




RST® ROUND CONNECTOR SYSTEM

SAFE AND SURE

Solutions with the highest protection rating
for all industries.

A man with short brown hair and a goatee, wearing a dark blue suit jacket over a white button-down shirt, is smiling and looking towards the camera. He is holding a black, rectangular electrical device with a white label that says "wieland" and "RST". The device has several ports and a cable attached to it. The background is a bright, out-of-focus outdoor setting with green foliage.

“Make your installation quick, safe, and pluggable with market-leading systems – from the distributor to every consumer. The RST® series offers an electrical infrastructure that is pluggable throughout with increased protection (IP6X).”

WOLFRAM HOHMANN Dipl.-Ing. (FH) + Dipl.-Wirtschaftsing. (FH)
Strategic Product Manager

SAFE AND SURE

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PLUGGABLE INSTALLATION WITH HIGH **IP PROTECTION**.

Wieland is your experienced and reliable partner for efficient + pluggable solutions in a wide range of fields, from plant manufacturing and mechanical engineering to building construction and shipbuilding, and through to outdoor applications. For over 40 years, with our connector systems we have been offering smart products and customized concepts for energy and data transmission and consistently improving them.

Our RST® round connectors have been specially designed for efficient, pluggable, and IP-protected electrical installation in demanding environments. Especially in damp, dusty, and dirty environments – such as industrial halls, parking garages, or outdoor areas – the highest requirements must be met regarding safety and flexibility in wiring and with the supply of electrical consumers.

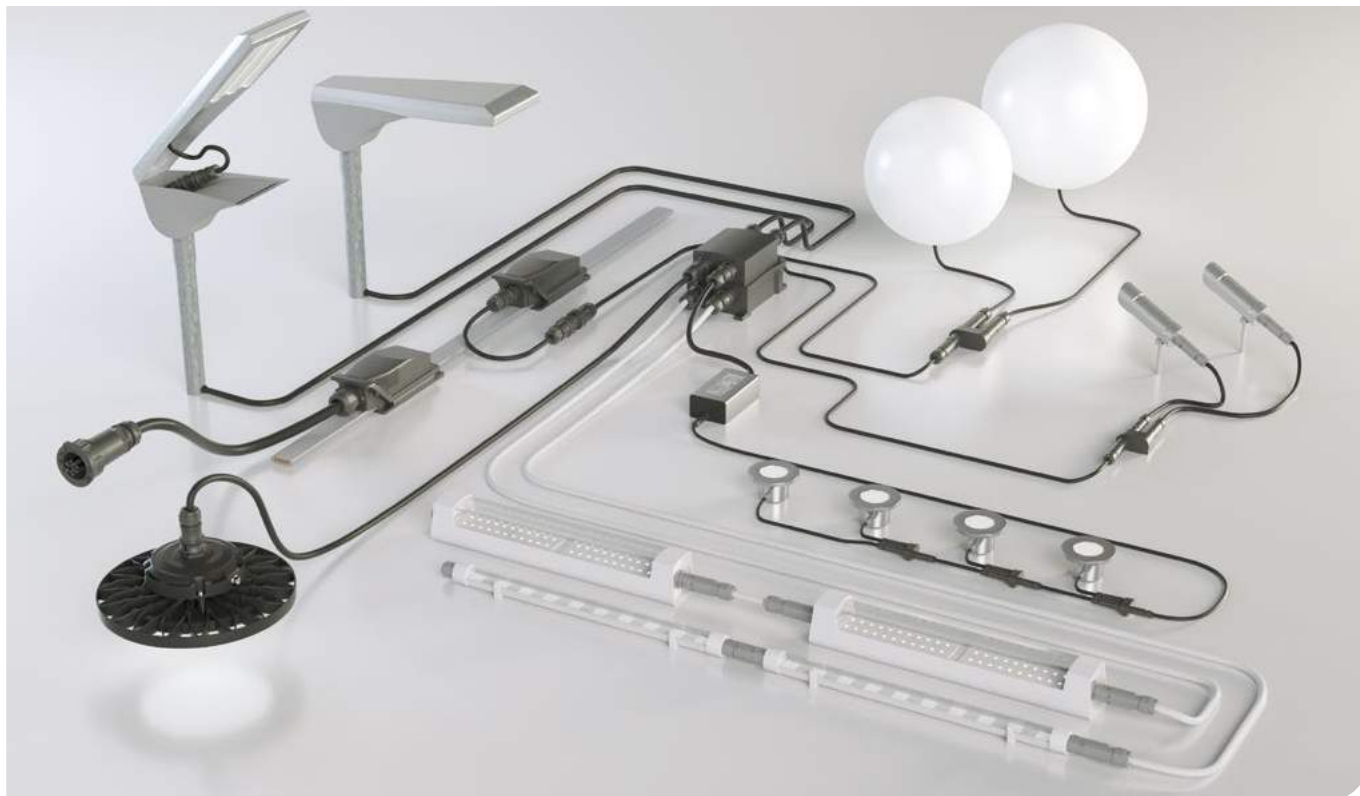
RST® round connectors withstand constant temperature changes, high UV radiation, high ozone values, and, not least, mechanical wear, which often lead to material fatigue, water ingress, and ultimately system failure.

THE SYSTEM FOR:

- + FUNCTIONAL BUILDINGS
- + INDUSTRIAL HALLS
- + GREENHOUSES
- + PARKING GARAGES
- + SHIPBUILDING
- + ROADS
- + OUTDOOR FACILITIES
- + ARCHITECTURE
- + GARDENS
- + EVENTS

- + 30% lower installation costs
- + Pluggable from the distributor to the electrical device connection
- + Industrially pre-assembled quality of the world market leader





CONNECTORS **TRIED AND TESTED** MILLIONS OF TIMES

Wieland Electric leads the world in providing solutions for pluggable electrical installations in building technology. Our successful gesis® installation system has been on the market for almost five decades now and used millions of times in buildings. The successful plug & play philosophy of gesis® has been transferred to the RST® installation system. However, RST® has been designed for outdoor use and offers all the advantages of a safe, pluggable, and IP-protected installation.

40⁺
YEARS
GESIS®



gesis® connectors



RST® connectors



SYSTEM FEATURES

- ▶ IP66/68 (3m;2h)/69
- ▶ With >Internal Water Stop<
- ▶ Extendable & retrofittable
- ▶ Resource-efficient
- ▶ Reusable

RST® REPLACES CABLE SCREW GLAND

Anywhere where power has to be transmitted, where it gets damp, dusty, or dirty, can usually benefit from replacing a cable screw gland with a pluggable connection. This is easier and more economical than you might think – ask us about retrofitting your plant or products.

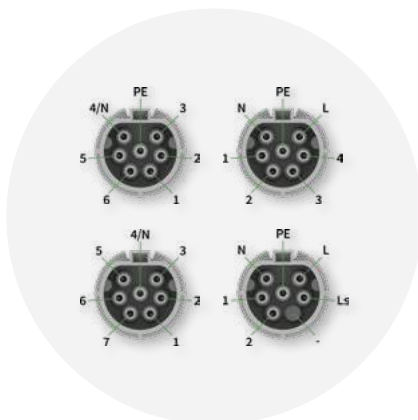


LONGITUDINAL WATERPROOFING

An optional contact seal against “longitudinal water” at the device plug may make sense. Otherwise, water may travel inside the cable, penetrate electrical devices, and cause damage. A contact seal allows the leaky part to be isolated and repaired in a targeted manner. Consumers remain undamaged.

MECHANICAL CODING

RST® connectors are color-coded and mechanically coded in the factory. This makes it possible to realize installations quickly and safely. Every product size comes with different codings. The different colors allow individual circuits to be distinguished between and identified fast. Mismatching is not possible due to the mechanical coding, because of the different geometry of the connector interface. So, dangerous situations can be avoided.



MARKING OF POLES

Pole markings correspond to the selected coding or the specific application. This assigns the uniquely correct terminal point to each individual pole.

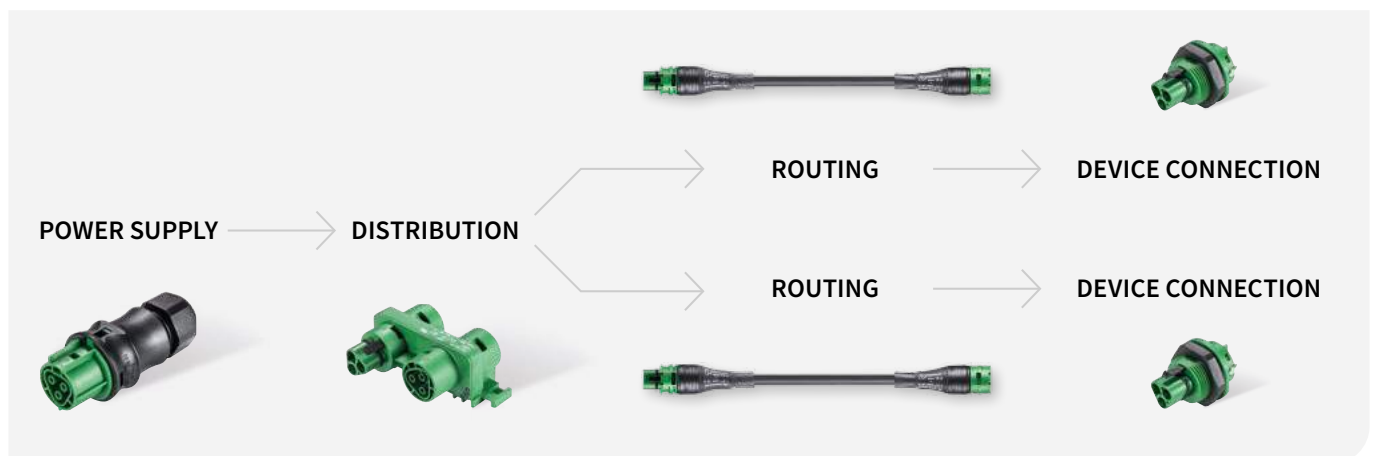
RST® – SAFE + QUICKER + EASIER

Maximum speed – finish five times faster.

Our pluggable components with the highest IP protection rating minimize assembly times thanks to well-conceived interfaces and diversified connection technology with prefabricated cable sets.

With just four basic modules a universally pluggable electrical installation can be realized.
Perfect for every application!

One system – everything pluggable!



Advantages over conventional installation:

- + Touch-safe
- + Easy cabling
- + Easy exchange of devices
- + Easy expansions or modifications
- + Reusable
- + Mechanical codings
- + Integrated locking and strain relief

TIME COMPARISON BASED ON A LUMINAIRE INSTALLATION

CONVENTIONAL



WORK STEPS:

POWER DISTRIBUTION:

- 1 Strip the cable jacket
- 2 Insert the cable into the junction box
- 3 Strip the wires
- 4 Connect the wires
- 5 Close the junction box

LUMINAIRE INSTALLATION:

- 1 Open the luminaire
- 2 Cut the cable to length
- 3 Insert the cable into the luminaire
- 4 Strip the wires
- 5 Connect the wires
- 6 Close the luminaire



PLUGGABLE WITH RST®



WORK STEPS:

POWER DISTRIBUTION:

- 1 Select the desired length of your cable assembly
- 2 Plug into distribution block

LUMINAIRE INSTALLATION:

- 1 Plug & Play



COMPARISON VIDEO

Pluggable vs. Traditional
the future is pluggable.



Scan QR code –
watch video on YouTube.



RST® MICRO



Miniature connector with maximum IP protection.

The RST® MICRO is optimized for the interface between voltage or current sources and LED modules, and is also perfectly suited to dimming or DMX applications. Thanks to its rated values, network applications are no problem either. With its highest protection rating of IP69 it even enables a safe installation in harsh environmental conditions, making it ideal for use outdoors and in an industrial setting.

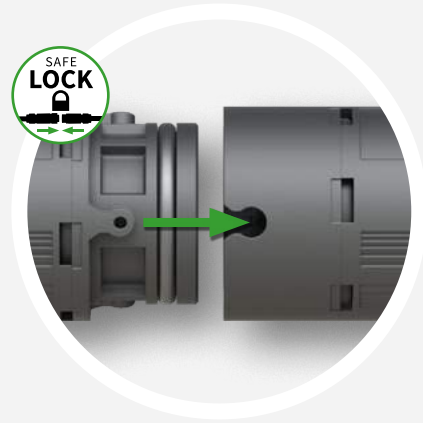
The installation system comprises connectors, M14 and M17 device connectors, cable assemblies, and distributors. Despite its very compact design, the 2-pole to 5-pole connector is easy to assemble. It consists of just two individual parts, which during assembly are connected to each other firmly and securely with just half a rotation. The space-saving screw connection also offers the advantage that all commercially available conductors can be clamped securely and reproducibly without any additional conductor preparation. An allen key makes operation easy.



- + 2 to 5-pole
- + Connector cross-section
0.2 to 1.0 mm²
- + Rated voltage
250/400 V
- + Rated current 8 A
(10 A at 1.0 mm²)

FAST CONNECTIONS

With no screwing or turning – plugging together automatically engages the locking mechanism, quickly sealing a connection.



EASY WIRE CONNECTION

With hexagon socket screws, the screwdriver can be fixed in place and the wire can be connected more easily.

FLEXIBLE INTEGRATION

To make optimum use of the installation space and to meet application requirements, the portfolio offers variants with two Y-shaped outputs and three H-shaped outputs. With a width of 68 mm or 54 mm (e.g. 2/3-pole distributor), distributors can be accommodated even in the tightest environments.



PROACTIVELY INSTALLED WITH SAFETY LOCK

In line with IEC61984, the strain relief (cable screw gland) must withstand a tensile force of 80 N for one minute. At 60 N, our locking mechanism guarantees a firm connection, which will release in case of an unplanned high tensile load. That way, the high tensile force does not affect the strain relief, and the danger involved in pulling wires out of the contacts is avoided. Therefore, a locking mechanism that can hold much more than the strain relief and contacts is not recommended.

RST® MINI



Small connector for extremely confined spaces.

With the 2 to 5-pole RST® MINI system, even complex installations can be realized in no time at all. Typical uses include the connection of dimmable luminaires with a compact design. RST® MINI is also tailored for the electrification of RGB or RGB W/A outdoor spotlights.

The system has been designed for 250/400 V and 16 A and is entirely available in the screw connection technology that electricians trust. Customized distributors as well as cable assemblies round the system off perfectly and offer a huge range of different possible uses, not just in building installation or industry.



- + 2 to 5-pole
- + Connector cross-section
0.2 to 2.5 mm²
- + Rated voltage
250/400 V
- + Rated current 16 A
- + TWISTLOCK technology with
automatic locking

RST® PLUG & PLAY

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.



TWISTLOCK LOCK

With the smart TWISTLOCK locking mechanism, the connectors lock automatically when plugged together, giving the user clear feedback on the correct end position. The connection is easily released again with a slight twist.

RETROFITTING MADE EASY

The device connectors have M20.2 (5/4-pole) or M16 (3/2-pole) threads. This means that they can be integrated directly into bushings prepared for M20 or M16, taking 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.





RST® MINI DEVICE CONNECTOR MOLA®

The modular device connector with
spring clamp technology.

MOLA® is the name of the modular device connector in the RST® MINI series with spring clamp connection. The push-in spring reduces the installation time considerably compared to screw connections. It does not matter whether the wiring is to be done manually or with special wiring machines – neither is an issue with MOLA®.

There are several advantages to modularity. Regardless of the number of poles, this design makes it possible to integrate any variant of the device connector into the most common M20/20 mm housing cut-outs without any problems. The device connector offers two connection points per pole, making it perfect to use for devices with through-wiring. If required, it can also be equipped with just one connection point.

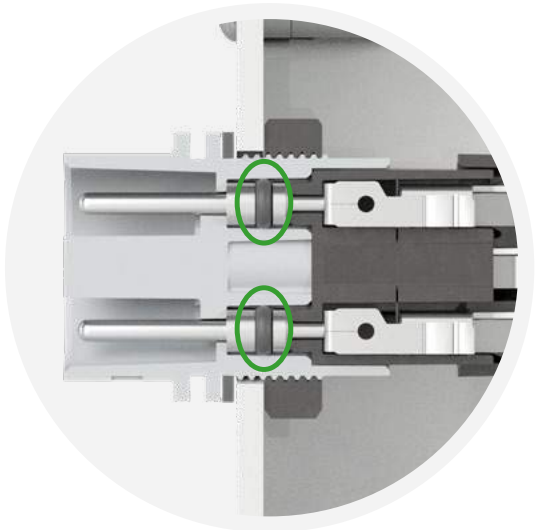


- + 2 to 5-pole
- + 2 connections per pole:
2.5 mm²/ 1.0 mm²
- + Rated voltage
250/400 V
- + Rated current 16 A
- + Push-in spring

MODULAR STRUCTURE

The new RST16 MOLA® device connector is completely modular, which means it consists of three separate parts.

- **External adapter** – for connecting the electrical infrastructure
- **Internal adapter** with two terminals per pole – for through-wiring and for the outputs to the internal wiring
- **Nut** – for fastening the external adapter

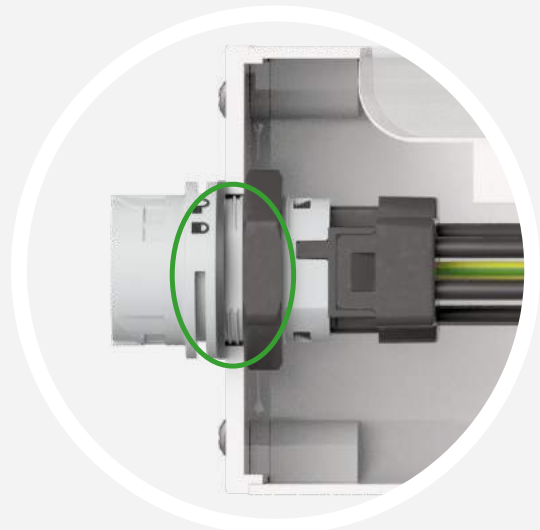


MORE SAFETY

Variants with additional contact seal (longitudinal seal) are also available as an option. They prevent the ingress of moisture into the contacts due to condensation or damaged cables.

FOR 20 MM BUSHINGS

All variants – 2, 3, 4, or 5-pole – have a diameter of 20 mm. Existing series with 20 mm bushings can be retrofitted to MOLA® quickly and integrated directly in prepared M20 bushings. This makes it easy to switch from traditional cable glands to the convenient plug-gable alternative. There is the option of using a flattened top on the thread of the device connector to fix it in position.



RST® CLASSIC



All-rounder with the broadest portfolio.

Round connectors for a wide range of applications – with 2 to 7-pole variants. A total of 15 codings ensure both a mechanical and a color-based differentiation between different circuits. The compact connectors boast high modularity and adaptability to the requirements of the application. They are also optionally available with a water-stop feature.

In terms of connection technology, users basically have a choice between screw, spring clamp, and crimp technology. As an interface to electrical devices, the system offers straight and angled adapters for all standard housing bores (for M16, M20, M25, and M32). All devices can therefore easily be converted to RST® without changing tools.



- + 2-pole to 7-pole
- + Connector cross-section
0.2 to 6.0 mm²
- + Rated voltage
250/400 V
- + Rated current
20 A/25 A (32 A at 6.0 mm²)
- + Maximum system variability

MAXIMUM SYSTEM VARIABILITY

This modular, flexible system offers a solution for almost every application. In addition to a wide range of handle sleeves for straight, angled, or double cable entry, the system provides a selection of M16 to M32 threads for device installation.



MULTIPLE APPROVALS

The RST® CLASSIC system comes with VDE approval in accordance with IEC61535 as well as unrestricted UL approval, various ship approvals, and ATEX approval.

WIDE VARIETY OF CONNECTION TECHNOLOGIES

Whether screw, crimp, or spring clamp connection, all these connection technologies are available in the RST® CLASSIC portfolio, depending on the number of poles.



THE RIGHT GEOMETRY FOR EVERY CABLE

Alongside round cut-outs in various sizes, ranging from 6 to 18 mm, the RST® system also offers suitable seals with rectangular geometry for illumination or special geometries, e.g., for AS-i cables or for multiple bushings.



RST® CLASSIC DEVICE CONNECTOR

Device connectors are integrated into corresponding boreholes of the housing and constitute the interface to the outside. There are essentially two variants:



STANDARD DEVICE CONNECTORS

The M25 standard device connectors (one-piece) are simply mounted from the inside of the housing.



MODULAR DEVICE CONNECTORS

The modular device connectors (two-piece) are available in the M16, M20, and M25 versions and with 0°, 7°, and 90° angles.



CUSTOMIZED DEVICE CONNECTORS

We also offer the option of customizing the assembly of the device connectors. This makes connecting devices easier than ever before – everything comes from a single source!

RST® CLASSIC

MANUAL OPERATION

The locking mechanisms are installed in the corresponding male parts in the factory. They audibly click into place when plugging in, signaling a secure connection.

They are released using a screwdriver as standard or manually (ordered separately under Accessories). However, if there is an unplanned high tensile load on the connection, they disengage so that the danger involved in pulling wires out of the contacts is avoided. This safety mechanism causes wear and tear, though, or destroys the slider, so it should be replaced after it has been activated a number of times.



STANDARD LOCKING MECHANISM EX WORKS

















All connections are secured against unintentional release. This is ensured by a factory-integrated locking mechanism. The connection is loosened using a screwdriver.



OPTIONAL MANUAL RELEASE

The optional manual release is easy; simply use your finger to disconnect from the connector without the need for an additional tool. Manual release can also be retrofitted.

RST® CLASSIC SYSTEM OVERVIEW

			RST20i2			RST20i3				RST25i3
			2-pole 20 A			3-pole 20 A				3-pole, 25 A (32 A)
Pole marking			L, N	+, -	1, 2	L, N, \perp	1, 2, \perp	1, 2, 3	1, 2, \perp	L, N, \perp
Application			250 V black or light gray	-50/-120 V pebble gray	-50/-120 V signal brown	250 V black or light gray	250/400 V leaf green	250/400 V light blue	-50/-120 V signal brown	250 V concrete gray
Contact insert female and male part										
										
Spring clamp connection (F) Screw connection (S) Crimp connection (C)			F S	F S	F S	F S C	F S C	F S	F S	S
Connector	1 x cable entry, straight or angled	Ø 6 – 10 mm	✓	✓	✓	✓	✓	✓	✓	
		Ø 10 – 14 mm	✓	✓	✓	✓	✓	✓	✓	✓
		Ø 13 – 18 mm				✓	✓	✓		✓
		Flat cable 13 x 6 mm	✓							
		AS-i profile cable		✓	✓					
	2 x cable entry	Ø 6 – 10 mm	✓	✓	✓	✓	✓	✓		
		Ø 10 – 14 mm	✓	✓	✓	✓	✓	✓		
		AS-i profile cable								
Device connector	1-part	M25	✓	✓	✓	✓	✓	✓	✓	✓
	2-part	M16 straight	✓	✓	✓	✓	✓	✓	✓	✓
		M16 7° angle	✓	✓	✓	✓	✓	✓	✓	✓
		M20 straight	✓	✓	✓	✓	✓	✓	✓	✓
		M20 angled	✓	✓	✓	✓	✓	✓	✓	✓
		M25 angled	✓	✓	✓	✓	✓	✓	✓	✓
		M32 straight	✓	✓	✓	✓	✓	✓	✓	✓
Distributor		Distribution block 1 E/3A	✓	✓	✓	✓	✓	✓	✓	
		RST® compact distributor/multi-distributor	✓	✓	✓	✓	✓	✓	✓	✓
		Individual distribution box	✓	✓	✓	✓	✓	✓	✓	✓
Cable assemblies		Extension cable female – male	✓	✓	✓	✓	✓	✓	✓	✓
		Connection cable female – free end	✓	✓	✓	✓	✓	✓	✓	✓
		Connection cable male – free end	✓	✓	✓	✓	✓	✓	✓	✓
		Connection cable safety – female				✓				
		Connection cable/contour Euro plug/SK II – female	✓							

RST® • 21

RST® POWER



High-current connector for large cross-sections.

The RST® POWER series is particularly aimed at device construction. With a current-carrying capacity of 50A combined with an extremely compact design, this connector can be used virtually anywhere.

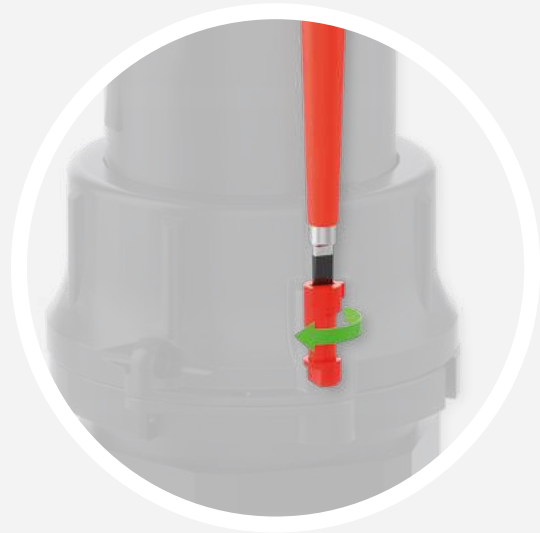
These two-piece connectors take little effort to install and enable fast and reliable on-site installation of electrical equipment. The device connectors for installation in housings are easily installed in a drill hole prepared for M32 cable glands. An adapter ring provides the necessary centering for a pre-prepared M40 drill hole.



- + 4 and 5-pole
- + Connector cross-section
4.0 to 16 mm²
- + Rated voltage
250/400 V
- + Rated current 50 A
- + M32 and M40

CLOSED SECURELY + SEALABLE

The practical bayonet lock can also be secured with a screwdriver to prevent unintentional loosening of the connection. The connection can also be sealed using the cap.



SPACE-SAVING

The RST® POWER device connector takes up significantly less space than alternative systems due to its design and the fastening mechanism and only requires one hole. This means that more connections can be realized in a smaller area.

EASY RETROFITTING

The device connectors for installation in housings are easily installed in a drill hole prepared for M32 cable glands. An adapter ring provides the necessary centering for a pre-prepared M40 drill hole.

- Socket or plug inserts can be mounted in the same housing



RST® COMPACT DISTRIBUTOR

RST® MULTI DISTRIBUTOR

Flexibility at the highest level.

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 also 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 the standard versions, the distributors can be equipped individually and in combination with the MICRO, MINI, and CLASSIC device connectors.

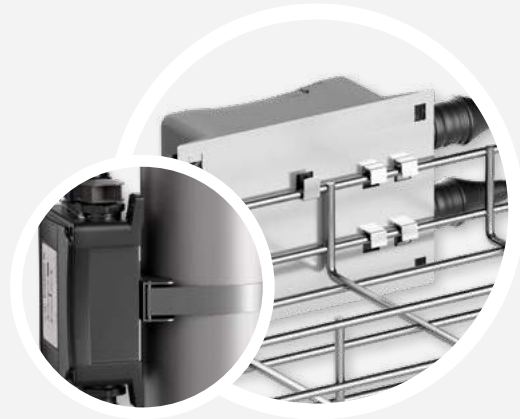


- + Equipped individually with device connectors
- + Mechanical coding
- + Standard distribution boxes with RST® connection

EASY MOUNTING

Four external fastening tabs ensure easy mounting and a secure hold.

There are also mounting holes on the lower part, which enable special mounting plates to be attached.



SECURELY LOCKED

All connections are secured against unintentional release. This is ensured by a factory-integrated locking mechanism. When plugging in, the locking mechanism engages with an audible click. The connection is loosened using a screwdriver.



WELL SEALED

Covers are used to securely seal unused outputs. These are available with or without protection against loss.



AT A GLANCE

A circuit diagram on the housing cover provides information on the internal wiring.

The outputs are numbered consecutively from X1 to X8.

RST® SYSTEM OVERVIEW

Connector

for power supply to the connector system

RST® MICRO | RST08



RST® MINI | RST16



Device connectors

are integrated directly into terminals and form the interface to the connector system



Cable assemblies

for transmission and supply of electrical energy and signals



Distribution blocks

for distributing electrical energy or signals within the network



TECHNICAL DATA

No. of poles
Rated current
Rated voltage
Connector cross section
Certificates / approvals

2 to 5-pole
8 A/10 A
250 V/400 V
0.25 – 1.0 mm²
 according to IEC61984

 Approvals for 4 and 5-pole variants being prepared.

2 to 5-pole
16 A
250 V/400 V
0.25 – 2.5 mm²
 according to IEC61535

Our E-SHOP

Scan QR code – view products directly in the E-SHOP



RST® CLASSIC | RST20 / 25



2 to 7-pole
20 A/32 A
250 V/400 V
0.2 – 6.0 mm²

according to IEC61535



RST® POWER | RST50



—

—

4 and 5-pole
50 A
250 V/400 V
6.0 – 16.0 mm²

according to IEC61984



SYSTEM COMPONENTS

Connector

Connectors can be assembled on site. The connectors come as male and female connectors complete with strain relief and can be used to connect any current type of cable.

Device connectors

The devices can be easily plugged into the installation on site. There are different variants available for each system, from the one-piece standard connector through to the modular versions with different connection threads and output angles.

Cable assemblies

The electrical energy supply is implemented using cable assemblies. There are three different basic versions: network connection cables are used for power supply to the RST® system. They are prepared for a conventional connection on the supply side or equipped with a safety plug and assembled with the necessary female connector on the output side. Extension cables are pre-assembled with a female or male connector on the relevant cable ends, and serve as a feedthrough wiring solution. The final feed to the end device is provided by the device connection cable, which is manufactured with a male connector and a prepared free cable end.

Distribution blocks

Distribution blocks have a central position in the electrical infrastructure. They are used for energy and/or signal distribution. The distribution block is wired in parallel or serial.

RST® CODINGS AT A GLANCE

RST® MICRO

RST08i2

				
Mechanical coding (view of female connector interface)	black	light blue	slate gray	pebble gray
Pole marking	1, 2/N	1, 2/N	1, 2	1, 2


RST08i3

				
Mechanical coding (view of female connector interface)	black	light blue	slate gray	pebble gray
Pole marking	1, PE, 2/N	1, 2/N, 3	1, 2, 3	1, 2, PE

RST08i4







				
Mechanical coding (view of female connector interface)	black	light blue	slate gray	pebble gray
Pole marking	1, PE, 2/N, 3	1, 2/N, 3, 4	1, 2, 3, 4	1, 2/N, 3, 4, PE

RST08i5

				
Mechanical coding (view of female connector interface)	black	light blue	slate gray	pebble gray
Pole marking	1, 2/N, 3, 4, PE	1, 2/N, 3, 4, 5	1, 2, 3, 4, 5	1, 2, 3, 4, PE

RST® MINI

RST16i2


						
Mechanical coding (view of female connector interface)	black	light gray	leaf green	light blue	turquoise	signal brown
Pole marking	L, N	L, N	1, 2	1, 2	D1, D2	1, 2

RST16i3

						
Mechanical coding (view of female connector interface)	black	light gray	leaf green	light blue	turquoise	signal brown
Pole marking	L, N, PE	L, N, PE	1, 2, PE	1, 2, 3	D1, D2, PE	1, 2, 3

RST16i4

RST16i4




Mechanical coding (view of female connector interface)	black	light gray	signal brown
Pole marking	1, 2, 3, PE	1, 2, 3, PE	1, 2, 3, 4

RST16i5

					
Mechanical coding (view of female connector interface)	black	light gray	turquoise	light blue	signal brown
Pole marking	1, 2, 3, N, PE	1, 2, 3, N, PE	L, N, PE, 1, 2	1, 2, 3, 4, 5	1, 2, 3, 4, 5

RST® CLASSIC

RST20i2



Mechanical coding (view of female connector interface)	black	light gray	leaf green	pebble gray	signal brown
Pole marking	L, N	L, N	L, N	+, -	1, 2

RST20i3



Mechanical coding (view of female connector interface)	black	light gray	leaf green	light blue	signal brown
Pole marking	L, N, PE	L, N, PE	1, 2, PE	1, 2, 3	1, 2, PE

RST20i4



Mechanical coding (view of female connector interface)	black	light gray	signal brown
Pole marking	1, 2, 3, PE	1, 2, 3, PE	1, 2, 3, 4

RST20i5



Mechanical coding (view of female connector interface)	black	light gray	turquoise	light blue	pebble gray	signal brown
Pole marking	1, 2, 3, N, PE	1, 2, 3, N, PE	D1, D2, L, PE, N	1, 2, 3, 4, 5	N, E, 1, 2, 3	1, 2, 3, 4, 5

RST20i6



Mechanical coding (view of female connector interface)	turquoise
Pole marking	L, N, PE, 1, 2, Ls

RST20i7



Mechanical coding (view of female connector interface)	black	light gray	turquoise	light blue
Pole marking	1, 2, 3, 4/N, 5, 6, PE	1, 2, 3, 4/N, 5, 6, PE	L, N, PE, 1, 2, 3, 4	1, 2, 3, 4/N, 5, 6, 7

RST25i3



Mechanical coding (view of female connector interface)	concrete gray
Pole marking	L, N, PE

RST25i5



Mechanical coding (view of female connector interface)	concrete gray
Pole marking	L, N, PE, 1, 2

RST® POWER

RST50i4



Mechanical coding (view of female connector interface)	black
Pole marking	1, 2, 3, PE

RST50i5



Mechanical coding (view of female connector interface)	black
Pole marking	1, 2, 3, N, PE



HORTICULTURE

Contemporary luminaire connection.



THE CHALLENGE

Greenhouses are important facilities for crop production. To operate them particularly efficiently, it is essential that artificial UV radiation is integrated.

The large number of luminaires that have to be installed in large areas the size of a football pitch render a conventional installation impossible.



THE SOLUTION

As the world market leader in electrical building installation, Wieland offers a reliable modular system with IP protection – the pluggable RST® system.

An efficient and economical horticulture system installation can be achieved within a fixed time frame and with the use of fewer installers thanks to pre-assembled installation components.



TOPLIGHTING

For many years now, the RST® CLASSIC connector system has carved out a place for itself in this classic application and become an industry standard. This is the only way that international projects can be realized without interface issues between the infrastructure installation and pluggable luminaires. Befitting green coding for the plug-in zone is available in the device connector, connector, distributor, and cable assembly variants.



INTERLIGHTING

Interlighting involves illuminating from the side or between the plants. As it constantly has to be adjusted as the plant grows, this cabling requires a high degree of flexibility. One solution is to connect the luminaires in series using internal through-wiring and to equip them with pluggable connectors at both ends. This creates a movable string of luminaires that carries a current with a short connecting cable. Alongside RST® CLASSIC, the RST® MINI series also comes into its own here. The MOLA® device connector from this series makes the through-wiring of luminaires so easy.



VERTICAL FARMING

Vertical farming is a special form of horticulture. In an extremely compact setup, plant trays are housed alongside luminaires in shelf systems, which are then integrated into specially designed buildings or containers. We meet the demand for a space-saving design with the RST® MINI and RST® MICRO systems. These very small connector systems enable quick electrification that is easy to operate.



MECHANICAL ENGINEERING

Fast + reliable system connections.



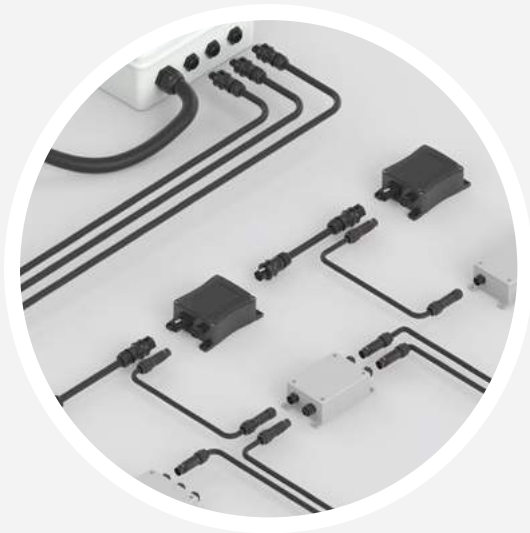
THE CHALLENGE

Whether one single connection or a complex system, the task presented is the same: electrical consumers must be quickly and reliably connected with each other. Conventional installations cannot rise to this challenge. Cutting cables to length, baring and stripping them, and finally connecting components are not just very time-consuming jobs, they also often lead to errors that require rework. The involvement of different trades (mechanical and electrical) in the setup of a system prevents a speedy installation – and with system extensions, necessary maintenance, and the replacement of defective devices too, always the same installation steps have to be repeated.



THE SOLUTION

As a complete installation system, RST® significantly reduces installation times. All that is left to do in the field is plug together the factory-assembled components. The arduous tasks of cutting to length, baring, stripping, and connecting are a thing of the past. This saves a lot of operational downtime. In the case of defective devices or regular maintenance, consumers can be disconnected from the network quickly. A further advantage is that the device no longer has to be opened for electrical connection by the installer, which rules out the possibility of water-tight devices in particular being put together wrongly.



FACTORY PREFABRICATION

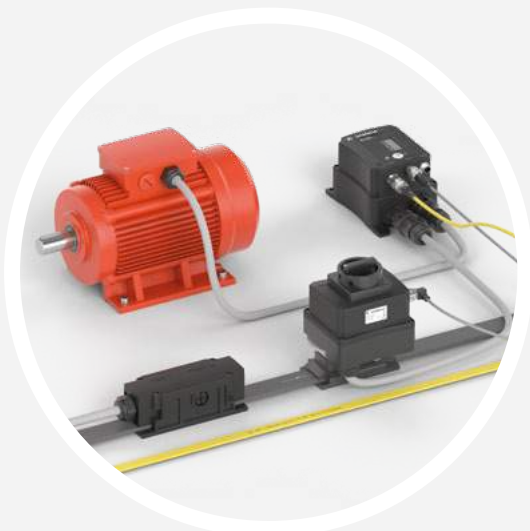
Everything is prepared: With the RST® installation system, you receive all the necessary cables and connectors for your system pre-configured to meet your requirements.

Complete system parts can also be completely planned, pre-assembled, and tested. All you have to do on site is plug the individual components together according to the plan.



SAVING TIME AND MONEY

It is not uncommon for conventional system installations to be oversized. All the necessary RST® components are determined precisely in advance and delivered to suit you. This prevents an excess or shortage of material. As a result, you save not only a huge amount of money, but also a significant amount of time during the on-site installation.



POSSIBLE APPLICATIONS

- Motor connection (3~)
- Power distribution 250/400 V ~, up to 32 A
- Power supply up to 50 V, bus
- Power supply 24 V, AS-i



PLANT MANUFACTURING

Signals + low voltage in plant manufacturing.



THE CHALLENGE

Whether for a crane, industrial robot, printer, or packaging machine – countless cable meters have to be laid from the control cabinet to various drives and a whole host of sensors and switches. Having more and more electronics means increasingly complex wiring harnesses. What's more, everything also needs to work faster and with greater flexibility – and this is not easy to achieve with a rigid installation concept.



THE SOLUTION

Wherever both energy and data are transmitted, the RST® quick-mounting system provides a reliable connection and pluggable device connectors. You choose whether energy and data should be realized in separate cable routings or combined in one connector system. For signals and low voltages, the MICRO, MINI, and CLASSIC series offer specific codings. The MINI and CLASSIC systems also come with special variants for AS-i cables.



SEPARATE ROUTING OF DATA AND AUXILIARY VOLTAGE

It is possible to select an individual mechanical and color coding for each circuit. This gives you the assurance of a clear distinction between the two circuits and makes them immediately identifiable.



JOINT ROUTING OF AS-I AND 24 V

While AS-i and 24 V have tended to be routed separately, they can also be installed together in a 4-pole variant.



FLEXIBILITY AT THE HIGHEST LEVEL

Depending on the application, it is possible to switch from the low-cost round cable to the AS-i profile cable, and vice versa. Making everything pluggable gives the user optimum flexibility and a quick and reliable installation at the same time.

The system boasts maximum flexibility – both the 20 A RST® CLASSIC series and the 16 A RST® MINI series offer variants for AS-i cables.



BUILDING SHELLS

Needs-oriented power supply to building shells.



THE CHALLENGE

Time pressures in project work are greater than ever. So, it is all the more important that all processes are coordinated and run smoothly. Construction power systems that provide reliable electrical power during construction have an important role to play in this. The demands placed on this supply to construction sites are particularly high. Not only must it withstand extreme conditions, it must also offer as much flexibility as possible.



THE SOLUTION

Only three basic modules are needed to execute even complex installations in next to no time. The heart of the system are the cable assemblies. They are available in all required lengths and can be used as required. In addition, distribution elements enable power to be distributed to the appropriate location. Last but not least, there are the luminaires. These are equipped with device connectors and are plugged into the installation.



LOWER INVESTMENT + REDUCED STORAGE

All connection and connecting cables come pre-assembled and already tested. With the available range of device connectors, virtually any power supply can be plugged in. This makes integration by the device manufacturer easy too.

Unlike luminaires with a fixed connecting cable, these luminaires are easy to stack because they are pluggable. This also means that transport is easier. The cables are stored separately. There are few cable variants as the same lengths can be cascaded.



EASY HANDLING

It takes very little effort to install luminaires on the construction site, and the electrical connection is only established once they have been installed. The compact dimensions of the pluggable components make the cable routing much more flexible as small drill holes or piercings are no obstacle.



HIGH OPERATIONAL RELIABILITY

The high protection rating prevents a power failure even if the connection is flooded briefly. Third parties (non-specialized trades) cannot use the supply to the construction site as construction machines generally do not have an RST® connection.



PLUGGABLE THROUGHOUT

From the construction power system to the individual consumers – construction sites can be supplied with lighting in no time at all thanks to pluggability.



CASTING PRECAST CONCRETE PARTS

Revolutionary electrical installation – future-proof casting and pre-assembly in the factory.



THE CHALLENGE

Electrical installations in precast concrete construction are extremely demanding: they have to be resistant to the chemicals used in concrete and able to cope with casting and curing. Extensive tests are required to satisfy standards. The challenge is to create a robust installation that can be integrated into the precast concrete parts easily. The seemingly simple requirement of being able to connect the electrical installation easily requires precise planning and innovative solutions. In addition, the cast installation must be connected reliably on site – another step that calls for specialized knowledge and precise implementation. This makes the electrical installation in precast concrete construction a complex technical challenge that demands expertise and accuracy.



THE SOLUTION

The innovative and revolutionary RST® system makes the electrical installation in precast concrete construction safe, fast, pluggable, durable, and efficient. Planned and pre-assembled at the factory, the moisture-protected system components, rather than empty conduits, are inserted into the element formwork and cast in concrete together with the steel reinforcement. The pluggable RST® connectors allow the concrete elements to be connected easily on the construction site, eliminating the need for subsequent cable pulling and installation.. Moisture resistance, high-quality materials, and modern technologies ensure long-term reliability and make RST® the ideal solution for the factory production of concrete modules. Extensive tests provide proof of its suitability for this special application, which creates additional certainty and confidence in the systems performance capability.



CEILINGS + WALL ELEMENTS

The wall and ceiling elements are easily connected with the RST® CLASSIC directly on site, enabling the infrastructure cabling to simply be plugged together to form a complete system. The exposed connection is later sealed with concrete.



NO EMPTY CONDUITS REQUIRED + CAN BE INSTALLED DIRECTLY IN CONCRETE

The system components are planned, pre-assembled, and delivered. In place of empty conduits, they are then inserted into the element formwork in the component plant, plugged together, and then cast with concrete together with the steel reinforcement. Only small RST® CLASSIC interfaces remain freely accessible for pluggable connection of the concrete elements. There is no need for subsequent cable pulling and installation.



SIGNIFICANTLY REDUCES THE CONSTRUCTION TIME

Implemented in the concrete castings and equipped with Plug & Play RST® connectors at the factory, the system not only reduces the construction time considerably, but also eliminates the effort involved in subsequent cable pulling and installation.



SOLAR TECHNOLOGY

The safe and sure way to the power grid.



THE CHALLENGE

Connecting decentralized producers, consumers, or storage systems involves a wide variety of interfaces and connection conditions.



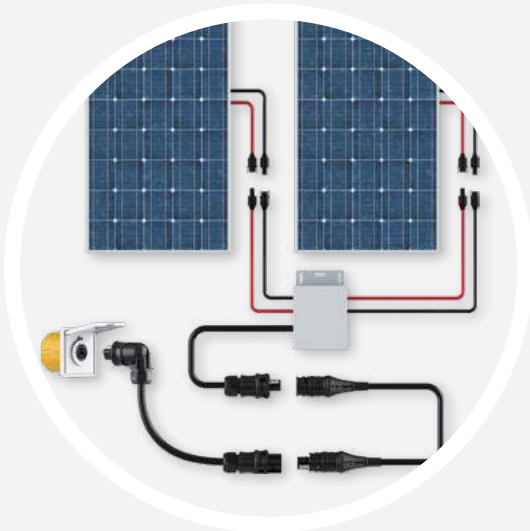
THE SOLUTION

Pre-assembled RST® plugs are ideal for wiring photovoltaic systems on a small or large scale. Whether string or module inverters – RST® plugs cover a wide range of requirements. Device connectors, branches, distributors, and accessories complete the portfolio.



BOTH BIG AND SMALL

Whether it is for a large-scale PV system on a roof or a mini one on a balcony, the RST® system offers the right installation for all applications and dimensions. Pre-assembled components ensure a fast and reliable connection from the inverter to the main distributor or directly to the home grid. This means that the PV systems are ready to plug in.



MINI PV SYSTEMS FOR THE HOME GRID

Decentralized energy supply is in vogue, and mobile solar systems for private use are gaining traction. These systems, consisting of solar modules and module inverters, provide the energy acquired directly to consumers in their own home grid. The RST® system socket serves as a defined interface between the home grid and the solar system.



REDUCED INSTALLATION TIME

The effort required to install conventional technology is significant, especially when several inverters are used within one plant unit. The RST® system proves to be much faster and more cost-effective here. The energy of individual inverters is combined and fed into the grid via main distributors.



WIND TECHNOLOGY

Solutions for safe and pluggable lighting, emergency lighting, and UPS.



THE CHALLENGE

The electrical installation for the operation of a wind tower presents a variety of challenges. The lighting inside the tower is particularly important for the safety of service personnel. In accordance with DIN EN 50308:2005-03, it must be possible to leave the plant safely in the event of a power failure. This is where emergency lighting along the escape route is of the utmost importance. To meet this safety standard, an uninterruptible power supply (UPS) is essential. The implementation of an efficient UPS solution is an added technical challenge. Not only does this have to ensure the required lux value, but it also has to be energy-efficient and low-maintenance.



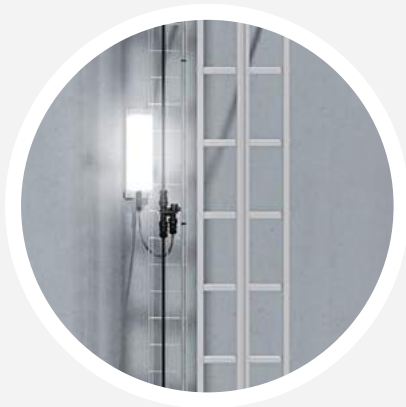
THE SOLUTION

With an RST® electrical installation, pre-assembled LED luminaires are installed in a time-saving and tool-free manner with pluggable connection technology and magnetic fastening. Our ready-to-install uninterruptible power supply (UPS) offers a pre-assembled control cabinet that meets individual customer requirements. Immediate availability when lighting is switched on, extensive diagnostic capabilities for simple, predictive maintenance, and individual buffer times of 30, 60, or 90 minutes – these solutions not only ensure safety in accordance with DIN EN 50308:2005-03, but also optimize the efficiency and serviceability of the electrical installation in the wind tower. Our robust luminaires are used in towers worldwide.



LIGHTING

For optimum illumination in the tower we offer various LED lights to choose from – pluggable, powerful, and ideal for smooth operation of the plant as they are maintenance-free.



LUMINAIRE ASSEMBLY

Our fastening systems make it easier to assemble luminaires in the tower. In tubular steel towers, luminaires can be fastened to the tower wall directly using magnets or to the cable basket tray using quick-mounting plates without the use of tools.



LIGHTING SIMULATION

We can create a lighting simulation for you beforehand on request. This will show you how the tower will later be illuminated. This will enable you to implement the tower lighting in compliance with the standard right from the outset, saving time during verification.



UPS

Even in the event of a power failure, the UPS with its battery backup supplies energy to the lighting, thereby ensuring that staff can descend safely.



EVENT TECHNOLOGY

Energy transmission and lighting solution for events and temporary buildings.



THE CHALLENGE

Decorative illuminations at Christmas time and fairground stalls, etc., have temporary wiring that is exposed to special conditions outdoors. In practice, unacceptable temporary measures are often adopted, such as safety sockets packed in PET bottles or plugs wrapped in a plastic bag. Apart from the fact that such improvised solutions contravene safety regulations, they also diminish the overall aesthetic impression.



THE SOLUTION

The RST® system has been conceived for outdoor use and is ideal for temporary light installations and events because it is entirely pluggable. Designed with a high protection rating (up to IP69), RST® enables a quick, easy, and safe external connection from the distributor to the consumer. The fact that all system components are harmonized saves a huge amount of time compared to a conventional installation. Particular emphasis has been placed on the design with RST® to ensure that it blends inconspicuously with the other installations.



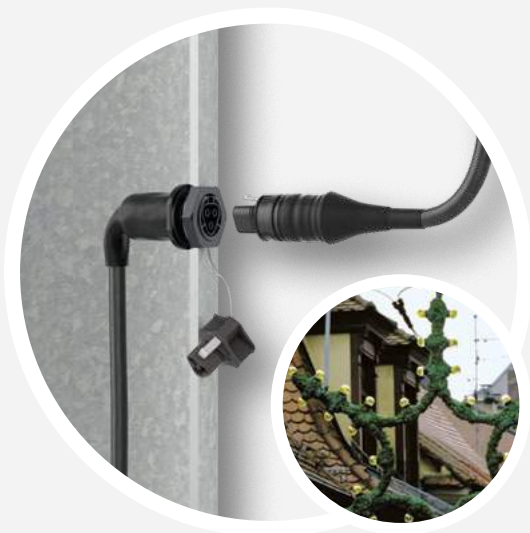
MOBILE MAIN DISTRIBUTION FOR EVENTS

With the pluggable RST® exhibition distribution boxes you are well placed to benefit from a faultless operation in changing locations. All necessary components are harmonized, coded, and pluggable. The system boasts quick and functionally reliable assembly. The residual current and miniature circuit breakers and the master switches are all harmonized and conform to standards.



ILLUMINATION CABLES

With special 2-pole RST® connectors including rectangular strain relief, commercially available illumination cables can be integrated into the installation easily and safely. The connections are secured against unintentional loosening and can only be released using a tool. Manual releases are available as an option.



POLE SOCKET

For the electrical connection of temporary constructions such as Christmas lighting on lampposts and poles, the RST® system provides a special pole socket. This socket is available pre-assembled with different lengths of cable. The special variants of the pre-assembled device connector and the connectors can be found in chapters RST20i2 and RST20i3 of the main catalog 0690.1.



COMMERCIAL BUILDING & SHIPBUILDING

Meeting increased requirements in commercial building and shipbuilding.



THE CHALLENGE

Whether in underground garages, greenhouses, or shipbuilding: electrical installations requiring increased protection from environmental conditions are found everywhere. Experience and competence in designing and installing the electrical system always plays a decisive role, but especially in these areas. Difficult installation conditions and extreme time pressures often lead to errors, loss of protection, faults, and ultimately to failure of the system.



THE SOLUTION

With a comprehensive network of factory-assembled and tested RST® components, a safe solution is realized that is pluggable throughout from the distributor to the point of use. The installation time is reduced significantly and safety is increased – this saves time and money. The RST® system is used especially in shipbuilding or in commercial properties with wet areas and ensures safe and smooth operation.



REDUCED CONSTRUCTION TIME + RUNNING COSTS

Installation with RST® saves money not just during the initial installation. Reconstructions at short notice can also be carried out without any problems. There is also the guarantee of consistent installation quality.

Maintenance and repairs during ongoing operation are possible even under difficult working conditions as dictated by the architecture. A pluggable device can be replaced in no time at all and the system can be up and running again very quickly.



RELIABLE DISTRIBUTION OF ENERGY

The distribution points are the cornerstone of the pluggable electrical installation and are also customized. From system distributors with special functions to the smallest MICRO distribution blocks, the RST® system offers an alternative for every application.



APPROVALS FOR SHIPBUILDING

In addition to the standard IEC and cULus approvals, the RST® systems offer a large package of approvals for shipbuilding. These include approvals according to BUREAU VERITAS, the LLOYD'S REGISTER, RINA, and DNV/GL.



OUTDOOR LANDSCAPING

Power supply for lighting applications in gardening and landscaping.



THE CHALLENGE

Experience and competence in designing and installing the electrical system always plays a decisive role, but especially outdoors. Difficult installation conditions and extreme time pressures often lead to errors, loss of protection, and ultimately to failure of the lighting. Unfortunately, in such cases it is not uncommon for complaints to be made to the luminaire manufacturer, and a bad impression remains in the customer's memory.



THE SOLUTION

Unobtrusive cable routing for gardening and landscaping as well as safe distribution and separation of power circuits for outdoor use can be realized with RST®. As a complete installation system, RST® is optimally adapted to increased outdoor requirements. The connectors are touch-safe even when they are not plugged in and come with a locking mechanism to prevent unintentional loosening. In addition, luminaires can be supplied pre-assembled and simply have to be plugged in outdoors – durable and safe operation is guaranteed.



LOW VOLTAGE & MAINS FOR LIGHT TECHNOLOGY

Depending on the outdoor lighting installation, 250 V mains connectors and low-voltage connectors for LED technology are available from all CLASSIC, MINI, and MICRO lines.



GROUND LIGHTS

The RST® system and all its products provide the right components for the installation of LED spotlights in the ground. The RST® product portfolio offers distributors that are wired in series or in parallel.



DISTRIBUTORS

The distribution elements are particularly important outdoors. With their compact design, they do their job inconspicuously in every application. The same is true for lighting groups as it is for ground lights. All distributors can be cascaded.



OUTDOOR LIGHTING

Lighting for roads.



THE CHALLENGE

When it comes to lighting roads, there are special requirements regarding the quality of the electrical installation and luminaires. In addition, the reliability of the complete system plays an important role. However, luminaires do fail from time to time or have to be replaced for maintenance. Then the focus is on making sure that the road does not have to be closed to replace or service the luminaire.



THE SOLUTION

The RST® system has been designed for speed and functionality. Pre-assembly with RST® connection means that a luminaire does not have to be opened and closed and there is no need for the conventional connection and disconnection of the sheathed cable and the individual conductors. Pluggability reduces the installation time to a minimum. A faulty luminaire with integrated RST® device connector can easily be removed and a replacement plugged in.



BRIDGE LIGHTING

For the decorative design of bridges or for necessary handrail lighting. With their minimalist and round shape, the RST® MICRO and MINI systems are particularly suitable for electrifying the lighting in round handrails and for round cut-outs and tubes in general.



STREET LIGHTING

The RST® system has proven itself in technical and decorative solutions in pole and catenary luminaires in urban applications. The connector can be mounted on the outside of catenary luminaires or directly inside the luminaire pole for easy connection and maintenance.



LIGHTING OF PATHWAYS AND OPEN SPACES

RST® is the ideal system for the safe and durable electrical installation in luminaires for footpaths, cycle paths, and roads.



ATEX

Reliable protection against the risk of explosion.



THE CHALLENGE

Protection against explosion is also a major issue in vast swathes of the manufacturing industry. Anywhere where dangerously high concentrations of gases, vapors, dust, or other air mixtures arise, special measures need to be implemented to prevent explosions, especially in the case of electrical installations and machine connections. Depending on the zoning, the device group can help determine which products may be used in a zone. The device group and category are relevant for specifying the zone for which a product may be used. The temperature classes and explosion groups can be used to define the “explosion protection zone” for which the product is suitable.



THE SOLUTION

The 3 to 5-pole RST® CLASSIC ATEX installation connectors offer reliable protection against explosion for people and machinery and have been tested in accordance with the ATEX Directive in category 3. In addition, RST® CLASSIC ATEX with EX approval reduces operating costs because it is largely maintenance-free.

AREAS AT RISK OF EXPLOSION

Areas at risk of explosion are divided into zones, depending on the frequency and duration of the occurrence of explosive atmospheres. The demands on the devices used there are accordingly high.



RST® CLASSIC ATEX

Under the ATEX Directive, the RST® CLASSIC ATEX series is approved in category 3 for zone 2, substance group G and in zone 22, substance group D.



LABEL

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

Connectors + device connectors:

CE1258 II 3G Ex ec IIC T6 Gc | CE1258 II 3D Ex tc IIIC T85 °C Dc
IECEx SEV 15.0024 X | SEV 07ATEX0110X



RST® CLASSIC ATEX SAMPLE SET

Simply order the RST® CLASSIC ATEX sample set from your sales partner or in our online store.



3-pole
Part no.
99.663.0000.0



5-pole
Part no.
99.664.0000.0



INFO TO GO

All brochures from Wieland Electric are available for download on our website.



<https://www.wieland-electric.com/en/support/downloads>

Interesting for you

RST® CATALOG

Pluggable electrical installations with the highest IP rating (IP6x)

Part no. 0690.1



RST® MICRO

The innovative electrical installation system for lighting technology and the industrial environment

Part no. 0697.1



RST® MINI – MOLA® DEVICE CONNECTORS

The innovative, modular device connector in spring clamp technology

Part no. 0633.1



RST® INSTALLATION NOTES

Electrical installation notes for outdoor areas

Part no. 0693.1



Wieland on YouTube

See our solutions in motion



<https://www.youtube.com/user/WielandElectric>



Technical consultation

Building Solutions

Email: building@wieland-electric.com

Worldwide: <https://wie.li/contactinternational>



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