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## Industrial Ethernet Switch - FL SWITCH 1824-2891041

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## 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

## Ethernet

## Key Commercial Data

| Packing unit | 1 STK |
| :---: | :---: |
| GTIN |  |
| GTIN | 4046356587952 |

Technical data

## Note

```
Utilization restriction
```


## Industrial Ethernet Switch - FL SWITCH 1824-2891041

## Technical data

Dimensions

| Width | 440 mm |
| :--- | :--- |
| Height | 44 mm |
| Depth | 173 mm |

## Ambient conditions

| Degree of protection | IP 20 |
| :--- | :--- |
| Ambient temperature (operation) | $0^{\circ} \mathrm{C} \ldots 60^{\circ} \mathrm{C}$ |
| Ambient temperature (storage/transport) | $-25{ }^{\circ} \mathrm{C} \ldots 70^{\circ} \mathrm{C}$ |
| Permissible humidity (operation) | $5 \% \ldots 95 \%$ (non-condensing) |
| Air pressure (operation) | $86 \mathrm{kPa} \ldots 108 \mathrm{kPa}(1500 \mathrm{~m}$ above sea level) |

Interfaces

| Interface 1 | 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 <br> 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 | $100 \mathrm{~V} \mathrm{AC} \mathrm{\ldots 240V} \mathrm{AC} \mathrm{(50/60} \mathrm{Hz)}$ |
| Typical current consumption | $270 \mathrm{~mA} \mathrm{(100} \mathrm{~V} \mathrm{AC)}$ |
| Max. current consumption | 1 A (maximum) |
| Inrush surge current | $29 \mathrm{~A} \mathrm{(80} \mathrm{\mu s} \mathrm{@} \mathrm{230V} \mathrm{AC)}$ |

General

| Mounting type | Rack mount, includes brackets |
| :--- | :--- |
| Type AX | Stand-alone |
| Net weight | 2110 g |

## Standards and Regulations

[^0]
## Industrial Ethernet Switch - FL SWITCH 1824-2891041

## Technical data

Standards and Regulations

| Type of test | Shock in acc. with EN 60068-2-27/IEC 60068-2-27 |
| :--- | :--- |
| Test result | Operation: $15 \mathrm{~g}, 11 \mathrm{~ms}$ period, half-sine shock pulse <br> Storage/transport: $20 \mathrm{~g}, 11 \mathrm{~ms}$ period, half-sine shock pulse |
| Type of test | Vibration resistance in acc. with EN 60068-2-6/IEC $60068-2-6$ |
| Test result | Operation: $1 \mathrm{~g}, 10 \ldots 150 \mathrm{~Hz}$ <br> Storage/transport: $2 \mathrm{~g}, 10 \ldots 150 \mathrm{~Hz}$ |
| 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", <br> Category "Manufacturer's declaration" |

## Drawings

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.

Schematic diagram


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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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).


## Approvals

Approvals

## Approvals

UL Listed / cUL Listed / EAC / 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

## Industrial Ethernet Switch - FL SWITCH 1824-2891041

## Approvals



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[^0]:    Conformance with EMC directive 2004/108/EC and for low-voltage directive 2006/95/EC

