

FL SWITCH 1004N-FX SM - Industrial Ethernet Switch



1085214

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Unmanaged Switch 1000 series, 4 RJ45 ports 10/100 Mbps, 1 SC single mode 100 Mbps, degree of protection: IP30, Ambient temperature (operation): -10 °C ... 60 °C, Supply voltage range: 9 V DC ... 32 V DC, PROFINET Conformance Class A, The product is being prepared for compliance with the Cyber Resilience Act (CRA)

Your advantages

- QoS-prioritized (Quality of Service) messages
- RJ45 ports support a transmission speed of 10/100 Mbps
- Local diagnostic indicators with LEDs
- Enhanced traffic prioritization for automation protocols
- PROFINET PTCP filter for reliable communication on PROFINET networks
- 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	1085214
Packing unit	1 pc
Minimum order quantity	1 pc

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Sales key	DNN116
Product key	DNN116
GTIN	4055626834498
Weight per piece (including packing)	218 g
Weight per piece (excluding packing)	137 g
Country of origin	TW

Technical data

Dimensions

Width	22.5 mm
Height	117 mm
Depth	84 mm

Notes

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Utilization restriction

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

Color (Housing)	gray (RAL 7042)
Color (Cover)	light gray (RAL 7035)
Housing material	Polycarbonate fiber reinforced

Mounting

Mounting type	DIN rail mounting
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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	0 dBm

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Minimum receiver sensitivity	-32 dBm
Maximum receiver sensitivity	0 dBm
Transmission physics	Single-mode fiberglass
Transmission length	20 km (fiberglass with F-G 9/125 0.5 dB/km)
Wavelength	1310 nm
No. of channels	1 (SC single mode)

Product properties

Product type	Switch
Product family	Unmanaged Switch 1000
MTTF	95.9 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	298.8 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	188.3 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)

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
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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 mm ²

Residual ripple	3.6 V _{PP} (within the permitted voltage range)
Max. current consumption	244 mA (at 9 V DC)
Typical current consumption	51 mA (at 24 V DC)

Connection data

Power supply

Connection method	Push-in spring connection
pluggable	yes
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	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
	0.25 mm ² ... 2.5 mm ²
Conductor cross-section, flexible, with ferrule, with 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)	-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
FCC certificate	T190905D11-C

EMC data

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
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Approvals

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KC

Approval ID: R-R-PCK-1085214



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 10.0	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	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	2d06d5ab-21ba-4a08-b6ba-2f7208360ca9

EF3.1 Climate Change

CO2e kg	4.64 kg CO2e
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