

### **RST**<sup>®</sup>

Pluggable electrical installation with highest IP rating (IP6X)

Catalog 2016





### Pluggable connections Table of contents

The idea of pluggable installation	4 – 7	
The fields of application	8 - 29	
System solutions	30 - 35	
The <b><i>RST</i>®</b> product line at a glance	36	
<b>RST</b> <sup>®</sup> MINI – the product line RST16 RST16i2/3, connector system 2-/3-pole RST16i4/5, connector system 4-/5-pole Technical data	37 - 39 40 - 47 48 - 55 56 - 57	<b>RST</b> ® MINI
<b>RST</b> <sup>®</sup> CLASSIC – the product lines RST20/25 RST20i2, connector system 2-pole RST20i3, connector system 3-pole RST25i3, connector system 3-pole RST20i4, connector system 4-pole RST20i5, connector system 5-pole RST25i5, connector system 5-pole Accessories and technical data	58 - 59 60 - 79 80 - 99 100 - 105 106 - 127 128 - 149 150 - 155 156 - 169	<b>RST</b> <sup>®</sup> CLASSIC
<b>RST</b> <sup>®</sup> MINI / <b>RST</b> <sup>®</sup> CLASSIC – Distributor Compact and multi distribution units Accessories and technical data	170 – 179 180 – 185	Compact/multi- distribution units
<b>RST</b> <sup>®</sup> POWER – the product line RST50 RST50i4, connector system 4-pole RST50i5, connector system 5-pole Accessories and technical data	186 – 189 190 – 193 194 – 199	<b>RST</b> ® POWER
Information Index Support, Service Our subsidiaries	200 – 203 204 – 213 214 – 218 219	•

### The idea of pluggable installation

As easy as brilliant



#### 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

#### Luminaire installation:

- Open the luminaire
- Cut the cable to length
- Insert the wire into the luminaire
- Strip the wire insulation
- Connect the individual wires
- Close the luminaire



# The *gesis*<sup>®</sup>-installation philosophy:

The idea is as easy as it is brilliant. An extensive network of components of electrical connection technology, preassembled and most carefully tested, enables a consistently pluggable solution from the distribution board to each point of demand.

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**<sup>®</sup> has set a standard.





ABZWEIGDOSE



### The idea

#### **Pluggable installation from Wieland**

spus





#### 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

#### Work steps:

Attach the luminaire

plug & play



# Electrical installation with a system A concept for all situations

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.

1 Connector (female + male) for the supply into the connector system

- interface between conventional and pluggable installation

- **2** Distribution blocks for power or signal distribution within the network
- **3** Pre-assembled cables for routing or supply of electrical power or signals
- 4 Device connections are directly integrated into the end devices and function as the interface to the connector system

gesis®

**IP20** 

DISTRIBUTION

ROUTING

**DEVICE CONNECTION** 

Transfer of the successful gesis® installation philosophy ...







The system



#### ... in areas with increased protection requirements



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, and soot) into production systems, parking garages or outer premises must be avoided. Within the scope of the specified degree of protection the **RST**<sup>®</sup> system even withstands unplanned immersion.

The system is not designed for permanent operation under water.

### **Overview of the fields of application**

Power everywhere - safe and quick!

# POWER CONNECTION FOR ELECTRICAL DEVICES

## CONSTRUCTION POWER SYSTEMS

# OUTDOOR LIGHTING

# SYSTEM ENGINEERING



8



# SOLAR TECHNOLOGY



# EVENT TECHNOLOGY





# OBJECT AND SHIP BUILDING



### **Complete system for industrial use Connecting quickly and safely**



# The pluggable electrical installation 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 the components, are not only time-consuming operations, but frequently also cause errors and result in reworking. Cooperation of different trades (mechanical and electrical installation) during the setup of a system impedes the continuous progress of operations. This does not just apply to initial installations.

For expansions, regular servicing or replacement of defective devices, the same installation steps recur over and over again.

#### **Possible applications:**

- Motor connection (3~)
- Power distribution 250/400 V ~
- Power supply up to 50 V, bus
- Voltage supply 24 V, AS-i
- Workstation illumination
- Painting checks

#### The solution:

As a complete installation system, **RST**® provides definite time savings during installation. The components are preassembled 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. As an additional advantage the installer does not have to open the device for completion of the electrical connection, which means that incorrect assembly especially of waterprotected devices can be excluded.



Pre-assembly in a separate location: The *RST*<sup>®</sup> installation system enables completely new possibilities. Entire system sections can be pre-assembled and tested independent of the location of operation. The individual modules are simply plugged together on site.



#### **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 provided.

The **RST**<sup>®</sup> system counts on completely pre-assembled components which only have to be plugged in on site.

## Making electrical devices pluggable

Device connectors function as an interface between the electrical consumer devices and the **RST**<sup>®</sup> 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.

#### RST® CLASSIC:

RST20i2	AS-i or 24V
RST20i3	Power with 🕀
RST20i4	Power with 🕀
	AS-i and 24V

RST20i5 Power with (=) Compact and multi-distribution units

#### **RST®** POWER:

**RST50i4**Power with (+), without N**RST50i5**Power with (+)





### Rapid mounting system Flexible and modular AS Interface

## SYSTEM ENGINEERING

# Separate laying of AS-i and 24 V

#### AS-i and auxiliary power 24 V

An individual mechanical coding is provided for each circuit. Mechanically coded means that only the matching male and female connector pairs can be plugged together. This ensures a clear separation of the two circuits.

AS-i coding in pebble gray

24 V auxiliary voltage with brown coding



### Four basic components for a consistent installation:

- Connectors can be pre-assembled on site and are available either for connection of a round cable or of the AS-i profile cable.
- Distribution blocks enable distribution of electrical power and signals throughout the network.
- Pre-assembled cables are available in various lengths and designs and are used for the routing and supply of auxiliary power / signals.
- Device connections are directly integrated into the end devices and function as the interface to the connector system.

#### **Technical data:**

- Voltage supply 50V, 20A
- IP66 / 68 (3m; 2h) / 69K
- Temperatures between -40 and +100° C
- Screw connection 0.5 4.0 mm<sup>2</sup>





Application

# Common laying of AS-i and 24 V

#### AS-i and 24 V combined in one cable

Until now AS-i and 24 V have normally been laid separately, but can now be combined and installed in a 4-pole version, too.

#### The highest level of flexibility

The rapid mounting system provides the decisive advantage particularly for the increasingly modular design in function modules. Depending on the application you can switch between the low-cost round cable and the AS-i profile cable as required. Everything is pluggable - for the user, this means top flexibility and at the same time quick and reliable installation. **RST**<sup>®</sup> CLASSIC: **RST 20i2** AS-i or 24V **RST 20i4** AS-i and 24V **Compact and multi-distribution units** 

4

5

4 5

5

TEREA







4)

Distribution unit AS-i/24V and power



CTF Certifica

### **RST**<sup>®</sup>CLASSIC Pluggable electrical installation with ATEX, IECEx certification

## SYSTEM ENGINEERING

#### Used in different industries Definition of explosive hazardous areas

When talking about explosive hazardous areas, everybody thinks of the chemical industry or mining. However, explosion protection is an important topic for many sectors of the processing industry. In some cases, even carpenter's workshops and industrial bakeries may be affected. Special explosion protection measures are necessary wherever a dangerously high concentration of gas/air or dust/air mixtures occurs.

Areas where a potentially explosive atmosphere is possible must be clearly identified as explosive hazardous areas. Explosive hazardous areas are often divided into zones according to the frequency and duration of potentially explosive atmospheres.

The requirements for devices used in these areas are correspondingly high.

#### Coding:

Electrical connectors and equipment connections: CE1258 H 3G Ex ec IIC T6 Gc CE1258 II 3D Ex tc IIIC T85 °C Dc IECEx SEV 15.0024 X SEV 07ATEX0110X With cable assembly H05VV-F: CE1258 II 3G Ex ec IIC T6 Gc CE1258 II 3D Ex tc IIIC T70 °C Dc IECEx SEV 15.0024 X SEV 07ATEX0110X With cable assembly H07RN-F: CE1258 II 3G Ex ec IIC T6 Gc CE1258 II 3D Ex tc IIIC T60 °C Dc IECEx SEV 15.0024 X SEV 07ATEX0110X

electros u/sse



### Application

#### **Temperature classes**

(ma	x. device	surface temperature)
T1	450 °C	
T2	300 °C	
Т3	200 °C	
Τ4	135 °C	
Т5	100 °C	
T6	85 °C	

Device group I (mining)		
Category M1	Category M2	
Continuous, long, or frequent periods of exposure	Occasional periods of exposure	
> Very high degree of safety	> High degree of safety	

Device group II (other areas)					
Category 1		Category 2		Category 3	
Continuous, long or frequent periods of exposure		Occasional periods of exposure		Infrequent, s of exp	hort periods
> Very high degree of safety		> High degree of safety		> Normal degree of safety	
Zone 0	Zone 20	Zone 1	Zone 21	Zone 2	Zone 22
Material	Material	Material	Material	Material	Material
group G	group D	group G	group D	group G	group D
				and the second sec	

#### Example:

Part number

**9**6.031.4053.1 **↓** 

**X**6.031.4053.1

To obtain the part numbers for the components with ATEX certificate, the first digit of the regular part number "9" must be replaced with an "X". The minimum order quantity is 100 units per part.

> ATEX sample kits 3-pole: 99.663.0000.0 5-pole: 99.664.0000.0

### *podis*<sup>®</sup> flat cable power bus Remote power distribution without stripping

#### **Power bus**

The *podis*<sup>®</sup> power bus is the innovative solution for remote power distribution. The system comprises supply and distribution modules, maintenance switches, fixed and pluggable power branches, pre-assembled cable harnesses and functional motors, motor starter, LED-luminaires or service sockets.

The power (main and auxiliary power or AS-i) is distributed through an uncut 7 pole flat cable. The flat cable is tapped near the consumer device in any position required using connection modules with IDC technology. Branching and tapping to motor starters and frequency converters are implemented in a fixed or pluggable design.

# Advantages of *podis*<sup>®</sup> – at a glance:

- 5x faster installation
- Fast start-up through error-free connectivity
- Modular system for various functions
  - Smallest remote motor starter in IP65 up to 1.5 kW
  - Robust LED lamps for extreme temperature range

*podis*<sup>®</sup> power bus solutions shorten installation times, reduce production costs and increase flexibility during system expansions or later modifications to the planning.

#### Features

- Termination without stripping of the sheath
- Easy implementation of customer-specific solutions
  - Field distributors for SEW MOV/MOT control

SYSTEM

ENGINEERING

- Remote motor starters for airports and logistics applications
- LED emergency lamps for wind power plants
- UL approval for international applications





Wall mounting Open the housing



Close the top piece Cable is sealed



**Connect outgoing cable** 



Insert coded flat cable



Screw in penetrating screws



Close housing cover – finished!



Further information can be found in the catalog "**podis**" order no. 0830.1

### The safe path into the grid The AC Solar connector system

# SOLAR TECHNOLOGY

#### 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 grid side still had to be made in the time-consuming conventional way.

When several inverters are used within an array, the high installation effort becomes apparent.

#### The solution:

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

The system includes distribution panels which are delivered in a pre-assembled design, and cable assemblies for the connection between the inverters and the distribution panels.

The system is supplemented by connectors for assembly on site. Leading inverter manufacturers preassemble their devices with the relevant connectors, the interface to the system, in their factories.









#### 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)



More and more manufacturers recognize this positive trend and offer their devices with *RST*<sup>®</sup> connectors.



#### Solar systems for the home grid

Mobile solar systems for private use are extremely popular. These systems consisting of solar modules and module inverters do not – as usual – feed the solar power into the power supply system as per the Renewable Energies Law (EEG), but provide the energy directly to the users in the own home grid.

The **RST**<sup>®</sup> installation system is set up in next to no time while fulfilling highest safety requirements. The new **RST**<sup>®</sup> system outlet serves as a defined interface between the home grid and the solar system.



For further information on the *RST*<sup>®</sup> system outlet, see Accessories for **RST20i3** or **RST20i5**.

#### RST<sup>®</sup> MINI:

**RST16i3**Single-phase supply**RST16i5**Three-phase supply

#### **RST®** CLASSIC:

DOTOE:2	Single-phase supply
n312013	(up to 32A)
RST25i5	Three-phase supply
RST <sup>®</sup> system	n outlet

#### **RST®** POWER:

RST50i4	Three-phase supply	
	(without N)	
RST50i5	Three-phase supply	

The **RST**<sup>®</sup> MINI series is particularly suitable for confined installation spaces and therefore ideal for MICRO inverters.

The **RST**<sup>®</sup> CLASSIC series has the vastest portfolio and is designed for cross sections of up to 6.0 mm<sup>2</sup>.

The **RST**<sup>®</sup> POWER series combines the best possible connection capabilities with the highest possible degree of compactness. The 4- and 5-pole IP 66/67/69K connectors and device connections are designed for 250/400V and a maximum current of 50A. The wire range includes cross sections up to 16 mm<sup>2</sup>.

### The flexible electrical installation Construction site supply during structural works

# CONSTRUCTION POWER SYSTEMS

#### 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 to one another without a problem.

The construction power systems make a major contribution, as they ensure the supply of electrical power during structural work. The requirements for such construction site supply systems 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 installations 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. Distribution components furthermore enable the distribution of power to the relevant location. And finally, there are the luminaires. They have been equipped with device connectors and can be integrated into the installation by simply plugging them in.







#### The benefits at a glance:

#### Low investment requirements

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

#### Low stock requirements

In contrast to the luminaires with a fixed connection cable, these luminaires 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 luminaires can be assembled easily on the construction site, as the electrical connection is made after the luminaires 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 knock-outs are no obstacle.

#### 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**<sup>®</sup> connectors. Its high degree of protection prevents any failure, even with short-term flooding of the connections.



RST20i3 Power 3-pole RST20i5 Power 5-pole

**RST**<sup>®</sup> POWER: **RST50i5** Power 5-pole

### **Pluggable solutions for event technology**

**Outdoor installations – no longer an adventure** 

# EVENT TECHNOLOGY

#### 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*<sup>®</sup>.

Consistently pluggable, and with high protection degree **RST**<sup>®</sup> enables the outdoor connection of, for example, luminaires quickly and safely. Special attention was put on the design in order to make it match inconspicuously with the existing installation.

**RST**® MINI: RST16i3/2 2 RST16i5/4 4

2- and 3-pole 4- and 5-pole

**RST**<sup>®</sup> CLASSIC: RST20i2 Protection class II RST20i3 Power with ⊕







#### **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.

#### Post outlet:

The post outlet is simply integrated into existing posts and thus ensures the power supply. It even provides minimal dimensions and optimum 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!



Event technology (project lighting, festivals, leisure parks, fairground rides, exhibitions, concerts, light advertisements) Post outlet 2-pole (L, N) and 3-pole (L, N, ⊕)





	RST®
	RST16
And in case of the local division of the loc	BST16

#### ST® MINI: ST16i3/2 2- and 3-pole ST16i5/4 4- and 5-pole

? <i>ST</i> ◎	CLASSIC:	
RST®	CLASSIC:	

Protection class II
Power with 🖶
Power with 🖶

**RST**<sup>®</sup> POWER: RST50i5 Power with 🖶









8

# For requirements with increased protection degree *RST*<sup>®</sup> installation systems provide safety

# **OBJECT AND SHIP BUILDING**

### The benefits at a glance:

Installation up to date: The **RST**<sup>®</sup> installation system and its sophisticated concept mirror the state of the art in modern technology.

- Reduced construction times (initial installation): An installation with **RST**<sup>®</sup> 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).
- **Safe power distribution:**

The new compact and multi-distribution units are the heart of pluggable electrical installation and can also be customized.

#### 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!





### plug & play in outdoor applications Electrical installations using the "modular system"



# OUTDOOR LIGHTING

#### The challenge:

Expert workmanship 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 such cases to the luminaire manufacturer and are left with a bad impression.

#### The solution:

As a complete installation system, **RST**<sup>®</sup> is optimally adapted to these increased requirements. It is very flexible in its application and has proven technology at its disposal. Luminaires 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 IP68 protection degree make the **RST**<sup>®</sup> connector a strong partner for outdoor lighting.

It is not possible to lay the components directly in the ground. In order to satisfy VDE 0100-520 the connections must be protected mechanically in addition and must be accessible for inspection, testing and maintenance.

#### **Connectors:**

For the various luminaire types, power connectors for 250V and low-voltage connectors for LED technology are available. These are mechanically coded and can therefore not be mismated. This provides additional safety.

RST® MINI: RST16i3/2 2- and 3-pole RST16i5/4 4- and 5-pole

RST® CLASSIC:RST20i2Protection class II, low voltageRST20i3Power 3-poleRST20i5Power 5-pole

### Export-oriented solutions for all nations

International operations with RST® connectors

# POWER CONNECTION FOR ELECTRICAL DEVICES



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

#### The solution:

Power connections are made pluggable: one end is pre-assembled with the appropriate national power connector, while the other end always has the same **RST**® connector. Consequentially, the relevant end devices are equipped with **RST**® device connectors, independently of the country. Thus country-specific power connections are available to you. The connection set required for the target country is simply included in the delivery. This simplifies stockkeeping for particularly exportoriented products.



#### **RST**<sup>®</sup> power connectors:

The cables are pre-assembled with the desired power connector<sup>\*)</sup> on the grid side. The **RST**<sup>®</sup> 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



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



# **DEVICE CONNECTORS**

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

There are basically two variations: the single-piece **M25 standard device connectors (one-piece)** are simply installed inside the housing.

The **modular device connectors** (**two-piece**) are available in M16, M20 and M25 variations as well as in 0°, 7° and 90° angles.





# Consistently pluggable solutions for outdoor installations

- Wireless distribution units
- Current and voltage sources
- Series and parallel distribution
- Distribution units with integrated fine fuses
- Distribution units with integrated grounding outlet



### plug & play in outdoor applications

**Solutions for most demanding requirements** 



### Pluggable 3 D distribution units More than just distribution!

#### The *RST*<sup>®</sup> compact distribution unit – more than just distribution!

Installations differ from one another. This makes it even more important that the product range is oriented towards the application requirements. A clear separation of different circuits using mechanically coded connectors is as important as pre-assembled cables in various defined lengths.

However, the pluggable distribution units play a major role in power distribution. In their simplest function, they merely have to provide branches in the required locations.

Practice shows, however, that the requirements may be much more complex.

Examples can be found in AC and DC wiring through distribution units with fine fuses up to boxes with integrated safety outlets or switches.





#### **RST®** MINI: RST16i3/2 RST16i5/4

2- and 3-pole 4- and 5-pole

#### **RST®** CLASSIC:

PST20:2	Low voltage, parallel and	
N312012	series distribution units	
<b>RST20i3</b> Power 3-pole		
Compact and multi-distribution units		
<b>RST</b> <sup>®</sup> POWER	Power with 🖶	

#### 1 Connectors

Connectors can be assembled on site. Among other functions they serve as an incoming supply for the **RST**<sup>®</sup> system. Connectors with male and female components are delivered complete with strain relief and enable the connection of all common cable types. A special version also enables the connection of illumination cables for decorative light chains. Depending on the requirements the connectors are available with spring clamp or screw technology.

#### **2** Connectors, Splitter connectors

Connectors can be pre-assembled on site and serve for the through-wiring of electrical consumer devices (luminaires). 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)

6

(4)

(5)

#### **③ Device connectors**

Device connections are integrated in corresponding knock-outs in the housing of devices. They are the device's interface to the **RST**<sup>®</sup> system. The devices can therefore be plugged in simply on site and integrated into the installation.

### System description Overview of the electrical installation *RST*®



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 completes the system.

#### **④** Cable assemblies

Electrical power is supplied by using cable assemblies. Three basic versions are distinguished: power connection cables provide the incoming supply of the **RST**® system. They have been prepared for a traditional connection or with a standard plug on the supply side and are preassembled 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.

#### <sup>6</sup> End caps

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

### **Overview of the** *RST*<sup>®</sup> **product family Pluggable in many dimensions**

Since its market launch the **RST**<sup>®</sup> installation system has systematically grown with the needs of the market and now presents itself as a complete electrical installation system. A choice can be made between three series as required:



Also on our You Tube channel



**RST**<sup>®</sup> MINI

e You Tube



**RST**<sup>®</sup> POWER

All installation connectors have one thing in common: They are innately fitter-friendly and adhere strictly to the system philosophy. Complex installations can be built flexibly, and consumers can simply be plugged into the installation. Mechanical codings within the product lines ensure a clear distinction between different circuits. This practically rules out incorrect connections.
# The new **RST**<sup>®</sup> MINI connector series Optimized for installation in confined spaces

The new **RST**<sup>®</sup> MINI series marks a continuation of the story of the **RST**<sup>®</sup> installation system's success and logically follows the trend towards compact designs.

The 2- to 5-pole plug connectors and device connectors have been designed for 250/400V and 16A and are all available in the screw connection technology that electricians trust.

Customized distributors as well as pre-assembled cables round the system off perfectly and offer a huge range of different possible uses, not just in building automation or industry.



# Benefits at a glance

- TWISTLOCK technology
- Compact design
- Color-coded and mechanically coded
- Easy to install
- Save up to 80% of installation time

# **RST**<sup>®</sup> MINI plug & play Simple and functional

# Easy assembly

The housing of the connector has been designed in two parts and geared toward simple assembly right from the outset. The connector dispenses with the common technique of screwing individual parts and relies on an easy-to-use quick fastener.



# **Retrofitting made easy**

The device connectors have M20.2 (5-/4-pole) or M16 (3-/2-pole) threads. This means they can be directly integrated in M20 or M16 housing feed-throughs – taking the tolerances into account. It is therefore easy to switch from traditional cable glands to the convenient pluggable alternative. There is the option of using a flattened top on the thread of the device connector to fix it in position.

# Safe and secure

Unused slots must be protected against moisture and dirt penetration. The end caps for unused slots are joined to the connector directly using a strap and are therefore protected against loss.



**RST**<sup>®</sup> MINI

# **RST**<sup>®</sup> MINI click & safe The patented locking device

# **TWISTLOCK** technology

With the smart TWISTLOCK locking mechanism, the connectors lock automatically when plugged together and give the user clear feedback on the correct end position. A slight rotation severs the connection easily.

> automatic locking mechanism

click safe

Close

Open



# The RST16i2/3 product line – mains connection, lighting installation, DALI, DMX, applications in the extra-low voltage range (LED technology), loudspeaker applications

# **Application example**

# General

With the 2-/3-pole connectors, there are five available codings. These cover applications relating to the mains connection of electrical consumers, the connection of LED luminaires in the extra-low voltage range, and also the electrification of DALI, DMX, or loudspeaker systems. The main focus is the mains connection of electrical equipment with a compact design. The mechanical codings have the advantage that only associated pairs of male and female connectors can be connected, with the correct polarity ensured. This gives you the security of a clear distinction.

The connectors are also available in a 2-pole variant. This is based on the 3-pole housing, but with one pole not configured.

## Coding

	Application	Powe	r/SKII	250/400V with PE	Extra-low voltage	250/400V without PE	Dimming
	Mechanical coding, for example	L, N	I, PE	1, 2, PE	1, 2, 3	1, 2, 3	D1, D2, PE
Name	Description	black	light gray	green	signal brown	light blue	turquoise
Connectors							
M16 device connections							
	RST® compact and multiple distribution unit						
Distribution units	Distribution block 1E/2A						
	Individual distribution box	on request	on request	on request	on request	on request	on request
	Device connection cable Male – free end			on request	on request	on request	on request
Cable assemblies	Connection cable Female – free end			on request	on request	on request	on request
	Extension cable Female – male			on request	on request	on request	on request

# **Connectors,** straight for cables Ø 5.0 – 9.5 mm<sup>2)</sup>

Female con	nector	SW16	8-		
			Δ	Rated values	
			<u>SW17</u>	Rated voltage	250/400V
	15		ca.7	Rated current	16A
	1		v	Rated cross-section	0.25 to 1.5 mm <sup>2</sup> (up to 1.0 mm <sup>2</sup> suitable for ferrules)
C)				Approvals	VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared
Annelisedan		Delessedies	Cala	De	+ N -
Application	Coding	Pole marking	Color	Par	t No.
				with screv	v connection
Power		L, N, PE	black light gray	46.03 46.03	1.4553.1 1.4553.0
SKII		L, N	black light gray	46.03 46.03	1.4554.1 1.4554.0
250/400V with PE		1, 2, PE	green	46.03	1.4555.7
250/400 V without PE		1, 2, 3	light blue	46.03	1.4553.9
250/400 V without PE <sup>1)</sup>		1, 2	light blue	46.03	1.4554.9
Dimming with PE		D1, D2, PE	turquoise	46.03	1.4550.6
Dimming <sup>1)</sup>		D1, D2	turquoise	46.03	1.4551.6
Extra-low voltage (50V~120V-)		1, 2, 3	signal brown	46.03	1.4550.4
Extra-low voltage <sup>1)</sup> (50V~120V-)		1, 2	signal brown	46.03	1.4551.4

### Male connector





## **Rated values**

Rated voltage	250/400V
Rated current	16A
Rated cross-section	0.25 to 1.5 mm <sup>2</sup> (up to 1.0 mm <sup>2</sup> suitable for ferrules)
Approvals	VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared

Application	Coding	Pole marking	Color	Part No.
				with screw connection
Power		L, N, PE	black light gray	46.032.4553.1 46.032.4553.0
SKII		L, N	black light gray	46.032.4554.1 46.032.4554.0
250/400V with PE		1, 2, PE	green	46.032.4555.7
250/400 V without PE		1, 2, 3	light blue	46.032.4553.9
250/400 V without PE <sup>1)</sup>		1, 2	light blue	46.032.4554.9
Dimming with PE		D1, D2, PE	turquoise	46.032.4550.6
Dimming <sup>1)</sup>		D1, D2	turquoise	46.032.4551.6
Extra-low voltage (50V~120V-)		1, 2, 3	signal brown	46.032.4550.4
Extra-low voltage <sup>1)</sup> (50V~120V-)		1, 2	signal brown	46.032.4551.4

<sup>1)</sup> One pole not configured
<sup>2)</sup> Other diameters available upon request. Please note: Individual H07RN-F 1.5 cables can have a diameter of more than 9.5 mm.

# M16 device connections straight

Female cor	inector	SW21	-	Rated values	
				Rated voltage	250/400V
	-			Rated current	16A
6			6	Rated cross-section	0.25 to 1.5 mm <sup>2</sup> (up to 1.0 mm <sup>2</sup> suitable for ferrules)
00	2		t-	Approvals	VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared
	For housi Technical	ng cut-out see ø19,9	—_ <del>`</del>	Gehäuse-Wandstärken	up to 8 mm
Application	Coding	Pole marking	Color	Par	t No
Application	coung	i bie marking	000		
				with screw	v connection
Power		L, N, PE	black light gray	46.03 <sup>-</sup> 46.03 <sup>-</sup>	1.5053.1 1.5053.0
SKII		L, N	black light gray	46.03 46.03	1.5054.1 1.5054.0
250/400V with PE		1, 2, PE	green	46.03	1.5055.7
250/400 V without PE		1, 2, 3	light blue	46.031	1.5053.9
250/400 V without PE <sup>1)</sup>		1, 2	light blue	46.03	1.5054.9
Dimming with PE		D1, D2, PE	turquoise	46.03	1.5050.6
Dimming <sup>1)</sup>		D1, D2	turquoise	46.03	1.5051.6
Extra-low voltage (50V~120V-)		1, 2, 3	signal brown	46.03	1.5050.4
Extra-low voltage <sup>1)</sup> (50V~120V-)		1, 2	signal brown	46.03	1.5051.4

### Male connector





Rated voltage	250/400V
Rated current	16A
Rated cross-section	0.25 to 1.5 mm <sup>2</sup> (up to 1.0 mm <sup>2</sup> suitable for ferrules)
Approvals	VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared
Gehäuse-Wandstärken	up to 8 mm

Application	Coding	Pole marking	Color	Part No.
				with screw connection
Power		L, N, PE	black light gray	46.032.5053.1 46.032.5053.0
SKII	8	L, N	black light gray	46.032.5054.1 46.032.5054.0
250/400V with PE		1, 2, PE	green	46.032.5055.7
250/400 V without PE		1, 2, 3	light blue	46.032.5053.9
250/400V without PE <sup>1)</sup>		1, 2	light blue	46.032.5054.9
Dimming with PE		D1, D2, PE	turquoise	46.032.5050.6
Dimming 1)		D1, D2	turquoise	46.032.5051.6
Extra-low voltage (50V~120V-)	6	1, 2, 3	signal brown	46.032.5050.4
Extra-low voltage <sup>1)</sup> (50V~120V-)		1, 2	signal brown	46.032.5051.4

<sup>1)</sup> One pole not configured

# Cable assemblies 1.5 mm<sup>2</sup>; 16 A

Rated values			Connection type of cable	cable gland
Wire ends	(open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length	(open cable end)	35 mm	Color cable	black
Insulation strip length	(open cable end)	9 mm	Color handle shell	black





# Cable assemblies 1.5 mm<sup>2</sup>; 16 A



# **Distribution units**

#### **RST** compact distribution units

Dimensions 104 x 162 x 57.2 mm



Сс	olo
	bl
	lię
	bl
	liç
	le
	liç
	lię
	tu
	tu
	si

pre-wired with

Mounting option

Mounting option	Yes				
Color	Application	Pole marking	Input	Outputs	Part No.
black	Mains	L, N, PE	1	3	46.030.0153.1
light grey	Mains	L, N, PE	1	3	46.030.0153.0
black	SKII	L, N	1	3	46.030.0154.1
light grey	SKII	L, N	1	3	46.030.0154.0
leaves green	250/400V with PE	1, 2, PE	1	3	46.030.0155.7
light blue	250/400V without PE	1, 2, 3	1	3	46.030.0153.9
light blue	250/400V without PE1)	1, 2	1	3	46.030.0154.9
turquoise blue	Dimming with PE	D1, D2, PE	1	3	46.030.0150.6
turquoise blue	Dimming <sup>1)</sup>	D1, D2	1	3	46.030.0151.6
signal brown	Extra-low voltage (50V~120V-)	1, 2, 3	1	3	46.030.0150.4
signal brown	Extra-low voltage <sup>1)</sup> (50V~120V-)	1, 2	1	3	46.030.0151.4

1.5 mm<sup>2</sup> (halogen free)

### **RST® MINI distribution block 1E/2A**







Color	Application	Pole marking	Input	Outputs	Part No.
black	Mains	L, N, PE	1	2	46.030.1253.1
light grey	Mains	L, N, PE	1	2	46.030.1253.0
black	SKII	L, N	1	2	46.030.1254.1
light grey	SKII	L, N	1	2	46.030.1254.0
leaves green	250/400V with PE	1, 2, PE	1	2	46.030.1255.7
light blue	250/400V without PE	1, 2, 3	1	2	46.030.1253.9
light blue	250/400V without PE1)	1, 2	1	2	46.030.1254.9
turquoise blue	Dimming with PE	D1, D2, PE	1	2	46.030.1250.6
turquoise blue	Dimming <sup>1)</sup>	D1, D2	1	2	46.030.1251.6
signal brown	Extra-low voltage (50V~120V-)	1, 2, 3	1	2	46.030.1250.4
■ signal brown	Extra-low voltage <sup>1)</sup> (50V~120V-)	1, 2	1	2	46.030.1251.4

with separate mounting plate

Available 3rd quarter 2016

#### Mounting plate for distribution block **RST**<sup>®</sup> MINI





	Color	Application	Pole marking	Input	Outputs	Part No.
A 65.	black					06.562.5853.1
φ.	light grey					06.562.5853.0
P <sup>L</sup>	Available 3rd a	uarter 2016				
ð n						
52						
1 25.3						
				-		
				1900	- del	10
				- 11	15	
				100	- III	
					Caller P	
		-			-	
				1		
		Craw .		1		
		Sea SP	200			
		N/ EL	Com2			
	011					

# Accessories

# **Cover caps**

#### for female

for male

For the safe closure of female and male connectors.
With mounting strap for snapping onto plug connectors and device connectors

	for female	for male
Color	Part No.	Part No.
light grey	Z6.561.7253.0	Z6.561.6953.0
■ black	Z6.561.7253.1	Z6.561.6953.1



# Sample kit

### RST16i3 sample kit



DA.

Contents: Connectors Device connectors Contact parts in various codings Cover caps

Part No.

99.674.0000.0

回

-

16

-

0

0

0

-

-

-

0

-

-

-

1

0

ø

-

-

-

-

0

6

0

ø

 $\mathbb{R}^{2}_{1}$ 

0

02

0

-

200

2

2

2

6

-

-

8

2

6

-

-

-

-

-

0

Ci

Ľ

The RST16i4/5 product line – general network applications, lighting installation with dimming function, connection of electrical (sunblind) drives, applications in the extra-low voltage range (LED technology)

# **Application example**



### General

The **RST16i4/5** product line has a total of four mechanical codings and a wide variety of uses, from general network applications to applications in the extra-low voltage range. The main focus is the connection of dimmable luminaires with a compact design. This series is also tailored for the electrification of RGB or RGB-W/A outdoor spotlights. There are different mechanical codings available for every application. This means that only associated pairs of male and female connectors can be connected, with the correct polarity ensured. This gives you the security of a clear distinction.

The codings are also available in a 4-pole variant. This is based on the 5-pole housing, but with one pole not configured.

# Coding

		Application	Pov	wer	Power/ Dimming	Extra-low voltage	250/400V without PE
		Mechanical coding, for example	1, 2, 3	, N, PE	L, N, PE, 1, 2	1, 2, 3, 4, 5	1, 2, 3, 4, 5
	Name	Description	black	light gray	turquoise	signal brown	light blue
	Connectors						
	Device connectors M20,2						
		$RST^{ \otimes}$ compact and multiple distributors					
	Distribution units	Distribution block 1E/2A					
		Individual distribution box	on request	on request	on request	on request	on request
		Device connector cable Male – free end		on request		on request	on request
Cable assemblies	Cable assemblies	Connection cable Female – free end		on request		on request	on request
		Extension cable Female – male		on request		on request	on request

# **Connectors,** straight for cables Ø 7.1 – 13 mm<sup>2)</sup>

Female con	nector					
				Rated values		
	1		SW 22	Rated voltage		250/400V
	and the	Walking RST 18	6	Rated current		16A
				Rated cross-section		0.25 to 1.5 mm <sup>2</sup> (suitable for ferrules)
	1			Approvals		VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared
		Ø 24,9				<u>-</u>
Application	Coding	Pole marking	Color		Part	No.
					with screw	connection
Power		1, 2, 3, N, PE	black light grav		46.051 46.051	.4553.1 4553.0
Motor connection <sup>1)</sup>		1, 2, 3, PE	black		46.051	.4554.1 4554.0
Power/Dimming		L, N, PE, 1, 2	turquoise		46.051	.4553.6
250/400V without PE		1, 2, 3, 4, 5	light blue		46.051	.4553.9
Extra-low voltage (50V~/120V-)		1, 2, 3, 4, 5	signal brown		46.051	.4550.4
Extra-low voltage <sup>1)</sup> (50V~/120V-)		1, 2, 3, 4	signal brown		46.051	.4551.4
(						
Male conne	ector	SW 19		Rated values		
				Rated voltage		250/400V
		RST RST	SW 22 ਵ	Rated current		16 A
	11:			Rated cross-section		0.25 to 1.5 mm <sup>2</sup> (suitable for ferrules)
		F		Approvals		VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared
		Ø 24				
Application	Coding	Pole marking	Color		Part	No.
				1	with screw	connection
Power		1, 2, 3, N, PE	black		46.052	.4553.1
Motor connection <sup>1)</sup>		1, 2, 3, PE	black		46.052	.4554.1 .4554.0
Power/Dimming		L, N, PE, 1, 2	turquoise		46.052	.4553.6
250/400V without PF		1, 2, 3, 4, 5	light blue		46.052	.4553.9
Extra-low voltage		1, 2, 3, 4, 5	signal brown		46.052	.4550.4
Extra-low voltage <sup>1)</sup> (50V~/120V-)		1, 2, 3, 4	signal brown		46.052	.4551.4
	, I					

<sup>1)</sup> One pole not configured <sup>2)</sup> Other diameters available upon request

# M20.2 device connector straight

Г

Female con	nector				
			5,1	Rated values	250/4001/
				Rated current	250/400V 16Δ
6				Rated cross-section	0.25 to 2.5 mm <sup>2</sup> (up to 1.5 mm <sup>2</sup>
	8		41,6	Approvals	VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared
	For housing cut-out see Technical Data	Ø 24.9		Gehäuse-Wandstärken	bis 5 mm
		<u>9</u> 24,7	4		
Application	Coding	Pole marking	Color	Par	t No.
				with screw	v connection
Power		1, 2, 3, N, PE	black light gray	46.05 46.05	1.5053.1 1.5053.0
Motor connection <sup>1)</sup>		1, 2, 3, PE	black light gray	46.05 <sup>-</sup> 46.05 <sup>-</sup>	1.5054.1 1.5054.0
Power/Dimming		L, N, PE, 1, 2	turquoise	46.05	1.5053.6
250/400V without PE		1, 2, 3, 4, 5	light blue	46.05	1.5053.9
Extra-low voltage (50V~/120V-)		1, 2, 3, 4, 5	signal brown	46.05	1.5050.4
Extra-low voltage <sup>1)</sup> (50V~/120V-)		1, 2, 3, 4	signal brown	46.05	1.5051.4
Male conne	ector				





### **Rated values**

Rated voltage	250/400V
Rated current	16A
Rated cross-section	0.25 to 2.5 mm <sup>2</sup> (up to 1.5 mm <sup>2</sup> suitable for ferrules)
Approvals	VDE, UL, CSA, LR, DNV/GL, RINA, BV being prepared
Gehäuse-Wandstärken	bis 5 mm

Application	Coding	Polo marking	Color	Part No.
Application	Coding	Pole marking	Color	Part No.
				with screw connection
Power		123NPF	black	46.052.5053.1
		., _, 0,, _	light gray	46.052.5053.0
Motor connection <sup>1)</sup>	(22)	1 2 3 PE	black	46.052.5054.1
		1, 2, 0, 1 E	light gray	46.052.5054.0
Power/Dimming		I N PF 1 2	turquoise	46 052 5053 6
1 owon binning		2, 14, 12, 1, 2	tarquoioo	10.002.0000.0
250/400V		12345	light blue	46 052 5053 9
without PE		1, 2, 0, 4, 0	light blue	40.002.0000.0
Extra-low voltage	1	12345	signal brown	<u>/6 052 5050 /</u>
(50V~/120V-)		1, 2, 0, 1, 0	olgilal brown	10.002.0000.1
Extra-low voltage <sup>1)</sup>		1234	signal brown	46 052 5051 4
(50V~/120V-)	408	1, 2, 0, 4	Signal brown	40.002.0001.4

# Cable assemblies 1.5 mm<sup>2</sup>; 16 A

Rated values			Connection type of cable	cable gland
Wire ends	(open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length	(open cable end)	35 mm	Color cable	black
Insulation strip length	(open cable end)	9 mm	Color handle shell	black





52 Observe the installation instructions in the Technical Data that follow the product pages. Other cables, other lengths, other codings upon request

# Cable assemblies 1.5 mm<sup>2</sup>; 16 A

Connection cabl	es male – free	end		Power 250 V 5-pole	Power/Dimming 5-pole
		Cable	Length m	Part No.	Part No.
			0.5	46,452,0504,1	46.452.0504.6
		PVC cable	1	46.452.1004.1	46.452.1004.6
		H05VV-F	2	46.452.2004.1	46.452.2004.6
			3	46.452.3004.1	46.452.3004.6
		containing halogen	4	46.452.4004.1	46.452.4004.6
			5	46.452.5004.1	46.452.5004.6
		Cable	l ength m	Part No	Part No
			0.5	46 452 0534 1	46 452 0534 6
		Rubber-sheathed cable	1	46 452 1034 1	46 452 1034 6
		H07RN-F	2	46.452.2034.1	46.452.2034.6
			3	46.452.3034.1	46.452.3034.6
		containing halogen	4	46,452,4034,1	46.452.4034.6
			-	10 150 500 1 1	40,450,500,4,0

# **Distribution units**

RST	compact	distribution	units
-----	---------	--------------	-------

Dimensions 104 x 162 x 57.2 mm



wounting option	yes				
Color	Application	Pole marking	Input	Outputs	Part No.
black	Mains	1, 2, 3, N, PE	1	2	46.050.0153.1
light gray	Mains	1, 2, 3, N, PE	1	2	46.050.0153.0
black	Motor connection <sup>1)</sup>	1, 2, 3, PE	1	2	46.050.0154.1
light gray	Motor connection <sup>1)</sup>	1, 2, 3, PE	1	2	46.050.0154.0
turquoise blue	Mains/Dimming	L, N, PE, 1, 2	1	2	46.050.0153.6
light blue	up to 400V without PE	1, 2, 3, 4, 5	1	2	46.050.0153.9
signal brown	Extra-low voltage (50V~120V-)	1, 2, 3, 4, 5	1	2	46.050.0150.4
signal brown	Extra-low voltage <sup>1)</sup> (50V~120V-)	1, 2, 3, 4	1	2	46.050.0151.4

1.5 mm<sup>2</sup>

### **RST®** MINI distribution block 1E/2A







Color	Application	Pole marking	Input	Outputs	Part No.
black	Mains	1, 2, 3, N, PE	1	2	46.050.1253.1
light grey	Mains	1, 2, 3, N, PE	1	2	46.050.1253.0
black	Motor connection <sup>1)</sup>	1, 2, 3, PE	1	2	46.050.1254.1
light grey	Motor connection <sup>1)</sup>	1, 2, 3, PE	1	2	46.050.1254.0
turquoise blue	Mains/Dimming	L, N, PE, 1, 2	1	2	46.050.1253.6
light blue	up to 400V without PE	1, 2, 3, 4, 5	1	2	46.050.1253.9
signal brown	Extra-low voltage (50V~120V-)	1, 2, 3, 4, 5	1	2	46.050.1250.4
signal brown	Extra-low voltage <sup>1)</sup> (50V~120V-)	1, 2, 3, 4	1	2	46.050.1251.4

with separate mounting plate

Available 3rd quarter 2016

Mounting option

pre-wired with

#### Mounting plate for distribution block **RST®** MINI





Application	Pole marking	Input	Outputs	Part No.
	Ŭ			06.562.5853.1
				06.562.5853.0
	Application	Application Pole marking	Application Pole marking Input	Application Pole marking Input Outputs

# **Accessories**

#### **Cover caps** For the safe closure of female and male connectors. With mounting strap for snapping onto plug connectors and device connectors for female for male for female for male Part No. Z6.561.7153.0 Part No. Z6.561.6853.0 Color light greyblack Z6.561.7153.1 Z6.561.6853.1 0

# Sample kit

### **RST16i5** sample kit



Contents: Connectors Device connectors Contact parts in various codings Cover caps

Part No.

99.675.0000.0

# Technical data RST® MINI

	RST16i2/3	RST16i4/5
Rated voltage	250/400V	250/400V
Rated current	16A	16A
Number of poles	3/2	5/4

Connector	
temperature range:	- 40 °C to 100 °C
Material:	Contact parts: brass, surface-treated Housing parts: Polyamide, halogen-free, V2 Sealing material: NBR
Pollution degree:	3 (when connected)
Degree of protection:	IP66/68 (3m; 2h)/69K
IK-Code	IK07 (2 Joule)
Plugging cycles:	according to IEC 61535 100x without load and 50x under nominal load (cos phi = 0.6)
Approvals:	VDE (IEC 61535) UL (UL 2238 / UL 1977) CSA (C22.2 No.182.1 / C22.2 No.182.3) RINA, LR, DNV/GL, BV

### Housing cut-out RST16i2/3



## Housing cut-out RST16i4/5



# Wire strip lengths Installation instructions RST16i2/3 / RST16i4/5

Wire strip lengths					
4	У Х	Conduc	tor	PE	N, L, 1, 2, 3
		Sheath s y (mm)	trip length	33	25
		Wire stri	p length x (mm)	8	8
fine-stranded (suitable for ferrules)					
Assembly					
Positioning the housing	Closing the housing		Locking the hou	using	click
Disassembly					
Insert screwdriver	Unlocking the housing		Opening the ho	using	- A

Please note that electrical connections and installation shall only be done by trained experts. Observe the included installation instructions!

Detailed installation instructions can be found under https://eshop.wieland-electric.com

RST<sup>®</sup> MINI

# **Overview matrix** *RST***<sup>®</sup> CLASSIC. Codings and applications at a glance**

				RST 20i2			RST	20i3	
				2-pole, 20A			3-pole	e, 20A	
	Pole	marking	L, N	1, 2	+, -	L, N, 🖶	1, 2, 🖶	1, 2, 3/N	1, 2, 🖶
	Appli	ication	Protection class II 250V	Extra-low voltage LED serial, 24 V	Extra-low voltage LED parallel,AS-i	Power 250V	Power 250V/400V	Switching applications 230V	Extra-low voltage with 🖶
				<b>O</b>	۲	۲	Ö	۲	۲
	Conta male	act insert and female	<b>S</b>	۲	۲	۲	۲	۲	۲
			Spring clamp Screw	Spring clamp Screw	Screw	Spring clamp Screw Crimp	Spring clamp Screw	Spring clamp Screw	Spring clamp Screw
		Ø 6 –10 mm	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	y 1 x cable entry	Ø 10 –14 mm	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
SIC		Ø 13 –18 mm				$\checkmark$	$\checkmark$	$\checkmark$	
ecto		Flat cable 13 x 6 mm							
Conne		AS-i profile cable							
	entry	Ø 6 –10 mm							
	x cable	Ø 10 –14 mm AS-i		$\checkmark$				$\checkmark$	
	2 ce	Profilleitung							
ors	pie	M16							
nect		straight M16							
con	iece	7° angled M20							
vice	2 p	straight M20							
Ď		M25 angled	$\checkmark$	$\checkmark$	$\checkmark$	$\overline{\checkmark}$	$\overline{\checkmark}$	$\checkmark$	
ć		Distribution block							
strib	mul	RST <sup>®</sup> compact/ ti-distribution units	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
		Individual distribution box	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
		Expansion cable Female – Male							
le olies		Power connection Female – Free end							
Cabl		Male – Free end						$\checkmark$	
ase	S	afety plug – female							
Europe	ean conne	ector, SKII – female	$\checkmark$						

						, · · ·	×.	RS	T <sup>®</sup> CLASSIC
	-	~			 0	Ø.			
	<u></u>		1.141		8 44 4 5	67 - 64 - 13	3		0.1.
NIV.	2	and the second second	And Address	(02)					6.5
<b>RST</b> 25i3	RST	20i4			RST 20i5	5		<b>RST 25i5</b> 5-pole, 25A	
3-pole, 32A	4-pole	e, 20A	1.2.2.N.O	12245	5-pole, 20A	12345	N E 1 2 2	(3~)	I ASI I MARTIN
Power 250V	<b>1, 2, 3, </b> ⊜ Power 250V/400V	Extra-low voltage AS-i, 24 V	Power 250V/400V	Extra-low voltage	Power 250 V/ Dimming	Switching applications 230V	Power 250V/400V without 🕀	L, N, (e), 1, 2 Power 250V/400V	
	<b>@</b>	۲	۲	۲	۲	٢	<b>@</b>	۲	ATTE TO
۲	۲	٢	۲	۲	۲	۲		۲	100 et el
Screw	Screw Crimp	Screw Crimp	Screw Crimp	Screw Crimp	Screw Crimp	Screw Crimp	Screw	Screw	
		$\checkmark$				$\checkmark$			10 <sup>0</sup>
									1.9
$\checkmark$					$\checkmark$	$\checkmark$		$\checkmark$	1
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	19
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	
									main
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	1
$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	and the second s
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	



# Applications in the range of protection class II and extra-low voltage for industry and LED technology

# **Application example**



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.

# General

The two-pole connectors are based on the 3-pole variant, but with one pole not configured.

There are essentially two variants. One coding is specifically reserved for protection class II applications and is downwardly compatible with the 3-pole system with ground conductor (RST 20i3).

This makes it possible to transition from a system with earthing contact to a 2-pole system – but not the other way round!

The other version is aimed at applications in the extra-low voltage range, such as serial or parallel LED wiring, or at industrial applications with 24 V auxiliary power and AS-i. All connectors are mechanically coded. This means that only associated pairs of male and female can be connected with the correct polarity.

# Coding

For daily updat	For daily updates visit the website at http://eshop.wieland-electric.com			Application	250 V		Extra-low voltage	
http://esnop.w Assembly instr in the Technica	reland-electric.com. ructions and other technical informa al Data or in eShop.	ation can be found		Mechanical coding, for example	Protection class II		LED seriell, e.g. 24V	LED parallel, AS-i
Name	Description	Connection style	Strain relief housing	Connection points per pole	light gray	black	signal brown	pebble gray
0	1 x cable entry	Screw Spring clamp	yes	1 2	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Connector	2 x cable entry	Screw Spring clamp	yes	1	$\sim$	$\checkmark$	$\checkmark$	$\sim$
	Distribution block 1 I/3 0				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Distribution units	RST compact distribution unit/multi-distribution unit				$\checkmark$	$\checkmark$	$\checkmark$	on request
	Individual distribution box				on request	on request	on request	on request
	Series distribution unit for power LEDs						$\checkmark$	
	M16 device connector, modular, straight				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	M16 device connector, modular, angled 7°				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Device	M25 device connector, standard				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
connectors	M20 device connector, standard				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	M20 device connector, modular, angled				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	M25 device connector, modular, angled				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Connection cable Male – Free end	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Connection cable Female – Free end	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Cable	Connection cable Male – Female	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
assemblies	Connection cable	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Round cable	pre- assembled	pre- assembled	pre- assembled	$\overline{\checkmark}$	$\overline{\checkmark}$	$\checkmark$	$\overline{\checkmark}$
	AS-i profile cable	pre- assembled	pre- assembled	pre- assembled				$\checkmark$

# Connectors, straight for cables Ø 6 – 10 mm and 10 –14 mm

#### **Female connector**

Unmounted with cable gland.

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







with spring clamp connection

with screw connection<sup>1)</sup>

				Wire rigid fine-stranded stranded	mm <sup>2</sup> 0.5 - 2.5 0.5 - 1.5 0.75 - 1.5	Ferrules with ferrules with ferrules	Wire rigid fine-stranded stranded	mm <sup>2</sup> 0.75 - 6.0 <sup>2)</sup>	without ferrules without ferrules	
Application	Coding	Cable diameter in mm	Color		Part No.			Part No.		
Protection		6 – 10		9 9	96.021.0053.0 96.021.0053.1			96.021.4053.0 96.021.4053.1		
class II	🛞 L, N	10 - 14	light gray black	9	96.021.0153.0 96.021.0153.1			96.021.4153.0		
250 V		Illumination cable 13.3x5.3 H05RNH2-F2 x 1.5 <sup>2</sup>	light gray black	96.021.0453.0 96.021.0453.1		96.021.4453.0 96.021.4453.1				
Extra-low volt. e.g.	1 2	6-10	signal brown	9	96.021.0051.4 96.021.4051.4					
LED serial, 24V		AS-i profile cable	signal brown	9	6.021.0951.4		96	5.021.4951.4 2.021.4050.9		
LED parallel, AS-i	+, -	AS-i profile cable	pebble gray	9	6.021.0950.8		96	6.021.4050.8 6.021.4950.8		

#### Male connector

Unmounted with cable gland and locking device.

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





				with spring c	lamp conne	ction	with screw connection <sup>1)</sup>		
				Wire rigid fine-stranded stranded	mm <sup>2</sup> 0.5 - 2.5 0.5 - 1.5 0.75 - 1.5	Ferrules with ferrules with ferrules	Wire rigid fine-stranded stranded	0.75 – 6.0 <sup>2)</sup>	without ferrules without ferrules
Application	Coding	Cable diameter in mm	Color		Part No.			Part No.	
		6 - 10	light gray black	96.022.0053.0 96.022.0053.1			96.022.4053.0 96.022.4053.1		
class II	<b>N</b> , L	10 - 14	light gray black	c c	96.022.0153.0 96.022.0153.1		96.022.4153.0 96.022.4153.1		
230 V		Illumination cable 13.3x5.3 H05RNH2-F2 x 1.5 <sup>2</sup>	light gray black	ç ç	06.022.0453.0 06.022.0453.1		90 90	6.022.4453.0 6.022.4453.1	)
Extra-low volt. e.g. LED serial, 24V	2, 1	6 – 10 AS-i profile cable	signal brown signal brown	0	6.022.0051.4 6.022.0951.4		90 90	6.022.4051.4 6.022.4951.4	1 1
Extra-low volt. e.g. LED parallel, AS-i	-, +	Round cable 6 –10 AS-i profile cable	pebble gray pebble gray	g	6.022.0050.8 6.022.0950.8		90 90	6.022.4050.8 6.022.4950.8	3

Ø34,6

<sup>1)</sup> With wire protection available on request
<sup>2)</sup> With 6.0 mm<sup>2</sup> wires, the pull and bending forces at the connector must be taken into consideration and compensated using suitable measures if required.
62 See also chapter on Technical Data and eShop.

# **Connectors,** angled 90° for cables Ø 6 – 10 mm and 10 –14 mm

Female connector Unmounted with cable gland. 90° angle.	ø34,6		55,5
See the Technical Data for insulation strip lengths as well as the ferrules to be used.			SW27
		with spring clamp connection	with screw connection <sup>1)</sup>
		Wire $mm^2$ Ferrules       rigid     0.5     - 2.5       fine-stranded     0.5     - 1.5     with ferrules       stranded     0.75     - 1.5     with ferrules	Wire     mm²       rigid
Application Coding Cable diameter in mm	Color	Part No.	Part No.
Protection class II 250 V   Image: Constraint of the system 250 V   Image: Constr	light gray black light gray black signal brown signal brown pebble gray pebble gray	96.023.0053.0 96.023.0053.1 96.023.0153.0 96.023.0153.1 96.023.0453.0 96.023.0453.1 96.023.0051.4 96.023.0951.4 96.023.0950.8 96.023.0950.8	96.023.4053.0 96.023.4053.1 96.023.4153.0 96.023.4153.1 96.023.4453.1 96.023.4453.1 96.023.4051.4 96.023.4051.4 96.023.4050.8 96.023.4950.8
		with spring clamp connection       Wire     mm²     Ferrules       rigid     0.5 - 2.5     with       fine-stranded     0.5 - 1.5     with	with screw connection <sup>1)</sup> Wire   mm <sup>2</sup> rigid   0.75 - 6.0 <sup>2</sup> without   ferrules
		stranded 0.75 – 1.5 with ferrules	stranded without ferrules
Application Coding Cable diameter in mm	Color	Part No.	Part No.
6-10	light gray black	96.024.0053.0 96.024.0053.1	96.024.4053.0 96.024.4053.1
Protection class II 250 V     N, L     10 – 14       Illumination cable 13.3x5.3 H05RNH2-F2 x 1.5 <sup>2</sup> 10       Extra-low volt. e.g.     6 – 10       LED = 1 + 0.01     6 – 10	light gray black light gray black signal brown	96.024.0153.0 96.024.0153.1 96.024.0453.0 96.024.0453.1 96.024.0051.4	96.024.4153.0 96.024.4153.1 96.024.4453.0 96.024.4453.1 96.024.4051.4
LED serial, 24V     Z, '     AS-i profile cable       Extra-low volt. e.g.     Round cable 6 –10     Round cable 6 –10	signal brown pebble gray	96.024.0951.4	96.024.4951.4 96.024.4050.8

<sup>11</sup> With wire protection available on request
<sup>21</sup> With 6.0 mm<sup>2</sup> wires, the pull and bending forces at the connector must be taken into consideration and compensated using suitable measures if required. See also chapter on Technical Data and eShop.

# **Splitter connector,** straight for cables Ø 6 – 10 mm and 10 –14 mm

Female connector				SW27	SW27	
Unmounted with cable gland.						
See the Technical Data for insulation s lengths as well as the ferrules to be us	strip sed. R 59		1	ca. 95, 9		
		with spring clamp conne	with spring clamp connection with screw connection <sup>1)</sup>			
		Wire     mm²       rigid     0.5     - 2.5       fine-stranded     0.5     - 1.5       stranded     0.75     - 1.5	Ferrules with ferrules with ferrules	Wire rigid fine-stranded stranded	mm <sup>2</sup> 0.75 – 2.5	without ferrules without ferrules
Application Coding Ca	Cable diameter in mm Color	Part No.			Part No.	
Protection class II Class II	6 – 10 light gray black 10 – 14 light gray black	96.021.0253.0 96.021.0253.1 96.021.0353.0 96.021.0353.1		90 90 90 90	5.021.4253.0 5.021.4253.1 5.021.4353.0 5.021.4353.1	)
Extra-low volt. e.g. LED serial, 24V	hination cable 13.3x5.3 H05RNH2-F2 x 1.5 <sup>2</sup> black 6 - 10 AS-i profile cable signal brown	96.021.0351.4		96	on request on request 5.021.4251.4 5.021.4351.4	1

### Mounting plate for splitter connectors



Color	Part No.
gray	01.006.1553.0
■ black	01.006.1553.1

<sup>1)</sup> With wire protection available on request

# M25 device connector straight, standard



# M16 device connector straight, modular



thread. Fastening with screws from ins With locking device.

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







wat	nlweise Verdrehsicherun tional protection again	g st twisting		with spring	clamp connee	ction	with screw co	onnection <sup>1)</sup>	
	$\sim$			Wire	mm <sup>2</sup>	Ferrules	Wire	mm <sup>2</sup>	
1	$\times$	0		rigid	0.5 - 2.5		rigid		
			fine-stranded	0.5 - 1.5	with ferrules	fine-stranded	0.75 - 6.0	without ferrules	
			stranded	0.75 – 1.5	with ferrules	stranded		without ferrules	
15	Ø16.4	L = 0.2		Term. poles	2		Term. poles	1	
.				Thread	M16 x 1.5		Thread	M16 x 1.5	
				Gland	inside		Gland	inside	
Application	(	Coding	Color		Part No.			Part No.	
2501/	Protection class II		gray		96.022.2153.0		S	96.022.6153.0	)
ZJUV	TTULECTION CIGSS II	N, L	black		96.022.2153.1		g	96.022.6153.1	
Extra-low	e.g. LED serial, 24V	1, 2	signal brown		96.022.2151.4		g	96.022.6151.4	ļ
voltage	e.g. LED parallel, AS-i	-, +	pebble gray		96.022.2150.8		ç	96.022.6150.8	3

1) With wire protection available on request

# M16 device connector angled 7°, modular

Female connector						SV	V 24
Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device.							
See the Technical Data for insulation strip lengths as well as the ferrules to be used.	¢34	.,7_				19.4	co.87
wahlweise Verdrehsicherung		with spring c	lamp connection	1	with screw c	onnection <sup>1)</sup>	
optional protection against twisting		Wire	mm <sup>2</sup> Ferru	ules	Wire	mm <sup>2</sup>	
t max. = 8mm		fine-stranded stranded	0.5 - 1.5 with 0.75 - 1.5 with 0.75 - 1.5 with	ı Jles	fine-stranded stranded	0.75 - 6.0	without ferrules without
		Term. poles	2		Term. poles	1	Terrules
		Gland	M16 x 1.5 inside		Gland	M16 x 1.5 inside	
Application Coding	Color		Part No.			Part No.	
250V Protection class II 🛞 L, N	gray black	ay 96.025.2153.0 ck 96.025.2153.1			96.025.6153.0 96.025.6153.1		
Extra-low e.g. LED serial, 24V 1, 2	signal brown		16.025.2151.4			96.025.6151.4	+
voltage e.g. LED parallel, AS-i 💮 +, –	pebble gray					96.025.6150.8	3
Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device. See the Technical Data for insulation strip lengths as well as the ferrules to be used.	¢34	,7	5).	D		SW2	© 0.81
		with spring c	lamp connection	1	with screw c	onnection <sup>1)</sup>	
wahlweise Verdrehsicherung optional protection against twisting		Wire	mm <sup>2</sup> Ferro	ules	Wire	mm <sup>2</sup>	
t mox. = 8mm		rigid fine-stranded	0.5 - 2.5 with	1	rigid fine-stranded	_	without
		stranded	0.75 – 1.5 with	ules 1	stranded	0.75 - 6.0	ferrules without
		Term. poles	2	lles	Term. poles	1	ferrules
		Thread Gland	M16 x 1.5 inside		Thread Gland	M16 x 1.5 inside	
Application Coding	Color		Part No.			Part No.	
Application Coding	Color gray	ç	Part No.			Part No. 96.026.6153.0	)
Application Coding       250V     Protection class II     Image: N, L       E.g. LED serial, 24V     Image: Leg. LED serial, 24V     Image: Leg. Leg. Leg. Leg. Leg. Leg. Leg. Leg.	Color gray black signal brown		Part No. 06.026.2153.0 06.026.2153.1 06.026.2151.4			Part No. 96.026.6153.0 96.026.6153.7 96.026.6151.4	) ) 1 4

# M20 device connector straight, modular



96.022.6050.8

1) With wire protection available on request

# M20 device connector angled 90°, modular

#### **Female connector** Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. Ø34,6 90° angle. See the Technical Data for insulation strip lengths as well as the ferrules to be used. M20x1,5 SW26 73,4 wahlweise Verdrehsicherung optional protection against twisting with spring clamp connection with screw connection<sup>1)</sup> Wire mm<sup>2</sup> Ferrules Wire mm<sup>2</sup> 0.5 - 2.5 tmax.=8mm rigid rigid without with fine-stranded 0.5 - 1.5 fine-stranded 0.75 - 6.0 ferrules without ferrules with 0.75 – 1.5 stranded stranded ferrules ferrules Ø20,4-0,2 19 Term. poles Term. poles Thread M20 x 1.5 Thread M20 x 1.5 Gland inside Gland inside Coding Application Color Part No. Part No. 96.023.6053.0 96.023.2053.0 gray 250V Protection class II L, N black 96.023.2053.1 96.023.6053.1 signal brown 96.023.2051.4 96.023.6051.4 e.g. LED serial, 24V 1, 2 Extra-low voltage pebble gray 96.023.2050.8 96.023.6050.8 +, e.g. LED parallel, AS-i

## Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device. 90° angle.

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







wahlweise Verdrehsicherung optional protection against twisting			with spring c	lamp connec	tion	with screw co	nnection <sup>1)</sup>		
				Wire	mm <sup>2</sup>	Ferrules	Wire	mm <sup>2</sup>	
t tmax.=8mm				rigid	0.5 - 2.5		rigid		
			fine-stranded	0.5 - 1.5	with ferrules	fine-stranded	0.75 - 6.0	without ferrules	
				stranded	0.75 – 1.5	with ferrules	stranded	w fe	without ferrules
		Ø20,4-0,2		Term. poles	2		Term. poles	1	
	I			Thread	M20 x 1.5		Thread	M20 x 1.5	
				Gland	inside		Gland	inside	
Application	(	Coding	Color		Part No.			Part No.	
250V	Protection class II		gray	Ę	96.024.2053.0		9	6.024.6053.0	
230 V	1101001011 01035 11	L, N	black	ç	6.024.2053.1		9	6.024.6053.1	
Extra-low	e.g. LED serial, 24V	1, 2	signal brown	ç	6.024.2051.4		9	6.024.6051.4	-
voltage e.g. LED parallel, AS-i 💮 +, – pebble gray		96.024.2050.8			96.024.6050.8				

# M25 device connector angled 90°, modular



### Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device. 90° angle.

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







	wahlweise Verdrehsich optional protection a	nerung against twisting		with spring	clamp conne	ction	with screw c	onnection <sup>1)</sup>	
		_		Wire	mm <sup>2</sup>	Ferrules	Wire	mm <sup>2</sup>	
		t max -	8mm	rigid	0.5 - 2.5		rigid		
			fine-stranded	0.5 - 1.5	with ferrules	fine-stranded	0.75 - 6.0	without ferrules	
			stranded	0.75 – 1.5	with ferrules	stranded		without ferrules	
	6	Ø25,4-0.2	_	Term. poles	2		Term. poles	1	
	m l			Thread	M25 x 1.5		Thread	M25 x 1.5	
	7			Gland	inside		Gland	inside	
Application	C	oding	Color		Part No.			Part No.	
2501/	Protection class II		gray		96.024.2253.0	)		96.024.6253.	0
2307	I TULECLIUIT CIASS II	L, N	black		96.024.2253.1			96.024.6253.	1
Extra-low	e.g. LED serial, 24V	1, 2	signal brown		96.024.2251.4	1		96.024.6251.4	4
voltage	e.g. LED parallel, AS-i	() +, -	pebble gray		96.024.2250.8	3		96.024.6250.	8

1) With wire protection available on request

# Accessories – Cover pieces

# **Cover pieces**

for female





not captive against loss	for female	for male
Color	Part No.	Part No.
light grey	Z5.564.4553.0	05.564.4453.0
■ black	Z5.564.4553.1	05.564.4453.1

For the safe closure of female and male connectors. With mounting strap for snapping onto plug connectors and device connectors

for male



### for female



for male



captive against loss	for female	for male
Color	Part No.	Part No.
light grey	99.413.6205.2	99.415.6205.2
■ black	99.414.6205.2	99.416.6205.2

# Cable assemblies Cable 2 x 1.5 mm<sup>2</sup>; 16 A

Rated values			Pull relief	shrinkage tube
Wire ends	(open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length	(open cable end)	35 mm	Color cable	black
Wire strip length	(open cable end)	9 mm	Color shrinkage tube	black

#### Connection cables female - male



		Protection class II 250V	Extra-low voltage e.g. LED serial. 24V	Extra-low voltage e.g. LED parallel, AS-i
		N = BU L = BN	1 = BU 2 = BN	- = BU + = BN
Cable	Length m	Part No.	Part No.	Part No.
	1	96.222.1000.1	96.222.1002.4	on request
	2	96.222.2000.1	96.222.2002.4	
PVC cable	3	96.222.3000.1	96.222.3002.4	
H05VV-F	4	96.222.4000.1	96.222.4002.4	
	5	96.222.5000.1	96.222.5002.4	
containing halogen	6	96.222.6000.1	96.222.6002.4	
0 0	7	96.222.7000.1	96.222.7002.4	
	8	96.222.8000.1	96.222.8002.4	
			·	
Cable	Length m	Part No.	Part No.	Part No.
	1	96.222.1030.1	96.222.1032.4	on request
	2	96.222.2030.1	96.222.2032.4	
Rubber-sheathed cable	3	96.222.3030.1	96.222.3032.4	
H07RN-F	4	96.222.4030.1	96.222.4032.4	
	5	96.222.5030.1	96.222.5032.4	
containing halogen	6	96.222.6030.1	96.222.6032.4	
-	7	96.222.7030.1	96.222.7032.4	
	8	96.222.8030.1	96.222.8032.4	

2-pole connectors – one pole is not configured.



72 Other cable lengths, other codings upon request
#### Cable assemblies Cable 2 x 1.5 mm<sup>2</sup>; 16 A

Connection cables male – free end									
			Protection class II 250V	Extra-low voltage e.g. LED serial, 24V	Extra-low voltage e.g. LED parallel, AS-i				
		1	L = BN	2 = BN	• + = BN				
	Cable	Length m	Part No.	Part No.	Part No.				
		1	96.222.1004.1	96.222.1008.4	on request				
	DVC ashla	2	96.222.2004.1	96.222.2008.4					
	PVC cable	3	96.222.3004.1	96.222.3008.4					
	HU5VV-F	4	96.222.4004.1	96.222.4008.4					
		5	96.222.5004.1	96.222.5008.4					
	containing halogen	6	96.222.6004.1	96.222.6008.4					
		/	96.222.7004.1	96.222.7008.4					
		8	96.222.8004.1	96.222.8008.4					
				1					
	Cable	Length m	Part No.	Part No.	Part No.				
		1	96.222.1034.1	96.222.1038.4	on request				
		2	96.222.2034.1	96.222.2038.4					
	Rubber-sheathed cable	3	96.222.3034.1	96.222.3038.4					
- ~ ~ ~ / / / / / / / / / / / / / / / /	H07RN-F	4	96.222.4034.1	96.222.4038.4					
		5	96.222.5034.1	96.222.5038.4					
$\uparrow \downarrow \downarrow \downarrow$	containing halogen	6	96.222.6034.1	96.222.6038.4					
		7	96.222.7034.1	96.222.7038.4					
		8	96.222.8034.1	96.222.8038.4					
2-pole connectors – one pole is not configured.									

#### **Power Connection cable**

Male: european standard (SKII) – female: RST®



		250V Color: black
Cable	Length m	Part No
Bubbar aboathod apple	1.5	99.708.0000.7
H07RN_F	2.5	99.709.0000.7
containing halogen		

Protection class II

#### Cable assemblies Cable 2 x 1.5 mm<sup>2</sup>; 16 A

Rated values			Pull relief	shrinkage tube
Wire ends (ope	pen cable end)	ultrason. welded	Interlock	integrated
Sheath strip length (ope	pen cable end)	35 mm	Color cable	gray
Wire strip length (ope	pen cable end)	9 mm	Color shrinkage tube	black





#### Cable assemblies Cable 2 x 1.5 mm<sup>2</sup>; 16 A



#### Cable assemblies Cable 2 x 2.5 mm<sup>2</sup>; 20 A

Rated values		Pull relief	shrinkage tube
Wire ends (open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length (open cable end)	35 mm	Color cable	gray
Wire strip length (open cable end)	9 mm	Color shrinkage tube	black





#### Cable assemblies Cable 2 x 2.5 mm<sup>2</sup>; 20 A



#### **Distribution block**

Distribution block 1I/30 (parallel connection), Interlock for protection class II, AS-i or LEDs





#### with fastening option

Color	Application	Pole marking	Input	Outputs	Part No.
black	250 V	L, N	1	2	96.020.0153.1
light grey	250 V	L, N	1	2	96.020.0153.0
signal brown	Extra-low voltage	1, 2	1	2	96.020.0151.4
pebble gray	Extra-low voltage	+, -	1	2	96.020.0150.8

Yes



Circuit diagram

#### without fastening option

Color	Application	Pole marking	Input	Outputs	Part No.
black	250 V	L, N	1	2	96.020.0253.1
light grey	250 V	L, N	1	2	96.020.0253.0
signal brown	Extra-low voltage	1, 2	1	2	96.020.0251.4
pebble gray	Extra-low voltage	+, -	1	2	96.020.0250.8

#### Distribution block 1 I/3 O (series connection) for power LEDs





with fastening option Color

Application signal brown Extra-low voltage

1, 2

Pole marking Input Outputs Part No. 99.910.0000.7

Circuit diagram







Color	Application	Pole marking	Input	Outputs	Part No.
signal brown	Extra-low voltage	1, 2			99.537.0000.7

For jumpering od unused slots on the series distribution unit

e.g. circuit diagrams



### **Distribution unit**



# Standard variant for network applications – polyphase systems, switching applications 250 V and low voltage

#### **Application example**



#### General

With the 3-pole connectors, there are four available variants: the standard variant for general network applications, one for extra-low voltage up to 50V with ground conductor, one for switching applications up to 250V and a green coding for applications in polyphase systems.

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

For daily updates	visit the website at			Application	Pov	wer	Power	Extra-low voltage	Switch function
http://eshop.wieland-electric.com. Assembly instructions and other technical information can be found in the Technical Data or in eShop.			Mechanical	25 L, N	0V ,	250/400V 1, 2, ∉	signals bus 50V 1, 2, 🖶	250V 1, 2, 3	
				for example	Ć	)		۲	۲
Name	Description	Connection style	Strain relief housing	Connection points per pole	gray	black	green	brown	light blue
Commentar	1 x cable entry	Screw Spring clamp Crimp	yes	1	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Connector	2 x cable entry	Screw Spring clamp Crimp	yes	2	$\checkmark$	$\checkmark$	$\checkmark$		
Distribution units	Distribution block 11/30				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	RST compact distribution unit / multi-distribution unit				on request	on request	on request	on request	on request
	Individual distribution box				on request	on request	on request	on request	on request
	M16 device connector, modular, straight				$\checkmark$	$\checkmark$	$\checkmark$	$\overline{\mathbf{v}}$	$\checkmark$
	M16 device connector, modular, angled 7°				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Device	M25 device connector, standard				$\sim$	$\checkmark$	$\sim$	$\sim$	
connectors	M20 device connector, standard				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	V
	M20 device connector, modular, angled				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	M25 device connector, modular, angled				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
a.u.	Connection cable Male – Free end	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\overline{\mathbf{v}}$	
	Connection cable	pre-	pre-	pre-	$\overline{\mathbf{v}}$	$\overline{\mathbf{v}}$	$\overline{\mathbf{A}}$	$\overline{\mathbf{A}}$	
assemblies	Extension cable Male – Female	pre- assembled	pre- assembled	pre- assembled	V	$\checkmark$	$\overline{\mathbf{V}}$	$\overline{\checkmark}$	
	Connection cable Schuko – Female	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$			

## **Connectors,** straight for cables Ø 6 – 10 mm and 10 – 14 mm

|--|

Unmounted with cable gland.

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

						17.9
				with spring clamp conn.           Wire         mm²           rigid         0.5         - 2.5           fine-stranded         0.5         - 1.5           stranded         0.75         - 1.5	with screw connection <sup>1)</sup> Wire         mm <sup>2</sup> rigid         0.75 - 6.0 <sup>2</sup> stranded         0.75 - 6.0 <sup>2</sup>	with crimp connection           Wire         mm²           fine-stranded         0.75 – 4.0
Application	Coding	Cable diameter in mm	Color	Part No.	Part No.	Part No.
Power	🛞 L, N,	6 - 10	gray black	96.031.0053.0 96.031.0053.1 96.031.0153.0	96.031.4053.0 96.031.4053.1 96.031.4153.0	96.131.0053.0 96.131.0053.1
250 V	•	10 – 14	black	96.031.0153.1	96.031.4153.1	96.131.0153.1
Power 250/400 V	() (€) (€)	6 - 10 10 -14	green	96.031.0055.7 96.031.0155.7	96.031.4055.7 96.031.4155.7	
Extra-low voltage	() () () () () () () () () () () () () (	<u>6 - 10</u> 10 -14	brown	96.031.0051.4 96.031.0151.4	96.031.4051.4 96.031.4151.4	
Switch.func. 250 V	() 1, 2, 3	6 – 10 10 –14	light blue	96.031.0053.9 96.031.0153.9	96.031.4053.9 96.031.4153.9	
				Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)	Fine-stranded and stranded wires <b>without</b> ferrules	Contacts separately under Accessories.

#### Male connector

Unmounted with cable gland and locking device.

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







SW 27

82 g.

						-
				with spring clamp conn.	with screw connection <sup>1)</sup>	with crimp connection
				Wire         mm²           rigid         0.5         - 2.5           fine-stranded         0.5         - 1.5           stranded         0.75 - 1.5	Wire         mm <sup>2</sup> rigid	Wire         mm²           fine-stranded         0.75 - 4.0
Application	Coding	Cable diameter in mm	Color	Part No.	Part No.	Part No.
Power	🛞 N, L,	6 – 10	gray black	96.032.0053.0 96.032.0053.1	96.032.4053.0 96.032.4053.1	96.132.0053.0 96.132.0053.1
250 V		10 - 14	gray black	96.032.0153.0 96.032.0153.1	96.032.4153.0 96.032.4153.1	96.132.0153.0 96.132.0153.1
Power 250/400 V	( <b>1</b> , 1, ⊕	6 – 10 10 –14	green	96.032.0055.7 96.032.0155.7	96.032.4055.7 96.032.4155.7	
Extra-low voltage	<b>()</b> <sup>2, 1,</sup> ⊕	6 – 10 10 –14	brown	96.032.0051.4 96.032.0151.4	96.032.4051.4 96.032.4151.4	
Switch.func. 250 V	2, 1 3	<u>6 - 10</u> 10 -14	light blue	96.032.0053.9 96.032.0153.9	96.032.4053.9 96.032.4153.9	
				Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)	Fine-stranded and stranded wires <b>without</b> ferrules	Contacts separately under Accessories.

## **Connectors,** angled 90° for cables Ø 6 – 10 mm and 10 – 14 mm

Female Unmounte 90° angle. See the Ter lengths as	e conne d with cable chnical Data well as the	<b>ctor</b> e gland. a for insulation strip ferrules to be used.		Ø34,6		55,5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
				with spring clamp conn.           Wire         mm²           rigid         0.5 - 2.5           fine-stranded         0.5 - 1.5           stranded         0.75 - 1.5	with screw connection <sup>1)</sup> Wire     mm <sup>2</sup> rigid     fine-stranded       stranded     0.75 - 6.0 <sup>21</sup>	with crimp connection           Wire         mm <sup>2</sup> fine-stranded         0.75 - 4.0
Application	Coding	Cable diameter in mm	Color	Part No.	Part No.	Part No.
Power 250 V	€ L, N,	6 - 10 10 - 14	gray black gray black	96.033.0053.0 96.033.0053.1 96.033.0153.0 96.033.0153.1	96.033.4053.0 96.033.4053.1 96.033.4153.0 96.033.4153.1	96.133.0053.0 96.133.0053.1 96.133.0153.0 96.133.0153.1
Power 250/400 V	() ↓ 2, ⊕	6 – 10 10 –14	green	96.033.0055.7 96.033.0155.7	96.033.4055.7 96.033.4155.7	
Extra-low	1, 2, (E)	6-10	brown	96.033.0051.4	96.033.4051.4	
Switch.func. 250 V	1, 2, 3	6 – 10 10 –14	light blue	96.033.0151.4 96.033.0053.9 96.033.0153.9	96.033.4053.9 96.033.4153.9 96.033.4153.9	
				Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)	Fine-stranded and stranded wires <b>without</b> ferrules	Contacts separately under Accessories.
Male c	onnecto	or		•		

Unmounted with cable gland and locking device. 90° angle.

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







				with spring clamp conn.	with screw connection <sup>1)</sup>	with crimp connection
				Wire mm <sup>2</sup>	Wire mm <sup>2</sup>	Wire mm <sup>2</sup>
				rigid 0.5 – 2.5	rigid	fine-stranded 0.75 – 4.0
				fine-stranded 0.5 - 1.5	fine-stranded 0.75 – 6.0 <sup>2)</sup>	
				stranded 0.75 - 1.5	stranded	
Application	Coding	Cable diameter in mm	Color	Part No.	Part No.	Part No.
		gra		96.034.0053.0	96.034.4053.0	96.134.0053.0
Power	🖶 N. I.	6 - 10	black	96.034.0053.1	96.034.4053.1	96.134.0053.1
250 V		10 14	gray	96.034.0153.0	96.034.4153.0	96.134.0153.0
		10 - 14	black	96.034.0153.1	96.034.4153.1	96.134.0153.1
Power	2, 1,	6 - 10	groop	96.034.0055.7	96.034.4055.7	
250/400 V	<b>V</b> 🕀	10 - 14	green	96.034.0155.7	96.034.4155.7	
Extra-low	2, 1,	6 - 10	brown	96.034.0051.4	96.034.4051.4	
voltage	•	10 – 14	biowii	96.034.0151.4	96.034.4151.4	
Switch.func.	2, 1	6 - 10	light blue	96.034.0053.9	96.034.4053.9	
250 V	3	10 –14	light blue	96.034.0153.9	96.034.4153.9	
				Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)	Fine-stranded and stranded wires <b>without</b> ferrules	Contacts separately under Accessories.

## **Connectors,** straight for cables Ø 13 – 18 mm

Female connector Unmounted with cable gland. See Technical Data for sheath and insulation strip lengths.	Ø35,4	SW32 0'96'0'		
	Wire     mm <sup>2</sup> rigid	with crimp connection           Wire         mm²           fine-stranded         0.75 - 4.0		
	stranded 0.75 0.0 without ferrules			
Application Coding Cable diameter in mm Color	Part No.	Part No.		
Power 250 V L, N, 13 –18 gray black	96.031.4553.0 96.031.4553.1 96.031.4555.7	96.131.4553.0 96.131.4553.1		
250/400 V ⊕ 13 –18 green	50.051.4555.7			
	Fine-stranded and stranded wires without ferrules	Contacts separately under Accessories.		
Male connector Unmounted with cable gland and locking device. See Technical Data for sheath and insulation strip lengths.	Ø35,4	SW32		

				with screw of	connection <sup>1)</sup>		with crimp	with crimp connection		
				Wire	mm <sup>2</sup>		Wire	mm <sup>2</sup>		
				rigid			fine-stranded	0.75 - 4.0		
				fine-stranded	$0.75 - 6.0^{2}$	without ferrules				
				stranded		without terrules				
Application	Coding	Cable diameter in mm	Color		Part No.		Part No.			
Power 250 V	(∰ N, L, €	13 –18	gray black		96.032.4553 96.032.4553	.0 .1	96.132.4553.0 96.132.4553.1			
Power 250/400 V	( <b>€</b> ) 2, 1, ( <b>€</b> )	13 –18	green		96.032.4555	.7				
				Fine-stranded and s	stranded wires without	ferrules	Contacts separatel	y under Accessories.		

16,5

Î,

## **Splitter connector,** straight for cables Ø 6 – 10 mm and 10 – 14 mm

Female connector		SW 27		
Unmounted with cable gland.				
See the Technical Data for insulation strip lengths as well as the ferrules to be used.	59			
	with spring clamp connection	with screw connection <sup>1)</sup>		
	Leitungen         mm²           rigid         0.5         - 2.5           fine-stranded         0.5         - 1.5           stranded         0.75         - 1.5	Leitungen         mm²           rigid		
Application Coding Cable diameter in mm Color	Part No.	Part No.		
Power $250 V$ L, N, $\textcircled{\bullet}$ $6 - 10$ gray blackPower 	96.031.0253.0 96.031.0253.1 96.031.0353.0 96.031.0353.1 96.031.0255.7 96.031.0355.7 96.031.0355.9	96.031.4253.0 96.031.4253.1 96.031.4353.0 96.031.4353.1 96.031.4255.7 96.031.4355.7		
	Fine-stranded and stranded wires only with ferrules (see accessories)	Fine-stranded and stranded wires without ferrules		

#### Mounting plate for splitter connectors





∉

Color	Part No.
gray	01.006.1553.0
■ black	01.006.1553.1

#### M25 device connector straight, standard

#### **Female connector** Correct positioning guaranteed due to flattened thread. Fastening with screws M 25x1,5 36.95 from outside. See the Technical Data for insulation strip lengths as well as the ferrules to be used. SW 32 Ø 35 For the spacer rings for unlocking the device connectors, see Accessories. wahlweise Verdrehsicherung optional protection against twisting with spring clamp conn. with screw connection with crimp connection Wire Wire Wire mm<sup>2</sup> mm<sup>2</sup> 0.5 - 2.5 rigid fine-stranded $\dagger max. = 8 mm$ rigid fine-stranded 0.5 - 1.5 fine-stranded Term. poles 0.75 - 6.00.75 - 1.5 Thread stranded stranded Term. poles Term. poles Gland 0.2 Thread M25 x 1.5 M25 x 1.5 Thread Ø25,4-0,2 23,9-0 Gland outside Gland outside Part No.



#### Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from outside. With locking device.

See the Technical Data for insulation strip lengths.





96.031.5053.0

96.031.5053.1

96.031.5055.7

96.031.5051.4

96.031.5053.9



SW 24

шн

mm<sup>2</sup>

0.75 - 4.0

M25 x 1.5

outside

Part No.

96.131.1053.0

96.131.1053.1

Contacts separately under Accessories.

vahl v opt i o	eise Verdrehsicherung nal protection agains	t tvisting t mox.=8mm 	with spring clamp conn.           Wire         mm²           rigid         0.5         - 2.5           fine-stranded         0.5         - 1.5           stranded         0.75         - 1.5           Term. poles         2         2           Thread         M25 x 1.5         Gland	with screw connection       Wire     mm <sup>2</sup> rigid     fine-stranded       fine-stranded     0.75 - 6.0       stranded     Thread       Thread     M25 x 1.5       Gland     outside	with crimp connection       Wire     mm <sup>2</sup> fine-stranded     0.75 - 4.0       Term. poles     1       Thread     M25 x 1.5       Gland     outside
Application	Coding	Color	Part No.	Part No.	Part No.
Power 250 V	🛞 N, L, 🕀	gray black	96.032.1053.0 96.032.1053.1	96.032.5053.0 96.032.5053.1	96.132.1053.0 96.132.1053.1
Power 250/400 V	2, 1, 🖶	green	96.032.1055.7	96.032.5055.7	
Extra-low voltage	2, 1, 🕀	brown	96.032.1051.4	96.032.5051.4	
Switch.func. 250 V	2, 1, 3	light blue	96.032.1053.9	96.032.5053.9	
			Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)	Fine-stranded and stranded wires <b>without</b> ferrules	Contacts separately under Accessories.

#### M20 device connector straight, modular



#### M16 device connector straight, modular

#### **Female connector**

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside.

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







wa op	hlweise Verdrehsicher tional protection aga	ung inst twisting	with spring clamp connection		with screw connection		with crimp connection	
	\		Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>	Wire	mm2
	$\times$		rigid	0.5 - 2.5	rigid		fine-stranded	0.75 - 4.0
¥		T max. = 8 MM	fine-stranded	0.5 - 1.5	fine-stranded	0.75 - 6.0	Term. poles	1
			stranded	0.75 – 1.5	stranded		Thread	M16 x 1.5
			Term. poles	2	Term. poles	1	Gland	inside
-0.2			Thread	M16 x 1.5	Thread	M16 x 1.5		
15	ø16	, 4 -0,2	Gland	inside	Gland	inside		
Application	Coding	Color	Part No.		Pa	art No.	P	art No.
Power 250 V	(i) L, N, ⊕	gray black	96.031 96.031	96.031.2153.0 96.031.2153.1		96.031.6153.0 96.031.6153.1		31.2153.0 31.2153.1
Power 250/400 V	1, 2, 🕀	green	96.031	1.2155.7	96.03	31.6155.7		
Extra-low voltage	1, 2, 🕀	brown	96.031.2151.4		96.03	96.031.6151.4		
Switch.func. 250 V	1, 2, 3	light blue	96.031.2153.9		96.031.6153.9			
			Fine-stranded and stra ferrules (see accessori	nded wires <b>only with</b> es)	Fine-stranded and st ferrules	randed wires without	Contacts separately	under Accessories.

#### Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device.

See the Technical Data for insulation strip lengths.







wahl opti	lweise Verdrehsicheru ional protection agai	ing inst twisting	with spring clamp connection with screw connection			with crimp connection		
$\leq$	$\sim$		Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>
1	$\times$ )	+ 0mm	rigid	0.5 - 2.5	rigid		fine-stranded	0.75 - 4.0
		1 max. = 011111	fine-stranded	0.5 - 1.5	fine-stranded	0.75 - 6.0	Term. poles	1
			stranded	0.75 – 1.5	stranded		Thread	M16 x 1.5
	$\langle \gamma \rangle$		Term. poles	2	Term. poles	1	Gland	inside
			Thread	M16 x 1.5	Thread	M16 x 1.5	-	
15	Ø16.	, 4 -0,2	Gland	inside	Gland	inside		
Application	Coding	Color	Part	No.	Par	t No.	Pai	rt No.
-				0.150.0	00 000 0150 0			
Power	👾 N, L, 🕀	gray	96.032	.2153.0	96.032.6153.0		96.132.2153.0	
250 V		black	96.032	.2153.1	96.032	2.6153.1	96.132.2153.1	
Power 250/400 V	2, 1, 🕀	green	96.032	.2155.7	96.032.6155.7			
Extra-low voltage	2, 1, 🕀	brown	96.032.2151.4		96.032.6151.4			
Switch.func. 250 V	2, 1, 3	light blue	96.032.2153.9		96.032.6153.9			
			Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)		Fine-stranded and stranded wires <b>without</b> ferrules		Contacts separately u	inder Accessories.

#### M16 device connector angled 7°, modular

	<b>.</b>						SW24	
Correct positioning gua thread. Fastening with s Angled 7°, thread M16. See the Technical Data lengths as well as the fe	ranteed due to screws from in for insulation s errules to be us	o flattened Iside. strip sed.	Ø34,	7		M	19,4 co.87	
wahlweise optional j	Verdrehsicherung protection agains	g st twisting	with spring clar Wire rigid	mp connection	Wire rigid	mm <sup>2</sup>	with crimp connection           Wire         mm²           fine-stranded         0.75 - 4.0	
-1- 		20,4-0.2	fine-stranded stranded Term. poles Thread Gland	0.5 – 1.5 0.75 – 1.5 2 M16 x 1.5 inside	fine-stranded stranded Term. poles Thread Gland	0.75 – 6.0 1 M16 x 1.5 inside	Term. poles     1       Thread     M16 x 1.5       Gland     inside	
Application Codin	g	Color	Part 1	√o.		Part No.	Part No.	
Power 250 V	L, N,	gray black	96.035. 96.035.	2153.0 2153.1	96.0 96.0	35.6153.0 35.6153.1	96.135.2153.0 96.135.2153.1	
250/400 V	1, 2, 🕀	green	96.035.	2155.7	96.0	35.6155.7		
voltage	1, 2, 🕀	brown	96.035.	2151.4	96.0	35.6151.4		
250 V	1, 2, 3	light blue	96.035.	2153.9	96.0	35.6153.9		
			Fine-stranded and strand ferrules (see accessories)	ed wires only with	Fine-stranded and s ferrules	randed wires without	Contacts separately under Accessorie	es.
Correct positioning gua thread. Fastening with s With locking device. Angled 7°, thread M16. See the Technical Data lengths.	ranteed due to screws from in for insulation s	o flattened iside. strip	ø34		5)	N	16.5 co.84	
wahlweise optional	Verdrehsicherung	g st twisting	with spring clar	np connection	with screw	connection	with crimp connection	
19-412		t max. = 8mm ) 20, 4 -0.2	Wire rigid fine-stranded stranded Term. poles Thread Gland	mm <sup>2</sup> 0.5 - 2.5 0.5 - 1.5 0.75 - 1.5 2 M16 x 1.5 inside	Wire rigid fine-stranded stranded Term. poles Thread Gland	mm <sup>2</sup> 0.75 - 6.0 1 M16 x 1.5 inside	Wiremm²fine-stranded0.75 - 4.0Term. poles1ThreadM16 x 1.5Glandinside	
Application Codin	g	Color	Part I	lo.		Part No.	Part No.	
Power 250 V	N, L, 🖶	gray black	96.036. 96.036.	2153.0 2153.1	96.0 96.0	36.6153.0 36.6153.1	96.136.2153.0 96.136.2153.1	
Power 250/400 V	2, 1, 🕀	green	96.036.	2155.7	96.0	36.6155.7		
voltage	2, 1, 🖶	brown	96.036.	2151.4	96.0	36.6151.4		
250 V	2, 1, 3	light blue	96.036.	2153.9	96.0	36.6153.9		
			ferrules (see accessories)		ferrules	anada wiros without	Contacts separately under Accessorie	əs.

#### M20 device connector angled 90°, modular

#### **Female connector**



optional protection against twisting		with spring clamp connection						
$\leq$			Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>
	$\downarrow$ $\searrow$ $\downarrow$ $\downarrow$	tmax - 8mm	rigid	0.5 - 2.5	rigid		fine-stranded	0.75 - 4.0
			fine-stranded	0.5 - 1.5	fine-stranded	0.75 - 6.0	Term. poles	1
			stranded	0.75 - 1.5	stranded		Thread	M20 x 1.5
			Term. poles	2	Term. poles	1	Gland	inside
-0.2			Thread	M20 x 1.5	Thread	M20 x 1.5		
19		0,4-0,2	Gland	inside	Gland	inside		
Application	Coding	Color	Part No.		Par	t No.	Pa	rt No.
D	435		00.00	00 000 0050 0		06 022 6052 0		0 0050 0
Power	🧐 L, N, 🕀	gray	90.03	3.2053.0	90.033.0053.0		90.13	3.2053.0
Bower		DIACK	90.03	3.2003.1	90.033.0053.1		90.13	03.2003.1
250/400 V	1, 2, 🕀	green	96.03	3.2055.7	96.033.6055.7			
Extra-low								
voltage	1, 2, 🕀	brown	96.03	3.2051.4	96.033	3.6051.4		
Switch.func.		Back to be a			00.000	0050 0		
250 V 1, 2, 3 light blue		96.03	3.2053.9	96.033	3.6053.9			
			Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)		Fine-stranded and stranded wires <b>without</b> ferrules		Contacts separately u	inder Accessories.

#### Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device.

See the Technical Data for insulation strip lengths.







wahlweise Verdrehsicherung optional protection against twi	sting	with spring clamp connection with screw connection			with crimp connection		
¢20,4-	ox.=8mm fin str Te h.2 Gla	/ire //ire //ire //ire //ire //ire //ireaded //ireade //iread	mm <sup>2</sup> 0.5 - 2.5 0.5 - 1.5 0.75 - 1.5 2 M20 x 1.5 inside	Wire rigid fine-stranded stranded Term. poles Thread Gland	mm <sup>2</sup> 0.75 – 6.0 1 M20 x 1.5 inside	Wire fine-stranded Term. poles Thread Gland	mm <sup>2</sup> 0.75 – 4.0 1 M20 x 1.5 inside
Application Coding Color		Part No.		Part No.		Part	No.
Power 250 V N, L, 🕀	gray black	96.034.2053.0 96.034.2053.1		96.034.6053.0 96.034.6053.1		96.134 96.134	l.2053.0 l.2053.1
Power 250/400 V 0 2, 1, ⊕	green	96.034.2	2055.7	96.034.6055.7			
Extra-low voltage 2, 1, 🕀	brown	96.034.2051.4		96.034.6051.4			
Switch.func. 250 V 2, 1, 3	light blue	96.034.2053.9		96.034.6053.9			
	Fin fer	ne-stranded and strand rrules (see accessories)	ed wires only with	Fine-stranded and stran ferrules	ded wires without	Contacts separately un	der Accessories.

#### M25 device connector angled 90°, modular



#### Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device.

See the Technical Data for insulation strip lengths.







wahlwe option	ise Verdrehsicherung al protection against	twisting	with spring clamp connection		with screw connection		with crimp c	with crimp connection	
t max. = 8mm			Wire rigid fine-stranded stranded Term. poles Thread Gland	mm <sup>2</sup> 0.5 - 2.5 0.5 - 1.5 0.75 - 1.5 2 M25 x 1.5 inside	Wire rigid fine-stranded stranded Term. poles Thread Gland	mm <sup>2</sup> 0.75 – 6.0 1 M25 x 1.5 inside	Wire fine-stranded Term. poles Thread Gland	mm²           0.75 - 4.0           1           M25 x 1.5           inside	
Application	Application Coding Color		Part No.		Part No.		Pa	art No.	
Power 250 V	🛞 N, L, 🕀	gray black	96.034 96.034	4.2253.0 4.2253.1	96.034.6253.0 96.034.6253.1		96.134.2253.0 96.134.2253.1		
Power 250/400 V	2, 1, 🕀	green	96.034	4.2255.7	96.034.6255.7				
Extra-low voltage	2, 1, 🕀	brown	96.034.2251.4		96.034.6251.4				
Switch.func. 250 V	2, 1, 3	light blue	96.034.2253.9		96.034	96.034.6253.9			
			Fine-stranded and stranded wires <b>only with</b> ferrules (see accessories)		Fine-stranded and stranded wires <b>without</b> ferrules		Contacts separately	under Accessories.	

#### Cable assemblies Cable 3 x 1.5 mm<sup>2</sup>; 16 A

Rated values		Pull relief	shrinkage tube
Wire ends     (open cable end)     ultrason. welded		Interlock	integrated
Sheath strip length (open cable end)	35 mm	Color cable	black
Wire strip length (open cable end)	9 mm	Color shrinkage tube	black

Connection cables female -	- male				
			Power	Power	Switching
			250V	250V / 400V	application 250V
			() () () () () () () () () ()	€ = GN/YE 1 = BU 2 = BN	3 = BN 2 = BU 1 = BK
	Cable	Length m	Part No.	Part No.	
<u>→ Ø 25</u> →		1	96.232.1000.1	96.232.1001.7	
		2	96.232.2000.1	96.232.2001.7	
	PVC cable	3	96.232.3000.1	96.232.3001.7	
	H05VV-F	4	96.232.4000.1	96.232.4001.7	
		5	96.232.5000.1	96.232.5001.7	
	containing halogen	6	96.232.6000.1	96.232.6001.7	
		7	96.232.7000.1	96.232.7001.7	
		8	96.232.8000.1	96.232.8001.7	
	Cable	Length m	Part No.	Part No.	Part No.
		1	96.232.1030.1	96.232.1031.7	on request
		2	96.232.2030.1	96.232.2031.7	
	Rubber-sheathed cable	3	96.232.3030.1	96.232.3031.7	
	H07RN-F	4	96.232.4030.1	96.232.4031.7	
		5	96.232.5030.1	96.232.5031.7	
	containing halogen	6	96.232.6030.1	96.232.6031.7	
		7	96.232.7030.1	96.232.7031.7	
		8	96.232.8030.1	96.232.8031.7	
	Cable	Length m	Part No.		
		1	96.232.1050.1		
	Pubbor shoathod cable	2	96.232.2050.1		
		3	96.232.3050.1		
	enhanced version	4	96.232.4050.1		
		5	96.232.5050.1		
	halogen-free	6	96.232.6050.1		
		7	96.232.7050.1		
		8	96.232.8050.1		

Connection cables female -	- free end		Power 250V	Power 250V / 400V	Switching application 250V
			(Contraction of the second sec	(     (     (     )     (	3 = BN 2 = BU 1 = BK
	Cable	Length m	Part No.	Part No.	
- 10 25 -		1	96.232.1003.1	96.232.1005.7	
		2	96.232.2003.1	96.232.2005.7	
	PVC cable	3	96.232.3003.1	96.232.3005.7	
	H05VV-F	4	96.232.4003.1	96.232.4005.7	
		5	96.232.5003.1	96.232.5005.7	]
	containing halogen	6	96.232.6003.1	96.232.6005.7	
		7	96.232.7003.1	96.232.7005.7	
		8	96.232.8003.1	96.232.8005.7	
	Cable	Length m	Part No.	Part No.	Part No.
		1	96.232.1033.1	96.232.1035.7	on request
		2	96.232.2033.1	96.232.2035.7	
	Rubber-sheathed cable	3	96.232.3033.1	96.232.3035.7	
	H07RN-F	4	96.232.4033.1	96.232.4035.7	
		5	96.232.5033.1	96.232.5035.7	
	containing halogen	6	96.232.6033.1	96.232.6035.7	
		7	96.232.7033.1	96.232.7035.7	
		8	96.232.8033.1	96.232.8035.7	
				_	
	Cable	Length m	Part No.		
		1	96.232.1053.1		
	Bubbox aboathod cable	2	96.232.2053.1		
· · · · · · · · · · · · · · · · · · ·		3	96.232.3053.1		
	enhanced version	4	96.232.4053.1		
	emanceu version	5	96.232.5053.1		
	halogen-free	6	96.232.6053.1		
		7	96.232.7053.1		
		8	96.232.8053.1		

#### Cable assemblies Cable 3 x 1.5 mm<sup>2</sup>; 16 A

tion cables male	- free end		Power 250V	Power 250V / 400V	Switching application 250V	
			(     (     )	() = GNYE 1 = BU 2 = BN	3 = BN 2 = BU 1 = BK	
Ø 25	Cable	Length m	Part No.	Part No.		
		1	96.232.1004.1	96.232.1006.7	1	
		2	96.232.2004.1	96.232.2006.7		
	PVC cable	3	96.232.3004.1	96.232.3006.7	-	
	H05VV-F	4	96.232.4004.1	96.232.4006.7	-	
		5	96.232.5004.1	96.232.5006.7	]	
	containing halogen	6	96.232.6004.1	96.232.6006.7	-	
		7	96.232.7004.1	96.232.7006.7	]	
		8	96.232.8004.1	96.232.8006.7		
					-	
7	Cable	Length m	Part No.	Part No.	Part No.	
		1	96.232.1034.1	96.232.1036.7	on request	
		2	96.232.2034.1	96.232.2036.7		
	Rubber-sheathed cable	3	96.232.3034.1	96.232.3036.7		
	H07RN-F	4	96.232.4034.1	96.232.4036.7		
		5	96.232.5034.1	96.232.5036.7		
	containing halogen	6	96.232.6034.1	96.232.6036.7		
		7	96.232.7034.1	96.232.7036.7		
		8	96.232.8034.1	96.232.8036.7		J
	Cable	Length m	Part No.			
		1	96.232.1054.1			
	Bubber-sheathed cable	2	96.232.2054.1			
44X [	H07RN_F	3	96.232.3054.1			
	enhanced version	4	96.232.4054.1			
		5	96.232.5054.1			
	halogen-free	6	96.232.6054.1			
		7	96.232.7054.1			
		8	96 232 805/ 1			

#### **Power Connection cable**

Male: european standard (SKII) – female: **RST**®



Cable	Length m	Part No.	
	1.5	99.714.0000.7	
PVC cable	2.5	99.715.0000.7	
containing balagan			
containing halogen			

Power					
250V					
Color: black					

Cable	Length m	Part No.
	1.5	99.712.0000.7
Rubber-sheathed cable	2.5	99.713.0000.7
H07RN-F	4	99.716.0000.7
containing halogen	5	99.718.0000.7
	8	99.717.0000.7

#### **Cable assemblies** Cable 3 x 2.5 mm<sup>2</sup>; 20 A

Rated values			Pull relief	shrinkage tube
Wire ends	e ends (open cable end) ultrason. welded		Interlock	integrated
Sheath strip length	(open cable end)	35 mm	Color cable	black
Wire strip length (open cable end) 9 mm		Color shrinkage tube	black	

#### **Connection cables** female - male

		Power 250V	Power 250V / 400V
		₩ = GN/YE N = BU L = BN	() () () () () () () () () ()
Cable	Length m	Part No.	Part No.
	1	96.233.1000.1	96.233.1001.7
	2	96.233.2000.1	96.233.2001.7
PVC cable	3	96.233.3000.1	96.233.3001.7
H05VV-F	4	96.233.4000.1	96.233.4001.7
	5	96.233.5000.1	96.233.5001.7
containing halogen	6	96.233.6000.1	96.233.6001.7
	7	96.233.7000.1	96.233.7001.7
	8	96.233.8000.1	96.233.8001.7
Cable	Length m	Part No.	Part No.
	1	96.233.1030.1	96.233.1031.7
	2	96.233.2030.1	96.233.2031.7
Rubber-sheathed cable	3	96.233.3030.1	96.233.3031.7
H07RN-F	4	96.233.4030.1	96.233.4031.7
	5	96.233.5030.1	96.233.5031.7
containing halogen	6	96.233.6030.1	96.233.6031.7
	7	96.233.7030.1	96.233.7031.7
	8	96.233.8030.1	96.233.8031.7
Cable	Length m	Part No.	
	1	96.233.1050.1	
	2	96.233.2050.1	
Rubber-sheathed cable	3	96.233.3050.1	
HU/KIN-F	4	96.233.4050.1	
ennanced version	5	96.233.5050.1	
halogon frog	6	96.233.6050.1	
nalogen-nee	7	96.233.7050.1	
	8	96.233.8050.1	

96.233.4053.1

96.233.5053.1

96.233.6053.1

96.233.7053.1

96.233.8053.1

4

5

6

7 8

#### Connection cables female - free end Power Power 250V / 400V 250V ● GN/YE ● U L = BN 0 Part No. Part No. Cable Length m 0 25 96.233.1003.1 96.233.1005.7 1 96.233.2003.1 96.233.2005.7 2 PVC cable 3 96.233.3003.1 96.233.3005.7 H05VV-F 4 96.233.4003.1 96.233.4005.7 5 96.233.5003.1 96.233.5005.7 containing halogen 96.233.6005.7 6 96.233.6003.1 96.233.7003.1 96.233.7005.7 8 96.233.8003.1 96.233.8005.7 Cable Length m Part No. Part No. 96.233.1033.1 96.233.1035.7 96.233.2033.1 96.233.2035.7 2 Rubber-sheathed cable 96.233.3033.1 96.233.3035.7 H07RN-F 4 96.233.4033.1 96.233.4035.7 96.233.5033.1 96.233.5035.7 5 containing halogen 6 96.233.6033.1 96.233.6035.7 96.233.7033.1 96.233.7035.7 8 96.233.8033.1 96.233.8035.7 Cable Length m Part No. 96.233.1053.1 96.233.2053.1 2 Rubber-sheathed cable 96.233.3053.1 H07RN-F

enhanced version

halogen-free

#### Cable assemblies Cable 3 x 2.5 mm<sup>2</sup>; 20 A

Connection cables male – free end				
			Power 250V	Power 250V / 400V
φ 25 ,			(♥) = GN/YE ♥ = BU L = BN	() = GN/YE 1 = BU 2 = BN
	Cable	Length m	Part No.	Part No.
		1	96.233.1004.1	96.233.1006.7
		2	96.233.2004.1	96.233.2006.7
	PVC cable	3	96.233.3004.1	96.233.3006.7
	H05VV-F	4	96.233.4004.1	96.233.4006.7
		5	96.233.5004.1	96.233.5006.7
	containing halogen	6	96.233.6004.1	96.233.6006.7
		7	96.233.7004.1	96.233.7006.7
		8	96.233.8004.1	96.233.8006.7
	Cable	Length m	Part No.	Part No.
		1	96.233.1034.1	96.233.1036.7
		2	96.233.2034.1	96.233.2036.7
	Rubber-sheathed cable	3	96.233.3034.1	96.233.3036.7
	H07RN-F	4	96.233.4034.1	96.233.4036.7
		5	96.233.5034.1	96.233.5036.7
	containing halogen	6	96.233.6034.1	96.233.6036.7
		7	96.233.7034.1	96.233.7036.7
		8	96.233.8034.1	96.233.8036.7
	Cable	Length m	Part No.	
		1	96.233.1054.1	
	Rubber-sheathed cable	2	96.233.2054.1	
		3	96.233.3054.1	
- /	enhanced version	4	96.233.4054.1	
		5	96.233.5054.1	
	halogen-free	6	96.233.6054.1	
		7	96.233.7054.1	
		8	96.233.8054.1	

RST® CLASSIC

## **Distribution units**

#### Distribution block 1I/30





#### with fastening option

Yes

Color	Application	Pole marking	Input	Outputs	Part No.
black	Power 250 V	L, N, PE	1	3	96.030.0153.1
light grey	Power 250 V	L, N, PE	1	3	96.030.0153.0
green	Power 250 V/400 V	1, 2, PE	1	3	96.030.0155.7
brown	50 V + PE	1, 2, PE	1	3	96.030.0151.4

#### without fastening option

Color	Application	Pole marking	Input	Outputs	Part No.
black	Power 250 V	L, N, PE	1	3	96.030.0253.1
light grey	Power 250 V	L, N, PE	1	3	96.030.0253.0
green	Power 250 V/400 V	1, 2, PE	1	3	96.030.0255.7
brown	50 V + PE	1, 2, PE	1	3	96.030.0251.4

Circuit diagram

Interlock



RST compact dis 1I/30	stribution unit
Dimensions	104 x 162 x 57 2 mm

fitted as required with pre-wired with m Mounting option

M25 device connectors 3-pole
2.5 mm <sup>2</sup> (halogen free)
Yes



	Color	Application
rcuit diagram	black	
	1	
$\begin{array}{c} X1 = \begin{array}{c} 3 \\ \end{array} \xrightarrow{3} \\ X4 \end{array} \xrightarrow{3} \begin{array}{c} 3 \\ \end{array} \xrightarrow{3} \\ \end{array} \xrightarrow{3} \\ \end{array} (X2)$		

Color	Application	Pole marking	Input	Outputs	Part No.	
■ black			1, RST20i3	3, RST20i3	99.906.0000.7	

RST multi-distribution 1I/70 Dimensions	<b>1 unit</b> 104 x 16	2 x 96 mm	fitted as required pre-wired with Fuse	l with	M25 device conne 2.5 mm² (halogen 6.3 or 10A can be	ectors 3-pole free) integrated		
Cat	1	Circuit diagram $ \begin{array}{c} X1 = \frac{3}{\sqrt{3}} & \frac{3}{\sqrt{3}} & X2 \\ X4 \rightarrow \frac{3}{\sqrt{3}} & \frac{7}{\sqrt{3}} & X3 \\ X5 \rightarrow \frac{7}{\sqrt{3}} & \frac{7}{\sqrt{3}} & X6 \\ X8 \rightarrow \frac{7}{\sqrt{3}} & \frac{7}{\sqrt{3}} & X7 \\ \end{array} $	Color ■ black	Application	Pole marking	Input 1, RST20i3	Outputs 7, RST20i3	Part No. 99.929.0000.7

for male

Part No. 05.564.4453.0

05.564.4453.1

for female

Part No. Z5.564.4553.0

Z5.564.4553.1

#### **Accessories**

**Cover pieces** 

for female

#### For the safe closure of female and male connectors. With mounting strap for snapping onto plug connectors and device connectors

	not captive against loss	
	Color	
═╉╬╾┓╷	gray	
02	black	

for male

for female



captive against loss	for female	for male
Color	Part No.	Part No.
gray	99.413.6205.2	99.415.6205.2
black	99.414.6205.2	99.416.6205.2

for male



6 Ø23

Socket frame for device connectors M25 (female)





29,05





#### **Accessories Crimp**

#### Female contacts and male contacts

#### **Female contacts**



#### Male contacts



Name	Marking	(groove) mm <sup>2</sup>	Part No.
Female crimp contact	1	0.75 – 1.0	02.122.9000.0
Female crimp contact	unmarked	1.5	02.122.9100.0
Female crimp contact	1	2.5	02.122.9200.0
Female crimp contact	unmarked	4.0	02.122.9300.0
Male crimp contact	1	0.75 – 1.0	05.544.7800.0
Male crimp contact	unmarked	1.5	05.544.7900.0
Male crimp contact	1	2.5	05.544.8000.0
Male crimp contact	unmarked	4.0	05.545.4600.0

#### **Crimping tool**



Name	Part No.
Crimping tool incl. system kit	95.101.0800.0
Crimping die B	05.502.2100.0
Contact positioner	05.502.3600.0

Unlocking tool for crimp contacts



Name Unlocking tool Part No. 05.502.3500.0

**RST 20i3** 





#### Solar applications for systems up to 32 A for single-phase power 3-pole

# 0

#### General

The system is specially adapted to the requirements of solar technology. The connectors can be loaded with a maximum of 32 A on two contacts (L, N) and are used for single-phase power with ENS.

Special distribution boxes are used to bundle the electrical power of up to 6 inverters and thus complete 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.

## **Features:**

**Application example** 

- Fast mounting through easy handling
- UV-resistant
- Rated current up to 32A (with 6.0 mm<sup>2</sup>)
- Cross-sections up to 6 mm<sup>2</sup>
- Degree of protection IP66/68 (3m; 2h) /69K

#### Coding

For daily updates wield	visit the website at	Application	Single-phase power		
Assembly instructi in the Technical Da	no-electric.com. ons and other technical information at a or in eShop.	Mechanical coding, for example	250V, 32A L, N, ⊕		
Name	Description	Connection style	Strain relief housing	Connection points per pole	concrete gray
Connector	1 x cable entry	Screw	yes	1	$\checkmark$
Distribution unit	Distribution box RST RAN Solar Distribution box RST Solar				$\overline{\checkmark}$
Device connectors	M25 device connector, standard				$\checkmark$
Cable assemblies	Connection cable Male – Free end Connection cable Female – Free end	pre- assembled pre- assembled	pre- assembled pre- assembled	pre- assembled pre- assembled	
	Extension cable Male – Female	pre- assembled	pre- assembled	pre- assembled	$\checkmark$



For daily update	s visit the website at			Application	Single-phase power
Assembly instrue in the Technical	land-electric.com. ctions and other technical info Data or in eShop.	Mechanical	250V, 32A L, N,		
		coding, for example			
Name	Description	Connection style	Strain relief housing	Connection points per pole	concrete gray
Connector	1 x cable entry	Screw	yes	1	$\checkmark$
Distribution unit	Distribution box RST RAN Solar Distribution box RST Solar				$\overline{\checkmark}$
Device connectors	M25 device connector, standard				$\checkmark$
	Connection cable Male – Free end	pre- assembled	pre- assembled	pre- assembled	$\checkmark$
Cable assemblies	Connection cable Female – Free end	pre- assembled	pre- assembled	pre- assembled	$\checkmark$
	Extension cable Male – Female	pre- assembled	pre- assembled	pre- assembled	$\checkmark$

#### Connectors, 25A, straight

for cables Ø 10 – 14 mm and 13 – 18 mm (up to 32A with 6.0 mm<sup>2</sup>)





<sup>1)</sup> With 6.0 mm<sup>2</sup> wires the pull and bending forces at the connector must be taken into consideration and compensated by suitable measures if required

# M25 device connector, 25 A straight (up to 32A with 6.0 mm<sup>2</sup>)

For spacer rings for unlocking unlocking the device connector, see Accessories.	SHERE IS	SW24
Single-phase concrete gray/	Wire       mm²         solid       up to 6.0         fine-stranded       up to 6.0         Locking device       yes         96.031.5054.3	
power 250 V		
With sealing option value ise Verdrehsicherung optional protection against twisting tmax. = 8mm		
¢ c c c c c c c c c c c c c c c c c c c	with screw connection           Wire         mm²           solid         up to 6.0           fine-stranded         yes	
Single-phase     concrete gray/       power     L, N, ⊕       250 V     black	96.032.5054.3	Le la

## **Distribution units**

<b>RST-Distribution box RST R</b>	AN Solar		Connector clamp	s	3 x 35 mm²	
Inputs	6 x RST25i3 / concrete g	ray coding	Circuit breakers		6 x B25	
Cable gland	1 x M40, 2 x M20		Dimensions in m	m (L $\times$ W $\times$ H)	350 x 300 x 100 m	ım
		Name RST RAN solar		Color Sheet metal/powder-	coated	Part No. 99.512.0000.7
<b>Distribution box RST Solar</b> Inputs Cable gland	3 x RST25i3 / Kodierung 1 x M32, 2 x M20	betongrau	Connector clamp Dimensions in mi	s m (L x W x H)	5 x 10 mm² 180 x 180 x 90 mr	n
		Name Distribution box	x RST Solar	Material Plastic		Part No. 99.502.0000.7

#### Cable assemblies Cable 3 x 4.0 mm<sup>2</sup>; 25 A

Rated values		Connection type of cable	Gland nut
Wire ends (open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length (open cable end)	35 mm	Color cable	black
Wire strip length (open cable end)	9 mm	Color handle shell	black

#### Connection cables female - male

		Single-phase power 250V
Cable	Length m	Part No.
	1.0	96.834.1000.3
DVC ashis	1.5	96.834.1500.3
	2.0	96.834.2000.3
HUSVV-F	2.5	96.834.2500.3
containing halogen	3.0	96.834.3000.3
i containing harogon	3.5	96.834.3500.3
	4.0	96.834.4000.3
		D. (N
Cable	Length m	Part No.
	1.0	90.834.1030.3
Rubber-sheathed cable	1.5	96.834.1530.3
H07RN-F	2.0	96.834.2030.3
	2.5	90.834.2530.3
containing halogen	3.0	90.834.3030.3
	3.5	96.834.3530.3



#### Cable assemblies Cable 3 x 4.0 mm<sup>2</sup>; 25 A

Image: Single-phase power 250°         Image: Single-phase power 250° <td< th=""><th>Image: Single-phase power 250V         Image: Single-phase power 250V</th><th></th></td<>	Image: Single-phase power 250V         Image: Single-phase power 250V	
Cable         Length m         Part No.           1.0         96.834.1004.3           1.5         96.834.1504.3           2.0         96.834.2504.3           containing halogen         3.0           3.5         96.834.3004.3           4.0         96.834.4004.3           Cable         Length m           PVC cable         2.5           96.834.4004.3           Containing halogen         3.0           96.834.4004.3           Cable         Length m           Provention         1.5           96.834.1034.3           Cable         Length m           1.5         96.834.1034.3           Cable         Length m           Provention         1.0           96.834.1034.3         According to VDE 0281/T5 and VDE 0288/T4	Cable         Length m         Part No.           1.0         96.834.1004.3           1.5         96.834.1004.3           2.0         96.834.2004.3           2.5         96.834.2004.3           2.5         96.834.2004.3           3.0         96.834.3004.3           3.5         96.834.3004.3           4.0         96.834.4004.3	
Cable         Length m         Part No.           1.0         96.834.1004.3           1.5         96.834.1004.3           1.5         96.834.2004.3           2.0         96.834.2004.3           2.5         96.834.3004.3           3.0         96.834.3004.3           Containing halogen         3.0           3.5         96.834.4004.3           Cable         Length m           4.0         96.834.1034.3           According to VDE 0281/T5 and VDE 0288/T4           Rubber-sheathed cable         1.5           HO7RN-F         2.5           2.5         96.834.2034.3           3.0         96.834.2034.3           Containing halogen         1.5           3.0         96.834.2034.3           Containing halogen         3.0           3.0         96.834.2034.3           Cable diameter 13.4 mm ± 0.3           According to VDE 0281/T5 and VDE 0288/T4	Cable         Length m         Part No.           PVC cable         1.0         96.834.1504.3           H05VV-F         2.0         96.834.2004.3           containing halogen         3.0         96.834.3004.3           3.5         96.834.3004.3         Call           4.0         96.834.4004.3         Act	
PVC cable H05VV-F         1.0         96.834.1004.3           2.0         96.834.2004.3           2.0         96.834.2004.3           2.0         96.834.2004.3           2.5         96.834.2004.3           2.0         96.834.3004.3           2.0         96.834.3004.3           3.0         96.834.3004.3           3.0         96.834.3004.3           A.0         96.834.4004.3           Cable         Length m           1.5         96.834.1034.3           A.0         96.834.1034.3           According to VDE 0281/T5 and VDE 0288/T4           Fubber-sheathed cable         1.5           H07RN-F         2.5           2.5         96.834.2034.3           3.0         96.834.3034.3           containing halogen         3.0           3.5         96.834.3034.3           According to VDE 0281/I5 and VDE 0288/T4	PVC cable H05VV-F         1.0         96.834.1004.3           containing halogen         1.5         96.834.1504.3           2.0         96.834.2004.3         2.5           2.5         96.834.2004.3         3.0           3.0         96.834.3004.3         3.5           3.5         96.834.3004.3         4.0           4.0         96.834.4004.3         Action	
PVC cable H05VV-F         1.5         96.834.1504.3           2.0         96.834.2004.3           2.5         96.834.2004.3           2.5         96.834.2004.3           2.5         96.834.3004.3           3.0         96.834.3004.3           3.5         96.834.4004.3           Cable         Length m           4.0         96.834.1034.3           4.0         96.834.1034.3           Cable         1.5           96.834.1034.3           1.5         96.834.1034.3           1.5         96.834.2034.3           2.0         96.834.2034.3           2.0         96.834.2034.3           2.0         96.834.2034.3           2.0         96.834.2034.3           2.0         96.834.2034.3           Containing halogen         3.0           3.0         96.834.3034.3           Cable diameter 13.4 mm ± 0.3           According to VDE 0281/I5 and VDE 0288/I4	PVC cable H05VV-F         1.5         96.834.1504.3           2.0         96.834.2004.3         2.5         96.834.2004.3           2.5         96.834.2504.3         3.0         96.834.3004.3           3.5         96.834.3504.3         Cal           4.0         96.834.4004.3         Act	
Cable         Length         Part No.           Cable         1.0         96.834.1034.3         According to VDE 0281/T5 and VDE 0288/T4           Cable         1.0         96.834.2034.3         According to VDE 0281/T5 and VDE 0288/T4           Rubber-sheathed cable         1.5         96.834.2034.3         According to VDE 0281/T5 and VDE 0288/T4           Cable         1.5         96.834.2034.3         According to VDE 0281/T5 and VDE 0288/T4           Cable         1.5         96.834.2034.3         According to VDE 0281/T5 and VDE 0288/T4           Cable         1.5         96.834.2034.3         According to VDE 0281/T5 and VDE 0288/T4	HOSVV-F         2.0         96.834.2004.3           containing halogen         2.5         96.834.2004.3           3.0         96.834.3004.3           3.5         96.834.3004.3           4.0         96.834.4004.3	
Cable       Length m       Part No.         Containing halogen       1.0       96.834.1034.3         ALO       96.834.2504.3       Cable diameter 11.2 mm ± 0.2         According to VDE 0281/T5 and VDE 0288/T4         Rubber-sheathed cable H07RN-F       1.0       96.834.2034.3         Containing halogen       1.5       96.834.2034.3         Containing halogen       1.5       96.834.2034.3         Containing halogen       1.5       96.834.2034.3         Cable diameter 13.4 mm ± 0.3       0.96.834.3034.3         According to VDE 0281/T5 and VDE 0288/T4	Image: Containing halogen         2.5         96.834.2504.3           containing halogen         3.0         96.834.3004.3           3.5         96.834.4004.3         Acc	
Containing halogen       3.0       96.834.3004.3       Cable diameter 11.2 mm ± 0.2         4.0       96.834.4004.3       Cable diameter 11.2 mm ± 0.2         According to VDE 0281/T5 and VDE 0288/T4         Cable       1.0       96.834.1034.3         1.5       96.834.2034.3         2.0       96.834.2034.3         2.5       96.834.2034.3         2.5       96.834.2034.3         2.5       96.834.2534.3         2.0       96.834.3034.3         3.0       96.834.3034.3         According to VDE 0281/T5 and VDE 0288/T4	Containing halogen         3.0         96.834.3004.3         Cal           3.5         96.834.3504.3         Cal         4.0         96.834.4004.3         Acc	
Cable         Length m         Part No.           Cable         1.0         96.834.4004.3         Cable diameter 11.2 mm ± 0.2           According to VDE 0281/T5 and VDE 0288/T4           Rubber-sheathed cable         1.5         96.834.1034.3           H07RN-F         2.5         96.834.2034.3           containing halogen         3.5         96.834.3034.3           3.5         96.834.3034.3         Cable diameter 13.4 mm ± 0.3           According to VDE 0281/T5 and VDE 0288/T4         Cable diameter 13.4 mm ± 0.3	Containing halogen         3.5         96.834.3504.3         Cai           4.0         96.834.4004.3         Aci	
Cable         Length m         Part No.           1.0         96.834.4004.3         According to VDE 0281/T5 and VDE 0288/T4           Rubber-sheathed cable H07RN-F         1.0         96.834.1034.3         According to VDE 0281/T5 and VDE 0288/T4           Containing halogen         1.5         96.834.2034.3         According to VDE 0281/T5 and VDE 0288/T4           Cable         1.5         96.834.2034.3         According to VDE 0281/T5 and VDE 0288/T4           Containing halogen         3.0         96.834.3034.3         According to VDE 0281/T5 and VDE 0288/T4	4.0 96.834.4004.3 Ac	ale diameter 11.2 mm + 0.2
Cable         Length m         Part No.           1.0         96.834.1034.3           1.5         96.834.2034.3           2.0         96.834.2034.3           2.5         96.834.2034.3           3.5         96.834.3034.3           3.5         96.834.4034.3           According to VDE 0201/15 and VDE 0200/14		cording to VDE 0281/T5 and VDE 0288/T4
Rubber-sheathed cable H07RN-F         1.0         96.834.1034.3           containing halogen         1.5         96.834.2034.3           3.0         96.834.3034.3           3.5         96.834.3534.3           4.0         96.834.4034.3           According to VDE 0281/I5 and VDE 0288/I4	Coble Length m Dart No	0
Rubber-sheathed cable H07RN-F         1.0         96.834.1034.3           containing halogen         1.5         96.834.1534.3           3.0         96.834.2034.3           3.5         96.834.3534.3           4.0         96.834.4034.3           According to VDE 0281/I5 and VDE 0288/I4		
Rubber-sheathed cable H07RN-F         1.5         96.834.1534.3           containing halogen         2.0         96.834.2034.3           3.0         96.834.2034.3           3.5         96.834.3534.3           4.0         96.834.4034.3           According to VDE 0281/I5 and VDE 0288/I4	1.0 96.834.1034.3	
H07RN-F         2.0         96.834.2034.3           containing halogen         2.5         96.834.2534.3           3.5         96.834.3034.3           4.0         96.834.4034.3           According to VDE 0281/15 and VDE 0288/14	Bubber-sheathed cable	
2.5         96.834.2534.3           containing halogen         3.0         96.834.3034.3           3.5         96.834.3534.3         Cable diameter 13.4 mm ± 0.3           4.0         96.834.4034.3         According to VDE 0281/T5 and VDE 0288/T4	H07BN-F	
Containing halogen         3.0         96.834.3034.3           3.5         96.834.3534.3         Cable diameter 13.4 mm ± 0.3           4.0         96.834.4034.3         According to VDE 0281/T5 and VDE 0288/T4	2.5 96.834.2534.3	
3.5         96.834.3534.3         Cable diameter 13.4 mm ± 0.3           4.0         96.834.4034.3         According to VDE 0281/T5 and VDE 0288/T4	Containing halogen <u>3.0 96.834.3034.3</u>	
4.0 96.834.4034.3 According to VDE 0281/T5 and VDE 0288/T4	3.5 96.834.3534.3 Cal	ble diameter 13.4 mm $\pm$ 0.3
	4.0 96.834.4034.3 A <sub>C</sub>	cording to VDE 0281/T5 and VDE 0288/T4



# 2 variations for connecting electrical drives or for laying AS-i and 24 V auxiliary voltage

#### **Application example**



#### General

The four pole connector is based on the 5-pole variation with one pole not configured.

Two codings are available: a black coding for connecting electrical drives, and a brown coding for laying AS-Interface and the 24 V auxiliary voltage together.

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

For daily updates	visit the website at	Application	Power 250V/400V 1, 2, 3, ④		Extra-low voltage		
Assembly instruction the Technical E	tions and other technical information of the second seco	Mechanical			AS-i/24V 1, 2, 3, 4		
				example	Contraction of the second seco	9	
Name	Description	Connection style	Strain relief housing	Connection points per pole	light gray	black	signal brown
Connector	1 x cable entry	Screw Crimp	yes	1	$\checkmark$	$\checkmark$	$\checkmark$
Connector	2 x cable entry	Screw	yes	1	$\sim$	$\checkmark$	$\sim$
Distillation	RST compact distribution unit/ multi-distribution unit				on request	on request	on request
Distribution units	Individual distribution box				on request	on request	on
	M16 device connector,						
	M16 device connector, modular, angled 7°				$\overline{\checkmark}$	$\overline{\checkmark}$	$\overline{\checkmark}$
Device	M25 device connector, standard				$\checkmark$	$\checkmark$	$\checkmark$
connectors	M20 device connector, standard				$\checkmark$	$\checkmark$	$\checkmark$
	M20 device connector, modular, angled				$\sim$	$\checkmark$	$\sim$
	M25 device connector, modular, angled				$\checkmark$	$\checkmark$	$\checkmark$
Cable assemblies	Connection cable	pre-	pre-	pre-	$\overline{\mathbf{A}}$	$\overline{\mathbf{A}}$	
	Connection cable	pre-	pre-	pre-			
	Female – Free end	assembled	assembled	assembled			
	Male – Female	assembled	assembled	assembled	$\checkmark$	$\checkmark$	$\checkmark$

## **Connectors,** straight for cables Ø 6 – 10 mm and 10 –14 mm

#### **Female connector**

Unmounted with cable gland. Crimp contacts separately available under Accessories.

See Technical Data for sheath and insulation strip lengths.



Wiremm²rigidfine-stranded0.75 - 4.0strandedwithout ferrules
Cable diameter in mm Color Part No. Part No.
6-10         light gray black         96.041.4053.0         96.141.0053.0           10-14         light gray black         96.041.4053.1         96.141.0053.1           10-14         light gray black         96.041.4153.0         96.141.0153.0
6-10     96.041.4051.4       1 x AS-i profile cable     96.041.4951.4
Cable diameter in mm         Color         Part No.         Part No.           0         6 - 10         light gray black         96.041.4053.0         96.141.0053.0           0         10 - 14         light gray black         96.041.4053.1         96.141.0053.1           10 - 14         light gray black         96.041.4153.0         96.141.0153.1           4         6 - 10         signal brown         96.041.4051.4           96.041.4951.4         Contacts separately under Accessories, see folic pages.

#### Male connector

Unmounted with cable gland and locking device.

Crimp contacts separately available under Accessories.

See Technical Data for sheath and insulation strip lengths.



					with screw connection <sup>1)</sup> Wire     mm <sup>2</sup> rigid     0.75 - 4.0       stranded     without ferrules	With crimp connection           Wire         mm²           fine-stranded         0.75 - 4.0
Application	Coding		Cable diameter in mm	Color	Part No.	Part No
Application	County		Cable diameter in min	COIOI	Faitino.	Faitino.
Power			6 - 10	light gray black	96.042.4053.0 96.042.4053.1	96.142.0053.0 96.142.0053.1
250/400V		1, 2, 3, 🔄	10 - 14	light gray black	96.042.4153.0 96.042.4153.1	96.142.0153.0 96.142.0153.1
AS-i / 24V		1, 2, 3, 4	6 – 10 1 x AS-i profile cable	signal brown	96.042.4051.4 96.042.4951.4	
						Contacts separately under Accessories, see following pages.

<sup>1)</sup> With wire protection available on request
# **Connectors,** angled 90° for cables Ø 6 – 10 mm and 10 –14 mm

Female	connector		<sup>Ø34,6</sup> ►		
Unmounted 90° angle.	with cable gland.				
Crimp contac Accessories.	cts separately availab	le under		and a lot	
See Technica lengths.	al Data for sheath and	l insulation strip			S SW27
				with screw connection <sup>1)</sup>	with crimp connection
				Wire         mm²           rigid         .75 - 4.0           stranded         without ferrules	Wire         mm²           fine-stranded         0.75 - 4.0
Application	Coding	Cable diameter in mm	Color	Part No	Part No.
Power 250/400V AS-i / 24V	<ul> <li>Coding</li> <li>1, 2, 3, ⊕</li> <li>1, 2, 3, 4</li> </ul>	6 - 10 10 - 14 6 - 10 1 x AS-i profile cable	light gray black light gray black signal brown	96.043.4053.0 96.043.4053.1 96.043.4153.0 96.043.4153.1 96.043.4153.1 96.043.4051.4 96.043.4951.4	96.143.0053.0 96.143.0053.1 96.143.0153.0 96.143.0153.1
		2 x AS-i profile cable		96.043.4851.4	Contacts separately under Accessories, see following pages.
Male co Unmounted 90° angle. Crimp contac Accessories. See Technica lengths.	nnector with cable gland and cts separately availab al Data for sheath and	locking device. le under l insulation strip	¢34.6		71.4 57.0 00 5W27
				with screw connection <sup>1)</sup> Wire     mm <sup>2</sup> rigid	with crimp connection       Wire     mm²       fine-stranded     0.75 - 4.0
Application	Coding	Cable diameter in mm	Color	Part No.	Part No.
Power 250/400V AS-i / 24V	Image: Constraint of the second s	6 - 10 10 - 14 6 - 10 1 x AS-i profile cable	light gray black light gray black signal brown	96.044.4053.0 96.044.4053.1 96.044.4153.0 96.044.4153.1 96.044.4051.4 96.044.4051.4 96.044.4951.4	96.144.0053.0 96.144.0053.1 96.144.0153.0 96.144.0153.1
		Z X AS-I PROTILE CADIE		yb.044.4851.4	Contacts separately under Accessories, see following

## **Connectors,** straight for cables Ø 13 – 18 mm

Female connector		
Unmounted with cable gland.	08	
Crimp contacts separately available under Accessories.	CO SHA	
See Technical Data for sheath and insulation strip lengths.	<u>_ Ø35,4</u>	5, <u>5</u> 
	with screw connection <sup>1)</sup>	with crimp connection
	Wire         mm²           rigid	Wire         mm²           fine-stranded         0.75 - 4.0
Application Coding Cable diameter in mm Color	Part No.	Part No.
Power 250 / 400V         Image: Constraint of the second sec	96.041.4553.0 96.041.4553.1	96.141.0553.0 96.141.0553.1
Male connector Unmounted with cable gland and locking device. Crimp contacts separately available under Accessories. See Technical Data for sheath and insulation strip lengths.	Ø35,4	Contacts separately under Accessories, see following pages.
	with screw connection <sup>1)</sup> Wire     mm2       rigid     0.75 - 4.0       stranded     without ferrules	with crimp connection       Wire     mm <sup>2</sup> fine-stranded     0.75 - 4.0
Application Coding Cable diameter in mm Color	Part No.	Part No.
Power 250 / 400V         Image: Constraint of the second sec	96.042.4553.0 96.042.4553.1	96.142.0553.0 96.142.0553.1
		Contacts separately under Accessories, see following pages.

<sup>1)</sup> With wire protection available on request

# **Splitter connector,** straight for cables Ø 6 – 10 mm and 10 –14 mm

<b>Female connector</b> Unmounted with cable glands. See Technical Data for sheath and insulation strip lengths.	59		5W27 6'56'00 6'56'00
		Wire     mm <sup>2</sup> rigid     ine-stranded       fine-stranded     0.75 – 1.5       stranded     without ferrules	
Application Coding Coble diameter in		Dort No.	
Power         Cooling         Cable diameter in           250/400V         0         1, 2, 3, ⊕         10 -	10 light gray black 14 light gray black	96.041.4253.0 96.041.4253.1 96.041.4353.0 96.041.4353.1	

### Mounting plate for splitter connectors





Part No. 01.006.1553.0 01.006.1553.1

## M25 device connector straight, standard

#### **Female connector**



#### Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from outside. With locking device.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.



_	wahlweise Verdrehsicherung optional protection against	twisting	with screw connection			with crimp connection		
	23, 9-0.2	<u>t max. = 8mm</u> <u>ø25, 4 -0,2</u>	Wire rigid fine-stranded stranded Term. poles Thread Gland Locking device	mm <sup>2</sup> 0.75 – 4.0 without ferrules 1 M25 x 1.5 outside yes		Wire fine-stranded Term. poles Thread Gland Locking device	mm <sup>2</sup> 0.75 - 4.0 1 M25 x 1.5 outside yes	
Application	Coding	Color		Part No.			Part No.	
Power 250/400V	1, 2, 3, 🕀	light gray black		96.042.5053.0 96.042.5053.1			96.142.1053.0 96.142.1053.1	
AS-i / 24V	1, 2, 3, 4	signal brown		96.042.5051.4				
						Contacts separately u	nder Accessories, see following pages.	

## M20 device connector straight, modular

#### **Female connector** SW26 Correct positioning guaranteed due to flattened M20x1, thread. Fastening with screws from inside. SW28 16,8 Crimp contacts separately available under co.68, Accessories. Ø34 See the Technical Data for insulation strip lengths. with screw connection with crimp connection wahlweise Verdrehsicherung optional protection against twisting Wire Wire mm<sup>2</sup> mm<sup>2</sup> 0.75 - 4.0 fine-stranded rigid fine-stranded 0.75 - 4.0Term. poles t max. = 8 MM stranded without ferrules Thread M20 x 1.5 Term. poles Gland inside Thread M20 x 1.5 19 -0.2 Gland inside Ø20,4-0.2 Coding Part No. Application Color Part No. 96.041.6053.0 96.141.2053.0 light gray Power 250/400V 1, 2, 3, 🕀 black 96.041.6053.1 96.141.2053.1 AS-i/ 96.041.6051.4 1, 2, 3, 4 signal brown 24V Contacts separately under Accessories, see following pages. Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. With locking device.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.





	wahlweise Verdrehsicherung		with screw cor	nnection	with crimp con	nection
	optional protection agains	t twisting	Leitungen	mm <sup>2</sup>	Leitungen	mm <sup>2</sup>
-			rigid		fine-stranded	0.75 - 4.0
		+	fine-stranded	0.75 – 4.0	Term. poles	1
			stranded	without ferrules	Thread	M20 x 1.5
			Term. poles	1	Gland	inside
			Thread	M20 x 1.5	Locking device	yes
	-0.2		Gland	inside		
	€ <b>→ →</b>	0,4-0,2	Locking device	yes		
Application	Coding	Color		Part No.		Part No.
		light grov		00 042 0052 0		06 142 2052 0
Power 250/400V	(🚱) 1, 2, 3, 🕀	light gray		96.042.6053.0		90.142.2053.0
\; 2A		DIACK		90.042.0000.1		30.142.2033.1
24V	1, 2, 3, 4	signal brown		96.042.6051.4		
270	•					
					Contacts separately und	der Accessories, see following pages.

Ø34

## M16 device connector straight, modular



## M16 device connector angled 7°, modular



## M20 device connector angled 90°, modular

#### **Female connector** Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. Angled 90°, thread M20. တ္တ Crimp contacts separately available under ſ Accessories. M20x See the Technical Data for insulation strip lengths. with crimp connection with screw connection wahlweise Verdrehsicherung optional protection against twisting Wire $\rm mm^2$ Wire mm<sup>2</sup> 0.75 - 4.0 fine-stranded rigid 0.75 - 4.0 fine-stranded Term. poles † max. = 8 M M without ferrules M20 x 1.5 stranded Thread Term. poles Gland inside M20 x 1.5 Thread 19 -0.2 Gland inside Ø20,4-0,2 Application Coding Color Part No. Part No. 96.043.6053.0 96.143.2053.0 light gray Power 250/400V 1, 2, 3, 🕀 black 96.043.6053.1 96.143.2053.1 AS-i/ 1, 2, 3, 4 signal brown 96.043.6051.4 24V Contacts separately under Accessories, see following pages.

#### Male connector

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. Angled 90°, thread M20. With locking device.

Crimp contacts separately available under Accessories-

See the Technical Data for insulation strip lengths.







			with screw cor	nnection	with crimp co	nnection
wa	hlweise Verdrehsicherung	viation				
00	fional profection against i	wisting	Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>
			rigid		fine-stranded	0.75 - 4.0
			fine-stranded	0.75 - 4.0	Term. poles	1
			stranded	without ferrules	Thread	M20 x 1.5
			Term. poles	1	Gland	inside
			Thread	M20 x 1.5	Locking device	yes
		1	Gland	inside		
	~	4 -0,2	Locking device	yes		
Application	Coding	Color		Part No.		Part No.
		light grav		06.044.6052.0		06 144 2052 0
Power 250/400V	1, 2, 3, 🕀	light gray		90.044.0055.0		90.144.2053.0
AC:/		DIACK		30.044.0055.1		30.144.2033.1
AS-17 24V	1, 2, 3, 4	signal brown		96.044.6051.4		
					Contacts separately u	nder Accessories, see following pages.

<sup>1)</sup> With wire protection available on request

## M25 device connector angled 90°, modular



## Cable assemblies Cable 4 x 1.5 mm<sup>2</sup>; 16 A

Rated values		Pull relief	Gland nut
Wire ends (open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length (open cable end)	35 mm	Color cable	black
Wire strip length (open cable end)	9 mm	Color handle shell	black



#### Connection cables female - free end Power 250/400V ۲ Cable Length m Part No. 96.442.1003.1 96.442.2003.1 2 PVC cable 3 96.442.3003.1 L±3% H05VV-F 4 96.442.4003.1 5 96.442.5003.1 6 96.442.6003.1 containing halogen 96.442.7003.1 8 96.442.8003.1 Part No. 96.442.1033.1 Cable Length m 1 96.442.2033.1 96.442.3033.1 2 Rubber-sheathed cable H07RN-F 96.442.4033.1 4 96.442.5033.1 5 96.442.6033.1 containing halogen 6 7 96.442.7033.1 96.442.8033.1 8 4-pole cables - one pole is not configured

## Cable assemblies Cable 4 x 1.5 mm<sup>2</sup>; 16 A

Connection cables male – free end			
			Power 250/400V
	Cable	Length m	Part No.
		1	96.442.1004.1
		2	96.442.2004.1
	PVC cable	3	96.442.3004.1
	H05VV-F	4	96.442.4004.1
		5	96.442.5004.1
	containing halogen	6	96.442.6004.1
		7	96.442.7004.1
		8	96.442.8004.1
	Cable	Length m	Part No.
		1	96.442.1034.1
		2	96.442.2034.1
	Rubber-sheathed cable	3	96.442.3034.1
	H07RN-F	4	96.442.4034.1
<u>м</u> к/,		5	96.442.5034.1
	containing halogen	6	96.442.6034.1
		7	96.442.7034.1
		8	96.442.8034.1
4-pole cables - one pole is not configured			

## Cable assemblies Cable 4 x 2.5 mm<sup>2</sup>; 20 A

Rated values		Pull relief	Gland nut
Wire ends (open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length (open cable end)	35 mm	Color cable	black
Wire strip length (open cable end)	9 mm	Color handle shell	black





## Cable assemblies Cable 4 x 2.5 mm<sup>2</sup>; 20 A

Connection cables male – free end				
			Power 250/400V	
			(€) = GN/YE 1 = BN 2 = BK 3 = BU	
	Cable	Length m	Part No.	
		1	96.443.1004.1	
		2	96.443.2004.1	
	PVC cable	3	96.443.3004.1	
	H05VV-F	4	96.443.4004.1	
		5	96.443.5004.1	
No. of the second se	containing halogen	6	96.443.6004.1	
		7	96.443.7004.1	
		8	96.443.8004.1	
	Cable	Length m	Part No.	
		1	96.443.1034.1	
		2	96.443.2034.1	
	Rubber-sheathed cable	3	96.443.3034.1	
	H07RN-F	4	96.443.4034.1	
×//		5	96.443.5034.1	
	containing halogen	6	96.443.6034.1	
		7	96.443.7034.1	
		8	96.443.8034.1	
4-pole cables - one pole is not configured				

## Cable assemblies Cable 4 x 1.5 mm<sup>2</sup>; 16 A

Rated values			Pull relief	Gland nut
Wire ends	(open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length	(open cable end)	35 mm	Color cable	grey
Wire strip length	(open cable end)	9 mm	Color handle shell	black

#### Connection cables female - male



		Power 250/400V
		() () () () () () () () () ()
Cable	Length m	Part No.
	1	96.442.1080.1
	2	96.442.2080.1
PVC cable	3	96.442.3080.1
Ölflex Classic 100	4	96.442.4080.1
	5	96.442.5080.1
containing halogen	6	96.442.6080.1
0 0 -	7	96.442.7080.1
	8	96 442 8080 1

4-pole cables - one pole is not configured



### Cable assemblies Cable 4 x 1.5 mm<sup>2</sup>; 16 A



## Cable assemblies Cable 4 x 2.5 mm<sup>2</sup>; 20 A (AS-i 24 V)

Rated values		Pull relief	Gland nut
Wire ends (open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length (open cable end)	35 mm	Color cable	brown
Wire strip length (open cable end)	9 mm	Color handle shell	signal brown





### Cable assemblies Cable 4 x 2.5 mm<sup>2</sup>; 20 A (AS-i 24 V)



## **Distribution units**

<b>RST compact distribu</b> Dimensions Fitted as required with	<b>ution unit</b> 104 x 162 x 57.2 mm M25 device connectors 4-pole	Pre-wired with Mounting option	2.5 mm² Yes			
(sals	Circuit diagram	Color ■ black		Input 1, RST20i4	Outputs 3, RST20i4	Part No. 99.911.0000.7

Color

blackblack

black

#### **RST** multiple distribution unit

Dimensions Fitted as required with 112 x 154 x 94 mmPre-wired withM25 device connectors 4-poleFuse



Input	Outputs	Part No.
1, RST20i4	4, RST20i4	99.935.0000.7
1, RST20i4	5, RST20i4	99.916.0000.7
1, RST20i4	7, RST20i4	99.936.0000.7

Cate Cate

Circuit diagra	m

#### **Cover pieces**

for female

Accessories cover pieces

For the safe closure of female and male connectors.

With mounting strap for snapping onto plug connectors and device connectors

not captive against loss	for female	for male
Color	Part No.	Part No.
light grey	Z5.565.9853.0	05.565.9953.0
black	Z5.565.9853.1	05.565.9953.1

for male





for female

captive against loss	for female	for male
Color	Part No.	Part No.
light grey	99.529.0000.7	99.531.0000.7
■ black	99.530.0000.7	99.532.0000.7

## **Accessories Crimp**

### Female contacts and male contacts

#### Female contact



Male contact



### **Crimping tool**



Name	Marking	(groove) mm <sup>2</sup>	Part No.
Female contact	None	0.75 – 1.0	02.125.5521.8
Female contact	1	1.5	02.125.5621.8
Female contact	2	2.5	02.125.5721.8
Female contact	3	4.0	02.125.5821.8
Male contact	None	0.75 – 1.0	05.545.0021.8
Male contact	1	1.5	05.545.0121.8
Male contact	2	2.5	05.545.0221.8
Male contact	3	4.0	05.545.0321.8

Name	Part No.
Crimping tool incl. system kit	95.101.0800.0
Crimping die B	05.502.2100.0
Contact positioner	05.502.3600.0



Name Extraction tool Part No. 05.502.3500.0



# General power applications, switching functions, power/dimming signals and low voltage



### General

Four variations are available for the 5-pole connectors: the standard version for general power applications, another version for switching functions, a version to combine power and dimming signals, as well as 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

For daily updates visit the website at http://eshop.wieland-electric.com. Assembly instructions and other technical information can be found in the Technical Data or in eShop.			Application Mechanical coding, for example	Power 250V/400V ⊕, N, 3, 2, 1		Extra-low voltage 1,2,3,4,5	Power 250V + Dimming L, N, (+), D1, D2	Switch. func. 250 V 1,2,3, 4,5	Power 250/400V without € N,E,1,2,3	
Name	Description	Connection style	Strain relief housing	Connection points per pole	light gray	black	signal brown	turquoise	light blue	yellow
Connector	1 x cable entry	Screw Crimp	yes	1	$\checkmark$	$\sim$	$\checkmark$	$\checkmark$	$\overline{\mathbf{v}}$	$\checkmark$
	2 x cable entry	Screw Spring clamp	yes	1	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Distribution units	RST compact distribution unit/ multi-distribution unit				on request	on request	on request	on request	on request	on request
	Individual distribution box				on request	on request	on request	on request	on request	on request
	M16 device connector, modular, straight				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	M16 device connector, modular, angled 7°				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Device	M25 device connector, standard				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
connectors	M20 device connector, standard				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	M20 device connector, modular, angled				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	M25 device connector, modular, angled				$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	Connection cable Male – Free end	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Cable assemblies	Connection cable Female – Free end	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
	Extension cable Male – Female	pre- assembled	pre- assembled	pre- assembled	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

# **Connectors,** straight for cables Ø 6 – 10 mm and 10 – 14 mm

#### **Female connector**

Unmounted with cable gland.

Crimp contacts separately available under Accessories.

See the Technical Data for sheath and insulation strip lengths.





		with screw connection <sup>1)</sup>	with crimp connection
		Wire mm <sup>2</sup>	Wire mm <sup>2</sup>
		rigid	fine-stranded 0.75 – 4.0
		fine-stranded 0.75 – 4.0	
		stranded without ferrules	
Application Coding Cable diameter in	mm Color	Part No.	Part No.
	10 gray	96.051.4053.0	96.151.0053.0
Power Power Power	black	96.051.4053.1	96.151.0053.1
250/400V 2,1	14 gray	96.051.4153.0	96.151.0153.0
10 -	14 black	96.051.4153.1	96.151.0153.1
Power 250V L, 🕀, N, 6 -	10 turquoico	96.051.4053.6	96.151.0053.6
+Dimming 01, D2 10	-14 turquoise	96.051.4153.6	96.151.0153.6
Switch.func. 6-	10 light blue	96.051.4053.9	96.151.0053.9
250V 9 1, 2, 3, 4, 5 10	-14 light blue	96.051.4153.9	96.151.0153.9
Extra-low 6-	10 signal	96.051.4051.4	96.151.0051.4
voltage 1, 2, 3, 4, 5 10	-14 brown	96.051.4151.4	96.151.0151.4
Power 250/ 400V o. 🕘 🔞 N, E, 1, 2, 3	10 yellow	96.051.4053.2	Contacts separately under Accessories see following pages

#### Male connector

Unmounted with cable gland and locking device.

Crimp contacts separately available under Accessories.

See the Technical Data for sheath and insulation strip lengths.







					with screw	connection <sup>1)</sup>	with crimp connection			
					Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>		
					rigid		fine-stranded	0.75 - 4.0		
					fine-stranded	0.75 – 4.0	Locking device	yes		
					stranded	without ferrules				
					Locking device	yes				
Application	Со	ding Cabl	e diameter in mm	Color		Part No.		Part No.		
Power	Power ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (		gray black		96.052.4053.0 96.052.4053.1		96.152.0053.0 96.152.0053.1			
250/400V		2, 1	10 - 14	gray black		96.052.4153.0 96.052.4153.1		96.152.0153.0 96.152.0153.1		
Power 250V +Dimming		L, 🕀, N, D1, D2	6 - 10 10 -14	turquoise		96.052.4053.6 96.052.4153.6		96.152.0053.6 96.152.0153.6		
Schaltfunk. 250V	۲	1, 2, 3, 4, 5	6 - 10 10 -14	light blue		96.052.4053.9 96.052.4153.9		96.152.0053.9 96.152.0153.9		
Extra-low voltage		1, 2, 3, 4, 5	6 – 10 10 –14	signal brown		96.052.4051.4 96.052.4151.4		96.152.0051.4 96.152.0151.4		
Power 250/ 400V o. 🕁		N, E, 1, 2, 3	6 - 10	yellow		96.052.4053.2	Contacts separately	under Accessories, see following pages.		

<sup>1)</sup> With wire protection available on request

## **Connectors,** angled 90° for cables Ø 6 – 10 mm and 10 – 14 mm

#### **Female connector**

Unmounted with cable gland. 90° angle.

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







				with screw connection <sup>1)</sup>	with crimp connection
				rigid	fine-stranded 0.75 – 4.0
				fine-stranded 0.75 – 4.0	
				stranded without ferrules	
Application Coding Cable diameter in mm Color			Color	Part No.	Part No.
		6 10	gray	96.053.4053.0	96.153.0053.0
Power	🕀 (-), N, 3,	0 - 10	black	96.053.4053.1	96.153.0053.1
250/400V	2, 1	10 14	gray	96.053.4153.0	96.153.0153.0
		10 - 14	black	96.053.4153.1	96.153.0153.1
Power 250V	👬 L, 🕀, N,	6 – 10	turquoise	96.053.4053.6	96.153.0053.6
+Dimming 🤇	🥑 D1, D2	10 –14	turquoise	96.053.4153.6	96.153.0153.6
Switch.func.	12345	6 – 10	light blue	96.053.4053.9	96.153.0053.9
250V	9 1, 2, 0, 4, 0	10 –14	light blue	96.053.4153.9	96.153.0153.9
Extra-low	12245	6 – 10	signal	96.053.4051.4	96.153.0051.4
voltage 🔍	• 1, 2, 3, 4, 3	10 - 14	brown	96.053.4151.4	96.153.0151.4
					Contacts separately under Accessories, see following pages.

#### Male connector

Unmounted with cable gland and locking device. 90° angle.

See the Technical Data for sheath and i nsulation strip length as well as the ferrules to be used.







with screw of	connection <sup>1)</sup>	with crimp connection		
Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>	
rigid		fine-stranded	0.75 - 4.0	
fine-stranded	0.75 – 4.0	Locking device	yes	
stranded	without ferrules			
Locking device	yes			

Application	Co	ding Cable	e diameter in mm	Color	Part No.	Part No.
			0 10	gray	96.054.4053.0	96.154.0053.0
Power		⊕ N 3	6 – 10	black	96.054.4053.1	96.154.0053.1
250/400V		2, 1	10 14	gray	96.054.4153.0	96.154.0153.0
			10 - 14	black	96.054.4153.1	96.154.0153.1
Power 250V		L. (Ð. N.	6 – 10	turquaiaa	96.054.4053.6	96.154.0053.6
+Dimming		D1, D2	10 - 14	turquoise	96.054.4153.6	96.154.0153.6
Switch.func.		1 2 2 4 5	6 – 10	light blue	96.054.4053.9	96.154.0053.9
250V	<b>I</b>	1, 2, 3, 4, 5	10 - 14	light blue	96.054.4153.9	96.154.0153.9
Extra-low		10045	6 – 10	signal	96.054.4051.4	96.154.0051.4
voltage		1, 2, 3, 4, 5	10 - 14	brown	96.054.4151.4	96.154.0151.4
						Contacts separately under Accessories, see following pages.

## **Connectors,** straight for cable Ø 13 – 18 mm

#### **Female connector**

Unmounted with cable gland.

Crimp contacts separately available under Accessories.

See the Technical Data for sheath and insulation strip lengths.







6

				Wire     mm²       rigid	with crimp connection           Wire         mm²           fine-stranded         0.75 - 4.0
Application Coc	ling Cable	diameter in mm	Color	Part No.	Part No.
Power 250/400V	⊕, N, 3, 2, 1	13 – 18	gray black	96.051.4553.0 96.051.4553.1	96.151.0553.0 96.151.0553.1
Power 250V +Dimming	L, ⊕, N, D1, D2	13 – 18	turquoise	96.051.4553.6	96.151.0553.6
Switch.func. 250V	1, 2, 3, 4, 5	13 – 18	light blue	96.051.4553.9	96.151.0553.9
Extra-low voltage	1, 2, 3, 4, 5	13 – 18	signal brown	96.051.4551.4	96.151.0551.4
					Contacts separately under Accessories, see following pages.

#### Male connector

Unmounted with cable gland and locking device. Crimp contacts separately available under Accessories.

See the Technical Data for sheath and insulation strip lengths.



			with screw connection¹)       Wire     mm²       rigid     ine-stranded       fine-stranded     0.75 – 4.0       stranded     without ferrules       Locking device     yes	with crimp Wire fine-stranded Locking device	mm <sup>2</sup> 0.75-4.0           yes
Application Coding (	Cable diameter in mm	Color	Part No.		Part No.
Power 250/400V (+, N, C) 2, 1	<sup>3,</sup> 13 – 18	gray black	96.052.4553.0 96.052.4553.1		96.152.0553.0 96.152.0553.1
Power 250V +Dimming B L, ⊕, N D1, D2	13 – 18	turquoise	96.052.4553.6		96.152.0553.6
Switch.func. 250V 1, 2, 3, 4	, 5 13 – 18	light blue	96.052.4553.9		96.152.0553.9
Extra-low voltage 1, 2, 3, 4	, 5 13 – 18	signal brown	96.052.4551.4		96.152.0551.4
				Contacts separatel	y under Accessories, see following pages.

<sup>1)</sup> With wire protection available on request

# **Splitter connector,** straight for cables Ø 6 – 10 mm and 10 – 14 mm

Female Unmounted See Technic lengths.	Female connector Unmounted with cable glands. See Technical Data for sheath and insulation strip lengths.							
	with screw connection <sup>1)</sup> Wire mm <sup>2</sup>							
				fine-stranded 0.75 – 1.5 stranded without ferrules				
Application	Coding Cabl	e diameter in mm	Color	Part No.				
Power	(€), N, 3,	6 – 10	gray black	96.051.4253.0 96.051.4253.1				
250/400V	2, 1	10 - 14	gray black	96.051.4353.0 96.051.4353.1				
Power 250V +Dimming	€ L, ⊕, N, D1, D2	6 – 10 10 –14	turquoise	96.051.4253.6 96.051.4353.6				
Switch.func. 250V	1, 2, 3, 4, 5	6 - 10	light blue					
Extra-low voltage	1, 2, 3, 4, 5	<u>6 - 10</u> 10 -14	signal brown	96.051.4251.4 96.051.4351.4				

#### Mounting plate for splitter connectors





## M25 device connector straight, standard



#### Male connector

Correct positioning guaranteed due to flattened thread. With locking device. Fastening with screws from outside.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.







	with screw co	onnection	with crimp connection		
	Wire	mm <sup>2</sup>	Wire		mm <sup>2</sup>
	rigid		fine-stra	nded	0.75 - 4.0
	fine-stranded	0.75 - 4.0	Term. po	oles	1
	stranded	without ferrules	Thread		M25 x 1.5
	Term. poles	1	Gland		outside
	Thread	M25 x 1.5	Locking	device	yes
	Gland	outside			
	Locking device	yes	Contacts s	separately und	ler Accessories, see following pages.
Color		Part No.			Part No.
gray		96.052.5053.0			96.152.1053.0
black		96.052.5053.1			96.152.1053.1
urquoise		96.052.5053.6			96.152.1053.6
ght blue		96.052.5053.9			96.152.1053.9
al brown		96.052.5051.4			96.152.1051.4
yellow					96.152.1053.2



Application	Coding	Color
Power 250/400V	<ul><li>(€), N, 3, 2, 1</li></ul>	gray black
Power 250V +Dimming	🧓 L, ⊕, N, D1, D2	turquoise
Switch.func. 250V	1, 2, 3, 4, 5	light blue
Extra-low voltage	1, 2, 3, 4, 5	signal brown
Power 250/ 400V o. 🕁	N, E, 1, 2, 3	yellow

## M20 device connector straight, modular

#### **Female connector**

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside.

Crimp contacts separately available under Accessories.

See the Technical Data for sheath and insulation strip lengths.







wahlweise Verdrehsicherung optional protection against twisting with screw connection with crimp connection Wire rigid † max. = 8 M M fine-str strande Term. p 19 -0.2 Thread ø20,4-0,2 Gland Application Coding Color Power 250/400V gray ⊕, N, 3, 2, 1 black Power 250V L, 🕀, N, D1, D2 turquoise +Dimming Switch.func. 1, 2, 3, 4, 5 light blue 250V

signal brown

	mm <sup>2</sup>	Wire	mm <sup>2</sup>	
		fine-stranded	0.75 - 4.0	
anded	0.75 – 4.0	Term. poles	1	
d	without ferrules	Thread	M20 x 1.5	
oles	1	Gland	inside	
	M20 x 1.5			
	inside			
	Part No.		Part No.	
	96.051.6053.0		96.151.2053.0	
	96.051.6053.1		96.151.2053.1	
	96 051 6053 6		96 151 2053 6	
	00.001.0000.0		00.101.2000.0	
	96 051 6053 9		96 151 2053 9	
	00.001.0000.0		0011011200010	
	96.051.6051.4		96.151.2051.4	

#### Male connector

Extra-low

voltage

Applica

Correct positioning guaranteed due to flattened thread. With locking device. Fastening with screws from inside.

1, 2, 3, 4, 5

Crimp contacts separately available under Accessories.

See the Technical Data for sheath and insulation strip lengths.





Contacts separately under Accessories, see following pages.



wahlweise Verdrehsicherung optional protection against twisting			twisting	with screw cor	nnection	with crimp co	nnection
		_		Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>
			tmax - 8mm	rigid		fine-stranded	0.75 - 4.0
		NK	1 max, = 0 mm	fine-stranded	0.75 - 4.0	Term. poles	1
				stranded	without ferrules	Thread	M20 x 1.5
				Term. poles	1	Gland	inside
	-0.2			Thread	M20 x 1.5	Locking device	yes
	- 19	_ø20,	<u>, 4</u> -0,2	Gland	inside		
				Locking device	yes		
Application	Coding		Color		Part No.		Part No.
Power		2 2 1	gray		96.052.6053.0		96.152.2053.0
250/400V	(C)	3, Z, T	black		96.052.6053.1		96.152.2053.1
Power 250V +Dimming	😸 L, 🕀, N	I, D1, D2	turquoise		96.052.6053.6		96.152.2053.6
Switch.func. 250V	1, 2,	3, 4, 5	light blue		96.052.6053.9		96.152.2053.9
Extra-low voltage	1, 2,	3, 4, 5	signal brown		96.052.6051.4		96.152.2051.4
						Contacts separately ur	nder Accessories, see following pages.

## M16 device connector straight, modular

#### **Female connector**

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.



v





Application	Coding		Color
Power 250/400V		), N, 3, 2, 1	gray black
Power 250V +Dimming		L, 🕀, N, D1, D2	turquoise
Switch.func. 250V		1, 2, 3, 4, 5	light blue
Extra-low voltage		1, 2, 3, 4, 5	signal brown

with screw co	onnection	with crimp connection		
Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>	
rigid		fine-stranded	0.75 - 4.0	
fine-stranded	0.75 - 4.0	Term. poles	1	
stranded	without ferrules	Thread	M16 x 1.5	
Term. poles	1	Gland	inside	
Thread	M16 x 1.5			
Gland	inside			
	Part No.		Part No.	
	96.051.6153.0		96.151.2153.0	
	96.051.6153.1		96.151.2153.1	
	96.051.6153.6		96.151.2153.6	
	06 051 6152 0		00 151 2152 0	
	90.051.0153.9		90.151.2153.9	
	96.051.6151.4		96.151.2151.4	

#### Male connector

Correct positioning guaranteed due to flattened thread. With locking device. Fastening with screws from inside.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.







Contacts separately under Accessories, see following pages.

wahlweise Verdrehsicherung optional protection against twisting				with screw connection			with crimp connection	
	$\sim$	$\frown$		Wire	mm <sup>2</sup>		Wire	mm <sup>2</sup>
	$\downarrow$ $\times$	\\t,	nax = 8mm	rigid			fine-stranded	0.75 - 4.0
	+			fine-stranded	0.75 - 4.0		Term. poles	1
				stranded	without ferrules		Thread	M16 x 1.5
				Term. poles	1		Gland	inside
				Thread	M16 x 1.5		Locking device	yes
	-  -	Ø16,4	-0,2	Gland	inside			
				Locking device	yes			
Application	Coding		Color		Port No.			Port No
Application	County		COIOI		Fait NO.			Faitino.
Power			arav		96 052 6153 0			96 152 2153 0
250/400V		🕀, N, 3, 2, 1	black		96 052 6153 1			96 152 2153 1
Power 250V			black					
+Dimmina		_, 🕀, N, D1, D2	turquoise		96.052.6153.6			96.152.2153.6
Switch.func.					00.050.0450.0			00.450.0450.0
250V		1, 2, 3, 4, 5	light blue		96.052.6153.9			96.152.2153.9
Extra-low		1 2 2 4 5	ainmal brown		00.052.0151.4			06 152 2151 4
voltage		1, 2, 3, 4, 5	signal brown		90.052.0151.4			90.152.2151.4
							Contacts separately u	nder Accessories, see following pages.

## M16 device connector angled 7°, modular

#### **Female connector**

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. Angled 7°, thread M16.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.



f







Application	Coding	Color
Power 250/400V	(€), N, 3, 2, 1	gray black
Power 250V +Dimming	() L, ⊕, N, D1, D2	turquoise
Switch.func. 250V	1, 2, 3, 4, 5	light blue
Extra-low voltage	1, 2, 3, 4, 5	signal brown

with screw co	onnection	with crimp con	inection
Vire	mm <sup>2</sup>	Wire	mm <sup>2</sup>
igid		fine-stranded	0.75 - 4.0
ine-stranded	0.75 - 4.0	Term. poles	1
tranded	without ferrules	Thread	M16 x 1.5
erm. poles	1	Gland	inside
hread	M16 x 1.5		
àland	inside		
	Part No.		Part No.
	96.055.6153.0		96.155.2153.0
	96.055.6153.1		96.155.2153.1
	96 055 6153 6		96 155 2153 6
	30.000.0100.0		00.100.2100.0
	96 055 6153 9		96 155 2153 9
	00.000.0100.0		0011001210010

#### Male connector

Correct positioning guaranteed due to flattened thread. With locking device. Fastening with screws from inside. Angled 7°, thread M16.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.





96.155.2151.4

Contacts separately under Accessories, see following pages.

W	ahlweise Verdrehsicherung ptional protection against	twisting	with screw cor	nnection		with crimp cor	nection
-			Wire	mm <sup>2</sup>	ור	Wire	mm <sup>2</sup>
			riaid			fine-stranded	0.75 - 4.0
		T max. = 8 MM	fine-stranded	0.75 – 4.0		Term, poles	1
	(++)		stranded	without ferrules		Thread	M16 x 1.5
			Term, poles	1	-11	Gland	inside
			Thread	M16 x 1.5		Locking device	Ves
	مٰ _ ¢20,	4 -0,2	Gland	inside	-11	Looking dorloo	100
			Locking device	yes			
Application	Coding	Color		Part No.			Part No.
Power		gray		96.056.6153.0			96.156.2153.0
250/400V	(±), N, 3, 2, 1	black		96.056.6153.1			96.156.2153.1
Power 250V		turquoico		96 056 6153 6			96 156 2152 6
+Dimming	L, 🔄, N, DT, DZ	turquoise		90.050.0155.0	_		90.150.2155.0
Switch.func.	12345	light blue		96 056 6153 9			96 156 2153 9
250V	., , , , , , , ,	light blue		30.030.0100.0			00.100.2100.0
Extra-low	12345	signal brown		96 056 6151 4			96 156 2151 4
voltage	., 2, 0, 4, 0	signal brown		00.000.0101.1			00.100.2101.1
						Contacts separately un	der Accessories, see following pages.

96.055.6151.4

Ø34.7

## M20 device connector angled 90°, modular

#### **Female connector**

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. Angled 90°, thread M20.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.

wahlweise Verdrehsicherung





	wahlweise V optional pr	erdrehsicherung otection against	t twisting	with screw cor	inection	with crimp co	nnection
			t max - 8mm	Wire	mm <sup>2</sup>	Wire fine-stranded	mm <sup>2</sup>
		$\downarrow \downarrow \downarrow$		fine-stranded	0.75 - 4.0	Term. poles	1
		$\square$ )		stranded	without ferrules	Thread	M20 x 1.5
	~			Term. poles	1	Gland	inside
	6	Ø20	0.4-0.2	Thread	M20 x 1.5		
	~		<u>,</u>	Gland	inside		
	o				<b>a</b>		<b>2</b>
Application	Coding		Color		Part No.		Part No.
Power 250/400V		€), N, 3, 2, 1	gray black		96.053.6053.0 96.053.6053.1		96.153.2053.0 96.153.2053.1
Power 250V +Dimming	6 L,	⊕, N, D1, D2	turquoise		96.053.6053.6		96.153.2053.6
Switch.func. 250V		1, 2, 3, 4, 5	light blue		96.053.6053.9		96.153.2053.9
Extra-low voltage		1, 2, 3, 4, 5	signal brown		96.053.6051.4		96.153.2051.4
						Contacts separately u	nder Accessories, see following pages.

#### Male connector

Correct positioning guaranteed due to flattened thread. With locking device. Fastening with screws from inside. Angled 90°, thread M20.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.







	wahlweise Verdrehsicherung optional protection against	twisting	with screw co	nnection	with	n crimp con	nection
	$\searrow$		Wire	mm <sup>2</sup>	Wire		mm <sup>2</sup>
		tmax =8mm	rigid		fine-s	tranded	0.75 - 4.0
	(77)		fine-stranded	0.75 - 4.0	Term.	. poles	1
			stranded	without ferrules	Threa	ıd	M20 x 1.5
			Term. poles	1	Gland	1	inside
	00	N /	Thread	M20 x 1.5	Lockir	ng device	yes
		J, 4 -0,2	Gland	inside			
			Locking device	yes			
Application	Coding	Color		Part No.			Part No.
Power		gray		96.054.6053.0			96.154.2053.0
250/400V	(E), IV, 3, 2, 1	black		96.054.6053.1			96.154.2053.1
Power 250V	💮 L, 🕀, N, D1, D2	turquoise		96.054.6053.6			96.154.2053.6
+Dimining							
250V	1, 2, 3, 4, 5	light blue		96.054.6053.9			96.154.2053.9
Extra-low	12345	signal brown		96.054.6051.4			96 154 2051 4
voltage	1, 2, 0, 4, 0	Signal brown		30.034.0031.4			30.134.2031.4
					Contac	cts separately und	ler Accessories, see following pages.

## M25 device connector angled 90°, modular

#### **Female connector**

Correct positioning guaranteed due to flattened thread. Fastening with screws from inside. Angled 90°, thread M25.

Crimp contacts separately available under Accessories.

See the Technical Data for insulation strip lengths.



Application	Coding		Color
Power 250/400V	•	), N, 3, 2, 1	gray black
Power 250V +Dimming		L, 🕀, N, D1, D2	turquoise
Switch.func. 250V		1, 2, 3, 4, 5	light blue
Extra-low voltage		1, 2, 3, 4, 5	signal brown





with screw cor	nection	with crimp con	nection
Wire	mm <sup>2</sup>	Wire	mm <sup>2</sup>
rigid		fine-stranded	0.75 - 4.0
fine-stranded	0.75 - 4.0	Term. poles	1
stranded	without ferrules	Thread	M25 x 1.5
Term. poles	1	Gland	inside
Thread	M25 x 1.5		
Gland	inside		
	Part No.		Part No.
	96.053.6253.0		96.153.2253.0
	96.053.6253.1		96.153.2253.1
	96.053.6253.6		96.153.2253.6
	96.053.6253.9		96.153.2253.9

#### Male connector

Correct positioning guaranteed due to flattened thread. With locking device. Fastening with screws from inside. Angled 90°, thread M25.

Crimp contacts separately available under Accessories.

wahlweise Verdrehsicherung optional protection against

9 -0.2 23,

Application Coding Power

250/400V Power 250V

+Dimming Switch.func.

250V Extra-low

voltage

See the Technical Data for insulation strip lengths.

⊕, N, 3, 2, 1

L, 🕀, N, D1, D2

1, 2, 3, 4, 5

1, 2, 3, 4, 5



96.053.6251.4





96.153.2251.4

Contacts separately under Accessories, see following pages.

twisting	with screw cor	nection	with crimp co	nnection
<u>t max. = 8 mm</u> )	Wire rigid fine-stranded stranded Term. poles Thread Gland Lecking draige	mm <sup>2</sup> 0.75 – 4.0 without ferrules 1 M25 x 1.5 inside	Wire fine-stranded Term. poles Thread Gland Locking device	mm <sup>2</sup> 0.75 – 4.0 1 M25 x 1.5 inside yes
Color	LUCKING GEVICE	Part No		Part No
gray black turquoise light blue		96.054.6253.0 96.054.6253.1 96.054.6253.6 96.054.6253.9		96.154.2253.0 96.154.2253.1 96.154.2253.6 96.154.2253.9
signal brown		96.054.6251.4	Contacts separately ur	96.154.2251.4 nder Accessories, see following pages.

## **Cable assemblies** Cable 5 x 1.5 mm<sup>2</sup>; 16 A

Rated values			Pull relief	with gland nut
Wire ends	(open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length	(open cable end)	35 mm	Color cable	black
Wire strip length	(open cable end)	9 mm	Color handle shell	black

#### Connection cables female - male



		_	
		Power 250V / 400V	Power 250V + Dimming
		(⊕ = GN/YE N = BU 1 = BN 2 = BK 3 = GY	GN/YE     SOURCE STATES STATES STATES
Cable	Length m	Part No.	Part No.
	1	96.452.1000.1	96.452.1000.6
	2	96.452.2000.1	96.452.2000.6
PVC cable	3	96.452.3000.1	96.452.3000.6
H05VV-F	4	96.452.4000.1	96.452.4000.6
	5	96.452.5000.1	96.452.5000.6
containing halogen	6	96.452.6000.1	96.452.6000.6
	7	96.452.7000.1	96.452.7000.6
	8	96.452.8000.1	96.452.8000.6
			^
Cable	Length m	Part No.	Part No.
	1	96.452.1030.1	96.452.1030.6
	2	96.452.2030.1	96.452.2030.6
Rubber-sheathed cable	3	96.452.3030.1	96.452.3030.6
H07RN-F	4	96.452.4030.1	96.452.4030.6
	5	96.452.5030.1	96.452.5030.6
containing halogen	6	96.452.6030.1	96.452.6030.6
	7	96.452.7030.1	96.452.7030.6
	8	96.452.8030.1	96.452.8030.6
Cable	Length m	Part No.	
	1	96.452.1050.1	
	2	96.452.2050.1	
Rubber-sheathed cable	3	96.452.3050.1	
HU/KIN-F	4	96.452.4050.1	1
ennanced version	5	96.452.5050.1	
halogon frog	6	96.452.6050.1	
nalogen-nee	7	96.452.7050.1	
	8	96.452.8050.1	

<b>Connection cables</b> female – free end	k		Power 250V / 400V	Power 250V + Dimming
			(         )         = GN/YE N = BU = BK 3 = GY (         ) = BK 3 = GY (         ) (         )         (         )	
Subject to	Cable	Length m	Part No.	Part No.
		1	96.452.1003.1	96.452.1003.6
		2	96.452.2003.1	96.452.2003.6
	PVC cable	3	96.452.3003.1	96.452.3003.6
	H05VV-F	4	96.452.4003.1	96.452.4003.6
		5	96.452.5003.1	96.452.5003.6
	containing halogen	6	96.452.6003.1	96.452.6003.6
		7	96.452.7003.1	96.452.7003.6
		8	96.452.8003.1	96.452.8003.6
	-			
	Cable	Length m	Part No.	Part No.
		1	96.452.1033.1	96.452.1033.6
		2	96.452.2033.1	96.452.2033.6
	Rubber-sheathed cable	3	96.452.3033.1	96.452.3033.6
	H07RN-F	4	96.452.4033.1	96.452.4033.6
1 + ÷		5	96.452.5033.1	96.452.5033.6
	containing halogen	6	96.452.6033.1	96.452.6033.6
		7	96.452.7033.1	96.452.7033.6
		8	96.452.8033.1	96.452.8033.6
	Cable	Length m	Part No.	
		1	96,452,1053,1	
		2	96.452.2053.1	
	Rubber-sheathed cable	3	96,452,3053,1	
	H07RN-F	4	96.452.4053.1	
	enhanced version	5	96,452,5053,1	
	halanan fuar	6	96.452.6053.1	
	naiogen-tree	7	96,452,7053,1	
		8	96.452.8053.1	

Other cable lengths, other codings upon request

## Cable assemblies Cable 5 x 1.5 mm<sup>2</sup>; 16 A

Connection cables male – free end			Power 250V / 400V ⊛ = SN/YE	Power 250V + Dimming
			N = BU 1 = BN 2 = BK 3 = GY	N = BU L = BN D1 = GY D2 = BK
-	Cable	Length m	Part No.	Part No.
		1	96.452.1004.1	96.452.1004.6
		2	96.452.2004.1	96.452.2004.6
	PVC cable	3	96.452.3004.1	96.452.3004.6
	H05VV-F	4	96.452.4004.1	96.452.4004.6
		5	96.452.5004.1	96.452.5004.6
	containing halogen	6	96.452.6004.1	96.452.6004.6
		7	96.452.7004.1	96.452.7004.6
		8	96.452.8004.1	96.452.8004.6
	Cable	Length m	Part No.	Part No.
		1	96.452.1034.1	96.452.1034.6
		2	96.452.2034.1	96.452.2034.6
	Rubber-sheathed cable	3	96.452.3034.1	96.452.3034.6
	H07RN-F	4	96.452.4034.1	96.452.4034.6
		5	96.452.5034.1	96.452.5034.6
A A A A A A A A A A A A A A A A A A A	containing halogen	6	96.452.6034.1	96.452.6034.6
		7	96.452.7034.1	96.452.7034.6
		8	96.452.8034.1	96.452.8034.6
	L			
	Cable	Length m	Part No.	
		1	96,452,1054,1	
		2	96.452.2054.1	
	Rubber-sheathed cable	3	96,452,3054,1	
	H07RN-F	4	96 452 4054 1	
	enhanced version	5	96.452.5054.1	
	halanan fua	6	96.452.6054.1	
	naiogen-tree	7	96.452.7054.1	
		8	96.452.8054.1	

RST® CLASSIC

## **Cable assemblies** Cable 5 x 2.5 mm<sup>2</sup>; 20 A

Rated values		Pull relief	with gland nut
Wire ends (open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length (open cable end)	35 mm	Color cable	black
Wire strip length (open cable end)	9 mm	Color handle shell	black

#### Connection cables female - male



		Power 250V / 400V @ = GN/YE	Power 250V + Dimming
		N = BU 1 = BK 3 = GY	N = BU L = BN D1 = GY D2 = BK
Cable	Length m	Part No.	Part No.
	1	96.453.1000.1	96.453.1000.6
	2	96.453.2000.1	96.453.2000.6
PVC cable	3	96.453.3000.1	96.453.3000.6
H05VV-F	4	96.453.4000.1	96.453.4000.6
	5	96.453.5000.1	96.453.5000.6
containing halogen	6	96.453.6000.1	96.453.6000.6
	7	96.453.7000.1	96.453.7000.6
	8	96.453.8000.1	96.453.8000.6
Cable	Length m	Part No.	Part No.
	1	96.453.1030.1	96.453.1031.6
	2	96.453.2030.1	96.453.2031.6
Rubber-sheathed cable	3	96.453.3030.1	96.453.3031.6
H07RN-F	4	96.453.4030.1	96.453.4031.6
	5	96.453.5030.1	96.453.5031.6
containing halogen	6	96.453.6030.1	96.453.6031.6
	7	96.453.7030.1	96.453.7031.6
	8	96.453.8030.1	96.453.8031.6
Cable	Length m	Part No.	
	1	96.453.1050.1	
	2	96.453.2050.1	
Rubber-sheathed cable	3	96.453.3050.1	
	4	96.453.4050.1	
ennanced version	5	96.453.5050.1	
halogen-free	6	96.453.6050.1	
nalogen-nee	7	96.453.7050.1	
	0	96 453 9050 1	

onnection cables female	e – free end			Power 250V / 400V	Power 250V + Dimming
				N = BU 1 = BN 2 = BK 3 = GY	
111000		Cable	Length m	Part No.	Part No.
	т		1	96.453.1003.1	96.453.1003.6
			2	96.453.2003.1	96.453.2003.6
		PVC cable	3	96.453.3003.1	96.453.3003.6
		H05VV-F	4	96.453.4003.1	96.453.4003.6
			5	96.453.5003.1	96.453.5003.6
		containing halogen	6	96.453.6003.1	96.453.6003.6
			7	96.453.7003.1	96.453.7003.6
THE THE PARTY OF T			8	96.453.8003.1	96.453.8003.6
		Cable	Length m	Part No.	Part No.
			1	96.453.1033.1	96.453.1033.6
			2	96.453.2033.1	96.453.2033.6
		Rubber-sheathed cable	3	96.453.3033.1	96.453.3033.6
		H07RN-F	4	96.453.4033.1	96.453.4033.6
	E.		5	96.453.5033.1	96.453.5033.6
	24	containing halogen	6	96.453.6033.1	96.453.6033.6
i i			7	96.453.7033.1	96.453.7033.6
			8	96.453.8033.1	96.453.8033.6
		Cable	Length m	Part No.	
			1	96.453.1053.1	
			2	96.453.2053.1	
		Rubber-sheathed cable	3	96.453.3053.1	
		HU/KN-F	4	96.453.4053.1	
		enhanced version	5	96.453.5053.1	
		halagan frag	6	96.453.6053.1	
1111 // 11	ł	nalogen-free	7	96,453,7053,1	
			0	96 453 8053 1	

#### Other cable lengths, other codings upon request

## Cable assemblies Cable 5 x 2.5 mm<sup>2</sup>; 20 A

Connection cables male – free end			Power 250V / 400V	Power 250V + Dimming
			(     (     )	(e) = GKVYE N = BU D1 = GY D2 = BK
	Cable	Length m	Part No.	Part No.
		1	96.453.1004.1	96.453.1004.6
		2	96.453.2004.1	96.453.2004.6
	PVC cable	3	96.453.3004.1	96.453.3004.6
	H05VV-F	4	96.453.4004.1	96.453.4004.6
		5	96.453.5004.1	96.453.5004.6
	containing halogen	6	96.453.6004.1	96.453.6004.6
		7	96.453.7004.1	96.453.7004.6
		8	96.453.8004.1	96.453.8004.6
	Cable	Length m	Part No.	Part No.
		1	96.453.1034.1	96.453.1034.6
		2	96.453.2034.1	96.453.2034.6
	Rubber-sheathed cable H07RN-F	3	96.453.3034.1	96.453.3034.6
		4	96.453.4034.1	96.453.4034.6
		5	96.453.5034.1	96.453.5034.6
	containing halogen	6	96.453.6034.1	96.453.6034.6
		7	96.453.7034.1	96.453.7034.6
		8	96.453.8034.1	96.453.8034.6
	Cable	Length m	Part No.	
		1	96.453.1054.1	
		2	96.453.2054.1	
	Rubber-sheathed cable	3	96.453.3054.1	
	HU/RN-F	4	96.453.4054.1	
	enhanced version	5	96.453.5054.1	
	halogon frog	6	96.453.6054.1	
	liaiogen-nee	7	96.453.7054.1	
		8	96.453.8054.1	

## Cable assemblies Cable 5 x 2.5 mm<sup>2</sup>; 20 A (Power 5-pole)

Rated values				Pull relief	with gland nut
Wire ends	(open cable end)	ultrason. welded		Interlock	integrated
Sheath strip length	(open cable end)	35 mm		Color cable	gray
Wire strip length	(open cable end)	9 mm		Color handle shell	black
Who outplotigut		0 11111	L		bidok

#### Connection cables female - male




## **Cable assemblies** Cable 5 x 2.5 mm<sup>2</sup>; 20 A (Power 5-pole)



## Cable assemblies Cable 5 x 4.0 mm<sup>2</sup>; 20 A

Rated values			Pull relief	with gland nut
Wire ends	(open cable end)	ultrason. welded	Interlock	integrated
Sheath strip length	(open cable end)	35 mm	Color cable	black
Wire strip length	(open cable end)	9 mm	Color handle shell	black

## Connection cables female - male

		Power 250V / 400V ⊛ = GN/YE	Power 250V + Dimming
			L = BN L = BN D1 = GY D2 = BK
Cable	Length m	Part No.	Part No.
	1	96.454.1000.1	96.454.1000.6
	2	96.454.2000.1	96.454.2000.6
PVC cable	3	96.454.3000.1	96.454.3000.6
H05VV-F	4	96.454.4000.1	96.454.4000.6
	5	96.454.5000.1	96.454.5000.6
containing halogen	6	96.454.6000.1	96.454.6000.6
	7	96.454.7000.1	96.454.7000.6
	8	96.454.8000.1	96.454.8000.6
Cable	Length m	Part No.	Part No.
	1	96.454.1030.1	96.454.1031.6
	2	96.454.2030.1	96.454.2031.6
Rubber-sheathed cable	3	96.454.3030.1	96.454.3031.6
H07RN-F	4	96.454.4030.1	96.454.4031.6
	5	96.454.5030.1	96.454.5031.6
containing halogen	6	96.454.6030.1	96.454.6031.6
	7	96.454.7030.1	96.454.7031.6
	8	96 454 8030 1	96.454.8031.6

## $\label{eq:connection} \textbf{Connection cables} \ \textbf{female} - \textbf{free end}$



		Power 250V / 400V @ = GMVE N = BU 2 = BK 2 = BK	Power 250V + Dimming © GMYE N = BW D = GY N = BW D = GY D = BW
Cable	Length m	Part No.	Part No.
	1	96.454.1003.1	96.454.1003.6
	2	96.454.2003.1	96.454.2003.6
PVC cable	3	96.454.3003.1	96.454.3003.6
H05VV-F	4	96.454.4003.1	96.454.4003.6
	5	96.454.5003.1	96.454.5003.6
containing halogen	6	96.454.6003.1	96.454.6003.6
	7	96.454.7003.1	96.454.7003.6
	8	96.454.8003.1	96.454.8003.6
Cable	Length m	Part No.	Part No.
	1	96.454.1033.1	96.454.1033.6
	2	96.454.2033.1	96.454.2033.6
Rubber-sheathed cable	3	96.454.3033.1	96.454.3033.6
H07RN-F	4	96.454.4033.1	96.454.4033.6
	5	96.454.5033.1	96.454.5033.6
containing halogen	6	96.454.6033.1	96.454.6033.6
	7	96.454.7033.1	96.454.7033.6
	8	96.454.8033.1	96.454.8033.6

## Cable assemblies Cable 5 x 4.0 mm<sup>2</sup>; 20 A

nnection cables male – free end				
			Power	Power 250V
			250V / 400V ⊕ = GNYE N = BU 1 = BN 2 = BK 3 = GY	
	Cable	Length m	Part No.	Part No.
		1	96.454.1004.1	96.454.1004.6
		2	96.454.2004.1	96.454.2004.6
	PVC cable	3	96.454.3004.1	96.454.3004.6
	H05VV-F	4	96.454.4004.1	96.454.4004.6
		5	96.454.5004.1	96.454.5004.6
	containing halogen	6	96.454.6004.1	96.454.6004.6
		7	96.454.7004.1	96.454.7004.6
		8	96.454.8004.1	96.454.8004.6
	Cable	Longth m	Port No	Port No.
	Cable	1	96.453.1034.1	96.453.1034.6
		2	06.453.1034.1	96.453.1034.0
	Bubbor aboathod apple	2	96.453.2034.1	96.453.2034.6
			96 / 53 / 03/ 1	96 453 4034 6
		5	96 / 53 503/ 1	96 453 5034 6
	containing halogen	6	96 / 53 603/ 1	96 453 6034 6
		7	96 / 53 703/ 1	96 453 7034 6
		8	96 453 8034 1	96 453 8034 6
		0	50.455.0054.1	00.400.0004.0

## **Distributors**

<b>RST compact distribu</b> Dimensions Pre-wired with	<b>ution unit</b> 104 x 162 x 57.2 mm 2.5 mm <sup>2</sup>	3 outputs routing 230/400V, 20 A Mounting option	RST 20i5 Coding ( Yes	Color black	
Gala	Circuit diagram	Color ight grey black	Input 1 1	Outputs 3 3	Part No. upon request 96.050.0153.1
RST multiple distribution	tion unit	Fitted as required with	M25 device conne	ector 2- up to 5	-pole

Dimensions Pre-wired with

104 x 162 x 96 mm 2.5 mm<sup>2</sup>

Fuse

6.3 or 10A can be integrated

Color	Input	Outputs	Part No.
black	1	7	upon request
black	1	5	96.050.2153.1



## Accessories cover pieces

**Cover pieces** 



þ

for male





For the safe closure of female and male connectors. With mounting strap for snapping onto plug connectors and device connectors

not captive against loss	for female	for male
Color	Part No.	Part No.
light grey	Z5.565.9853.0	05.565.9953.0
■ black	Z5.565.9853.1	05.565.9953.1

for female





Ø30	$\bigcup$	31,95

19,9

captive against loss	for female	for male
Color	Part No.	Part No.
light grey	99.529.0000.7	99.531.0000.7
■ black	99.530.0000.7	99.532.0000.7

## Accessories

## Female contacts and male contacts

Female contact	Name Female contact Female contact Female contact Female contact	Marking None 1 2 3	(groove) mm <sup>2</sup> 0.75 – 1.0 1.5 2.5 4.0	Part No. 02.125.5521.8 02.125.5621.8 02.125.5721.8 02.125.5821.8
Male contact	Male contact Male contact Male contact Male contact	None 1 2 3	0.75 – 1.0 1.5 2.5 4.0	05.545.0021.8 05.545.0121.8 05.545.0221.8 05.545.0321.8
	*available on straps or in magazines on request			
Crimping tool				
	Name Crimping tool incl. system kit Crimping die B Contact positioner	t		Part No. 95.101.0800.0 05.502.2100.0 05.502.3600.0
Extraction tool for crimp contacts				
The search states and	Name Extraction tool			Part No. 05.502.3500.0
Socket frame for device connectors M25 (female)	Protection rating: IP RST 20 Approval: 2F Entry: 2-	44 PfG1915, EN615 up to 5-pole	35	
	Color white	q	be	Part No. 99.400.9999.7



## Solar applications up to 25 A for single-phase supply with three-phase power monitoring or three-phase supply



The system has been specially adapted to the requirements of solar technology.

General

The connectors can be loaded with 25 A and are used for single-phase supply with power monitoring or three-phase supply.

Special distribution boxes are used to bundle the electrical power of up to 6 inverters and thus complete 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.

## **Features:**

- Fast mounting through easy handling
- UV-resistant
- Rated current up to 25 A
- Cross-sections up to 6 mm<sup>2</sup>
- Degree of protection IP66/68 (3m; 2h) /69K



## Coding

For daily updates	visit the website at	Application	3-phase power		
Assembly instructi in the Technical D	na-electric.com. ions and other technical informati ata or in eShop.	Mechanical coding, for example	250/400 V, 25 A L, N, ( ), 1, 2		
Name	Description	Connection style	Strain relief housing	Connection points per pole	concrete gray
Connector	1 x cable entry	Screw	yes	1	$\checkmark$
Distribution units	Distribution box RST RAN Solar Distribution box RST Solar				$\overline{\checkmark}$
Device connectors	M25 device connector, Standard				$\checkmark$
Cable assemblies	Connection cable Male – Free end Connection cable Female – Free end Extension cable	pre- assembled pre- assembled pre-	pre- assembled pre- assembled pre-	pre- assembled pre- assembled pre-	
	Male – Female	assembled	assembled	assembled	

# **Connectors,** straight for cables Ø 10 – 14 mm and 13 – 18 mm



## M25 device connector straight, standard

Female connect With sealing option For spacer rings for unlocking the device connector, see Accessories.	Or whitweise Verdrehsicherung optional protection against twisting tmax.=8mm verden verde	with screw connection           Wire         mm²           solid         up to 4.0           fine-stranded         up to 6.0	M25x1,5 16,1 16,1 15,132 without ferrules	SW24
3-phase power 250/400V, 25A	L, N, (), 1, 2 L, N, (), black	96.051.5054.3 99.577.0000.7	4 mm <sup>2</sup> 6 mm <sup>2</sup>	
Male connector With sealing option	vahlveise Verdrehsicherung optional protection against tvisting t max.=8mm g g g g g g g g g g g g g g g g g g	with screw connection           Wire         mm²           solid         up to 4.0           fine-stranded         up to 6.0	strate parts	() () () () () () () () () () () () () (
3-phase power 250 /400V, 25A	L, N, (), 1, 2 concrete gray/ black	96.052.5054.3 99.578.0000.7	4 mm² 6 mm²	
Distributio	n unit			
<b>RST-Distribution</b> Inputs Cable gland	box RST RAN Solar 6 x RST25i5 / 1 x M40, 2 x I	concrete gray coding M20	Connector clamps Circuit breakers Dimensions in mm (L x V	3 x 35 mm² 6 x B25 V x H) 350 x 300 x 100 mm





Material

Plastic



**Distribution box RST Solar** 

Inputs

Cable gland

Name

**Distribution box RST Solar** 

Part No. 99.502.0000.7

## Cable assemblies Cable 5 x 4.0 mm<sup>2</sup>; 25 A

Rated values		Pull relief	with gland nut		
Wire ends	(open cable end)	ultrason. welde	d	Interlock	integrated
Sheath strip length	(open cable end)	35 mm		Color cable	black
Wire strip length	(open cable end)	9 mm		Color handle shell	black
Connection of	<b>cables</b> female – m	nale			
16				3-phase power	
				250/400 V, 25 A	
		Cable	Length m	Part No.	
			1.0	96.854.1500.3	
		PVC cable	2.0	96 854 2000 3	
		H05VV-F	2.5	96.854.2500.3	
		containing balagan	3.0	96.854.3000.3	
	-	containing halogen	3.5	96.854.3500.3	
			4.0	96.854.4000.3	
		Cable	l enath m	Part No	1
			1.0	96 854 1030 3	
			1.5	96.854.1530.3	
		Rubber-sheathed cable	2.0	96.854.2030.3	
		HU/RN-F	2.5	96.854.2530.3	
200		containing halogen	3.0	96.854.3030.3	
		Containing halogen	3.5	96.854.3530.3	
			4.0	96.854.4030.3	
141	FLIF				
41.04	+LITIA				



## Cable assemblies Cable 5 x 4.0 mm<sup>2</sup>; 25 A

Connection cables ma	ale – free end			
			3-phase power 250/400 V, 25 A 9 = 0NY <sup>€</sup> 1 = 80 2 = 85	
	Cable	Length m	Part No	
	Cable	1.0	96.854.1004.3	
		1.5	96 854 1504 3	
	PVC cable	2.0	96.854.2004.3	
	H05VV-F	2.5	96.854.2504.3	
	containing helegon	3.0	96.854.3004.3	Cable diameter 14.3 mm ± 0.2
	containing halogen	3.5	96.854.3504.3	According to VDF 0281/T5 and
		4.0	96.854.4004.3	VDF 0288/T4
	Cable	Length m	Part No.	
		1.0	96.854.1034.3	
		1.5	96.854.1534.3	
	Rubber-sheathed cable	2.0	96.854.2034.3	
		2.5	96.854.2534.3	
	containing halogen	3.0	96.854.3034.3	Cable diameter 17.0 mm ± 0.3
		3.5	96.854.3534.3	According to VDE 0281/T5 and
		4.0	96.854.4034.3	VDE 0288/T4
		4.0	70.004.4034.3	VDE 0288/14

## **Cover pieces**

Cover pieces	For the safe closure of female and male conn With mounting strap for snapping onto plug conn	ectors. ectors and device connectors
for female	not captive against loss Color ■ light gray ■ black	for femalefor malePart No.Part No.Z5.564.4553.005.564.4453.0Z5.564.4553.105.564.4453.1
for male		
for female	captive against loss Color ■ light gray ■ black	for female         for male           Part No.         Part No.           99.413.6205.2         99.415.6205.2           99.414.6205.2         99.416.6205.2
for male		
Cover pieces	For the safe closure of female and male conn With mounting strap for snapping onto plug conn	ectors. ectors and device connectors
for female	not captive against loss Color ■ light gray ■ black	for female         for male           Part No.         Part No.           Z5.565.9853.0         05.565.9953.0           Z5.565.9853.1         05.565.9953.1
for male		
for female	captive against loss Color ■ light gray ■ black	for female         for male           Part No.         Part No.           99.529.0000.7         99.531.0000.7           99.530.0000.7         99.532.0000.7
for male		



## Mounting material

Fastening cord		
	Color Iight gray	Part No. 99.000.9950.6
Manual disconnect tool Retrofitting of plug connectors (female only)	Poles 2- up to 5-pole	
	Color black concrete gray leaves green With the manual disconnect tool, only one button must be connections. Also see the Mounting Instructions!	Part No. 05.564.8653.1 05.564.8653.3 05.564.8653.7 pressed to easily disconnect the
Manual disconnect tool Retrofitting of pre-assembled cables	CableRST20i2, RST20i3Modelshrinkage tube	
	Color black concrete gray leaves green With the manual disconnect tool, only one budisconnect the connections. Also see the Mounting Instructions!	Part No. 05.565.8653.1 05.565.8653.3 05.565.8653.7 utton must be pressed to easily
Locking slide - Safety Clip	for replacement need, delivery quantity 100 pieces	
	Color <ul> <li>black</li> <li>concrete gray</li> </ul> Note: The locking devices are integrated in the according p audibly when plugged in, confirming the safe connection. T a screw driver or with the manual disconnect facility (can b excessive tension on the connection these will loosen, how pulled out of the contacts. This safety mechanism will lead should be replaced after having been activated several time.	Part No. 05.583.2900.1 05.583.2900.3 Jug parts at the factory. They click 'hey are by default loosened with e ordered separately). In case of ever, to prevent hazards by wires to wear or destroy the slider, which is.
Spacer ring for device connector M25, female connector 2- up to 5-pole	for replacement need	
Manually actuated	Color ■ light gray ■ black A spacer ring makes it possible to unlock a connection at the	manually actuatedwith screwdriverPart No.Part No.05.568.8853.005.566.5253.005.568.8853.105.566.5253.1device connector (female).
A Charles		15

## **RST® CLASSIC Crimp contacts**

## **RST 3-pole**

#### Female contact



#### Name Marking (groove) mm<sup>2</sup> Part No. Female contact 0.75 - 1.0 02.122.9000.0 02.122.9100.0 02.122.9200.0 Female contact None 1.5 Female contact 2.5 1 Female contact None 4.0 02.122.9300.0 0.75 - 1.0 Male contact 05.544.7800.0 1 05.544.7900.0 Male contact None 1.5 Male contact 2.5 05.544.8000.0 05.545.4600.0 Male contact None 4.0

Male contact



## **RST 4- and 5-pole**

#### Female contact



#### Male contact



### Female contacts and male contacts

Female contacts and male contacts

Name	Marking	(groove) mm²	Part No.
Female contact	None	0.75 – 1.0	02.125.5521.8
Female contact	1	1.5	02.125.5621.8
Female contact	2	2.5	02.125.5721.8
Female contact	3	4.0	02.125.5821.8
Male contact	None	0.75 – 1.0	05.545.0021.8
Male contact	1	1.5	05.545.0121.8
Male contact	2	2.5	05.545.0221.8
Male contact	3	4.0	05.545.0321.8

Extraction tool for crimp contacts



Name Extraction tool Part No. 05.502.3500.0

**Crimping tool** 



Name		Part No.
Crimping tool incl. system kit		95.101.0800.0
Crimping die B	0.75 – 4.0 mm <sup>2</sup>	05.502.2100.0
Contact positioner		05.502.3600.0

## **Tools, ferrules**

#### Ferrule crimping tool

for termination points with spring clamp technology



Cable end sleeves 0.08 - 6.0 mm<sup>2</sup>, AWG 28 - 10 174 mm Total length Square compression; releasable latch; compression adjustable

Name Ferrule crimping tool

for wires

0.50 mm<sup>2</sup>

0.75 mm<sup>2</sup>

1.00 mm<sup>2</sup>

1.50 mm<sup>2</sup>

Part No. 95.101.1300.0

## **Cable end sleeves**

Materials Sleeve Temperature resistance Tube

Polypropylene up to 105 °C, tracking resistant E-Cu, galvanically tin-plated

## for RST 20i3 spring clamp connectors

Insulating sleeve Yes DIN 46228-E0,5-10 DIN 46228-E0,75-12 DIN 46228-E1,0-12 DIN 46228-E1,5-12

Name	mm <sup>2</sup>	Color	Part No.
Cable end sleeves	0.50	white	06.600.3827.0
Cable end sleeves	0.75	gray	06.600.3727.0
Cable end sleeves	1.00	red	06.600.3627.0
Cable end sleeves	1.50	black	06.600.3927.0



Screwdriver according to DIN 5264



for RST spring clamp connections Blade 0.4 –2.5 mm

Name Screwdriver Part No. 06.502.4300.0

## Sample kits

Sample kit RST 20i3 getting to know	Contents:	– Connector – Device connector – Cover pieces	
A CONTRACTOR OF	Name Sample set RST 20i3		Part No. 99.429.0000.0
Sample kit RST 20i5 getting to know	Contents:	– Connector – Device connector – Cover pieces	
	Name		Part No.
RECONSTRUCT	Sample kit RST 20i5		99.430.0000.0
Sample kit RST 20i2i5 getting to know	Contents:	<ul> <li>connectors, including all codings</li> <li>device connectors</li> <li>pre-assembled cables</li> <li>distributors</li> <li>Cover pieces</li> </ul>	
	Name Sample set RST 20i2.	.i5 complete kit	Part No. 99.431.0000.0

## Sample kits

Sample set RST 20i3 getting to know	Contents:	1x X6.030.0153.1 1x X6.031.1053.0 1x X6.031.1053.1 1x X6.032.1053.0 1x X6.032.1053.1	
	Name ATEX , IECEx RST20i3		Part No. 99.663.0000.0
Sample set RST 20i5 getting to know	Contents:	1x X6.051.4153.0 1x X6.052.4153.0 1x X6.051.5053.1 1x X6.052.5053.0	
	Name ATEX RST 20i5		Part No. 99.664.0000.0
Sample illumination cable getting to know	Contents: The illumination cable is r	<ul> <li>connector RST 20i2, pre-assembled with illumina</li> <li>lamp base and end piece (no lamp)</li> <li>not a standard Wieland product.</li> </ul>	tion cable
	Name Sample illumination ca	able	Part No. 99.490.0000.0

# Technical data RST® CLASSIC

	<b>RST 20i2/i3</b>	<b>RST 25i3</b>	RST 20i4/i5	RST 25i5			
Rated voltage	250/400 V	250 V	250/400 V	250/400V			
Rated current	20 A	<b>25 A</b> <b>32 A</b> (with 6.0 mm <sup>2</sup> )	20 A	25 A			
Number of poles	2- or 3-poles	3-poles	4- or 5-poles	5-poles			
Operating temperature:	-40° C to +10 H05VV cable	00° C e max 70 °C, H07RN	J-F max. 60 °C, H07	RN-F enhanced 90			
Ambient temperature:	-40° C up to	+85° C					
Material:	Contact part Housing part Sealing mate	Contact parts: brass, surface-treated Housing parts: thermoplastic material PA 66, halogen-free, V2 Sealing material: NBR					
Regulations:	IEC 61535 (VDE 0606); DIN EN 61984 (VDE 0627); VDE 0110 IEC 60999: UL 2238; CSA: C22.2 No.182.2-M1987; LR Type Approval System 2 PfG 1915						
Pollution severity:	3 (when con	nected)					
Plugging cycles:	as per IEC 61 100x without RST20i2/3 / f to 3,000 plug the sealing s (e.g. Berulub	535 t load and 50x unde RST25i3 provide up gging cycles withou hould be checked a FR 43 UV).	er nominal load (cos to 5,000 plugging c it load. After approx ind, if required, re-lu	$oldsymbol{\phi}$ = 0.6) cycles and RST20i4/ . 600 plugging cycle bricated with a suit			
Approvals:	VDE; TÜV Rł (observe con * without cable ** without cable You can find the eShop ur	neinland; LR; GL; DI ditions of acceptab assembles in shrinkage assembles in shrinkage the direct assignmender http://eshop.wi	NV; RINA; BV; ATEX tube technology and cor tube technology ent of approvals and ieland-electric.com,	; IECEx; CSA**; UL* nnectors with spring clar I part numbers in th or consult us.			
Degree of protection:	IP65, IP66, I The installati	P67, IP68 (3m; 2St on instructions mus	unden), IP69 K st be observed (see	page with installation			
IK code:	IK 07 (2 Joule	e)					
Glow-wire test 850° C, 30 s:	for connecto	rs, distribution unit	s, cable assemblies	and device connect			
Coding:	Mechanical o	coding symbolized l coding. Other codin	by color code. Color	gray and black wit			

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.

A locking device is required for IEC 6153 approval.

DIN VDE 0606 T200 conformity does not automatically exclude the danger of confusion with third-party installation plug connector systems! Installation plug connector systems are no substitute for national plug/outlet systems for domestic use. IEC 60364-5-52 must be observed – see note under "Electrical installations with increased degree of protection".

AWG 12-18

8

6.0 mm<sup>2</sup>

8

8

8

8

## Wire preparation

## RST 2-/3-pole

## Insulation strip lengths and ferrules all lengths indicated in mm Connector Connector 6 – 10 mm

10 – 14 mm

solid

fine-stranded

stranded

30

Insulation strip length X =

Conductor cross-section

ultrasonically compressed

×

} N, L

Screw connection:



Screwdriver PZ1 Rated torque: 0.8 – 1.0 Nm

#### Spring clamp connection



Fine-stranded and stranded	Connector		Splitter	connector	
Ferrules required	35	40 ************************************		55 50 50	▲ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Conductor cross-section	0.5 mm <sup>2</sup>	0.75 mm <sup>2</sup>	1 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
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
Connector 6 – 10 mm, 10 – 14	mm		Conne	ctor 13 –18 mn	n
			95	57	J
Insulation strip length X =				52	] ⊕ '} N,L
Insulation strip length X =	0.75 mm <sup>2</sup>	1.0 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	 ' } N,L 4.0 mm <sup>2</sup>
Insulation strip length X = Conductor cross-section fine-stranded	0.75 mm <sup>2</sup> 8.0 + 1	1.0 mm <sup>2</sup> 8.0 + 1	1.5 mm <sup>2</sup> 8.0 + 1	2.5 mm <sup>2</sup> 8.0 + 1	

Connector 13 – 18 mm

0.75 mm<sup>2</sup>

8

8

8

8

42

x

1.0 mm<sup>2</sup>

8

8

8

8

} N, L

1.5 mm<sup>2</sup>

8

8

8

8

Crimp connection:



## RST 4 /5-pole

all lengths indicated in mm Screw connection:



Screwdriver PZ1 Rated torque: 0.5 – 0.7 Nm

#### Crimp connection:



x } N, L





#### Insulation strip lengthh X

Conductor cross-section	0.75 mm <sup>2</sup>	1.0 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4.0 mm <sup>2</sup>	6.0 mm <sup>2</sup>	AWG 12-18
solid	8	8	8	8	8	8	-
fine-stranded	8	8	8	8	8	8	-
stranded	8	8	8	8	8	8	8
ultrasonically compressed	8	8	8	8	8	8	-









Splitter connector max. 2 x 2.5 mm<sup>2</sup>!

45

2.5 mm<sup>2</sup>

8

8

8

8

×

-

} N, L

4.0 mm<sup>2</sup>

8

8

8

8

Connector 13 – 18 mm



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						
fine-stranded 7.0 +1 7.0 +1 7.0 +1 7.0 +1 7.0 +1	Conductor cross-section	0.75 mm <sup>2</sup>	1.0 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
	fine-stranded	7.0 +1	7.0 +1	7.0 +1	7.0 +1	7.0 +1

} N, L

# **Derating curves**

## **RST 20i3**

Screw connection – spring clamp connection Derating curve according to IEC 61984 Edition 2 dated 10/2008 paragraph 7.3.8



## **RST 25i3**

Screw connection Derating curve according to IEC 61984 Edition 2 dated 10/2008 paragraph 7.3.8



# **Derating curves**

## **RST 20i5**

Screw connection – crimp connection Derating curve according to IEC 61984 Edition 2 dated 10/2008 paragraph 7.3.8



## **RST 25i5**

Screw connection Derating curve according to IEC 61984 Edition 2 dated 10/2008 paragraph 7.3.8



## **Connectors 2- and 3-pole**

Connect the wires ... ... and disconnect them Screw connection: Tightening torque typically typ. 0.8 – 1.0 Nm Close the connector ... ... and open it ∕>Click! Tightening torque 4.0 + 1,0 Nm ... and unlock it Lock the housing ...



How to insert the (optional) manual disconnect tool into the connector (only possible for the female connector)



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

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

## **Device connections 2- and 3-pole**

Installation of a standard system, for M20 feed-through

#### Dimensions in mm



## Installation of a standard system, for M25 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.



Note the minimum bending radius for conductors,  $> 2.5 \text{ mm}^2$ . Pull forces on the contact points can be avoided by proceeding as follows::

Bend the wire as required Cut the wire to length <sup>(2)</sup> Strip the cable and wires <sup>(3)</sup>

## **Connectors 4- and 5-pole**

#### Connect the wires ...

... and disconnect them



## Close the connector ...

... and open it



Lock the housing ...

... and unlock it



#### How to insert the (optional) manual disconnect tool into the connector (only possible for the female connector)



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

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

## **Device connections 4- and 5-pole**

Installation of a standard system, for M20 feed-through

#### Dimensions in mm

Note:



Effectiveness of the protection against twisting can only

be guaranteed when the lower tolerance limit is ensured

Installation of a standard system, for M25 feed-through

Dimensions in mm



# for the diameter of the hole.

Note the minimum bending radius for conductors > 2.5 mm<sup>2</sup>. Pull forces on the contact points can be avoided by proceeding as follows::

Bend the wire as required Cut the wire to length ② Strip the cable and wires ③ **RST®** CLASSIC



# Compact and multi-distribution units for use in rough environments



## General

The pluggable distribution units play a major role in power distribution. In their simplest function, they merely have to provide branches in the required locations. Practice shows, however, that the requirements may be much more complex.

Examples can be found in AC and DC wiring through distribution units with microfuses up to boxes with integrated safety outlets or switches.



## Compact and multi-distribution units Flexibility according to the modular **RST**<sup>®</sup> principle

## The highest level of flexibility!

Two housing variations are the basis: a flat design with up to four slots, and a high design with a total of up to eight slots. Unused slots are closed at the factory.

The distribution units are equipped individually with suitable device connectors.

These connectors are available in various pole configurations, with

mechanical coding and designs; they are wired to customer's requirements.

## Overview of the standard components:

Depending on the application, you can choose among 30 codings from the range of **RST**® CLASSIC and **RST**® MINI. Mechanically coded means that only the matching male and female connectors can be plugged together. Thus you

can be sure that your different applications are clearly distinguished – without having to rework incorrect connections.The connector colors signal the matching connections. The standard power coding is an exception. Here you can select between black and gray.

These are compatible with one another.





#### Mounting

Four fixing clips on the outside ensure easy installation and safe fixation.

At the bottom, there are extra fixing holes for attachment of a special mounting plate.





#### Unlocking

All pluggable connections are protected against accidental loosening. This is guaranteed by a locking facility integrated during production. On plug-in, the locking facility latches with an audible click. The connection is released using a screwdriver.



#### **Cover pieces**

Cover pieces are required for safely covering unused outputs.

These are available either with or without protection against loss.



Compact/multi-distribution units



#### Circuit diagram

A circuit diagram on the housing cover provides informati-on about the internal wiring. The outputs are numbered from X1 to X8.



Housing design: flat

## **Compact distribution units with max. 4 slots**

<b>RST compact distri</b> Dimensions (W x L x H) Number of poles	<b>bution unit</b> 104 x 162 x 57.2 mm 5-pole	routing 3 outputs 230/400V, 20A Pre-wired with Mounting option	RST 20i5 coding Color black 2.5 mm² Yes	
Fall	Circuit diagram	Color gray black	Input Outputs 1 3 1 3	Part No. upon request 96.050.0153.1
<b>RST compact distri</b> Dimensions (W x L x H) Number of poles	<b>bution unit</b> 104 x 162 x 57.2 mm 5-pole	routing 2 outputs 230/400V, 20A Pre-wired with Mounting option	RST 20i5 Coding Color black 2.5 mm² Yes	<
Sala	Circuit diagram	Color gray black 5 5	Input Outputs 1 2 1 2	Part No. upon request 96.050.1153.1
<b>RST compact distri</b> Dimensions (W x L x H) Number of poles	<b>bution unit</b> 104 x 162 x 57.2 mm 5-/3-pole	routing 1 output 230/400V, 20A 1 output 230V, 20A Pre-wired with Mounting option	RST 20i5 coding Color black RST 20i3 coding Color black 2.5 mm² Yes	
Kere	Circuit diagram	Color gray black black black black 5 3	Pole markingInputOutputs12L12L12L12	Part No. upon request 96.050.3153.1 96.050.4153.1 96.050.5153.1
<b>RST compact distri</b> Dimensions (W x L x H) Number of poles	<b>bution unit</b> 104 x 162 x 57.2 mm 5-/3-pole	1 input 230/400V, 20A 3 outputs 230V, 20A Pre-wired with Mounting option	RST 20i5 coding Color black RST 20i3 coding Color black 2.5 mm² Yes	
(and	Circuit diagram	Color gray black	Pole markingInputOutputs13L1, L2, L313	Part No. Upon request 96.050.6153.1

## AS-i distribution unit

<b>Distribution box AS</b> - Dimensions (W x L x H) Number of poles	<b>i / 24V</b> 104 x 162 x 57.2 mm 4-pole	3 outputs 230/400V, 20A Pre-wired with Mounting option	RST 20i4 coding 2.5 mm² Yes	Color brown	
(ald	Circuit diagram	Color gray black	Input 1 1	Outputs Pa 3 up 3 96	art No. pon request 6.040.0151.4
Mounting plate for e mesh cable tray (see illustration below)	example to fit on the	Dimensions (W x L x H) Mounting option	105 x 154 x 4.5 mm Yes		
4				Pa	art No. 0.500.2041.5





## Multi-distribution units with max. 8 slots

Multi-distribution unit 5-/3-pole, 1I/70, 2x L1, L2, L3

Dimensions (W x L x H) routing outputs 230/400V, 20A outputs 230V, 20A 104 x 162 x 96 mm 1, RST 20i5 coding black 6, RST 20i3 coding black

Input

Outputs

Outputs

4

4

Part No.

Part No.

upon request

99.903.0000.7

99.902.0000.7

upon request

96.050.7153.1





Multi-distribution unit 5-/3-pole, 1I/30, L1, L2, L3

Dimensions (W x L x H) routing outputs 230/400V, 20A outputs 230V, 20A

Color

gray

104 x 162 x 96 mm 1, RST 20i5 coding black 3, RST 20i3 coding black

Input

1





## Multi-distribution unit 5-/3-pole, 11/30, L1, L2, L3

Dimensions (W x L x H)

Protection type

104 x 162 x 96 mm IP 65, 66, 67 input 230/400V, 20A outputs 230 V, with 3 integrated microfuse holders up to 10 A including microfuse 1, RST 20i5 coding black 3, RST 20i3 coding black

3

1

10A, 5 x 20 mm





Color	Input	Outputs	Part No.
gray	1	3	upon request
black	1	3	99.901.0000.7

**Distribution box** Input power 230/400V, 20A 1 Power and AS-i / 24 V Outputs power 230/400V, 20A 3, RST 20i5 coding black Dimensions (W x L x H) 104 x 162 x 96 mm input AS-i/24V, 20A 1 outputs AS-i/24V, 20A 3, RST 20i4 coding brown Color Part No. Input Outputs

black





**Distribution units** 

## Multi-distribution units, radio, halogen technology, LED technology

#### Switching output unit EnOcean 4-fold

Power In-/Output Outputs Connection type

230V AC / 20A connectors RST 20i3 coding black 4 connector RST20i3, coding black

Rated voltage 230 V AC 6A (max. two of the LED/LV halogen Switching capacity modules given below) IP 65, 66, 67, 68 (3m; 2h) Protection type Dimensions (length/width/height) 104/162/96 mm Mounting option 4 elongated holes





4 relay outputs, 1 feed-through wiring gesis RC RST-0/4 83.020.0505.0

The EnOcean 4-fold switching output unit in IP68 surface housing for outdoor use features four 230V relays. They can be programmed for 30 push button pairs. All electrical connections are pluggable.

## Switching output unit EnOcean 1-fold

Power In-/Output Outputs Connection type

230 V AC / 20 A connector RST 20i3 coding black connector RST 20i3, coding black

Rated voltage	230 V AC
Switching capacity	5A total ohmic load
Protection type	IP 65, 66, 67, 68 (3m;
Dimensions (length/width/height)	104/162/57 mm
Mounting option	4 elongated holes

Name



Type Name Part No gesis RC RST-0/1 1 relay output, 1 feed-through wiring 83.020.0504.0 gesis RC RST-0/1x2 2 relay outputs connected in parallel 83.020.0504.1

The EnOcean 1-fold switching output unit in IP68 surface housing for outdoor use features one 230V relay. They can be programmed for 30 push button pairs. All electrical connections are pluggable.

#### Constant power supply unit, 350 mA DC

Power input (male connector) Power output (female connector Output LED (female connector)

230V AC/20A RST 20i3 coding black 230V AC/20A RST 20i3 coding black 350mA DC/max. 12W RST 20i2 coding brown

Protection type Ambient temperature Dimensions (length/width/height) 104/162/96 mm Mounting option Electrical connections

IP 65, 66, 67, 68 (3m; 2h), 69K -25 °C up to +55 °C 4 elongated holes pluggable with RST 20i2...20i3





Type gesis RST PSI 350/12 LED Part No. 83.020.0902.0

Part No.

2h), 69K

Constant power supply unit 350 mA for connecting LEDs. Connections not used have to be closed.

## Constant power supply unit, 700 mA DC

Power input (male connector) Power output (female connector) Output LED (female connector)

230V AC/20A, RST 20i3 coding black 230V AC/20A RST 20i3, coding black 700mA DC/max. 12W, RST 20i2 coding brown

Protection type Ambient temperature Dimensions (length/width/height) 104/162/96 mm Mounting option 4 elongated holes Electrical connections

IP 65, 66, 67, 68 (3m; 2h), 69K -25 °C up to +55 °C pluggable with RST 20i2...20i3





Type gesis RST PSI 700/12 LED Part No. 83.020.0903.0

Constant power supply unit 700 mA for connecting LEDs. Connections not used have to be closed

#### Constant power supply unit, 12 V DC

Power input (male connector) Output LED (female connector)

230V AC/20A RST 20i3, coding black Power output (female connector) 230V AC/20A RST 20i3, coding black 12V DC/max. 12W RST 20i2 coding pebble gray

Protection type Ambient temperature Dimensions (length/width/height) 104/162/96 mm Mounting option Electrical connections

IP 65, 66, 67, 68 (3m; 2h), 69K -25 °C up to +55 °C 4 elongated holes pluggable with RST 20i2...20i3





#### Constant power supply unit, 24 V DC

power input (male connector) power output (female connector) output LED (female connector)

230V AC/20A RST 20i3, coding black 230V AC/20A RST 20i3, coding black 24V DC/max. 12W RST20i2, coding pebble gray

Protection type
Ambient temperature
Dimensions (length/width/height)
Mounting option
Electrical connections

Constant voltage supply unit 12 V for connecting LEDs. Connections not used have to be closed.

IP 65, 66, 67, 68 (3m; 2h), 69K -25 °C up to +55 °C 104/162/96 mm 4 elongated holes pluggable with RST 20i2...20i3



Power input (male connector)

Output LV halogen (female

connector)

Power output (female connector)



Transformer for low voltage halogen luminaires, 12 V AC Output LV halogen

230 V AC/20 A RST 20i3, coding black

230 V AC/20 A RST 20i3, coding black

12V AC/20 - 70W RST 20i2, coding signal

gesis RST PSU 12/12 LED

max. 2 m cable length

104/162/96 mm

4 elongated holes

IP 65, 66, 67, 68 (3m; 2h), 69K

pluggable with RST 20i2...20i3

0 °C up to +45 °C (derating from 35 °C)

brown



gesis RST PSU 24/12 LED

83.020.0901.0

83.020.0900.0



#### gesis RST PSU 12/70 LVH

Type

Mounting option

Constant voltage supply unit 24 V for connecting LEDs. Connections not used have to be closed.

Protection type

Ambient temperature

Electrical connections

Dimensions (length/width/height)

Part No 83.020.0904.0

Power supply unit 12 V for connecting halogen luminaires. Connections not used have to be closed.

**Accessories Covers** Suitable for all RST 20i2 and RST 20i3 codings

The covers have to be used to close all unused inputs and outputs. Without these covers, only IP20 is achieved!



## Radio switch / hand-held radio transmitter

#### Radio switch, 2/4 channels glossy with suitable frame





This push button series features a glossy, smooth surface. The radio switches with 2 or 4 channels do not require batteries or maintenance. The rockers are in neutral central position and without marking with 1/0 or up/down symbols. The matching frames for these push buttons can be found below.



Frame for installation of the 2/4 channel glossy radio switches. Suitable for vertical and horizontal mounting.

glossy surface
 batteryless and maintenance free

- for installation on flat surfaces with screws or adhesive pads (included in delivery)

- the combination frames have to be ordered separately

Туре	Color	Marking	Part No.
Radio switch, 2 channels	pure white	1/0	F0.000.0025.0
	pure white	(△▼)	F0.000.0025.2
	pure white		F0.000.0025.4
	piano black	1/0	F0.000.0025.9
	piano black	(△▼)	F0.000.0026.1
	piano black		F0.000.0026.3
	aluminum	1/0	F0.000.0026.8
	aluminum	$( \bigtriangleup \mathbf{\nabla} )$	F0.000.0027.0
	aluminum		F0.000.0027.2
Radio switch, 4 channels	pure white	1/0	F0.000.0025.1
	pure white	(△▼)	F0.000.0025.3
	pure white		F0.000.0025.5
	Piano black	1/0	F0.000.0026.0
	Piano black	(△▼)	F0.000.0026.2
	Piano black		F0.000.0026.4
	aluminum	1/0	F0.000.0026.9
	aluminum	(△▼)	F0.000.0027.1
	aluminum		F0.000.0027.3

\* 2 channels represent a rocker in neutral center position. This function is defined in the receiver.

\* 4 channels represent two rockers in neutral center position. This function is defined in the receiver.

Color	Marking	Part No.
pure white		F0.000.0025.6
pure white		F0.000.0025.7
pure white		F0.000.0025.8
piano black		F0.000.0026.5
piano black		F0.000.0026.6
piano black		F0.000.0026.7
aluminum		F0.000.0027.4
aluminum		F0.000.0027.5
aluminum		F0.000.0027.6
	Color pure white pure white pure white piano black piano black piano black aluminum aluminum aluminum	Color Marking pure white pure white pure white piano black piano black piano black aluminum aluminum aluminum

#### Handheld radio transmitter, 4 channels

Handheld radio transmitter

- Batteryless and maintenance-free

- For stick-on surface mounting or as a handheld remote control.

Туре		Color
Handheld rad	io transmitter	pure white
Handheld rad	io transmitter	black RAL
Handheld rad	io transmitter	silber lacki

	Color	Marking	Part No.
transmitter	pure white RAL 9010		F0.000.0009.1
transmitter	black RAL 9005		F0.000.0009.2
transmitter	silber lackiert		F0.000.0009.3

Batteryless and maintenance-free 4-channel handheld transmitter for direct control of the actuators.
### Radio switch / hand-held transmitter

#### **Convenient hand-held transmitter**



**Special EnOcean function:** 

Power supply:

Charging device

Supply with batteries

**Convenient hand-held transmitter** 

Type

Time, date, temperature pre-defined or configurable with pin code 32 8 165/55/21 mm

EnOcean service function, e.g. ID display, quality of radio signals, and a radio link test (enables range test

between two hand-held terminals)

USB charging device and separate

USB cable (included in delivery)

3 AAA-NiMH power packs (included in delivery)

The convenient hand-held transmitter allows for control of the complete building. Whether complex lighting concepts or comprehensive actions following a detailed schedule: This hand-held terminal lets you program building functions in the twinkling of an eye. Menu navigation is intuitive and is supported by easily understandable symbols. Additionally, the device offers service functions for the installer regarding range planning and

The radio switches fit the frames with 55mm installation size of the vendors and their

Part No. F0.000.0024.4



Included in delivery

#### Multivendor radio switch, 2/4 channels

- Batteryless and maintenance-free
- for mounting on flat surfaces with screws or adhesive pads (included in delivery)
- Jung: A500, A plus

designs listed:

– Merten: M-Smart, M-Arc, M-Plan

Berker: S1, B1, B3, B7 Glas
Gira: Standard 55, E2, Event, Esprit

serves for function testing during commissioning.







Туре	Color	Marking	Part No.
Radio switch, 2 channels	white	1/0	F0.000.0005.6
	anthracite	1/0	F0.000.0007.5
	aluminum finish	1/0	F0.000.0007.6
Radio switch, 2 channels	white	(△▼)	F0.000.0005.8
	anthracite	(△▼)	F0.000.0007.7
	aluminum finish	(△▼)	F0.000.0007.8
Radio switch, 4 channels	white	1/0	F0.000.0005.7
	anthracite	1/0	F0.000.0007.9
	aluminum finish	1/0	F0.000.0008.0
Radio switch, 4 channels	white	(△▼)	F0.000.0005.9
	anthracite	(△▼)	F0.000.0008.1
	aluminum finish	(△▼)	F0.000.0008.2

Batteryless and maintenance-free radio switches with 2/4 channels for direct control of the actuators. The rockers in neutral center position are marked with I/O or Up/Down ( $\Delta \mathbf{\nabla}$ ) symbols. These 55x55 mm switches enable installation in various designs of various manufacturer

- Multivendor radio switches with 2/4 channels (light) (I / 0)
- the rockers are printed with I/0 symbols
- Multivendor radio switches with 2/4 channels (sunblind) (Up / Down) (△▼)
- the rockers are printed with Up/Down (△ ▼) symbols

### Compact and multiple distribution units Flexibility according to RST<sup>®</sup> modularity

The pluggable distributors play a major role in power or signal distribution. In their simplest function, they merely have to provide branches in the required locations. Practice shows, however, that the requirements may be much more complex. Examples can be found in rotary A/C current distributors and distributors with integrated fine fuses, all the way through to boxes with integrated electronics, such as constant current sources, voltage sources, or radio actuators.

Two housing variations are the basis:

a flat design with up to four slots, and a high design with a total of up to eight slots. Alongside a customized configuration with the new RST16i device connectors, the existing components of the RST20i and RST25i lines can also be used for variety, of course.

The coded connectors give you the security of a clear distinction between different circuits – no need to redo any incorrect connections. In addition to the compact and multiple distributors, standard distribution boxes can also be customequipped with device connectors.



Example

# Special variant request – please complete and fax: +49-951-9326-996



Bitte die benötigten Komponenten (Artikelnummer oder Polzal und Farbe) ergänzen und Verdrahtung einzeichnen. Please add required components (either article code or number of poles and color) and the wiring scheme.

### **RST**<sup>®</sup> compact and multi-distribution units



Temperature range:	-40° C up to +100° C
Operating ambient temperature:	under full load (20 A) 55° C
Material:	Contact parts: brass, silver-plated Housing parts: thermoplastic material PA 66, halogen-free, V2 Sealing material: NBR
Wiring:	Individual wires 2.5 mm², halogen-free (other cross-sections on request)
Regulations:	DIN VDE 0606 T200; DIN EN 61984 (VDE 0627); VDE 0110 IEC 60999
Approvals:	VDE You can find the direct assignment of approvals and part numbers in the internet in the eShop under http://eshop.wieland-electric.com, or consult us.
Degree of protection:	IP65, IP66, IP67 und IP68 (3m; 2 Stunden) ≙0.3 bar, IP69K Special variants may occur different degrees of protection.
IK code:	IK 07 (2 Joule) according to DIN EN 62262
Rated voltage:	250V/400V
Rated current:	20 A (25 A)
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. Ground 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. A locking device is required for DIN EN 61535 approval. DIN VDE 0606 T200 conformity does not automatically exclude the danger of confusion with third-party installation plug connector systems! Installation plug connector systems are no substitute for national plug/outlet systems for domestic use



### The new RST® POWER series up to 50 A

#### **Application example**



#### General

The new **RST**<sup>®</sup> POWER series is particularly designed for device engineering. With a current-carrying capability of 50 A combined with an extremely compact design, the connector fits almost everywhere.

The 4-pole connector is based on the 5-pole variation, with one pole left empty.

#### Coding

For daily updates v	isit the website at			Application	Power max. 50 A
http://eshop.wielar Assembly instructi in the Technical Da	id-electric.com. ons and other technical inform. ta or in eShop.	Mechanical coding	250/400 V 1, 2, 3, ()		
Name	Description	Connection style	Strain relief housing	Connection points per pole	black
Connectors	1 x wire entry	Screw Crimp	yes	1	$\checkmark$
Device connectors	M32 connector, standard	Screw Crimp	yes	1	$\checkmark$

# **Connectors,** straight for cables Ø 4 – 6 mm and 4 – 10 mm

Female	e conn	ector			Illustration M 32 cable gland	SW36 SW36 665
					with screw connection           Wire         mm²           solid         from 4.0 to 6.0*)           stranded         from 4.0 to 16.0           Approvide         I/DE a CCA up	With crimp connection       Wire     mm <sup>2</sup> flexible wires     from 4.0 to 10.0       Approvals     VDE, cCSA us
Application Power max. 50A	Coding	Cable gland M 32 M 40	Cable Ø in mn 15 – 25 20 – 32	black black	Part No. 97.041.4053.1 97.041.4253.1	Part No. 97.141.0053.1 97.141.0253.1
Male c	onnec	tor				Contacts separately under Accessories, see following pages.
					Illustration M 40 cable gland	
					with screw connection           Wire         mm <sup>2</sup> solid         from 4.0 to 6.0*)           stranded         from 4.0 to 16.0           flexible wires         from 4.0 to 16.0           Approvals         VDE, c CSA us	Wire     mm²       flexible wires     from 4.0 to 10.0       Approvals     VDE, c CSA us
Application Power max. 50A	Coding	Cable gland M 32 M 40	Cable Ø in mm	black black black	Part No. 97.042.4053.1 97.042.4253.1	Part No. 97.142.0053.1 97.142.0253.1 Contacts separately under Accessories, see following pages.

\*) Solid and stranded wires > 6.0 mm<sup>2</sup> cannot be connected in the available space due to their rigidity.

# M32 device connector straight, standard

Female connec	ctor			¢65	SW55 
Drilling template for device connectors fixed			with screw connection	with crimp co	onnection
in position	Ø5,5±0,1				
			Wire mm <sup>2</sup>	Wire	mm <sup>2</sup>
			solid from 4.0 to 16.0	Tlexible wires	
			Stranueu	Approvais	VDE, CGSAUS
	ø32,5±0,25		Approvais VDE, CCSA us		
	-0-1 +0				
Application Coding	Fixation with bolts	Color	Part No.		Part No.
	fixed in position	black	97.041.5553.1		97.141.1553.1
Power max. 50A 1, 2, 3, (*)				Contacts separately	under Accessories, see following pages.
				51	
Drilling template for device connectors fixed			with screw connection	with crimp co	<b>e b b b c b c c c c c c c c c c</b>
Drilling template for device connectors fixed in position	<sup>2</sup> <sup>2</sup> <sup>2</sup> <sup>2</sup> <sup>2</sup> <sup>2</sup> <sup>2</sup>		with screw connection	with crimp co	onnection
Drilling template for device connectors fixed in position	90,0×0,1		with screw connection         Wire       mm <sup>2</sup> solid	with crimp co	ponection mm <sup>2</sup> from 4.0 to 10.0
Drilling template for device connectors fixed # in position \$			with screw connection         Wire       mm <sup>2</sup> solid       from 4.0 to 16.0	with crimp co	<b>onnection</b> <b>mm<sup>2</sup></b> from 4.0 to 10.0 <b>VDE</b> , c CSA us
Drilling template for device connectors fixed in position			with screw connection         Wire         solid         from 4.0 to 16.0         stranded         from 4.0 to 16.0	with crimp co Wire flexible wires Approvals	with the second seco
Drilling template for generation			with screw connection         Wire         stranded         from 4.0 to 16.0         Approvals         VDE, cCSA us	with crimp co Wire flexible wires Approvals	<b>bonnection</b> mm <sup>2</sup> from 4.0 to 10.0 VDE, c CSA us
Drilling template for generation	<sup>92,2*0,1</sup>		with screw connection         Wire       mm²         stranded       from 4.0 to 16.0         ftexible wires       from 4.0 to 16.0         Approvals       VDE, cCSA us	with crimp co	<b>onnection</b> mm <sup>2</sup> from 4.0 to 10.0 VDE, c CSAus
Drilling template for device connectors fixed in position	<sup>1</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup>		with screw connection         Wire       mm²         solid       from 4.0 to 16.0         stranded       from 4.0 to 16.0         flexible wires       from 4.0 to 16.0         Approvals       VDE, c CSA us	with crimp co	$\frac{1}{10000000000000000000000000000000000$
Drilling template for device connectors fixed in position	Fixation with bolts	Color	with screw connection         Wire       mm <sup>2</sup> solid       from 4.0 to 16.0         stranded       from 4.0 to 16.0         Hexible wires       from 4.0 to 16.0         Approvals       VDE, c CSAus         Part No.	with crimp co	$\frac{1}{10000000000000000000000000000000000$
Drilling template for device connectors fixed in position	Fixation with bolts	Color	with screw connection         Wire       mm <sup>2</sup> solid       from 4.0 to 16.0         stranded       from 4.0 to 16.0         Hexible wires       from 4.0 to 16.0         Approvals       VDE, c CSAus         Part No.         Part No.	with crimp co	mm²       from 4.0 to 10.0         VDE, cCSA us       Part No.         97 142 1553 1
Drilling template for device connectors fixed in position Application Coding Power max. 50A 1, 2, 3, €	Fixed in position not fixed in position	Color black black	with screw connection         Wire       mm <sup>2</sup> solid       from 4.0 to 16.0         stranded       from 4.0 to 16.0         flexible wires       from 4.0 to 16.0         Approvals       VDE, c CSA us         Part No.       97.042.5553.1         97.042.5053.1       97.042.5053.1	with crimp co	mm²         from 4.0 to 10.0         VDE, c CSA us



### The new **RST**® POWER series up to 50 A

#### **Application example**



#### General

The new **RST**<sup>®</sup> POWER series is particulary designed for device engineering. With a current-carrying capability of 50A combined with an extremely compact design, the connector fits almost everywhere.

### Coding

For daily updates v	isit the website at			Application	Power max. 50A
http://eshop.wielar Assembly instructi in the Technical Da	id-electric.com. ons and other technical informa ta or in eShop.	Mechanical coding	250/400V 1, 2, 3, N, 😩		
Name	Description	Connection style	Strain relief housing	Connection points per pole	black
Connectors	1 x wire entry	Screw Crimp	yes	1	$\checkmark$
Device connectors	M32 connector, standard	Screw Crimp	yes	1	$\checkmark$

# **Connectors,** straight for cables Ø 4 – 6 mm and 4 – 10 mm

Female connector	Illustration M 32 cable gland	65 665
	with screw connection           Wire         mm <sup>2</sup> solid         from 4.0 to 6.0*)           stranded         from 4.0 to 16.0           Approvals         VDE, c CSA us	with crimp connection           Wire         mm²           flexible wires         from 4.0 to 10.0           Approvals         VDE, c CSA us
Application Coding Cable gland Cable Ø in mm Color Power M32 15 – 25 black M40 20 – 32 black	Part No. 97.051.4053.1 97.051.4253.1	Part No. 97.151.0053.1 97.151.0253.1
Mala corportor		Contacts separately under Accessories, see following pages.
Wale connector	Illustration M 40 cable gland	W4.5
	with screw connection	with crimp connection
	whe         mm           solid         from 4.0 to 6.0*)           stranded         from 4.0 to 16.0           Approvals         VDE, c CSA us	Write         Infilit           flexible wires         from 4.0 to 10.0           Approvals         VDE, c CSA us
Application Coding Cable gland Cable Ø in mm Color	Part No.	Part No.
Power max. 50A N, ⊕, 1, 2, 3	97.052.4053.1 97.052.4253.1	97.152.0053.1 97.152.0253.1 Contacts separately under Accessories, see following pages.

\*) Solid and stranded wires > 6.0 mm<sup>2</sup> cannot be connected in the available space due to their rigidity.

#### M32 device connector straight, standard



Cover		For safe covering of unus	sed male or female components	
	5g R35.9	Name Cover	Color black	Part No. Z5.567.5653.0
Sample kit RST 50i5 Complete kit		Contents:	– Connectors – Device connection – Cover – Knock-out (metal sheet)	
		Name Sample kit RST50i5	Color black	Part No. 99.628.0000.0

#### Adapter ring 40 mm

-



For fixing the device connector inside 40 mm knock-outs

Name	Color	Part No.
Adapter ring	black	05.568.1853.0

#### **RST**<sup>®</sup> POWER Crimp contacts

#### Female contact



Male contact



#### Crimping tool with system kit



Name	Marking	(groove) mm <sup>2</sup>	Part No.
Female contact	None	4.0	02.126.0621.8
Female contact	1	6.0	02.126.0721.8
Female contact	None	10.0	02.126.0821.8
Male contact	None	4.0	05.545.2821.8
Male contact	1	6.0	05.545.2921.8
Male contact	None	10.0	05.545.3021.8

Name	Part No.
Crimping tool (supplied in case)	95.101.0800.0
Crimping die D	05.502.2300.0

### **Convincing technology**



### **RST**® POWER

Rated voltage: Rated current: Rated cross-section:	250/400V 50A rigid cables with 4.0 mm <sup>2</sup> to 6.0 mm <sup>2</sup> for plug connectors (up to 16 mm <sup>2</sup> with device connectors) fine-stranded cables with 4.0 mm <sup>2</sup> to 16.0 mm <sup>2</sup>
Number of poles: Pole designation:	4-pole 5-pole 1, 2, 3, ⊕ 1, 2, 3, N, ⊕
Material:	Contact parts: brass, surface-plated Housing parts: thermoplastic material PA 66, halogen-free, V2 Sealing material NBR, TPE
Degree of protection: Approvals:	IP65, IP66, IP67, IP69K VDE, cCSAus You can find the direct assignment of approvals and part numbers in the internet in the eShop under http://eshop.wieland-electric.com, or consult us.
Sheath strip length: Insulation strip length: Torques:	70 mm Screw 10 mm (crimp 11 mm) Cable glandSW 36: 12 Nm; SW 38: 14 Nm





Hole pattern for M32 device connectors, alternative M40 with adapter ring (fixed in position)



Alternative fixed in position (cams on the housing)



### **Connectors 4- and 5-pole**





Bayonet lock ...





### **Device connections 4- and 5-pole**

### Mounting housing flange, dimensions in mm

#### **Positioning option**











**Note::** With correct positioning (observe part number)



**RST®** POWER

# Definition of IP protection degrees (DIN EN 60529-1)

Docu	Imentation:			
IP prot	tection ratings against ingr	1st digit 2nd c ess of objects and contact	digit IP prot	ection ratings against ingress of water
	Protection against contact	Protection against ingress of objects		
0	no protection	no protection	0	no protection
1	Any large surface of the body (e.g. back of the hand)	Large foreign objects (> 50 mm in Ø)	1	Protection against vertically falling water
2	Finger	Medium-sized foreign objects (> 12 mm in Ø)	2	Protection from diagonally (up to 15°) falling water drops
3	Tools and wires (> 2.5 mm in Ø)	Small foreign objects (> 2.5 mm in Ø)	3	Protection against spraying water up to 60° to the vertical
4	Tools and wires (> 1.0 mm in Ø)	Grain-shaped foreign objects (> 12 mm in Ø)	4	Protection from splashing water from any direction
5	Complete protection against contact	Dust deposition	5	Protection against water jets
6	Complete protection against contact	Dust ingress	6	Protected against powerful water jets
7			7	Protection against temporary immersion in water
8			8	Protection against continuous immersion in water
9			9K*)	Protection against high pressure, high temperature spray downs
			*)	DIN 400 F0

## As an innovative installation system, Wieland offers a global concept for efficient outdoor installation and industrial application.

In many applications, electrotechnical devices and systems must reliably work for many years under tough environmental conditions. To ensure a reliable function, it is essential to prevent the penetration of humidity or particles (e.g. dust, oil, soot, etc.) in production plants, garages or in outdoor areas. Even an unplanned immersion is possible with the **RST**<sup>®</sup> system within the scope of the specified degree of protection.

### The system is not designed for permanent operation under water.

It is not possible to lay the components directly in the ground.

According to VDE 0100-520, connectors must be protected using suitable additional facilities and must be accessible for visual inspection, testing, and maintenance.

Refer also to the installation instructions.

#### Degree of protection achieved:

- IP65 Water jets
- **IP66** Powerful water jets
- **IP67** Temporary immersion
- IP68 Continuous immersion
  - (for 2 hours at a water depth of 3 m)
- IP69K High-pressure spray down

### **Material resistance**

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, aqueous solution, 10%	+	Salmiac	+					
Ferric sulfide	+	Oxygen, RT	+					
Ethyl ether	+	Lubricating oil (O-149), (not bunker oil, oil tankers)	+					
Paint, varnish, with low sulphuric acid content	+	Sulfur, wet	+					
Fruit juice, fruit acid	+	Sulfuric acid (diluted, RT)	+					
Tannic acid	+	Sulfur hexafluoride	+					
Glycerin	+	Sweat	+					
Glysantine, aqueous solution, 40%	+	Sebacic acid ester	+					
Potassium chloride	+	Spirits	+					
Caustic potash solution, aqueous solution, 10%	+	Nitric acid (10%)	+					
Sodium, aqueous solution, 10%	+	Hydrochloric acid (10%)	+					
Linseed oil	+	Water, RT, free from chlorine up to 80 °C	+					
Milk	+	Water: sea water resistance, artificial, 20 °C	+					
Lactic acid, 20 °C	+	Stannic chloride, 20 °C, saturated	+					

### TÜV certificate for outdoor use



### **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**  $^{\circ}$  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  $^{\circ}$ C to + 60  $^{\circ}$ C)

Please observe overleaf installation instructions.

The complete test report can be ordered from our hotline using the phone number +49 951/9324-996.

### Installation instructions for outdoor electrical installations

Outdoor electrical installations are particularly tricky. Constant temperature changes, high UV radiation, high ozone values and, not least, mechanical wear leading to material fatigue, water ingress, and, finally, system failure.

#### Installation instructions

A horizontal installation position is preferable in order to ensure that water drains off. In accordance with installation regulation IEC 60364-5-52 (DIN VDE 0100-522.3), cable systems must be designed in such a way that damage caused by the ingress of water is avoided.

Cable systems must satisfy the required degree of protection. If water can accumulate or water condensation can occur, provisions for water drainage must be made! This particularly applies to sealing points in the area of the strain relief. If abrasion might occur (in flexible installations), wear of the pre-assembled cable must be taken into consideration and must be monitored.

Avoid any bending of the cable in the area of the strain relief.

Control mechanical bending in the area of the strain relief using suitable measures (e.g. cable clamps).

Laying of the system components directly in the ground is not possible. According to VDE 0100-520, connectors must be protected using suitable additional facilities and must be accessible for visual inspection, testing, and maintenance.

The connector system is not designed for continuous operation under water. However, unplanned immersion is possible as foreseen by the specification.



Further information can be found in our White Paper "Installation instructions for outdoor electrical installations", order no. 0693.1



### ... always the right cable

What is crucial for the durability of your unit is the perfect interaction between the materials used in order to defy the environmental conditions.

While all connectors and distribution units are designed for continuous indoor and outdoor operation, the cables are clearly a different matter. Selection of the appropriate cable plays a major role for continuous operation of the installation.

By default, we offer the low-cost H05VV-F cable, but its field of applications is restricted to indoor areas. This cable is not suitable for outdoor areas and constantly humid or wet rooms! Protection from foreign bodies (IP6X) is at the fore here. Temporary wetness for cleaning purposes, however, is allowed.

Temporary outdoor installations without special demands can be implemented using H07RN-F rubbersheathed cables. However, it is essential to check whether or not any additional action, such as laying inside installation pipes, is required.

If installations will be directly exposed to environmental influences for some time, the selection of a suitable cable must be discussed with Wieland.

#### **PVC cable H05VV-F**

Use inside dry rooms, not outdoors, not directly in the ground. Not UV resistant. **Minimum bending radius: 4 x outside diameter Service temperature: 70 °C** 

#### **Rubber-sheathed cable H07RN-F**

Use inside dry, and wet rooms, as well as outdoors, but not directly in the ground. Limited UV resistant.. Minimum bending radius: 4 x outside diameter Service temperature: 60 °C











Rubber-sheathed cable H07RN-F (enhanced version)

Use in dry, humid and wet rooms, as well as outdoors. UV and Ozon resistant. Cable halogen-free and flame retardant. Laying of the cable not directly in the ground.

Minimum bending radius: 4 x outside diameter Service temperature: von -50 °C bis +90 °C









01.006.1553.0	64	05.545.4600.0	98	46.031.4554.1	42	46.051.5054.1	51
01.006.1553.0	85	05.545.4600.0	158	46.031.4554.9	42	46.052.4550.4	50
01.006.1553.0	111	05.564.4453.0	71	46.031.4555.7	42	46.052.4551.4	50
01.006.1553.0	127	05.564.4453.0	97	46.031.5050.4	43	46.052.4553.0	50
01.006.1553.0	133	05.564.4453.0	156	46.031.5050.6	43	46.052.4553.1	50
01.006.1553.1	64	05.564.4453.1	71	46.031.5051.4	43	46.052.4553.6	50
01.006.1553.1	85	05.564.4453.1	97	46.031.5051.6	43	46.052.4553.9	50
01.006.1553.1	111	05.564.4453.1	156	46.031.5053.0	43	46.052.4554.0	50
01.006.1553.1	127	05.564.4453.1	179	46.031.5053.1	43	46.052.4554.1	50
01.006.1553.1	133	05.564.8653.1	157	46.031.5053.9	43	46.052.5050.4	51
02.122.9000.0	98	05.564.8653.3	157	46.031.5054.0	43	46.052.5051.4	51
02.122.9000.0	158	05.564.8653.7	157	46.031.5054.1	43	46.052.5053.0	51
02.122.9100.0	98	05.565.8653.1	157	46.031.5054.9	43	46.052.5053.1	51
02.122.9100.0	158	05.565.8653.3	157	46.031.5055.7	43	46.052.5053.6	51
02.122.9200.0	98	05.565.8653.7	157	46.032.4550.4	42	46.052.5053.9	51
02.122.9200.0	158	05.565.9953.0	126	46.032.4550.6	42	46.052.5054.0	51
02.122.9300.0	98	05.565.9953.0	148	46.032.4551.4	42	46.052.5054.1	51
02.122.9300.0	158	05.565.9953.0	156	46.032.4551.6	42	46.422.0500.1	44
02.125.5521.8	127	05.565.9953.1	126	46.032.4553.0	42	46.422.0502.4	44
02.125.5521.8	149	05.565.9953.1	148	46.032.4553.1	42	46.422.0503.1	44
02.125.5521.8	158	05.565.9953.1	156	46.032.4553.9	42	46.422.0504.1	45
02.125.5621.8	127	05.566.5253.0	157	46.032.4554.0	42	46.422.0507.4	44
02.125.5621.8	149	05.566.5253.1	157	46.032.4554.1	42	46.422.0508.4	45
02.125.5621.8	158	05.568.1853.0	194	46.032.4554.9	42	46.422.0530.1	44
02.125.5721.8	127	05.568.8853.0	157	46.032.4555.7	42	46.422.0532.4	44
02.125.5721.8	149	05.568.8853.1	157	46.032.5050.4	43	46.422.0533.1	44
02.125.5721.8	158	05.583.2900.1	157	46.032.5050.6	43	46.422.0534.1	45
02.125.5821.8	127	05.583.2900.3	157	46.032.5051.4	43	46.422.0537.4	44
02.125.5821.8	149	06.502.4300.0	159	46.032.5051.6	43	46.422.0538.4	45
02.125.5821.8	158	06.562.5853.0	46	46.032.5053.0	43	46.422.1000.1	44
02.126.0621.8	195	06.562.5853.0	54	46.032.5053.1	43	46.422.1002.4	44
02.126.0721.8	195	06.562.5853.1	46	46.032.5053.9	43	46.422.1003.1	44
02.126.0821.8	195	06.562.5853.1	54	46.032.5054.0	43	46.422.1004.1	45
05.502.2100.0	98	06.600.3627.0	159	46.032.5054.1	43	46.422.1007.4	44
05.502.2100.0	127	06.600.3727.0	159	46.032.5054.9	43	46.422.1008.4	45
05.502.2100.0	149	06.600.3827.0	159	46.032.5055.7	43	46.422.1030.1	44
05.502.2100.0	158	06.600.3927.0	159	46.050.0150.4	54	46.422.1032.4	44
05.502.2300.0	195	46.030.0150.4	46	46.050.0151.4	54	46.422.1033.1	44
05.502.3500.0	98	46.030.0150.6	46	46.050.0153.0	54	46.422.1034.1	45
05.502.3500.0	127	46.030.0151.4	46	46.050.0153.1	54	46.422.1037.4	44
05.502.3500.0	149	46.030.0151.6	46	46.050.0153.6	54	46.422.1038.4	45
05.502.3500.0	158	46.030.0153.0	46	46.050.0153.9	54	46.422.2000.1	44
05.502.3600.0	98	46.030.0153.1	46	46.050.0154.0	54	46.422.2002.4	44
05.502.3600.0	127	46.030.0153.9	46	46.050.0154.1	54	46.422.2003.1	44
05.502.3600.0	149	46.030.0154.0	46	46.050.1250.4	54	46.422.2004.1	45
05.502.3600.0	158	46.030.0154.1	46	46.050.1251.4	54	46.422.2007.4	44
05.544.7800.0	98	46.030.0154.9	46	46.050.1253.0	54	46.422.2008.4	45
05.544.7800.0	158	46.030.0155.7	46	46.050.1253.1	54	46.422.2030.1	44
05.544.7900.0	98	46.030.1250.4	46	46.050.1253.6	54	46.422.2032.4	44
05.544.7900.0	158	46.030.1250.6	46	46.050.1253.9	54	46.422.2033.1	44
05.544.8000.0	98	46.030.1251.4	46	46.050.1254.0	54	46.422.2034.1	45
05.544.8000.0	158	46.030.1251.6	46	46.050.1254.1	54	46.422.2037.4	44
05.545.0021.8	127	46.030.1253.0	46	46.051.4550.4	50	46.422.2038.4	45
05.545.0021.8	149	46.030.1253.1	46	46.051.4551.4	50	46.422.3000.1	44
05.545.0021.8	158	46.030.1253.9	46	46.051.4553.0	50	46.422.3002.4	44
05.545.0121.8	127	46.030.1254.0	46	46.051.4553.1	50	46.422.3003.1	44
05.545.0121.8	149	46.030.1254.1	46	46.051.4553.6	50	46.422.3004.1	45
05.545.0121.8	158	46.030.1254.9	46	46.051.4553.9	50	46.422.3007.4	44
05.545.0221.8	127	46.030.1255.7	46	46.051.4554.0	50	46.422.3008.4	45
05.545.0221.8	149	46.031.4550.4	42	46.051.4554.1	50	46.422.3030.1	44
05.545.0221.8	158	46.031.4550.6	42	46.051.5050.4	51	46.422.3032.4	44
05.545.0321.8	127	46.031.4551.4	42	46.051.5051.4	51	46.422.3033.1	44
05.545.0321.8	149	46.031.4551.6	42	46.051.5053.0	51	46.422.3034.1	45
05.545.0321.8	158	46.031.4553.0	42	46.051.5053.1	51	46.422.3037.4	44
05.545.2821.8	195	46.031.4553.1	42	46.051.5053.6	51	46.422.3038.4	45
05.545.2921.8	195	46.031.4553.9	42	46.051.5053.9	51	46.422.4000.1	44
05.545.3021.8	195	46.031.4554.0	42	46.051.5054.0	51	46.422.4002.4	44

46.422.4003.1	44	46.452.0533.6	52	83.020.0901.0	179	96.021.6053.0	68
46.422.4004.1	45	46.452.0534.1	53	83.020.0902.0	178	96.021.6053.1	68
46.422.4007.4	44	46.452.0534.6	53	83.020.0903.0	178	96.021.6150.8	66
46 422 4008 4	45	46 452 1000 1	52	83 020 0904 0	179	96 021 6151 4	66
46 422 4030 1	10	46.452.1000.6	52	95 101 0800 0	98	96.021.6153.0	66
46 422 4032 4	11	46,452,1000.0	52	95 101 0800 0	127	96.021.6153.1	66
46.422.4032.4	44	46.452.1003.1	52	95 101 0800 0	1/0	96.022.0050.8	62
40.422.4033.1	44	40.452.1003.0	52	95.101.0800.0	149	90.022.0050.8	02
40.422.4034.1	45	40.452.1004.1	53	95.101.0800.0	158	96.022.0051.4	62
46.422.4037.4	44	46.452.1004.6	53	95.101.0800.0	195	96.022.0053.0	62
46.422.4038.4	45	46.452.1030.1	52	95.101.1300.0	159	96.022.0053.1	62
46.422.5000.1	44	46.452.1030.6	52	96.020.0150.8	78	96.022.0153.0	62
46.422.5002.4	44	46.452.1033.1	52	96.020.0151.4	78	96.022.0153.1	62
46.422.5003.1	44	46.452.1033.6	52	96.020.0153.0	78	96.022.0453.0	62
46.422.5004.1	45	46.452.1034.1	53	96.020.0153.1	78	96.022.0453.1	62
46.422.5007.4	44	46.452.1034.6	53	96.020.0250.8	78	96.022.0950.8	62
46.422.5008.4	45	46.452.2000.1	52	96.020.0251.4	78	96.022.0951.4	62
46 422 5030 1	44	46 452 2000 6	52	96 020 0253 0	78	96 022 1050 8	65
46 422 5032 4	11	46 452 2003 1	52	96.020.0253.1	78	96.022.1051.4	65
40.422.5052.4	44	46.452.2003.1	52	96.021.0050.9	62	06.022.1051.4	65
40.422.5055.1	44	40.452.2003.0	52	90.021.0050.8	02	90.022.1053.0	05
40.422.5034.1	45	40.452.2004.1	53	96.021.0051.4	62	96.022.1053.1	60
46.422.5037.4	44	46.452.2004.6	53	96.021.0053.0	62	96.022.2051.4	68
46.422.5038.4	45	46.452.2030.1	52	96.021.0053.1	62	96.022.2053.0	68
46.432.0500.1	44	46.452.2030.6	52	96.021.0153.0	62	96.022.2053.1	68
46.432.0503.1	44	46.452.2033.1	52	96.021.0153.1	62	96.022.2150.8	66
46.432.0504.1	45	46.452.2033.6	52	96.021.0251.4	64	96.022.2151.4	66
46.432.0530.1	44	46.452.2034.1	53	96.021.0253.0	64	96.022.2153.0	66
46.432.0533.1	44	46.452.2034.6	53	96.021.0253.1	64	96.022.2153.1	66
46.432.0534.1	45	46.452.3000.1	52	96.021.0351.4	64	96.022.4050.8	62
46.432.1000.1	44	46,452,3000,6	52	96.021.0353.0	64	96.022.4051.4	62
46 432 1003 1	44	46 452 3003 1	52	96 021 0353 1	64	96 022 4053 0	62
46 432 1004 1	45	46.452.3003.6	52	96.021.0453.0	62	96.022.1000.0	62
46,422,1004.1	40	46,452,3003.0	52	96 021 0452 1	62	06.022.4152.0	62
40.432.1030.1	44	40.452.3004.1	53	90.021.0453.1	02	90.022.4153.0	02
40.432.1033.1	44	40.452.3004.6	53	96.021.0950.8	62	96.022.4153.1	62
46.432.1034.1	45	46.452.3030.1	52	96.021.0951.4	62	96.022.4453.0	62
46.432.2000.1	44	46.452.3030.6	52	96.021.1050.8	65	96.022.4453.1	62
46.432.2003.1	44	46.452.3033.1	52	96.021.1051.4	65	96.022.4950.8	62
46.432.2004.1	45	46.452.3033.6	52	96.021.1053.0	65	96.022.4951.4	62
46.432.2030.1	44	46.452.3034.1	53	96.021.1053.1	65	96.022.5050.8	65
46.432.2033.1	44	46.452.3034.6	53	96.021.2051.4	68	96.022.5051.4	65
46.432.2034.1	45	46.452.4000.1	52	96.021.2053.0	68	96.022.5053.0	65
46.432.3000.1	44	46.452.4000.6	52	96.021.2053.1	68	96.022.5053.1	65
46.432.3003.1	44	46.452.4003.1	52	96.021.2150.8	66	96.022.6050.8	68
46.432.3004.1	45	46.452.4003.6	52	96.021.2151.4	66	96.022.6051.4	68
46 432 3030 1	44	46 452 4004 1	53	96 021 2153 0	66	96 022 6053 0	68
46 432 3033 1	44	46 452 4004 6	53	96 021 2153 1	66	96.022.6053.1	68
46 432 3034 1	45	46 452 4030 1	52	96.021.2100.1	62	96.022.6150.9	66
46.432.3004.1	45	46,452,4030,1	52	96 021 4051 4	62	06.022.0150.0	66
40.432.4000.1	44	40.452.4030.0	52	96.021.4051.4	62	06.022.0151.4	66
40.432.4003.1	44	40.452.4033.1	52	90.021.4053.0	02	90.022.0153.0	00
46.432.4004.1	45	46.452.4033.6	52	96.021.4053.1	62	96.022.6153.1	66
46.432.4030.1	44	46.452.4034.1	53	96.021.4153.0	62	96.023.0050.8	63
46.432.4033.1	44	46.452.4034.6	53	96.021.4153.1	62	96.023.0051.4	63
46.432.4034.1	45	46.452.5000.1	52	96.021.4251.4	64	96.023.0053.0	63
46.432.5000.1	44	46.452.5000.6	52	96.021.4253.0	64	96.023.0053.1	63
46.432.5003.1	44	46.452.5003.1	52	96.021.4253.1	64	96.023.0153.0	63
46.432.5004.1	45	46.452.5003.6	52	96.021.4351.4	64	96.023.0153.1	63
46.432.5030.1	44	46.452.5004.1	53	96.021.4353.0	64	96.023.0453.0	63
46.432.5033.1	44	46.452.5004.6	53	96.021.4353.1	64	96.023.0453.1	63
46.432.5034.1	45	46.452.5030.1	52	96.021.4453.0	62	96.023.0950.8	63
46 452 0500 1	52	46 452 5030 6	52	96 021 4453 1	62	96 023 0951 4	63
46 452 0500 6	52	46 452 5033 1	52	96 021 /950 9	62	96 023 2050 8	69
46 452 0502 1	52	16 152 5033 6	52	Q6 021 4051 4	62	96.023.2050.0	60
40.452.0503.1	52	40.402.0000.0	52	00.021.4901.4	02	00.020.2001.4	09
40.452.0503.6	52	40.452.5034.1	53	96.021.5050.8	65	90.023.2053.0	69
46.452.0504.1	53	46.452.5034.6	53	96.021.5051.4	65	96.023.2053.1	69
46.452.0504.6	53	83.020.0504.0	178	96.021.5053.0	65	96.023.2250.8	70
46.452.0530.1	52	83.020.0504.1	178	96.021.5053.1	65	96.023.2251.4	70
46.452.0530.6	52	83.020.0505.0	178	96.021.6050.8	68	96.023.2253.0	70
46.452.0533.1	52	83.020.0900.0	179	96.021.6051.4	68	96.023.2253.1	70

96.023.4050.8	63	96.026.6153.0	67	96.031.5054.3	103	96.032.6155.7	88
96.023.4051.4	63	96.026.6153.1	67	96.031.5055.7	86	96.033.0051.4	83
96.023.4053.0	63	96.030.0151.4	96	96.031.6051.4	87	96.033.0053.0	83
96.023.4053.1	63	96.030.0153.0	96	96.031.6053.0	87	96.033.0053.1	83
96.023.4153.0	63	96.030.0153.1	96	96.031.6053.1	87	96.033.0053.9	83
96.023.4153.1	63	96.030.0155.7	96	96.031.6053.9	87	96.033.0055.7	83
96.023.4453.0	63	96.030.0251.4	96	96.031.6055.7	87	96.033.0151.4	83
96.023.4453.1	63	96.030.0253.0	96	96.031.6151.4	88	96.033.0153.0	83
96.023.4950.8	63	96.030.0253.1	96	96.031.6153.0	88	96.033.0153.1	83
96.023.4951.4	63	96.030.0255.7	96	96.031.6153.1	88	96.033.0153.9	83
96.023.6050.8	69	96.031.0051.4	82	96.031.6153.9	88	96.033.0155.7	83
96.023.6051.4	69	96.031.0053.0	82	96.031.6155.7	88	96.033.2051.4	90
96.023.6053.0	69	96.031.0053.1	82	96.032.0051.4	82	96.033.2053.0	90
96.023.6053.1	69	96.031.0053.9	82	96.032.0053.0	82	96.033.2053.1	90
96.023.6250.8	70	96.031.0055.7	82	96.032.0053.1	82	96.033.2053.9	90
96.023.6251.4	70	96.031.0151.4	82	96.032.0053.9	82	96.033.2055.7	90
96.023.6253.0	70	96.031.0153.0	82	96.032.0055.7	82	96.033.2251.4	91
96.023.6253.1	70	96.031.0153.1	82	96.032.0151.4	82	96.033.2253.0	91
96.024.0050.8	63	96.031.0153.9	82	96.032.0153.0	82	96.033.2253.1	91
96.024.0051.4	63	96.031.0155.7	82	96.032.0153.1	82	96.033.2253.9	91
96.024.0053.0	63	96.031.0253.0	85	96.032.0153.9	82	96.033.2255.7	91
96.024.0053.1	63	96.031.0253.1	85	96.032.0155.7	82	96.033.4051.4	83
96.024.0153.0	63	96.031.0255.7	85	96.032.1051.4	86	96.033.4053.0	83
96.024.0153.1	63	96.031.0353.0	85	96.032.1053.0	86	96.033.4053.1	83
96.024.0453.0	63	96.031.0353.1	85	96.032.1053.1	86	96.033.4053.9	83
96.024.0453.1	63	96.031.0353.9	85	96.032.1053.9	86	96.033.4055.7	83
96.024.0950.8	63	96.031.0355.7	85	96.032.1055.7	86	96.033.4151.4	83
96.024.0951.4	63	96.031.1051.4	86	96.032.2051.4	87	96.033.4153.0	83
96.024.2050.8	69	96.031.1053.0	86	96.032.2053.0	87	96.033.4153.1	83
96.024.2051.4	69	96.031.1053.1	86	96.032.2053.1	87	96.033.4153.9	83
96.024.2053.0	69	96.031.1053.9	86	96.032.2053.9	87	96.033.4155.7	83
96.024.2053.1	69	96.031.1055.7	86	96.032.2055.7	87	96.033.6051.4	90
96.024.2250.8	70	96.031.2051.4	87	96.032.2151.4	88	96.033.6053.0	90
96.024.2251.4	70	96.031.2053.0	87	96.032.2153.0	88	96.033.6053.1	90
96.024.2253.0	70	96.031.2053.1	87	96.032.2153.1	88	96.033.6053.9	90
96.024.2253.1	70	96.031.2053.9	87	96.032.2153.9	88	96.033.6055.7	90
96.024.4050.8	63	96.031.2055.7	87	96.032.2155.7	88	96.033.6251.4	91
96.024.4051.4	63	96.031.2151.4	88	96.032.4051.4	82	96.033.6253.0	91
96.024.4053.0	63	96.031.2153.0	88	96.032.4053.0	82	96.033.6253.1	91
96.024.4053.1	63	96.031.2153.1	88	96.032.4053.1	82	96.033.6253.9	91
96.024.4153.0	63	96.031.2153.9	88	96.032.4053.9	82	96.033.6255.7	91
96.024.4153.1	63	96.031.2155.7	88	96.032.4055.7	82	96.034.0051.4	83
96.024.4453.0	63	96.031.4051.4	82	96.032.4151.4	82	96.034.0053.0	83
96.024.4453.1	63	96.031.4053.0	82	96.032.4153.0	82	96.034.0053.1	83
96.024.4950.8	63	96.031.4053.1	82	96.032.4153.1	82	96.034.0053.9	83
96.024.4951.4	63	96.031.4053.9	82	96.032.4153.9	82	96.034.0055.7	83
96.024.6050.8	69	96.031.4055.7	82	96.032.4154.3	102	96.034.0151.4	83
96.024.6051.4	69	96.031.4151.4	82	96.032.4155.7	82	96.034.0153.0	83
96.024.6053.0	69	96.031.4153.0	82	96.032.4553.0	84	96.034.0153.1	83
96.024.6053.1	69	96.031.4153.1	82	96.032.4553.1	84	96.034.0153.9	83
96.024.6250.8	70	96.031.4153.9	82	96.032.4554.3	102	96.034.0155.7	83
96.024.6251.4	70	96.031.4154.3	102	96.032.4555.7	84	96.034.2051.4	90
96.024.6253.0	70	96.031.4155.7	82	96.032.5051.4	86	96.034.2053.0	90
96.024.6253.1	70	96.031.4253.0	85	96.032.5053.0	86	96.034.2053.1	90
96.025.2151.4	67	96.031.4253.1	85	96.032.5053.1	86	96.034.2053.9	90
96.025.2153.0	67	96.031.4255.7	85	96.032.5053.9	86	96.034.2055.7	90
96.025.2153.1	67	96.031.4353.0	85	96.032.5054.3	103	96.034.2251.4	91
96.025.6150.8	67	96.031.4353.1	85	96.032.5055.7	86	96.034.2253.0	91
96.025.6151.4	67	96.031.4355.7	85	96.032.6051.4	87	96.034.2253.1	91
96.025.6153.0	67	96.031.4553.0	84	96.032.6053.0	87	96.034.2253.9	91
96.025.6153.1	67	96.031.4553.1	84	96.032.6053.1	87	96.034.2255.7	91
96.026.2150.8	67	96.031.4554.3	102	96.032.6053.9	87	96.034.4051.4	83
96.026.2151.4	67	96.031.4555.7	84	96.032.6055.7	87	96.034.4053.0	83
96.026.2153.0	67	96.031.5051.4	86	96.032.6151.4	88	96.034.4053.1	83
96.026.2153.1	67	96.031.5053.0	86	96.032.6153.0	88	96.034.4053.9	83
96.026.6150.8	67	96.031.5053.1	86	96.032.6153.1	88	96.034.4055.7	83
96.026.6151.4	67	96.031.5053.9	86	96.032.6153.9	88	96.034.4151.4	83

06 024 4152 0	02	06.042.6051.4	110	00 0E1 4EE1 4	100	06 052 6052 0	100
90.034.4153.0	03	96.042.6051.4	113	90.051.4551.4	132	96.053.6053.0	130
96.034.4153.1	83	96.042.6053.0	113	96.051.4553.0	132	96.053.6053.1	138
96.034.4153.9	83	96.042.6053.1	113	96.051.4553.1	132	96.053.6053.6	138
96.034.4155.7	83	96.042.6151.4	114	96.051.4553.6	132	96.053.6053.9	138
96.034.6051.4	90	96.042.6153.0	114	96.051.4553.9	132	96.053.6251.4	139
96 034 6053 0	90	96 042 6153 1	114	96 051 4554 3	152	96 053 6253 0	139
96.034.6053.1	90	96.043.4051.4	109	96.051.5051.4	134	96.053.6253.1	130
00.004.0050.1	50	00.040.4050.0	100	00.051.5051.4	104	00.050.0253.1	100
96.034.6053.9	90	96.043.4053.0	109	96.051.5053.0	134	96.053.6253.6	139
96.034.6055.7	90	96.043.4053.1	109	96.051.5053.1	134	96.053.6253.9	139
96.034.6251.4	91	96.043.4153.0	109	96.051.5053.6	134	96.054.4051.4	131
96.034.6253.0	91	96.043.4153.1	109	96.051.5053.9	134	96.054.4053.0	131
96.034.6253.1	91	96.043.4851.4	109	96.051.5054.3	153	96.054.4053.1	131
96 034 6253 9	91	96 043 4951 4	109	96 051 6051 4	135	96 054 4053 6	131
96.034.6255.7	01	96.043.6051.4	116	96.051.6053.0	135	96.054.4053.9	121
90.034.0255.7	31	90.043.0051.4	110	90.051.0053.0	105	90.054.4053.9	101
96.035.2151.4	89	96.043.6053.0	110	96.051.6053.1	135	96.054.4151.4	131
96.035.2153.0	89	96.043.6053.1	116	96.051.6053.6	135	96.054.4153.0	131
96.035.2153.1	89	96.043.6251.4	117	96.051.6053.9	135	96.054.4153.1	131
96.035.2153.9	89	96.043.6253.0	117	96.051.6151.4	136	96.054.4153.6	131
96.035.2155.7	89	96.043.6253.1	117	96.051.6153.0	136	96.054.4153.9	131
96 035 6151 4	89	96 044 4051 4	109	96 051 6153 1	136	96 054 6051 4	138
96.035.6153.0	80	96.044.4053.0	100	96.051.6153.6	136	96.054.6053.0	120
00.005.0150.0	00	00.044.4050.0	100	00.051.0150.0	100	00.054.0053.0	100
96.035.6153.1	89	96.044.4053.1	109	96.051.6153.9	136	96.054.6053.1	138
96.035.6153.9	89	96.044.4153.0	109	96.052.4051.4	130	96.054.6053.6	138
96.035.6155.7	89	96.044.4153.1	109	96.052.4053.0	130	96.054.6053.9	138
96.036.2151.4	89	96.044.4851.4	109	96.052.4053.1	130	96.054.6251.4	139
96.036.2153.0	89	96.044.4951.4	109	96.052.4053.2	130	96.054.6253.0	139
96 036 2153 1	89	96 044 6051 4	116	96 052 4053 6	130	96.054.6253.1	130
06.036.2153.1	00	06 044 6052 0	116	06.052.4053.0	130	00.054.0253.1	100
90.030.2153.9	89	96.044.6053.0	110	90.052.4053.9	130	90.054.0253.0	139
96.036.2155.7	89	96.044.6053.1	116	96.052.4151.4	130	96.054.6253.9	139
96.036.6151.4	89	96.044.6251.4	117	96.052.4153.0	130	96.055.6151.4	137
96.036.6153.0	89	96.044.6253.0	117	96.052.4153.1	130	96.055.6153.0	137
96.036.6153.1	89	96.044.6253.1	117	96.052.4153.6	130	96.055.6153.1	137
96 036 6153 9	89	96 045 6151 4	115	96 052 4153 9	130	96 055 6153 6	137
96.036.6155.7	89	96.045.6153.0	115	96.052.4154.3	152	96.055.6153.9	137
06.040.0151.4	175	06.045.0100.0	115	00.052.4551.4	102	06.056.0168.5	107
90.040.0151.4	175	90.045.0153.1	115	90.052.4551.4	132	90.050.0151.4	137
96.041.4051.4	108	96.046.6151.4	115	96.052.4553.0	132	96.056.6153.0	137
96.041.4053.0	108	96.046.6153.0	115	96.052.4553.1	132	96.056.6153.1	137
96.041.4053.1	108	96.046.6153.1	115	96.052.4553.6	132	96.056.6153.6	137
96.041.4153.0	108	96.050.0153.1	148	96.052.4553.9	132	96.056.6153.9	137
96.041.4153.1	108	96.050.0153.1	174	96.052.4554.3	152	96.131.0053.0	82
96 0/1 /253 0	111	96.050.1153.1	174	96 052 5051 4	13/	96 131 0053 1	82
06.041.4253.0	111	06 050 2152 1	140	06.052.5051.4	104	06 121 0152 0	02
90.041.4253.1	111	96.050.2153.1	140	96.052.5053.0	134	96.131.0153.0	02
96.041.4353.0	111	96.050.3153.1	174	96.052.5053.1	134	96.131.0153.1	82
96.041.4353.1	111	96.050.4153.1	174	96.052.5053.6	134	96.131.1053.0	86
96.041.4553.0	110	96.050.5153.1	174	96.052.5053.9	134	96.131.1053.1	86
96.041.4553.1	110	96.050.6153.1	174	96.052.5054.3	153	96.131.2053.0	87
96.041.4951.4	108	96.050.7153.1	176	96.052.6051.4	135	96.131.2053.1	87
96.041.5051.4	112	96.051 4051 4	130	96 052 6053 0	135	96,131,2153,0	88
06.041.5052.0	112	06.051.4052.0	120	06.052.6052.1	125	06 121 2152 1	00
06.041.5053.0	112	00.001.4003.0	100	90.002.0003.1	105	30.131.2133.1	00
30.041.5053.1	112	90.051.4053.1	130	96.052.6053.6	135	96.131.4553.0	84
96.041.6051.4	113	96.051.4053.2	130	96.052.6053.9	135	96.131.4553.1	84
96.041.6053.0	113	96.051.4053.6	130	96.052.6151.4	136	96.132.0053.0	82
96.041.6053.1	113	96.051.4053.9	130	96.052.6153.0	136	96.132.0053.1	82
96.041.6151.4	114	96.051.4151.4	130	96.052.6153.1	136	96.132.0153.0	82
96.041 6153 0	114	96 051 4153 0	130	96 052 6153 6	136	96 132 0153 1	82
96 0/1 6153 1	11/	96 051 4152 1	120	Q6 052 6152 0	136	96 122 1052 0	96
00.040.4051.4	114	00.051.4103.1	100	30.002.0103.9	100	00.102.1000.0	00
96.042.4051.4	108	96.051.4153.6	130	96.053.4051.4	131	96.132.1053.1	86
96.042.4053.0	108	96.051.4153.9	130	96.053.4053.0	131	96.132.2053.0	87
96.042.4053.1	108	96.051.4154.3	152	96.053.4053.1	131	96.132.2053.1	87
96.042.4153.0	108	96.051.4251.4	133	96.053.4053.6	131	96.132.2153.0	88
96.042.4153.1	108	96.051.4253.0	133	96.053.4053.9	131	96.132.2153.1	88
96 042 4553 0	110	96 051 4253 1	133	96 053 /151 /	121	96 132 4553 0	84
06 042 4552 1	110	06.051.4253.1	100	06 052 4152 0	101	06 122 4500.0	04
30.042.4553.1	110	00.051.4253.0	100	90.003.4153.0	131	90.132.4003.1	84
96.042.4951.4	108	96.051.4351.4	133	96.053.4153.1	131	96.133.0053.0	83
96.042.5051.4	112	96.051.4353.0	133	96.053.4153.6	131	96.133.0053.1	83
96.042.5053.0	112	96.051.4353.1	133	96.053.4153.9	131	96.133.0153.0	83

96.053.6051.4

138

96.133.0153.1

96.051.4353.6

96.042.5053.1 112

96.133.2053.0	90	96.151.0153.1	130	96.153.2053.1	138	96.222.2038.4	73
96.133.2053.1	90	96.151.0153.6	130	96.153.2053.6	138	96.222.2092.4	74
96.133.2253.0	91	96.151.0153.9	130	96.153.2053.9	138	96.222.2092.8	74
96.133.2253.1	91	96.151.0551.4	132	96.153.2251.4	139	96.222.2097.4	74
96.134.0053.0	83	96.151.0553.0	132	96.153.2253.0	139	96.222.2097.8	74
96.134.0053.1	83	96.151.0553.1	132	96.153.2253.1	139	96.222.2098.4	75
96.134.0153.0	83	96.151.0553.6	132	96.153.2253.6	139	96.222.2098.8	75
96.134.0153.1	83	96.151.0553.9	132	96.153.2253.9	139	96.222.3000.1	72
96.134.2053.0	90	96.151.1051.4	134	96.154.0051.4	131	96.222.3002.4	72
96.134.2053.1	90	96.151.1053.0	134	96.154.0053.0	131	96.222.3003.1	72
96.134.2253.0	91	96.151.1053.1	134	96.154.0053.1	131	96.222.3004.1	/3
90.134.2253.1	91	90.151.1053.2	134	90.154.0053.0	101	96.222.3007.4	72
90.135.2153.0	89	96 151 1053 9	134	90.154.0053.9	131	90.222.3008.4	73
96 136 2153 0	89	96 151 2051 4	134	96 154 0153 0	131	96 222 3032 /	72
96 136 2153 1	89	96 151 2053 0	135	96 154 0153 1	131	96 222 3033 1	72
96 141 0053 0	108	96 151 2053 1	135	96 154 0153 6	131	96 222 3034 1	73
96.141.0053.1	108	96.151.2053.6	135	96.154.0153.9	131	96.222.3037.4	72
96.141.0153.0	108	96.151.2053.9	135	96.154.2051.4	138	96.222.3038.4	73
96.141.0153.1	108	96.151.2151.4	136	96.154.2053.0	138	96.222.3092.4	74
96.141.0553.0	110	96.151.2153.0	136	96.154.2053.1	138	96.222.3092.8	74
96.141.0553.1	110	96.151.2153.1	136	96.154.2053.6	138	96.222.3097.4	74
96.141.1053.0	112	96.151.2153.6	136	96.154.2053.9	138	96.222.3097.8	74
96.141.1053.1	112	96.151.2153.9	136	96.154.2251.4	139	96.222.3098.4	75
96.141.2053.0	113	96.152.0051.4	130	96.154.2253.0	139	96.222.3098.8	75
96.141.2053.1	113	96.152.0053.0	130	96.154.2253.1	139	96.222.4000.1	72
96.141.2153.0	114	96.152.0053.1	130	96.154.2253.6	139	96.222.4002.4	72
96.141.2153.1	114	96.152.0053.6	130	96.154.2253.9	139	96.222.4003.1	72
96.142.0053.0	108	96.152.0053.9	130	96.155.2151.4	137	96.222.4004.1	73
96.142.0053.1	108	96.152.0151.4	130	96.155.2153.0	137	96.222.4007.4	72
96.142.0153.0	108	96.152.0153.0	130	96.155.2153.1	137	96.222.4008.4	73
96.142.0153.1	108	96.152.0153.1	130	96.155.2153.6	137	96.222.4030.1	72
96.142.0553.0	110	96.152.0153.6	130	96.155.2153.9	137	96.222.4032.4	72
96.142.0553.1	110	96.152.0153.9	130	96.156.2151.4	137	96.222.4033.1	/2
96.142.1053.0	112	96.152.0551.4	132	96.156.2153.0	137	96.222.4034.1	/3
96.142.1053.1	112	96.152.0553.0	132	90.100.2103.1	137	96.222.4037.4	72
90.142.2053.0	113	90.152.0553.1	132	90.150.2153.0	137	90.222.4030.4	73
96 142 2153 0	11/	96 152 0553 9	132	96 222 1000 1	72	96 222 4092 8	74
96 142 2153 1	114	96 152 1051 4	134	96 222 1002 4	72	96 222 4097 4	74
96.143.0053.0	109	96.152.1053.0	134	96.222.1003.1	72	96.222.4097.8	74
96.143.0053.1	109	96.152.1053.1	134	96.222.1004.1	73	96.222.4098.4	75
96.143.0153.0	109	96.152.1053.2	134	96.222.1007.4	72	96.222.4098.8	75
96.143.0153.1	109	96.152.1053.6	134	96.222.1008.4	73	96.222.5000.1	72
96.143.2053.0	116	96.152.1053.9	134	96.222.1030.1	72	96.222.5002.4	72
96.143.2053.1	116	96.152.2051.4	135	96.222.1032.4	72	96.222.5003.1	72
96.143.2253.0	117	96.152.2053.0	135	96.222.1033.1	72	96.222.5004.1	73
96.143.2253.1	117	96.152.2053.1	135	96.222.1034.1	73	96.222.5007.4	72
96.144.0053.0	109	96.152.2053.6	135	96.222.1037.4	72	96.222.5008.4	73
96.144.0053.1	109	96.152.2053.9	135	96.222.1038.4	73	96.222.5030.1	72
96.144.0153.0	109	96.152.2151.4	136	96.222.1092.4	74	96.222.5032.4	72
96.144.0153.1	109	96.152.2153.0	136	96.222.1092.8	74	96.222.5033.1	72
96.144.2053.0	116	96.152.2153.1	136	96.222.1097.4	74	96.222.5034.1	73
96.144.2053.1	116	96.152.2153.6	130	96.222.1097.8	74	96.222.5037.4	72
96.144.2253.0	117	96.152.2153.9	130	96.222.1098.4	75	96.222.5038.4	73
96.144.2253.1	115	90.153.0051.4	101	90.222.1098.8	75	96.222.5092.4	74
90.145.2153.0	115	96 153 0053 1	131	90.222.2000.1	72	90.222.5092.8	74
96.146 2153 0	115	96 153 0053 6	131	96 222 2002 4	72	96 222 5097 8	74
96.146 2153 1	115	96 153 0053 9	131	96 222 2000.1	73	96 222 5098 4	75
96.151.0051.4	130	96.153.0151.4	131	96.222.2007.4	72	96.222.5098.8	75
96.151.0053.0	130	96.153.0153.0	131	96.222.2008.4	73	96.222.6000.1	72
96.151.0053.1	130	96.153.0153.1	131	96.222.2030.1	72	96.222.6002.4	72
96.151.0053.6	130	96.153.0153.6	131	96.222.2032.4	72	96.222.6003.1	72
96.151.0053.9	130	96.153.0153.9	131	96.222.2033.1	72	96.222.6004.1	73
96.151.0151.4	130	96.153.2051.4	138	96.222.2034.1	73	96.222.6007.4	72
96.151.0153.0	130	96.153.2053.0	138	96.222.2037.4	72	96.222.6008.4	73

Index

96.222.6030.1	72	96.223.4092.8	76	96.232.3033.1	92	96.232.8000.1	92
96,222,6032,4	72	96.223.4097.4	76	96.232.3034.1	93	96.232.8001.7	92
96.222.6033.1	72	96.223.4097.8	76	96.232.3035.7	92	96.232.8003.1	92
96,222,6034,1	73	96.223.4098.4	77	96,232,3036,7	93	96.232.8004.1	93
96 222 6037 4	72	96 223 4098 8	77	96 232 3050 1	92	96 232 8005 7	92
96 222 6038 4	73	96 223 5092 4	76	96 232 3053 1	92	96 232 8006 7	93
96 222 6092 4	74	96 223 5092 8	76	96 232 3054 1	93	96 232 8030 1	92
96 222 6092 8	74	96 223 5097 4	76	96 232 4000 1	02	96 232 8031 7	02
06 222 6007 4	74	90.223.5097.4	70	90.232.4000.1	02	90.232.0031.7	32
90.222.0097.4	74	96.223.5097.8	70	96.232.4001.7	92	90.232.8033.1	92
96.222.6097.8	/4	96.223.5098.4	//	96.232.4003.1	92	96.232.8034.1	93
96.222.6098.4	/5	96.223.5098.8	//	96.232.4004.1	93	96.232.8035.7	92
96.222.6098.8	75	96.223.6092.4	76	96.232.4005.7	92	96.232.8036.7	93
96.222.7000.1	72	96.223.6092.8	76	96.232.4006.7	93	96.232.8050.1	92
96.222.7002.4	72	96.223.6097.4	76	96.232.4030.1	92	96.232.8053.1	92
96.222.7003.1	72	96.223.6097.8	76	96.232.4031.7	92	96.232.8054.1	93
96.222.7004.1	73	96.223.6098.4	77	96.232.4033.1	92	96.233.1000.1	94
96.222.7007.4	72	96.223.6098.8	77	96.232.4034.1	93	96.233.1001.7	94
96.222.7008.4	73	96.223.7092.4	76	96.232.4035.7	92	96.233.1003.1	94
96.222.7030.1	72	96.223.7092.8	76	96.232.4036.7	93	96.233.1004.1	95
96.222.7032.4	72	96.223.7097.4	76	96.232.4050.1	92	96.233.1005.7	94
96.222.7033.1	72	96.223.7097.8	76	96.232.4053.1	92	96.233.1006.7	95
96 222 7034 1	73	96 223 7098 4	77	96 232 4054 1	93	96 233 1030 1	94
96 222 7037 4	72	96 223 7098 8	77	96 232 5000 1	92	96 233 1031 7	94
96 222 7038 4	72	96 223 8092 4	76	96 232 5001 7	02	96 223 1022 1	01
06 222 7002 4	73	06 222 2002 9	76	96,222,5001.7	02	06 222 1024 1	05
90.222.7092.4	74	90.223.8092.8	70	96,222,5003.1	02	96.233.1034.1	04
90.222.7092.0	74	90.223.8097.4	70	90.232.5004.1	93	90.233.1035.7	94
96.222.7097.4	74	96.223.8097.8	70	96.232.5005.7	92	96.233.1036.7	95
96.222.7097.8	74	96.223.8098.4	//	96.232.5006.7	93	96.233.1050.1	94
96.222.7098.4	/5	96.223.8098.8	//	96.232.5030.1	92	96.233.1053.1	94
96.222.7098.8	75	96.232.1000.1	92	96.232.5031.7	92	96.233.1054.1	95
96.222.8000.1	72	96.232.1001.7	92	96.232.5033.1	92	96.233.2000.1	94
96.222.8002.4	72	96.232.1003.1	92	96.232.5034.1	93	96.233.2001.7	94
96.222.8003.1	72	96.232.1004.1	93	96.232.5035.7	92	96.233.2003.1	94
96.222.8004.1	73	96.232.1005.7	92	96.232.5036.7	93	96.233.2004.1	95
96.222.8007.4	72	96.232.1006.7	93	96.232.5050.1	92	96.233.2005.7	94
96.222.8008.4	73	96.232.1030.1	92	96.232.5053.1	92	96.233.2006.7	95
96.222.8030.1	72	96.232.1031.7	92	96.232.5054.1	93	96.233.2030.1	94
96.222.8032.4	72	96.232.1033.1	92	96.232.6000.1	92	96.233.2031.7	94
96.222.8033.1	72	96.232.1034.1	93	96.232.6001.7	92	96.233.2033.1	94
96.222.8034.1	73	96.232.1035.7	92	96.232.6003.1	92	96.233.2034.1	95
96.222.8037.4	72	96.232.1036.7	93	96.232.6004.1	93	96.233.2035.7	94
96,222,8038,4	73	96.232.1050.1	92	96,232,6005,7	92	96,233,2036,7	95
96 222 8092 4	74	96 232 1053 1	92	96 232 6006 7	93	96 233 2050 1	94
96 222 8092 8	7/	96 232 1054 1	93	96 232 6030 1	92	96 233 2053 1	9/
96 222 8097 4	74	96 232 2000 1	92	96 232 6031 7	92	96 233 2054 1	94
96 222 8097 8	74	96 232 2001 7	02	96 232 6033 1	02	96 233 3000 1	0.0
06 222 0000 4	74	90.232.2001.7	32	90.232.0033.1	02	96.233.3000.1	04
90.222.0090.4	75	90.232.2003.1	92	90.232.0034.1	93	90.233.3001.7	94
90.222.8098.8	75	96.232.2004.1	93	90.232.0035.7	92	96.233.3003.1	94
96.223.1092.4	/6	96.232.2005.7	92	96.232.6036.7	93	96.233.3004.1	95
96.223.1092.8	/6	96.232.2006.7	93	96.232.6050.1	92	96.233.3005.7	94
96.223.1097.4	/6	96.232.2030.1	92	96.232.6053.1	92	96.233.3006.7	95
96.223.1097.8	76	96.232.2031.7	92	96.232.6054.1	93	96.233.3030.1	94
96.223.1098.4	77	96.232.2033.1	92	96.232.7000.1	92	96.233.3031.7	94
96.223.1098.8	77	96.232.2034.1	93	96.232.7001.7	92	96.233.3033.1	94
96.223.2092.4	76	96.232.2035.7	92	96.232.7003.1	92	96.233.3034.1	95
96.223.2092.8	76	96.232.2036.7	93	96.232.7004.1	93	96.233.3035.7	94
96.223.2097.4	76	96.232.2050.1	92	96.232.7005.7	92	96.233.3036.7	95
96.223.2097.8	76	96.232.2053.1	92	96.232.7006.7	93	96.233.3050.1	94
96.223.2098.4	77	96.232.2054.1	93	96.232.7030.1	92	96.233.3053.1	94
96.223.2098.8	77	96.232.3000.1	92	96.232.7031.7	92	96.233.3054.1	95
96.223.3092.4	76	96.232.3001.7	92	96.232.7033.1	92	96.233.4000.1	94
96.223.3092.8	76	96,232,3003,1	92	96,232,7034,1	93	96,233,4001.7	94
96.223.3097.4	76	96.232 3004 1	93	96,232 7035 7	92	96,233,4003,1	94
96 223 3097 8	76	96 232 3005 7	92	96 232 7036 7	93	96 233 4004 1	95
96 223 2092 4	77	96 222 2006 7	02	06 232 7050 1	93	96.233 4005 7	Q.1
96 223 2008 9	77	96 222 2020 1	93	06 232 7052 1	Q2	Q6 233 4006 7	94
96 222 4002 4	76	00.202.0000.1 06 000 2001 7	02	06 222 7054 1	92	06.232.4000.7	04
00.220.4002.4	/0	JU.ZJZ.JUJ1./	32	90.232.7054.1	93	30.233.4030.1	54

96.233.4031.7	94	96.233.8054.1	95	96.442.8030.1	118	96.443.7087.4	124
96 233 4033 1	94	96 442 1000 1	118	96 442 8033 1	118	96 443 7088 4	125
96 233 /03/ 1	95	96 442 1003 1	118	96 442 8034 1	119	96 443 8000 1	120
06 222 4025 7	04	96 442 1003 1	110	06 442 8080 1	122	06 442 9002 1	120
90.233.4035.7	94	96.442.1004.1	119	90.442.8080.1	122	90.443.8003.1	120
96.233.4036.7	95	96.442.1030.1	118	96.442.8083.1	122	96.443.8004.1	121
96.233.4050.1	94	96.442.1033.1	118	96.442.8084.1	123	96.443.8030.1	120
96.233.4053.1	94	96.442.1034.1	119	96.443.1000.1	120	96.443.8033.1	120
96.233.4054.1	95	96.442.1080.1	122	96.443.1003.1	120	96.443.8034.1	121
96.233.5000.1	94	96.442.1083.1	122	96.443.1004.1	121	96.443.8082.4	124
96 233 5001 7	94	96 442 1084 1	123	96 443 1030 1	120	96 443 8087 4	124
06 222 5002 1	94	96 442 2000 1	110	96 443 1033 1	120	96 443 9089 4	125
06 222 5004 1	05	06 442 2002 1	110	06 442 1030.1	120	06 452 1000 1	140
90.233.5004.1	95	96.442.2003.1	110	96.443.1034.1	121	96.452.1000.1	140
96.233.5005.7	94	96.442.2004.1	119	96.443.1082.4	124	96.452.1000.6	140
96.233.5006.7	95	96.442.2030.1	118	96.443.1087.4	124	96.452.1003.1	140
96.233.5030.1	94	96.442.2033.1	118	96.443.1088.4	125	96.452.1003.6	140
96.233.5031.7	94	96.442.2034.1	119	96.443.2000.1	120	96.452.1004.1	141
96.233.5033.1	94	96,442,2080,1	122	96.443.2003.1	120	96.452.1004.6	141
96 233 5034 1	95	96 442 2083 1	122	96 443 2004 1	121	96 452 1030 1	140
06 222 5025 7	04	06.442.2000.1	100	06 442 2020 1	120	06.452.1020.6	140
90.233.5035.7	94	90.442.2084.1	123	90.443.2030.1	120	90.452.1030.0	140
96.233.5036.7	95	96.442.3000.1	118	96.443.2033.1	120	96.452.1033.1	140
96.233.5050.1	94	96.442.3003.1	118	96.443.2034.1	121	96.452.1033.6	140
96.233.5053.1	94	96.442.3004.1	119	96.443.2082.4	124	96.452.1034.1	141
96.233.5054.1	95	96.442.3030.1	118	96.443.2087.4	124	96.452.1034.6	141
96.233.6000.1	94	96.442.3033.1	118	96,443,2088,4	125	96.452.1050.1	140
96 233 6001 7	94	96 442 3034 1	119	96 443 3000 1	120	96 452 1053 1	140
96 233 6003 1	9/	96 442 3080 1	122	96 443 3003 1	120	96.452.1054.1	1/1
00.200.0003.1	05	00.442.0000.1	122	00.443.3003.1	120	00.452.0000.1	140
96.233.6004.1	95	96.442.3083.1	122	96.443.3004.1	121	96.452.2000.1	140
96.233.6005.7	94	96.442.3084.1	123	96.443.3030.1	120	96.452.2000.6	140
96.233.6006.7	95	96.442.4000.1	118	96.443.3033.1	120	96.452.2003.1	140
96.233.6030.1	94	96.442.4003.1	118	96.443.3034.1	121	96.452.2003.6	140
96.233.6031.7	94	96.442.4004.1	119	96.443.3082.4	124	96.452.2004.1	141
96.233.6033.1	94	96.442.4030.1	118	96,443,3087,4	124	96.452.2004.6	141
96 233 6034 1	95	96 442 4033 1	118	96 443 3088 4	125	96 452 2030 1	140
96 233 6035 7	9/	96 442 4034 1	119	96 443 4000 1	120	96.452.2030.6	140
00.200.0000.7	05	00.442.4004.1	100	00.443.4000.1	120	00.452.2000.0	140
90.233.0030.7	95	96.442.4080.1	122	96.443.4003.1	120	90.452.2033.1	140
96.233.6050.1	94	96.442.4083.1	122	96.443.4004.1	121	96.452.2033.6	140
96.233.6053.1	94	96.442.4084.1	123	96.443.4030.1	120	96.452.2034.1	141
96.233.6054.1	95	96.442.5000.1	118	96.443.4033.1	120	96.452.2034.6	141
96.233.7000.1	94	96.442.5003.1	118	96.443.4034.1	121	96.452.2050.1	140
96.233.7001.7	94	96.442.5004.1	119	96.443.4082.4	124	96.452.2053.1	140
96.233.7003.1	94	96,442,5030,1	118	96.443.4087.4	124	96.452.2054.1	141
96 233 7004 1	95	96 442 5033 1	118	96 443 4088 4	125	96 452 3000 1	140
06 222 7005 7	04	06 442 5024 1	110	06 442 5000 1	120	06.452.0000.1	140
90.233.7005.7	94	90.442.5034.1	100	90.443.5000.1	120	90.452.3000.0	140
96.233.7006.7	95	96.442.5080.1	122	96.443.5003.1	120	96.452.3003.1	140
96.233.7030.1	94	96.442.5083.1	122	96.443.5004.1	121	96.452.3003.6	140
96.233.7031.7	94	96.442.5084.1	123	96.443.5030.1	120	96.452.3004.1	141
96.233.7033.1	94	96.442.6000.1	118	96.443.5033.1	120	96.452.3004.6	141
96.233.7034.1	95	96.442.6003.1	118	96.443.5034.1	121	96.452.3030.1	140
96,233,7035,7	94	96,442,6004,1	119	96.443.5082.4	124	96.452.3030.6	140
96 233 7036 7	95	96 442 6030 1	118	96 443 5087 4	12/	96 452 3033 1	1/10
06 222 7050 1	04	06 442 6022 1	110	06 442 5089 4	125	06.452.0000.1	140
90.233.7050.1	94	90.442.0033.1	110	90.443.5088.4	120	90.452.3033.0	140
96.233.7053.1	94	96.442.6034.1	119	96.443.6000.1	120	96.452.3034.1	141
96.233.7054.1	95	96.442.6080.1	122	96.443.6003.1	120	96.452.3034.6	141
96.233.8000.1	94	96.442.6083.1	122	96.443.6004.1	121	96.452.3050.1	140
96.233.8001.7	94	96.442.6084.1	123	96.443.6030.1	120	96.452.3053.1	140
96.233.8003.1	94	96.442.7000.1	118	96.443.6033.1	120	96.452.3054.1	141
96,233,8004 1	95	96.442.7003 1	118	96,443 6034 1	121	96.452.4000 1	140
96 233 8005 7	Q/	96 442 7004 1	110	06 113 6097 1	121	96 452 4000 6	1/0
06 222 0000 7	05	06 442 7004.1	110	06 440 0007 4	104	06 452 4000.0	140
90.233.8000.7	95	30.442.7030.1	118	90.443.6087.4	124	90.452.4003.1	140
96.233.8030.1	94	96.442.7033.1	118	96.443.6088.4	125	96.452.4003.6	140
96.233.8031.7	94	96.442.7034.1	119	96.443.7000.1	120	96.452.4004.1	141
96.233.8033.1	94	96.442.7080.1	122	96.443.7003.1	120	96.452.4004.6	141
96.233.8034.1	95	96.442.7083.1	122	96.443.7004.1	121	96.452.4030.1	140
96.233.8035.7	94	96.442.7084.1	123	96.443.7030.1	120	96.452.4030.6	140
96.233.8036 7	95	96.442.8000 1	118	96,443 7033 1	120	96.452.4033 1	140
96 233 8050 1	94	96 442 8003 1	118	96 443 7034 1	121	96 452 4033 6	140
96 233 8053 1	9/	96 442 8004 1	110	06 112 7022 1	124	96 452 4034 1	1/1
00.200.0000.1	04	JU.++Z.0004.1	110	JU.44J.700Z.4	124	JU.+JZ.4UJ4.1	141

96.452.4034.6	141	96.453.1003.6	142	96.453.4034.1	143	96.453.7080.1	144
96.452.4050.1	140	96.453.1004.1	143	96.453.4034.1	147	96.453.7083.1	144
96.452.4053.1	140	96.453.1004.6	143	96.453.4034.6	143	96.453.7084.1	145
96.452.4054.1	141	96.453.1030.1	142	96.453.4034.6	147	96.453.8000.1	142
96.452.5000.1	140	96.453.1031.6	142	96.453.4050.1	142	96.453.8000.6	142
96.452.5000.6	140	96.453.1033.1	142	96.453.4053.1	142	96.453.8003.1	142
96.452.5003.1	140	96.453.1033.6	142	96.453.4054.1	143	96.453.8003.6	142
96.452.5003.6	140	96.453.1034.1	143	96.453.4080.1	144	96.453.8004.1	143
96.452.5004.1	141	96.453.1034.1	147	96.453.4083.1	144	96.453.8004.6	143
96.452.5004.6	141	96.453.1034.6	143	96.453.4084.1	145	96.453.8030.1	142
96 452 5030 1	140	96 453 1034 6	147	96 453 5000 1	142	96 453 8031 6	142
96 452 5030 6	1/0	96.453.1050.1	1/2	96.453.5000.6	1/2	96 453 8033 1	1/2
96 452 5033 1	140	96.453.1053.1	1/2	96 453 5003 1	1/2	96.453.8033.6	1/2
96.452.5033.1	140	96 453 1053 1	1/12	96 453 5003 6	142	96 453 8034 1	142
96 452 5034 1	140	96 453 1080 1	143	96 453 5003.0	142	96 453 8034 1	143
90.452.5034.1	141	96.453.1080.1	144	90.453.5004.1	143	90.453.8034.1	147
90.452.5034.0	141	90.453.1083.1	144	96.453.5004.6	143	90.453.8034.0	143
96.452.5050.1	140	96.453.1084.1	145	96.453.5030.1	142	96.453.8034.6	147
96.452.5053.1	140	96.453.2000.1	142	96.453.5031.6	142	96.453.8050.1	142
96.452.5054.1	141	96.453.2000.6	142	96.453.5033.1	142	96.453.8053.1	142
96.452.6000.1	140	96.453.2003.1	142	96.453.5033.6	142	96.453.8054.1	143
96.452.6000.6	140	96.453.2003.6	142	96.453.5034.1	143	96.453.8080.1	144
96.452.6003.1	140	96.453.2004.1	143	96.453.5034.1	147	96.453.8083.1	144
96.452.6003.6	140	96.453.2004.6	143	96.453.5034.6	143	96.453.8084.1	145
96.452.6004.1	141	96.453.2030.1	142	96.453.5034.6	147	96.454.1000.1	146
96.452.6004.6	141	96.453.2031.6	142	96.453.5050.1	142	96.454.1000.6	146
96.452.6030.1	140	96.453.2033.1	142	96.453.5053.1	142	96.454.1003.1	146
96.452.6030.6	140	96.453.2033.6	142	96.453.5054.1	143	96.454.1003.6	146
96.452.6033.1	140	96.453.2034.1	143	96.453.5080.1	144	96.454.1004.1	147
96.452.6033.6	140	96.453.2034.1	147	96.453.5083.1	144	96.454.1004.6	147
96.452.6034.1	141	96.453.2034.6	143	96.453.5084.1	145	96.454.1030.1	146
96.452.6034.6	141	96.453.2034.6	147	96.453.6000.1	142	96.454.1031.6	146
96.452.6050.1	140	96.453.2050.1	142	96.453.6000.6	142	96.454.1033.1	146
96.452.6053.1	140	96.453.2053.1	142	96.453.6003.1	142	96.454.1033.6	146
96.452.6054.1	141	96.453.2054.1	143	96.453.6003.6	142	96.454.2000.1	146
96 452 7000 1	140	96 453 2080 1	144	96 453 6004 1	143	96 454 2000 6	146
96 452 7000 6	140	96 453 2083 1	144	96 453 6004 6	143	96 454 2003 1	146
96 452 7003 1	140	96 453 2084 1	145	96 453 6030 1	142	96 454 2003 6	146
96 452 7003 6	140	96.453.3000.1	1/2	96.453.6031.6	142	96 454 2004 1	140
96 452 7004 1	1/1	96.453.3000.6	1/12	96 453 6033 1	142	96.454.2004.1	147
96.452.7004.1	141	96.453.3000.0	142	96,453,6033,6	142	96.454.2004.0	147
90.452.7004.0	141	90.453.3003.1	142	96,453,6033,6	142	90.454.2030.1	140
90.452.7030.1	140	90.453.3003.0	142	90.453.0034.1	143	90.454.2031.0	140
90.452.7030.0	140	90.453.3004.1	140	90.453.0034.1	147	90.454.2033.1	140
90.452.7033.1	140	96.453.3004.6	143	96.453.6034.6	143	96.454.2033.6	140
90.452.7033.0	140	96.453.3030.1	142	96.453.6034.6	147	96.454.3000.1	140
96.452.7034.1	141	96.453.3031.6	142	96.453.6050.1	142	96.454.3000.6	140
96.452.7034.6	141	96.453.3033.1	142	96.453.6053.1	142	96.454.3003.1	146
96.452.7050.1	140	96.453.3033.6	142	96.453.6054.1	143	96.454.3003.6	146
96.452.7053.1	140	96.453.3034.1	143	96.453.6080.1	144	96.454.3004.1	147
96.452.7054.1	141	96.453.3034.1	147	96.453.6083.1	144	96.454.3004.6	147
96.452.8000.1	140	96.453.3034.6	143	96.453.6084.1	145	96.454.3030.1	146
96.452.8000.6	140	96.453.3034.6	147	96.453.7000.1	142	96.454.3031.6	146
96.452.8003.1	140	96.453.3050.1	142	96.453.7000.6	142	96.454.3033.1	146
96.452.8003.6	140	96.453.3053.1	142	96.453.7003.1	142	96.454.3033.6	146
96.452.8004.1	141	96.453.3054.1	143	96.453.7003.6	142	96.454.4000.1	146
96.452.8004.6	141	96.453.3080.1	144	96.453.7004.1	143	96.454.4000.6	146
96.452.8030.1	140	96.453.3083.1	144	96.453.7004.6	143	96.454.4003.1	146
96.452.8030.6	140	96.453.3084.1	145	96.453.7030.1	142	96.454.4003.6	146
96.452.8033.1	140	96.453.4000.1	142	96.453.7031.6	142	96.454.4004.1	147
96.452.8033.6	140	96.453.4000.6	142	96.453.7033.1	142	96.454.4004.6	147
96.452.8034.1	141	96.453.4003.1	142	96.453.7033.6	142	96.454.4030.1	146
96.452.8034.6	141	96.453.4003.6	142	96.453.7034.1	143	96.454.4031.6	146
96.452.8050.1	140	96.453.4004.1	143	96.453.7034.1	147	96.454.4033.1	146
96.452.8053.1	140	96.453.4004.6	143	96.453.7034.6	143	96.454.4033.6	146
96.452.8054.1	141	96.453.4030.1	142	96.453.7034.6	147	96.454.5000.1	146
96.453.1000.1	142	96.453.4031.6	142	96.453.7050.1	142	96.454.5000.6	146
96.453.1000.6	142	96.453.4033.1	142	96.453.7053.1	142	96.454.5003.1	146
96.453.1003.1	142	96.453.4033.6	142	96.453.7054.1	143	96.454.5003.6	146

96.454.5004.1	147	96.834.3503.3	104	97.052.5053.1	193	99.708.0000.7	73
96.454.5004.6	147	96.834.3504.3	105	97.052.5553.1	193	99.709.0000.7	73
96.454.5030.1	146	96.834.3530.3	104	97.141.0053.1	188	99.712.0000.7	93
96.454.5031.6	146	96.834.3533.3	104	97.141.0253.1	188	99.713.0000.7	93
96.454.5033.1	146	96.834.3534.3	105	97.141.1053.1	189	99.714.0000.7	93
96.454.5033.6	146	96.834.4000.3	104	97.141.1553.1	189	99.715.0000.7	93
96.454.6000.1	146	96.834.4003.3	104	97.142.0053.1	188	99.716.0000.7	93
96.454.6000.6	146	96.834.4004.3	105	97.142.0253.1	188	99.717.0000.7	93
96.454.6003.1	146	96.834.4030.3	104	97.142.1053.1	189	99.718.0000.7	93
96.454.6003.6	146	96.834.4033.3	104	97.142.1553.1	189	99.901.0000.7	176
96.454.6004.1	147	96.834.4034.3	105	97.151.0053.1	192	99.902.0000.7	176
96.454.6004.6	147	96.854.1000.3	154	97.151.0253.1	192	99.903.0000.7	176
96.454.6030.1	146	96.854.1003.3	154	97.151.1053.1	193	99.906.0000.7	96
96.454.6031.6	146	96.854.1004.3	155	97.151.1553.1	193	99.910.0000.7	78
96.454.6033.1	146	96.854.1030.3	154	97.152.0053.1	192	99.911.0000.7	126
96.454.6033.6	146	96.854.1033.3	154	97.152.0253.1	192	99.916.0000.7	126
96.454.7000.1	146	96.854.1034.3	155	97.152.1053.1	193	99.929.0000.7	96
96.454.7000.6	146	96.854.1500.3	154	97.152.1553.1	193	99.935.0000.7	126
96.454.7003.1	146	96.854.1503.3	154	99.000.9950.6	157	99.936.0000.7	126
96.454.7003.6	146	96.854.1504.3	155	99.400.9999.7	97	99.942.0000.0	79
96.454.7004.1	147	96.854.1530.3	154	99.400.9999.7	149	99.946.0000.7	79
96.454.7004.6	147	96.854.1533.3	154	99.413.6205.2	71	99.988.0000.7	79
96.454.7030.1	146	96.854.1534.3	155	99.413.6205.2	97	99.990.0000.7	79
96.454.7031.6	146	96.854.2000.3	154	99.413.6205.2	156	F0.000.0005.6	181
96.454.7033.1	146	96.854.2003.3	154	99.414.6205.2	71	F0.000.0005.7	181
96.454.7033.6	146	96.854.2004.3	155	99.414.6205.2	97	F0.000.0005.8	181
96.454.8000.1	146	96.854.2030.3	154	99.414.6205.2	156	F0.000.0005.9	181
96.454.8000.6	146	96.854.2033.3	154	99.414.6205.2	179	F0.000.0007.5	181
96.454.8003.1	146	96.854.2034.3	155	99.415.6205.2	71	F0.000.0007.6	181
96.454.8003.6	146	96.854.2500.3	154	99.415.6205.2	97	F0.000.0007.7	181
96.454.8004.1	147	96.854.2503.3	154	99.415.6205.2	156	F0.000.0007.8	181
96.454.8004.6	147	96.854.2504.3	155	99.416.6205.2	71	F0.000.0007.9	181
96.454.8030.1	146	96.854.2530.3	154	99.416.6205.2	97	F0.000.0008.0	181
96.454.8031.6	146	96.854.2533.3	154	99.416.6205.2	156	F0.000.0008.1	181
96.454.8033.1	146	96.854.2534.3	155	99.416.6205.2	179	F0.000.0008.2	181
96.454.8033.6	146	96.854.3000.3	154	99.429.0000.0	160	F0.000.0009.1	180
96.834.1000.3	104	96.854.3003.3	154	99.430.0000.0	160	F0.000.0009.2	180
96.834.1003.3	104	96.854.3004.3	155	99.431.0000.0	160	F0.000.0009.3	180
96.834.1004.3	105	96.854.3030.3	154	99.490.0000.0	161	F0.000.0024.4	181
96.834.1030.3	104	96.854.3033.3	154	99.502.0000.7	153	F0.000.0025.0	180
96.834.1033.3	104	96.854.3034.3	155	99.512.0000.7	153	F0.000.0025.1	180
96.834.1034.3	105	96.854.3500.3	154	99.529.0000.7	120	F0.000.0025.2	180
96.834.1500.3	104	90.854.3503.3	154	99.529.0000.7	140	F0.000.0025.3	180
90.834.1503.3	104	90.004.0004.0	150	99.529.0000.7	140	F0.000.0025.4	100
90.834.1504.3	105	90.004.0000.0	154	99.529.0000.7	100	F0.000.0025.5	100
90.834.1530.3	104	90.004.0000.0	154	99.550.0000.7	120	F0.000.0025.0	100
96.834.1533.3	104	96 854 4000 3	150	99.530.0000.7	1/8	F0.000.0025.7	180
96 834 2000 3	104	96 854 4003 3	154	99 530 0000 7	156	F0.000.0025.9	180
96 834 2003 3	104	96 854 4004 3	155	99 531 0000 7	126	F0.000.0026.0	180
96 834 2004 3	105	96 854 4030 3	154	99 531 0000 7	126	F0.000.0026.0	180
96 834 2030 3	104	96 854 4033 3	154	99 531 0000 7	148	F0.000.0026.2	180
96 834 2033 3	104	96 854 4034 3	155	99 531 0000 7	156	F0 000 0026 3	180
96 834 2034 3	105	97 041 4053 1	188	99 532 0000 7	126	F0 000 0026 4	180
96 834 2500 3	104	97 041 4253 1	188	99 532 0000 7	126	F0 000 0026 5	180
96.834.2503.3	104	97.041.5053.1	189	99.532.0000.7	148	F0.000.0026.6	180
96.834.2504.3	105	97.041.5553.1	189	99.532.0000.7	156	F0.000.0026.7	180
96.834.2530.3	104	97.042.4053.1	188	99.537.0000.7	78	F0.000.0026.8	180
96.834.2533.3	104	97.042.4253.1	188	99.575.0000.7	152	F0.000.0026.9	180
96.834.2534.3	105	97.042.5053.1	189	99.576.0000 7	152	F0.000.0027.0	180
96.834.3000.3	104	97.042.5553.1	189	99.577.0000 7	153	F0.000.0027.1	180
96.834.3003.3	104	97.051.4053.1	192	99.578.0000.7	153	F0.000.0027.2	180
96.834.3004.3	105	97.051.4253.1	192	99.628.0000.0	194	F0.000.0027.3	180
96.834.3030.3	104	97.051.5053.1	193	99.663.0000.0	161	F0.000.0027.4	180
96.834.3033.3	104	97.051.5553.1	193	99.664.0000.0	161	F0.000.0027.5	180
96.834.3034.3	105	97.052.4053.1	192	99.674.0000.0	47	F0.000.0027.6	180
96.834.3500.3	104	97.052.4253.1	192	99.675.0000.0	55	G0.500.2041.5	175

Index

Z5.564.4553.0	71
Z5.564.4553.0	97
Z5.564.4553.0	156
Z5.564.4553.1	71
Z5.564.4553.1	97
Z5.564.4553.1	156
Z5.564.4553.1	179
Z5.565.9853.0	126
Z5.565.9853.0	148
Z5.565.9853.0	156
Z5.565.9853.1	126
Z5.565.9853.1	148
Z5.565.9853.1	156
Z5.567.5653.0	194
Z6.561.6853.0	55
Z6.561.6853.1	55
Z6.561.6953.0	47
Z6.561.6953.1	47
Z6.561.7153.0	55
Z6.561.7153.1	55
Z6.561.7253.0	47
Z6.561.7253.1	47









### Products and systems Service and attendance are granted

Ranging from *smart* installation, automation, safety technology up to terminal blocks and PC board terminals – Wieland Electric is active in most areas of automation systems and appears as a driving force for innovation within the industry.

In the business segment of building system technology, Wieland Electric with their **gesis**<sup>®</sup> system is a global market leader in pluggable electric installation – from indoor and outdoor applications up to intelligent building automation.

Wieland accomplish their product portfolio for the users providing workshops for the implementation of new guidelines and standards as well as for the implementation of risk assessments. These services are also offered on a customer-specific basis. In this context, our focus is on applicationoriented solutions and competent consulting.

The flexible use of buildings does not only require an appropriate design during construction. The documentation of the installed systems must also meet these requirements.

Documenting the installed components plays a vital role. Wieland creates installation and wiring plans according to your specifications

#### Service & attendance

Information brochures, planning and calculation tools for order placement or download from our websites complement our portfolio:

- wieplan configuration software
- **revos** PLAN configurator
- **podis**<sup>®</sup>PLAN configurator
- gesis®PLAN 3D visualization/calculation/application
- eShop
- Building design
- Workshops and support
- Wie-Service24

Online remote maintenance portal for easiest and most secure VPN remote maintenance

This offers planning safety across the entire lifecycle of an installation.



### **Selection of our catalogs**



0510.0 *selos* віт / *fasis* віт DIN Rail Terminal Blocks for Junction Boxes



0500.1 *selos / fasis* DIN Rail Terminal Blocks



0415.1 Machine building Individual customer solutions



0910.1 Corporate Sustainability Environmental Statement



0670.1 *gesis<sup>®</sup>* Pluggable electrical installation for indoors



0800.1 *interface* Solutions for the Control Cabinet



0416.1 Lift Technology Solutions for the electrical installation



0912.0 Mission Ausbildung interessant, vielseitig, zukunftsorientiert



0695.1 *RST*° MINI Smallest pluggable installation connector with highest IP rating



0860.1 *safety* System Solutions for Automation Technology



0430.1 Wind power Electro-technical solutions for wind energy systems



0901.1 Product Range Solutions or industrial, building and installation technology
# **Building and** installation technology



**Industries** 

# Wieland

0004.2 Wieland connects 100 years in Bamberg.

=[]=





0417.1 Shop fitting Pluggable electrical installation









0830.1 *podis®* Decentralized Automation



0407.1 Light Solutions for the electrical connection of luminaires

# Technical consultation and general information

### Hotline – one call is all it takes

# Industrial Automation – Electromechanical

Hotline +49 951 9324-991 E-Mail AT.TS@wieland-electric.com Building and Installation Technology Hotline +49 951 9324-996 E-Mail BIT.TS@wieland-electric.com

### **Industrial Automation – Electronics**

Hotline +49 951 9324-995 E-Mail AT.TS@wieland-electric.com

### Safety Technology

Hotline +49 951 9324-999 E-Mail safety@wieland-electric.com



General information and news: www.wieland-electric.com

Visit our e-catalog at http://eshop.wieland-electric.com



# Our subsidiaries

... and the addresses of our sales partner worldwide are available at: www.wieland-electric.com



USA Wieland Electric Inc. North American Headquarters 2889 Brighton Road Oakville, Ontario L6H 6C9 Phone +1 905 8298414 Fax +1 905 8298413 www.wielandinc.com



CANADA Wieland Electric Inc. North American Headquarters 2889 Brighton Road Oakville, Ontario L6H 6C9 Phone +1 905 8298414 Fax +1 905 8298413 www.wieland-electric.ca



**GREAT BRITAIN** Wieland Electric Ltd. Riverside Business Center,

Walnut Tree Close GB-Guildford/Surrey GU14UG Phone +44 1483 531213 Fax +44 1483 505029 sales.uk@wieland-electric.com www.wieland.co.uk



FRANCE Wieland Electric SARL.

Le Cérame, Hall 6 47, avenue des Genottes CS 48313 95803 Cergy-Pontoise Cedex Phone +33 1 30320707 +33 1 30320714 Fax info.france@wieland-electric.com www.wieland-electric.fr



SPAIN Wieland Electric S.L. C/ Maria Auxiliadora 2, bajos E-08017 Barcelona Phone +34 93 2523820 +34 93 2523825 Fax ventas@wieland-electric.com www.wieland-electric.es

DENMARK

Vallørækken 26

DK-4600 Køge Phone +45 70 266635

Fax

Wieland Electric A/S

+45 70 266637

www.wieland-electric.dk



### ITALY

Wieland Electric S.r.l. Via Edison, 209 I-20019 Settimo Milanese Phone +39 02 48916357 +39 02 48920685 Fax info.italy@wieland-electric.com www.wieland-electric.it

SWITZERLAND

Harzachstrasse 2b

CH-8404 Winterthur

Phone +41 52 2352100

www.wieland-electric.ch

+41 52 2352119

info.swiss@wieland-electric.com

Wieland Electric AG



#### **BELGIUM & GD LUXEMBOURG** ATEM-Wieland Electric NV

Bedrijvenpark De Veert 4 B-2830 Willebroek Phone +32 3 8661800 Fax +32 3 8661828 info.belgium@wieland-electric.com www.wieland-electric.be



#### POLAND Wieland Electric Sp. Zo.o.

Św. Antoniego 8 62-080 Swadzim Phone +48 61 2225400 +48 61 8407166 Fax office@wieland-electric.pl www.wieland-electric.pl



**CHINA** Wieland Electric Trading Unit 2703 International Soho City 889 Renmin Road, Huang Pu District PRC- Shanghai 200010 Phone +86 21 63555833 +86 21 63550090 Fax info-shanghai@wieland-electric.com www.wieland-electric.cn



## JAPAN

Fax

Wieland Electric Co, Ltd. Nisso No. 16 Bldg. 7F 3-8-8 Shin-Yokohama, Kohoku-ku Yokohama 222-0033 Phone +81 45 473 5085 +81 45 470 5408 Fax info.japan@wieland-electric.com



GERMANY Headquarters Wieland Electric GmbH Brennerstraße 10 - 14

96052 Bamberg, Germany Phone +49 951 9324-0 +49 951 9324-198 Fax info@wieland-electric.com www.wieland-electric.de



# 🖗 wieland



Phone +49 951 9324-0 Fax +49 951 9324-198 info@wieland-electric.com www.wieland-electric.com

### Industrial technology

#### Solutions for the control cabinet

- DIN rail terminal blocks
  - Screw, tension spring or push-in connection technology
  - Wire cross sections up to 300 mm<sup>2</sup>
  - Numerous special functions
  - Software solutions interfacing to CAE systems
- Safety
  - Safe signal acquisition
  - Safety switching devices
  - Modular safety modules
  - Compact safety controllers
- Application consulting and training
- Network engineering and fieldbus systems
  - Remote maintenance via VPN industrial router and VPN service portal
  - Industrial Ethernet switches
  - PLC and I/O systems, standard and
  - increased environmental conditions
- Interface
  - Power supply units
- Overvoltage protection
- Coupling relays, semiconductor switches
- Timer relays, measuring and monitoring relays
- Analog coupling and converter modules
- Passive interfaces

#### Solutions for field applications

- Decentralized installation and automation technology
  Electrical installation for wind tower
- Fieldbus interfaces and motor starters
- Connectors for industrial applications

   Rectangular and round connectors
  - Aluminium or plastic housings
  - Degree of protection up to IP69K
  - Current-carrying capacity up to 100A
  - Connectors for hazardous areas
- Modular, application-specific technology

#### PC board terminals and connectors

- Screw or spring clamp connection technology
- Spacings: 3.5 mm to 10.16 mm
- Reflow or wave soldering process

#### **Building and installation technology**

#### • Building installation systems

- Main power supply connectors IP 20/IP 65 ... IP 69K
- Bus connectors
- Low-voltage connectors
- Power distribution system with flat cables
- Distribution systems
- Room automation with KNX, EnOcean, SMI and DALI
- DIN rail terminal blocks for electrical installations
- Overvoltage protection

contacts are green. 0690.1 A 03/16

