 V DC
Inrush current	4.76 A (5.5 ms)
Residual ripple	3.6 V_{PP} (within the permitted voltage range)
Typical current consumption	261 mA (at U_S = 24 V DC)

Function

Signal contact control voltage	24 V DC
Signal contact control current	100 mA

Connection data

Connection technology

Connection name	Power supply
pluggable	yes

Power supply

Connection method	Screw connection
Conductor cross section, rigid	0.2 mm² ... 2.5 mm²
Conductor cross section, flexible	0.2 mm² ... 2.5 mm²
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 ... 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)
Air pressure (operation)	57 kPa ... 108 kPa (up to 4850 m above mean sea level)
Air pressure (storage/transport)	57 kPa ... 108 kPa (up to 4850 m above mean sea level)

Approvals

Conformity/Approvals

Conformance	CE-compliant
ATEX	ⓔ II 3 G Ex nA nC IIC T4 Gc
EU-type examination certificate	DEMKO 16 ATEX 1616X
IECEx	Ex nA nC IIC T4 Gc
IECEx certificate	IECEx UL 16.0094X
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D

EMC data

Conformance with EMC directives	IEC 61000-6-2 IEC 61000-4-2 (ESD) Criterion B
	IEC 61000-4-3 (immunity to radiated interference) Criterion A
	IEC 61000-4-4 (burst) Criterion A
	IEC 61000-4-5 (surge) Criterion B
	IEC 61000-4-6 (immunity to conducted interference) Criterion A
	IEC 61000-4-8 (immunity to magnetic fields) Criterion A
	EN 55022 (emitted interference) Class A
Noise immunity	EN 61000-6-2:2005
Noise emission	EN 61000-6-4

System properties

Functionality

Basic functions	Store and forward switch, Extended Ring and IEEE redundancy, Multicast control, IGMP snooping, trunking, Port and Tagging VLANs, Port and IEEE 802.1x security, SNMP V3 and Https security, SNTP, web customization, user accounts

Signaling

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

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2891059

UL Listed
Approval ID: E140324

cUL Listed
Approval ID: E140324

cUL Listed
Approval ID: E238705

UL Listed
Approval ID: E238705

IECEx
Approval ID: IECEx UL 16.0094X

cUL Listed
Approval ID: E360692

UL Listed
Approval ID: E360692

UL Listed
Approval ID: E196811

cUL Listed
Approval ID: E196811

ATEX
Approval ID: DEMKO 16 ATEX 1616X

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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	15(a), 6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-10
	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	6a73eaf7-6ec5-4d8c-ae1a-240529fe62c6

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