

# FL SWITCH EP7428R-L3F1 - Industrial Ethernet Switch



1144353

<https://www.phoenixcontact.com/us/products/1144353>

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Ethernet gigabit modular switch with slots for twenty-four 10/100/1000 Mbps copper or 100/1000 Mbps SFP ports and four 1000/10,000 Mbps SFP ports using hot-swappable rear modules



## Product description

Developed according to IEC 61850-3 (Ambient conditions)

## Your advantages

- Network structure according to IEC 61850
- IEEE 1613
- Layer 2 and Layer 3 functions
- Modules allow device connections to expand from 10/100 Mbps to 1000 Mbps, and uplink connections from 1 Gbps to 10 Gbps
- Extensive security functions for remote access, local access and network access areas
- 28-port rack-mount switch with required modular port and power supplies
- Hot-swappable port and power supply modules
- IEEE 1588 v2 precision timing support

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1144353       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | DN36          |
| Product key                          | DNN511        |
| GTIN                                 | 4063151129897 |
| Weight per piece (including packing) | 7,846 g       |
| Weight per piece (excluding packing) | 6,276 g       |
| Customs tariff number                | 85176200      |
| Country of origin                    | US            |

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## Technical data

### Dimensions

|        |          |
|--------|----------|
| Width  | 486.2 mm |
| Height | 44.4 mm  |
| Depth  | 446.7 mm |

### Notes

#### Note on application

|                     |                         |
|---------------------|-------------------------|
| Note on application | Only for industrial use |
|---------------------|-------------------------|

### Mounting

|               |                             |
|---------------|-----------------------------|
| Mounting type | Rack mounting (with holder) |
| Holder system | 19" rack                    |

### Interfaces

#### Ethernet (combo)

|                               |                                   |
|-------------------------------|-----------------------------------|
| Connection method             | SFP/RJ45                          |
| Note on the connection method | Auto negotiation and autocrossing |
| Transmission speed            | 100/1000 Mbps                     |
|                               | 10/100/1000 Mbps                  |
| Transmission physics          | Copper                            |
| Transmission length           | 100 m (per segment)               |
| No. of channels               | 24 (Combo ports)                  |

#### Ethernet (SFP)

|                      |                                |
|----------------------|--------------------------------|
| Connection method    | SFP                            |
| Transmission speed   | 1000/10,000 Mbps (full duplex) |
| Transmission physics | Depending on the SFP module    |
| No. of channels      | 4 (SFP ports)                  |

### Output data

#### Digital:

|             |                                          |
|-------------|------------------------------------------|
| Output name | Alarm relay output: 24 V DC, 1 A maximum |
|-------------|------------------------------------------|

### Product properties

|                |                       |
|----------------|-----------------------|
| Product type   | Switch                |
| Product family | Managed Switch EP7000 |

#### Insulation characteristics

|                      |    |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution  | 2  |

#### Switch functions

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|                                |         |
|--------------------------------|---------|
| Signal contact control voltage | 24 V DC |
| Signal contact control current | 1 A     |
| MAC address table              | 16k     |

## Electrical properties

|                                                 |      |
|-------------------------------------------------|------|
| Maximum power dissipation for nominal condition | 60 W |
|-------------------------------------------------|------|

### Supply

|                |                                      |
|----------------|--------------------------------------|
| Supply voltage | Based on modular power supplies used |
|----------------|--------------------------------------|

### Function

|                                |         |
|--------------------------------|---------|
| Signal contact control voltage | 24 V DC |
| Signal contact control current | 1 A     |

## Connection data

### Connection technology

|                 |              |
|-----------------|--------------|
| Connection name | Power supply |
|-----------------|--------------|

### Power supply

|                                   |                                             |
|-----------------------------------|---------------------------------------------|
| Connection method                 | Screw connection                            |
| Conductor cross-section, rigid    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section, flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section AWG       | 24 ... 12                                   |

## Environmental and real-life conditions

### Ambient conditions

|                                          |                                                      |
|------------------------------------------|------------------------------------------------------|
| Degree of protection                     | IP20                                                 |
| Ambient temperature (operation)          | -40 °C ... 85 °C (Type tested to 85 °C for 16 hours) |
| Ambient temperature (storage/transport)  | -40 °C ... 85 °C                                     |
| Permissible humidity (operation)         | 5 % ... 95 % (non-condensing)                        |
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing)                       |
| Vibration (operation)                    | in acc. with IEC 60068-2-6: 5g, 150 Hz               |

## Standards and regulations

|                          |                    |
|--------------------------|--------------------|
| Standard designation     | Ambient conditions |
| Standards/specifications | IEC 61850-3        |
|                          | IEEE 1613          |

## Approvals

### Conformity/Approvals

|             |              |
|-------------|--------------|
| Conformance | CE-compliant |
|-------------|--------------|

## EMC data

|                |                                            |
|----------------|--------------------------------------------|
| Noise immunity | IEC 61850-3, IEEE 1613, EN 61000-6-2: 2005 |
|----------------|--------------------------------------------|

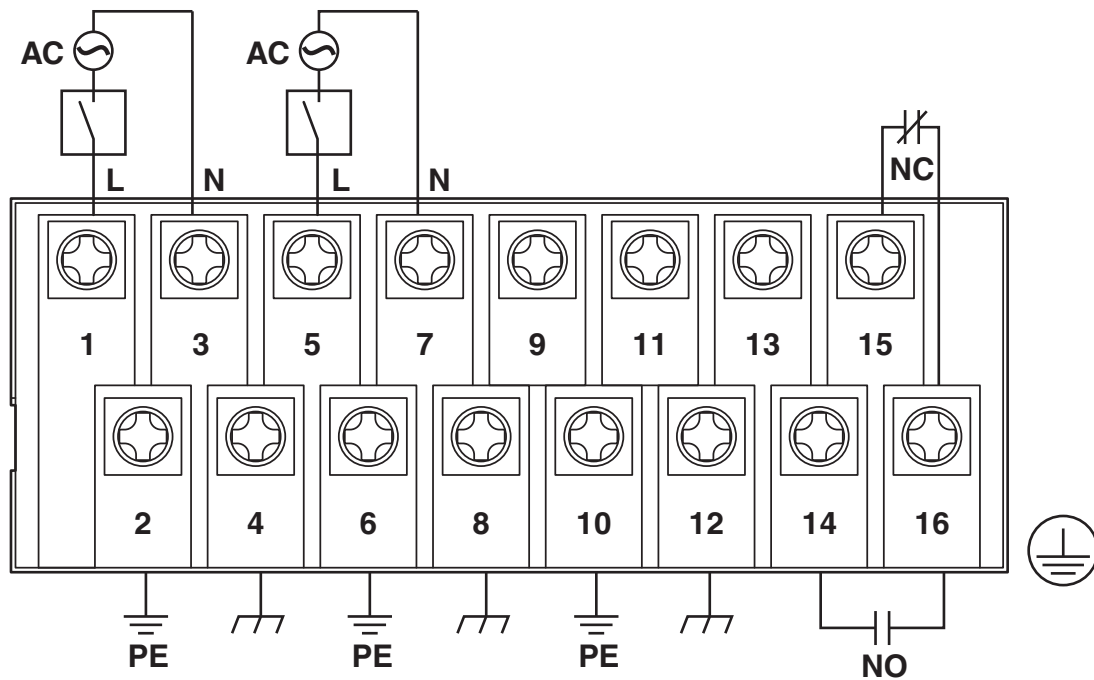
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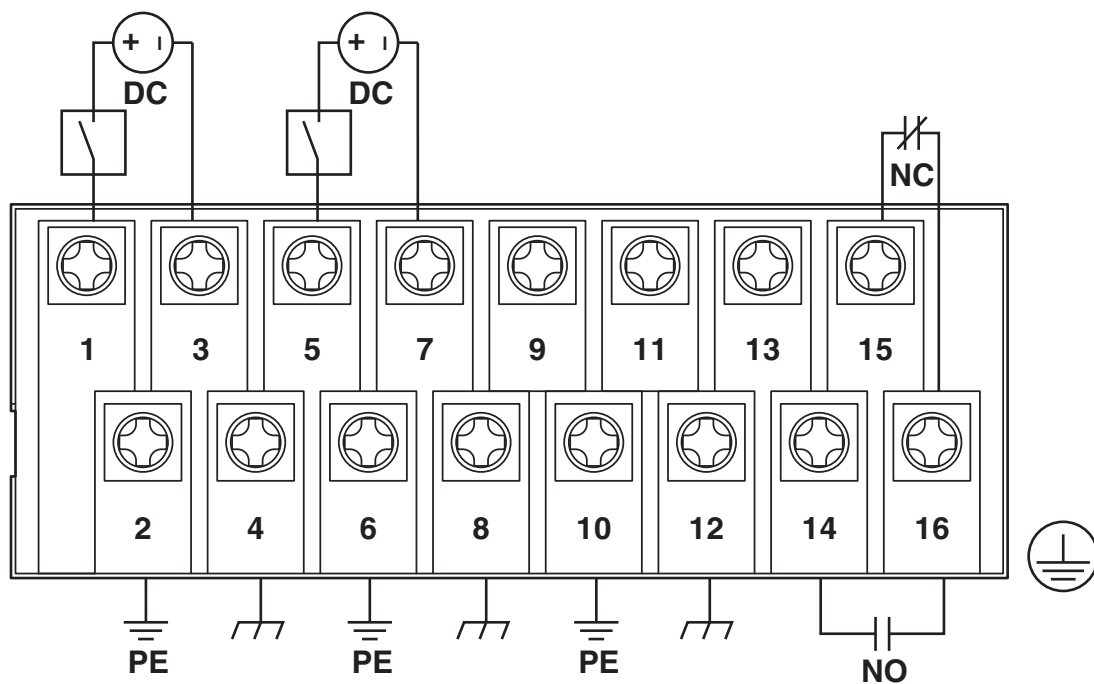
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## Drawings

Connection diagram



Connection diagram



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 19170401 |
| ECLASS-15.0 | 19170401 |

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|                                         |                             |
|-----------------------------------------|-----------------------------|
| Fulfills EU RoHS substance requirements | Yes                         |
| Exemption                               | 6(c), 7(a), 7(c)-I, 7(c)-II |

### China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                                                           |
|-------------------------------------|---------------------------------------------------------------------------|
| REACH candidate substance (CAS No.) | 1-Methyl-2-pyrrolidone (NMP)(CAS: 872-50-4)                               |
|                                     | N,N-dimethylacetamide(CAS: 127-19-5)                                      |
|                                     | Hexahydromethylphthalic anhydride(CAS: n/a)                               |
|                                     | Lead titanium zirconium oxide(CAS: 12626-81-2)                            |
|                                     | Lead titanium trioxide(CAS: 12060-00-3)                                   |
|                                     | Orange lead (lead tetroxide)(CAS: 1314-41-6)                              |
|                                     | 4,4'-isopropylidenediphenol(CAS: 80-05-7)                                 |
|                                     | Terphenyl, hydrogenated(CAS: 61788-32-7)                                  |
|                                     | Lead(CAS: 7439-92-1)                                                      |
|                                     | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one(CAS: 71868-10-5) |

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