wieland

Electrical
Connections

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On the Internet:
www.wielandinc.com

AT Wieland

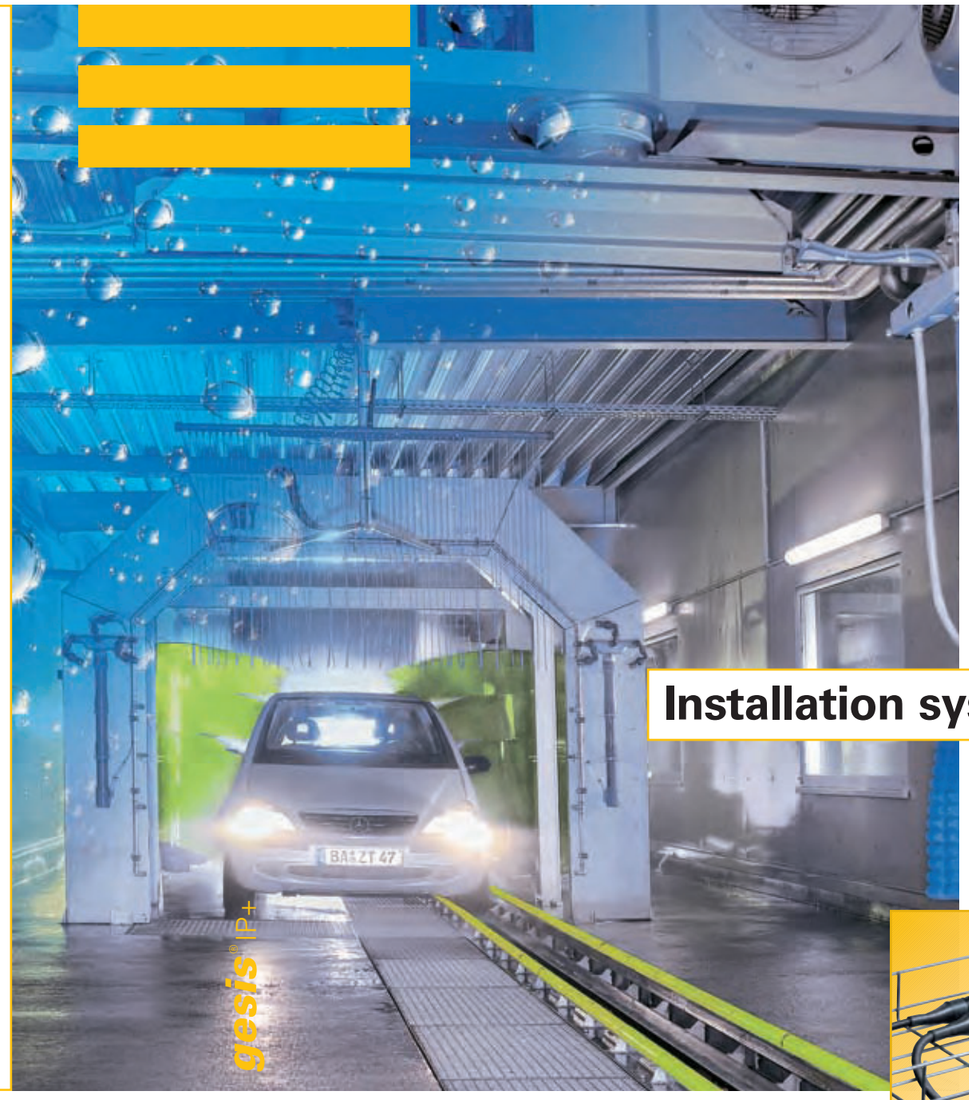
Components and system components for the control cabinet
- DIN rail terminal blocks
  - with screw connection
  - with spring clamp connection
  - with IDC connection
- Safety
  - Safety relays
  - Modular safety systems
- Fieldbus components
- Interface
  - Power supplies
  - Overvoltage protection
  - Measuring and monitoring relays
  - Time and switching relays
  - Coupling relays/solid state relays
  - Analog modules
  - Passive interfaces

Components and system components for field applications
- Remote automation
  - Remote power distribution
  - Remote fieldbus interface
- Industrial multipole connectors
  - Modular multipole connectors
  - High-density multipole connectors
  - High-current multipole connectors
  - Multipole connectors for hazardous areas
  - Bushings for control cabinets
  - D-Sub connectors
- Round connectors

Empty housings and appliance connectors/terminal strips

BIT Wieland
- Building installation systems
  - Mains connectors IP20/IP65...IP68
  - Bus connectors
  - Combined connectors
  - Low-voltage connectors
  - Flexible flat cable systems
  - Distribution systems
  - Switching devices for EIB/KNX, LON, Ethernet, radio control
  - DIN rail terminal blocks for electrical installations
  - Overvoltage protection

PCB connectors Wieland
- PC board connectors
  - with screw connection
  - with spring clamp connection
  - with TOP connection



Installation system in IP 65 ... IP 68

For use in rough environments

P r o d u c t R a n g e

0161.5 C 05/06

wieland

Electrical
Connections

The Wieland Group

Wieland Electric

was founded in 1910 in Bamberg. With its 1350 staff members it is the biggest of the three subsidiaries within the company group of Wieland Holding. With its numerous innovations, Wieland Electric has become the major supplier of electrical connection technology. The export share is currently at 58%.

In the business unit of building system technology, Wieland Electric, with its ***gesis***® system, has even become the world market leader in the field of pluggable electrical installation systems.

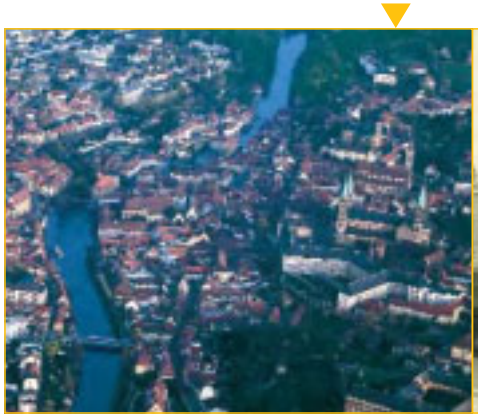
One company group, a thousand possibilities

The philosophy of the Wieland Group with its headquarters in Bamberg can be summarized that simply.
The three independent subsidiaries, Wieland Electric, STOCKO Contact and Schleicher Electronic, are active under the roof of the Wieland Holding.

Together they cover an extraordinarily wide product portfolio in the field of electrical engineering and electronics.

The Wieland Group's youngest member is Schleicher Electronic in Berlin that was taken over in 2003. Schleicher was founded in 1937 and offers high-quality safety switching devices and relays as well as flexible automation systems and engineering services for industrial automation. The product range focuses on PC-based CNC and PLC systems, remote fieldbus I/O modules and compact operating devices.

Photo of Bamberg taken from above



Wieland headquarters around 1910

Photo of the Bamberg headquarters taken from above

Not without reason do planners and architects of the highest and most interesting construction projects worldwide such as the Petronas Towers in Kuala Lumpur count on the ***gesis***® components from Wieland. Wieland is the pioneer on a path towards the "intelligent home" by consistently developing its ***gesis***® product range, especially in view of the options of electronic networking.

STOCKO Contact is located in North Rhine-Westphalian's Wuppertal and has been a member of the Wieland Group since 2001. The company can look back at a history of more than 100 years.
STOCKO Contact is one of the major European manufacturers of connector systems and crimp contacts.

But also in its second company sector, automation technology, Wieland Electric presents itself as a motor for innovation in the industry. ***podis***®, the solution-oriented system for remote power distribution and ***ricos*** TP, the youngest development in the field of automation systems for extended environmental requirements, are only two examples of Wieland Electric's desire for innovation.

With its extensive product range covering control cabinet technology, DIN rail terminal blocks, industrial multipole connectors or surge protection technology, Wieland Electric is active in most fields of automation technology. The cross-platform sales responsibility of Wieland Electric and Schleicher Electronic will guarantee all cross-selling activities in the areas of components, industry and system components as well as systems in general.

Innovative & active worldwide

With its staff of almost 2,000 employees, the Wieland Group is at home on all continents. Subsidiaries in Belgium, Great Britain, France, Spain, Italy, Poland, Canada, the USA and very recently also in China speak for themselves. With a great number of representatives, the Wieland Holding is active in almost all strategically important countries.
Just a medium-size global player with a clear commitment to the German location where most of the products are still manufactured.

Wieland stands for Best Connections.

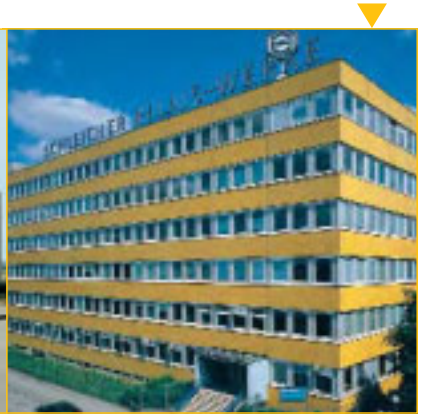
Wieland in Bamberg stands for a well-balanced mix of tradition and the modern age. Here parallels to the Bamberg theater that is rich in tradition and that is beginning to flourish again in its new premises can be seen.
Another reason for Wieland to become committed to the Bamberg theater as a partner.

Just Best Connections.

Sales and Marketing Center in Bamberg

STOCKO headquarters in Wuppertal

Schleicher premises in Berlin



High-quality products and responsible environmental protection are almost a matter of course. Not without reason are the companies of the Wieland Holding certified according to quality standard ISO 9001 and environmental standard ISO 14001. Far-reaching new investments such as the expansion of a plant in Bamberg set a sign for a positive future.

Best Connections.

Business fields and entire production

Business fields of Wieland Electric GmbH

- Industrial technology
- Building installation technology





Business fields of STOCKO Division

- Automotive
- Heating technology
- Appliance technology
- Industrial technology
- Multimedia





Business fields of SCHLEICHER Division

- Control systems
  - CNC systems
  - PLC systems
- Operating devices
- Fieldbus systems
- Timer relays, switching relays
- Safety switching devices
- Measuring and monitoring relays
- Modular safety mini-controller modules






Product groups

DIN rail terminal blocks
fasis, selos, taris

Safety technology
samos, safety center

Relays,
power supply
interface

Installation system
gesis IP+

Installation system
gesis CON, ***gesis*** ELECTRONIC

Electronic housings
dipos,
NGG, WEB

Fieldbus components
ricos

Remote automation
podis

Industrial multipole connectors
revos

Appliance terminals, terminal strips
appliance

Individual customer requirements can only be satisfied by those who understand them.

Therefore we focus our products and services on our customers' requirements without compromise. Over 90 years of experience and competence in the field of electrical connection technology speak in our favor. For more than ten years, Wieland Electric GmbH has also been successful in fieldbus and analog technology.

This success is not without reason.

It is the result of the concentrated and hard work of staff members who apply commitment and motivation to planning, development, manufacturing and support.
Design and development of suitable products at the right time and based on intelligent ideas have made us one of the leading providers of electrical connection technology worldwide.

Visit us on the Internet:

www.gesis.com

www.wieland-electric.com

Hotline numbers:

For questions for the sales team regarding availability, delivery date and prices: ☎ **+49 9 51/93 24-9 90**

For technical questions on product characteristics and applications of our products as well as their functionality and accessories:

gesis®, EIB devices: ☎ **+49 9 51/93 24-9 96**

Fax: ☎ **+49 9 51/93 26-9 96**

e-mail: **BIT.TS@wieland-electric.com**

With our flexible connector system ***gesis*** we are the international market leader in the field of building installation technology.

Our manufacturing is state-of-the-art. As with research and development, we also rely on the highest technical level in production. This way we ensure that only 100% quality leaves our company.

With our subsidiaries in Germany, the USA, Canada, Great Britain, France, Italy, Spain and Poland and with sales agencies in more than 50 countries we are continuously available to our customers and can offer support on short notice and prompt availability of our goods.

Do not hesitate to contact us and discuss your requirements with our staff members. We will be happy to assist you.

Contents

Technical data

The idea of pluggable installation

yesterday

Conventional installation

Work steps:

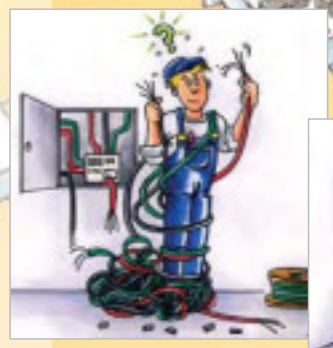
Power distribution:

- Cut the cable to length
- Strip the cable sheath
- Insert the cable into the junction box
- Strip the wire insulation
- Connect the individual wires
- Close the junction box

Lamp installation:

- Open the lamp
- Strip the cable sheath
- Insert the wire into the lamp
- Strip the wire insulation
- Connect the individual wires
- Close the lamp

20 min.

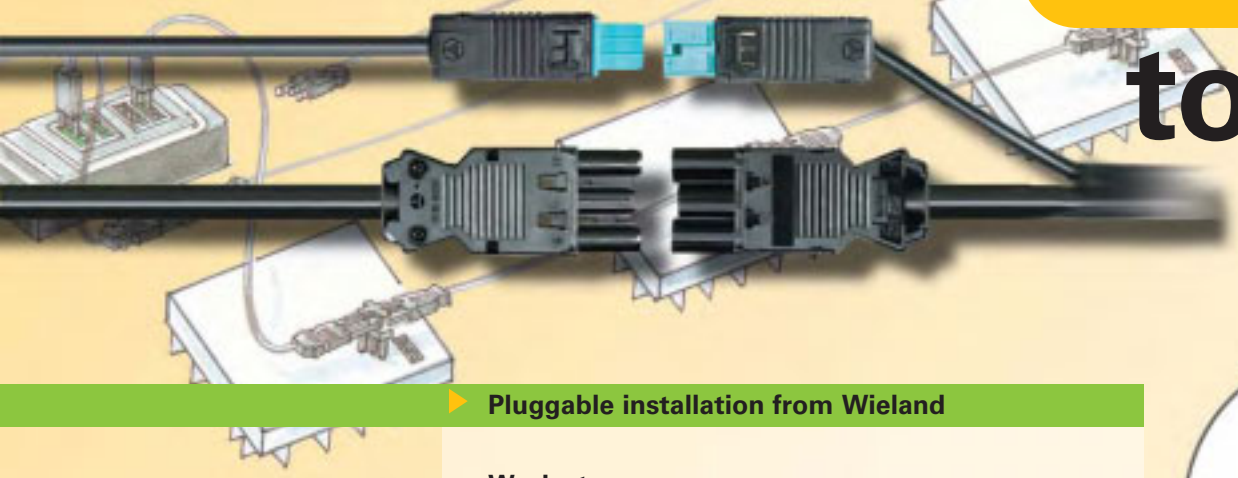


The *gesis* installation philosophy:

The idea is as easy as it is brilliant.

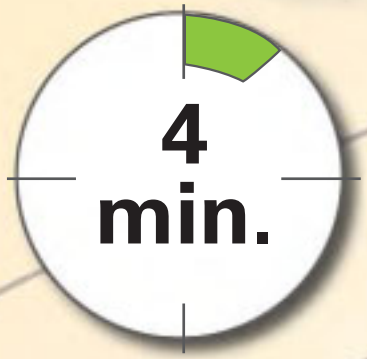
An extensive network of components of electrical connection technology, pre-assembled and most carefully tested, enables a consistently pluggable solution from the distribution board to each point of demand.

The idea today

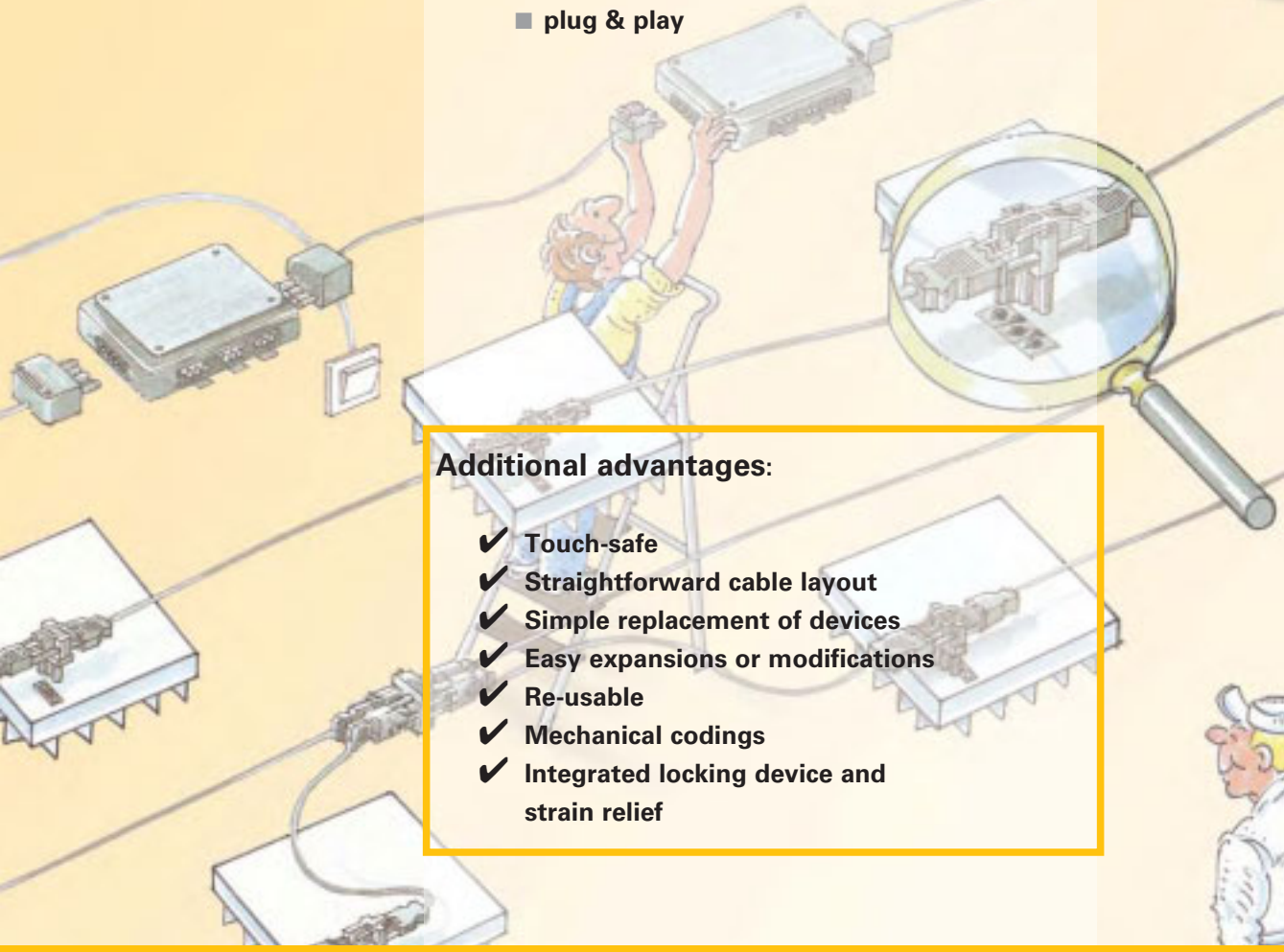


Pluggable installation from Wieland

Work steps:



- **Attach the lamp**
- **plug & play**



Additional advantages:

- ✔ **Touch-safe**
- ✔ **Straightforward cable layout**
- ✔ **Simple replacement of devices**
- ✔ **Easy expansions or modifications**
- ✔ **Re-usable**
- ✔ **Mechanical codings**
- ✔ **Integrated locking device and strain relief**

This saves time and reduces costs!

A great number of renowned manufacturers have recognized this positive trend and, as system partners, already offer their components with pluggable ***gesis*** connectors.

The system's fields of application are as versatile as the system itself.

In short: wherever electrical power or signals need to be distributed, ***gesis*** has set a standard.

Electrical installation with a system

Transfer of the successful *gesis* installation philosophy ...

- **Wieland, as the world market leader in the field of pluggable electrical installation, provides a consistently pluggable installation system: Complex installations from the distribution board to each point of demand can be implemented with only four base components.**

gesis CON
IP 20

- Pluggable connectors (male + female) for supply of the connector system – interface between conventional and pluggable installation

INCOMING SUPPLY

- Distribution blocks for power or signal distribution within the network

DISTRIBUTION

- Pre-assembled cables for routing or supply of electrical power or signals

ROUTING

- Device connections are directly integrated into the end devices and function as the interface to the connector system

DEVICE CONNECTION

The system

... in areas with increased protection requirements

gesis IP+

IP65 ...IP68

INCOMING SUPPLY

DISTRIBUTION

ROUTING

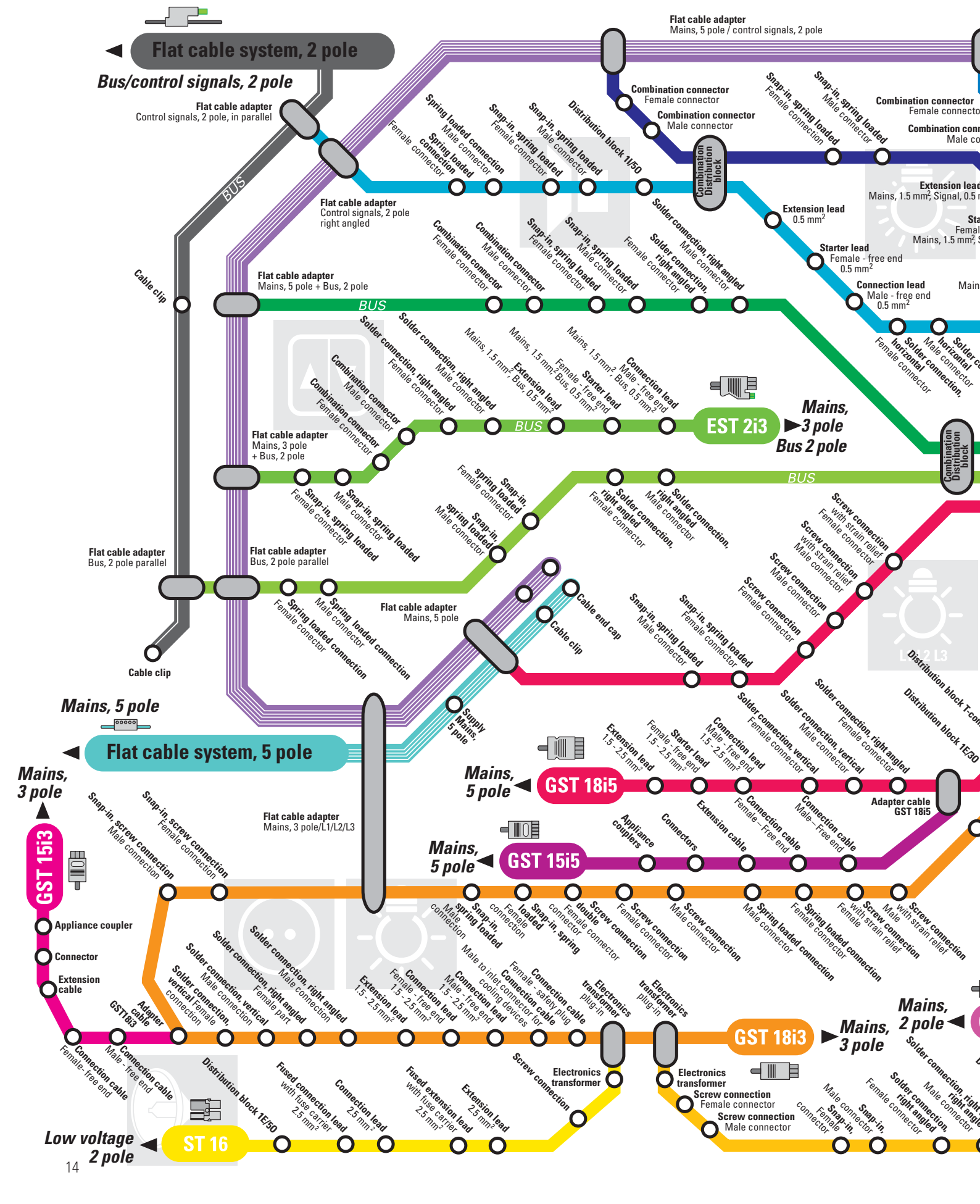
DEVICE CONNECTION

With a new product on the market, Wieland transfers the successful *gesis* installation philosophy into a new market segment and sets new standards.

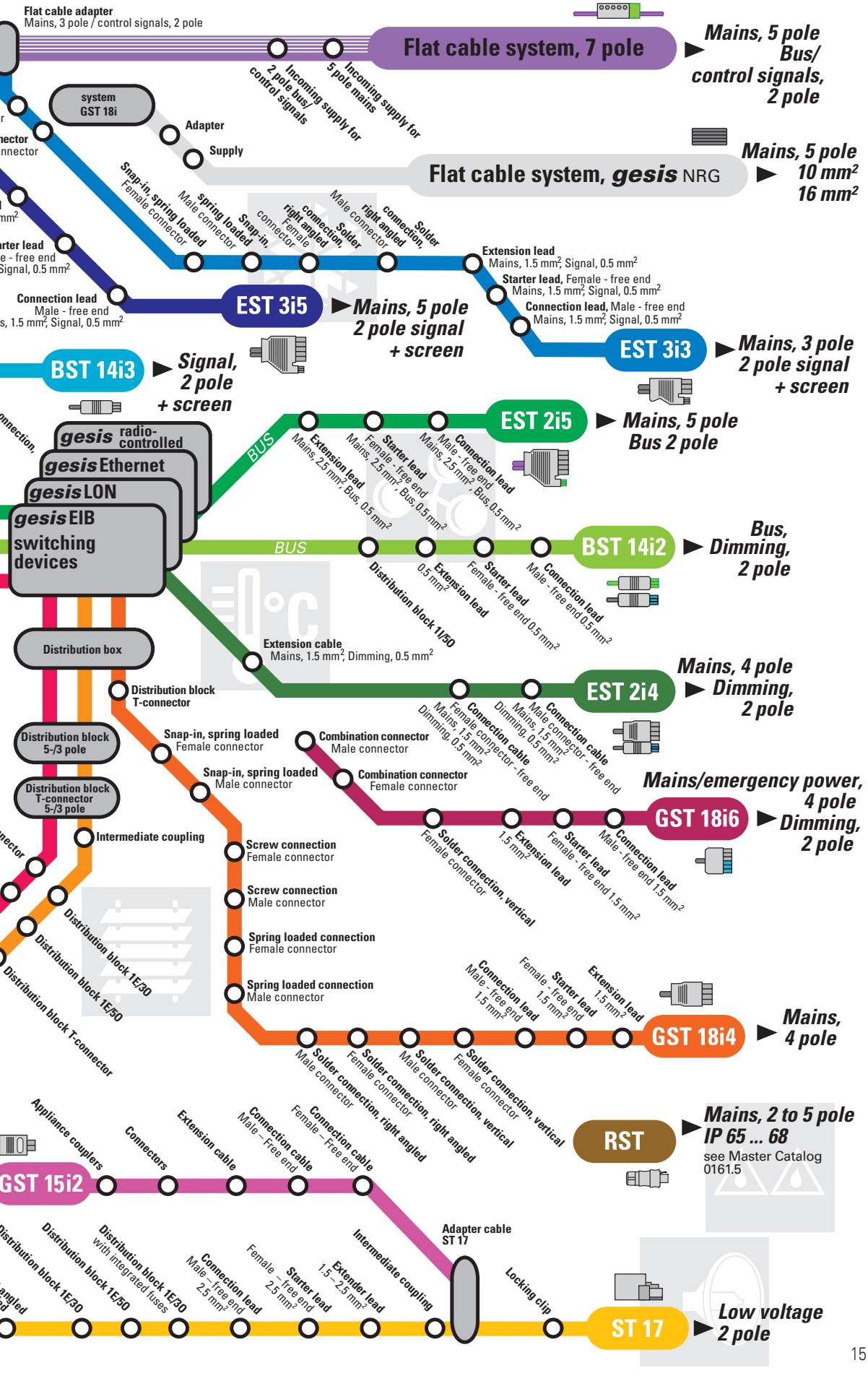
Degree of protection achieved:

IP 65	Jet water
IP 66	Powerful jet water
IP 67	Temporary submersion
IP 68	Lasting immersion (2 hours in 3 m deep water)

In many applications, electrical devices and systems must work safely under difficult environmental conditions for many years. For a reliable function the ingress of water or foreign particles (such as dust, oil, soot) into production systems, parking garages or outer premises must be avoided. Even an **unplanned immersion** is possible with the RST system within the scope of the specified degree of protection. The system is not designed for permanent operation under water.


Flat cable system, 2 pole
Bus/control signals, 2 pole
Flat cable adapter
Control signals, 2 pole, in parallel
Flat cable adapter
Mains, 5 pole / control signals, 2 pole
Flat cable adapter
Control signals, 2 pole
right angled
BUS
Cable clip
Flat cable adapter
Mains, 5 pole + Bus, 2 pole
Flat cable adapter
Mains, 3 pole
+ Bus, 2 pole
Flat cable adapter
Bus, 2 pole parallel
Flat cable adapter
Bus, 2 pole parallel
Flat cable adapter
Mains, 5 pole
Flat cable adapter
Mains, 3 pole/L1/L2/L3
Combination connector
Female connector
Combination connector
Male connector
Distribution block 1I/50
Combination Distribution block
Extension lead
0.5 mm²
Starter lead
Female - free end
0.5 mm²
Connection lead
Male - free end
0.5 mm²
Solder connection, right angled
Female connector
Solder connection, right angled
Male connector
Extension lead
Mains, 1.5 mm², Bus, 0.5 mm²
Starter lead
Female - free end
Mains, 1.5 mm², Bus, 0.5 mm²
Connection lead
Male - free end
Mains, 1.5 mm², Bus, 0.5 mm²
EST 2i3
Mains,
3 pole
Bus 2 pole
Snap-in, spring loaded
Female connector
Snap-in, spring loaded
Male connector
Spring loaded connection
Female connector
Spring loaded connection
Male connector
Solder connection, right angled
Female connector
Solder connection, right angled
Male connector
Solder connection, vertical
Female connector
Solder connection, vertical
Male connector
Screw connection
with strain relief
Female connector
Screw connection
with strain relief
Male connector
Screw connection
Female connector
Screw connection
Male connector
Cable end cap
Cable clip
Supply
Mains,
5 pole
Mains, 5 pole
Flat cable system, 5 pole
Mains,
3 pole
GST 15i3
Mains,
5 pole
GST 18i5
Mains,
5 pole
GST 15i5
Extension lead
1.5 - 2.5 mm²
Starter lead
1.5 - 2.5 mm²
Female - free end
Connection lead
1.5 - 2.5 mm²
Male - free end
Adapter cable
GST 18i5
Appliance couplers
Connectors
Extension cable
Connection cable
Female - Free end
Connection cable
Male - Free end
Snap-in screw connection
Male connection
Snap-in screw connection
Female connection
Appliance coupler
Connector
Extension cable
Adapter cable
GST18i3
Solder connection, right angled
Male connection
Solder connection, right angled
Female part
Solder connection, vertical
Male connection
Solder connection, vertical
Female connection
Snap-in, spring loaded
Female connection
Snap-in, spring loaded
Male connection
Snap-in, spring loaded
Female connector
double
Screw connection
Female connector
Screw connection
Female connector
Screw connection
Male connector
Spring loaded connection
Female connector
Spring loaded connection
Female connector
Screw connection
with strain relief
Female
Screw connection
with strain relief
Male
Male to inlet connector for cooling devices
Female - safety plug
Connection cable
Electronics transformer
plug-in
Electronics transformer
plug-in
GST 18i3
Mains,
3 pole
Mains,
2 pole
Connection cable
Female - free end
Connection cable
Male - free end
Distribution block 1E/50
Fused connection lead
with fuse carrier
2.5 mm²
Connection lead
2.5 mm²
Fused extension lead
with fuse carrier
2.5 mm²
Extension lead
2.5 mm²
Screw connection
Electronics transformer
Electronics transformer
Screw connection
Female connector
Screw connection
Male connector
Low voltage
2 pole
ST 16

The components



GST 18i3 *Mains, 3 pole*

GST 18i4 *Mains, 4 pole*

GST 18i5 *Mains, 5 pole*

GST 18i6 *Mains, 4 pole emergency supply Dimming, 2 pole*

BST 14i2 *Bus, Dimming, 2 pole*

EST 2i3 *Mains, 3 pole Bus, 2 pole*

EST 2i4 *Mains, 4 pole Dimming, 2 pole*

EST 2i5 *Mains, 5 pole Bus, 2 pole*

BST 14i3 *Signal, 2 pole + screen*

EST 3i3 *Mains, 3 pole Signal, 2 pole + screen*

EST 3i5 *Mains, 5 pole Signal, 2 pole + screen*

Flat cable system, 5 pole *Mains, 5 pole 2.5 mm²*

Flat cable system, 2 pole *Bus, 2 pole/ control signals*

Flat cable system, 7 pole *Mains, 5 pole Bus, 2 pole/ control signal*

Flat cable system gesis NRG *Mains, 5 pole 10 mm² 16 mm²*

ST 16 *Low voltage 2 pole*

ST 17 *Low voltage 2 pole*

GST 15 *Mains, 2 to 5 pole*

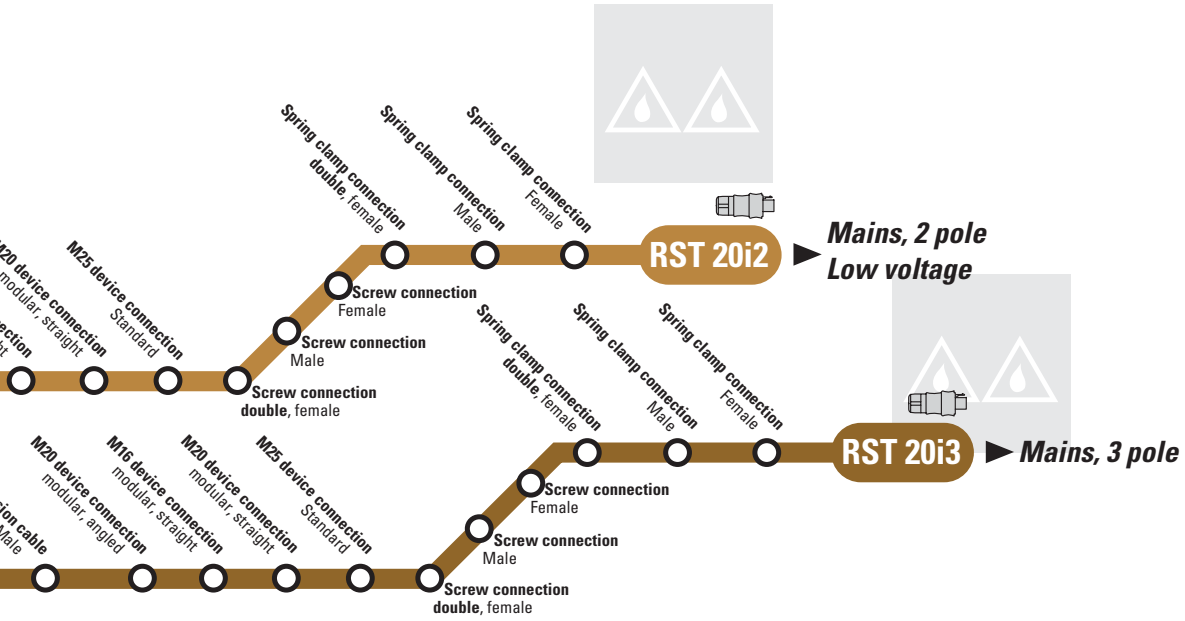
Distributor

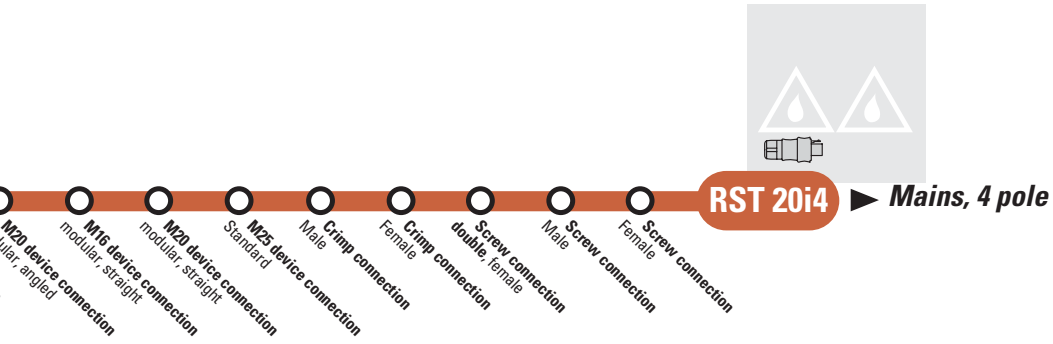
gesis ELECTRONICS *EIB/KNX; LON Ethernet; radio-controlled*

RST *Mains, 2 to 5 pole IP 65 ... IP 68*

gesis® IP+ schedule for installation in rough environments

The components

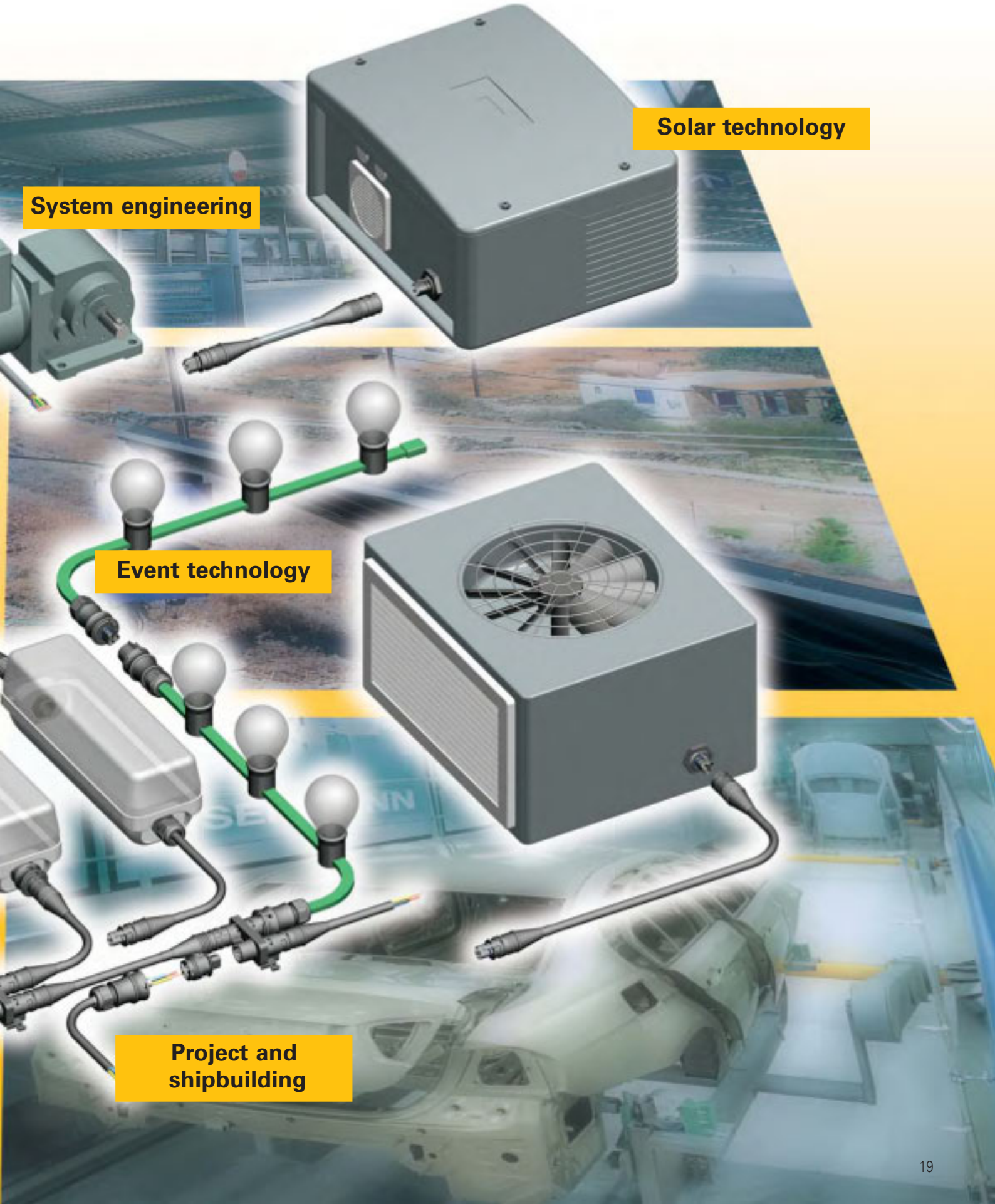




ns, 3 pole

Areas of application in an overview

Application



Mains connection for electrical devices

Other countries – other mains connections: RST connector as the mediator between the nations

The challenge:

Particularly the export-oriented countries must offer their products in country-specific variations. The products frequently distinguish themselves by the mains connectors. Stockage of country-specific product variations has, not least, an adverse impact on delivery times and warehouse costs.

The solution:

Mains connections are made pluggable: one end is pre-assembled with the appropriate national mains connector, while the other end has always the same RST connector. Consequentially, the relevant end devices are equipped with RST device connectors, independently of the country.

Thus country-specific mains connections are available to you. The connection set required for the target country is attached only. This simplifies stockkeeping for export-oriented products especially.

RST mains connectors:

The cables are pre-assembled with the desired mains connector*) on mains side. The RST connector is molded to the device side. It is not only extremely compact, but is also protected against bending.

The connection between the device and the pre-assembled cable is protected against accidental loosening through an integrated safe locking device. A manual disconnect facility is optionally available.

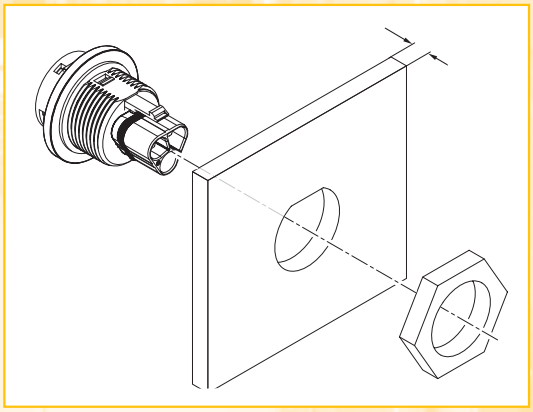
*) available on request

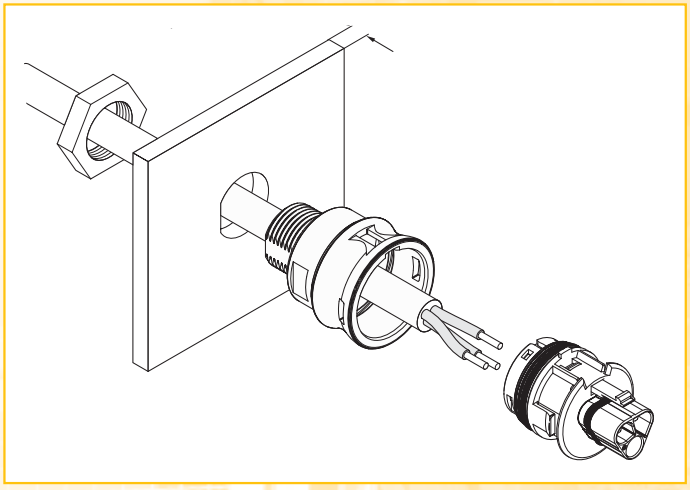
Application

Device connections:

Device connections are integrated into the relevant housing cut-outs and function as an outward interface.

There are basically two variations: the single-piece **M25 standard device connections** are simply installed inside the housing.





Also see:

RST 20i2 Protection class II
RST 20i3 Mains with ground

The **modular device** connections **(two-piece)** are available in M16 and M20 designs as well as with 0° and 90° angles.

M20 0°

M16 0°

M20 90°

On request we can also realize intermediate angles ranging between 0° and 90° in order to provide a solution for specific housing geometries.

Mxx xx°

gesis – the pluggable electrical installation now also for industrial use

The challenge:

Whether individual applications or complex systems – the tasks are the same: electrical consumer devices must be connected quickly and safely.

Conventional installations do not meet these requirements. Cutting the cables to length, stripping the cable sheath and wire insulation, and finally connecting of the components are not only time-consuming operations, but frequently also cause errors and result in rework. Cooperation of different trades (mechanical and electrical installation) during the setup of a system impedes the continuous progress of operations. This applies not only for initial installations.
For expansions, regular servicing or replacement of defective devices the same installation steps recur over and over again.

The solution:

As a complete installation system, ***gesis*** IP+ provides definite time savings during installation. The components are pre-assembled in the factory and simply plugged together in the field. Troublesome cutting to length, stripping of sheath and insulation, and connecting is now a matter of the past.

Operational downtimes are thus clearly reduced. In the case of defective devices or regular servicing, the consumer devices can be disconnected from the network quickly. Another advantage is that the installer does not have to open the device for completion of the electrical connection, which means that incorrect assembly especially of water-protected devices can be excluded.

Application

Cost reductions:

Connections in system sections are frequently over-dimensioned. This was not least due to a lack of alternatives. But this is where a major savings potential is hidden.

The RST system counts on completely pre-assembled components which only have to be plugged in on site.

Pre-assembly in a separate location:

The ***gesis*** IP+ installation system enables completely new possibilities. Complete system sections can be pre-assembled and tested independent of the location of operation.

The individual modules are simply plugged together on site.

Making electrical devices pluggable:

Device connections function as an interface between the electrical consumer devices and the ***gesis*** IP+ installation system. The consumer device becomes pluggable through the integrated device connector and can therefore be incorporated into the installation system as required.

The device connectors have been equipped with standard threads (M16 and M25) and can therefore be replaced easily by conventional feed-through facilities.

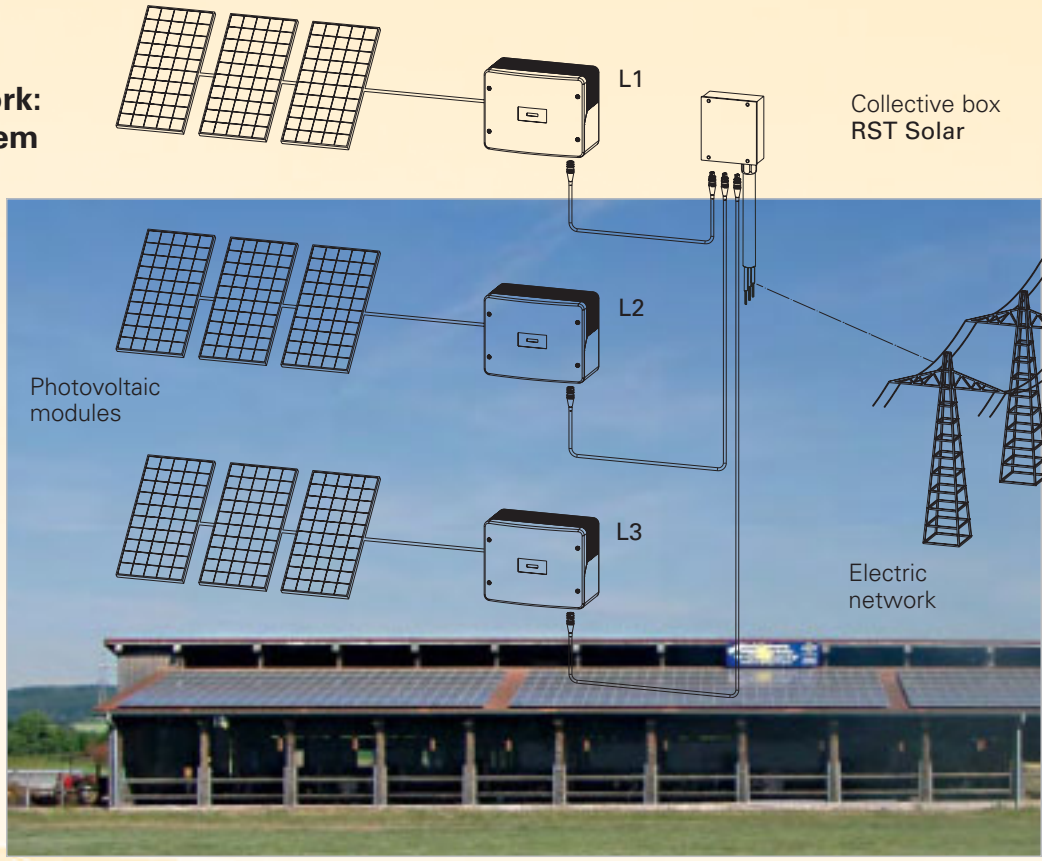
Also see:

RST 20i3 Mains with ground
RST 20i4 Mains with ground
RST 20i5 Mains with ground

Possible applications:

– Motor connection (3~)
– Power distribution 250/400 V ~
– Power supply up to 50 V, bus
– Workstation illumination
– Painting checks

The safe way into the network: the AC Solar connector system



The challenge:

The extraordinary benefits of a pluggable electrical installation have been restricted to the DC side of photovoltaic systems thus far. The connection on the mains side still had to be made in the time-consuming conventional way. When several inverters are used within a system, the high installation effort becomes apparent.

The solution:

With its new AC Solar round connector system, Wieland provides an optimal solution for the AC area. Pre-assembled components with increased protection degree ensure a quick and safe installation even under the most adverse conditions.

The system includes collective distributors which are delivered in a pre-assembled design, and cable assemblies for the connection between the inverters and the collective distributors. The system is supplemented by connectors for assembly on site. Leading inverter manufacturers pre-assemble their devices with the relevant connectors, the interface to the system, in their factories.

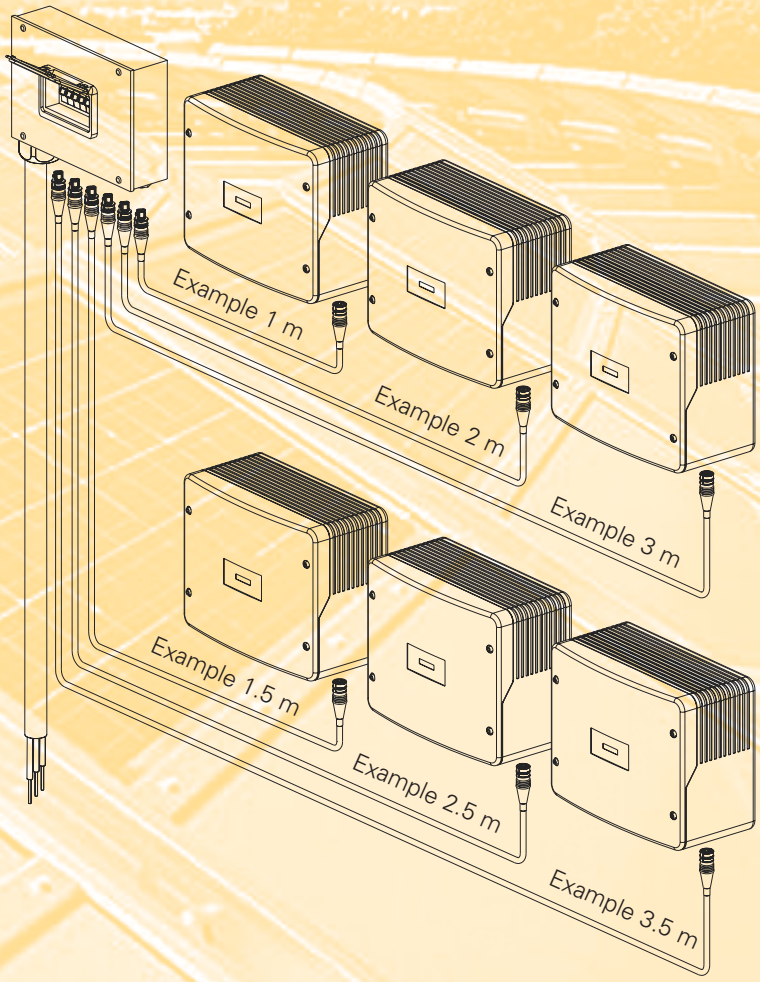
More and more manufacturers recognize this positive trend and offer their devices with RST connectors.

Other fields of application

- Emergency power supply through batteries (in buildings or systems)
- Transformation of on-board voltage (cars, trucks, railroad, caravans, boats)
- Metal working
- Power generation (fuel cell, wind power plants, photovoltaic systems)

Application

Example: system up to 30 kWp



Also see:

RST 25i3	Single-phase supply with ENS
RST 25i5	Single-phase supply with three-phase monitoring
RST 20i5	Three-phase supply

Additional information about this topic is available in our brochure "Solar Power is Pluggable", part number 0162.5.

Construction power systems

The flexible electrical installation: construction power system for initial supply of construction sites during structural works

The challenge:

Time pressure in the project business is greater than ever: it is therefore even more important that all processes function and are attuned with one another without a problem. The construction power systems make a major contribution, as they ensure the supply of electrical power during structural works. The requirements for such construction site supply are extremely high. On the one hand they must withstand extreme conditions and on the other hand provide as much flexibility as possible.

The solution:

Only three base modules are required to implement even complex installation in no time and according to the requirements.
The pre-assembled cables are at the core They are ready for use in all required lengths and can be installed as required. Distributor components furthermore enable the distribution of power to the relevant location.
And finally there are the lamps. They have been equipped with device connectors and can be integrated into the installation by simply plugging them in.

Application

The benefits at a glance:

Low investment requirements:

All connection cables have been pre-assembled and tested. With the available range of device connectors almost any standard lamp can be made pluggable. Therefore, the lamp manufacturers can easily integrate them into their products.

Low stock requirements:

In contrast to the lamps with a fixed connection cable, these lamps can easily be stockpiled due to their pluggability. Transport becomes easier as well. The cables are stored separately.
There are only a few different cable types, as the same lengths can be cascaded.

Easy handling:

The lamps can be assembled easily on the construction site, as the electrical connection is made after the lamps have been installed.

Due to the compact dimensions of the pluggable components, the cables can be laid out much more flexibly, as small bore holes or cut-outs are no obstacle.

Also see:

RST 20i3 Mains 3 pole
RST 20i5 Mains 5 pole

High operational safety:

The power supply system at the construction site cannot be used by third parties (unrelated trades), as the construction machines are normally not equipped with RST connectors.
Its high degree of protection prevents any failure, even with short-term flooding of the connections.

Event technology

Pluggable solutions for event technology: electrical installations outdoors – one of the last adventures

The challenge:

Decorative illuminations during Christmas time or for other major events are extremely popular today. The possibilities for creating pleasant atmospheres or spotlighting objects are almost unlimited. But what happens behind the scenes? Standard outlets, carefully packed in PET bottles, or simply wrapped in a plastic bag – this is often common practice (not just in secrecy).

Apart from the fact that improvised solutions like that are questionable in view of safety technology, they are not aesthetically appealing at all. The fact is that there hasn't been an alternative up to now.

The solution:

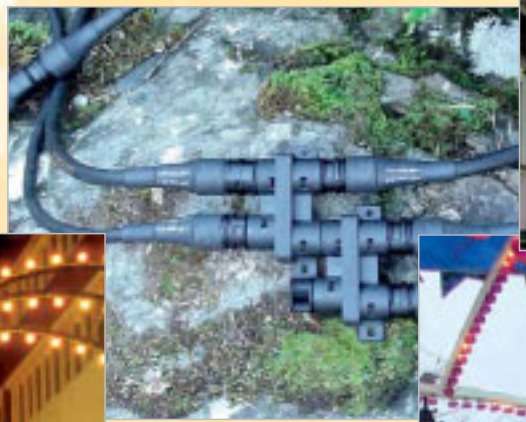
The solution is a system which is suitable for outdoor use without additional protection measures: RST. Consistently pluggable and with IP68 protection degree, RST enables the outdoor connection of, for example, lamps quickly and safely.
Special attention was put on the design in order to make it match inconspicuously with the existing installation.

Event technology

(Project lighting, festivals, leisure parks, fairground rides, exhibitions, concerts, light advertisements)

Christmas lighting

(Post lighting, tree lighting, sales booths)



Application

Connectors for illumination cables:

Customary illumination cables can be integrated into the installation through special 2 pole connectors with the corresponding rectangular strain relief. This applies to applications in the professional as well as in the private sector.

The connectors are protected against accidental loosening; they can be unlatched with a tool only. This is a considerable plus in safety for places that are generally accessible. For protected areas (that are only accessible by experts), the connectors can be equipped with a manual disconnect facility for easy disassembly.

Available on request!

Post outlet:

The post outlet is simply integrated into existing posts and thus ensures the power supply. It even provides minimal dimensions and optimal weather protection. The post outlet consists of a splash-water-protected device connector which is mounted directly on the post, as well as a firmly connected cable in various lengths for internal wiring.
The cable is strain-relieved and the contacts are protected against condensation.
The protective cover is removed and the decorative component is plugged in with the corresponding flexible light tube – plug & play!

Flexible light tube cable:

A 1 m long supply cable is available as an interface between customary 2 pole light tubes.

Available on request!

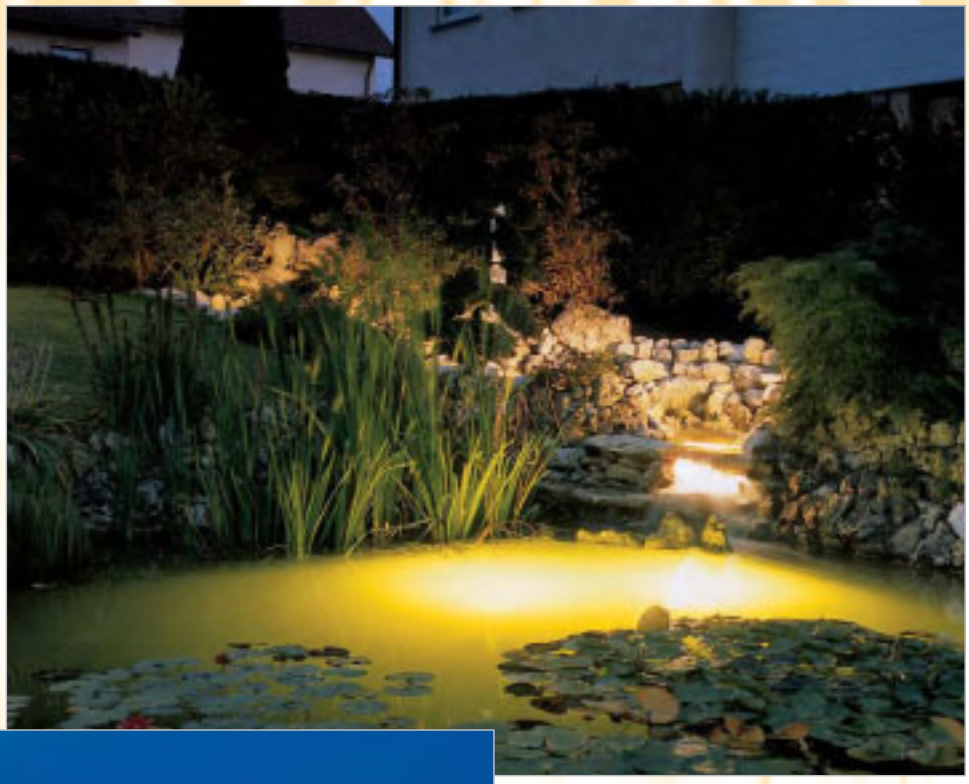
Also see:

RST 20i2 Protection class II
RST 20i3 Mains with ground
Accessories

plug & play for outdoor lamps: electrical installations according to the “lego principle”.

The challenge:

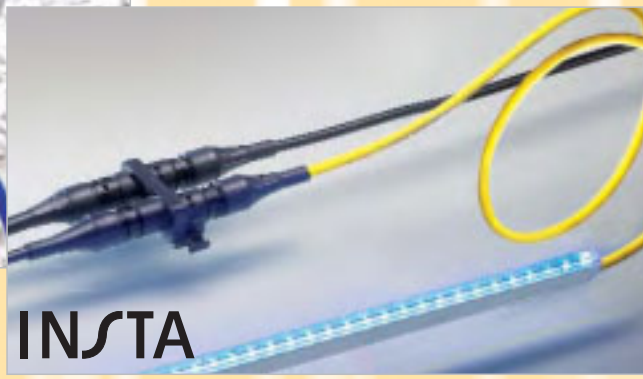
Expert operation plays a major role particularly for electrical installations outdoors.
Difficult installation conditions and high time pressure often cause errors, loss of the protection degree and finally failure of the system.
Unfortunately customers often send their complaints about cases like that to the lamp manufacturer and are left with a bad impression.



The solution:

As a complete installation system, ***gesis*** IP+ is optimally adapted to these increased requirements. It is very flexible in its application and has proven technology at its disposal. Lamps can thus be delivered in a pre-assembled design. They only have to be plugged in on site. The connectors are also touch safe when they have not yet been plugged in; they provide a locking device against accidental loosening.
The possibility of connecting almost all customary cable types (also underground cables), as well as the IP 68 protection degree make the RST connector a strong partner for outdoor lighting. Underground installation is possible when the following items are kept in mind: the regulations according to DIN VDE 0100 must be fulfilled. Continuous draining of water must be guaranteed by suitable drainage measures. The connectors must be installed horizontally and protected against mechanical strain (in a plastic tube, if required).

Application



DZ

Connectors:

For the various lamp types, mains connectors for 250 V and low-voltage connectors for LED technology up to 50 V are available.
These are mechanically coded and can therefore not be mismated.

For parallel applications this provides additional safety.

Also see:

RST 20i2 Protection class II, low voltage

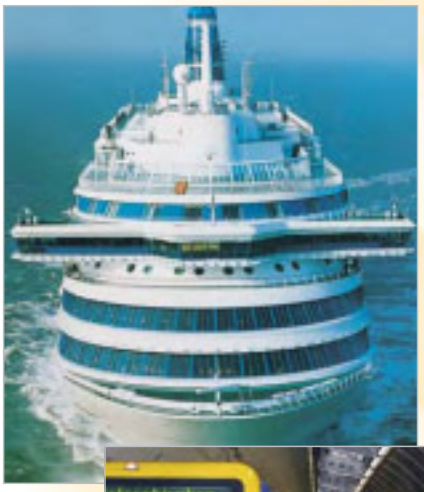
RST 20i3 Mains 3 pole
RST 20i5 Mains, 5 pole

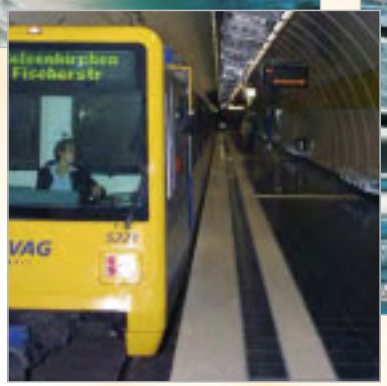
gesis –
the synonym for pluggable electrical installation

The challenge:

Whether in underground garages, greenhouses or in shipbuilding: electrical installations with increased requirements regarding the degree of protection can be found everywhere. Especially in these fields, it is extremely important that the electrical installation is carried out by an expert.

But how does it work in practice? Difficult installation conditions and extreme time pressure often lead to errors, loss of protection and finally to the failure of the system.



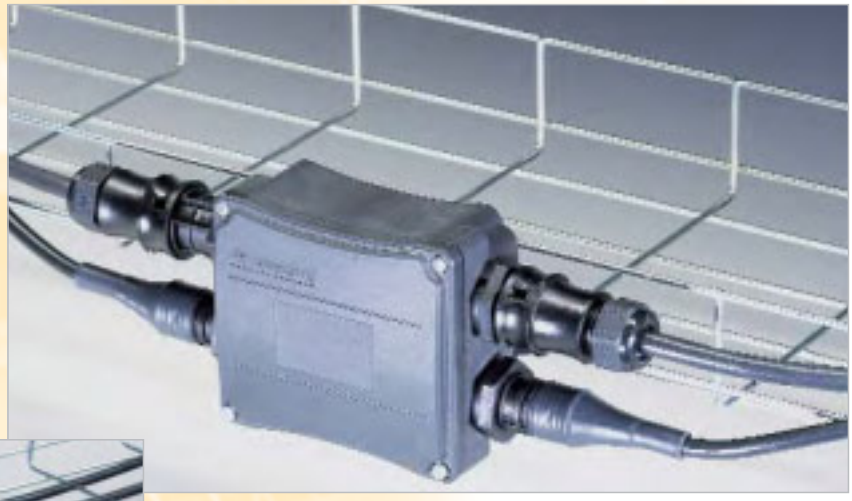


The solution:

The idea is as easy as it is brilliant. An extensive network of components pre-assembled in the plant and most carefully tested enables a consistently pluggable solution from the distributor to the point of use. This saves time and reduces the costs!

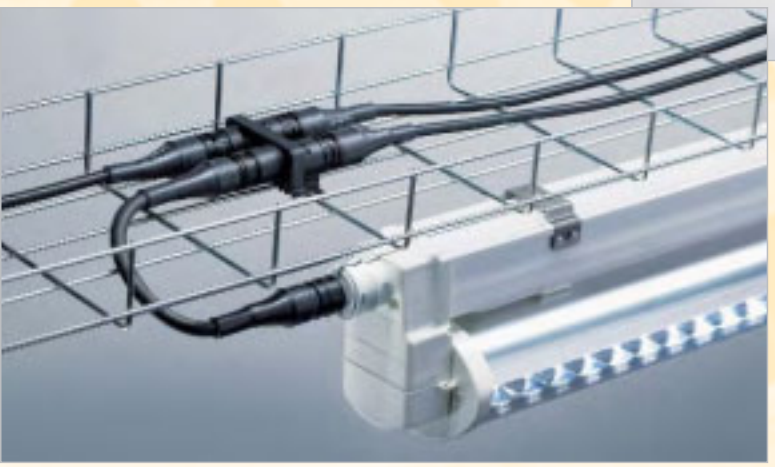
Application

The benefits at a glance:



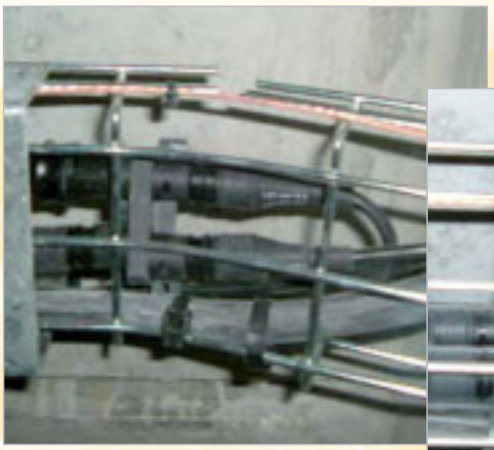
Installation up to date:

The ***gesis*** installation system and its sophisticated concept mirror the state of the art in modern technology.



Reduced construction times (initial installation):

An installation with ***gesis*** IP+ reduces the costs not only for initial installations.
Even short-term reorganization can be carried out without a problem. This is enhanced by the guarantee of continuous installation quality.



Continuous operational cost savings:

Maintenance costs and repair during operation are possible even under more difficult work conditions (architecture).

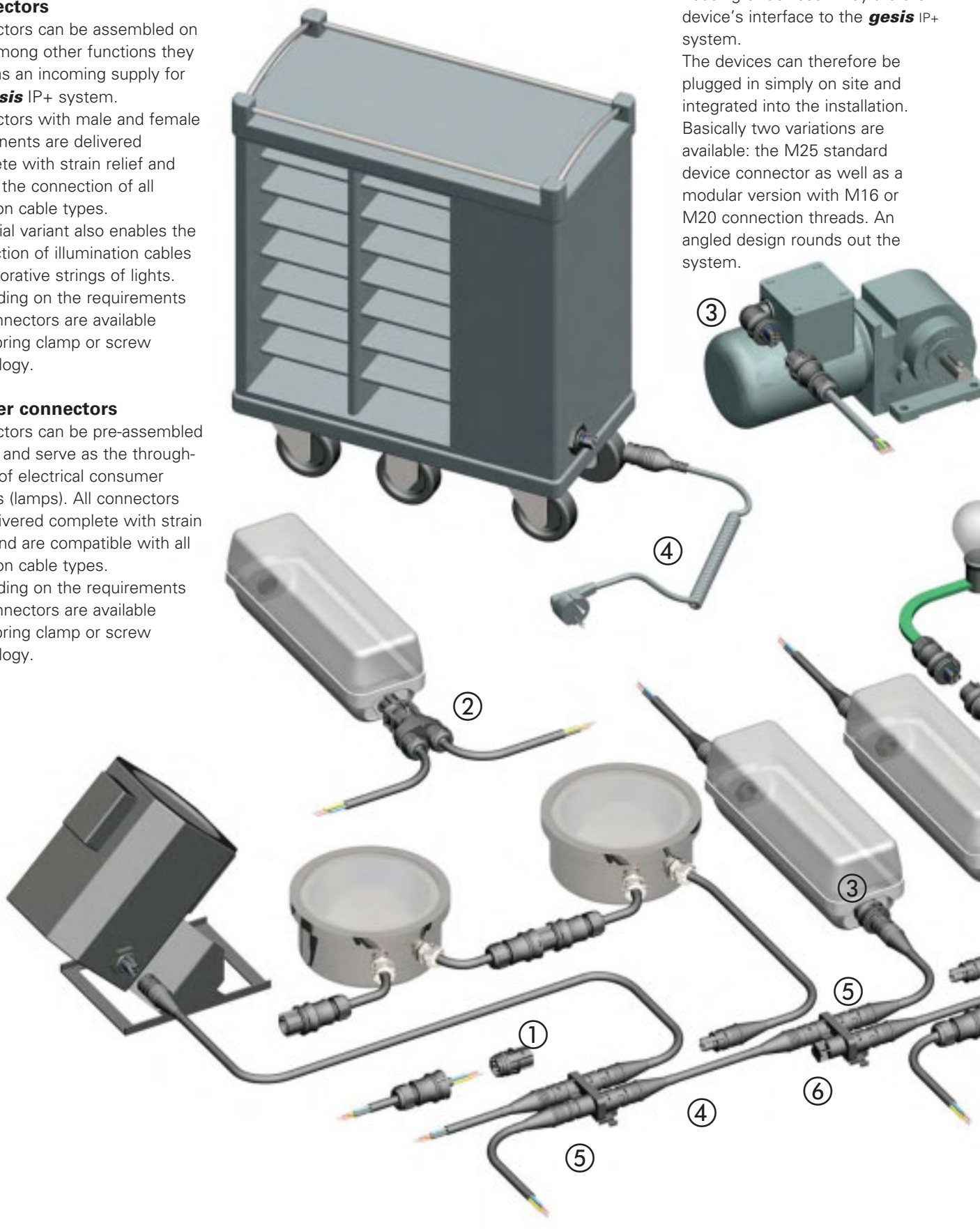
Defective consumer devices are simply replaced without disconnecting the system.

3D system description

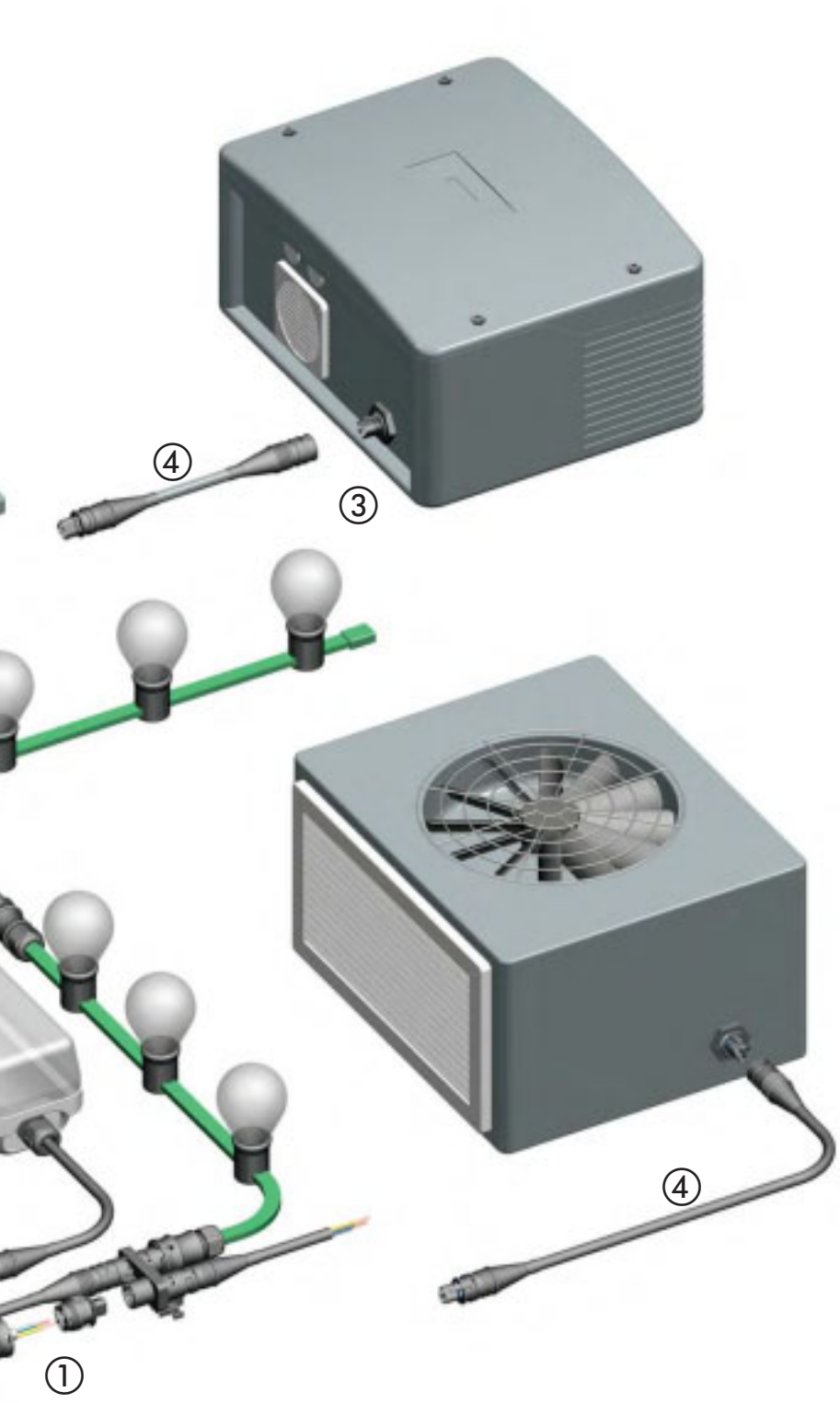
① **Connectors**
Connectors can be assembled on site. Among other functions they serve as an incoming supply for the ***gesis*** IP+ system.
Connectors with male and female components are delivered complete with strain relief and enable the connection of all common cable types.
A special variant also enables the connection of illumination cables for decorative strings of lights.
Depending on the requirements the connectors are available with spring clamp or screw technology.

② **Splitter connectors**
Connectors can be pre-assembled on site and serve as the through-wiring of electrical consumer devices (lamps). All connectors are delivered complete with strain relief and are compatible with all common cable types.
Depending on the requirements the connectors are available with spring clamp or screw technology.

③ **Device connections**
Device connections are integrated in corresponding bore holes in the housing of devices. They are the device's interface to the ***gesis*** IP+ system.
The devices can therefore be plugged in simply on site and integrated into the installation.
Basically two variations are available: the M25 standard device connector as well as a modular version with M16 or M20 connection threads. An angled design rounds out the system.



Application



④ Cable assemblies

Electrical power is supplied by using cable assemblies. Three basic versions are distinguished:
Mains connection cables provide the incoming supply of the ***gesis*** IP+ system. They have been prepared for a traditional connection or with a standard plug on the supply side and are pre-assembled with the required female connector on the outgoing side.
Extension cables are pre-assembled with a female or male connector on the relevant cable ends, and serve as feed-through wiring. The connection cable is pre-assembled with a male connector and a free end for wiring to the consumer device.

⑤ Distribution blocks

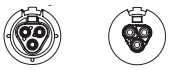
The pre-assembled plug-in distribution blocks are incorporated in the installation and thus enable a tap-off to the consumer devices.
The distribution block is available with or without mounting flanges.

⑥ End caps

They are used to safely cover unused contacts.
The IP protection is therefore maintained when the device is unplugged.

Overview matrix for connectors, device connections, distribution units

Overview of standard components:
Depending on the application you can choose among 10 codings. Mechanically coded means that only the matching male and female connectors can be plugged together. Thus you can be sure that your various applications are clearly distinguished — without having to rework wrong connections. The connector colors signal the matching connections. The standard mains coding is an exception. Here you can select between black and gray. These are compatible with one another.

			RST 20i2 2 pole, 20 A		RST 20i3 3 pole, 20 A	
		Marking of poles	L, N	1, 2	L, N, ground	1, 2, ground
		Application	Protection class II	LV, signals, bus up to 50 V	Mains 250 V	Mains 250/400 V
		Contact insert Male and female	 Spring clamp technology Screw technology	 Spring clamp technology Screw technology	 Spring clamp technology Screw technology	 Spring clamp technology Screw technology
Connectors	1 x cable entry	Ø 6 – 10 mm	■	■	■	■
		Ø 10 – 14 mm	■	■	■	■
		Ø 13 – 18 mm			■	■
		Flat cable 13 x 6 mm	■			
	2 x cable entry	Ø 6 – 10 mm	■	■	■	■
		Ø 10 – 14 mm	■	■	■	■
Device connectors	1-piece	M25	■	■	■	■
	2-piece	M16 straight	■	■	■	■
		M20 straight	■	■	■	■
		M20 angled	■	■	■	■
Distributor units		Distribution block 1 E/3 A			■	■
		RST compact distributor/ multi distributor	Available on request	Available on request	Available on request	Available on request
		Individual distribution box	Available on request	Available on request	Available on request	Available on request
Cable assemblies		Expansion cable Female – Male	■	■	■	■
		Mains connection Female – Free end	■	■	■	■
		Device connection Male – Free end	■	■	■	■
		Mains connection Safety plug – female			■	
		Mains connection Contour European plug, SKII – female	■			

RST 25i3 3 pole, 25 A	RST 20i4 4 pole, 20 A	RST 20i5 5 pole, 20 A			RST 25i5 5 pole, 25 A (1~)
L, N, ground	1, 2, 3, ground	1, 2, 3, N, ground	1, 2, 3, 4, 5	L, N, ground, +, –	L, N, ground, 1, 2
Mains 250 V	Mains 250/400 V	Mains 250/400 V	LV, signals, bus up to 50 V	Mains 250 V / dimming	Mains 250/400 V
 Screw technology	 Screw technology, crimp technology	 Screw technology, crimp technology	 Screw technology, crimp technology	 Screw technology, crimp technology	 Screw technology
Available on request					Available on request
Available on request					Available on request
Available on request					Available on request
Available on request	Available on request	Available on request	Available on request	Available on request	Available on request
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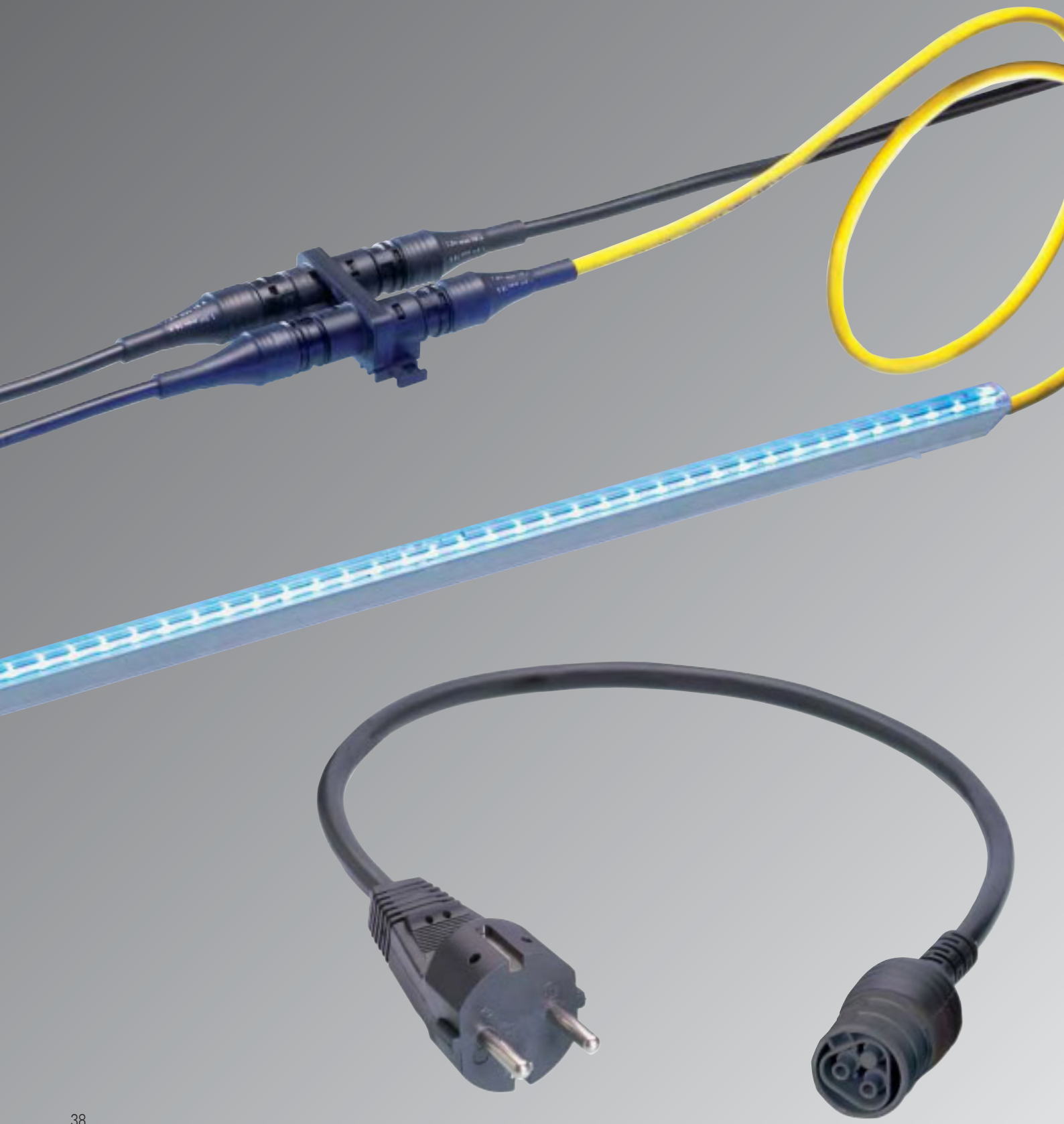
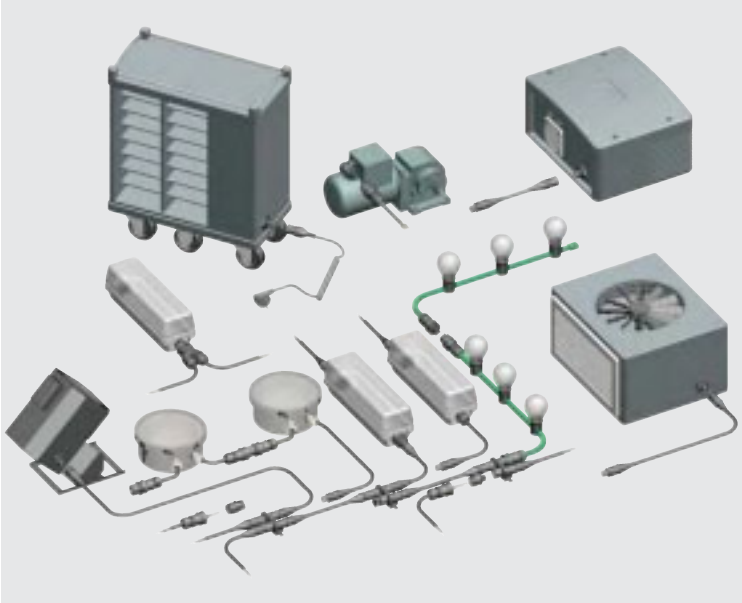
gesis



RST 20i2

Mains, 2 pole, low voltage

Application example



General

The two pole connector is based on the 3 pole variation with one pole left empty.

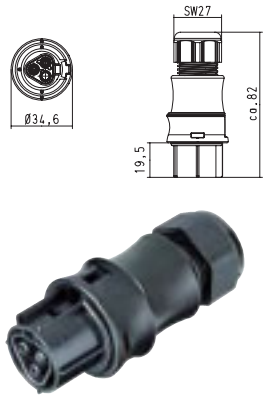
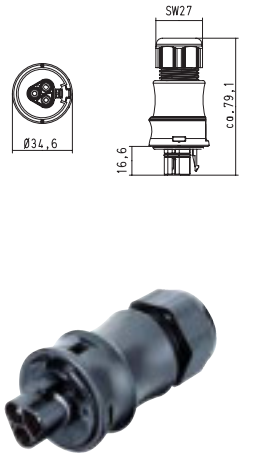
Basically there are two variations. A connector for low-voltage applications (such as LED lamps) and a connector for protection class II applications. The latter are downward compatible with the 3 pole system with ground connector (RST20i3). Thus you can change from the system with ground connector to the 2 pole system – but not vice versa!

Both connectors are mechanically coded. This means that only associated pairs of male and female can be connected with the correct polarity. You therefore have the security of a clear separation of different applications without having to redo any incorrect connections.
The color of the connectors indicates the links that belong together.

Coding

				Application	Protection class II		50 V, LV, bus signals
				Mechanical coding	L, N		1, 2
Description	**Description**	**Connection style**	**Strain relief housing**	**Connection points per pole**	gray	black	brown
Connectors	1 x cable entry	Screw technology Spring clamp techn.	yes	1	■	■	■
	2 x cable entry	Screw technology Spring clamp techn.	yes	2	■	■	■
Distribution units	Distribution block 1 E/ 3 A						
	RST compact distributor/ multi distributor				available on request	available on request	available on request
	Individual distribution box				available on request	available on request	available on request
Cable assemblies	Connection cable Male – Free end	pre-assembled	pre-assembled	pre-assembled	■	■	■
	Connection cable Female – Free end				■	■	■
	Extension cable Male – Female				■	■	■
	Connection cable Ground – Female						
	Connection cable Contour European plug SK II – Female				■	■	

Connectors

				Connectors	Connectors
				With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths as well as the ferrules to be used.	**With screw connection**[2] for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths.
Application	Coding	Wire diameter	Color	Part No. Std. Pack	Part No. Std. Pack
Female connector					
Protection class II	L, N	6 – 10 mm	gray black	96.021.0053.0 96.021.0053.1	96.021.4053.0 96.021.4053.1
		10 – 14 mm	gray black	96.021.0153.0 96.021.0153.1	96.021.4153.0 96.021.4153.1
		Illumination cable H05RNH2-F2 x 1.5²	gray black	96.021.0453.0 96.021.0453.1	96.021.4453.0 96.021.4453.1
50 V, LV, bus signals	1, 2	6 – 10 mm 10 – 14 mm	brown	96.021.0051.4 96.021.0151.4	96.021.4051.4 96.021.4151.4
Application	Coding	Wire diameter	Color	Part No. Std. Pack	Part No. Std. Pack
Male connector					
Protection class II	L, N	6 – 10 mm	gray black	96.022.0053.0 96.022.0053.1	96.022.4053.0 96.022.4053.1
		10 – 14 mm	gray black	96.022.0153.0 96.022.0153.1	96.022.4153.0 96.022.4153.1
		Illumination cable H05RNH2-F2 x 1.5²	gray black	96.022.0453.0 96.022.0453.1	96.022.4453.0 96.022.4453.1
50 V, LV, bus signals	1, 2	6 – 10 mm 10 – 14 mm	brown	96.022.0051.4 96.022.0151.4	96.022.4051.4 96.022.4151.4

[1] Cable gland with bend protection available on request

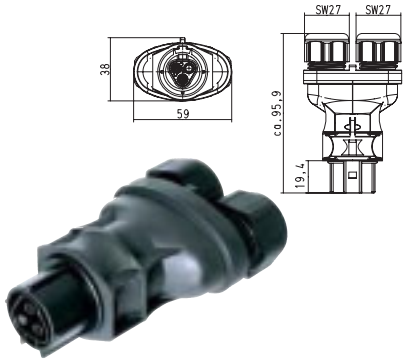
[2] With wire protection available on request

RST 20i2

Mains, 2 pole, low voltage

Female connector

Application	Coding	Wire diameter	Color	Connectors **With spring clamp connections** for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths as well as the ferrules to be used. Part No. / Std. Pack	Connectors **With screw connection**[2] for rigid, fine-stranded and stranded cables of 0.75 – 2.5 mm². Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths. Part No. / Std. Pack
				See "Accessories" for the mounting plate used to fasten the splitter connector.	See "Accessories" for the mounting plate used to fasten the splitter connector.
Protection class II	L, N	6 – 10 mm	gray black	96.021.0253.0 96.021.0253.1	96.021.4253.0 96.021.4253.1
		10 – 14 mm	gray black	96.021.0353.0 96.021.0353.1	96.021.4353.0 96.021.4353.1
		Illumination cable H05RNH2-F2 x 1.5²	gray black	available on request available on request	available on request available on request
50 V, LV, bus signals	1, 2	6 – 10 mm 10 – 14 mm	brown	96.021.0251.4 96.021.0351.4	96.021.4251.4 96.021.4351.4



Appliance connectors

Appliance connector M25, standard

With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, external cable gland.

With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With lokking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, external cable gland.

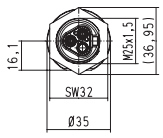
Appliance connector M20, modular, straight

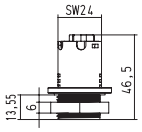
With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.

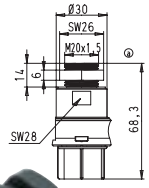
With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.

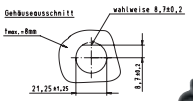
Female connector

Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.	
Protection class II L, N	gray	96.021.1053.0		96.021.5053.0		96.021.2053.0		96.021.6053.0	
	black	96.021.1053.1		96.021.5053.1		96.021.2053.1		96.021.6053.1	
50 V, LV, bus signals 1, 2	brown	96.021.1051.4		96.021.5051.4		96.021.2051.4		96.021.6051.4	



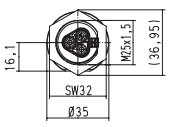


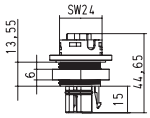


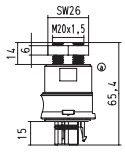


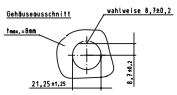
Male connector

Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Protection class II L, N	gray	96.022.1053.0		96.022.5053.0		96.022.2053.0		96.022.6053.0	
	black	96.022.1053.1		96.022.5053.1		96.022.2053.1		96.022.6053.1	
50 V, LV, bus signals 1, 2	brown	96.022.1051.4		96.022.5051.4		96.022.2051.4		96.022.6051.4	



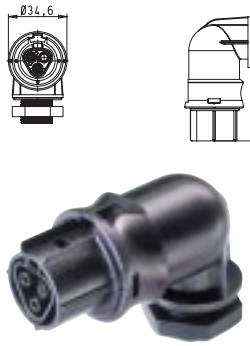
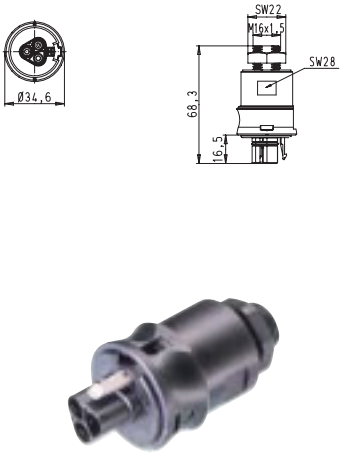
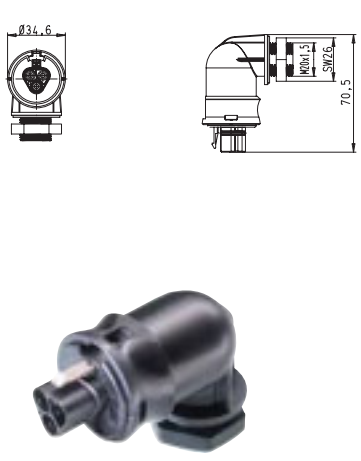




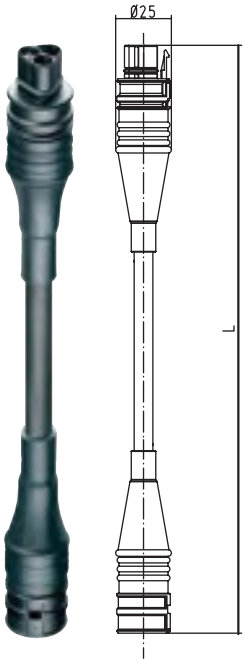
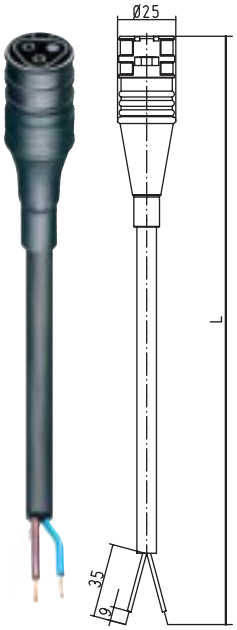
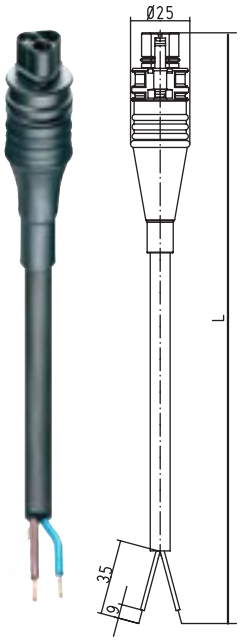
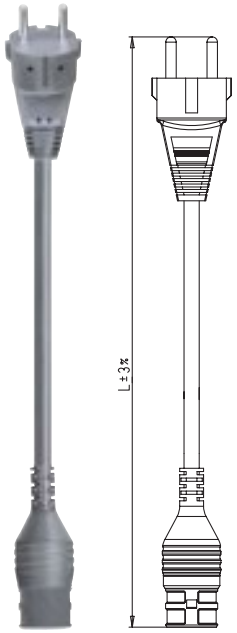


Appliance connector M16, modular, straight

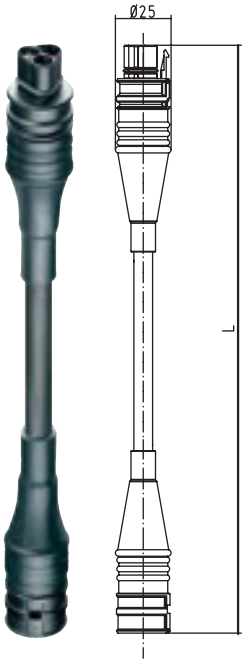
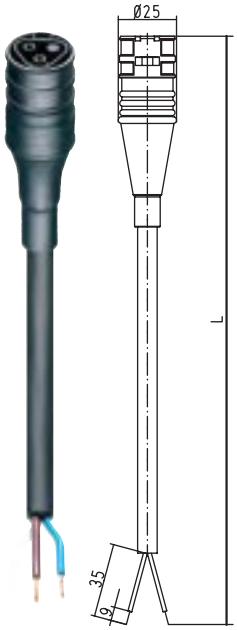
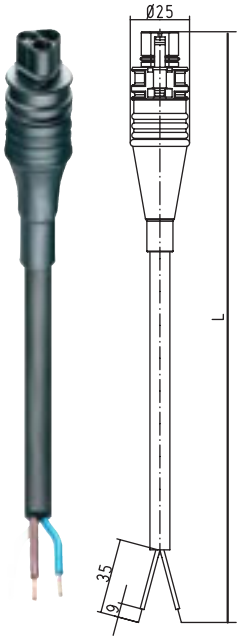
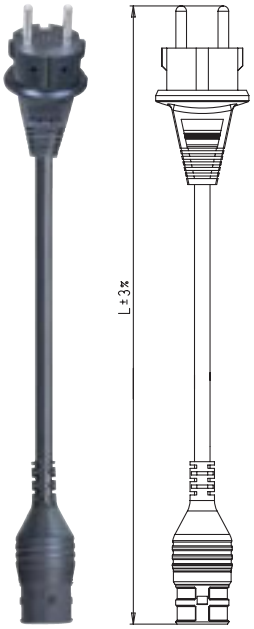
Appliance connector M20, modular, angled

		With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland.		**With screw connections** for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland.		**With spring clamp connections** for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.		**With screw connections** for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.	
Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Female connector		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.	
									
Protection class II L, N	gray	96.021.2153.0		96.021.6153.0		96.023.2053.0		96.023.6053.0	
	black	96.021.2153.1		96.021.6153.1		96.023.2053.1		96.023.6053.1	
50 V, LV, bus signals 1, 2	brown	96.021.2151.4		96.021.6151.4		96.023.2051.4		96.023.6051.4	
Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Male connector									
									
Protection class II L, N	gray	96.022.2153.0		96.022.6153.0		96.024.2053.0		96.024.6053.0	
	black	96.022.2153.1		96.022.6153.1		96.024.2053.1		96.024.6053.1	
50 V, LV, bus signals 1, 2	brown	96.022.2151.4		96.022.6151.4		96.024.2051.4		96.024.6051.4	

Cable assemblies 1.5 mm², mains 2 pole

	Extension cable	Connection cable	Connection cable	Mains connection cable
	H05VV-F 2G1,5 **Female – Male** with locking device	**H05VV-F 2G1,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	**H05VV-F 2G1,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	**H05VV-F 2G1,5 mm²** **Contour European plug SK II** RST female
Cable assemblies N = bl L = br Cable[1] and shrinkage tube in black				
Length[2]	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Protection class II L, N Female Male	**Black insulation**			
1.0 m	96.222.1000.1	96.222.1003.1	96.222.1004.1	
2.0 m	96.222.2000.1	96.222.2003.1	96.222.2004.1	
3.0 m	96.222.3000.1	96.222.3003.1	96.222.3004.1	
4.0 m	96.222.4000.1	96.222.4003.1	96.222.4004.1	
5.0 m	96.222.5000.1	96.222.5003.1	96.222.5004.1	
6.0 m	96.222.6000.1	96.222.6003.1	96.222.6004.1	
7.0 m	96.222.7000.1	96.222.7003.1	96.222.7004.1	
8.0 m	96.222.8000.1	96.222.8003.1	96.222.8004.1	
	Gray insulation			**All gray**
1.0 m	96.222.1000.0	96.222.1003.0	96.222.1004.0	99.702.0000.7 1.5 m
2.0 m	96.222.2000.0	96.222.2003.0	96.222.2004.0	99.703.0000.7 2.5 m
3.0 m	96.222.3000.0	96.222.3003.0	96.222.3004.0	
4.0 m	96.222.4000.0	96.222.4003.0	96.222.4004.0	
5.0 m	96.222.5000.0	96.222.5003.0	96.222.5004.0	
6.0 m	96.222.6000.0	96.222.6003.0	96.222.6004.0	
7.0 m	96.222.7000.0	96.222.7003.0	96.222.7004.0	
8.0 m	96.222.8000.0	96.222.8003.0	96.222.8004.0	
50 V, LV, bus signals 1, 2 Female Male	available in the 4th quarter of 2006	available in the 4th quarter of 2006	available in the 4th quarter of 2006	

[1] Other cables available on request
[2] Other lengths available on request

	Extension cable	Connection cable	Connection cable	Mains connection cable
	H07RN-F 2G1,5 **Female – Male** with locking device	**H07RN-F 2G1,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	**H07RN-F 2G1,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	**H07RN-F 2G1,5** **Contour European plug SK II** with splash guard RST female
Cable assemblies  N = bl L = br Cable[1] and shrinkage tube in black				
Length[2]	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Protection class II L, N Female Male	**Black insulation**			**All black**
1.0 m	96.222.1030.1	96.222.1033.1	96.222.1034.1	99.700.0000.7 1.5 m
2.0 m	96.222.2030.1	96.222.2033.1	96.222.2034.1	99.701.0000.7 2.5 m
3.0 m	96.222.3030.1	96.222.3033.1	96.222.3034.1	
4.0 m	96.222.4030.1	96.222.4033.1	96.222.4034.1	
5.0 m	96.222.5030.1	96.222.5033.1	96.222.5034.1	
6.0 m	96.222.6030.1	96.222.6033.1	96.222.6034.1	
7.0 m	96.222.7030.1	96.222.7033.1	96.222.7034.1	
8.0 m	96.222.8030.1	96.222.8033.1	96.222.8034.1	
	Gray insulation			
1.0 m	96.222.1030.0	96.222.1033.0	96.222.1034.0	
2.0 m	96.222.2030.0	96.222.2033.0	96.222.2034.0	
3.0 m	96.222.3030.0	96.222.3033.0	96.222.3034.0	
4.0 m	96.222.4030.0	96.222.4033.0	96.222.4034.0	
5.0 m	96.222.5030.0	96.222.5033.0	96.222.5034.0	
6.0 m	96.222.6030.0	96.222.6033.0	96.222.6034.0	
7.0 m	96.222.7030.0	96.222.7033.0	96.222.7034.0	
8.0 m	96.222.8030.0	96.222.8033.0	96.222.8034.0	
50 V, LV, bus signals 1, 2 Female Male				
	available in the 4th quarter of 2006	available in the 4th quarter of 2006	available in the 4th quarter of 2006	

[1] Other cables available on request
[2] Other lengths available on request

Cable assemblies 1.5 mm², low voltage 50 V

Cable assemblies

1 = bl
2 = br

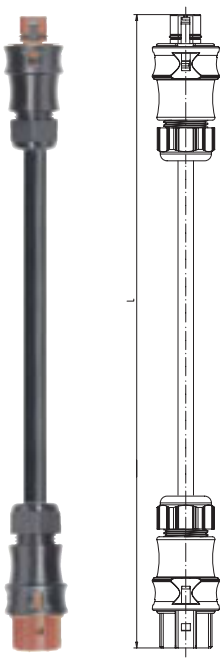
Cable[1] in black

Connector
spring clamp, black

Extension cable

H05VV-F 2G1,5

Female – Male
with locking device

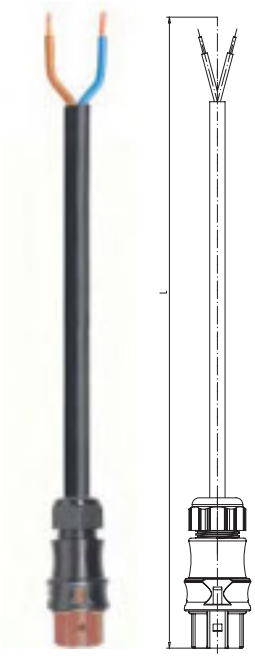


Connection cable

H05VV-F 2G1,5

Female – Free end
with ultrasonically welded wire ends

Cable strip length: 35 mm
Insulation strip length: 9 mm

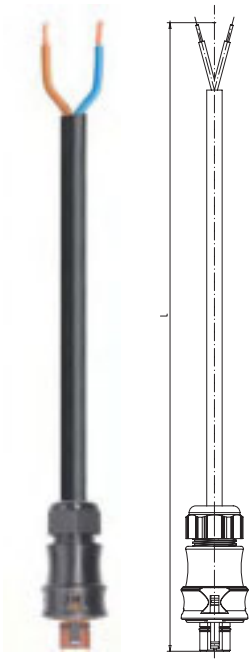


Connection cable

H05VV-F 2G1,5

Male – Free end
with ultrasonically welded wire ends and locking device

Cable strip length: 35 mm
Insulation strip length: 9 mm

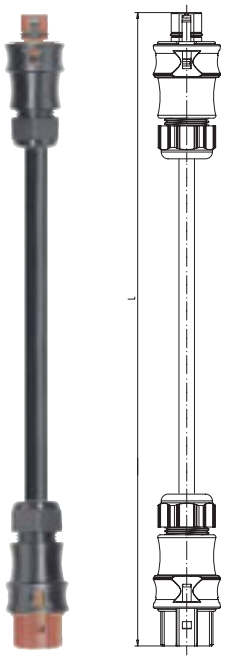
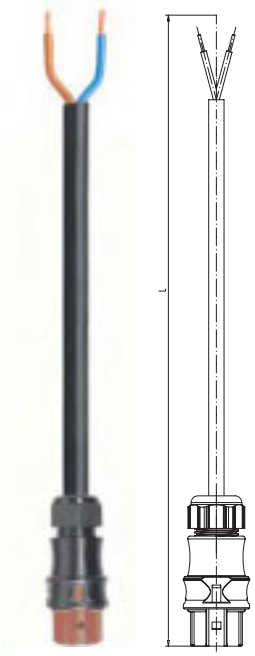
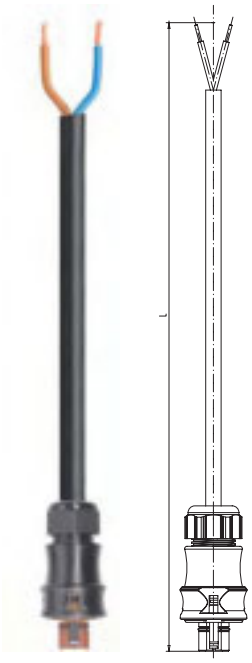


	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
		Black insulation					
50 V, LV, bus signals 1, 2	1.0 m	96.522.1002.4		96.522.1007.4		96.522.1008.4	
	2.0 m	96.522.2002.4		96.522.2007.4		96.522.2008.4	
	3.0 m	96.522.3002.4		96.522.3007.4		96.522.3008.4	
	4.0 m	96.522.4002.4		96.522.4007.4		96.522.4008.4	
	5.0 m	96.522.5002.4		96.522.5007.4		96.522.5008.4	
	6.0 m	96.522.6002.4		96.522.6007.4		96.522.6008.4	
	7.0 m	96.522.7002.4		96.522.7007.4		96.522.7008.4	
	8.0 m	96.522.8002.4		96.522.8007.4		96.522.8008.4	

Female

Male

[1] Other cables available on request
[2] Other lengths available on request

	Extension cable	Connection cable	Connection cable	
	H07RN-F 2G1,5 **Female – Male** with locking device	**H07RN-F 2G1,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	**H07RN-F 2G1,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	
Cable assemblies 1 = bl 2 = br Cable[1] in black Connector spring clamp, black				
Length[2]	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	
50 V, LV, bus signals 1, 2 Female Male	**Black insulation**			
1.0 m	96.522.1032.4	96.522.1037.4	96.522.1038.4	
2.0 m	96.522.2032.4	96.522.2037.4	96.522.2038.4	
3.0 m	96.522.3032.4	96.522.3037.4	96.522.3038.4	
4.0 m	96.522.4032.4	96.522.4037.4	96.522.4038.4	
5.0 m	96.522.5032.4	96.522.5037.4	96.522.5038.4	
6.0 m	96.522.6032.4	96.522.6037.4	96.522.6038.4	
7.0 m	96.522.7032.4	96.522.7037.4	96.522.7038.4	
8.0 m	96.522.8032.4	96.522.8037.4	96.522.8038.4	

[1] Other cables available on request
[2] Other lengths available on request

Distribution units

	RST compact distributor	RST multi distributor	Distribution box
	– Equip as needed with M25 appliance connectors 2 to 5 pole – 1 input; 3 outputs – pre-wired with 2.5 mm² – with mounting option	– Equip as needed with M25 appliance connectors 2 to 5 pole – 1 input; 7 outputs (max.) – Safety fuses 6.3 or 10 A can be integrated – pre-wired with 2.5 mm²	The individual distribution boxes offer optimum solutions for your specific application. The distribution boxes are available in different dimensions and can accept DIN rail mounted devices and terminal blocks in any combination. Further connection to the consumer devices is carried out by the ***gesis*** IP+ connector system. Distribution blocks manufactured and tested according to specific customer requirements can be delivered to the construction site as pre-assembled components. The locking devices are already integrated.
Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
			
	Forecasted for the 4th quarter of 2006	Forecasted for the 4th quarter of 2006	available on request

RST 20i2

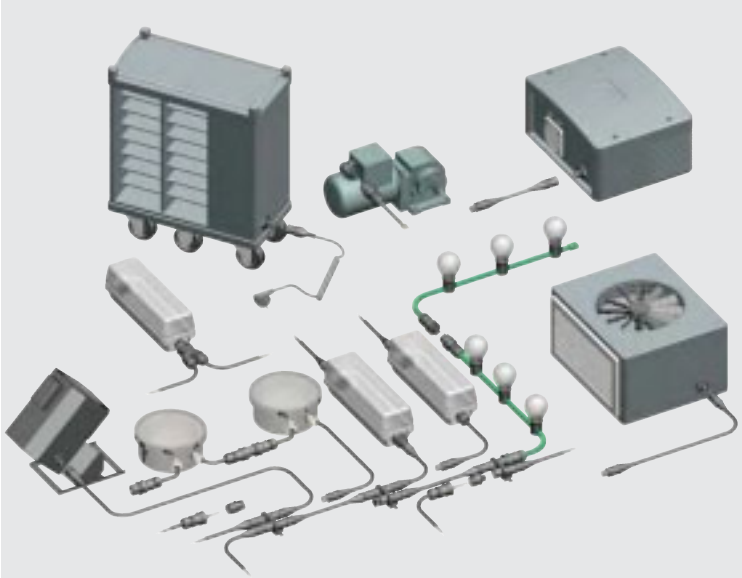
Mains, 2 pole, low voltage

gesis®

RST 20i3

Mains, 3 pole

Application example



General

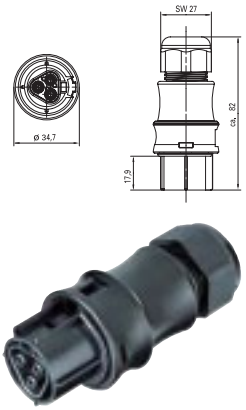
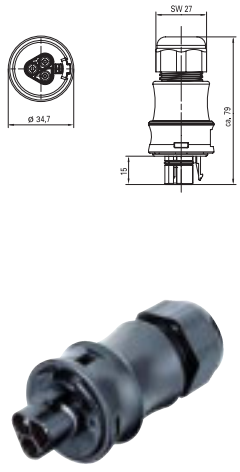
The 3 pole connectors come in two variations. The standard version for general mains applications, and a green coding for applications in multi-phase systems.

Both connectors are mechanically coded. This means that only associated pairs of male and female can be connected with the correct polarity. You therefore have the security of a clear separation of different applications without having to redo any incorrect connections.
The color of the connectors indicates the links that belong together.

Coding

				Application	Mains 250 V		Mains 250/400 V
				Mechanical coding	L, N, ground		1, 2, ground
Name	**Description**	**Connection style**	**Strain relief housing**	**Connection points per pole**	gray	black	green
Connectors	1 x cable entry	Screw technology Spring clamp techn.	yes	1	■	■	■
	2 x cable entry	Screw technology Spring clamp techn.	yes	2	■	■	■
Distribution units	Distribution block 1 E/ 3 A				■	■	■
	RST compact distributor/ multi distributor				available on request	available on request	available on request
	Individual distribution box				available on request	available on request	available on request
Cable assemblies	Connection cable Male – Free end	pre-assembled	pre-assembled	pre-assembled	■	■	■
	Connection cable Female – Free end				■	■	■
	Extension cable Male – Female				■	■	■
	Connection cable Ground – Female				■	■	
	Connection cable Contour European plug SK II – Female						

Connector for cables of Ø 6 – 10 and 10 – 14 mm

Application	Coding	Cable diameter	Color	With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths as well as the ferrules to be used. Part No.	Std. Pack	With screw connection[2] for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths. Part No.	Std. Pack
Female connector							
							
Mains 250 V	L, ground, N	6 – 10 mm	gray	96.031.0053.0		96.031.4053.0	
			black	96.031.0053.1		96.031.4053.1	
		10 – 14 mm	gray	96.031.0153.0		96.031.4153.0	
			black	96.031.0153.1		96.031.4153.1	
		13 – 18 mm	gray				
			black				
Mains 250/400 V	1, 2, ground	6 – 10 mm 10 – 14 mm 13 – 18 mm	green	96.031.0055.7 96.031.0155.7		96.031.4055.7 96.031.4155.7	
Male connector							
							
Mains 250 V	L, ground, N	6 – 10 mm	gray	96.032.0053.0		96.032.4053.0	
			black	96.032.0053.1		96.032.4053.1	
		10 – 14 mm	gray	96.032.0153.0		96.032.4153.0	
			black	96.032.0153.1		96.032.4153.1	
		13 – 18 mm	gray				
			black				
Mains 250/400 V	1, 2, ground	6 – 10 mm 10 – 14 mm 13 – 18 mm	green	96.032.0055.7 96.032.0155.7		96.032.4055.7 96.032.4155.7	

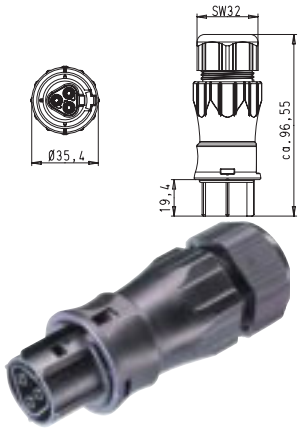
[1] Cable gland with bend protection available on request
[2] With wire protection available on request

Connector for cable Ø 13 – 18 mm

With screw connection[2] for rigid, fine-stranded and stranded cables of max. 4.0 mm². Unassembled with cable gland and locking device.

See "Technical Data" for sheath and insulation strip lengths.

Part No. Std. Pack



Splitter connector

With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. Unassembled with cable gland[1] and locking device.

See "Technical Data" for sheath and insulation strip lengths as well as the ferrules to be used.

Part No. Std. Pack

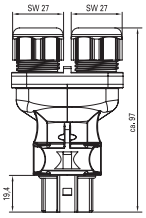
See "Accessories" for the mounting plate used to fasten the splitter connector.

With screw connection[2] for rigid, fine-stranded and stranded cables of 0.75 – 2.5 mm². Unassembled with cable gland[1] and locking device.

See "Technical Data" for sheath and insulation strip lengths.

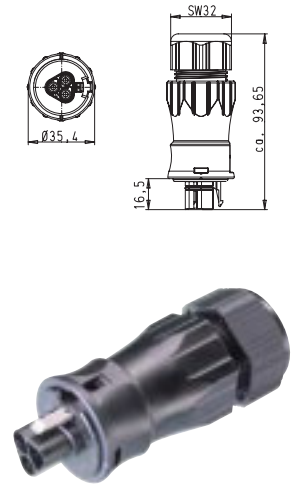
Part No. Std. Pack

See "Accessories" for the mounting plate used to fasten the splitter connector.



	96.031.0253.0 96.031.0253.1	96.031.4253.0 96.031.4253.1
	96.031.0353.0 96.031.0353.1	96.031.4353.0 96.031.4353.1
96.031.4553.0 96.031.4553.1		
	96.031.0255.7 96.031.0355.7	96.031.4255.7 96.031.4255.7
96.031.4555.7		

Part No. Std. Pack



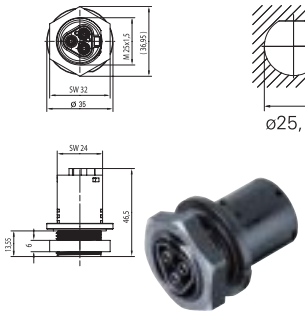
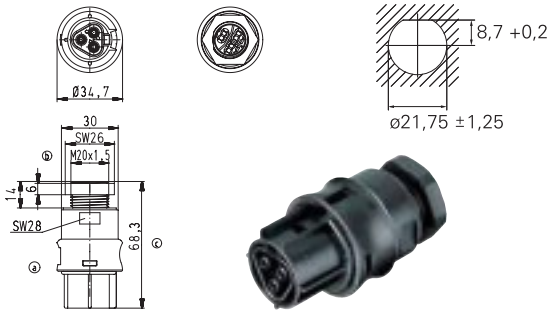
96.032.4553.0 96.032.4553.1		
96.032.4555.7		

Appliance connectors

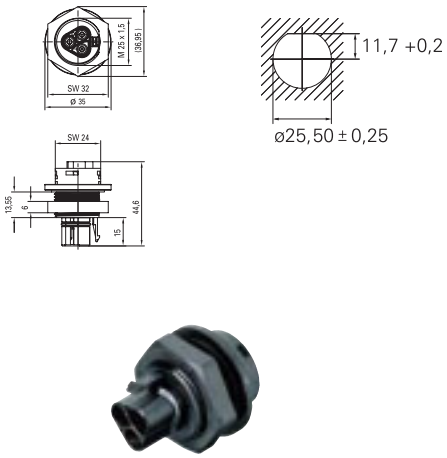
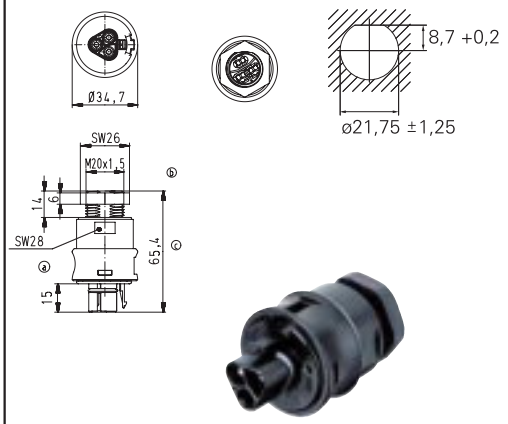
Appliance connector M25, standard

Appliance connector M20, modular, straight

Female connector

Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
		With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, external cable gland.		**With screw connections** for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With lokking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, external cable gland.		igid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.		**With screw connections** for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.	
		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.	
									
Mains 250 V L, N, ground	gray black	96.031.1053.0 96.031.1053.1		96.031.5053.0 96.031.5053.1		96.031.2053.0 96.031.2053.1		96.031.6053.0 96.031.6053.1	
Mains 250/400 V 1, 2, ground	green	96.031.1055.7		96.031.5055.7		96.031.2055.7		96.031.6055.7	

Male connector

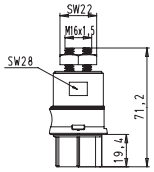
Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
									
Mains 250 V L, N, ground	gray black	96.032.1053.0 96.032.1053.1		96.032.5053.0 96.032.5053.1		96.032.2053.0 96.032.2053.1		96.032.6053.0 96.032.6053.1	
Mains 250/400 V 1, 2, ground	green	96.032.1055.7		96.032.5055.7		96.032.2055.7		96.032.6055.7	

Appliance connector M16, modular, straight

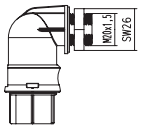
Appliance connector M20, modular, angled

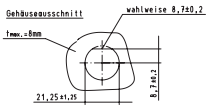
Female connector

Application	Color	With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland.		With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland.	
		Part No.	Std. Pack	Part No.	Std. Pack
		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.	
Mains 250 V L, N, ground	gray black	96.031.2153.0 96.031.2153.1		96.031.6153.0 96.031.6153.1	
Mains 250/400 V 1, 2, ground	green	96.031.2155.7		96.031.6155.7	



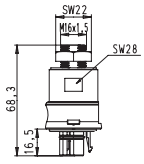
Application	Color	With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.		With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.	
		Part No.	Std. Pack	Part No.	Std. Pack
		See "Technical Data" for insulation strip lengths and the ferrules to be used.		See "Technical Data" for insulation strip lengths.	
Mains 250 V L, N, ground	gray black	96.033.2053.0 96.033.2053.1		96.033.6053.0 96.033.6053.1	
Mains 250/400 V 1, 2, ground	green	96.033.2055.7		96.033.6055.7	



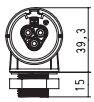


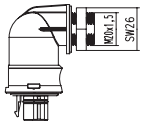
Male connector

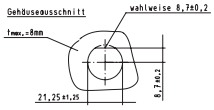
Application	Color	With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland.		With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland.	
		Part No.	Std. Pack	Part No.	Std. Pack
Mains 250 V L, N, ground	gray black	96.032.2153.0 96.032.2153.1		96.032.6153.0 96.032.6153.1	
Mains 250/400 V 1, 2, ground	green	96.032.2155.7		96.032.6155.7	



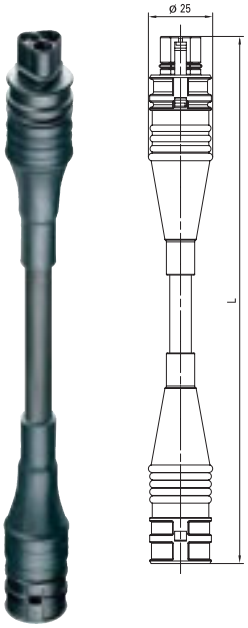
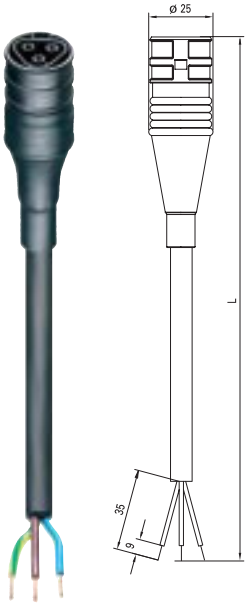
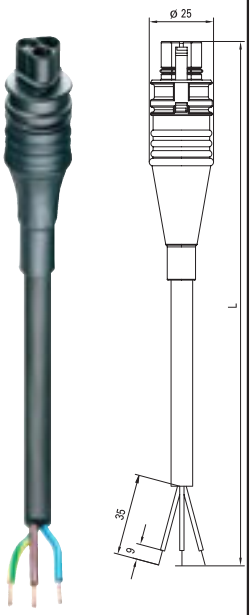
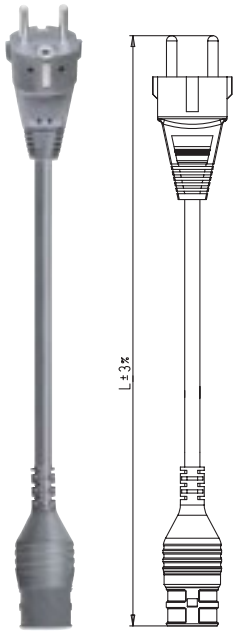
Application	Color	With spring clamp connections for rigid cables of 0.5 – 2.5 mm², fine-stranded cables of 0.5 – 1.5 mm² with ferrules, stranded cables of 0.75 – 1.5 mm² with ferrules. 2 connection points per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.		With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.	
		Part No.	Std. Pack	Part No.	Std. Pack
Mains 250 V L, N, ground	gray black	96.034.2053.0 96.034.2053.1		96.034.6053.0 96.034.6053.1	
Mains 250/400 V 1, 2, ground	green	96.034.2055.7		96.034.6055.7	





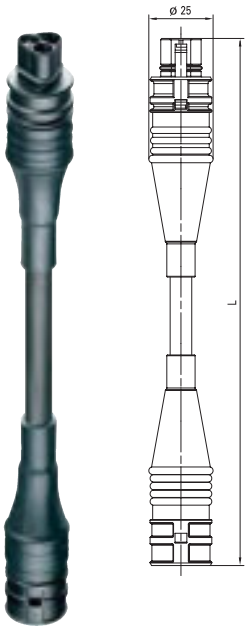
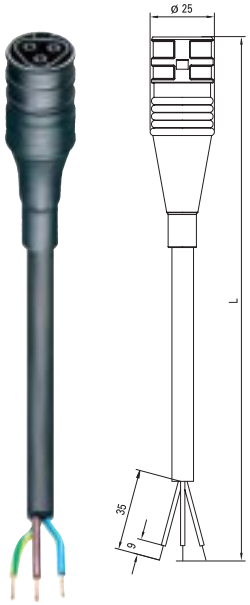
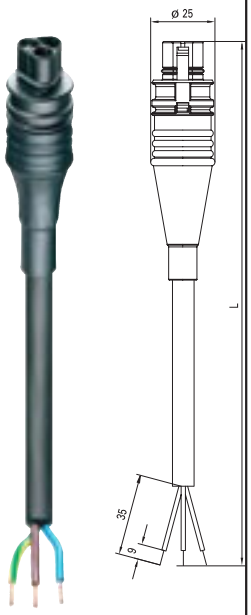
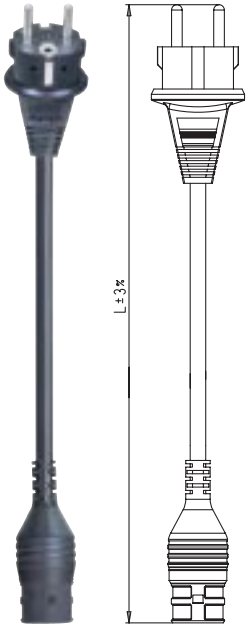


Cable assemblies, 1.5 mm²

	Extension cable	Connection cable	Connection cable	Mains connection cable
	H05VV-F 3G1,5 **Female – Male** with locking device	**H05VV-F 3G1,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	**H05VV-F 3G1,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	**H05VV-F 3G1,5 mm²** **Safety plug** RST female connector
Cable assemblies N = bl L = br ground = gn/yl Cable[1] and shrinkage tube in black				

	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	
Mains 250 V L, N, ground Female Male		**Black insulation**						
	1.0 m	96.232.1000.1		96.232.1003.1		96.232.1004.1		
	2.0 m	96.232.2000.1		96.232.2003.1		96.232.2004.1		
	3.0 m	96.232.3000.1		96.232.3003.1		96.232.3004.1		
	4.0 m	96.232.4000.1		96.232.4003.1		96.232.4004.1		
	5.0 m	96.232.5000.1		96.232.5003.1		96.232.5004.1		
	6.0 m	96.232.6000.1		96.232.6003.1		96.232.6004.1		
	7.0 m	96.232.7000.1		96.232.7003.1		96.232.7004.1		
	8.0 m	96.232.8000.1		96.232.8003.1		96.232.8004.1		
		Gray insulation						**All gray**
	1.0 m	96.232.1000.0		96.232.1003.0		96.232.1004.0		99.706.0000.7 1.5 m
	2.0 m	96.232.2000.0		96.232.2003.0		96.232.2004.0		99.707.0000.7 2.5 m
	3.0 m	96.232.3000.0		96.232.3003.0		96.232.3004.0		
	4.0 m	96.232.4000.0		96.232.4003.0		96.232.4004.0		
	5.0 m	96.232.5000.0		96.232.5003.0		96.232.5004.0		
	6.0 m	96.232.6000.0		96.232.6003.0		96.232.6004.0		
	7.0 m	96.232.7000.0		96.232.7003.0		96.232.7004.0		
	8.0 m	96.232.8000.0		96.232.8003.0		96.232.8004.0		
Mains 250/400 V 1, 2, ground Female Male		**Green insulation**						
	1.0 m	96.232.1001.7		96.232.1005.7		96.232.1006.7		
	2.0 m	96.232.2001.7		96.232.2005.7		96.232.2006.7		
	3.0 m	96.232.3001.7		96.232.3005.7		96.232.3006.7		
	4.0 m	96.232.4001.7		96.232.4005.7		96.232.4006.7		
	5.0 m	96.232.5001.7		96.232.5005.7		96.232.5006.7		
	6.0 m	96.232.6001.7		96.232.6005.7		96.232.6006.7		
	7.0 m	96.232.7001.7		96.232.7005.7		96.232.7006.7		
	8.0 m	96.232.8001.7		96.232.8005.7		96.232.8006.7		

[1] Other cables available on request
[2] Other lengths available on request

	Extension cable	Connection cable	Connection cable	Mains connection cable *Mains, 3 pole*
	H07RN-F 3G1,5 **Female – Male** with locking device	**H07RN-F 3G1,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	**H07RN-F 3G1,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	**H07RN-F 3G1,5** **Safety plug** with splash guard RST female connector
Cable assemblies N = bl L = br ground = gn/yl Cable[1] and shrinkage tube in black				
Length[2]	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	
Mains 250 V L, N, ground Female Male	**Black insulation**			**All black**
1.0 m	96.232.1030.1	96.232.1033.1	96.232.1034.1	99.704.0000.7 1.5 m
2.0 m	96.232.2030.1	96.232.2033.1	96.232.2034.1	99.705.0000.7 2.5 m
3.0 m	96.232.3030.1	96.232.3033.1	96.232.3034.1	
4.0 m	96.232.4030.1	96.232.4033.1	96.232.4034.1	
5.0 m	96.232.5030.1	96.232.5033.1	96.232.5034.1	
6.0 m	96.232.6030.1	96.232.6033.1	96.232.6034.1	
7.0 m	96.232.7030.1	96.232.7033.1	96.232.7034.1	
8.0 m	96.232.8030.1	96.232.8033.1	96.232.8034.1	
	Gray insulation			
1.0 m	96.232.1030.0	96.232.1033.0	96.232.1034.0	
2.0 m	96.232.2030.0	96.232.2033.0	96.232.2034.0	
3.0 m	96.232.3030.0	96.232.3033.0	96.232.3034.0	
4.0 m	96.232.4030.0	96.232.4033.0	96.232.4034.0	
5.0 m	96.232.5030.0	96.232.5033.0	96.232.5034.0	
6.0 m	96.232.6030.0	96.232.6033.0	96.232.6034.0	
7.0 m	96.232.7030.0	96.232.7033.0	96.232.7034.0	
8.0 m	96.232.8030.0	96.232.8033.0	96.232.8034.0	
Mains 250/400 V 1, 2, ground Female Male	**Green insulation**			
1.0 m	96.232.1031.7	96.232.1035.7	96.232.1036.7	
2.0 m	96.232.2031.7	96.232.2035.7	96.232.2036.7	
3.0 m	96.232.3031.7	96.232.3035.7	96.232.3036.7	
4.0 m	96.232.4031.7	96.232.4035.7	96.232.4036.7	
5.0 m	96.232.5031.7	96.232.5035.7	96.232.5036.7	
6.0 m	96.232.6031.7	96.232.6035.7	96.232.6036.7	
7.0 m	96.232.7031.7	96.232.7035.7	96.232.7036.7	
8.0 m	96.232.8031.7	96.232.8035.7	96.232.8036.7	

[1] Other cables available on request
[2] Other lengths available on request

Cable assemblies, 2.5 mm²

Extension cable

H05VV-F 3G2,5

Female – Male
with locking device

Connection cable

H05VV-F 3G2,5

Female – Free end
with ultrasonically welded wire ends

Cable strip length: 35 mm
Insulation strip length: 9 mm

Connection cable

H05VV-F 3G2,5

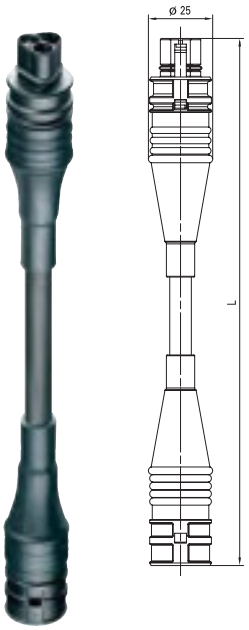
Male – Free end
with ultrasonically welded wire ends and locking device

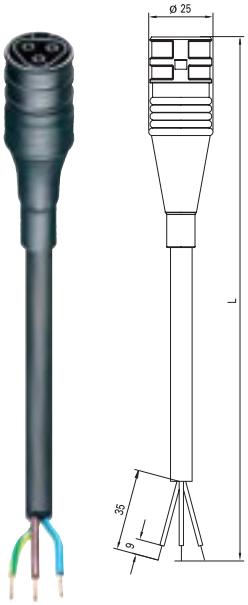
Cable strip length: 35 mm
Insulation strip length: 9 mm

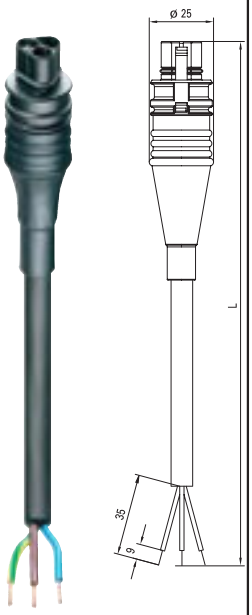
Cable assemblies

N = bl
L = br
ground = gn/yl

Cable[1] and shrinkage tube in black







	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250 V L, N, ground Female Male		**Black insulation**					
	1.0 m	96.233.1000.1		96.233.1003.1		96.233.1004.1	
	2.0 m	96.233.2000.1		96.233.2003.1		96.233.2004.1	
	3.0 m	96.233.3000.1		96.233.3003.1		96.233.3004.1	
	4.0 m	96.233.4000.1		96.233.4003.1		96.233.4004.1	
	5.0 m	96.233.5000.1		96.233.5003.1		96.233.5004.1	
	6.0 m	96.233.6000.1		96.233.6003.1		96.233.6004.1	
	7.0 m	96.233.7000.1		96.233.7003.1		96.233.7004.1	
	8.0 m	96.233.8000.1		96.233.8003.1		96.233.8004.1	
		Gray insulation					
	1.0 m	96.233.1000.0		96.233.1003.0		96.233.1004.0	
	2.0 m	96.233.2000.0		96.233.2003.0		96.233.2004.0	
	3.0 m	96.233.3000.0		96.233.3003.0		96.233.3004.0	
	4.0 m	96.233.4000.0		96.233.4003.0		96.233.4004.0	
	5.0 m	96.233.5000.0		96.233.5003.0		96.233.5004.0	
	6.0 m	96.233.6000.0		96.233.6003.0		96.233.6004.0	
	7.0 m	96.233.7000.0		96.233.7003.0		96.233.7004.0	
	8.0 m	96.233.8000.0		96.233.8003.0		96.233.8004.0	
Mains 250/400 V 1, 2, ground Female Male		**Green insulation**					
	1.0 m	96.233.1001.7		96.233.1005.7		96.233.1006.7	
	2.0 m	96.233.2001.7		96.233.2005.7		96.233.2006.7	
	3.0 m	96.233.3001.7		96.233.3005.7		96.233.3006.7	
	4.0 m	96.233.4001.7		96.233.4005.7		96.233.4006.7	
	5.0 m	96.233.5001.7		96.233.5005.7		96.233.5006.7	
	6.0 m	96.233.6001.7		96.233.6005.7		96.233.6006.7	
	7.0 m	96.233.7001.7		96.233.7005.7		96.233.7006.7	
	8.0 m	96.233.8001.7		96.233.8005.7		96.233.8006.7	

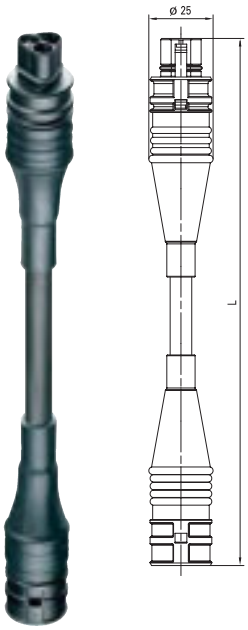
[1] Other cables available on request
[2] Other lengths available on request

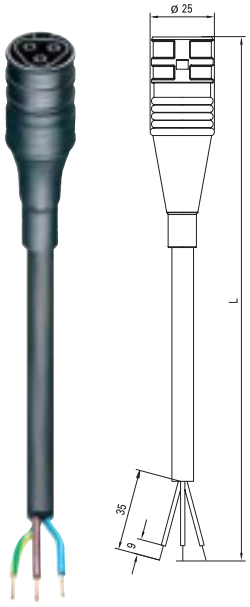
Cable assemblies

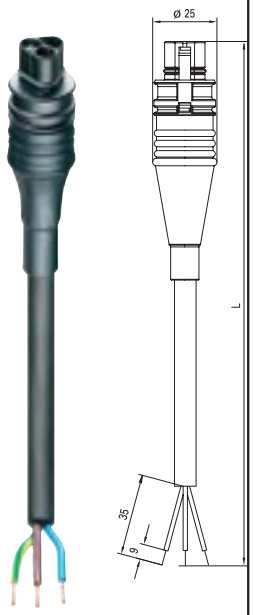
N = bl
L = br
ground = gn/yl

Cable[1] and shrinkage tube in black

	Extension cable	Connection cable	Connection cable
	H07RN-F 3G2,5	**H07RN-F 3G2,5**	**H07RN-F 3G2,5**
	Female – Male with locking device	**Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	**Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm

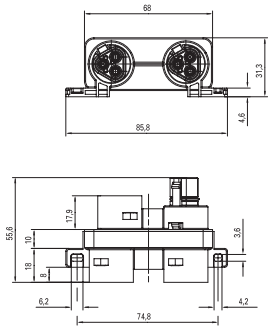
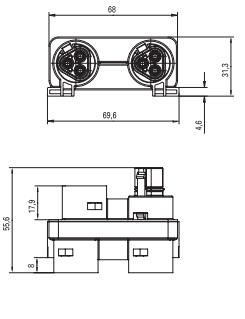






	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250 V L, N, ground Female Male		**Black insulation**					
	1.0 m	96.233.1030.1		96.233.1033.1		96.233.1034.1	
	2.0 m	96.233.2030.1		96.233.2033.1		96.233.2034.1	
	3.0 m	96.233.3030.1		96.233.3033.1		96.233.3034.1	
	4.0 m	96.233.4030.1		96.233.4033.1		96.233.4034.1	
	5.0 m	96.233.5030.1		96.233.5033.1		96.233.5034.1	
	6.0 m	96.233.6030.1		96.233.6033.1		96.233.6034.1	
	7.0 m	96.233.7030.1		96.233.7033.1		96.233.7034.1	
	8.0 m	96.233.8030.1		96.233.8033.1		96.233.8034.1	
		Gray insulation					
	1.0 m	96.233.1030.0		96.233.1033.0		96.233.1034.0	
	2.0 m	96.233.2030.0		96.233.2033.0		96.233.2034.0	
	3.0 m	96.233.3030.0		96.233.3033.0		96.233.3034.0	
	4.0 m	96.233.4030.0		96.233.4033.0		96.233.4034.0	
	5.0 m	96.233.5030.0		96.233.5033.0		96.233.5034.0	
	6.0 m	96.233.6030.0		96.233.6033.0		96.233.6034.0	
	7.0 m	96.233.7030.0		96.233.7033.0		96.233.7034.0	
	8.0 m	96.233.8030.0		96.233.8033.0		96.233.8034.0	
Mains 250/400 V 1, 2, ground Female Male		**Green insulation**					
	1.0 m	96.233.1031.7		96.233.1035.7		96.233.1036.7	
	2.0 m	96.233.2031.7		96.233.2035.7		96.233.2036.7	
	3.0 m	96.233.3031.7		96.233.3035.7		96.233.3036.7	
	4.0 m	96.233.4031.7		96.233.4035.7		96.233.4036.7	
	5.0 m	96.233.5031.7		96.233.5035.7		96.233.5036.7	
	6.0 m	96.233.6031.7		96.233.6035.7		96.233.6036.7	
	7.0 m	96.233.7031.7		96.233.7035.7		96.233.7036.7	
	8.0 m	96.233.8031.7		96.233.8035.7		96.233.8036.7	

[1] Other cables available on request
[2] Other lengths available on request

		Distribution block, 1E/3A	Distribution block, 1E/3A	
		with mounting option with locking levers 1 input, male connector, 3 pole 3 outputs, female connector, 3 pole	**without mounting option** with locking levers 1 input, male connector, 3 pole 3 outputs, female connector, 3 pole	
	Color	Part No. Std. Pack	Part No. Std. Pack	
				
Mains 250 V L, N, ground	gray black	96.030.0153.0 96.030.0153.1	96.030.0253.0 96.030.0253.1	
Mains 250/400 V 1, 2, ground	green	96.030.0155.7	96.030.0255.7	

Mains, 3 pole

RST compact distributor

– Equip as needed with M25 appliance connectors 2 to 5 pole
– 1 input; 3 outputs
– pre-wired with 2.5 mm²
– with mounting option

Part No. Std. Pack

Forecasted for the 4th quarter of 2006

RST multi distributor

– Equip as needed with M25 appliance connectors 2 to 5 pole
– 1 input; 7 outputs (max.)
– Safety fuses 6.3 or 10 A can be integrated
– pre-wired with 2.5 mm²
– with mounting option

Part No. Std. Pack

Forecasted for the 4th quarter of 2006

Distribution box

The individual distribution boxes offer optimum solutions for your specific application.
The distributors are available in different dimensions and can accept DIN rail mounted devices and terminal blocks in any combination. Further connection to the consumer devices is carried out by the ***gesis*** IP+ connector system. Distribution blocks manufactured and tested according to specific customer requirements can be delivered to the construction site as pre-assembled components.
The locking devices are already integrated.

Part No. Std. Pack

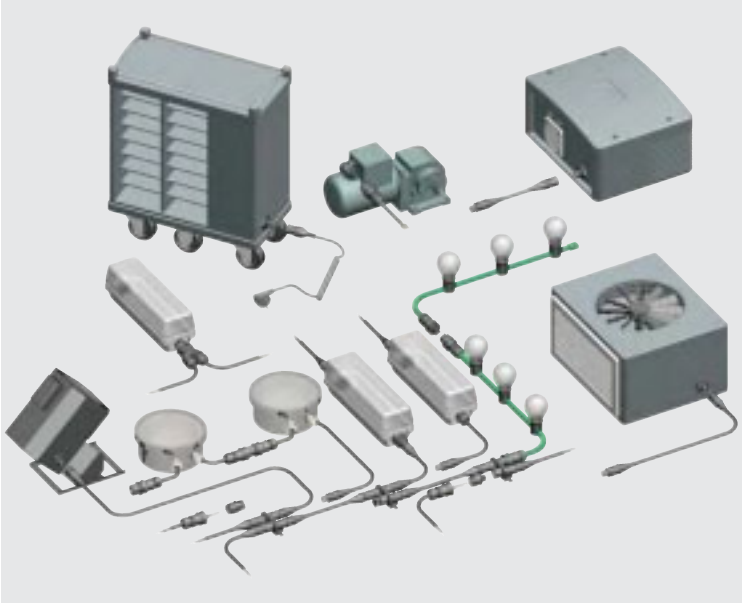
Available on request

gesis®

RST 25i3

Single-phase supply with ENS

Application example



General

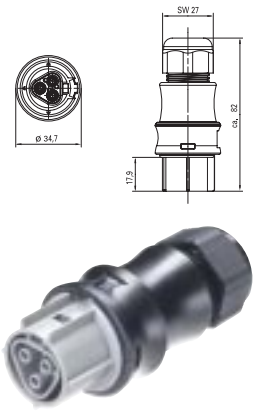
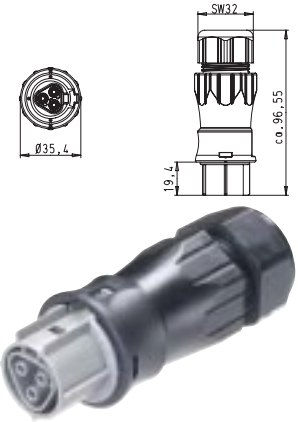
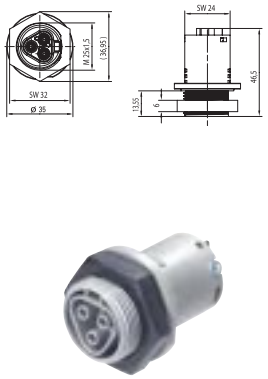
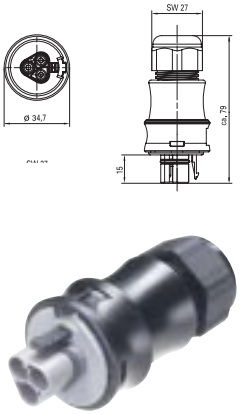
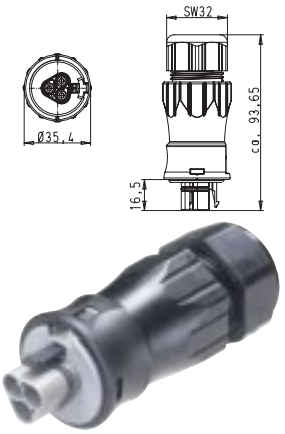
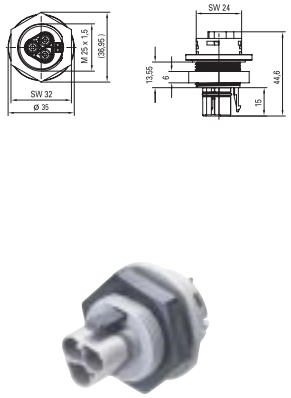
The three pole system is designed for a current of max. 25 A and is therefore predestined for applications in solar technology (AC side). Special collective distributors are to bundle the electrical power of up to 6 inverters and are thus completing the system.

These connectors have their own mechanical coding.
This means that only associated pairs of male and female can be connected with the correct polarity. This ensures a clear separation from the connectors of the other product series.

Coding

				Application	Single-phase supply with 25 A (ENS)
				Mechanical coding	L, N, ground
Name	**Description**	**Connection style**	**Strain relief housing**	**Connection points per pole**	concrete gray
Connectors	1 x cable entry	Screw technology Spring clamp techn.	yes	1	
Distribution units	Collective distributor RST RAN Solar				
	Collective box RST Solar				
Cable assemblies	Connection cable Male – Free end				
	Connection cable Female – Free end	pre-assembled	pre-assembled	pre-assembled	
	Extension cable Male – Female				

Components 25 A

			Connectors	Connectors	M 25 appliance connector
			Screw technology for cables with a diameter of **10 – 14 mm**. Screw technology for solid and f ine-stranded wires up to 4.0 mm²	**Screw technology** for cables with a diameter of **13 – 18 mm**. Screw technology for solid and fine-stranded wires up to 4.0 mm² [1]	**Screw technology** for solid and fine-stranded wires up to 6.0 mm²
Application	Coding	Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Female connector					
Single-phase supply with 25 A (ENS)	 L, N, ground	concrete gray/ black	96.031.4154.3	96.031.4554.3	96.031.5054.3
		Type			
Application	Coding	Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Male connector					
Single-phase supply with 25 A (ENS)	 L, N, ground	concrete gray/ black	96.032.4154.3	96.032.4554.3	96.032.5054.3
		Type			

[1] Larger cross sections available on request

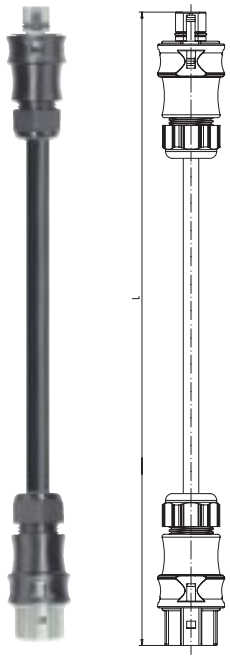
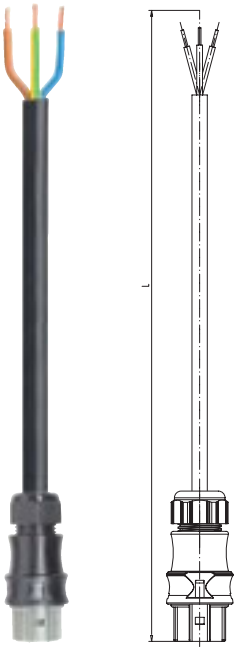
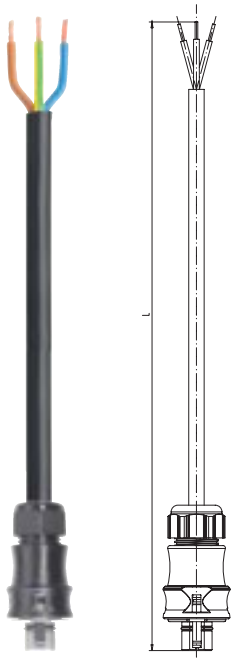
	Collective distributor RST RAN Solar	**Collective distribution box RST Solar**	
	6 x inputs RST 25i3 / gray coding 1 x cable gland M40 2 x cable gland M20 5 x connector clamps 35 mm² 6 x circuit breakers B25 Dimensions in mm L x W x H 350 x 300 x 100 mm	3 x inputs RST 25i3 / gray coding 1 x cable gland M32 2 x cable gland M20 5 x connector clamps 10 mm² Dimensions in mm L x W x H 180 x 180 x 90 mm	
	Part No. Std. Pack	Part No. Std. Pack	
			
Sheet metal/ powder-coated	99.512.0000.7		
Plastic		99.502.0000.7	
	Customized solutions available on request 		
	Examples: – Stainless steel (picture) – C 25 circuit breaker – with overvoltage protection – pre-assembled U-rail		

Cable assemblies, 4.0 mm²

Cable assemblies

ground = gn/yl
N = bl
L = br

The cable colors have been adapted to the new European standard HD 208 S2.
The assignment corresponds to international recommendations.

				Extension cable		Connection cable		Connection cable	
				H05VV-F 3G4,0[1]		**H05VV-F 3G4,0[1]**		**H05VV-F 3G4,0[1]**	
				Female – Male with locking device		**Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm Cable diameter H05VV-F[3]: 10.5 – 13.1 mm		**Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm Cable diameter H05VV-F[3]: 10.5 – 13.1 mm	
									
Application	Coding	Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Single-phase supply with 25 A (ENS)	L, N, ground  Female	concrete gray/ black	1.0 m	96.834.1000.3		96.834.1003.3		96.834.1004.3	
			1.5 m	96.834.1500.3		96.834.1503.3		96.834.1504.3	
			2.0 m	96.834.2000.3		96.834.2003.3		96.834.2004.3	
			2.5 m	96.834.2500.3		96.834.2503.3		96.834.2504.3	
			3.0 m	96.834.3000.3		96.834.3003.3		96.834.3004.3	
			3.5 m	96.834.3500.3		96.834.3503.3		96.834.3504.3	
			4.0 m	96.834.4000.3		96.834.4003.3		96.834.4004.3	
	L, N, ground  Male	Cable: black							

[1] Other cables available on request
[2] Other lengths available on request
[3] According to VDE 0281/T5 and VDE 0288/T4

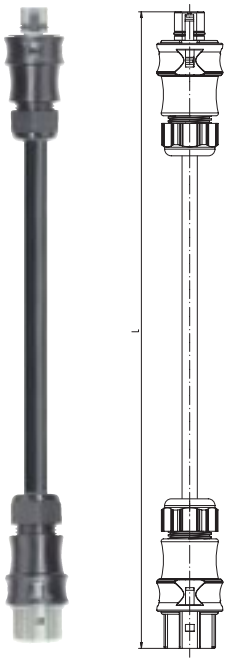
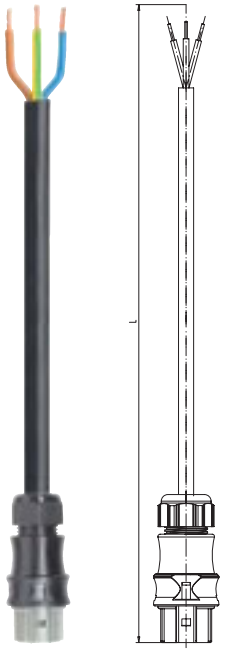
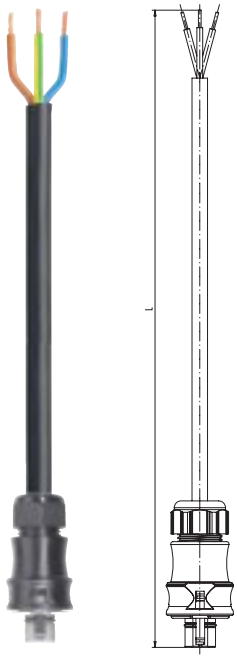
RST 25i3

Single-phase supply with ENS

Cable assemblies

ground = gn/yl
N = bl
L = br

The cable colors have been adapted to the new European standard HD 208 S2. The assignment corresponds to international recommendations.

				Extension cable		Connection cable		Connection cable	
				H07RN-F 3G4,0[1]		**H07RN-F 3G4,0[1]**		**H07RN-F 3G4,0[1]**	
				Female – Male with locking device		**Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm Cable diameter H07RN-F[3]: 12.7 – 16.2 mm		**Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm Cable diameter H07RN-F[3]: 12.7 – 16.2 mm	
									
Application	Coding	Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Single-phase supply with 25 A (ENS)	L, N, ground  Female	concrete gray/ black	1.0 m	96.834.1030.3		96.834.1033.3		96.834.1034.3	
			1.5 m	96.834.1530.3		96.834.1533.3		96.834.1534.3	
			2.0 m	96.834.2030.3		96.834.2033.3		96.834.2034.3	
			2.5 m	96.834.2530.3		96.834.2533.3		96.834.2534.3	
			3.0 m	96.834.3030.3		96.834.3033.3		96.834.3034.3	
			3.5 m	96.834.3530.3		96.834.3533.3		96.834.3534.3	
			4.0 m	96.834.4030.3		96.834.4033.3		96.834.4034.3	
	L, N, ground  Male	Cable: black							

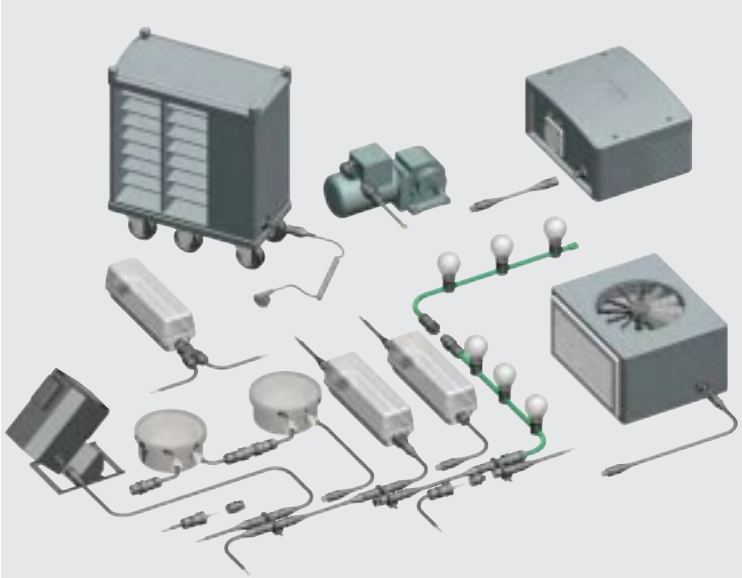
[1] Other cables available on request
[2] Other lengths available on request
[3] According to VDE 0281/T5 and VDE 0288/T4

gesis

RST 20i4

Mains, 4 pole

Application example



General

The four pole connector is based on the 5 pole variation with one pole left empty.

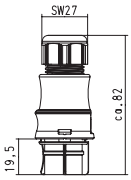
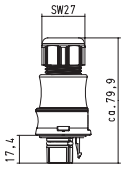
These connectors have been designed for connecting electrical drives.

They are mechanically coded. This means that only associated pairs of male and female can be connected with the correct polarity. This ensures a clear separation from the connectors of the other product series.

Coding

				Application	Mains 250/400 V	
				Mechanical coding	1, 2, 3, ground 	
Name	**Description**	**Connection style**	**Strain relief housing**	**Connection points per pole**	gray	black
Connectors	1 x cable entry	Screw technology Crimp technology	yes	1		
	2 x cable entry	Screw technology	yes	1		
Distribution units	RST compact distributor/ multi distributor				available on request	available on request
	Individual distribution box				available on request	available on request
Cable assemblies	Connection cable Male – Free end	pre-assembled	pre-assembled	pre-assembled		
	Connection cable Female – Free end					
	Extension cable Male – Female					

Connector for cables of Ø 6 – 10 and 10 – 14 mm

Application	Coding	Cable	Color	With screw connection[2] for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths. Part No.	Std. Pack	With crimp contacts for fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. Crimp contacts separately available under "Accessories" See "Technical Data" for sheath and insulation strip lengths. Part No.	Std. Pack
Female connector							
	  						
Mains 250/400 V	 1, 2, 3, ground	6 – 10 mm	gray	96.041.4053.0		96.141.0053.0	3rd. quart. 2006
			black	96.041.4053.1		96.141.0053.1	3rd. quart. 2006
		10 – 14 mm	gray	96.041.4153.0		96.141.0153.0	3rd. quart. 2006
			black	96.041.4153.1		96.141.0153.1	3rd. quart. 2006
		13 – 18 mm	gray				
			black				
Male connector							
	  						
Mains 250/400 V	 1, 2, 3, ground	6 – 10 mm	gray	96.042.4053.0		96.142.0053.0	3rd. quart. 2006
			black	96.042.4053.1		96.142.0053.1	3rd. quart. 2006
		10 – 14 mm	gray	96.042.4153.0		96.142.0153.0	3rd. quart. 2006
			black	96.042.4153.1		96.142.0153.1	3rd. quart. 2006
		13 – 18 mm	gray				
			black				

[1] Cable gland with bend protection available on request
[2] With wire protection available on request

Connector for cable Ø 13 – 18 mm

Splitter connector

With screw connection[2] for rigid, fine-stranded and stranded cables of max. 4.0 mm². Unassembled with cable gland and locking device.

See "Technical Data" for sheath and insulation strip lengths.

Part No. Std. Pack

96.041.4553.0
96.041.4553.1

Part No. Std. Pack

96.042.4553.0
96.042.4553.1

With crimp contacts for fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. Crimp contacts separately available under "Accessories"

See "Technical Data" for sheath and insulation strip lengths.

Part No. Std. Pack

96.141.0553.0 3rd. quart. 2006
96.141.0553.1 3rd. quart. 2006

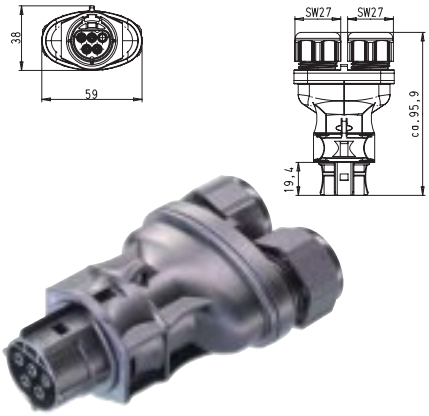
96.142.0553.0 3rd. quart. 2006
96.142.0553.1 3rd. quart. 2006

With screw connection[2] for rigid, fine-stranded and stranded cables of 0.75 – 1.5 mm². Unassembled with cable gland[1] and locking device.

See "Technical Data" for sheath and insulation strip lengths.

Part No. Std. Pack

See "Accessories" for the mounting plate used to fasten the splitter connector.



96.041.4253.0
96.041.4253.1

96.041.4353.0
96.041.4353.1

[1] Cable gland with bend protection available on request
[2] With wire protection available on request

Appliance connectors

Appliance connector M25, standard

With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, internal cable gland.

See "Technical Data" for insulation strip lengths.

With crimp connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, external cable gland. Crimp contacts separately available under "Accessories"
See "Technical Data" for insulation strip lengths.

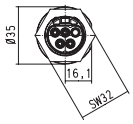
Appliance connector M20, modular, straight

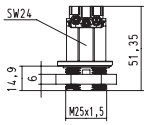
With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole.
With locking device.
Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.

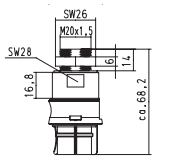
See "Technical Data" for insulation strip lengths.

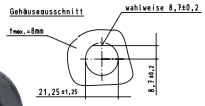
With crimp connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland. Crimp contacts separately available under "Accessories"
See "Technical Data" for insulation strip lengths.

Female connector



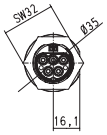


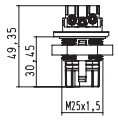


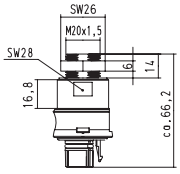


Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V 1, 2, 3, ground	gray	96.041.5053.0		96.141.1053.0	3rd. quart. 2006	96.041.6053.0		96.141.2053.0	3rd. quart. 2006
	black	96.041.5053.1		96.141.1053.1	3rd. quart. 2006	96.041.6053.1		96.141.2053.1	3rd. quart. 2006

Male connector



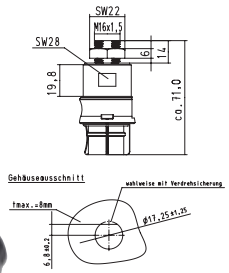
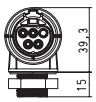
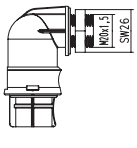
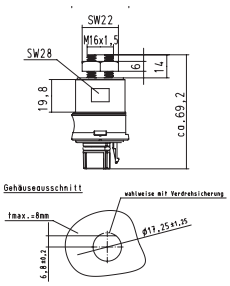
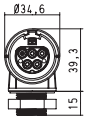
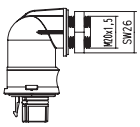




Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V 1, 2, 3, ground	gray	96.042.5053.0		96.142.1053.0	3rd. quart. 2006	96.042.6053.0		96.142.2053.0	3rd. quart. 2006
	black	96.042.5053.1		96.142.1053.1	3rd. quart. 2006	96.042.6053.1		96.142.2053.1	3rd. quart. 2006

Appliance connector M16, modular, straight

Appliance connector M20, modular, angled

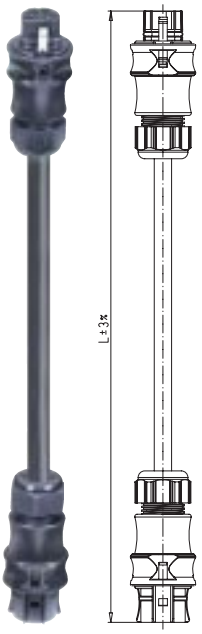
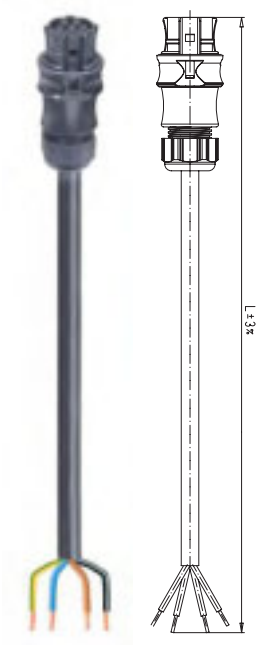
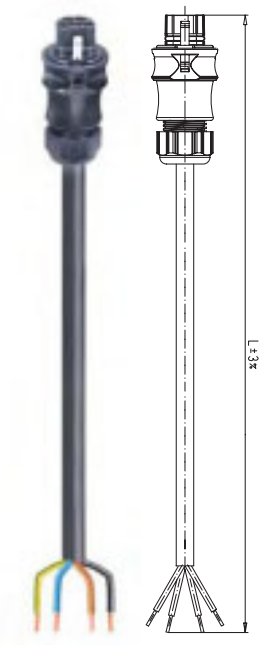
		With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland. See "Technical Data" for insulation strip lengths.		**With crimp connections** for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland. Crimp contacts separately available under "Accessories" See "Technical Data" for insulation strip lengths.		**With screw connections** for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland. See "Technical Data" for insulation strip lengths.		**With crimp connections** for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland. Crimp contacts separately available under "Accessories" See "Technical Data" for insulation strip lengths.	
Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Female connector		 				 			
Mains 250/400 V 1, 2, 3, ground	gray black	96.041.6153.0 96.041.6153.1		96.141.2153.0 96.141.2153.1	3rd. quart. 2006 3rd. quart. 2006	96.043.6053.0 96.043.6053.1		96.143.2053.0 96.143.2053.1	3rd. quart. 2006 3rd. quart. 2006
Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Male connector		  				 			
Mains 250/400 V 1, 2, 3, ground	gray black	96.042.6153.0 96.042.6153.1		96.142.2153.0 96.142.2153.1	3rd. quart. 2006 3rd. quart. 2006	96.044.6053.0 96.044.6053.1		96.144.2053.0 96.144.2053.1	3rd. quart. 2006 3rd. quart. 2006

Cable assemblies, 1.5 mm²

Cable assemblies

ground = gn/yl
3 = bl
1 = br
2 = bk

Cable[1] in black
Connector in black
Screw technology

				Extension cable		Connection cable		Connection cable	
				H05VV-F 4G1,5 **Female – Male** with locking device		H05VV-F 4G1,5 **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm		H05VV-F 4G1,5 **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	
									
Application	Coding		Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V	1, 2, 3, ground  Female		black	1.0 m	96.442.1000.1		96.442.1003.1		96.442.1004.1	
				2.0 m	96.442.2000.1		96.442.2003.1		96.442.2004.1	
				3.0 m	96.442.3000.1		96.442.3003.1		96.442.3004.1	
				4.0 m	96.442.4000.1		96.442.4003.1		96.442.4004.1	
				5.0 m	96.442.5000.1		96.442.5003.1		96.442.5004.1	
				6.0 m	96.442.6000.1		96.442.6003.1		96.442.6004.1	
			Cable: black	7.0 m	96.442.7000.1		96.442.7003.1		96.442.7004.1	
				8.0 m	96.442.8000.1		96.442.8003.1		96.442.8004.1	
	1, 2, 3, ground  Male									

[1] Other cables available on request
[2] Other lengths available on request

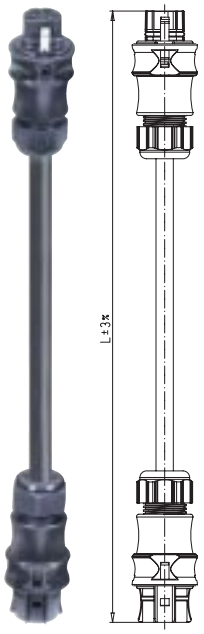
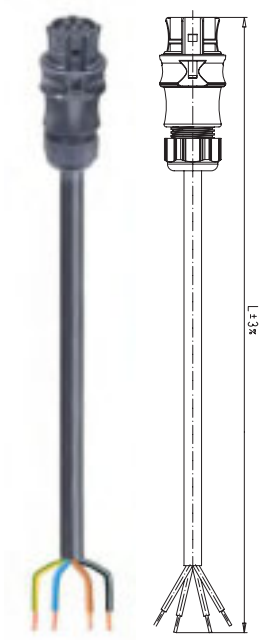
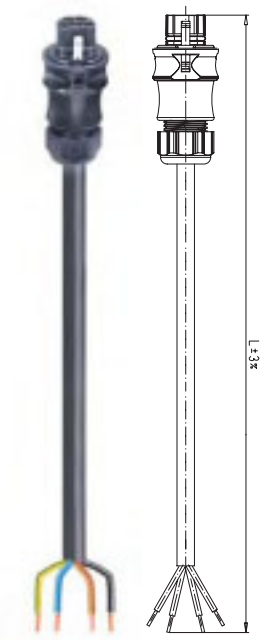
RST 20i4

Mains, 4 pole

Cable assemblies

ground = gn/yl
3 = bl
1 = br
2 = bk

Cable[1] in black
Connector in black
Screw technology

				Extension cable		Connection cable		Connection cable	
				H07RN-F 4G1,5		**H07RN-F 4G1,5**		**H07RN-F 4G1,5**	
				Female – Male with locking device		**Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm		**Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	
									
			Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V	1, 2, 3, ground Female	black	1.0 m	96.442.1030.1		96.442.1033.1		96.442.1034.1	
			2.0 m	96.442.2030.1		96.442.2033.1		96.442.2034.1	
			3.0 m	96.442.3030.1		96.442.3033.1		96.442.3034.1	
			4.0 m	96.442.4030.1		96.442.4033.1		96.442.4034.1	
			5.0 m	96.442.5030.1		96.442.5033.1		96.442.5034.1	
			6.0 m	96.442.6030.1		96.442.6033.1		96.442.6034.1	
		Cable: black	7.0 m	96.442.7030.1		96.442.7033.1		96.442.7034.1	
			8.0 m	96.442.8030.1		96.442.8033.1		96.442.8034.1	
	1, 2, 3, ground Male								

[1] Other cables available on request
[2] Other lengths available on request

Cable assemblies, 2.5 mm²

Cable assemblies

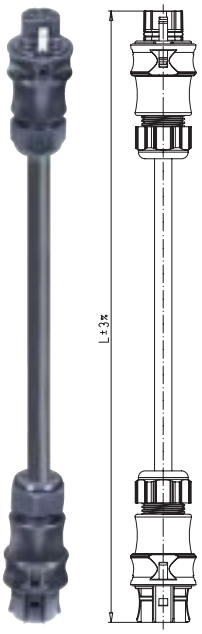
ground = gn/yl
3 = bl
1 = br
2 = bk

Cable[1] in black
Connector in black
Screw technology

Extension cable

H05VV-F 4G2,5

Female – Male
with locking device

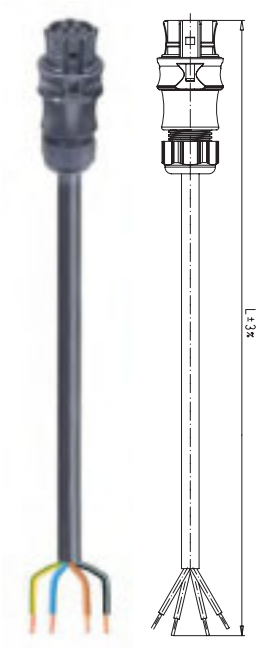


Connection cable

H05VV-F 4G2,5

Female – Free end
with ultrasonically welded wire ends

Cable strip length: 35 mm
Insulation strip length: 9 mm

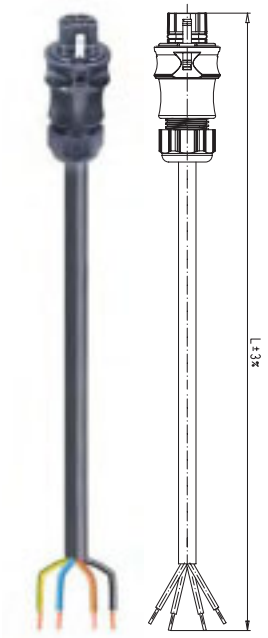


Connection cable

H05VV-F 4G2,5

Male – Free end
with ultrasonically welded wire ends and locking device

Cable strip length: 35 mm
Insulation strip length: 9 mm



Application	Coding	Color	Length[2]	Extension cable Part No.	Extension cable Std. Pack	Connection cable Part No.	Connection cable Std. Pack	Connection cable Part No.	Connection cable Std. Pack
Mains 250/400 V	1, 2, 3, ground Female	black	1.0 m	96.443.1000.1		96.443.1003.1		96.443.1004.1	
			2.0 m	96.443.2000.1		96.443.2003.1		96.443.2004.1	
			3.0 m	96.443.3000.1		96.443.3003.1		96.443.3004.1	
			4.0 m	96.443.4000.1		96.443.4003.1		96.443.4004.1	
			5.0 m	96.443.5000.1		96.443.5003.1		96.443.5004.1	
			6.0 m	96.443.6000.1		96.443.6003.1		96.443.6004.1	
		Cable: black	7.0 m	96.443.7000.1		96.443.7003.1		96.443.7004.1	
	1, 2, 3, ground Male		8.0 m	96.443.8000.1		96.443.8003.1		96.443.8004.1	

[1] Other cables available on request
[2] Other lengths available on request

RST 20i4

Mains, 4 pole

Cable assemblies

ground = gn/yl
3 = bl
1 = br
2 = bk

Cable[1] in black
Connector in black
Screw technology

			Length[2]	Extension cable H07RN-F 4G2,5 **Female – Male** with locking device Part No.	Std. Pack	Connection cable H07RN-F 4G2,5 **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm Part No.	Std. Pack	Connection cable H07RN-F 4G2,5 **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm Part No.	Std. Pack
Mains 250/400 V	1, 2, 3, ground Female	black	1.0 m	96.443.1030.1		96.443.1033.1		96.443.1034.1	
			2.0 m	96.443.2030.1		96.443.2033.1		96.443.2034.1	
			3.0 m	96.443.3030.1		96.443.3033.1		96.443.3034.1	
			4.0 m	96.443.4030.1		96.443.4033.1		96.443.4034.1	
			5.0 m	96.443.5030.1		96.443.5033.1		96.443.5034.1	
			6.0 m	96.443.6030.1		96.443.6033.1		96.443.6034.1	
		Cable: black	7.0 m	96.443.7030.1		96.443.7033.1		96.443.7034.1	
			8.0 m	96.443.8030.1		96.443.8033.1		96.443.8034.1	
	1, 2, 3, ground Male								

[1] Other cables available on request
[2] Other lengths available on request

Distribution units

	RST compact distributor	RST multi distributor	Distribution box
	– Equip as needed with M25 appliance connectors 2 to 5 pole – 1 input; 3 outputs – pre-wired with 2.5 mm^2 – with mounting option	– Equip as needed with M25 appliance connectors 2 to 5 pole – 1 input; 7 outputs (max.) – Safety fuses 6.3 or 10 A can be integrated – pre-wired with 2.5 mm^2 – with mounting option	The individual distribution boxes offer optimum solutions for your specific application. The distribution boxes are available in different dimensions and can accept DIN rail mounted devices and terminal blocks in any combination. Further connection to the consumer devices is carried out by the ***gesis*** IP+ connector system. Distribution blocks manufactured and tested according to specific customer requirements can be delivered to the construction site as pre-assembled components.
Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
			
	Forecasted for the 4th quarter of 2006	Forecasted for the 4th quarter of 2006	Available on request

RST 20i4

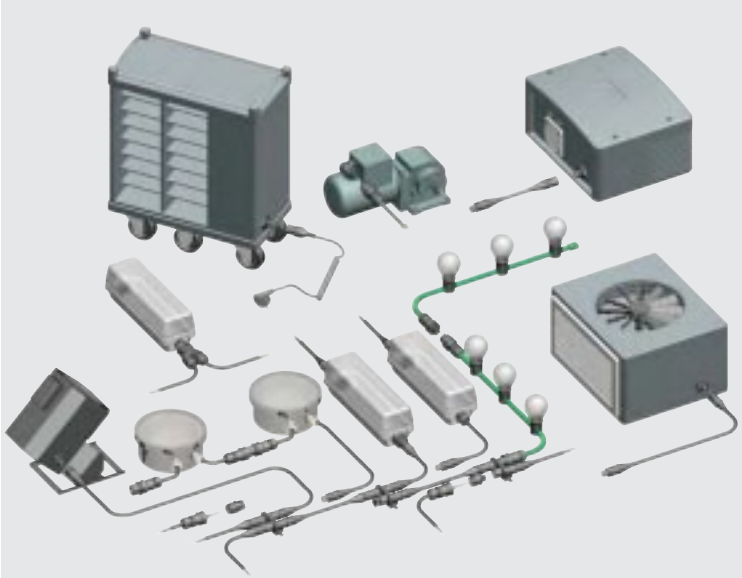
Mains, 4 pole

gesis®

RST 20i5

Mains, 5 pole, low voltage, mains + dimming

Application example



General

The 5 pole connectors come in three variations. The standard version for general mains applications; a version to combine mains and dimming signals; and finally a version for low voltage applications.

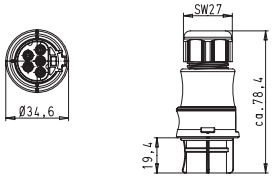
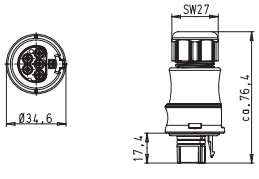
All connectors are mechanically coded. This means that only associated pairs of male and female can be connected with the correct polarity. You therefore have the security of a clear separation of different applications without having to redo any incorrect connections. The color of the connectors indicates the links that belong together.

Coding

				Application	Mains 250/400 V		50 V, LV, bus signals	Mains 250 V + dimming
				Mechanical coding	3, ground, N, 2, 1		1, 2, 3, 4, 5	L, ground, N, +, -
Name	**Description**	**Connection style**	**Strain relief housing**	**Connection points per pole**	gray	black	brown	turquoise
Connectors	1 x cable entry	Screw technology Crimp technology	yes	1	■	■	■	■
	2 x cable entry	Screw technology	yes	1	■	■	■	■
Distribution units	RST compact distributor/ multi distributor				available on request	available on request	available on request	available on request
	Individual distribution box				available on request	available on request	available on request	available on request
Cable assemblies	Connection cable Male – Free end	pre-assembled	pre-assembled	pre-assembled	■	■	■	■
	Connection cable Female – Free end				■	■	■	■
	Extension cable Male – Female				■	■	■	■

Connectors

Connector for cables of Ø 6 – 10 and 10 – 14 mm

				With screw connection[2] for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. See "Technical Data" for sheath and insulation strip lengths.		**With crimp contacts** for fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. Crimp contacts separately available under "Accessories" See "Technical Data" for sheath and insulation strip lengths.	
Application	Coding		Cable	Color	Part No.	Std. Pack	Part No.	Std. Pack
Female connector					 			
Mains 250/400 V	 3, ground, N, 2, 1		6 – 10 mm	gray	96.051.4053.0		96.151.0053.0	3rd. quart. 2006
				black	96.051.4053.1		96.151.0053.1	3rd. quart. 2006
			10 – 14 mm	gray	96.051.4153.0		96.151.0153.0	3rd. quart. 2006
				black	96.051.4153.1		96.151.0153.1	3rd. quart. 2006
			13 – 18 mm	gray				
				black				
Mains 250 V + dimming	 L, ground, N, +, _		6 – 10 mm	turquoise	96.051.4053.6		96.151.0053.6	3rd. quart. 2006
			10 – 14 mm		96.051.4153.6		96.151.0153.6	3rd. quart. 2006
			13 – 18 mm					
50 V, LV, bus signals	 1, 2, 3, 4, 5		6 – 10 mm	brown	96.051.4051.4		96.151.0051.4	3rd. quart. 2006
			10 – 14 mm		96.051.4151.4		96.151.0151.4	3rd. quart. 2006
			13 – 18 mm					
Application	Coding		Cable	Color	Part No.	Std. Pack	Part No.	Std. Pack
Male connector					 			
Mains 250/400 V	 ground, N, 1,2, 3		6 – 10 mm	gray	96.052.4053.0		96.152.0053.0	3rd. quart. 2006
				black	96.052.4053.1		96.152.0053.1	3rd. quart. 2006
			10 – 14 mm	gray	96.052.4153.0		96.152.0153.0	3rd. quart. 2006
				black	96.052.4153.1		96.152.0153.1	3rd. quart. 2006
			13 – 18 mm	gray				
				black				
Mains 250 V + dimming	 L, ground, N, +, _		6 – 10 mm	turquoise	96.052.4053.6		96.152.0053.6	3rd. quart. 2006
			10 – 14 mm		96.052.4153.6		96.152.0152.6	3rd. quart. 2006
			13 – 18 mm					
50 V, LV, bus signals	 1, 2, 3, 4, 5		6 – 10 mm	brown	96.052.4051.4		96.152.0051.4	3rd. quart. 2006
			10 – 14 mm		96.052.4151.4		96.152.0151.4	3rd. quart. 2006
			13 – 18 mm					

[1] Cable gland with bend protection available on request
[2] With wire protection available on request

Connector for cable Ø 13 – 18 mm

Splitter connector

With screw connection[2] for rigid, fine-stranded and stranded cables of max. 4.0 mm². Unassembled with cable gland and locking device.

See "Technical Data" for sheath and insulation strip lengths.

Part No. Std. Pack

96.051.4553.0 96.051.4553.0	96.151.0553.0 96.151.0553.0	3rd. quart. 2006 3rd. quart. 2006
96.051.4553.6	96.151.0553.6	3rd. quart. 2006
96.051.4553.4	96.151.0553.4	3rd. quart. 2006

With crimp contacts for fine-stranded and stranded cables of 0.75 – 4.0 mm². Unassembled with cable gland[1] and locking device. Crimp contacts separately available under "Accessories"

See "Technical Data" for sheath and insulation strip lengths.

Part No. Std. Pack

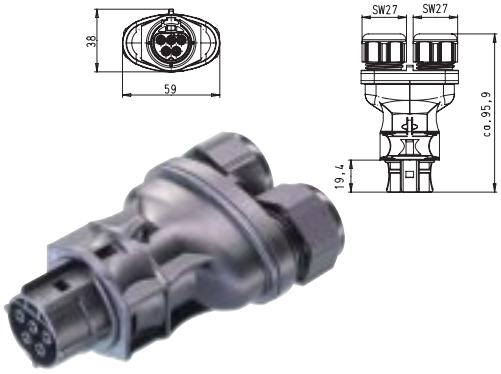
96.052.4553.0 96.052.4553.0	96.152.0553.0 96.152.0553.0	3rd. quart. 2006 3rd. quart. 2006
96.052.4551.6	96.152.0551.6	3rd. quart. 2006
96.052.4551.4	96.152.0551.4	3rd. quart. 2006

With screw connection[2] for rigid, fine-stranded and stranded cables of 0.75 – 1.5 mm². Unassembled with cable gland[1] and locking device.

See "Technical Data" for sheath and insulation strip lengths.

Part No. Std. Pack

See "Accessories" for the mounting plate used to fasten the splitter connector.



96.051.4253.0 96.051.4253.1	
96.051.4353.0 96.051.4353.1	
96.051.4253.6 96.051.43.53.6	
96.051.4251.4 96.051.4351.4	

Appliance connectors

Appliance connector M25, standard

With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With lokking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, internal cable gland.

See "Technical Data" for insulation strip lengths.

With crimp connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With lokking device. Fixing in position guaranteed by flattening the thread. With M25x1.5 thread, external cable gland. Crimp contacts separately available under "Accessories" See "Technical Data" for insulation strip lengths.

Appliance connector M20, modular, straight

With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.

See "Technical Data" for insulation strip lengths.

With crimp connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm². 1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland. Crimp contacts separately available under "Accessories" See "Technical Data" for insulation strip lengths.

Female connector

Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/ 400 V	gray	96.051.5053.0		96.151.1053.0	3rd. quart. 2006	96.051.6053.0		96.151.2053.0	3rd. quart. 2006
	black	96.051.5053.1		96.151.1053.1	3rd. quart. 2006	96.051.6053.1		96.151.2053.1	3rd. quart. 2006
Mains 250 V + dim.	turquoise	96.051.5053.6		96.151.5053.6	3rd. quart. 2006	96.051.6053.6		96.151.2053.6	3rd. quart. 2006
50 V, LV, bus signals	brown	96.051.5051.4		96.151.5051.4	3rd. quart. 2006	96.051.6051.4		96.151.2051.4	3rd. quart. 2006

Male connector

Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/ 400 V	gray	96.052.5053.0		96.152.1053.0	3rd. quart. 2006	96.052.6053.0		96.152.2053.0	3rd. quart. 2006
	black	96.052.5053.1		96.152.1053.1	3rd. quart. 2006	96.052.6053.1		96.152.2053.1	3rd. quart. 2006
Mains 250 V + dim.	turquoise	96.052.5053.6		96.152.5053.6	3rd. quart. 2006	96.052.6053.6		96.152.2053.6	3rd. quart. 2006
50 V, LV, bus signals	brown	96.052.5051.4		96.152.5051.4	3rd. quart. 2006	96.052.6051.4		96.152.2051.4	3rd. quart. 2006

RST 20i5

Mains, 5 pole, low voltage, mains + dimming

Appliance connector M16, modular, straight

With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland.

See "Technical Data" for insulation strip lengths.

With crimp connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M16x1.5 thread, internal cable gland. Crimp contacts separately available under "Accessories"
See "Technical Data" for insulation strip lengths.

Appliance connector M20, modular, angled

With screw connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland.

See "Technical Data" for insulation strip lengths.

With crimp connections for rigid, fine-stranded and stranded cables of 0.75 – 4.0 mm².
1 connection point per pole. With locking device. Fixing in position guaranteed by flattening the thread. With M20x1.5 thread, internal cable gland. Crimp contacts separately available under "Accessories"
See "Technical Data" for insulation strip lengths.

Female connector

Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/ 400 V	gray	96.051.6153.0		96.151.2153.0	3rd. quart. 2006	96.053.6053.0		96.153.2053.0	3rd. quart. 2006
	black	96.051.6153.1		96.151.2153.1	3rd. quart. 2006	96.053.6053.1		96.153.2053.1	3rd. quart. 2006
Mains 250 V + dim.	tur-quoise	96.051.6153.6		96.151.2153.6	3rd. quart. 2006	96.053.6053.6		96.153.2053.6	3rd. quart. 2006
50 V, LV, bus signals	brown	96.051.6151.4		96.151.2151.4	3rd. quart. 2006	96.053.6051.4		96.153.2051.4	3rd. quart. 2006

Male connector

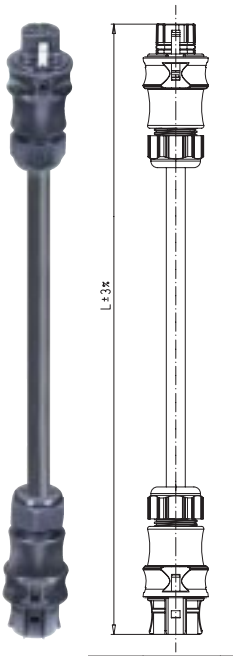
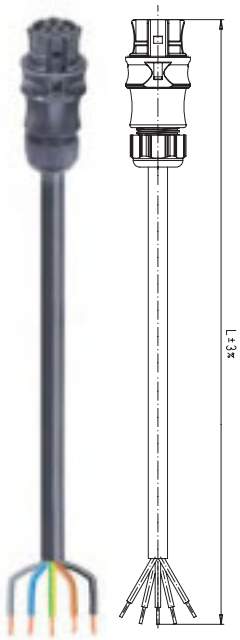
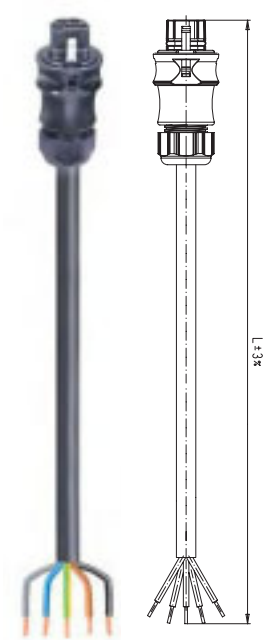
Application	Color	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/ 400 V	gray	96.052.6153.0		96.152.2153.0	3rd. quart. 2006	96.054.6053.0		96.154.2053.0	3rd. quart. 2006
	black	96.052.6153.1		96.152.2153.1	3rd. quart. 2006	96.054.6053.1		96.154.2053.1	3rd. quart. 2006
Mains 250 V + dim.	tur-quoise	96.052.6153.6		96.152.2153.6	3rd. quart. 2006	96.054.6053.6		96.154.2053.6	3rd. quart. 2006
50 V, LV, bus signals	brown	96.052.6151.4		96.152.2151.4	3rd. quart. 2006	96.054.6051.4		96.154.2051.4	3rd. quart. 2006

Cable assemblies, 1.5 mm²

Pre-assembled mains cables

ground = gn/yl
N = bl
1 = br
2 = bk
3 = gray

Cable[1] in black
Connector in black
Screw technology

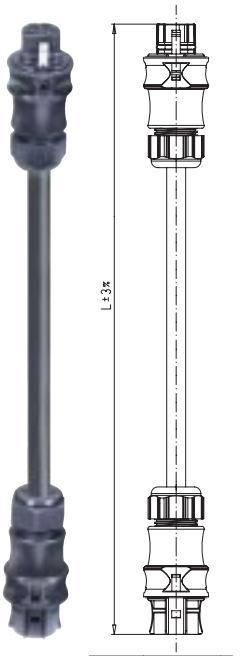
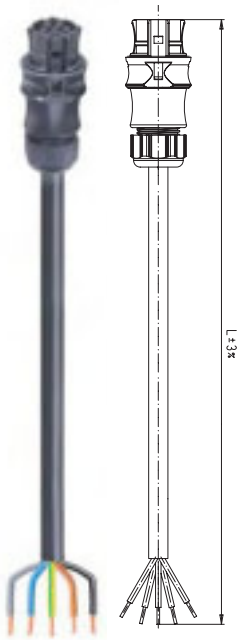
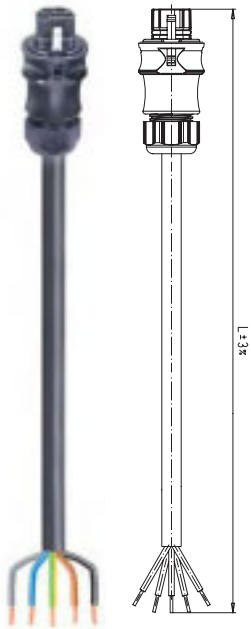
				Extension cable **H05VV-F 5G1,5** **Female – Male** with locking device		Connection cable **H05VV-F 5G1,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm		Connection cable **H05VV-F 5G1,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	
									
Application	Coding	Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V	3, ground, N, 2, 1 Female Male	black Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.452.1000.1 96.452.2000.1 96.452.3000.1 96.452.4000.1 96.452.5000.1 96.452.6000.1 96.452.7000.1 96.452.8000.1		96.452.1003.1 96.452.2003.1 96.452.3003.1 96.452.4003.1 96.452.5003.1 96.452.6003.1 96.452.7003.1 96.452.8003.1		96.452.1004.1 96.452.2004.1 96.452.3004.1 96.452.4004.1 96.452.5004.1 96.452.6004.1 96.452.7004.1 96.452.8004.1	
Mains 250 V + dimming	L, ground, N, +, - Female Male	turquoise Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.452.1000.6 96.452.2000.6 96.452.3000.6 96.452.4000.6 96.452.5000.6 96.452.6000.6 96.452.7000.6 96.452.8000.6		96.452.1003.6 96.452.2003.6 96.452.3003.6 96.452.4003.6 96.452.5003.6 96.452.6003.6 96.452.7003.6 96.452.8003.6		96.452.1004.6 96.452.2004.6 96.452.3004.6 96.452.4004.6 96.452.5004.6 96.452.6004.6 96.452.7004.6 96.452.8004.6	
LV, signals, bus, 50 V	1, 2, 3, 4, 5 Female Male	brown Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	Available on request		Available on request		Available on request	

[1] Other cables available on request
[2] Other lengths available on request

Pre-assembled mains cables

ground = gn/yl
N = bl
1 = br
2 = bk
3 = gray

Cable[1] in black
Connector in black
Screw technology

				Extension cable		Connection cable		Connection cable	
				H07RN-F 5G1,5		**H07RN-F 5G1,5**		**H07RN-F 5G1,5**	
				Female – Male with locking device		**Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm		**Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	
									
Application	Coding	Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V	3, ground, N, 2, 1 Female Male	black Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.452.1030.1 96.452.2030.1 96.452.3030.1 96.452.4030.1 96.452.5030.1 96.452.6030.1 96.452.7030.1 96.452.8030.1		96.452.1033.1 96.452.2033.1 96.452.3033.1 96.452.4033.1 96.452.5033.1 96.452.6033.1 96.452.7033.1 96.452.8033.1		96.452.1034.1 96.452.2034.1 96.452.3034.1 96.452.4034.1 96.452.5034.1 96.452.6034.1 96.452.7034.1 96.452.8034.1	
Mains 250 V + dimming	L, ground, N, +, - Female Male	turquoise Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.452.1030.6 96.452.2030.6 96.452.3030.6 96.452.4030.6 96.452.5030.6 96.452.6030.6 96.452.7030.6 96.452.8030.6		96.452.1033.6 96.452.2033.6 96.452.3033.6 96.452.4033.6 96.452.5033.6 96.452.6033.6 96.452.7033.6 96.452.8033.6		96.452.1034.6 96.452.2034.6 96.452.3034.6 96.452.4034.6 96.452.5034.6 96.452.6034.6 96.452.7034.6 96.452.8034.6	
LV, signals, bus, 50 V	1, 2, 3, 4, 5 Female Male	brown Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	Available on request		Available on request		Available on request	

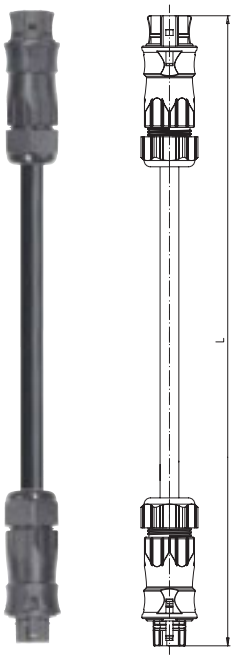
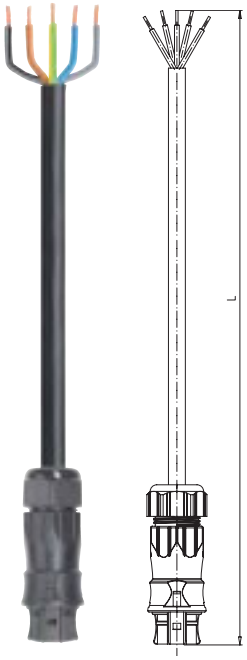
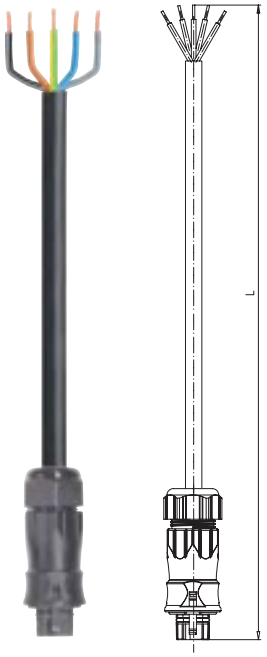
[1] Other cables available on request
[2] Other lengths available on request

Cable assemblies, 2.5 mm²

Pre-assembled mains cables

ground = gn/yl
N = bl
1 = br
2 = bk
3 = gray

Cable[1] in black
Connector in black
Screw technology

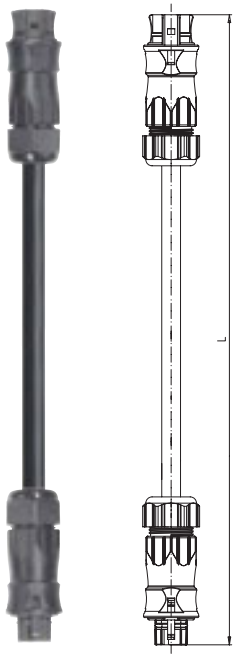
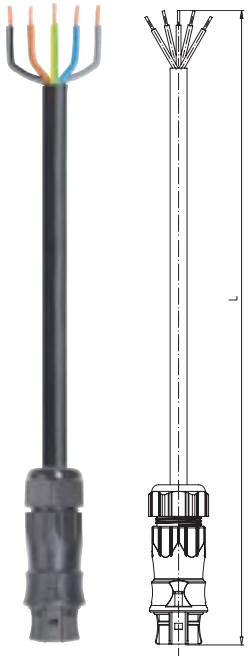
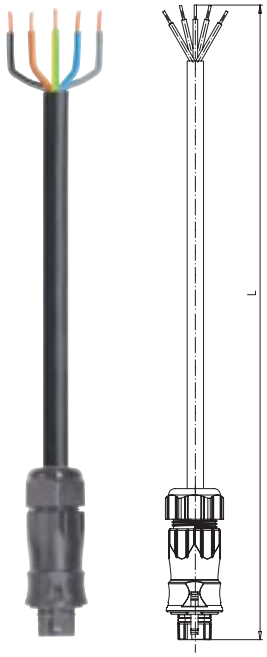
				Extension cable **H05VV-F 5G2,5** **Female – Male** with locking device	Connection cable **H05VV-F 5G2,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	Connection cable **H05VV-F 5G2,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm
						
Application	Coding	Color	Length[2]	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Mains 250/400 V	3, ground, N, 2, 1 Female Male	black Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.453.1000.1 96.453.2000.1 96.453.3000.1 96.453.4000.1 96.453.5000.1 96.453.6000.1 96.453.7000.1 96.453.8000.1	96.453.1003.1 96.453.2003.1 96.453.3003.1 96.453.4003.1 96.453.5003.1 96.453.6003.1 96.453.7003.1 96.453.8003.1	96.453.1004.1 96.453.2004.1 96.453.3004.1 96.453.4004.1 96.453.5004.1 96.453.6004.1 96.453.7004.1 96.453.8004.1
Mains 250 V + dimming	L, ground, N, +, - Female Male	turquoise Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.453.1000.6 96.453.2000.6 96.453.3000.6 96.453.4000.6 96.453.5000.6 96.453.6000.6 96.453.7000.6 96.453.8000.6	96.453.1003.6 96.453.2003.6 96.453.3003.6 96.453.4003.6 96.453.5003.6 96.453.6003.6 96.453.7003.6 96.453.8003.6	96.453.1004.6 96.453.2004.6 96.453.3004.6 96.453.4004.6 96.453.5004.6 96.453.6004.6 96.453.7004.6 96.453.8004.6
LV, signals, bus, 50 V	1, 2, 3, 4, 5 Female Male	brown Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	Available on request	Available on request	Available on request

[1] Other cables available on request
[2] Other lengths available on request

Pre-assembled mains cables

ground = gn/yl
N = bl
1 = br
2 = bk
3 = gray

Cable[1] in black
Connector in black
Screw technology

				Extension cable		Connection cable		Connection cable	
				H07RN-F 5G2,5 **Female – Male** with locking device		**H07RN-F 5G2,5** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm		**H07RN-F 5G2,5** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	
									
Application	Coding	Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V	3, ground, N, 2, 1 Female Male	black Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.453.1030.1 96.453.2030.1 96.453.3030.1 96.453.4030.1 96.453.5030.1 96.453.6030.1 96.453.7030.1 96.453.8030.1		96.453.1033.1 96.453.2033.1 96.453.3033.1 96.453.4033.1 96.453.5033.1 96.453.6033.1 96.453.7033.1 96.453.8033.1		96.453.1034.1 96.453.2034.1 96.453.3034.1 96.453.4034.1 96.453.5034.1 96.453.6034.1 96.453.7034.1 96.453.8034.1	
Mains 250 V + dimming	L, N, ground, +, - Female Male	t turquoise Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.453.1030.6 96.453.2030.6 96.453.3030.6 96.453.4030.6 96.453.5030.6 96.453.6030.6 96.453.7030.6 96.453.8030.6		96.453.1033.6 96.453.2033.6 96.453.3033.6 96.453.4033.6 96.453.5033.6 96.453.6033.6 96.453.7033.6 96.453.8033.6		96.453.1034.6 96.453.2034.6 96.453.3034.6 96.453.4034.6 96.453.5034.6 96.453.6034.6 96.453.7034.6 96.453.8034.6	
LV, signals, bus, 50 V	1, 2, 3, 4, 5 Female Male	brown Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	Available on request		Available on request		Available on request	

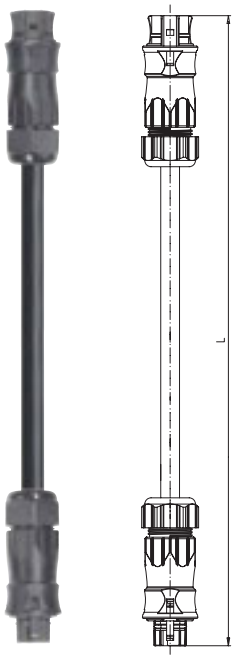
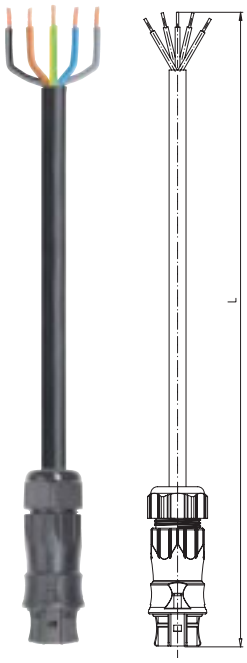
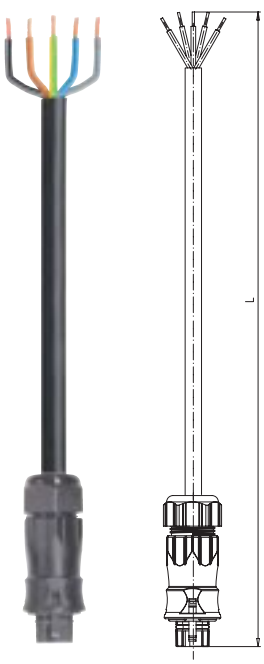
[1] Other cables available on request
[2] Other lengths available on request

Cable assemblies, 4.0 mm²

Pre-assembled mains cables

ground = gn/yl
N = bl
1 = br
2 = bk
3 = gray

Cable[1] in black
Connector in black
Screw technology

	Extension cable	Connection cable	Connection cable
	H05VV-F 5G4,0 **Female – Male** with locking device	**H05VV-F 5G4,0** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm	**H05VV-F 5G4,0** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm
			

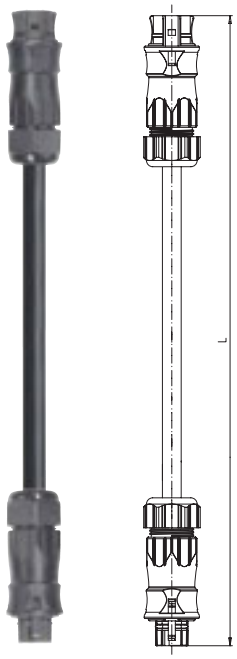
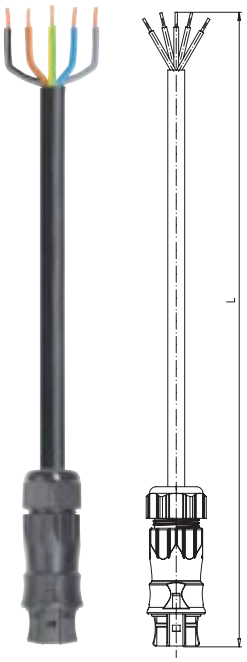
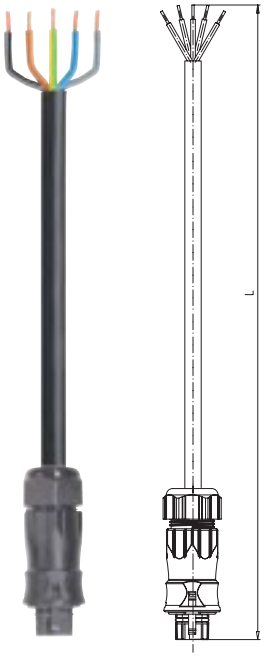
Application	Coding	Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V	3, ground, N, 2, 1 Female Male	black Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.454.1000.1 96.454.2000.1 96.454.3000.1 96.454.4000.1 96.454.5000.1 96.454.6000.1 96.454.7000.1 96.454.8000.1		96.454.1003.1 96.454.2003.1 96.454.3003.1 96.454.4003.1 96.454.5003.1 96.454.6003.1 96.454.7003.1 96.454.8003.1		96.454.1004.1 96.454.2004.1 96.454.3004.1 96.454.4004.1 96.454.5004.1 96.454.6004.1 96.454.7004.1 96.454.8004.1	
Mains 250 V + dimming	L, N, ground, +, - Female Male	turquoise Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.454.1000.6 96.454.2000.6 96.454.3000.6 96.454.4000.6 96.454.5000.6 96.454.6000.6 96.454.7000.6 96.454.8000.6		96.454.1003.6 96.454.2003.6 96.454.3003.6 96.454.4003.6 96.454.5003.6 96.454.6003.6 96.454.7003.6 96.454.8003.6		96.454.1004.6 96.454.2004.6 96.454.3004.6 96.454.4004.6 96.454.5004.6 96.454.6004.6 96.454.7004.6 96.454.8004.6	
LV, signals, bus, 50 V	1, 2, 3, 4, 5 Female Male	brown Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	Available on request		Available on request		Available on request	

[1] Other cables available on request
[2] Other lengths available on request

Pre-assembled mains cables

ground = gn/yl
N = bl
1 = br
2 = bk
3 = gray

Cable[1] in black
Connector in black
Screw technology

				Extension cable		Connection cable		Connection cable	
				H07RN-F 5G4,0 **Female – Male** with locking device		**H07RN-F 5G4,0** **Female – Free end** with ultrasonically welded wire ends Cable strip length: 35 mm Insulation strip length: 9 mm		**H07RN-F 5G4,0** **Male – Free end** with ultrasonically welded wire ends and locking device Cable strip length: 35 mm Insulation strip length: 9 mm	
									
Application	Coding	Color	Length[2]	Part No.	Std. Pack	Part No.	Std. Pack	Part No.	Std. Pack
Mains 250/400 V	3, ground, N, 2, 1  Female  Male	black Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.454.1030.1 96.454.2030.1 96.454.3030.1 96.454.4030.1 96.454.5030.1 96.454.6030.1 96.454.7030.1 96.454.8030.1		96.454.1033.1 96.454.2033.1 96.454.3033.1 96.454.4033.1 96.454.5033.1 96.454.6033.1 96.454.7033.1 96.454.8033.1		96.454.1034.1 96.454.2034.1 96.454.3034.1 96.454.4034.1 96.454.5034.1 96.454.6034.1 96.454.7034.1 96.454.8034.1	
Mains 250 V + dimming	L, N, ground, +, -  Female  Male	turquoise Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	96.454.1030.6 96.454.2030.6 96.454.3030.6 96.454.4030.6 96.454.5030.6 96.454.6030.6 96.454.7030.6 96.454.8030.6		96.454.1033.6 96.454.2033.6 96.454.3033.6 96.454.4033.6 96.454.5033.6 96.454.6033.6 96.454.7033.6 96.454.8033.6		96.454.1034.6 96.454.2034.6 96.454.3034.6 96.454.4034.6 96.454.5034.6 96.454.6034.6 96.454.7034.6 96.454.8034.6	
LV, signals, bus, 50 V	1, 2, 3, 4, 5  Female  Male	brown Cable: black	1.0 m 2.0 m 3.0 m 4.0 m 5.0 m 6.0 m 7.0 m 8.0 m	Available on request		Available on request		Available on request	

[1] Other cables available on request
[2] Other lengths available on request

Distribution units

	RST compact distributor	RST multi distributor	Distribution box
	– Equip as needed with M25 appliance connectors 2 to 5 pole – 1 input; 3 outputs – pre-wired with 2.5 mm^2 – with mounting option	– Equip as needed with M25 appliance connectors 2 to 5 pole – 1 input; 7 outputs (max.) – Safety fuses 6.3 or 10 A can be integrated – pre-wired with 2.5 mm^2 – with mounting option	The individual distribution boxes offer optimum solutions for your specific application. The distribution boxes are available in different dimensions and can accept DIN rail mounted devices and terminal blocks in any combination. Further connection to the consumer devices is carried out by the ***gesis*** IP+ connector system. Distribution blocks manufactured and tested according to specific customer requirements can be delivered to the construction site as pre-assembled components.
Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
			
	Forecasted for the 4rd quarter of 2006	Forecasted for the 4rd quarter of 2006	Available on request

RST 20i5

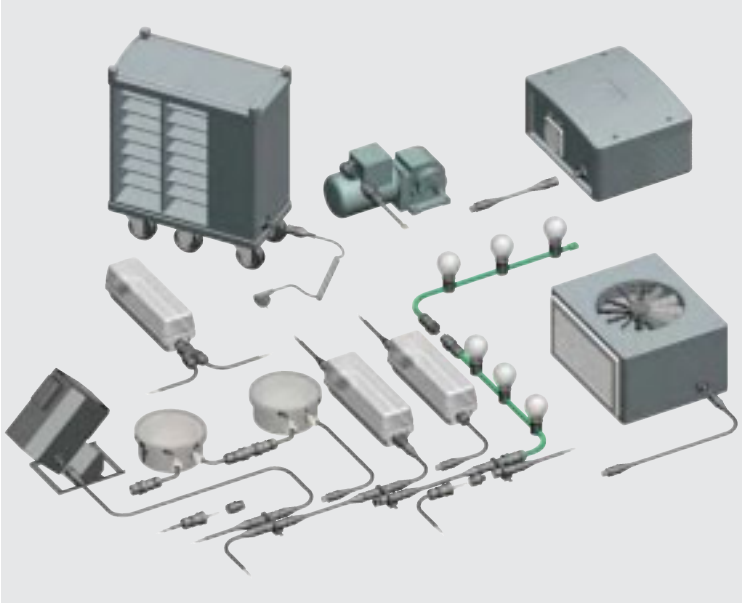
Mains, 5 pole, low voltage, mains + dimming

gesis®

RST 25i5

Single-phase supply with three-phase monitoring

Application example



General

The system is specially adapted to the requirements of solar technology.

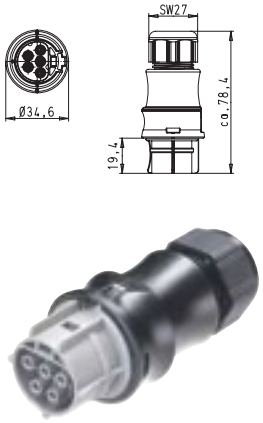
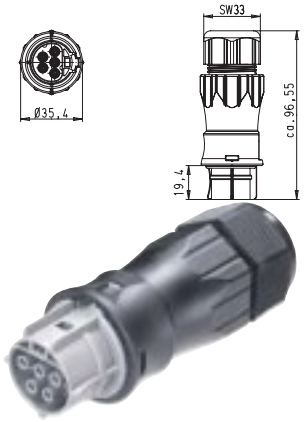
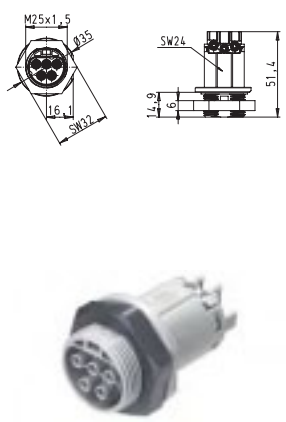
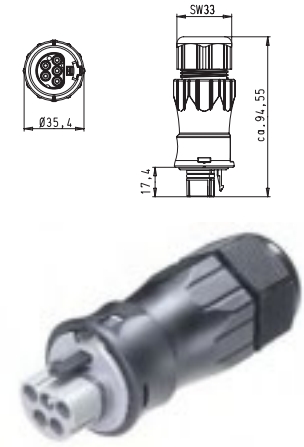
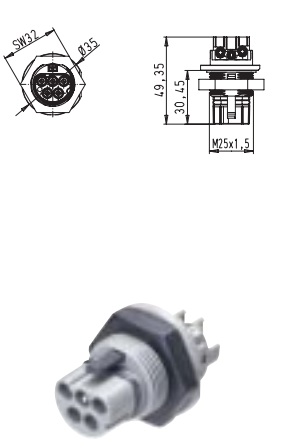
The connectors can be loaded with 25 A on two contacts (L, N). They are used for single-phase supply with three-phase monitoring.

Special collective distributors are to bundle the electrical power of up to 6 inverters and thus completing the system.

These connectors have their own mechanical coding.
This means that only associated pairs of male and female can be connected with the correct polarity. This ensures a clear separation from the connectors of the other product series.

Coding

				Application	Single-phase supply with 25 A and 3-phase monitoring
				Mechanical coding	L, N, ground, 1, 2
Name	**Description**	**Connection style**	**Strain relief housing**	**Connection points per pole**	concrete gray
Connectors	1 x cable entry	Screw technology	yes	1	
Distribution units	Collective distributor RST RAN Solar				
	Collective box RST Solar				
Cable assemblies	Connection cable Male – Free end				
	Connection cable Female – Free end	pre-assembled	pre-assembled	pre-assembled	
	Extension cable Male – Female				

			Connectors	Connectors	M 25 appliance connectors
			Screw technology for cables with a diameter of **10 – 14 mm**. Screw technology for solid and fine-stranded wires up to 4.0 mm²	**Screw technology** for cables with a diameter of **13 – 18 mm**. Screw technology for solid and fine-stranded wires up to 4.0 mm² [1]	**Screw technology** for solid and fine-stranded wires up to 4.0 mm²
Application	Coding	Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Female connector					
Single-phase supply with 25 A and three-phase monitoring	 L, N, ground, 1, 2	concrete gray/ black	96.051.4154.3	96.051.4554.3	96.051.5054.3
		Type			
Application	Coding	Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Male connector					
Single-phase supply with 25 A and three-phase monitoring	 L, N, ground, 1, 2	concrete gray/ black	96.052.4154.3	96.052.4554.3	96.052.5054.3
		Type			

[1] Larger cross sections available on request

RST 25i5

Single-phase supply with three-phase monitoring

		Collective distributor RST RAN Solar	**Collective distribution box RST Solar**
		6 x inputs RST 25i5 / gray coding 1 x cable gland M40 2 x cable glands M20 5 x connector clamps 35 mm² 6 x circuit breakers B25 Dimensions in mm L x W x H 350 x 300 x 100 mm	3 x inputs RST 25i5 / gray coding 1 x cable gland M32 2 x cable glands M20 5 x connector clamps 10 mm² Dimensions in mm L x W x H 180 x 180 x 90 mm
		Part No. Std. Pack	Part No. Std. Pack
			
	Sheet metal/ powder-coated	99.527.0000.7	
	Plastic		99.528.0000.7
		Customized solutions available on request 	
		Examples: – Stainless steel (picture) – C 25 circuit breaker – with overvoltage protection – pre-assembled U-rail	

Cable assemblies, 4.0 mm²

Cable assemblies

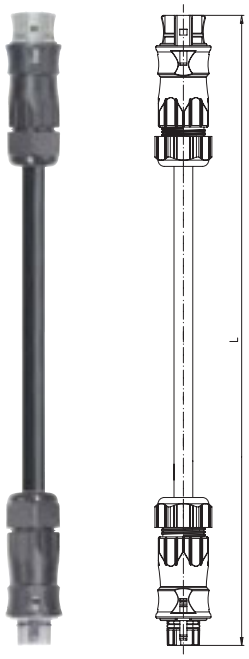
ground = gn/yl
N = bl
1 = br
2 = bk
L = gray

The cable colors have been adapted to the new European standard HD 208 S2. The assignment corresponds to international recommendations.

Extension cable

H05VV-F 5G4,0[1)]

Female – Male
with locking device

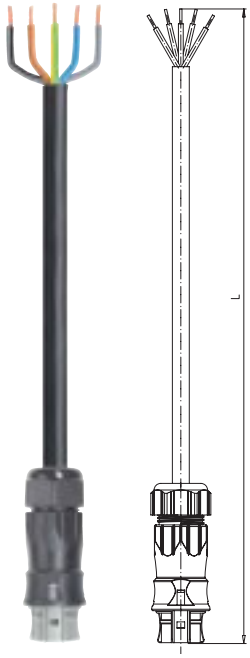


Connection cable

H05VV-F 5G4,0[1)]

Female – Free end
with ultrasonically welded wire ends

Cable strip length: 35 mm
Insulation strip length: 9 mm
Cable diameter
H05VV-F[3)]: 13.0 – 16.1 mm

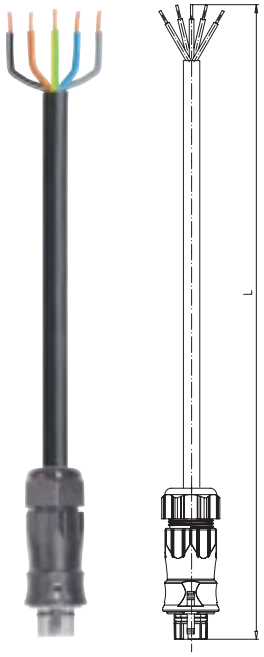


Connection cable

H05VV-F 5G4,0[1)]

Male – Free end
with ultrasonically welded wire ends and locking device

Cable strip length: 35 mm
Insulation strip length: 9 mm
Cable diameter
H05VV-F[3)]: 13.0 – 16.1 mm



Application	Coding	Color	Length[2)]	Extension cable Part No.	Extension cable Std. Pack	Connection cable Part No.	Connection cable Std. Pack	Connection cable Part No.	Connection cable Std. Pack
Single-phase supply with 25 A and three-phase monitoring	L, N, ground, 1, 2  Female	concrete gray/ black	1.0 m	96.854.1000.3		96.854.1003.3		96.854.1004.3	
			1.5 m	96.854.1500.3		96.854.1503.3		96.854.1504.3	
			2.0 m	96.854.2000.3		96.854.2003.3		96.854.2004.3	
			2.5 m	96.854.2500.3		96.854.2503.3		96.854.2504.3	
			3.0 m	96.854.3000.3		96.854.3003.3		96.854.3004.3	
			3.5 m	96.854.3500.3		96.854.3503.3		96.854.3504.3	
			4.0 m	96.854.4000.3		96.854.4003.3		96.854.4004.3	
	L, N, ground, 1, 2  Male	Cable: black							

[1)] Other cables available on request
[2)] Other lengths available on request
[3)] According to VDE 0281/T5 and VDE 0288/T4

RST 25i5

Single-phase supply with three-phase monitoring

Cable assemblies

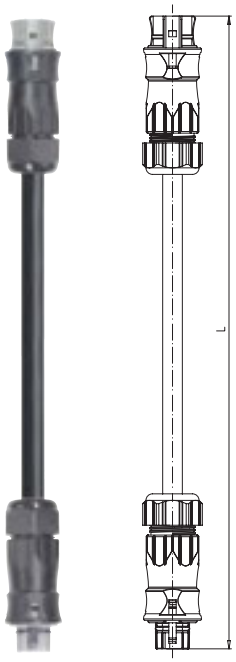
ground = gn/yl
N = bl
1 = br
2 = bk
L = gray

The cable colors have been adapted to the new European standard HD 208 S2. The assignment corresponds to international recommendations.

Extension cable

H07RN-F 5G4,0[1]

Female – Male
with locking device

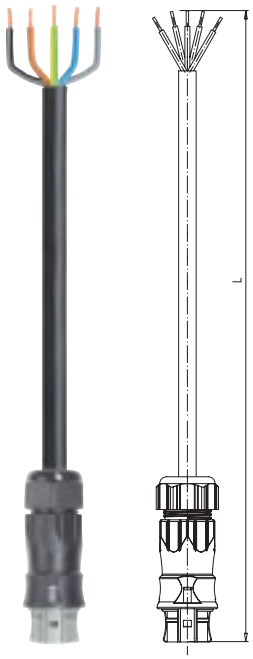


Connection cable

H07RN-F 5G4,0[1]

Female – Free end
with ultrasonically welded wire ends

Cable strip length: 35 mm
Insulation strip length: 9 mm
Cable diameter
H07RN-F[3]: 15.6 – 19.9 mm

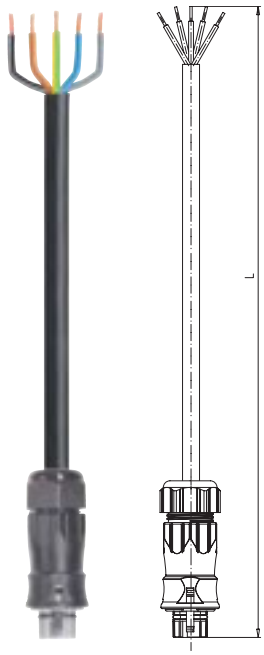


Connection cable

H07RN-F 5G4,0[1]

Male – Free end
with ultrasonically welded wire ends and locking device

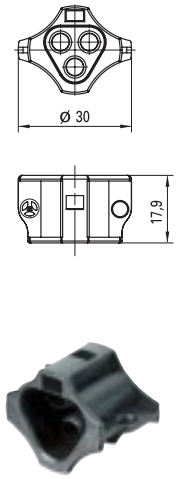
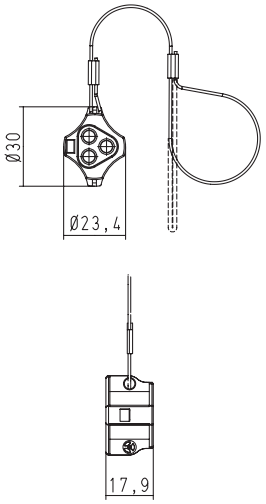
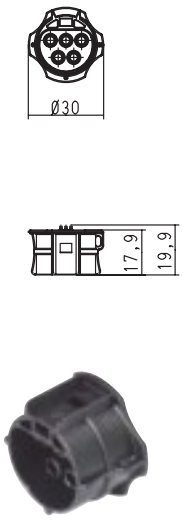
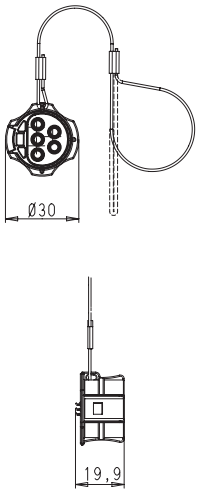
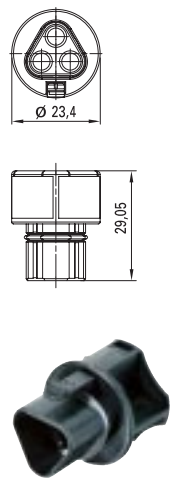
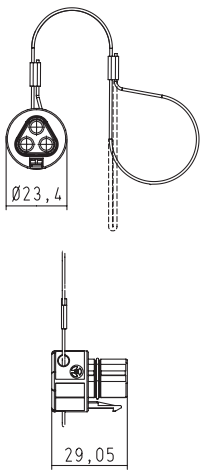
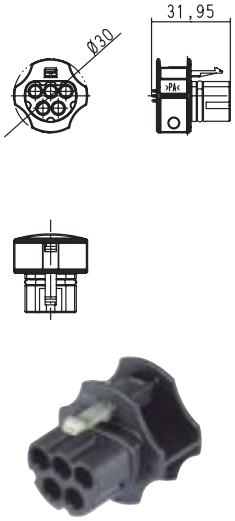
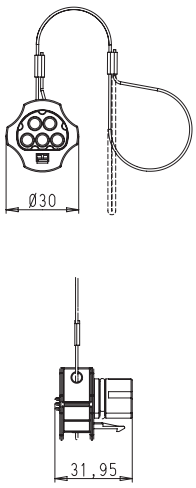
Cable strip length: 35 mm
Insulation strip length: 9 mm
Cable diameter
H07RN-F[3]: 15.6 – 19.9 mm



Application	Coding	Color	Length[2]	Extension cable Part No.	Std. Pack	Connection cable Part No.	Std. Pack	Connection cable Part No.	Std. Pack
Single-phase supply with 25 A and three-phase monitoring	L, N, ground, 1, 2  Female	concrete gray/ black	1.0 m	96.854.1030.3		96.854.1033.3		96.854.1034.3	
			1.5 m	96.854.1530.3		96.854.1533.3		96.854.1534.3	
			2.0 m	96.854.2030.3		96.854.2033.3		96.854.2034.3	
			2.5 m	96.854.2530.3		96.854.2533.3		96.854.2534.3	
			3.0 m	96.854.3030.3		96.854.3033.3		96.854.3034.3	
			3.5 m	96.854.3530.3		96.854.3533.3		96.854.3534.3	
			4.0 m	96.854.4030.3		96.854.4033.3		96.854.4034.3	
	L, N, ground, 1, 2  Male	Cable: black							

[1] Other cables available on request
[2] Other lengths available on request
[3] According to VDE 0281/T5 and VDE 0288/T4

Accessories

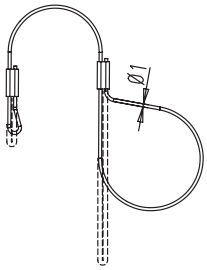
	End caps, 2 to 3 pole		End caps, 4 to 5 pole	
	For safely covering unused male or female connectors.	**Protected against loss** For safely covering unused male or female connectors.	For safely covering unused male or female connectors.	**Protected against loss** For safely covering unused male or female connectors.
Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
For covering unused male connectors				
gray black concrete gray green	05.564.4453.0 05.564.4453.1	99.415.6205.2 99.416.6205.2	05.565.9953.0 05.565.9953.1	99.531.0000.7 99.532.0000.7
Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
For covering unused female connectors				
gray black	Z5.564.4553.0 Z5.564.4553.1	99.413.6205.2 99.414.6205.2	Z5.565.9853.0 Z5.565.9853.1	99.529.0000.7 99.530.0000.7

Accessories

Fastening cord

For fastening of end caps

Part No. Std. Pack



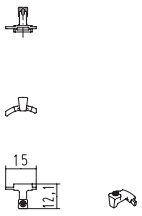
99.000.9950.6

Manual disconnect*

For later installation of 2 to 5 pole connectors.
Connections can easily be released by using the manual disconnect.

Also see the "Installation instructions"!

Part No. Std. Pack



05.564.8653.1
05.564.8653.3
05.564.8653.7

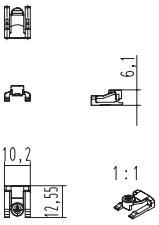
* Note:
Connections with manual disconnect are not approved according to VDE 0606 (fixed installations, for example in buildings). The VDE 0627 regulation will still apply nevertheless.
Also see the "Installation instructions"!

Manual disconnect*

For later installation of cable assemblies RST 20i2 and RST 20i3 with shrinkage tube.
Connections can easily be released by using the manual disconnect.

Also see the "Installation instructions"!

Part No. Std. Pack

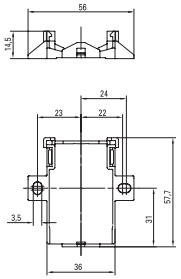


05.565.9953.1
05.565.9953.3
05.565.9953.7

Mounting plate

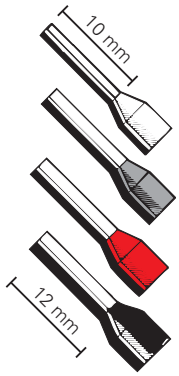
For splitter connectors

Part No. Std. Pack



01.006.1553.1
01.006.1553.0

Accessories and sample kits

	Crimp contacts*	Crimping tool:	Ferrules	Insertion tool
	For safely covering unused male or female connectors.	**With system kit**	**For RST 20i3 spring clamp connectors** with insulating sleeve for wires of 0.5 mm² according to DIN 46228-E0,5-10 0.75 mm² accord. to DIN 46228-E0,75-12 1.0 mm² accord. to DIN 46228-E1,0-12 1.5 mm² accord. to DIN 46228-E1,5-12 **Material:** **Sleeve:** Polypropylene; temperature resistance up to 105°C, tracking resistant **Tube:** E-Cu, galvanically tin-plated	**For termination points with spring clamp technology** for ferrules 0.08 – 6 mm², AWG 28 – 10 • Square compression • Releasable latch • Compression adjustable Total length: 174 mm
Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Female contacts Marking (groove)	available in the 3rd quarter of 2006	available in the 3rd quarter of 2006		
without 0.75 – 1.0 mm² 1 1.5 mm² 2 2.5 mm² 3 4.0 mm²	02.125.5521.8 100 02.125.5621.8 100 02.125.5721.8 100 02.125.5821.8 100	**Crimping tool** 95.101.0800.0 **Crimping die B** 05.502.2100.0 **Contact positioner** 05.502.3600.0	**0.5 mm² white** 06.600.3827.0 **0.75 mm² gray** 06.600.3727.0 **1.00 mm² red** 06.600.3627.0 **1.50 mm² black** 06.600.3927.0	95.101.1300.0 1
Color	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
Male contacts Marking (groove)	available in the 3rd quarter of 2006	**Unlocking tool** for crimp contacts	**Screwdriver** accord. to DIN 5264	
without 0.75 – 1.0 mm² 1 1.5 mm² 2 2.5 mm² 3 4.0 mm²	05.545.0021.8 100 05.545.0121.8 100 05.545.0221.8 100 05.545.0321.8 100	05.502.3500.0	06.502.4000.0 for RST spring clamp connections 0.4 x 2.5 mm blade 06.502.4300.0	

For opening the clamping body of the spring contacts for the GST 18 connector systems and DIN rail terminal blocks
0.6 x 3.5 mm blade

* Available on straps or in magazines on request

RST 20i3 sample kit	RST 20i5 sample kit	RST 20i2...i5 sample kit	Sample illumination cable
to try out Contents: – Connectors – Device connections – End caps	to try out Contents: – Connectors – Device connections – End caps	Complete kit Contents: – Connectors, including all codings – Appliance connectors – Cable assemblies – Distributor – End caps	Sample piece Contents: – RST 20i2 connector pre-assembled with illumination cable – Lamp base and end piece (no lamp)
Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack	Part No. Std. Pack
			
99.429.0000.0	99.430.0000.0	99.431.0000.0	99.490.0000.0
Additional gaskets available on request 			The illumination cable is not a standard Wieland product.
Available on request			

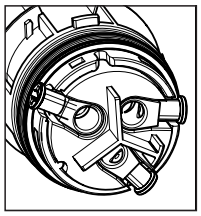
Wire preparation

RST 2/3 pole

Insulation strip lengths and ferrules

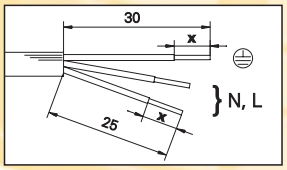
all lengths indicated in mm

Screw connection:

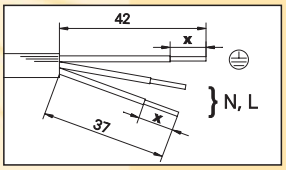


Screwdriver
PZ1
Rated torque:
0.8 – 1.0 nm

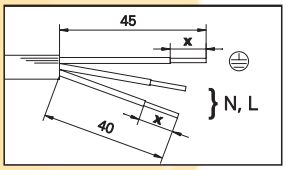
Connector
6 – 10 mm
10 – 14 mm



Connector
13 – 18 mm



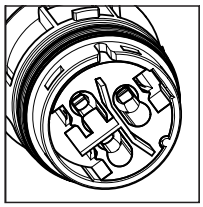
Splitter connector
max. 2 x 2.5 mm²!



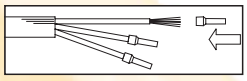
Insulation strip length X =

Wire range	0.75 mm²	1.0 mm²	1.5 mm²	2.5 mm²	4 mm²	AWG 12–18
solid	8	8	8	8	8	–
fine-stranded	8	8	8	8	8	–
stranded	8	8	8	8	8	8
ultrasonically compressed	8	8	8	8	8	–

Spring
clamp connection:

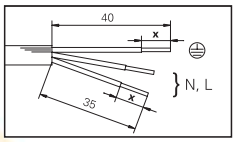


Fine-stranded and stranded wires

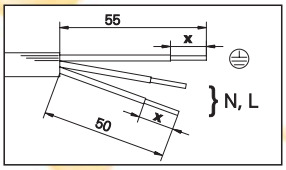


Ferrules required!

Connectors



Splitter connectors



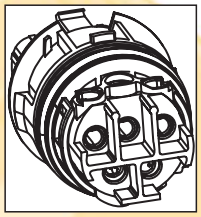
Insulation strip length X =

Wire range	0.5 mm²	0.75 mm²	1 mm²	1.5 mm²	2.5 mm²
solid	14.5 + 1	14.5 + 1	14.5 + 1	14.5 + 1	14.5 + 1
fine-stranded	12.0 + 1	13.0 + 1	13.0 + 1	13.0 + 1	
Ferrules according to DIN	46228-E0.5-10	46228-E0.75-12	46228-E1.0-12	46228-E1.5-12	
stranded		13.0 + 1	13.0 + 1	13.0 + 1	
Ferrules according to DIN		46228-E0.75-12	46228-E1.0-12	46228-E1.5-12	
ultrasonically compressed				14.5 + 1	14.5 + 1

RST 4/5 pole

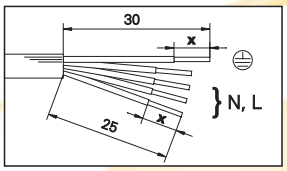
all lengths indicated in mm

Screw connection:

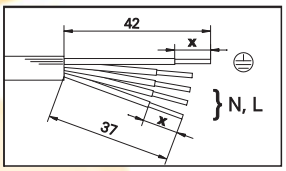


Screwdriver
PZ1
Rated torque:
0.5 – 0.7 nm

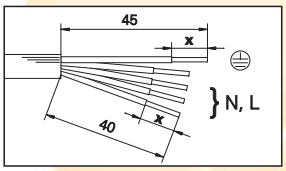
Connector
6 – 10 mm
10 – 14 mm



Connector
13 – 18 mm



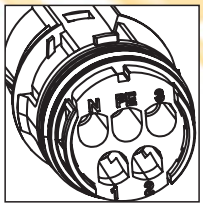
Splitter connector
max. 2 x 1.5 mm²!



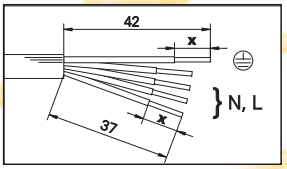
Insulation strip length X =

Wire range	0.75 mm²	1.0 mm²	1.5 mm²	2.5 mm²	4 mm²	AWG 12–18
solid	8	8	8	8	8	–
fine-stranded	8	8	8	8	8	–
stranded	8	8	8	8	8	8
ultrasonically compressed	8	8	8	8	8	–

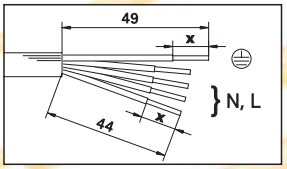
Crimp connection:



Connector
6 – 10 mm
10 – 14 mm



Connector
13 – 18 mm



Insulation strip length X =

Conductor cross section	0.75 mm²	1.0 mm²	1.5 mm²	2.5 mm²	4 mm²
fine-stranded	7.0 +1	7.0 +1	7.0 +1	7.0 +1	7.0 +1

IP protection degrees:

Documentation:

Example: IP 65

1st fig. — 2nd fig.

IP protection degree: foreign bodies and accidental contact

	Protection against accidental contact	Protection against foreign bodies
0	No protection	No protection
1	Large parts of the body (e.g. the back of the hand)	Large foreign bodies (diameter > 50 mm)
2	Fingers	Medium-size foreign bodies (diameter > 12 mm)
3	Tools and wires (> 2.5 mm in diameter)	Small foreign bodies (diameter > 2.5 mm)
4	Tools and wires (> 1 mm in diameter)	Grain-like particles (diameter > 1 mm)
5	Complete protection against accidental contact	Dust on the surface
6	Complete protection against accidental contact	Dust ingress

IP protection degree: water

0	No protection
1	Protection from vertically falling water drops
2	Protection from diagonally (up to 15°) falling water drops
3	Protection against spraying water up to 60° to the vertical
4	Protection from splashing water
5	Protection from jet spray water
6	Protection from powerful jets of water
7	Protection from temporary immersion
8	Protection from longer lasting immersion

gesis IP+

Wieland offers an innovative installation system with a complete concept for economic installation in outdoor and industrial applications

Degree of protection achieved:

IP 65 Jet water

IP 66 Powerful jet water

IP 67 Temporary submersion

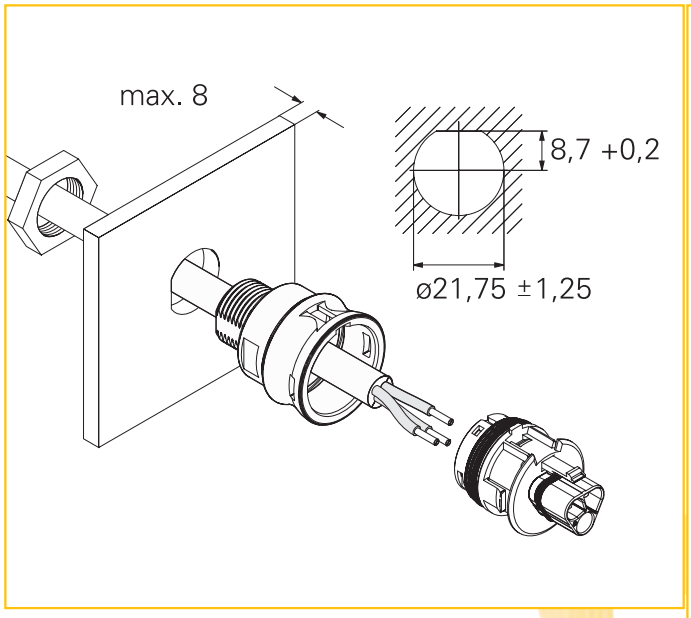
IP 68 Lasting immersion (2 hours in 3 m deep water)

In many applications, electrical devices and systems must work safely under difficult environmental conditions for many years. For a reliable function ingress of water or foreign particles (such as dust, oil, soot) into production systems, parking garages or outer premises must be avoided. Even an unplanned immersion is possible with the RST system within the scope of the specified degree of protection.
The system is not designed for permanent operation under water.

Installation in a housing

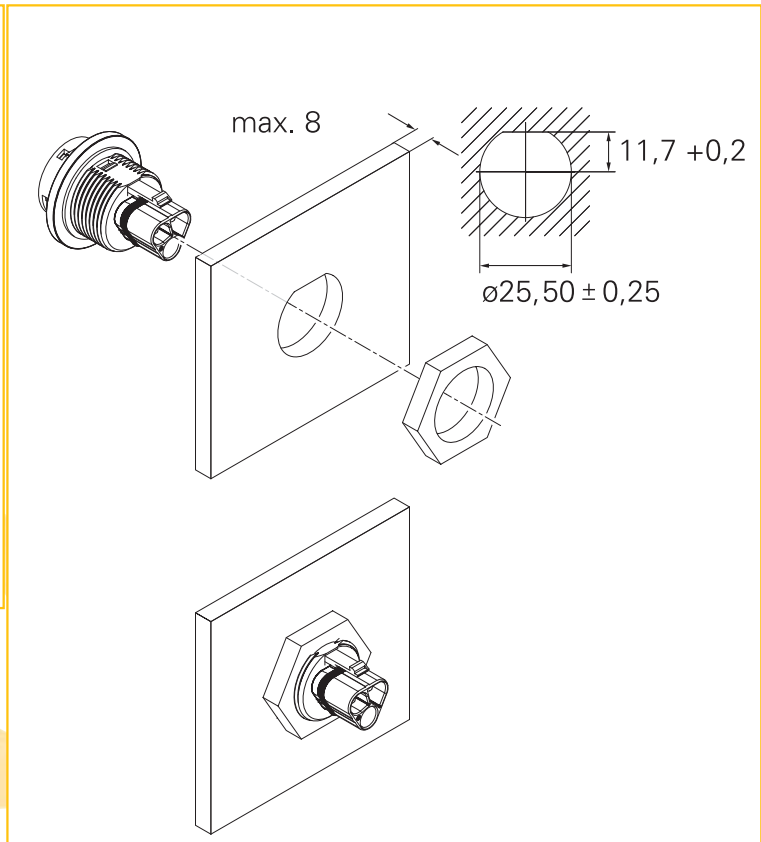
Installation of a standard system,
for M 20 feed-through

Dimensions in mm



Installation of a standard system,
for M 25 feed-through

Dimensions in mm



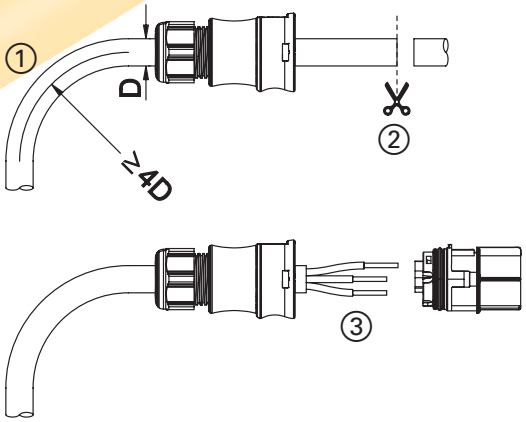
Note:
Effectiveness of the protection against twisting can only be guaranteed when the lower tolerance limit is ensured for the diameter of the hole.

Bending radius (for conductors)
Note the minimum bending radius for conductors > 2.5 mm². Pull forces on the contact points can be avoided by proceeding as follows:

① Bend the wire as required

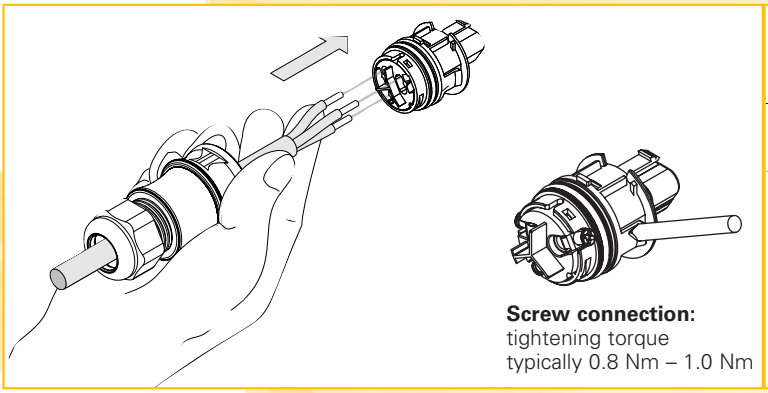
② Cut the wire to length

③ Strip the cable and wires



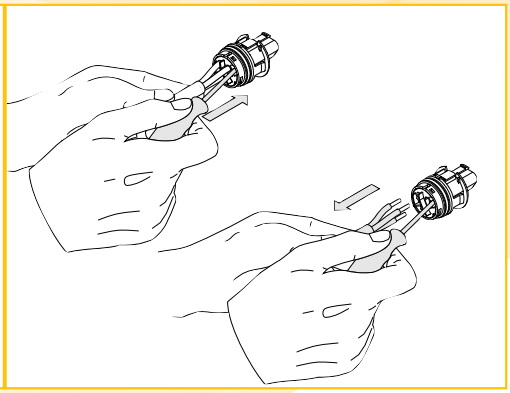
Installation of the connectors

Connect the wires

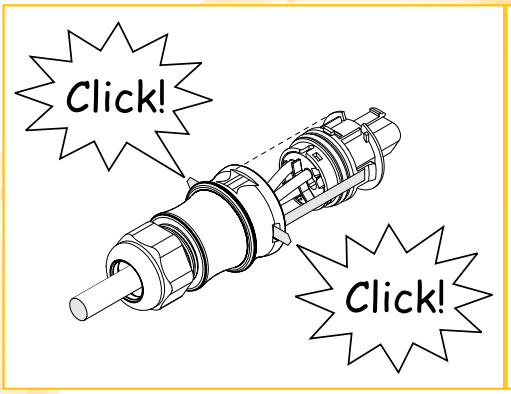


Screw connection:
tightening torque
typically 0.8 Nm – 1.0 Nm

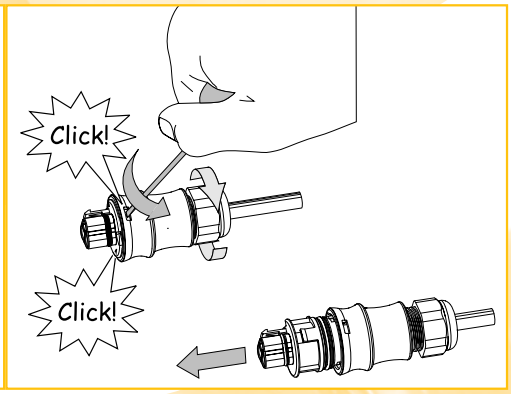
...and disconnect them



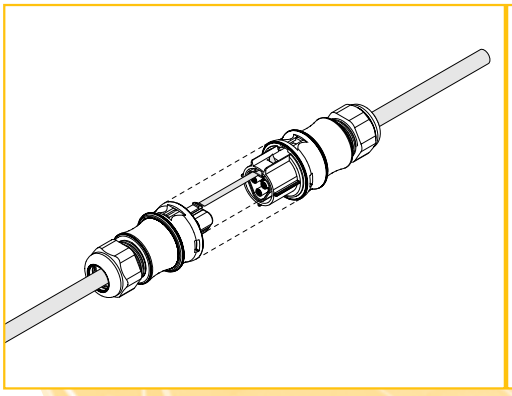
Close the connector...



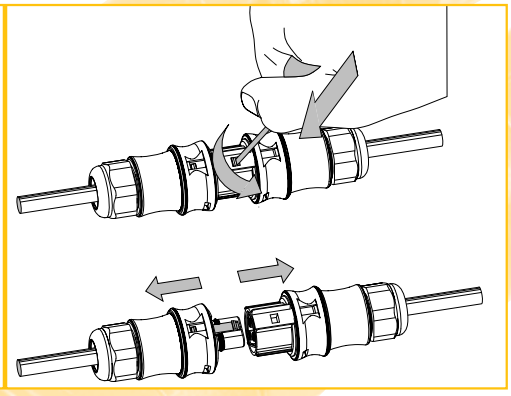
...and open it



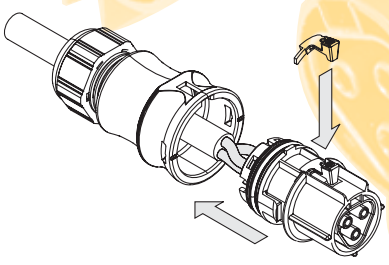
Lock the housing



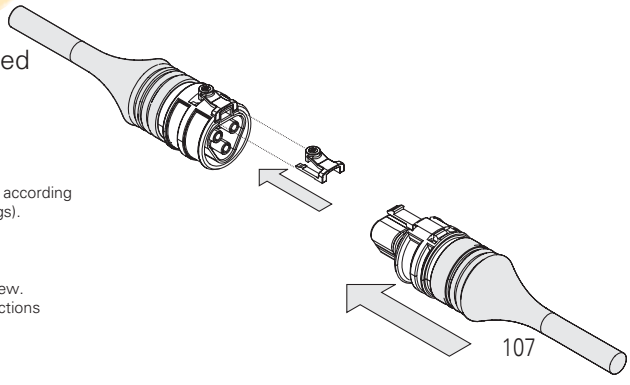
...and unlock it



How to insert the (optional) manual disconnect into the connector



The manual disconnect can be used as an alternative and enables disconnecting without a tool.



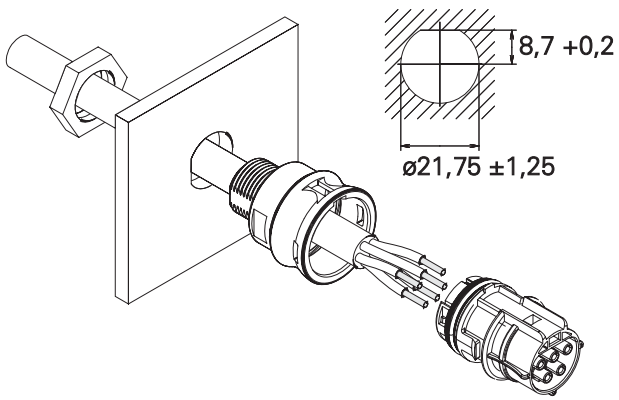
* Note:
Connections with manual disconnect are not approved according to VDE 0606 (fixed installations, for example in buildings).
The VDE 0627 regulation will still apply nevertheless.
Also see the "Installation instructions"!

The descriptions on this page merely serve as an overview.
For assembly and installation only the installation instructions supplied together with the products are binding.

Installation in a housing

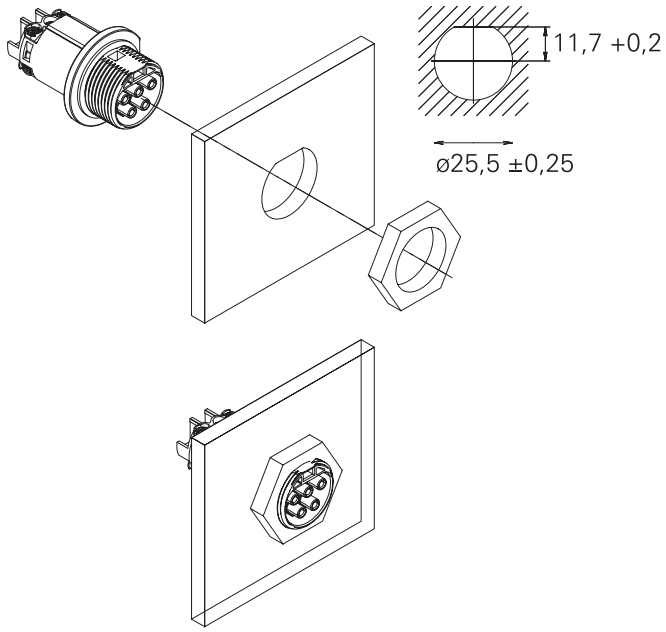
Installation of a standard system,
for M 20 feed-through

Dimensions in mm



Installation of a standard system,
for M 25 feed-through

Dimensions in mm



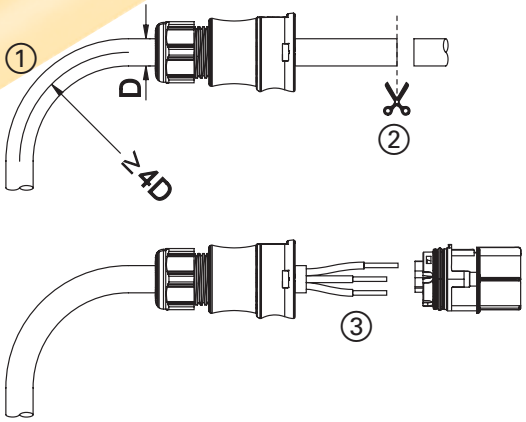
Note:
Effectiveness of the protection against twisting can only be guaranteed when the lower tolerance limit is ensured for the diameter of the hole.

Bending radius (for conductors)
Note the minimum bending radius for conductors > 2.5 mm². Pull forces on the contact points can be avoided by proceeding as follows:

① Bend the wire as required

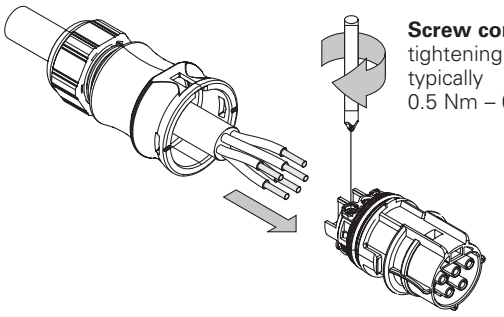
② Cut the wire to length

③ Strip the cable and wires



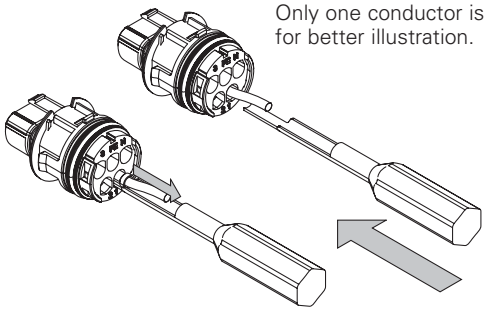
Installation of the connectors

Screw connection



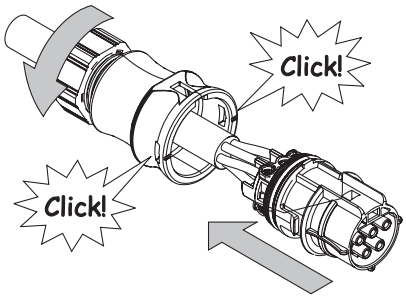
Screw connection:
tightening torque
typically
0.5 Nm – 0.7 Nm

Crimp connection

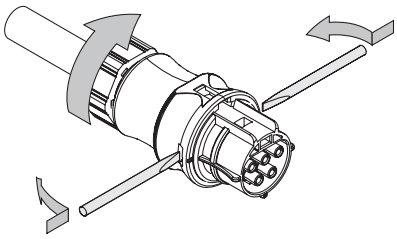


(Use a tool for unlocking!)
Only one conductor is shown
for better illustration.

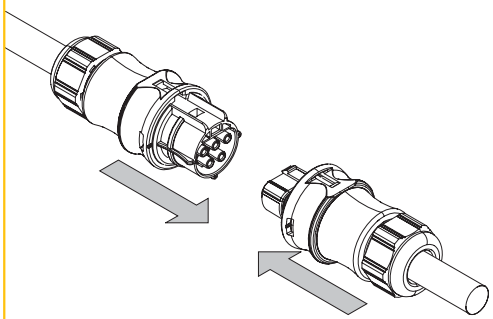
Close the connector...



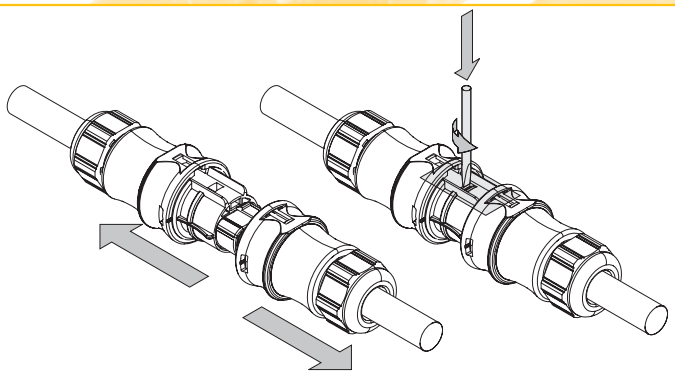
...and open it



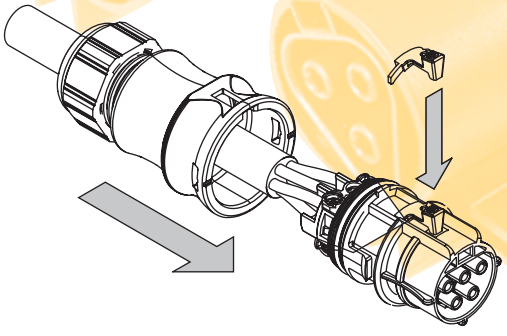
Lock the housing



...and unlock it



How to insert the (optional) manual disconnect into the connector



The manual disconnect can be used as an alternative and enables disconnecting without a tool.

* Note:
Connections with manual disconnect are not approved according to VDE 0606 (fixed installations, for example in buildings). The VDE 0627 regulation will still apply nevertheless. Also see the "Installation instructions"!

The descriptions on this page merely serve as an overview. For assembly and installation only the installation instructions supplied together with the products are binding.

Material resistance

for PA 66 (housing) and NBR (sealing)

Please contact us for applications under different conditions.			
UV light (use black-colored connectors!)	+	Motor oil (SAE 20W/55)	+
Oil and grease resistance	+	Nickel chloride	+
aliphatic carbon hydride	+	Paraffin and paraffin derivates	+
aromatic hydrocarbons	+	Phosphoric ester	+
Alcohols	+	Phthalic ester	+
Ammonia, water-free	+	Polyamide resin	+
Ammonium chloride (salmiac)	+	Polyester polyoles	+
Ammonium sulfate	+	Polyether polyoles	+
Barium chloride	+	Polyglycols	+
Beer	+	Polymeric softeners	+
Butter	+	Polyurethane resins	+
Butyl alcohol	+	Mercury	+
Calcium chloride, aqueous solution, 10%	+	Castor oil	+
Citric acid, hydrous solution, 10%	+	Salmiac	+
Ferric sulfide	+	Oxygen, RT	+
Ethyl ether	+	Lubricating oil (O-149), (not bunker fuel, oil tanker)	+
Paint, varnish, not much sulfuric acid	+	Sulfur, wet	+
Fruit juice, fruit acid	+	Sulfuric acid (dilluted, RT)	+
Tannic acid	+	Sulfur hexafluoride	+
Glycerin	+	Sweat	+
Glysantine, hydrous solution, 10%	+	Sebacic acid ester	+
Potassium chloride	+	Spirits	+
Caustic potash solution, hydrous solution, 10%	+	Nitric acid (10%)	+
Sodium, hydrous solution, 10%	+	Hydrochloric acid (10%)	+
Linseed oil	+	Water, RT, free from chlorine up to 80°	+
Milk	+	Water: sea water resistance, artificial, 20°C	+
Lactic acid, 20°C	+	Stannic chloride, 20°C, saturated	+

RST long-term studies:

In addition to the tests required by the standard, a continuous test was performed over 14 months. During this time the connectors were exposed to direct sunlight, frost and occasional flooding. For this purpose the RST components were installed in an eaves gutter and monitored by a 30 mA circuit breaker with the mains voltage applied. The following tests were performed in addition to the continuous test:

– Temperature change test (– 40° C to + 60° C)

– Installation of the connector at – 40° C

The complete test report can be ordered from our hotline using the phone number +49 9 51/93 24-9 96.

Technical data

	RST 20i2/i3	RST 25i3	RST 20i4/i5	RST 25i5
Rated voltage	250 V	250 V	250 / 400 V	250 / 400 V
Rated current	20 A	25 A	20 A	25 A (L, N) 1 ~ Contacts (1, 2) 10 A
Number of poles	2 or 3 pole	3 pole	4 or 5 pole	5 pole
Ambient operating temperature under full load	Connectors 55° C Distributor 40° C	55° C	55° C	55° C

Temperature range: -40° C to +100° C

Material: Contact parts: brass, surface-plated
Housing parts: thermoplastic material PA 66, halogen-free, V2
Sealing material: NBR

Regulations: DIN VDE 0606 T200, DIN EN 61984 (VDE 0627), VDE 0110
IEC 60999: UL 2238; CSA: C22.2 No.182.2-M1987;
LR Type Approval System

Approvals: pending
VDE; UL; CSA; LR; GL; DNV

Degree of protection: IP 65, IP 66, IP 67 and IP 68
(3 m; 2 hours)

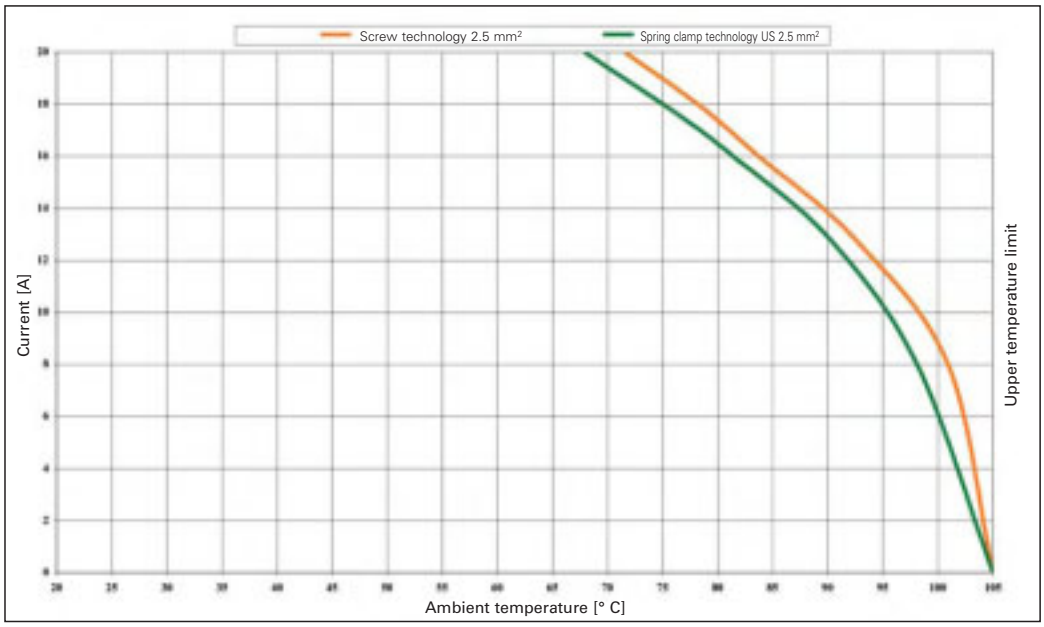
Glow-wire test 850° C, 30 s: For connectors, distribution units, cable assemblies and appliance couplers

Coding: Mechanical coding symbolized by color code.
Gray and black with the same mechanical coding.
Other codings are optional.

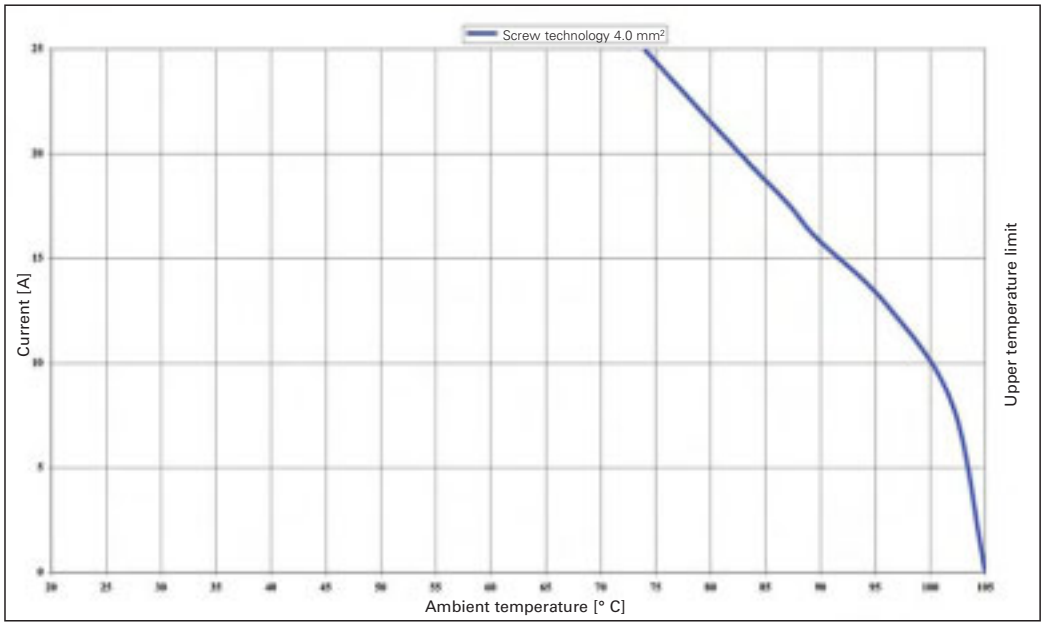
Note: Protection against shock generally guaranteed even when disconnected.
Protective conductor leading. Connection to the live cable must be with a female connector according to the regulations. It is therefore not possible to have a ring circuit arrangement.
Only pluggable in the correct pole configuration; 1 pole cannot be connected.
Contacts protected against strain on the cable. All components can be interlocked.
DIN VDE 0606-200 requires the use of a locking device. Dangerous mismating with installation connector systems of other suppliers is not automatically excluded by compliance with DIN VDE 0606 T200.
Installation connectors do not replace national connector/outlet systems for home applications.

Derating curves

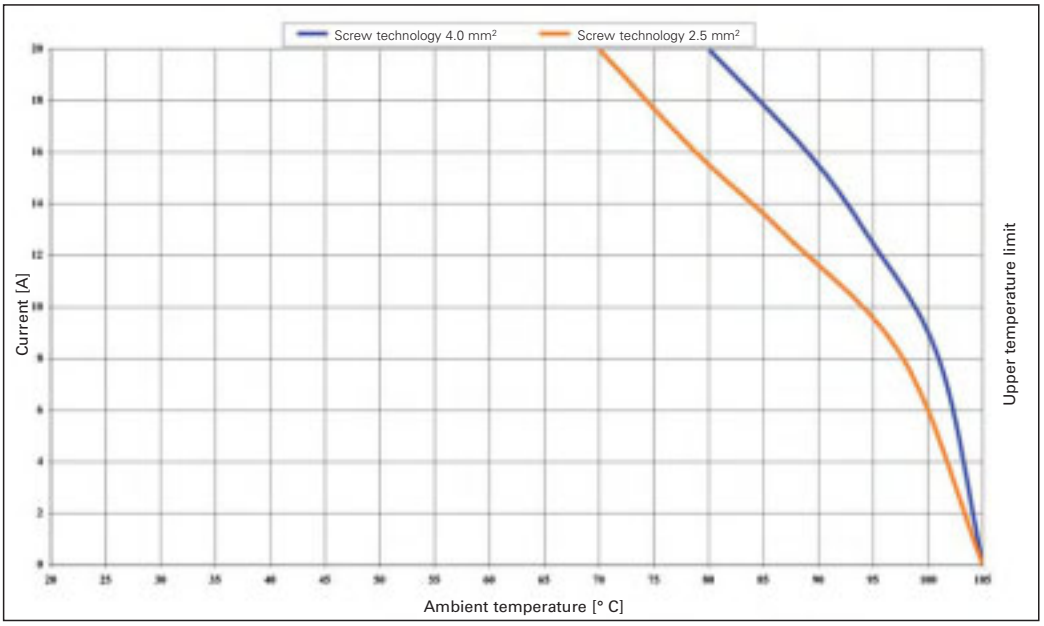
Derating curve according to IEC 60512 sect. 3
RST 20i3
Current through 2 poles (L, N)
Connectors with screw technology: cross section 2.5 mm² with spring clamp connection: cross section 2.5 mm²



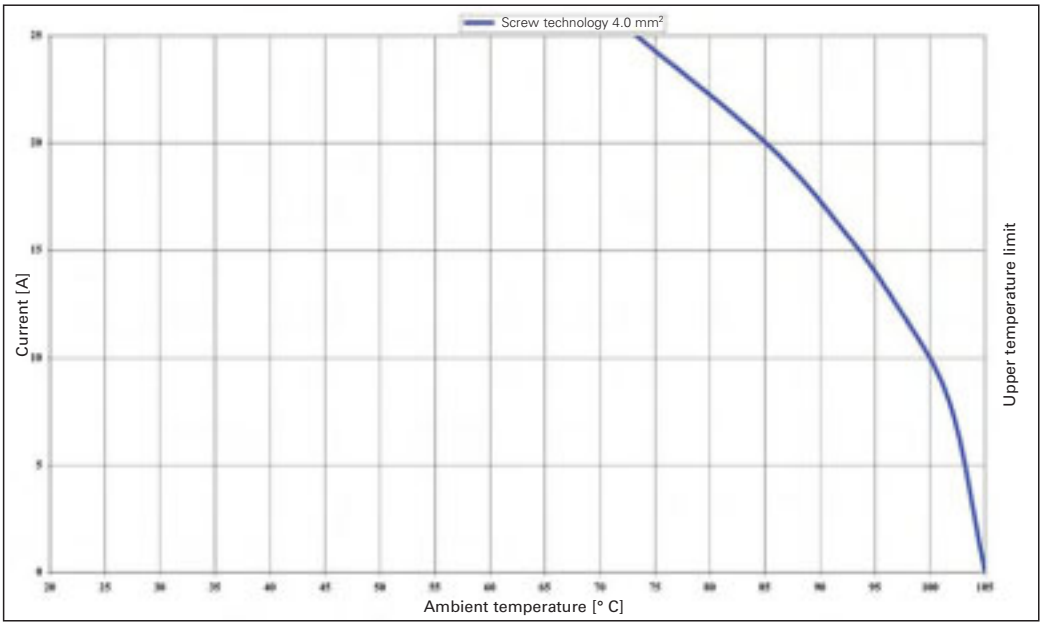
Derating curve according to IEC 60512 sect. 3
RST 25i3
Current through 2 poles (L, N)
Connectors with screw technology: cross section 4.0 mm²



Derating curve according to IEC 60512 sect. 3
RST 20i5
Current through 4 poles (L1, L2, L3, N)
Connectors with screw technology
cross section 4.0 mm² and 2.5 mm²



Derating curve according to IEC 60512 sect. 3
RST 25i5
Current through 2 poles (L, N)
Connectors with screw technology: cross section 4.0 mm²



Electrical installation online:

Product finder

On the web pages users easily find the application of ***gesis*** in its complete diversity, broken down into logical sections.

There the suitable ***gesis*** components can be found and ordered in no time while being assured that they are compatiable with the ***gesis*** system. Mismating is excluded due to clear coding.

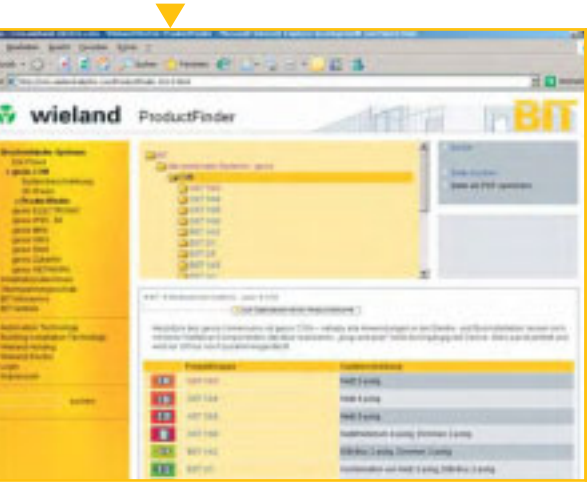
Electronics – modular and flat

In the ELECTRONICS section we have combined all EIB-controlled modules as well as the device series that can be controlled via radio and Ethernet.

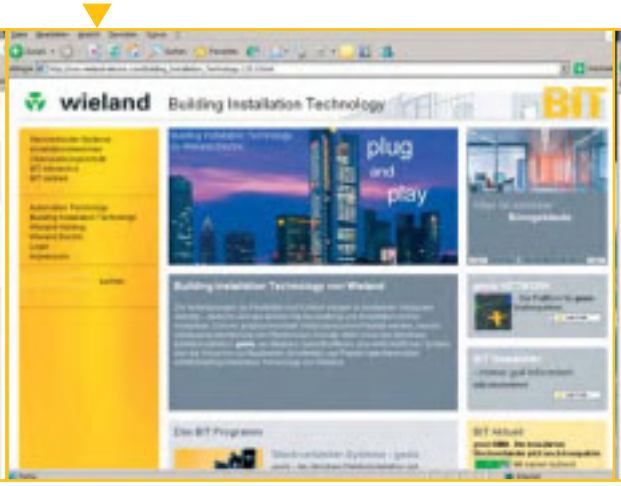
All electronic connections of the ***gesis*** Electronics series provide a pluggable design. These modules combine all the benefits of the various control units with the benefits of a pluggable electrical installation system.

gesis NETWORK

gesis NETWORK is a group of system partners whose products are equipped with the pluggable electrical installation system ***gesis***. Whether manufacturers of lamps, floor boxes or furniture – in numerous industries, the pluggable electrical installation system has already become a typical component and, for many products, ***gesis*** is already the standard today. For a quick and direct overview of the products equipped with ***gesis***, a group of partners



Plan your outside and inside applications with ***gesis***.



On our web pages you can find complete solutions for the different functions and control units of your planned system.

Internet

was founded whose common information platform is available on the Internet.
Easily accessible under:
www.gesis-network.com.

www.gesis-network.com combines the appropriate information about ***gesis***. Here you can find a 3-D diagram of a lamp installation, among other things. It shows detailed views of possible ***gesis*** components during installation, presents sample applications and leads directly to the relevant "***gesis*** NETWORK member". By means of a search function within the partner list, the correct partner for each task can be determined. Different parameters such as "Application" or "Country" make the search more precise.

gesis NETWORK offers high transparency for the market of all products equipped with ***gesis***. With a mouse click, planners, architects or electrical installers can find all the products and data required for the installation concept. In addition, ***gesis*** NETWORK is a presentation forum that provides excellent publicity value for the products of various system partners, as it shows their own logo and has a link to their own website. The manufacturers of ***gesis*** compatible solutions present themselves to completely new opportunities.

gesis NETWORK starts with the goal of providing a market overview of all products equipped with ***gesis***. In order to facilitate the navigation, the categories plug+light, plug+power and plug+work were developed.