

## INJ 1000 DIN Rail PoE Injectors

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 [perle.com/products/poe-injectors/din-rail-inj-1000.shtml](https://www.perle.com/products/poe-injectors/din-rail-inj-1000.shtml)

### IEEE 802.3bt/at/af Mid-span Injector up to 60W

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- 10/100/1000 Mbps
- Supply PSE power to PoE, PoE+ and Hi-PoE compliant devices
- Provide 4 to 60 Watts of PoE power
- IEEE 802.3af, IEEE802.3at and IEEE802.3bt compliant
- Support for PoE PDs: Class 1 to 6 & Type 1, 2 and 3
- Extended supply voltage range of 18 V DC ... 57 V DC, redundant
- Safe shield connection to ground potential
- Optional Extended temperature range of -40°C to +75°C



**INJ 1000 PoE Injectors** are DIN Rail mounted single port, **PoE mid-span injectors**. They act as an intermediary devices between a non-PoE switch and a PoE device to inject **fully compliant** power over the Ethernet cable.

Generating **up to 60 Watts**, the INJ 1000 provides electrical power to remote **PD access points, pan-tilt and zoom (PTZ) cameras** and **video-phones**. It complies with the **IEEE802.3bt Hi-PoE (60W of power)** or **IEEE 802.3at PoE+ (30W of power)** standards and is also backward compatible with IEEE802.3af PoE (15.4W of power). [Learn more about PoE](#).

With the INJ 1000, there is no need to buy an expensive PoE switch or install electrical wiring and outlets in hard to reach locations. Just use an open port on an existing non-PoE switch to save time and money by sending power and data over the same cable.

### INJ 1000 PoE Injector Benefits

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|                             |                                                                                                                                                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DIN Rail Enclosure          | Easily mount on a DIN rail or inside distribution boxes using native DIN Rail enclosure with grounding clip. No need for add-on brackets.                                                                    |
| Power Over Ethernet ( PSE ) | Performs the Power Sourcing Equipment ( PSE ) function on 1 UTP port for IEEE 802.3af (up to 15.4 watts PoE), IEEE 802.3at ( up to 30 watts PoE+ ) or IEEE802.3bt (up to 60 watts Hi-PoE) compliant devices. |

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|                               |                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On-board PoE Power Controller | This PoE power controller provides compliant power provisioning and monitoring, properly sensing through signature detection whether or not the attach Ethernet devices are PoE capable or not. This provides a safe connection for both PoE and Non-PoE capable devices. <a href="#">Click here for more details</a> |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                           |                                                                                                                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advanced Power Management | <ul style="list-style-type: none"> <li>• PD signature detection</li> <li>• Current limiting protection</li> <li>• Over-Current Protection</li> <li>• PD power classification detection ( Class 0,1,2,3,4,5,6 )</li> <li>• Reverse polarity protection</li> </ul> |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| INJ 1000<br>27030058 | INJ 1000-T<br>27030068 | INJ 1010<br>27030078 | INJ 1010-T<br>27030088 |
|----------------------|------------------------|----------------------|------------------------|
|----------------------|------------------------|----------------------|------------------------|

### Serial interface

|                           |                                              |
|---------------------------|----------------------------------------------|
| Interface 1               | Ethernet                                     |
| Connection method         | RJ45 socket                                  |
| Transmission length       | 100 m (including patch cables)               |
| Pin assignment            | 1:1                                          |
| Basic functions           | PSE/Midspan, compliant with IEEE 802.3af, at |
| Serial transmission speed | 10/100/1000 Mbps                             |
| Output nominal voltage    | 54 V DC (PoE)                                |
| Output power              | 30 W 60 W                                    |

|                   |            |
|-------------------|------------|
| Interface 2       | Ethernet   |
| Connection method | RJ45 CAT5e |

### Ambient conditions

|                                 |              |                |              |                |
|---------------------------------|--------------|----------------|--------------|----------------|
| Ambient temperature (operation) | 0°C ... 60°C | -40°C ... 75°C | 0°C ... 60°C | -40°C ... 75°C |
|---------------------------------|--------------|----------------|--------------|----------------|

|                                            |                                                                                      |
|--------------------------------------------|--------------------------------------------------------------------------------------|
| Ambient temperature<br>(storage/transport) | -40°C ... 85°C                                                                       |
| Permissible humidity<br>(operation)        | 10 % ... 95 % (non-condensing)                                                       |
| Altitude                                   | 5000 m (For restrictions see manufacturer's declaration) / 2000 m (With UL approval) |
| Degree of protection                       | IP20 (Non-certificated by UL)                                                        |

### General

|                               |                                           |         |         |         |
|-------------------------------|-------------------------------------------|---------|---------|---------|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |         |         |         |
| Mounting position             | vertical                                  |         |         |         |
| Net weight                    | 396.6 g                                   | 377.8 g | 380.8 g | 380.6 g |
| Housing material              | Plastic                                   |         |         |         |
| Color                         | Gray                                      |         |         |         |
| Conformance                   | CE-compliant                              |         |         |         |
| UL, USA/Canada                | Class I, Div. 2, Groups A, B, C, D, T4    |         |         |         |

### Standards and Regulations

|                               |                                                              |                                                            |
|-------------------------------|--------------------------------------------------------------|------------------------------------------------------------|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU                    |                                                            |
| Type of test                  | Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 |                                                            |
| Test result                   | 10 Hz ... 57 Hz, amplitude ±3.5 mm, 57 Hz ... 150 Hz, 5g     |                                                            |
| Type of test                  | Shock in acc. with EN 60068-2-27/IEC 60068-2-27              |                                                            |
| Test result                   | 30g for 11 ms, three shocks in each spatial direction        |                                                            |
| Type of test                  | Continuous shock according to EN 60068-2-27/IEC 60068-2-27   | Continuous shock according to EN 60068-2-27/IEC 60068-2-27 |
| Test result                   | 10g for 16 ms, 1000 shocks in each spatial direction         |                                                            |

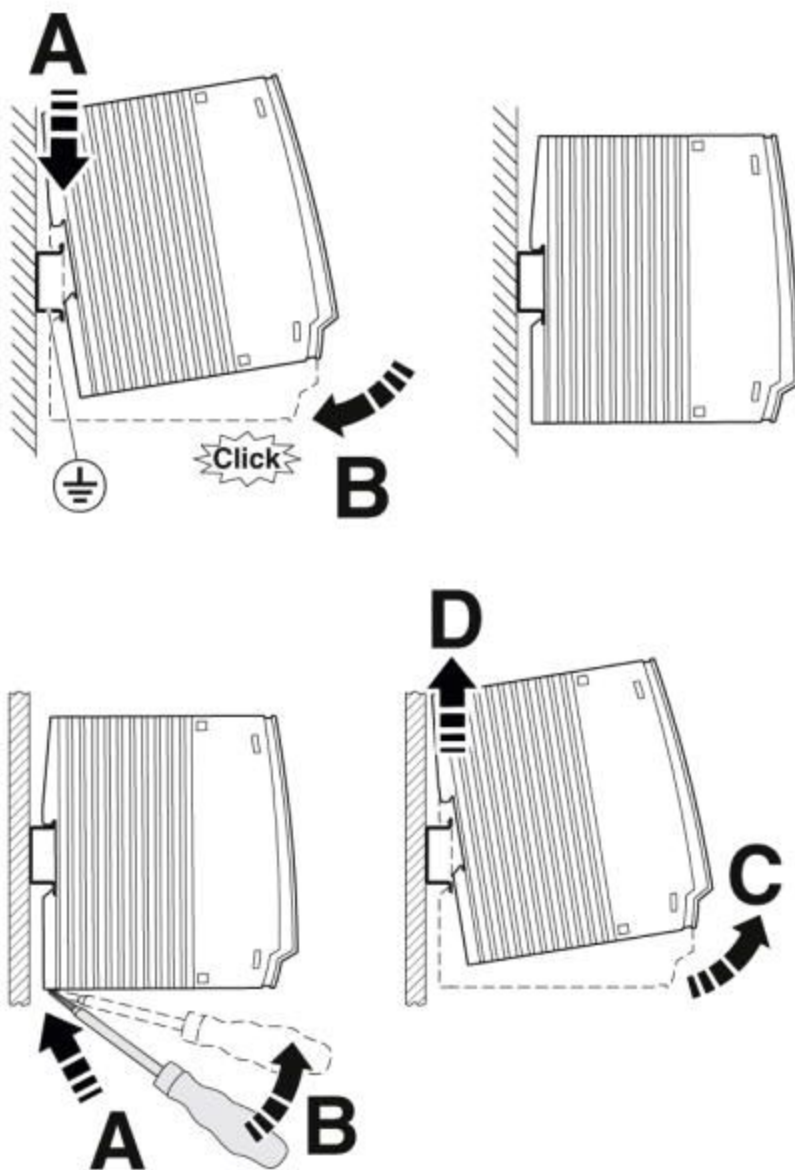
|                         |                                                                           |                                                                           |
|-------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Standards/regulations   | EN 61000-4-2                                                              |                                                                           |
| Contact discharge       | ± 6 kV (Test Level 3)                                                     |                                                                           |
| Indirect discharge      | ± 6 kV                                                                    |                                                                           |
| Standards/regulations   | EN 61000-4-3                                                              |                                                                           |
| Frequency range         | 80 MHz ... 3 GHz (Test Level 3)                                           |                                                                           |
| Standards/regulations   | EN 61000-4-4                                                              |                                                                           |
| Comments                | Criterion B                                                               |                                                                           |
| Standards/regulations   | EN 61000-4-5                                                              |                                                                           |
| Signal                  | ± 1 kV (Data line, asymmetrical)                                          |                                                                           |
|                         | ± 2 kV (I/O cable on field side only, asymmetric)                         |                                                                           |
| Standards/regulations   | EN 61000-6-4                                                              |                                                                           |
|                         | EN 61000-4-6                                                              |                                                                           |
| Frequency range         | 0.15 MHz ... 80 MHz                                                       |                                                                           |
| Conformance             | CE-compliant                                                              |                                                                           |
| UL, USA/Canada          | Class I, Div. 2, Groups A, B, C, D, T4                                    |                                                                           |
| Noxious gas test        | ISA-S71.04-1985 G3 Harsh Group A                                          |                                                                           |
| Dimensions              |                                                                           |                                                                           |
| Width                   | 30.2 mm                                                                   |                                                                           |
| Height                  | 130 mm                                                                    |                                                                           |
| Depth                   | 120 mm                                                                    |                                                                           |
| Note                    |                                                                           |                                                                           |
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area | EMC: class A product, see manufacturer's declaration in the download area |
| Power supply            |                                                                           |                                                                           |

|                                                                                                         |                                           |                  |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------|
| Nominal supply voltage                                                                                  | 24 V DC                                   |                  |
|                                                                                                         | 48 V DC                                   |                  |
| Supply voltage range                                                                                    | 18 V DC ... 57 V DC (Ordinary locations)  |                  |
|                                                                                                         | 24 V DC ... 48 V DC (Hazardous locations) |                  |
| Max. current consumption                                                                                | 2.1 A                                     |                  |
|                                                                                                         | 1.4 A (24 V DC)                           | 2.73 A (24 V DC) |
|                                                                                                         | 0.7 A (48 V DC)                           | 1.34 A (48 V DC) |
| Power consumption                                                                                       | ≤ 75 W                                    |                  |
| Protective circuit                                                                                      | Reverse polarity protection               |                  |
| Conductor cross section flexible max.                                                                   | 4.00 mm²                                  |                  |
| Conductor cross section flexible min.                                                                   | 0.75 mm²                                  |                  |
| Conductor cross section solid max.                                                                      | 4.00 mm²                                  |                  |
| Conductor cross section solid min.                                                                      | 0.75 mm²                                  |                  |
| Conductor cross section AWG max.                                                                        | 12                                        |                  |
| Conductor cross section AWG min.                                                                        | 20                                        |                  |
| Approvals                                                                                               |                                           |                  |
| <ul style="list-style-type: none"><li>• cULus Listed</li><li>• cUL Listed</li><li>• UL Listed</li></ul> |                                           |                  |
| Environmental Product Compliance                                                                        |                                           |                  |
| REACH SVHC                                                                                              | Lead 7439-92-1                            |                  |

China RoHS

Environmentally Friendly Use Period = 10;

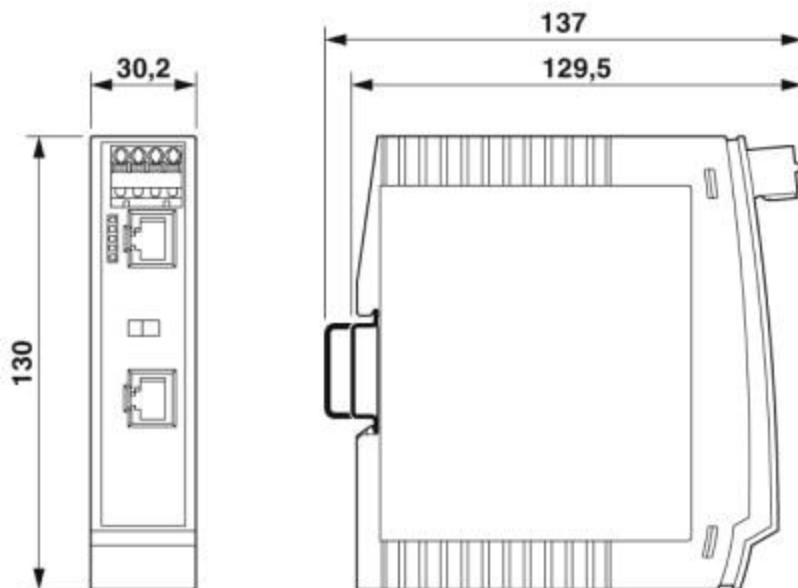
### Easily Mount your PoE Injector on a DIN Rail



### INJ 1000 PoE Injector Dimensional drawing of Compact housing

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## Two RJ45 Sockets



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## INJ 1000 PoE Injector Front View

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### Two RJ45 Sockets

