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Industrial Ethernet Switch - FL SWITCH 1824 - 2891041

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Ethernet switch, 24 Ethernet ports on the front in RJ45 format, automatic detection of 10 or 100 Mbps data transmission rate, coupling of network segments with different transmission speeds, auto crossing function, installs in 19-in. (482 mm) rack

Product Description

Ethernet interface
The FL SWITCH 1824 has 24 Ethernet ports in RJ45 format. It is mounted in a 19-in. (482 mm) rack with AC power. The data transmission speed is 10 Mbps or 100 Mbps. In addition, each port has an auto crossing function at 100 Mbps: It is not necessary to make a distinction between 1:1 or crossover Ethernet cables. Mounting brackets and a German power cord are included. User supplies screws for bracket to rack connection.

Switching properties of FL SWITCH 1824
–Store-and-forward:
All data telegrams that are received by the switch are saved and their validity is checked. Invalid or faulty data packets (>1522 bytes or CRC errors) and fragments (<64 bytes) are rejected. Valid data telegrams are forwarded by the switch. The switch always forwards the data using the data transmission speed that is used in the destination network segment.
–Multi-address function:
The switch independently learns the addresses for termination devices, which are connected via a port, by evaluating the source addresses in the data telegrams. Only packets with unknown addresses, with a source address of this port or with a multicast/broadcast address in the destination address field are forwarded via the corresponding port. The switch can store up to 8192 MAC addresses in its address table.
-Quality of service (QoS): IEEE 802.1P/Q
In revision version VC03 and higher, FL SWITCH 1824 switches are capable of reading Ethernet packets that have already been assigned a priority level by a managed switch. Four priority queues are supported. The highest priority queue supports packet priorities 6 and 7, the next lowest queue supports priorities 4 and 5, the next lowest queue supports priorities 2 and 3, and the lowest priority queue supports packet priorities 0 and 1. After prioritization, the packets are forwarded without modification.

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356587952

Technical data

Note

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

Dimensions

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Technical data

Dimensions

Width	440 mm
Height	44 mm
Depth	173 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	0 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Air pressure (operation)	86 kPa ... 108 kPa (1500 m above sea level)

Interfaces

Interface	Ethernet
No. of ports	24 (RJ45 ports)
Transmission physics	Twisted pair connection
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
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	120 V AC
	220 V AC
Supply voltage range	100 V AC ... 240 V AC (50/60 Hz)
Typical current consumption	270 mA (100 V AC)
Max. current consumption	1 A (maximum)
Inrush current	29 A (80 µs @ 230 V AC)

General

Mounting type	Rack mount, includes brackets
Type AX	Stand-alone
Net weight	2110 g
MTTF	22.9 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

Standards and Regulations

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Technical data

Standards and Regulations

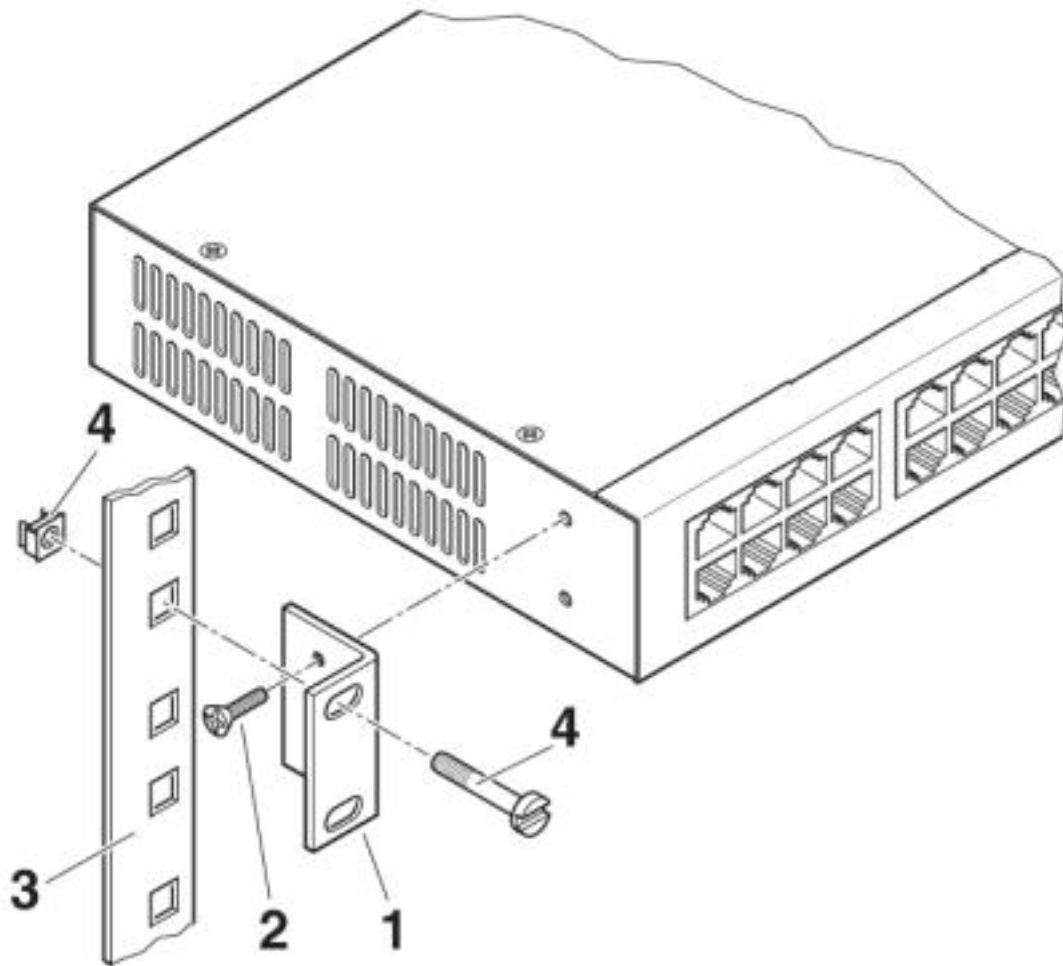|	
Electromagnetic compatibility	Conformance with EMC directive 2004/108/EC and for low-voltage directive 2006/95/EC
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	Operation: 15g, 11 ms period, half-sine shock pulse Storage/transport: 20g, 11 ms period, half-sine shock pulse
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	Operation: 1g, 10 ... 150 Hz Storage/transport: 2g, 10 ... 150 Hz
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

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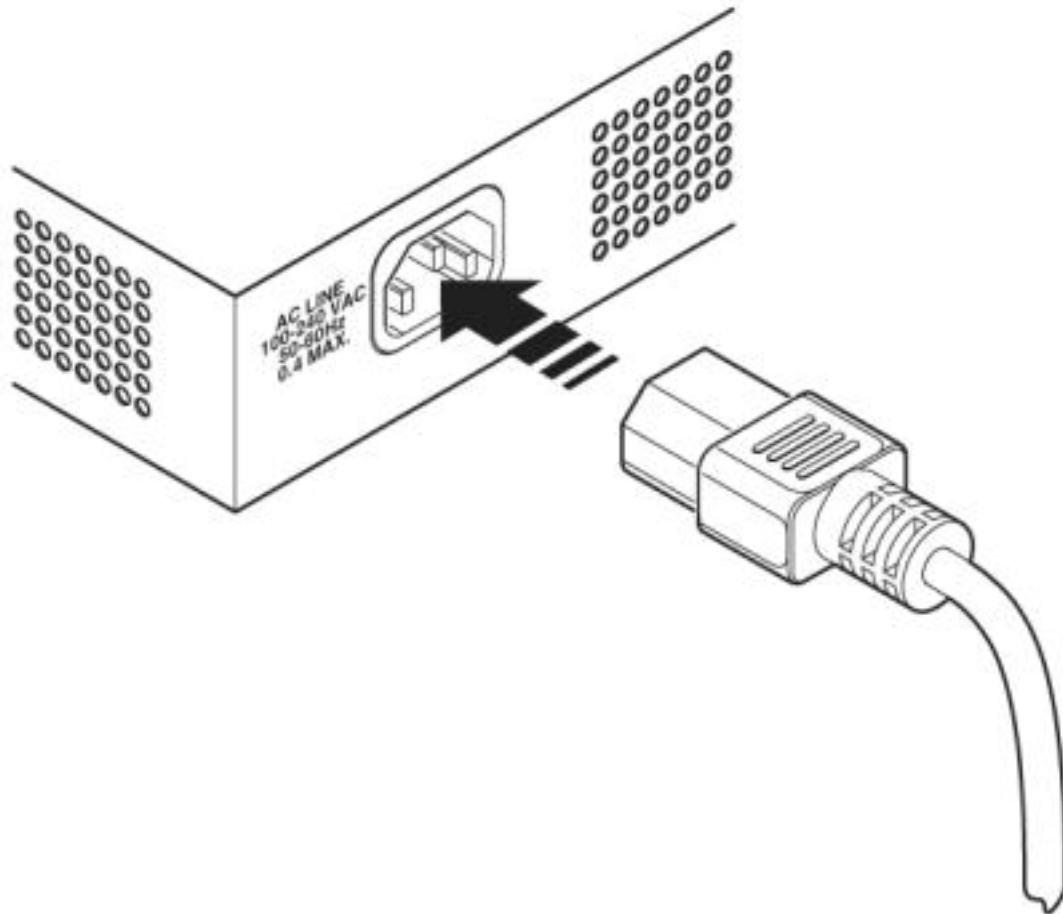# Industrial Ethernet Switch - FL SWITCH 1824 - 2891041

Application drawing

Attach the brackets to each side of the switch with the included screws (as shown).

Install the switch in the rack using the rack hardware.
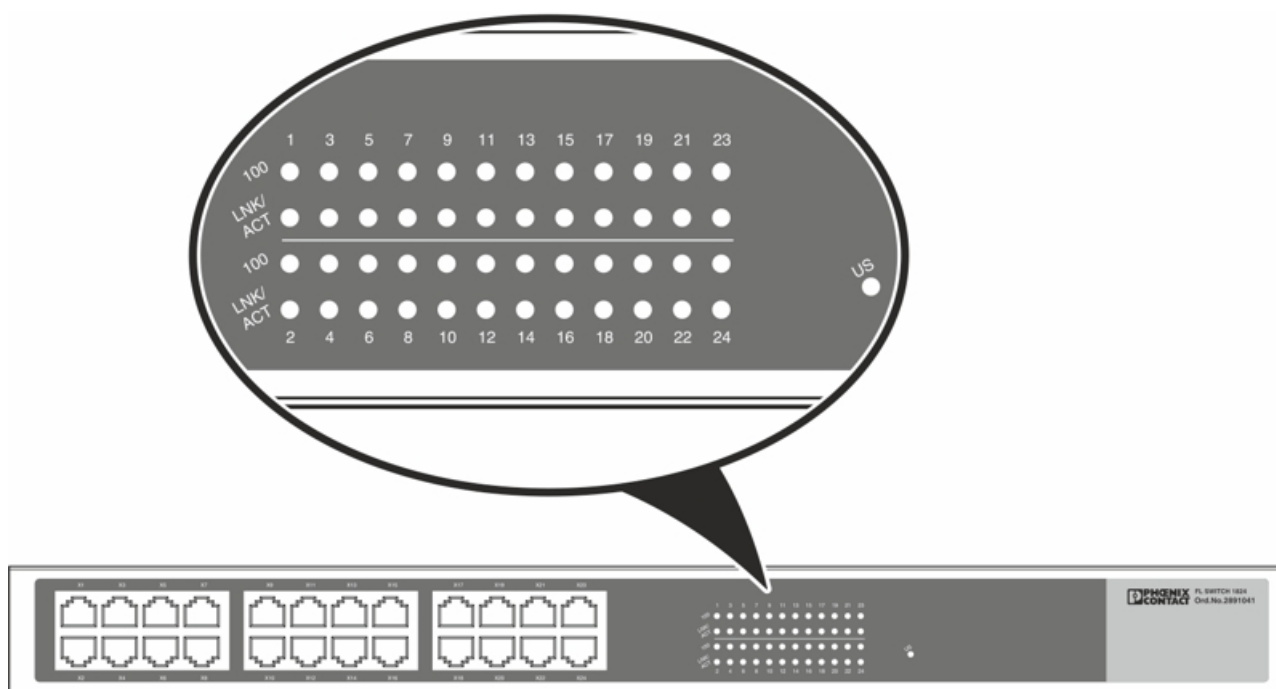
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Schematic diagram

AC LINE
100-240 VAC
50-60Hz
0.4 MAX.

Two power cords are included and provide line, neutral and ground conductors:
For North American markets the power cord uses a NEMA 5-15 plug.
For European markets the power cord uses a CEE 7/4 plug.
Both power cords use a common plug (IEC 60320-1 type C13) for connecting to the FL SWITCH 1924.

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Schematic diagram

The US LED indicates power is present.

Each port has 2 LEDs:
- When the 100 LED is illuminated, the port is operating at 100 Mbps. When off, it is operating at 10 Mbps.
- The LNK/ACT LED is illuminated when the port is connected and off when not connected. Flashing indicates data transfer (RX or TX).

Classifications

eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 4.0	24010500
eCl@ss 4.1	24010500
eCl@ss 5.0	19030100
eCl@ss 5.1	19030100

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Classifications

eCl@ss

eCl@ss 6.0	19170100
eCl@ss 7.0	19170106
eCl@ss 8.0	19170106
eCl@ss 9.0	19170106

ETIM

ETIM 3.0	EC000734
ETIM 4.0	EC000734
ETIM 5.0	EC000734
ETIM 6.0	EC000734
ETIM 7.0	EC000734

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201410
UNSPSC 13.2	43222612
UNSPSC 18.0	43222612
UNSPSC 19.0	43222612
UNSPSC 20.0	43222612
UNSPSC 21.0	43222612

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / KC / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403

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Approvals

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140403
EAC			RU *-DE.A*08.B.00739
KC		http://eng.kcc.go.kr/user/ehpMain.do	KCC-REI-PCK-FL289104
cULus Listed			

Accessories

Accessories

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

Patch cable, CAT5, assembled, 0.5 m

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

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Accessories

Protective cap

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.