

Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

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Narrow Ethernet switch, eight 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
- ✓ 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)



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	260.000 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	22.5 mm
Height	140.4 mm
Depth	92 mm
Note on dimensions	147.5 mm with connector

Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

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	8 (RJ45 ports)
Note on the connection method	Auto negotiation and autocrossing
Transmission physics	Ethernet in RJ45 twisted pair
Transmission speed	10/100/1000 Mbps
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status

Function

Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store and forward switching mode
Additional functions	Autonegotiation
	Jumbo frames (Max. 9,216 bytes)
MAC address table	4k
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U _S , 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 _{PP} (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)
Typical current consumption	54 mA
Max. current consumption	452 mA

General

Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

Technical data

General

Mounting type	DIN rail
Type AX	Stand-alone
Net weight	179 g
MTTF	66.1 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	786 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	709 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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
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)

Classifications

eCl@ss

eCl@ss 10.0.1	19170402
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Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

Classifications

eCl@ss

eCl@ss 8.0	19170106
eCl@ss 9.0	19170106

ETIM

ETIM 5.0	EC000734
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Approvals

Approvals


Approvals


EAC / IECEE CB Scheme / UL Listed / cUL Listed / IECEE CB 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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IECEE CB Scheme		http://www.iecee.org/	DK-91138-UL
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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IECEE CB Scheme		http://www.iecee.org/	DK-91246-UL
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Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

Approvals

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cUL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

KC



<http://eng.kcc.go.kr/user/ehpMain.do>

R-R-PCK-1085243

Accessories

Accessories

Assembly adapter

Mounting plate - FL DIN-RAIL ADAPTER 22.5 - 1085485



The FL DIN-RAIL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a standard 35 mm DIN rail, in any orientation.

Mounting plate - FL PANEL ADAPTER 22.5 - 1085488



The FL PANEL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a panel, in any orientation.

Data cable preassembled

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight

Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

Accessories

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



Patch cable, CAT6A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



Patch cable, CAT6A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

Accessories

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY BD:US,GND - 1087544



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY - 1998263



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Protective cap

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

Industrial Ethernet Switch - FL SWITCH 1108N - 1085243

Accessories

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 2881007



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

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Narrow Ethernet switch, five 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
- ✓ 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)



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	220.000 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	22.5 mm
Height	117 mm
Depth	84 mm
Note on dimensions	123 mm with connector

Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

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	5 (RJ45 ports)
Note on the connection method	Auto negotiation and autocrossing
Transmission physics	Ethernet in RJ45 twisted pair
Transmission speed	10/100/1000 Mbps
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status

Function

Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store and forward switching mode
Additional functions	Autonegotiation
	Jumbo frames (Max. 9,216 bytes)
MAC address table	2k
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U _S , 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 _{PP} (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)
Typical current consumption	38 mA
Max. current consumption	311 mA

General

Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

Technical data

General

Mounting type	DIN rail
Type AX	Stand-alone
Net weight	135 g
MTTF	87.5 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	1058 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	951 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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
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)
UL, USA	UL 61010-1
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D T4 Class I, Zone 2, IIC T4

Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

Classifications

eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 8.0	19170106
eCl@ss 9.0	19170106

ETIM

ETIM 5.0	EC000734
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Approvals

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EAC / IECEE CB Scheme / UL Listed / cUL Listed / IECEE CB 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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IECEE CB Scheme		http://www.iecee.org/	DK-91138-UL
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

Approvals

IECEE CB Scheme		http://www.iecee.org/	DK-91246-UL
UL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 238705
KC		http://eng.kcc.go.kr/user/ehpMain.do	R-R-PCK-1085254

Accessories

Accessories

Assembly adapter

Mounting plate - FL DIN-RAIL ADAPTER 22.5 - 1085485



The FL DIN-RAIL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a standard 35 mm DIN rail, in any orientation.

Mounting plate - FL PANEL ADAPTER 22.5 - 1085488



The FL PANEL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a panel, in any orientation.

Data cable preassembled

Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

Accessories

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

Accessories

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY BD:US,GND - 1087544



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY - 1998263



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Protective cap

Industrial Ethernet Switch - FL SWITCH 1105N - 1085254

Accessories

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 2881007



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

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
- ✓ 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 mm
Note on dimensions	150 mm with connector

Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

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 / auto negotiation, complies with IEEE 802.3, store and forward switching mode
Additional functions	Autonegotiation
MAC address table	8k
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U _S , 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 _{PP} (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)
Typical current consumption	68 mA
Max. current consumption	266 mA

General

Mounting type	DIN rail
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Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

Technical data

General

Type AX	Stand-alone
Net weight	266 g
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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
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)

Classifications

eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 8.0	19170106

Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

Classifications

eCl@ss

eCl@ss 9.0	19170106
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ETIM

ETIM 5.0	EC000734
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Approvals

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Approvals


EAC / IECEE CB Scheme / UL Listed / cUL Listed / IECEE CB 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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IECEE CB Scheme		http://www.iecee.org/	DK-91138-UL
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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IECEE CB Scheme		http://www.iecee.org/	DK-91246-UL
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Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

Approvals

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cUL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

KC



<http://eng.kcc.go.kr/user/ehpMain.do>

R-R-PCK-1085255

Accessories

Accessories

Assembly adapter

Mounting plate - FL PANEL ADAPTER 40 - 1085486



The FL PANEL ADAPTER 40 is designed to allow products 40 mm wide to be mounted flush to a panel, in any orientation.

Mounting plate - FL DIN-RAIL ADAPTER 40 - 1085484



The FL DIN-RAIL ADAPTER 40 is designed to allow products 40 mm wide to be mounted flush to a standard 35 mm DIN rail, in any orientation.

Data cable preassembled

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight

Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

Accessories

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



Patch cable, CAT6A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



Patch cable, CAT6A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

Accessories

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY BD:US,GND - 1087544



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY - 1998263



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Protective cap

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

Industrial Ethernet Switch - FL SWITCH 1016N - 1085255

Accessories

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 2881007



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

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Narrow Ethernet switch, eight 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
- ✓ 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)	260.000 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	22.5 mm
Height	140.4 mm
Depth	92 mm
Note on dimensions	147.5 mm with connector

Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

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	8 (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 / auto negotiation, complies with IEEE 802.3, store and forward switching mode
Additional functions	Autonegotiation
MAC address table	2k
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U _S , 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 _{PP} (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)
Typical current consumption	28 mA
Max. current consumption	173 mA

General

Mounting type	DIN rail
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Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

Technical data

General

Type AX	Stand-alone
Net weight	173 g
Housing material	Polycarbonate
MTTF	133.9 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	1254 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1196 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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
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)

Classifications

eCl@ss

eCl@ss 10.0.1	19170402
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Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

Classifications

eCl@ss

eCl@ss 8.0	19170106
eCl@ss 9.0	19170106

ETIM

ETIM 5.0	EC000734
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Approvals

Approvals

Approvals


EAC / IECEE CB Scheme / UL Listed / cUL Listed / IECEE CB 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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IECEE CB Scheme		http://www.iecee.org/	DK-91138-UL
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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IECEE CB Scheme		http://www.iecee.org/	DK-91246-UL
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Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

Approvals

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cUL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

KC



<http://eng.kcc.go.kr/user/ehpMain.do>

R-R-PCK-1085256

Accessories

Accessories

Assembly adapter

Mounting plate - FL DIN-RAIL ADAPTER 22.5 - 1085485



The FL DIN-RAIL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a standard 35 mm DIN rail, in any orientation.

Mounting plate - FL PANEL ADAPTER 22.5 - 1085488



The FL PANEL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a panel, in any orientation.

Data cable preassembled

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight

Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

Accessories

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



Patch cable, CAT6A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



Patch cable, CAT6A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

Accessories

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY BD:US,GND - 1087544



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY - 1998263



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Protective cap

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

Industrial Ethernet Switch - FL SWITCH 1008N - 1085256

Accessories

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 2881007



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

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Narrow Ethernet switch, five 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
- ✓ 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)	220.000 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	22.5 mm
Height	117 mm
Depth	84 mm
Note on dimensions	123 mm with connector

Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

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	5 (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 / auto negotiation, complies with IEEE 802.3, store and forward switching mode
Additional functions	Autonegotiation
MAC address table	2k
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U _S , 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 DC
	24 V AC (50/60 Hz)
Residual ripple	3.6 V _{PP} (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)
Typical current consumption	19 mA
Max. current consumption	110 mA

General

Mounting type	DIN rail
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Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

Technical data

General

Type AX	Stand-alone
Net weight	130 g
Housing material	Plastic
MTTF	167.2 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	1627 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	1526 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 ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
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)
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

Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

Classifications

eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 8.0	19170106
eCl@ss 9.0	19170106

ETIM

ETIM 5.0	EC000734
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Approvals

Approvals

Approvals


EAC / IECEE CB Scheme / UL Listed / cUL Listed / IECEE CB 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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IECEE CB Scheme		http://www.iecee.org/	DK-91138-UL
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
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Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

Approvals

IECEE CB Scheme		http://www.iecee.org/	DK-91246-UL
UL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 238705
KC		http://eng.kcc.go.kr/user/ehpMain.do	R-R-PCK-1085039

Accessories

Accessories

Assembly adapter

Mounting plate - FL DIN-RAIL ADAPTER 22.5 - 1085485



The FL DIN-RAIL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a standard 35 mm DIN rail, in any orientation.

Mounting plate - FL PANEL ADAPTER 22.5 - 1085488



The FL PANEL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a panel, in any orientation.

Data cable preassembled

Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

Accessories

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

Accessories

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY BD:US,GND - 1087544



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Printed-circuit board connector - FKCT 2,5/ 3-ST KMGY - 1998263



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin

Protective cap

Industrial Ethernet Switch - FL SWITCH 1005N - 1085039

Accessories

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 2881007



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.