

gesis[®] CPO

Distribution box – Consolidation Points
Decentralized Power, Data and Signal Distribution

User manual

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INFO

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1 ABOUT THIS MANUAL

Please read this chapter carefully before using the user manual or the products.

1.1 Scope of application

This manual is valid for the following product family: Distribution box - gesis® CPO.

1.2 Function of this document

This manual supports you in the project planning electrical systems and the assembly, installation, commissioning, maintenance and disposal of the distribution boxes. You will find notes on how the devices can be implemented.

This document contains the information required for the intended use of the device as well as technical data. It describes the technical characteristics and how to use the system components.

Hand over the documentation to the owner after successful installation and/or initial commissioning.

1.3 Target group

The assembly and commissioning of the components is the exclusive responsibility of qualified electricians. The legally binding and valid regulations for electrical installations must be observed.

This manual is intended for:

- Those who can prove that they have the corresponding training and already have corresponding basic knowledge of project planning and commissioning electrical installations.
- System integrators
- Electricians
- Operator of the electrical system

1.4 Function and structure of this manual

This user manual provides technical staff with information about the configuration, operation and functionality of the gesis® CPO distribution box.

NOTE

You can find further information on our website www.wieland-electric.de or via the QR code.



1.5 Symbols and notations



DANGER

The symbol "DANGER" indicates an immediate danger. Failure to observe this symbol may result in serious injury or death.

"DANGER" is used to warn of dangers which are, at the time of the warning, already existing (e.g., hot surfaces, sharp edges, crush points, etc.).

It is used exclusively in danger of personal injury!



WARNING

The "WARNING" symbol indicates a possible danger. Failure to observe this symbol may result in serious injury.



CAUTION

The "CAUTION" symbol indicates a possible danger. Failure to observe this symbol may result in minor injuries.

NOTE

Notes concerning the special functions of the device.

Instructions also advise you of a potentially dangerous situation. If the symbol is not observed, it can lead to damage to the system or the system environment.

2 SAFETY

To avoid personal injury and/or material damage, please read the following safety instructions and follow them at all times:

- This manual is part of the product. It must be read and followed.
- As the operator of the electrical system, keep the manual accessible at all times or, as the installer, hand over the document to the operator of the electrical system after successful installation and commissioning.
- Damaged products must neither be installed nor put into operation.
- Protective measures and mechanisms must correspond to applicable regulations.
- All international, national and regional guidelines, standards, safety instructions and safety regulations must be observed throughout the entire life cycle of the product.
- Never use components from third-party manufacturers. No guarantee shall be offered for damage resulting from a combination with third-party components.
- The name plate must not be removed and must be permanently attached to the distribution box.
- This distribution box has been designed, produced and tested in accordance with the applicable safety requirements. Despite the greatest care, it can pose a safety risk - as can all electro-technical/ electronic components and products.

2.1 Intended use

Observe the technical data of your distribution box for information on the intended use. Refer to chapter 6 "Specifications", page 12.

2.2 CE declaration

You can find the relevant CE declaration at: <https://eshop.wieland-electric.com> or via the QR code below. Navigate to the download area of your product. You will then find the CE declaration under the item "EC Declaration of Conformity".



3 GENERAL PRODUCT INFORMATION

3.1 Product description

The product is a pre-wired distribution box for pluggable electrical installation. The distributors are manufactured according to IEC 61439. The Wieland gesis® CPO distribution box is a simple solution for addressing the needs of a flexible, decentralized installation, such as a flexible office. A range of suitable distribution boxes are available for the decentralized distribution of power, signals or data. Thanks to the gesis® and RST® Plug&Play installation connector systems approved in accordance with IEC 61535, gesis® CPO distributors can be plugged in directly on the construction site after assembly.

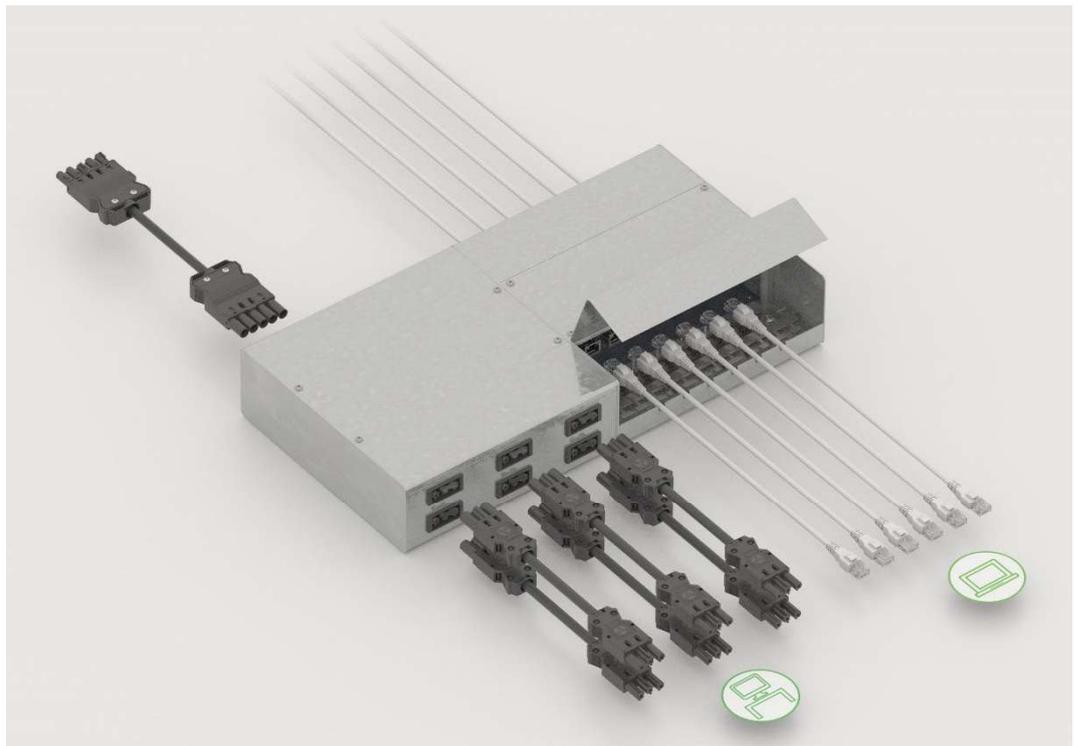


Figure 1: Decentralized data and power distribution with consolidation point (sample view)

3.2 Symbols on the product

The following symbols can be found on the product.



Conductor identification yellow/green conductor earth



CE marking



For disposal, this product should be treated as electrical and electronic equipment waste and should not be disposed of as household waste.

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4 PRODUCT DESIGNS

gegis® CPO distribution boxes are available in the following models:

- Power distributors
- Data distributors
- Power and data distributors
- Distributors for signal transmission

4.1 Power distributors

gegis® CPO distribution boxes for power distribution are available with or without protection/switching devices.

4.1.1 Power distributors without protection/switching devices

Distribution boxes for power distribution without internal protection/switching devices are used for decentralized power distribution and must be operated according to specifications. Multiple connections can be plugged into the single-phase or 3-phase feed, depending on the variant.

For more details on using the gegis® CPO, visit <https://eshop.wieland-electric.com>.

4.1.2 Power distributors with protection/switching devices

Distribution boxes for power distribution with internal protection/switching devices are used for decentralized power distribution and must be operated according to specifications. Multiple connections can be plugged into the single-phase or 3-phase feed, depending on the variant.

One of the following protection/switching devices may be installed, depending on the variant:

- Circuit breaker, 1-pole, 2-poles, 3-poles or 4-poles
- Residual current device, 1-phase or 3-phase
- FI/LS combinations, single-phase or 3-phase
- Any type of switching device in the form factor of the classic rail-mounted device for small installation distributors

For details on using the gegis® CPO, visit <https://eshop.wieland-electric.com>.

For additional technical data on the protection/switching devices, please contact the protection/switching device manufacturer.

4.2 Data distributors

gesis® CPO distribution boxes for power distribution must be operated according to specifications. They are used for decentralized data distribution, e.g. ensuring the supply of data to workstations operating according to the flexible office principle. The different variants are distinguished by the number of outputs.

For details on using the gesis® CPO, visit <https://eshop.wieland-electric.com>.

Contact the respective manufacturer for technical data relating to the interface elements.

4.3 Power and data distributors

In addition to power or data distributors, distribution boxes that combine both functions in one housing are also available.

For details on using the gesis® CPO, visit <https://eshop.wieland-electric.com>.

4.4 Distributors for signal transmission

Signal transmission distributors are a decentralized distribution solution for signals, e.g. for DALI, SMI and other applications. For details on using the gesis® CPO, visit <https://eshop.wieland-electric.com>.

5 APPLICATION AREAS

gesis® CPO distribution boxes form an essential part of the decentralized electrical installation, and ensure the sustainable, eco-friendly, and future-proof distribution of power, data and signals in buildings. Together with the pluggable electrical installation and the gesis® and RST® installation connector systems, these distributors offer the perfect solution system.

gesis® CPO distribution boxes are used in the following applications:

- Power and data supply at the workplace
- Underfloor distribution
- Power distribution
- Power distribution with decentralized protection
- Lighting applications with DALI
- Sun protection applications with SMI



Figure 2: Decentralized workplace supply with consolidation points



Figure 3: Decentralized power supply in the shop

6 SPECIFICATIONS

For technical data relating to gesis® CPO distribution boxes, visit <https://eshop.wieland-electric.com> or scan the following QR code. Navigate to the "Technical Data" area of your product. All the necessary information is displayed there. You can also generate and download a product data sheet in PDF format in the "Data sheet" area.



7 DIMENSIONS

For information on the dimensions of gesis® CPO distribution boxes, visit <https://eshop.wieland-electric.com> or scan the following QR code. Navigate to the "Technical Data" area of your product. All the necessary information is displayed under "Dimensions". Dimensional drawings can be downloaded from the download area.



8 MOUNTING

8.1 Preparation

Check that the distribution boxes are undamaged before starting installation. Do not use and install any damaged distributors and components.

Observe all necessary safety precautions and carry out all work preparations before proceeding with mounting.

Read all the included data sheets and manuals before mounting the distributor.

8.2 Mounting the distribution box

In the first step, the distribution boxes must be mounted, if necessary using the existing mounting options or on a suitable base provided for this purpose.

Make sure that:

- all necessary protective conductor connections have been made at the end of the installation.
- the distribution box is always mounted on the designated mounting surface.
- the distributor is installed on a non-flammable surface.
- all mounting points on the housing are used.
- suitable mounting material is used.
- there is adequate clearance on all sides of the distribution box.
- the distribution box can be accessed at all times for visual inspections.
- the distribution box is not exposed to direct sunlight.

For information relating to the dimensions and bore hole sizes, read chapter 7 "Dimensions", page 13.

8.3 Connecting the leads

NOTE The plugging in of the connectors or the connection of the cables must only be carried out after the distribution box has been installed.

8.3.1 Connections pluggable with cable assemblies

All connectors can be plugged in without requiring any tools. Always make sure that the mechanical and color coding are the same, and that the connector is in the right direction.

Disconnecting connectors

Notes on removing the connectors can be found in the respective product catalog or in the assembly instructions for the connector in question.

Connector / measures	gegis® CLASSIC	gegis® MINI	gegis® MICRO	RST® CLASSIC	RST® MINI	RST® MICRO	gegis® NV	RJ 45
Create load relief	X	X	X	X	X	X	X	X
Release interlock	X	X	X	X	X	X	X	X

NOTE To disconnect the connector, it is not necessary to open the distribution box. The internal wiring on the connector is done at the factory.

8.3.2 Pluggable connections with ready-made connectors

For technical data and mounting instructions relating to connectors, visit <https://eshop.wieland-electric.com> or scan the QR code below. Navigate to the "Technical Data" or "Downloads" area of your product.



All connectors can be plugged into the consolidation point without using tools. Always make sure that the mechanical coding, color coding and orientation of the connector match.

Disconnecting connectors

Notes on removing the connectors can be found in the respective product catalog or in the assembly instructions for the connector in question.

Connector / measures	gegis® CLASSIC	gegis® MINI	gegis® MICRO	RST® CLASSIC	RST® MINI	RST® MICRO	gegis® NV	RJ 45
Create load relief	X	X	X	X	X	X	X	X
Release interlock	X	X	X	X	X	X	X	X

NOTE It is not necessary to open the distribution box in order to remove the connector.

8.3.3 Connectors with non-pluggable input

Some gegis® CPO distribution boxes do not have a pluggable input. In this case, a cable gland or a T-head rail can be used as an input. The connections must be wired directly to the installed connection points. Variants with a flat cable adapter are already wired internally and just have to be connected to the flat cable.

8.3.4 Fitting the flat cable adapter to the flat cable

For more information on installing the gesis® CPO distribution box with flat cable adapter, please visit <https://eshop.wieland-electric.com/download/92.050.9153.0/IM0176372.PDF> or scan the following QR code.



8.3.5 Data line

If your gesis® CPO distribution box is designed for decentralized data distribution, the distribution box will feature recesses for keystone elements. The relevant elements, see chapter 13 "Accessories", page 21, must be installed on site in accordance with standards.

8.3.6 Connecting the earthing point

In order to ground the gesis® CPO distribution box, connect the protective conductor connections to the ground connections on the housing and, if applicable, the cover in accordance with standards.

9 COMMISSIONING

All international, national and regional guidelines, standards, safety instructions and safety regulations must be observed throughout the entire life cycle of the product.

Once the system has been mounted and installed correctly, a qualified electrician must test and approve the system for operation.

Distribution boxes with electronic components may require commissioning and configuration. The necessary manuals are enclosed with the distribution box and can be found on the manufacturer's homepage.

During installation and commissioning, you must make sure that the necessary EMC directives are complied with.

For further details on the mechanical or electrical data, see the enclosed documentation in the scope of delivery or at <https://eshop.wieland-electric.com>.

10 OPERATION

Normally, there is no need to operate the distribution box.

If protection/switching devices have tripped or other defects are identified, the relevant qualified electrician must be informed. Do not switch on the devices independently.

11 MAINTENANCE

All international, national and regional guidelines, standards, safety instructions and safety regulations must be observed throughout the entire life cycle of the product.

The distribution box must be installed so that it is accessible for the necessary maintenance.



Danger to life due to electric shock when using tools

After opening the housing, the distribution box is only finger and back-of-hand safe. Always follow the safety regulations.



In general, all national and international specifications, standards and guidelines must be observed and applied. This also applies to the use of aids such as lifting platforms or ladders.

Always use a dry cloth to clean the distribution box. Do not use cleaning agents.

Any maintenance work may only be carried out by qualified electricians.

Tampering with the distribution box

The CE declaration only refers to the original model of the distribution box. If components are replaced, identical components according to the parts list must be used, otherwise the warranty will be void.

NOTE

- Replacing components with similar or other components voids the warranty as well as the CE declaration and therefore the operating license for the distribution box. The qualified electrician who carried out the modification is responsible for issuing a new CE declaration in accordance with the standards and directives applicable at that time.
- Changes to the distribution box render this manual invalid. The qualified electrician who made the change is responsible for updating or creating a new manual.

12 DISASSEMBLY

The complete distribution box must be disassembled for proper disposal. All components can be separated from the housing using tools.

The components must be disposed of properly depending on the type and material of the component.

12.1 Disassembly steps

- ➔ Disconnect the distribution box from the power supply.



Danger to life from electric shock

Always observe the 5 safety rules according to DIN VDE 0105:

1. Disconnect.
2. Secure against being switched on again.
3. Determine absence of voltage.
4. Earthing and short-circuiting.
5. Cover or fence off adjacent live parts. Disconnect all connectors from the housing.

- ➔ Disconnect all electrical and mechanical connections from the housing.
- ➔ Detach the distribution box including the mounting plate from the mounting surface using a suitable tool.

12.2 Storage

Store the distribution box in a dry place protected from mechanical damage until it is commissioned or recommissioned.

12.3 Recommissioning

For information on correct recommissioning, please refer to chapter 9 "Commissioning", page 17.

13 ACCESSORIES

For compatible accessories, visit <https://eshop.wieland-electric.com> or scan the following QR code. Navigate to your product. The "Accessories" area contains a list of compatible accessories.



14 DISPOSAL

The WEEE (Waste Electrical and Electronic Equipment: 2012/19/EU) directive has been introduced to ensure that electrical/electronic products are recycled using the best available recovery techniques to minimize the impact on the environment. This product contains high quality materials and components which can be recycled. At the end of its life this product must not be mixed with other commercial waste for disposal.

NOTE

For its disposal, this product should be treated as waste containing electrical and electronic equipment and should not be disposed of as household waste.

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If the distribution box is defective, it must be disposed of or sent to Wieland Electric GmbH for repair. To initiate the process, contact your responsible contact partner.

In the event of independent troubleshooting, the warranty and the CE declaration of conformity are voided.

15 SERVICE AND SUPPORT

Service-Hotline:

+49 951 9324-996

E-mail: building@wieland-electric.com

Wieland Electric GmbH

Brennerstraße 10-14

D-96052 Bamberg

Tel. +49 951 9324-0

Fax +49 951 9324-198

E-mail info@wieland-electric.com

<http://eshop.wieland-electric.com>

<http://www.wieland-electric.com>

UKCA – for UK: Wieland Electric Ltd | Ash House, Tanshire Park | Shackleford Road | Elstead, Godalming GU8 6LB



wieland

Wieland Electric GmbH
Brennerstraße 10 – 14
DE-96052 Bamberg

Tel +49 951 9324-0

Fax +49 951 9324-198

info@wieland-electric.com

www.wieland-electric.com