

## Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

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Narrow Ethernet switch, sixteen RJ45 ports with 10/100 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 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



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	360.000 g
Country of origin	Taiwan

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	40 mm
Height	140.4 mm
Depth	92.4 mm

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## Technical data

### Ambient conditions

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

### Interfaces

Interface	Ethernet (RJ45)
No. of ports	16 (RJ45 ports)
Note on the connection method	Auto negotiation and autocrossing
Transmission physics	Ethernet in RJ45 twisted pair
Transmission speed	10/100 Mbps
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status

### Function

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode
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)
MAC address table	8k
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U <sub>S</sub> , link and activity per port

### Network expansion parameters

Cascading depth	Network, linear, and star structure: any
Maximum conductor length (twisted pair)	100 m

### Supply voltage

Supply voltage	24 V
	24 V AC (50/60 Hz)
Residual ripple	3.6 V <sub>pp</sub> (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)

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### Supply voltage

Typical current consumption	68 mA
Max. current consumption	266 mA

### General

Mounting type	DIN rail
Net weight	266 g
Housing material	Polycarbonate fiber reinforced
MTTF	63.7 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	729 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	639 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))

### Connection data

Connection method	Push-in spring connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	10 mm

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Interference emission	EN 61000-6-2 EN 61000-4-8 (electromagnetic fields) Criterion A
Conducted noise emission	EN 61000-6-2 Class A
Immunity to surge	EN 61000-6-2 EN 61000-4-5 (surge) Criterion B
Immunity to burst	EN 61000-6-2 EN 61000-4-4 (EFT burst) Criterion A
Immunity to EF	EN 61000-6-2 EN 61000-4-3 (electromagnetic fields) Criterion A
Immunity to ESD	EN 61000-6-2 EN 61000-4-2 (ESD) Criterion B
Immunity to conducted interference	EN 61000-6-2 EN 61000-4-6 (line noise immunity) Criterion A
Type of test	Free fall in accordance with EN 61131-2
Noise emission	EN 61000-6-4:2007 + A1:2011
Noise immunity	EN 61000-6-2:2005
Vibration (storage/transport)	5g, 150 Hz, in acc. with IEC 60068-2-6
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz
Shock (operation)	30g (EN 60068-2-27)

### Environmental Product Compliance

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## Technical data

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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## Classifications

### eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 11.0	19170402
eCl@ss 9.0	19170106

### ETIM

ETIM 7.0	EC000734
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### UNSPSC

UNSPSC 18.0	43222612
UNSPSC 19.0	43222612
UNSPSC 20.0	43222612
UNSPSC 21.0	43222612

## Approvals

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#### Approvals

EAC / IECCEB Scheme / UL Listed / cUL Listed / IECCEB Scheme / UL Listed / cUL Listed / KC

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

EAC		RU *- DE.A*08.B.00731
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IECCEB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DK-91138-UL
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## Approvals

UL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140403
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140403
IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DK-91246-UL
UL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
KC		<a href="http://eng.kcc.go.kr/user/ehpMain.do">http://eng.kcc.go.kr/user/ehpMain.do</a>	R-R-PCK-1085255