

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Managed Switch 2000, 8 RJ45 ports 10/100/1000 Mbps, PROFINET Conformance-Class A



## Your advantages

- MRP client
- VLANs
- Unmanaged Mode
- DHCP client, DHCP server (port-based)
- RSTP
- Configuration memory
- Web-based management, SNMP
- Easy and fast startup and commissioning with the FL NETWORK MANAGER software
- Suitable for PROFINET and EtherNet/IP™ networks

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2702666             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | DN17                |
| Product key                          | DNN121              |
| Catalog page                         | Page 305 (C-6-2019) |
| GTIN                                 | 4055626283418       |
| Weight per piece (including packing) | 410 g               |
| Weight per piece (excluding packing) | 240 g               |
| Customs tariff number                | 85176200            |
| Country of origin                    | DE                  |

# FL SWITCH 2108 - Industrial Ethernet Switch

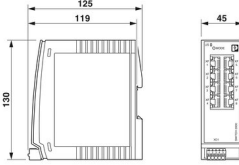


2702666

<https://www.phoenixcontact.com/us/products/2702666>

## Technical data

### Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 45 mm  |
| Height              | 130 mm   |
| Depth               | 119 mm   |

### Notes

|                         |   |
|-------------------------|---|
| General                 | Support by phone or on-site (fee is charged)                              |
| Utilization restriction |   |
| EMC note                | EMC: class A product, see manufacturer's declaration in the download area |

### Material specifications

|                  |                                |
|------------------|--------------------------------|
| Housing material | Polycarbonate fiber reinforced |
|------------------|--------------------------------|

### Mounting

|               |                   |
|---------------|-------------------|
| Mounting type | DIN rail mounting |
|---------------|-------------------|

### Interfaces

|                               |                                   |
|-------------------------------|-----------------------------------|
| Ethernet (RJ45)               |                                   |
| Connection method             | RJ45                              |
| Note on the connection method | Auto negotiation and autocrossing |
| Transmission speed            | 10/100/1000 Mbps                  |
| Transmission physics          | Copper                            |
| Transmission length           | 100 m (per segment)               |
| Signal LEDs                   | Data receive, link status         |
| No. of channels               | 8 (RJ45 ports)                    |

### Product properties

|                |   |
|----------------|---|
| Type           | Book type   |
| Product type   | Switch  |
| Product family | Managed Switch 2000   |
| MTTF           | 398.76 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)<br>174.97 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%) |

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

|              |  |
|--------------|--|
|              | 31.76 Years (SN 29500 standard, temperature 55°C, operating cycle 100%)          |
| Signal delay | ≥ 1.9 μs (Store-and-Forward mode, 10/100/1000 Mbps, depending on the frame size) |

## Insulation characteristics

|                     |                |
|---------------------|----------------|
| Protection class    | III (VDE 0106) |
| Degree of pollution | 2              |

## Switch functions

|                                  |   |
|----------------------------------|---|
| Diagnostic functions             | RMON History  |
|                                  | LLDP (Link Layer Discovery Protocol)  |
|                                  | SNMP-Traps  |
|                                  | N:1-Portmirroring   |
|                                  | ACD (Address Conflict Detection)  |
|                                  | SysLog  |
|                                  | CRC-Surveillance  |
| Basic functions                  | Store-and-forward switch, complies with IEEE 802.3                          |
| PROFINET conformance class       | Conformance-Class A   |
| Filter functions                 | Quality of Service (8 priority classes)                                     |
|                                  | Class of Service  |
|                                  | DiffServ/DSCP   |
|                                  | Port-Priorisierung  |
|                                  | VLAN (up to 8 VLANs)  |
|                                  | IGMP Snooping/Querier (v1/v2)   |
|                                  | Auto-Query-Port   |
| IP parameterization              | DHCP-Client   |
|                                  | DHCP server (port based)  |
|                                  | BootP   |
| MAC address table                | 8k  |
| Management                       | Web-based management (HTTP/HTTPS)   |
|                                  | Role-based user management (LDAP)   |
|                                  | SNMPv1/v2/v3  |
|                                  | Command Line Interface (Telnet, SSH)  |
| Redundancy                       | MRP (Media Redundancy Protocol)   |
|                                  | RSTP (Rapid Spanning Tree Protocol)   |
| Status and diagnostic indicators | LEDs: US (power supply), 2 LEDs per Ethernet port (Link/Activity and Speed) |
| Additional functions             | Jumbo frames (max. 9,600 bytes)   |
|                                  | Transmission of MMS and GOOSE (IEC 61850-8-1)                               |
|                                  | Transmission of Modbus/TCP  |
| Time synchronization             | SNTP (Simple Network Time Protocol)   |

## Security functions

|                 |  |
|-----------------|--|
| Basic functions | Store-and-forward switch, complies with IEEE 802.3 |
|-----------------|--|

## Electrical properties

|   |  |
|---|--|
| Local diagnostics                               | US Supply voltage Green LED                              |
|   | LINK Link status Green LED                               |
|   | SPD Data transmission speed Green/orange LED             |
| Maximum power dissipation for nominal condition | 7.02 W (At $U_S = 18$ V DC and 60°C ambient temperature) |
| Test voltage                                    | 500 V DC   |
| Test section                                    | for one minute 500 V DC                                  |
| Transmission medium                             | Copper   |

## Supply

|                             |  |
|-----------------------------|--|
| Supply voltage (DC)         | 24 V DC (single)   |
| Supply voltage range        | 18 V DC ... 32 V DC  |
| Power supply connection     | via COMBICON, max. conductor cross section 1.5 mm <sup>2</sup> |
| Residual ripple             | 3.6 V <sub>PP</sub> (within the permitted voltage range)       |
| Max. current consumption    | 0.4 A (At $U_S = 18$ V DC and 60°C ambient temperature)        |
| Typical current consumption | 275 mA (at $U_S = 24$ V DC and 25 °C ambient temperature)      |
| Current consumption         | 275 mA   |

## Connection data

|                                   |   |
|-----------------------------------|---|
| Connection method                 | Push-in spring connection   |
| Note on the connection method     | Use only copper connecting cables providing the permitted temperature range (-40 °C ... 75 °C). |
| Conductor cross section, rigid    | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section, flexible | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section AWG       | 24 ... 16   |
| Stripping length                  | 9 mm  |

## Environmental and real-life conditions

### Ambient conditions

|  |   |
|--|---|
| Degree of protection                     | IP20  |
| Ambient temperature (operation)          | 0 °C ... 60 °C                              |
| Ambient temperature (storage/transport)  | -40 °C ... 85 °C                            |
| Permissible humidity (operation)         | 10 % ... 95 % (non-condensing)              |
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing)              |
| Shock (operation)                        | 30g (EN 60068-2-27)                         |
| Vibration (operation)                    | 2g, according to IEC 60068-2-6              |
| Air pressure (operation)                 | 86 kPa ... 108 kPa (1500 m above sea level) |
| Air pressure (storage/transport)         | 86 kPa ... 108 kPa (1500 m above sea level) |

## Standards and regulations

|   |     |
|---|-----|
| Free from substances that could impair the application of coating | Yes |
|---|-----|

## Approvals

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

UL, USA/Canada

|                |   |
|----------------|---|
| Identification | cULus   |
| Note           | UL 61010-1, Ed. 3 / UL 61010-2-201, Ed. 1, CSA C22.2 NO. 61010-2-201:14, Ed. 1 / CSA C22.2 NO.61010-1-12, Ed. 3 |

## EMC data

|                                 |  |
|---------------------------------|--|
| 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 A                  |
|                                 | EN 61000-6-2 EN 61000-4-6 (line noise immunity) Criterion A    |
|                                 | EN 61000-6-2 EN 61000-6-4 (interference) Class A               |
|                                 | EN 61000-6-2 EN 61000-6-4 (conducted interference) Class A     |
| Noise immunity                  | EN 61000-6-2   |
| Electromagnetic compatibility   | Conformance with EMC Directive 2014/30/EU                      |
| Noise emission                  | EN 61000-6-4   |

## System properties

### Functionality

|                 |  |
|-----------------|--|
| Basic functions | Store-and-forward switch, complies with IEEE 802.3 |
|-----------------|--|

## Signaling

|                |   |
|----------------|---|
| Status display | LEDs: US (power supply), 2 LEDs per Ethernet port (Link/Activity and Speed) |
|----------------|---|

# FL SWITCH 2108 - Industrial Ethernet Switch

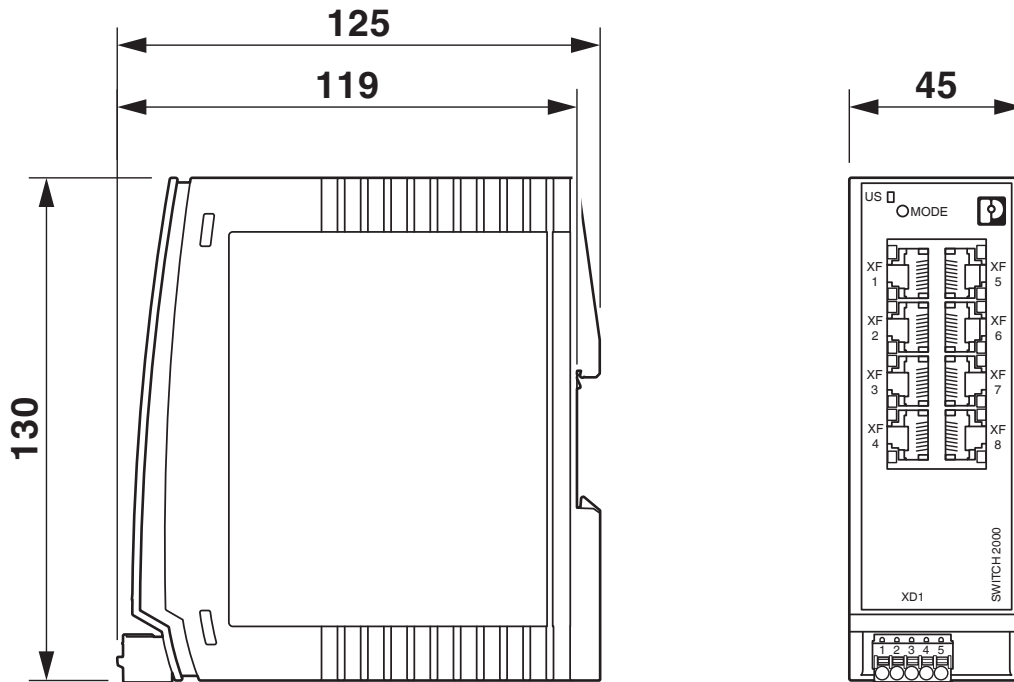
2702666

<https://www.phoenixcontact.com/us/products/2702666>



## Drawings

Dimensional drawing



# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2702666>



**EAC**

Approval ID: RU\*-DE.\*.B.00741/19



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705



**CC-Link IE Field**

Approval ID: Ref. No. 101



**cUL Listed**

Approval ID: FILE E 238705



**UL Listed**

Approval ID: FILE E 238705

**UAE-RoHS**

Approval ID: 23-02-63230

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 19170401 |
| ECLASS-12.0 | 19170401 |
| ECLASS-13.0 | 19170401 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000734 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 43222600 |
|-------------|----------|



# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

## Environmental product compliance

|            |  |
|------------|--|
| REACH SVHC | Lead 7439-92-1   |
| China RoHS | Environmentally Friendly Use Period = 50 years   |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

## Accessories

### SD FLASH 2GB - Program / configuration memory

2988162

<https://www.phoenixcontact.com/us/products/2988162>



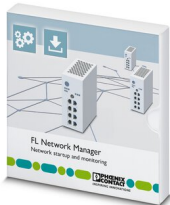
Program and configuration memory, for extending the internal flash memory, pluggable, 2 GB.

---

### FL NETWORK MANAGER BASIC - Network management software

2702889

<https://www.phoenixcontact.com/us/products/2702889>



SNMP-based software for easy commissioning and monitoring of network components such as switches, routers, and WLAN access points

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

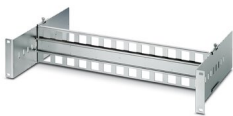
<https://www.phoenixcontact.com/us/products/2702666>

## FL DIN RA - DIN rail adapter

2891053

<https://www.phoenixcontact.com/us/products/2891053>

The FL DIN RA is installed in a standard, 19-inch rack (EIA-310-D, IEC 60297-3-100) to allow DIN rail mounted equipment to be rack mounted.



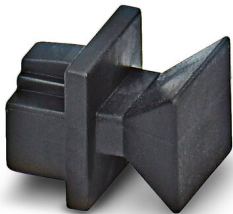
---

## FL RJ45 PROTECT CAP - Dust protection

2832991

<https://www.phoenixcontact.com/us/products/2832991>

Dust protection caps for RJ45 socket



# FL SWITCH 2108 - Industrial Ethernet Switch

2702666

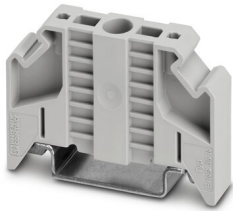
<https://www.phoenixcontact.com/us/products/2702666>

## E/NS 35 N - End clamp

0800886

<https://www.phoenixcontact.com/us/products/0800886>

End clamp, width: 9.5 mm, color: gray



---

## FK-MCP 1,5/ 5-ST-3,81GY35BD1-5 - PCB connector

1015782

<https://www.phoenixcontact.com/us/products/1015782>



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: light grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: FK-MCP 1,5/...-ST, pitch: 3.81 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

# FL SWITCH 2108 - Industrial Ethernet Switch



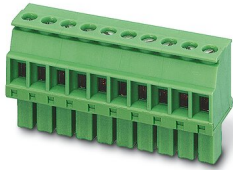
2702666

<https://www.phoenixcontact.com/us/products/2702666>

## MCVW 1,5/ 5-ST-3,81GY7035BD2US - PCB connector

1034103

<https://www.phoenixcontact.com/us/products/1034103>



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: light grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MCVW 1,5/..-ST, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

---

## FL CAT5 PATCH 0,5 - Patch cable

2832263

<https://www.phoenixcontact.com/us/products/2832263>



Patch cable, CAT5, assembled, 0.5 m

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

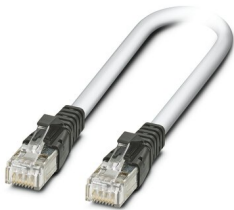
<https://www.phoenixcontact.com/us/products/2702666>

## FL CAT5 PATCH 1,0 - Patch cable

2832276

<https://www.phoenixcontact.com/us/products/2832276>

Patch cable, CAT5, assembled, 1 m



---

## FL CAT5 PATCH 2,0 - Patch cable

2832289

<https://www.phoenixcontact.com/us/products/2832289>

Patch cable, CAT5, assembled, 2 m



# FL SWITCH 2108 - Industrial Ethernet Switch



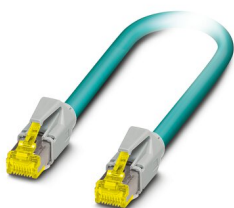
2702666

<https://www.phoenixcontact.com/us/products/2702666>

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

1411854

<https://www.phoenixcontact.com/us/products/1411854>



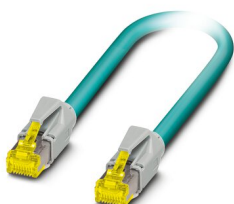
Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

---

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

1408360

<https://www.phoenixcontact.com/us/products/1408360>



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

# FL SWITCH 2108 - Industrial Ethernet Switch



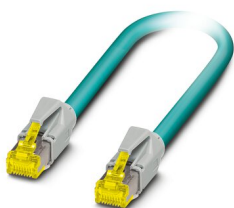
2702666

<https://www.phoenixcontact.com/us/products/2702666>

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

1408365

<https://www.phoenixcontact.com/us/products/1408365>



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

---

## NBC-R4AC/1,0-93B/R4AC - Patch cable

1408968

<https://www.phoenixcontact.com/us/products/1408968>



Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET



# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

## NBC-R4AC/2,0-93B/R4AC - Patch cable

1408969

<https://www.phoenixcontact.com/us/products/1408969>



Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

---

## NBC-R4AC/5,0-93B/R4AC - Patch cable

1408970

<https://www.phoenixcontact.com/us/products/1408970>



Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

# FL SWITCH 2108 - Industrial Ethernet Switch



2702666

<https://www.phoenixcontact.com/us/products/2702666>

## VS-08-RJ45-5-Q/IP20 - RJ45 connector

1656725

<https://www.phoenixcontact.com/us/products/1656725>



RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5, material: Plastic, connection method: Insulation displacement connection, connection cross section: AWG 26- 23, cable outlet: straight, color: traffic grey A RAL 7042, Ethernet

---

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA

586 Fulling Mill Road

Middletown, PA 17057, United States

(+717) 944-1300

[info@phoenixcon.com](mailto:info@phoenixcon.com)