

# FL SWITCH 1116N - Industrial Ethernet Switch



1085219

<https://www.phoenixcontact.com/us/products/1085219>

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Narrow Ethernet switch, sixteen RJ45 ports with 10/100/1000 Mbps on all ports, 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 10/100/1000 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
- Jumbo frame support (frame size up to 9216 bytes/frame)

## Commercial data

Item number	1085219
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN20
Product key	DNN116
GTIN	4055626833675
Weight per piece (including packing)	541 g
Weight per piece (excluding packing)	455 g
Customs tariff number	85176200
Country of origin	TW

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## Technical data

### Dimensions

Width	40 mm
Height	151 mm
Depth	98 mm

### Notes

#### Note on application

Note on application	Only for industrial use
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#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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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	16
Connection method	RJ45
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100/1000 Mbps
Transmission physics	Ethernet in RJ45 twisted pair
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status
No. of channels	16 (RJ45 ports)

### Product properties

Product type	Switch
Product family	Unmanaged Switch 1000
MTTF	77.4 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	833.6 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	616.1 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))

#### Data management status

Article revision	03
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## 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 <sub>S</sub> , link and activity per port
Additional functions	100 BASE-TX/100BASE-FX (IEEE 802.3u)
	Jumbo frames (Max. 9,216 bytes)
	Quality of Service (QoS) prioritization (IEEE 802.1p)
	Energy-efficient Ethernet (IEEE 802.3az)
	Gigabit Ethernet 1000BASE-T (IEEE 802.3ab)
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	8.325 W (at 24 V DC)
Transmission medium	Copper

## Supply

Supply voltage (DC)	24 V
Supply voltage range	9 V DC ... 32 V DC
Power supply connection	Via COMBICON, max. conductor cross section 2.5 mm <sup>2</sup>
Residual ripple	3.6 V <sub>PP</sub> (within the permitted voltage range)
Max. current consumption	925 mA (at 9 V DC)
Typical current consumption	95 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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Stripping length	10 mm

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## 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

Conformance	CE-compliant
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 61000-6-2:2005
Noise emission	EN 61000-6-4:2007 + A1:2011

## System properties

### Functionality

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

## Signaling

Status display	LEDs: U <sub>S</sub> , link and activity per port
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## Approvals

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 **UL Listed**  
Approval ID: E238705

 **cUL Listed**  
Approval ID: E238705

 **CC-Link IE Field**  
Approval ID: NRT-IF-00056

 **CC-Link IE Field**  
Approval ID: NRT-IT-00065

 **KC**  
Approval ID: R-R-PCK-1085219

**UAE-RoHS**  
Approval ID: 23-09-84493

 **IECEx**  
Approval ID: IECEx UL 21.0120X

 **cUL Listed**  
Approval ID: E196811

 **UL Listed**  
Approval ID: E196811

 **ATEX**  
Approval ID: UL 21 ATEX 2638X

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	19170402
ECLASS-12.0	19170402
ECLASS-13.0	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	ee9801bc-432d-432c-84a5-56d5f4baeff6

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