

FL SWITCH 1012NT-2SFP - Industrial Ethernet Switch



1249598

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Narrow Ethernet switch, wide temperature range, twelve RJ45 ports with 10/100 Mbps on all ports, two SFP ports with 100/1000 Mbps, automatic data transmission speed detection, autocrossing function, and QoS

Your advantages

- Auto negotiation and autocrossing detection simplifies installation and setup
- Local diagnostic indicators with LEDs
- RJ45 ports support a transmission speed of 10/100 Mbps
- QoS-prioritized (Quality of Service) messages
- PROFINET Conformance Class A for real-time data exchange
- Energy-efficient Ethernet in accord. with IEEE 802.3az
- PROFINET PTCP filter for reliable communication on PROFINET networks
- Enhanced traffic prioritization for automation protocols

Commercial data

Item number	1249598
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNN116
Product key	DNN116
GTIN	4063151355104
Weight per piece (including packing)	528.7 g
Weight per piece (excluding packing)	433 g
Customs tariff number	85176200
Country of origin	TW

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Technical data

Dimensions

Width	40 mm
Height	140.4 mm
Depth	92.4 mm

Notes

Note on application

Note on application	Only for industrial use
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Material specifications

Housing material	Polycarbonate fiber reinforced
	Aluminum / steel sheet DC01

Mounting

Mounting type	DIN rail mounting
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Interfaces

Ethernet (RJ45)

Number of interfaces	12
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)
Signal LEDs	Data receive, link status
No. of channels	12 (RJ45 ports)

Ethernet (SFP)

Number of interfaces	2
Connection method	SFP
Transmission speed	100/1000 Mbps (full duplex)
Transmission physics	Depending on the SFP module
Transmission length	up to 40 km (Depending on the fiber/SFP module used)
Signal LEDs	Data receive, link status
No. of channels	2 (SFP ports)

Product properties

Product type	Switch
Product family	Unmanaged Switch 1000
MTTF	64.3 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

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	298.8 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	560.1 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
Special properties	Extended temperature range
Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

Switch functions

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode
PROFINET conformance class	Conformance-Class A
MAC address table	8k
Status and diagnostic indicators	LEDs: U _S , link and activity per port
Additional functions	100 BASE-TX/100BASE-FX (IEEE 802.3u)
	Quality of Service (QoS) prioritization (IEEE 802.1p)
	Energy-efficient Ethernet (IEEE 802.3az)
	10Base-T (IEEE 802.3)

Security functions

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

Electrical properties

Maximum power dissipation for nominal condition	4.32 W (at 24 V DC)
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC
Supply voltage range	9 V DC ... 32 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	480 mA (at 9 V DC)
Typical current consumption	25 mA (at 24 V DC)

Connection data

Connection technology

Connection name	Power supply
pluggable	yes

Power supply

Connection method	Push-in spring connection
Conductor cross-section, rigid	0.2 mm ² ... 2.5 mm ²

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Conductor cross-section, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Stripping length	10 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP30
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	2000 m (maximum)
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Shock (operation)	30g (EN 60068-2-27)
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz
Air pressure (operation)	79 kPa ... 108 kPa up to 2000 m above mean sea level (Without derating)
Air pressure (storage/transport)	79 kPa ... 108 kPa up to 2000 m above mean sea level (Without derating)

Approvals

Conformity/Approvals

Conformance	CE-compliant
ATEX	Ⓜ II 3 G Ex ec IIC T4 Gc
EU-type examination certificate	UL 21 ATEX 2638X
IECEX	Ex ec IIC T4 Gc
IECEX certificate	IECEX UL 21.0120X
UL, USA / Canada	UL 61010-1, UL 61010-2-201 Class I, Div. 2, Groups A, B, C, D, T4 Class I, Zone 2, Group IIC, T4
FCC	Title 47 Part 15 Subpart B:2018 Class A

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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 61000-4-8 (electromagnetic fields) Criterion A
	EN 61000-6-2 Class A
Noise immunity	EN 61000-6-2:2019

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Noise emission

Standards/regulations	EN_61000-6-4:2019
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System properties

Functionality

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

Signaling

Status display	LEDs: U _S , link and activity per port
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Approvals

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DNV GL

Approval ID: TAA000034U



UL Listed

Approval ID: E238705



cUL Listed

Approval ID: E238705



KC

Approval ID: R-R-PCK-1249598



IECEx

Approval ID: IECEx UL 21.0120X



cUL Listed

Approval ID: E196811



UL Listed

Approval ID: E196811



ATEX

Approval ID: UL 21 ATEX 2638X

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Classifications

ECLASS

ECLASS-13.0	19170402
ECLASS-15.0	19170402

ETIM

ETIM 9.0	EC000734
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UNSPSC

UNSPSC 21.0	43222600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	15(a), 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	278fd7c9-b119-4b9f-af7a-df7a2d0644c1

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