



wieland

gesis[®] SPZ

Distribution box – for special applications

User manual

Doc. No. BA001298

Last Update: 01/2023 (Rev. B)

INFO

This work is copyrighted material. The resulting rights remain with Wieland Electric GmbH. Any duplication of this document or parts thereof is permitted only within the limits of the statutory provisions of the Copyright Act. Alteration or abridgement of this document without the express written consent of Wieland Electric GmbH is prohibited.

gesis® is a trademark of Wieland Electric GmbH. Other names may in this assembly manual mentioned product and brand trademarks or registered trademarks of their respective owners could be used, whose use by third parties for their own purposes could violate the rights of the owners.



TABLE OF CONTENTS

1	About this manual	5
1.1	Scope of application	5
1.2	Function of this document	5
1.3	Target group	5
1.4	Function and structure of this manual	5
1.5	Symbols and notations	6
2	Safety	7
2.1	Intended use	7
2.2	CE declaration	7
3	General product information	8
3.1	Product description	8
3.2	Symbols on the product	8
4	Product designs	9
4.1	Indoor areas	9
4.2	Outdoor areas	9
5	Areas of application	10
6	Technical data	11
7	Dimensions	12
8	Mounting	13
8.1	Preparation	13
8.2	Mounting the distribution box	13
8.3	Connecting the leads	13
8.3.1	Connections pluggable with cable assemblies	13
8.3.2	Pluggable connections with ready-made connectors	14
8.3.3	Connectors with non-pluggable input	14
8.3.4	Fitting the flat cable adapter to the flat cable	14
8.3.5	Data line	14
8.3.6	Connecting the earthing point	14
9	Commissioning	15
10	Operation	16
11	Maintenance	17

Table of Contents

12	Disassembly	18
12.1	Disassembly steps	18
12.2	Storage	18
12.3	Recommissioning	18
13	Accessories	19
14	Disposal	20
15	Service and Support	21

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® SPZ.

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® SPZ 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" means an imminent danger. If it is not avoided, it can result in death or serious injury.

"DANGER" is used to warn against risks that already apply at the time of the warning (e.g. hot surfaces, sharp edges, pinch 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 tell you about a potentially harmful situation. If it is not avoided, the system can be damaged or something in their 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 "Technical data", p. 11.

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® SPZ distribution boxes are designed for various applications and provide a quick, easy and simple system solution. Thanks to the gesis® and RST® Plug&Play installation connector systems, approved in accordance with IEC 61535/VDE IEC 61984, gesis® SPZ distribution boxes can be plugged in directly on the construction site after assembly.

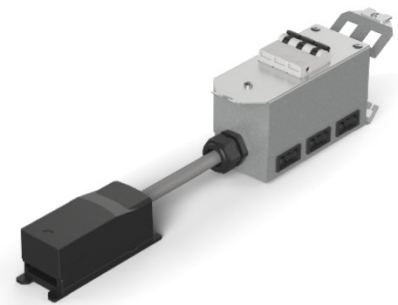
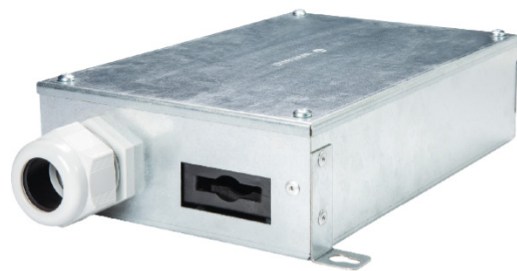


Figure 1: gesis® SPZ distribution boxes for decentralized electrical installation

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.
EAK: 16 02 16

4 PRODUCT DESIGNS

gesis® SPZ distribution boxes are available in the following models:

- For indoor areas
- For outdoor areas

4.1 Indoor areas

The gesis® SPZ distribution boxes for indoor areas can be equipped with various interfaces, e.g.: gesis® CLASSIC, gesis® MINI, gesis® NV, T-head rail, cable screw gland, keystone elements, etc. As a result, the gesis® SPZ distribution boxes for indoor areas have a maximum protection class of IP30. Furthermore, various protection/switching devices can be installed in the distribution boxes, and the internal wiring may differ depending on the variant.

For details of the technical data, refer to chapter 6 "Technical Data", p. 11.

4.2 Outdoor areas

The gesis® SPZ distribution boxes for outdoor areas can be equipped with various interfaces, e.g.: RST® CLASSIC, RST® MINI, RST® Micro, cable screw gland, etc. The gesis® SPZ distribution boxes for outdoor areas have a minimum protection class of IP54. Furthermore, various protection/switching devices can be installed in the distribution boxes, and the internal wiring may differ depending on the variant.

For details of the technical data, refer to chapter 6 "Technical Data", p. 11.

5 AREAS OF APPLICATION

The gesis® SPZ distribution boxes are distributors that are necessary to construct a complete system solution. They are used wherever the situation calls for special requirements and applications. Quick, easy and flexible installation is guaranteed in conjunction with the pluggable electrical installation and the gesis® and RST® installation connector systems.

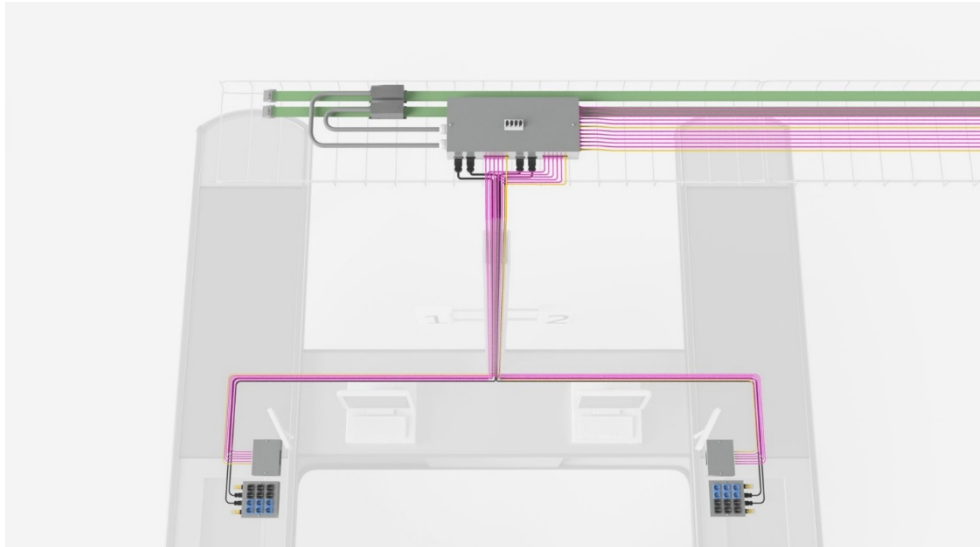


Figure 2: gesis® SPZ as a checkout counter distributor



Figure 3: Distribution fuse board for decentralized electrical installation for EV charging applications

6 TECHNICAL DATA

You can find the technical specifications of the gesis® SPZ distribution boxes at <https://eshop.wieland-electric.com> or scan the QR code below. Navigate to the "Technical Data" area of your product. You will find the necessary data here. You can also generate and download a product data sheet as a PDF file in the "Data Sheet" area.



7 DIMENSIONS

You can find the dimensions of the gesis® SPZ distribution boxes at <https://eshop.wieland-electric.com> or scan the QR code below. Navigate to the "Technical Data" area of your product. You will find the desired data under "Dimensions". The dimensional drawings are available in the Downloads 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 box must be mounted on a suitable base provided for this purpose, if necessary, using the existing mounting options.

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.
- the derating of the RST25i5 is observed.
- no water can accumulate at the sealing points of the housing and the connector.

For information relating to the dimensions and bore hole sizes, read chapter 7 "Dimensions", p. 12.

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.

Tab. 1: Disconnecting connectors with pre-assembled leads

Connector / measures	geis® CLASSIC	geis® MINI	geis® MICRO	RST® CLASSIC	RST® MINI	RST® MICRO	geis® 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 distribution box without using tools. Always make sure that the mechanical coding and color coding are the same, and ensure the correct orientation of the connector.

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.

Tab. 2: Disconnecting self-assembled connectors

Connector / measures	gesis® CLASSIC	gesis® MINI	gesis® MICRO	RST® CLASSIC	RST® MINI	RST® MICRO	gesis® 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 gesis® SPZ distribution boxes do not have a pluggable input. In this case, a cable screw 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® SPZ 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® SPZ distribution box is designed for decentralized data distribution, the distribution box will feature recesses for keystone elements. The relevant elements must be installed on site in accordance with the standards, see chapter 13 "Accessories", p. 19.

8.3.6 Connecting the earthing point

In order to ground the gesis® SPZ 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 system distributor.

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 system distributor 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 system distributor 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 system distributor. Do not use cleaning agents.

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

Tampering with the system distributor

The CE declaration only refers to the original model of the system distributor. 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 system distributor. 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 system distributor render this manual invalid. The qualified electrician who made the change is responsible for updating or creating a new manual.

12 DISASSEMBLY

The complete system distributor 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 system distributor from the power supply.



Danger to life from electric shock

Always observe the 5 safety rules according to VDE 0105:

1. Disconnect from the power.
2. Secure against restart.
3. Establish the absence of any 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 system distributor including the mounting plate from the mounting surface using a suitable tool.

12.2 Storage

Store the system distributor 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", p. 15.

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 Directive (Waste Electrical and Electronic Equipment: 2012/19/EU) 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 cycle, 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.

EAK: 16 02 16



If the system distributor 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

Email: 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>



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