

https://www.phoenixcontact.com/us/products/2703008



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PoE injector, 60 W, two RJ45 jacks, 10/100/1000 Mbps, DIN rail mounting, IP20, expanded temperature range of -40°C ... 75°C

### Product description

The midspan injectors connect Ethernet devices without PoE (e.g., switches) to PoE-capable end devices (e.g., IP cameras). As power sourcing equipment (PSE), the injector supplies the required power to a powered device (PD) via the data cable. The injector and end device negotiate the electrical power requirements autonomously.

### Your advantages

- Extended supply voltage range of 18 V DC ... 57 V DC, redundant
- Extended temperature range of -40 °C ... +75 °C
- · Mounting on a DIN rail
- 10/100/1000 Mbps
- · Safe shield connection to ground potential

### Commercial data

| Item number                          | 2703008             |
|--------------------------------------|---------------------|
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | DN18                |
| Product key                          | DNC351              |
| Catalog page                         | Page 345 (C-6-2019) |
| GTIN                                 | 4055626462967       |
| Weight per piece (including packing) | 395 g               |
| Weight per piece (excluding packing) | 380.6 g             |
| Customs tariff number                | 85176200            |
| Country of origin                    | TW                  |

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### Technical data

### **Dimensions**

| Dimensional drawing | 137<br>129,5 |
|---------------------|--------------|
| Width               | 30.2 mm      |
| Height              | 130 mm       |
| Depth               | 120 mm       |

### Notes

### Note on application

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

### Material specifications

| Color            | gray    |
|------------------|---------|
| Housing material | Plastic |

### Mounting

| Mounting type     | DIN rail mounting |
|-------------------|-------------------|
| Mounting position | vertical          |

PSE/Midspan, compliant with IEEE 802.3af, at

### Interfaces

Basic functions

| Serial transmission speed | 10/100/1000 Mbps               |
|---------------------------|--------------------------------|
| Connection method         | RJ45 jack                      |
| No. of channels           | 1                              |
| Pin assignment            | 1:1                            |
| Transmission length       | 100 m (including patch cables) |
| Output nominal voltage    | 54 V DC (PoE)                  |
| Output power              | 60 W                           |

### Data: Ethernet

| Connection method | RJ45 CAT5e |
|-------------------|------------|
|                   |            |

### Product properties

| Product type | Injector   |
|--------------|--|
| MTTF         | 133.8 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%) |



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#### Data management status

| Article revision | 03 |
|------------------|----|
|------------------|----|

### Electrical properties

|--|

#### Supply

| Сарріу                   |                                       |
|--------------------------|---------------------------------------|
| Supply voltage range     | 18 V DC 57 V DC (Ordinary locations)  |
|                          | 24 V DC 48 V DC (Hazardous locations) |
| Nominal supply voltage   | 24 V DC                               |
|                          | 48 V DC                               |
| Max. current consumption | 4.2 A                                 |
|                          | 2.73 A (24 V DC)                      |
|                          | 1.34 A (48 V DC)                      |
| Power consumption        | ≤ 75 W                                |
| Protective circuit       | Reverse polarity protection           |
|                          |                                       |

### Connection data

### Supply

| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm² 2.5 mm²  |
|---|-------------------|
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm² 2.5 mm²  |
| Conductor cross section, flexible                                     | 0.20 mm² 2.50 mm² |
| Conductor cross section, rigid  | 0.20 mm² 2.50 mm² |
| Conductor cross section AWG   | 20 12             |

### Environmental and real-life conditions

### Ambient conditions

| Degree of protection                    | IP20 (Non-certificated by UL)  |
|---|--|
| Ambient temperature (operation)         | -40 °C 75 °C   |
| Ambient temperature (storage/transport) | -40 °C 85 °C   |
| Altitude                                | ≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation) |
|   | ≤ 2000 m (with UL approval)  |
| Permissible humidity (operation)        | 10 % 95 % (non-condensing)   |

### Approvals

### CE

| OL                 |                                       |
|--------------------|---------------------------------------|
| Identification     | CE-compliant                          |
|                    |                                       |
| UL, USA/Canada     |                                       |
| Identification     | Class I, Div. 2, Groups A, B, C, D T4 |
|                    |                                       |
| Corrosive gas test |                                       |



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| Identification                                | ISA-S71.04-1985 G3 Harsh Group A                  |
|---|---|
| MC data                                       |   |
| Electromagnetic compatibility                 | Conformance with EMC Directive 2014/30/EU         |
| Clastrostatia dia sharea                      |   |
| Electrostatic discharge Standards/regulations | EN 61000-4-2                                      |
| Standards/regulations                         | EN 61000-4-2                                      |
| Electrostatic discharge                       |   |
| Contact discharge                             | ± 6 kV (Test Level 3)                             |
| Discharge in air                              | ± 8 kV (Test Level 3)                             |
| Indirect discharge                            | ± 6 kV  |
| Comments                                      | Criterion B                                       |
| Electromagnetic HF field                      |   |
| Standards/regulations                         | EN 61000-4-3                                      |
| Electromagnetic HF field                      |   |
| Frequency range                               | 80 MHz 3 GHz (Test Level 3)                       |
| Field intensity                               | 10 V/m  |
| Comments                                      | Criterion A                                       |
| Fast transients (burst)                       |   |
| Standards/regulations                         | EN 61000-4-4                                      |
| Fast transients (burst)                       |   |
| Input   | ± 2.2 kV (1 minute)                               |
| Signal  | ± 2.2 kV (1 minute)                               |
| Comments                                      | Criterion B                                       |
|   |   |
| Surge current load (surge)                    |   |
| Standards/regulations                         | EN 61000-4-5                                      |
| Surge current load (surge)                    |   |
| Input   | ± 0.5 kV  |
| Signal  | ± 1 kV (Data line, asymmetrical)                  |
|   | ± 2 kV (I/O cable on field side only, asymmetric) |
| Comments                                      | Criterion B                                       |
| Conducted interference                        |   |
| Standards/regulations                         | EN 61000-4-6                                      |
| Conducted interference                        |   |
| Frequency range                               | 0.15 MHz 80 MHz                                   |
| Comments                                      | Criterion A                                       |
| Voltage                                       | 10 V  |
| Emitted interference                          |   |
| Standards/regulations                         | EN 61000-6-4                                      |

Basic functions



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| Comments              | Class A, industrial applications                         |
|-----------------------|--|
| Emitted interference  |  |
| Standards/regulations | EN 61000-6-3   |
| Comments              | Class B, domain of use: residential and small commercial |

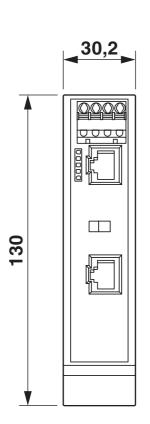
PSE/Midspan, compliant with IEEE 802.3af, at

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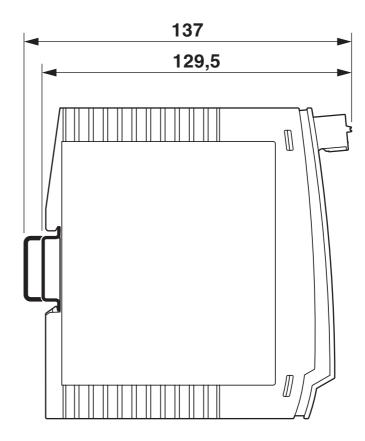
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### Drawings



### Dimensional drawing

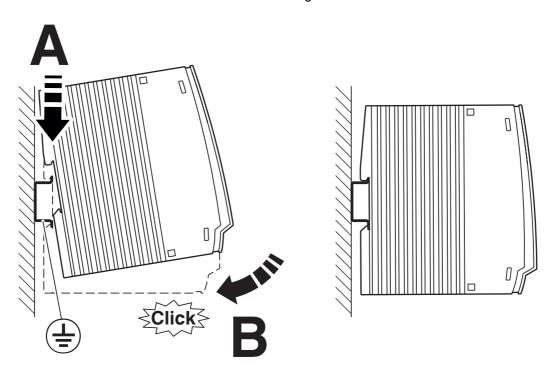


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### Schematic diagram



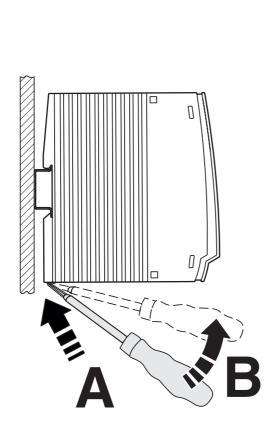
Mounting

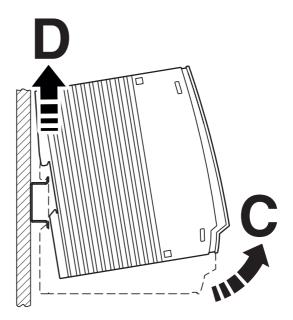
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### Schematic diagram





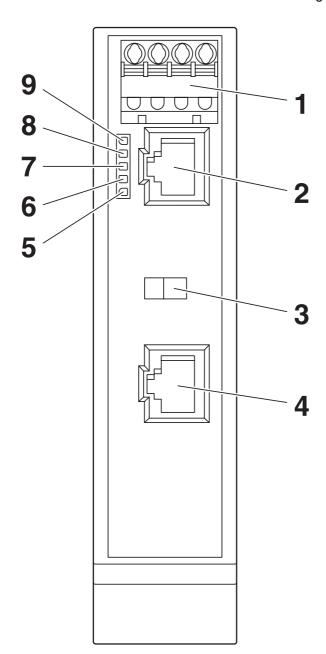
Removal

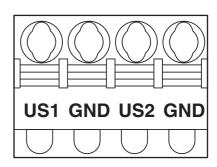
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### Schematic diagram





Front view



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### **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2703008



EAC

Approval ID: RU \*-DE.A\*30.B.03171



**UL Listed** 

Approval ID: E238705



cUL Listed

Approval ID: E238705

#### **UAE-RoHS**

Approval ID: 23-09-84497



cUL Listed

Approval ID: E196811



**UL Listed** 

Approval ID: E196811

**cULus Listed** 

**cULus Listed** 



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### Classifications

### **ECLASS**

|      | ECLASS-11.0 | 19170112 |  |
|------|-------------|----------|--|
|      | ECLASS-12.0 | 19170112 |  |
|      | ECLASS-13.0 | 19170112 |  |
| ETIM |             |          |  |
|      | ETIM 9.0    | EC002697 |  |

### **UNSPSC**



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### Environmental product compliance

### EU RoHS

| Fulfills EU RoHS substance requirements | Yes   |  |  |
|---|---|--|--|
| Exemption                               | 15, 15(a), 7(a), 7(c)-l   |  |  |
| China RoHS                              |   |  |  |
| Environment friendly use period (EFUP)  | EFUP-10   |  |  |
|   | 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.)     | Lead(CAS: 7439-92-1)  |  |  |
| SCIP                                    | bbcb10db-1260-4b83-aa79-ec7a35c257d2  |  |  |

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### Accessories

FL CRIMPTOOL - Assembly tool

2744869

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Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site



### FL CAT5 HEAVY - Data cable

2744814

https://www.phoenixcontact.com/us/products/2744814



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm $^2$ , solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm  $\pm$  0.15 mm diameter

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#### FL CAT5 HEAVY CONF/ - Network cable

#### 2744827

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CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm $^2$ , solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm  $\pm$  0.15 mm diameter, preassembled on both sides with RJ45 plug, crossover or line

### FL CAT5 FLEX - Installation cable

#### 2744830

https://www.phoenixcontact.com/us/products/2744830



By the meter, Installation cable, Ethernet CAT5 (100 Mbps), shielded, PUR halogen-free, water blue RAL 5021, 4-wire (2x2xAWG26/7, SF/UTP), color single wire: white/orange-orange, white/green-green, cable length: Free entry (1. 0 ... 1000.0 m)

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#### FL CAT5 FLEX CONF/ - Network cable

#### 2744843

https://www.phoenixcontact.com/us/products/2744843



CAT5-SF/UTP cable (J-Ll02YS(ST)C H 2 x 2 x 26 AWG), light-duty, flexible installation cable 2 x 2 x 0.14 mm $^2$ , stranded, shielded, outer sheath: 5.75 mm  $\pm$  0.15 mm diameter, preassembled on both sides with RJ45 plug, crossover or line assignment

#### FL ISOLATOR 100-RJ/SC - Network isolator

2313928

https://www.phoenixcontact.com/us/products/2313928



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Connection using RJ45 and COMBICON plug-in screw terminal block.

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### FL ISOLATOR 100-RJ/RJ - Network isolator

2313931

https://www.phoenixcontact.com/us/products/2313931



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Possible to connect two RJ45 plugs.

#### FL ISOLATOR 1000-RJ/RJ - Network isolator

2313915

https://www.phoenixcontact.com/us/products/2313915



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 1 Gbps. Possible to connect two RJ45 plugs.

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### FL ISOLATOR 100-M12 - Network isolator

2902985

https://www.phoenixcontact.com/us/products/2902985



Passive network isolator for electrical isolation in Ethernet networks. For the protection of Ethernet devices against potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Ethernet connection via two M12 sockets (D-coded).

### FL CAT5 PATCH 0,3 - Patch cable

2832250

https://www.phoenixcontact.com/us/products/2832250



Patch cable, CAT5, assembled, 0.3 m



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### FL CAT5 PATCH 0,5 - Patch cable

2832263

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



Patch cable, CAT5, assembled, 0.5 m

### FL CAT5 PATCH 1,0 - Patch cable

2832276

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



Patch cable, CAT5, assembled, 1 m



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### FL CAT5 PATCH 1,5 - Patch cable

2832221

https://www.phoenixcontact.com/us/products/2832221



Patch cable, CAT5, assembled, 1.5 m

### FL CAT5 PATCH 2,0 - Patch cable

2832289

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



Patch cable, CAT5, assembled, 2 m



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### FL CAT5 PATCH 3,0 - Patch cable

2832292

https://www.phoenixcontact.com/us/products/2832292



Patch cable, CAT5, assembled, 3 m

### FL CAT6 PATCH 0,3 - Patch cable

2891181

https://www.phoenixcontact.com/us/products/2891181



Patch cable, degree of protection: IP20, cable length: 0.3 m, number of positions: 8, 1 Gbps, CAT6, Ethernet



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### FL CAT6 PATCH 0,5 - Patch cable

2891288

https://www.phoenixcontact.com/us/products/2891288



Patch cable, degree of protection: IP20, cable length: 0.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

### FL CAT6 PATCH 1,0 - Patch cable

2891385

https://www.phoenixcontact.com/us/products/2891385



Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 8, 1 Gbps, CAT6, Ethernet



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### FL CAT6 PATCH 1,5 - Patch cable

2891482

https://www.phoenixcontact.com/us/products/2891482



Patch cable, degree of protection: IP20, cable length: 1.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

### FL CAT6 PATCH 2,0 - Patch cable

2891589

https://www.phoenixcontact.com/us/products/2891589



Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 8, 1 Gbps, CAT6, Ethernet



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### FL CAT6 PATCH 3,0 - Patch cable

2891686

https://www.phoenixcontact.com/us/products/2891686



Patch cable, degree of protection: IP20, cable length: 3 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

### FL CAT6 PATCH 5,0 - Patch cable

2891783

https://www.phoenixcontact.com/us/products/2891783



Patch cable, degree of protection: IP20, cable length:  $5\ m$ , number of positions:  $8,\,1\ Gbps,\,CAT6,\,Ethernet$ 



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### FL CAT6 PATCH 7,5 - Patch cable

2891880

https://www.phoenixcontact.com/us/products/2891880



Patch cable, degree of protection: IP20, cable length: 7.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

### FL CAT6 PATCH 10 - Patch cable

2891877

https://www.phoenixcontact.com/us/products/2891877



Patch cable, degree of protection: IP20, cable length: 10 m, number of positions: 8, 1 Gbps, CAT6, Ethernet



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### FL CAT6 PATCH 12,5 - Patch cable

2891369

https://www.phoenixcontact.com/us/products/2891369



Patch cable, degree of protection: IP20, cable length: 12.5 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

### FL CAT6 PATCH 15,0 - Patch cable

2891372

https://www.phoenixcontact.com/us/products/2891372



Patch cable, degree of protection: IP20, cable length: 15 m, number of positions: 8, 1 Gbps, CAT6, Ethernet



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### FL CAT6 PATCH 20,0 - Patch cable

2891576

https://www.phoenixcontact.com/us/products/2891576



Patch cable, degree of protection: IP20, cable length: 20 m, number of positions: 8, 1 Gbps, CAT6, Ethernet

### VS-CABLE-STRIP-VARIO - Stripping tool

1657407

https://www.phoenixcontact.com/us/products/1657407

Stripping tool, for the multi-level stripping of shielded cables



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#### 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

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

1658008

https://www.phoenixcontact.com/us/products/1658008



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: black, Ethernet



https://www.phoenixcontact.com/us/products/2703008



### SZF 0-0,4X2,5 - Screwdriver

1204504

https://www.phoenixcontact.com/us/products/1204504



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size:  $0.4 \times 2.5 \times 75$  mm, 2-component grip, with non-slip grip

### MICROFOX-SP - Diagonal cutter

1212488

https://www.phoenixcontact.com/us/products/1212488



Electronic diagonal cutter, tapered head, angled (21°), without chamfer, with opening spring



https://www.phoenixcontact.com/us/products/2703008



#### VS-OE-OE-94F/... - Data cable

1417359

https://www.phoenixcontact.com/us/products/1417359



Data cable, Ethernet  $CAT6_A$  (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

### 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.



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