



THE FUTURE OF PLUG-IN CONNECTORS

STEADY  TEC[®]
THE RELIABLE CONNECTION

The technology brand **STEADYTEC**®

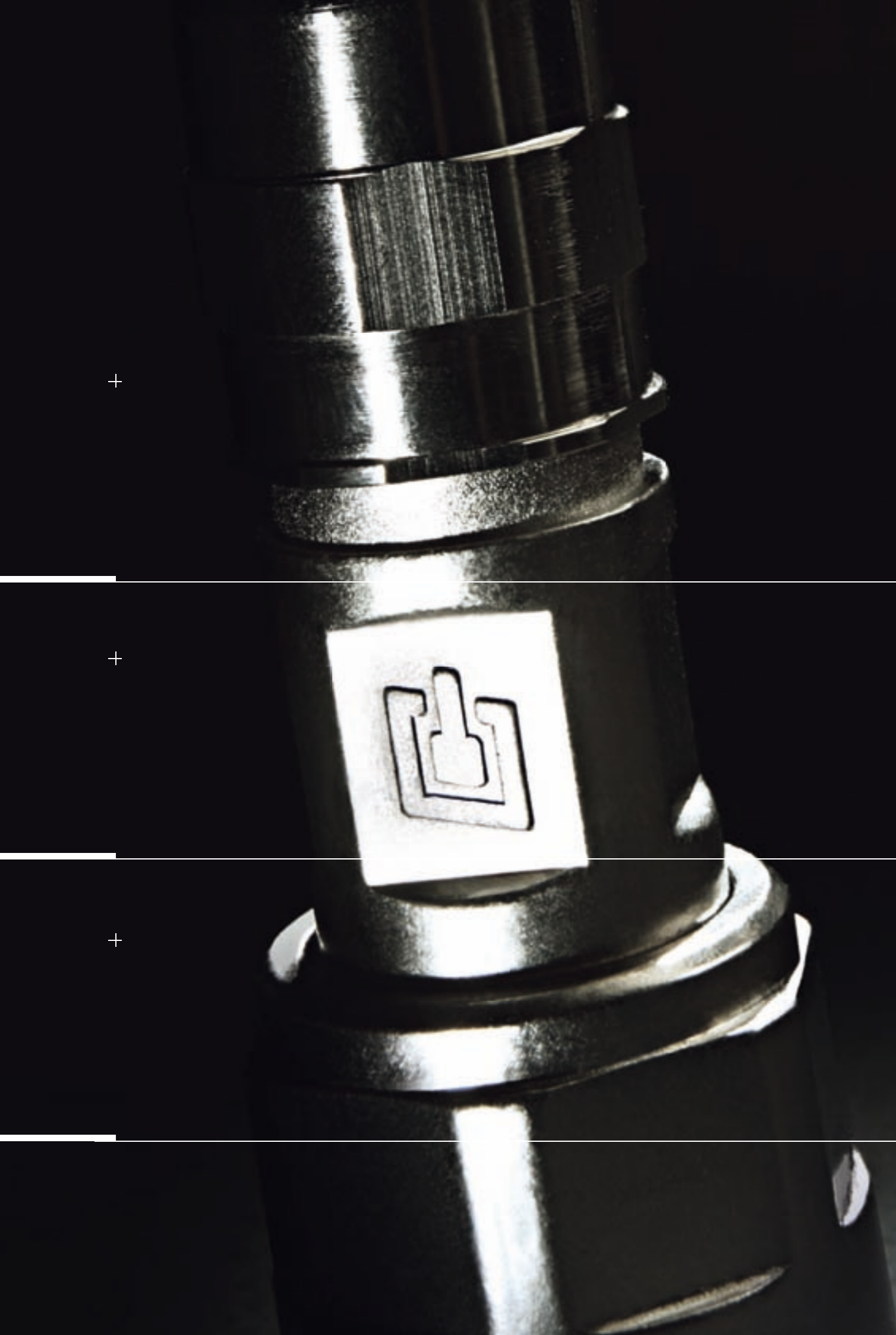


How future-proof does an industrial ethernet plug-in connector need to be?

STEADYTEC®: This name stands for pioneering connection technology in the fields of data, energy and signal transmission.

Established by the industry's three main companies, the technology brand **STEADYTEC**® forms the basis for reliable application-oriented and standardised solutions, both in office environments and in the most demanding industrial environments.

STEADY  TEC®
THE RELIABLE CONNECTION



STEADYTEC[®]: the standards

Absolutely in a class of its own

All products that bear the "*STEADYTEC[®] Reliable Technology*" label have something in common: in terms of what they can do and how safe they are, they comply with all the relevant norms, they stand for unparalleled reliability in transmitting optical and electrical signals, and contribute to greater equipment availability.



STEADYTEC[®]: the concept

A single platform for all your requirements

Because housing, plugs, sockets and bulkheads are manufactured by different companies and are available in different variations, they are often incompatible. *STEADYTEC[®]* offers users a solution for all possible requirements based on a unique platform concept for demanding environments.



STEADYTEC[®]: the cooperation

Expertise to the power of three

Perfect things can only be improved by combining them with other perfect things. The industry's three leading companies have brought their knowledge of the technology brand *STEADYTEC[®]* together and have created a standard plug-in connector for industrial applications and with excellent customer benefits.

How reliable can a plug-in connector be?

Quality standards only apply to specific areas of connection technology. Users never have the 100% comprehensive safety that they would like for their applications. But **STEADYTEC®** is the answer, because **STEADYTEC®** stands for intelligent and 100% standardised modular solutions.

Only products that meet these requirements are awarded the **STEADYTEC®** label. Consequently, by using this technology, users can now enjoy the levels of safety they need in their daily applications.

STEADYTEC®: The reliable connection technology

Wherever a user sees the "**STEADYTEC®** Reliable Technology" label, they can rest assured that the product fully complies with all the globally applicable norms and standards. For absolute reliability at all times.

These high quality and system consistency standards can be found in all products stamped with the **STEADYTEC®** label that are available on the market. Planners, electricians and systems operators alike appreciate **STEADYTEC®**'s combination of reliability, norm compliance, flexibility, variety and modularity.



STEADYTEC® Reliable Technology:
Reliability guaranteed.

How consistent does a plug-in connector need to be?

Industrial network investments always call for products from different manufacturers to be put together to create a single solution, and this solution is not only expensive and risky, but invariably also fails to meet all the requirements made of it or comply with all the relevant standards.

For some years now, other industry sectors have successfully been using concepts based on platforms or modular construction systems. These concepts have now been incorporated into a plug-in connector system that fully meets all the relevant norms: **STEADYTEC®**

One platform for all sorts of requirements: **STEADYTEC®**

The **STEADYTEC®** platform concept has been designed to meet the following standard: within a comprehensive system, a user should have access at all times to a set of plug-in connectors, and therefore also to the safety and reliability, that he/she needs for the application in question.

Regardless of whether the main requirement is a high transmission rate for the plug-in connector, whether the connector needs to be resistant to specific ambient conditions or whether the main priority is easy mounting and installation, **STEADYTEC®** meets these requirements and is characterised by four main product features.



- | | |
|--|---|
| <p>1
RELIABLE</p> | <p>STEADYTEC® is the reliable solution: in demanding industrial environments as well as in the office. Only products that go even further in terms of the materials chosen, the sealing technology, contact reliability and the range of enclosures available can live up to such a promise.</p> |
| <p>2
SIMPLE</p> | <p>STEADYTEC® also offers decisive advantages for installing and servicing industrial networks. A pre-fitted housing, marker rings and insulation displacement contacts result in efficient and stress-free work.</p> |
| <p>3
QUICK</p> | <p>STEADYTEC® is the world's first technology to meet all the transmission rate requirements made by Industrial Ethernet. This means the user has access to the full range from 10 Mbit to 10 Gbit.</p> |
| <p>4
SOLUTIONS-ORIENTED</p> | <p>Standardised interfaces and locking mechanisms, fibre optics or RJ45, plugs or bulkheads: the STEADYTEC® platform concept is all-inclusive and offers users just the right solution for their individual requirements.</p> |

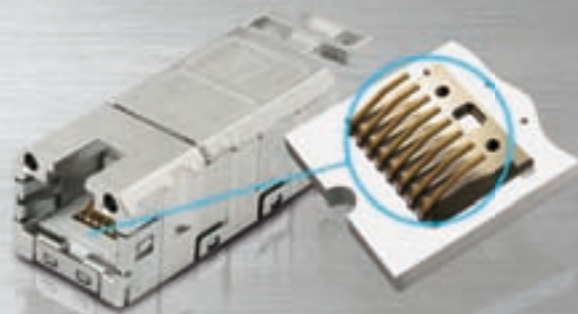


RELIABLE

STEADYTEC® is a single technology encompassing four individual technologies.

Materials, contact reliability, sealing properties and housing stability: STEADYTEC® has made advances in all four of these areas, thus also further improving connection reliability.

The STEADYTEC® contact technology



The problem of contact reliability has been an issue ever since plug-in connectors have been used in industrial applications. It is not uncommon for entire assembly lines to come to a standstill purely because the contact systems are not designed to cope with the demands of industrial environments. Contact systems in industrial settings need to be resistant to vibration, shock and mechanical forces.

The RJ45 plug-in connector was therefore optimised to accommodate these properties. The spring contacts have two main advantages, and they are their reduced mass and greater resilience. The same goes for the shield bonding, which now has four contact points instead of just two. As a result, contact reliability is guaranteed, even in extreme environments:

Safe. Reliable. STEADYTEC®

The STEADYTEC® housing technology



Robust material alone is not enough to make a plug-in connector truly robust: broken latch clips and poorly attached plug enclosures actually generate more work for users rather than less. So the demands made of housings were defined in a norm which prescribes the waterproofness and locking of plug-in connector systems. STEADYTEC® plug-in connectors conform entirely with the international norms. The STEADYTEC® cable entry can accommodate protected cables with a diameter of up to 12 mm as well as 8-lead cables. The enclosure is completely sealed and can therefore withstand extreme forces. The STEADYTEC® push-pull mechanism also offers optimum protection from soiling and is incredibly easy to use – even after years of operation.

Robust. Reliable. STEADYTEC®

The STEADYTEC® material technology



One of the biggest problems in the field of connection technology is choosing the right materials. Simple products designed for the office break down in demanding industrial environments and similarly these industrial products are of no use in office environments.

STEADYTEC® has just the right type of housing material for all scenarios. Drawing on its many years of experience in material and surface technologies, STEADYTEC® makes use of plastics and metals that are resistant to alkalis, acids, grease and oil, and that can cope with temperatures ranging from -40 °C to +70 °C.

Resistant. Reliable. STEADYTEC®

The STEADYTEC® sealing technology



Until now, even the most robust plug housings were affected by dust, oil and water. The users, on the other hand, experienced problems with plug-in connectors that were not watertight, which caused further complications.

A minimum degree of material wear, excellent handling, maximum shape retention and, of course, maximum density: these are what STEADYTEC® delivers when it comes to impermeability. Plug-in connectors with STEADYTEC® technology have enclosures that are 100% watertight, providing complete protection for the copper and fibre-optic parts.

Impervious. Reliable. STEADYTEC®

The STEADYTEC® technology complies with the following norms:
EN 50173-1 and -3, ISO/IEC 24702, IEC 61913,
IEC 61784-5 and IEC 61076-3-106.

SIMPLE

Working with STEADYTEC® gives you numerous advantages.

In addition to improved contact reliability, greater housing stability and optimised materials, STEADYTEC® also offers decisive advantages in a very important area – that of handling.



Marking

Simple with the industry-relevant marking label.

Relevant information is printed straight on to a waterproof label by a PC before being attached to the plug housing. This provides the user with everything he/she needs to know at a glance.



Housings and inserts

Simple because everything is pre-fitted.

For the user, this means there are fewer individual parts, there is less time involved, and there is less likelihood of anything going wrong.



Colour coding

Simple thanks to colour-coded rings.

Structuring individual grid segments is child's play with these markings.



Cable seal and strain relief

Simple thanks to the chuck cage.

The plug housing is slid over the cable, the cable gland is attached and everything is already sealed tight, even in the case of thin cables. In addition, there are robust STEADYTEC® anti-kink sleeves that prevent cables from being excessively bent.



Mounting

Simple because it is tool-less and can be assembled on site.

The main features: integrated Cat. 6 lead management and optimised IDCs (insert cable – press together – that's it).

If it says STEADYTEC® on the outside, it's simplicity on the inside. Simple because it is tool-less, time-saving, ingenious and clearly laid out. Simply STEADYTEC®.



FAST

Flexible mounting and a high transmission rate – together they make **STEADYTEC®**

One of the main areas of focus for **STEADYTEC®** research and development is high speed, not only in terms of transmission rates, but also as far as mounting is concerned.

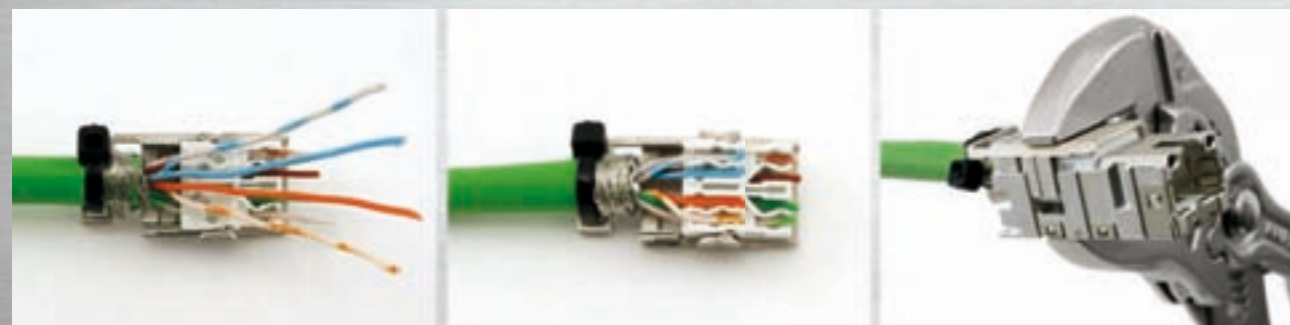
Mounting



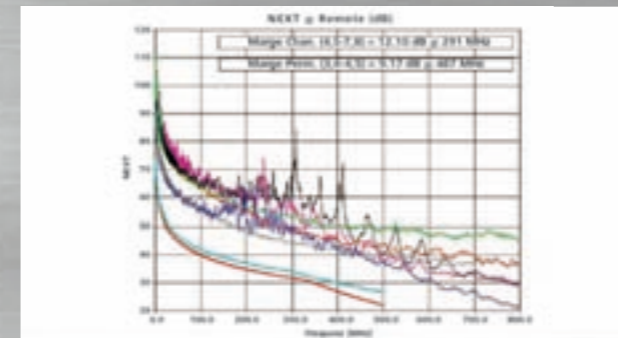
In industry, on-site assembly invariably entails inaccessible places and additional strains due to grime. Where the components are complicated or too numerous, users are inhibited from working quickly and efficiently. In this respect, **STEADYTEC®** proves its worth with its high degree of mounting flexibility, with pre-fitted units and components that can be effortlessly put together without the need for any tools using straightfor-

ward flange mounting. Using nothing but standard punching tools, the **STEADYTEC®** user can choose between the central screwed gland for standard wall cut-outs and the version with four screws for external mounting.

Fast mounting and fast transmission. Users who set great store by speed will achieve results quickly with **STEADYTEC®**.



Transmission rate



The latest developments in connection technology clearly reflect the increasing overlap between office and industrial environment needs, and greater demands are being placed on integration, reporting and process management.

Expectations in terms of data transfer capabilities will continue to grow in the future. What's more, there are currently only isolated solutions for various applications, and these are not only expensive, but also highly complex.

With **STEADYTEC®**, users now finally have a solution that meets all their needs. Data transmission rates of between 10 MBit and 10 GBit according to IEEE 802.3an allow users to explore all sorts of new avenues, both in terms of process structures and logistics. The connectors with **STEADYTEC®** technology full comply with the norms Cat. 6A according to TIA/EIA-568-B.2-10, Class EA according to ISO/IEC 11801-Am 1.2 (draft) and DIN EN 50173-1 and are certified by GHMT and 3P.

*Fast mounting and fast transmission. Users who set great store by speed will achieve results quickly with **STEADYTEC®**.*

SOLUTIONS-ORIENTED

Universal connector and connection technology from a single source. In other words: *STEADYTEC*®

STEADYTEC® offers customers connectors and connection components – for 100% reliable connections in cabinets, floor distributors, machine distributors and Ethernet devices.

STEADYTEC® has a solution to all requirements. This is possible because *STEADYTEC*® is based on a pioneering platform concept. *STEADYTEC*® interface forms the foundation of this concept, taking all requirements, possibilities and eventualities in the field of industrial connection technology into consideration.

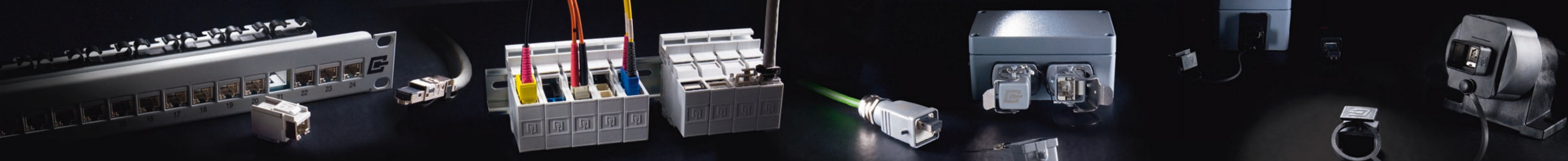
Fibre optics and copper, bulkhead and housing: working with *STEADYTEC*® kits you out with everything you need for all your requirements.

An interface which meets all the demands of industrial connection technology



Once all requirements of a scenario are met and everything has been covered, there is no more scope for problems – this is what *STEADYTEC*® means by solutions-oriented.





STEADYTEC®: The reliable connection solution for all industrial applications

Industrial applications in particular are characterised by their wide range of requirements in terms of protection classes, transmission rates, etc. So customers are often forced to obtain their connectors and components from different manufacturers and create their own mix to meet their needs. But that is now a thing of the past.

The new **STEADYTEC®** now offers customers a universal standard which includes both connector and connection technology. All the components of this connection system and their assembly are fully coordinated to each other, and guarantee customers a transmission rate of up to 10 Gbit for the entire link – from the floor distributor to the machine.



19" Panel

Plugs	19" Panel	Inserts	Plugs
RJ45 AWG24-27	[Panel Image]	RJ45 jack	RJ45 AWG24-27
RJ45 AWG22-26		RJ45 coupler	RJ45 AWG22-26

IP67 connectors

Plug inserts	Plug housing Bulkhead	Bulkhead inserts	Plugs
RJ45 AWG24-27	Variant 1	RJ45 jack	RJ45 AWG24-27
RJ45 AWG22-26	Variant 4	RJ45 coupler	RJ45 AWG22-26
2xSC	Variant 5	2SC/SC-RJ adaptor	SC-RJ plugs
LC-Duplex		LC-Duplex adaptor	LC-Duplex plugs

IP67 outlets

Plug inserts	Plug housing	Outlets	Bulkhead	Bulkhead inserts
RJ45 AWG24-27	Variant 1	IP67 outlet metal double gang	RJ45 jack	RJ45 jack
RJ45 AWG22-26		IP67 outlet metal single gang	RJ45 coupler	RJ45 coupler
2xSC	Variant 4	IP67 surface mounting outlet	2SC/SC-RJ adaptor	2SC/SC-RJ adaptor
LC-Duplex	Variant 5		LC-Duplex adaptor	LC-Duplex adaptor

IP20 mounting rail outlet

Plugs	Mounting rail outlet	Inserts
RJ45 AWG24-27	[Mounting rail outlet image]	USB coupler
RJ45 AWG22-26		RJ45 coupler
		RJ45 jack
SC-RJ plugs	[Mounting rail outlet image]	SC-RJ adaptor
LC-Duplex plugs		LC-Duplex adaptor
SC-Duplex plugs		SC-Duplex adaptor

How much variety does a plug-in connector concept need?

Copper or fibre-optic cables? An office or an industrial environment? Plastic or metal? Service-independent or service-specific? These are the choices that people working with plug-in connectors face. Until now, that is. Because now there is **STEADYTEC®**, making either/or decisions once and for all a thing of the past.



Three professionals with a single common goal: **STEADYTEC®**

STEADYTEC® is the fruits of a cooperation between three leading companies from the fields of electrical and optical connection technology: BTR NETCOM, TELEGÄRTNER and WEIDMÜLLER. Together, they have devised a platform concept which forms the basis for universal plug-in connectors that comply with the norms EN 50173-1 and -3, ISO/IEC 24702, IEC 61918, IEC 61784-5 and IEC 61076-3-106, and that offer users top advantages in industrial applications.

BTR NETCOM and TELEGÄRTNER are experts when it comes to developing and manufacturing copper and fibre optic plug-in connections for telecommunications and data technology. WEIDMÜLLER's expertise lies in developing and manufacturing plug-in connections for industrial data and signal transmission. Based on this extensive and well-founded know-how, the technology brand **STEADYTEC®** is setting global market standards in the transmission of optical and electrical signals in industrial networks.

If you're looking for top quality and absolute reliability for your applications, opt for products with the **STEADYTEC®** label.



