FL SWITCH 1004N-FX - Industrial Ethernet Switch

1084159

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Ethernet switch, 4 TP RJ45 ports, 1 FO port, 100 Mbps full duplex in SC-D format, automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function

Your advantages

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

Commercial data

Item number	1084159
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN20
Product key	DNN116
GTIN	4055626821559
Weight per piece (including packing)	217 g
Weight per piece (excluding packing)	136 g
Customs tariff number	85176200
Country of origin	TW

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Technical data

Dimensions

Width	22.5 mm
Height	117 mm
Depth	84 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

Material specifications

Housing material	Polycarbonate fiber reinforced

Mounting

Mounting type	DIN rail mounting

Interfaces

Ethernet (RJ45)

Number of interfaces	4
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	4 (RJ45 ports)
Input buffer	768 Kbits
Output buffer	768 Kbits

Ethernet FO

Number of interfaces	1
Connection method	SC
Transmission speed	100 Mbps (full duplex)
Transmit capacity, minimum	-20 dBm
Transmit capacity, maximum	-14 dBm
Minimum receiver sensitivity	-31 dBm
Maximum receiver sensitivity	0 dBm
Transmission physics	multi-mode fiberglass
Transmission length	8 km (fiberglass with F-G 62.5/125 0.7 dB/km F1000)

	4.29 km (fiberglass with F-G 50/125 0.7 dB/km F1200)
Wavelength	1300 nm
No. of channels	1 (SC multi-mode)

Product properties

Product type	Switch
Product family	Unmanaged Switch 1000
MTTF	115.1 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	427.5 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	279.5 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
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	2k
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	2.196 W (at 24 V DC)
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC
Supply voltage (AC)	24 V AC (50/60 Hz)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)
Power supply connection	Via COMBICON, max. conductor cross-section 2.5 mm²
Residual ripple	3.6 V_{PP} (within the permitted voltage range)
Max. current consumption	244 mA (at 9 V DC)

Typical current consumption	59 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 mm² ... 2.5 mm²
Conductor cross-section, flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 12
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Stripping length	10 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP30
Ambient temperature (operation)	-10 °C ... 60 °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

UL, USA / Canada	UL 61010-1, UL 61010-2-201, UL 62368-1 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

Noise immunity

Noise immunity	EN 61000-6-2:2019

Noise emission

Standards/regulations	EN_61000-6-4:2019

System properties

Functionality

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

Signaling

Status display	LEDs: U_S, link and activity per port

Approvals

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KC
Approval ID: R-R-PCK-1084159

cULus Listed
Approval ID: E238705

cULus Listed
Approval ID: E140403

cUL Listed
Approval ID: E196811

UL Listed
Approval ID: E196811

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Classifications

ECLASS

ECLASS-13.0	19170402
ECLASS-15.0	19170402

ETIM

ETIM 9.0	EC000734

UNSPSC

UNSPSC 21.0	43222600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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.)	No substance above 0.1 wt%

EF3.0 Climate Change

CO2e kg	4.606 kg CO2e

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