



# EVERY CONNECTION COUNTS

Industrial Electrical and Electronic products  
for a safer, sustainable, productive, and  
connected world.



AUTHORIZED DISTRIBUTOR

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# CABLE & CONNECTIVITY SOLUTIONS

TE Connectivity (TE) cable and connectivity solutions are at the heart of technological breakthroughs that are making the world cleaner, safer, and more beautiful. With innovations in transportation, medicine, and digital engineering, TE is there with the cable and connectivity solutions that can help transform your dreams into reality.

### Advantages of TE Connectivity range:

- Increase speed & achieve greater throughput with faster load rates, enhanced information flow, and deterministic networks.
- Improve quality with greater control over QA with finer levels of detail and resolution from machine inspection.
- Gain economies of scale and achieve multiple cost reductions with more universal and available parts and without the need for proprietary equipment.
- Get more power in a smaller package with increasingly capable devices in a space-saving footprint.
- Attain the ultimate flexibility with a common core design.
- Increase reliability with the most ruggedized industrial connectors.
- Engineering excellence delivers smarter, faster solutions to your most complex problems

**RS Components is an authorized distributor for TE Connectivity, with a wide range of TE Connectivity products in stock for same-day dispatch, including connectors, relays, circuit breakers and contacts.**

 [nz.rs-online.com/te](http://nz.rs-online.com/te)

PRODUCT CATEGORY	APPLICATIONS	INDUSTRY	ADVANTAGES
 <b>CIRCULAR PLASTIC CONNECTORS</b>	Industrial machinery, Factory Automation, Material Handling Equipment, Communication Equipment, Networking Equipment, Data Storage, Computers & Peripherals, Lightings and Signage, Rail	Industrial, Building, Infrastructure, Electronics, Medical, Instrumentation	Wide Portfolio Offerings, High Temperature Range, High quality and reliable for various industrial applications. Competitive in price. CPC is UL & CSA certified.
 <b>M8/M12 CONNECTORS</b>	Car Manufacturing, Logistical Warehouse, F&B Production, Robot Arm, Machinery, Commerical Vehicles, AGV, Industrial Switch, Industrial Vision System, Security System	Industry Production Line System, Machinery Equipment, Instrument Device	IP67 and IEC and UL approved, Wide range for different industrial network
 <b>POWER RESISTOR</b>	Servo Drive, In-Vehicle Technologies, Propulsion and Power Distribution, Components for Washers & Dryers, Robot Arm, Power Connectivity	Communication, Industrial Controls, Instruments, Medical Device	Wire to board system, Polarization, Strain Relief, Mounting ears and detent, Keying plugs available
 <b>AMPMODU MOD IV, V</b>	Servo drives, PLCs, Distributed I/O systems, Collaborative robots, Automated Guided Vehicles, Industrial/Military Drones, Network Hubs, Servers, Routers, Switches, Ventilators, Medical Imaging Devices, Health Monitoring Devices, Laboratory Test equipment, Material test equipment, Electronic test equipment, Measuring microscopes, Home automation devices, HMI ..	Factory Automation, Robotics, Telecommunication Equipment, Medical Equipments, Test & Measurement Equipments .	Suitable for reflow soldering, saving time and money through shared manufacturing process. Compatible with Automated manufacturing processes. Offer reliable electrical connection in harsh shock and vibration environments. 85% space savings on PCB as compared to 2.54 mm connectors, Maximum product safety and globally recognized test quality. Equipped to meet strict requirements of low halogen supply chains.
 <b>HEAVY DUTY RECTANGULAR CONNECTORS</b>	Industrial Control Cabinet to Machine Connection, Human Machine Interface and Industrial Touch Panels, Industrial Handling Equipment, Connection of Industrial Tools, Industrial Control Cabinet to Robot Connection and Industrial Robot Connections.	Automation, Robotics, Wind Energy, Rail, Construction, Packaging, Printing, Industrial Machinery	Product is built for industrial applications in the harshest enviroments. The modular concept of these connectors provides a flexible and quick adaption to the requirements of the applications. It is IP68, IP69k certified, able to withstand shock resistant and passed the test of >1000h salt spray resistance. Optional hard coating craetes a robust layer for the use in extreme environments.
 <b>PIDG TERMINALS AND SPLICES</b>	Control Cabinet for Robot, Machinery, Power Automation, Wind Energy, Elevator, AGV, Electrical Cabinet for production line.	Industry, Electrical Power Utility, Industrial Machinery	Made of high conductivity copper, tin-plated for optimal corrosion protection. Copper sleeve for vibration resistance and improved wire insulation support. Body has inner serrations for maximum electrical contact and tensile strength. Insulation sleeves are color-coded by wire size to the corresponding TE Connectivity tooling for easy identification and termination. Most PIDG terminals and splices are UL, CSA listed and MIL Spec approved. Operating temperature 105 degree and operating voltage of 300v.

**MULTIGIG RT 2 BOARD-TO-BOARD HIGH SPEED BACKPLANE CONNECTOR**

- 72 Position
- Row-to-Row Spacing 1.8 mm [.071 in]
- Mating Alignment

NEW



217-5366 8 COLUMN, 9 ROWS

**HMN-D3 PANEL MOUNT CONTACT INSERT**

- Contact Insert Pole Configuration 3
- Crimp Terminal
- 1.2A Contact Current Rating (Max)

NEW



219-3087 3 POSITION

T2115032101-000

**FEMALE CAT5 RJ45 CONNECTOR**

- Single Port
- Port Matrix Configuration 1 x 1
- RJ Type Jacks & Plugs
- Standard Connector Contact Density
- Shielded

NEW



217-5485 FEMALE, PCB MOUNT

6339191-4

**FEMALE RJ25 CONNECTOR**

- Single Port
- Port Matrix Configuration 1 x 1
- Standard Profile
- RJ Type Jacks & Plugs
- Standard Connector Contact Density

NEW



217-5362 6 POSITION

1-338086-6

**DEUTSCH DRC CONNECTOR HOUSING SOCKET**

- Housing for Female Terminals
- 5.49mm [.216in] Centerline
- Sealable

NEW



217-5532 40 POSITION

DRC18-40SA

**PCB D-SUB CONNECTOR**

- Receptacle
- Wire-to-Board
- 2.29mm [.09in] Centerline
- 3 Row
- Row-to-Row Spacing 1.98 mm [.077 in]

NEW



217-5454 26 WAY RIGHT ANGLE

2311768-1

**LEAVYSEAL HOUSING FOR MALE TERMINALS**

- Wire-to-Wire
- 4mm / 6mm [.157in / .236in] Centerline
- Sealable
- Black
- Signal

NEW



217-5360 26 POSITION

1-2112041-1

**MAG-MATE MAGNET WIRE TERMINAL**

- Magnet Wire Terminal Mating Pin Diameter 3.18 mm [.125 in]
- Terminal Height 7.6 mm [.299 in]

NEW



217-5395 30 - 27 AWG

1740417-1

**SURFACE MOUNT SD CARD CONNECTORS**

- Micro Secure Digital Compatible Card
- 1.1mm [.04in] Centerline
- Surface Mount
- Printed Circuit Board

NEW



217-5449 8 WAY RIGHT ANGLE

2201778-1

**PLUG-IN MINI ISO RELAY SOCKET**

- Bracket Mount
- Relay Socket For Use With Plug-In Mini ISO Relays

NEW



217-5353 BRACKET MOUNT

1-1904045-2

**DEUTSCH HDP20 HOUSING FOR MALE TERMINALS**

- Hybrid
- Wire-to-Wire
- Sealable
- 13A Contact Current Rating (Max)

NEW



217-5579 31 POSITIONS

HDP24-24-31PT

## AMP CPC SERIES 1 CABLE MOUNT MALE PLUGS

- Built-in pin and socket protection
- UL 94V-0 rated and manufactured from stabilized, heat resistant, self-extinguishing thermoplastic materials
- Quick connect/disconnect features saves valuable assembly time



## CPC SERIES 6 PLUG ASSEMBLIES

- Lightweight, all plastic connector less expensive than metal connectors
- Rugged and reliable
- Resistant to vibration and shock



## M12 MALE FIELD INSTALLABLE A CODE CONNECTORS

- Wire-to-Wire
- Sealable
- 4A Contact Current Rating (Max)
- Signal
- PBT



**160-0926** 37 POSITION  
**680-6769** 14 POSITION

206305-1  
206044-1



**680-6788** 4 POSITION  
**680-6826** 8 POSITION

206429-1  
206708-1



**124-7094** STRAIGHT, 4P, PG7, GOLD  
**124-7095** STRAIGHT, 5P, PG7, GOLD  
**124-7097** STRAIGHT, 4P, PG9, GOLD  
**124-7098** STRAIGHT, 5P, PG9, GOLD

T411001041-000  
T411001051-000  
T411002041-000  
T411002051-000

## CPC SERIES 1 PLUG ASSEMBLY

- Lightweight
- Quick connect/disconnect capability with thread assist, positive detent coupling
- Polarized for proper mating of connector halves



## CM SERIES 1 RECEPTACLE ASSEMBLY

- Low installation cost
- Operating temperature ranges between -55°C and 125°C
- Space efficient



## M12 FIELD INSTALLABLE MALE SHIELDED CONNECTORS

- Wire-to-Wire
- Sealable
- Signal
- Nickel



## M8 PANEL MOUNT CONNECTORS

- Wire-to-Panel
- Sealable
- Printed Circuit Board
- Signal
- Panel Mount



**452-6578** 9 POSITION PLUG  
**452-6590** 9 POSITION RECEPTACLE

211766-1  
211767-1



**360-2003** 24 POSITION  
**360-1971** 5 POSITION

208459-1  
208719-1



**124-7101** 5P, GOLD A\_CODE  
**124-7135** 5P, GOLD B\_CODE  
**124-7147** 4P, GOLD, D\_CODE

T411001051-000  
T411141051-000  
T411151041-000



**669-3314** MALE, 3 WAY  
**669-3318** MALE, 4 WAY  
**669-3327** FEMALE, 3 WAY  
**669-3320** FEMALE, 4 WAY

1838838-1  
1838838-2  
1838839-1  
1838839-2

## CPC SERIES 3 RECEPTACLES

- Operating Voltage 600 VDC
- Wire-to-Wire



## MINI CPC SERIES

- Nylon housing is resistant to a wide range of chemicals
- Easy grip turn coupling with positive lock for fast coupling/uncoupling
- Alignment features



## M12 FEMALE STRAIGHT A CODE CONNECTORS

- Wire-to-Wire
- Sealable
- 4A Contact Current Rating (Max)
- Signal
- PBT



## FIELD SERVICEABLE M12 CONNECTOR

- Wire-to-Wire
- Sealable
- Signal
- Reverse Gender



**221-1189** 3 POSITION

206037-2



**479-1637** 9 POSITION PLUG  
**164-9150** 9 POSITION RECEPTACLE

1445807-3  
1445816-3



**124-7081** 3 POSITION  
**124-7082** 4 POSITION  
**124-7083** 5 POSITION

T410001031-000  
T410001041-000  
T410001051-000



**669-3383** FEMALE, 5 WAY  
**669-3396** FEMALE, 4 WAY

1838274-3  
1838276-2

**HSA SERIES 100W ALUMINIUM HOUSED WIREWOUND RESISTORS**

- HSC Family of Aluminium Housed Power Resistors
- 75W-300W dissipation capability
- Gold anodization and Two mounting flanges



720-5378 1R0 5%  
720-5362 10R 5%  
720-5375 1K0 5%

HSC1001R0J  
HSC10010RJ  
HSC1001K0J

**BDS100 SERIES 100 WATT THICK FILM RESISTORS**

- Chassis Mount Resistors
- 38 × 25.5 × 21 mm
- 2 Termination
- 10 Passive Component Tolerance



225-1266 470R  
225-1193 47R  
225-1121 4R7

BDS2A100470RK  
BDS2A10047RK  
BDS2A1004R7K

**TJT SERIES 500W ALUMINIUM POWER RESISTORS**

- Chassis Mount Resistors
- 330 × 80 × 10 mm
- 2 Termination
- 5 Passive Component Tolerance
- Wire Wound



902-7953 33R 5%  
902-7931 3R3 5%  
902-7956 47R 5%  
902-7934 4R7 5%

TJT50033RJ  
TJT5003R3J  
TJT50047RJ  
TJT5004R7J

**THS SERIES 25W ALUMINIUM HOUSED SOLDER LUG RESISTORS**

- Chassis Mount Resistors
- 51 × 28 × 15 mm
- 2 Termination
- 5 Passive Component Tolerance
- Wire Wound



754-7102 330R 5%  
754-7105 33R 5%  
754-7109 39R 5%  
754-7118 3K3 5%

THS25330RJ  
THS2533RJ  
THS2539RJ  
THS253K3J

**TE SERIES HIGH POWER WIRE WOUND PANEL MOUNT RESISTORS**

- Chassis Mount Resistors
- 360 × 50 × 101 mm
- 2 Termination
- 5 Passive Component Tolerance
- Wire Wound

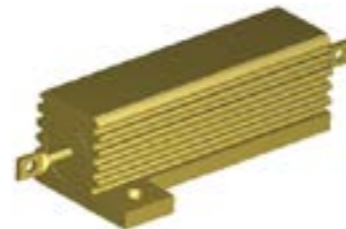


701-5771 220R 750W  
701-5765 22R 750W  
701-5759 2R2 750W  
701-5775 470R 750W

TE750B220RJ  
TE750B22RJ  
TE750B2R2J  
TE750B470RJ

**HSA SERIES ALUMINIUM HOUSED 50W RESISTORS**

- Chassis Mount Resistors
- 72.5 × 30 × 17 mm
- 2 Termination
- 5 Passive Component Tolerance
- Wire Wound



720-5158 0R02 5%  
720-5167 0R05 5%  
720-5160 0R10 5%  
720-5164 0R15 5%

HSA50R02J  
HSA50R05J  
HSA50R10J  
HSA50R15J

**MINI-UNIVERSAL MATE-N-LOK HOUSING**

- Rectangular Power Connectors Housing
- 9 Position
- 4.2mm [.165in] Centerline
- UL 94V-0



720-2360 PLUG  
720-2379 RECEPTACLE

1-172169-9  
1-172161-9

**AMP UNIVERSAL POWER CONNECTOR HOUSING**

- 12 Position
- 3.96mm [.156in] Centerline
- UL 94V-0



719-0078 PLUG, 12 POSITIONS  
719-4373 RECEPTACLE, 15 POSITIONS  
719-4345

176278-9  
176291-1  
176279-1

**AMPMODU LOCKING CLIP CONNECTOR HOUSING**

- Receptacle
- 2.54mm [.1in] Centerline
- Crimp
- 2 Row
- Row-to-Row Spacing .1 in [2.54 mm]



495-8408 10 POSITION  
745-5494 4 POSITION

926209-5  
965082-1

**ECONOMY POWER CONNECTOR HOUSING**

- Made from a strong Nylon
- Audible 'click' sound after successful mate
- Polarisation helps to prevent misalignment
- Compatible with other brands for retrofit applications



712-1202 4 WAY, 1 ROW  
719-5177 2 WAY, 1 ROW

1-1123722-4  
1-1123722-2

**TRIO-MATE FLEXIBLE FILM CONNECTORS**

- Triomate flexible film connectors accept FFC cable, flexible etched circuitry or membrane switch circuitry 0.005" to 0.015" (0.13mm to 0.38mm) thick in contact area
- They have a high extraction force and are reusable 25 times with same cable thickness



718-8740 8 WAY STRAIGHT FEMALE, TIN  
718-8661 12 WAY STRAIGHT FEMALE, TIN OVER COPPER  
718-8722 8 WAY STRAIGHT FEMALE, TIN OVER COPPER

5-520315-8  
6-487509-1  
5-487509-7

**FFC SERIES 1.25MM PITCH FPC CONNECTOR**

- Through-hole straight and right angle versions
- Non-ZIF style
- Lead free plating



165-0857 12 WAY STRAIGHT FEMALE

1-84534-2

## FLEXILITE SERIES CHEMICAL RESISTANT HOOK UP WIRE

- UL Style 3557, UL recognised component
- Operating temperature range of -55°C to +200°C
- 600 V rating
- Meets requirements of VW-1 flammability



<b>253-1950</b>	0.5 YELLOW	FLHTC0311-0.50-4
<b>253-2032</b>	0.5 WHITE	FLHTC0311-0.50-9
<b>253-1837</b>	0.75 YELLOW	FLHTC0311-0.75-4
<b>253-2026</b>	0.25 WHITE	FLHTC0311-0.25-9

## FLEXILITE SERIES EQUIPMENT WIRE

- Dual wall insulation (Class 2 equipment)
- Flexible with non-melting insulation
- Enables bundles to be routed through areas where conventional wires cannot be used
- UL style 1385



<b>208-5788</b>	1.5 BLACK	FLT0111-1.50-0
<b>208-5508</b>	0.25 WHITE	FLT0111-0.25-9
<b>208-5817</b>	1.5 GREEN	FLT0111-1.50-5
<b>208-5823</b>	1.5 RED	FLT0111-1.50-2

## ACW SERIES AUTOMOTIVE WIRE

- High operating temperature up to 150°C
- Designed to function in the hot engine compartment environment
- Excellent mechanical strength
- Ideal for automotive wire handling



<b>369-4939</b>	2.5 WHITE	ACW0219-2.50-9
<b>369-4787</b>	0.5 RED	ACW0219-0.50-2
<b>369-4816</b>	1 BLACK	ACW0219-1.00-0

## ZEROHAL TYPE 100G SERIES EQUIPMENT WIRE

- Halogen free, low smoke generation
- Highly flame retardant
- Flexible, easy to install
- Small size, lightweight



<b>244-1447</b>	2.5 BLUE	100G0111-2.50-6
<b>244-1380</b>	0.5 BLUE	100G0111-0.50-6
<b>244-1419</b>	1.5 BLUE	100G0111-1.50-6

## 100E SERIES HARSH ENVIRONMENT WIRE

- Lightweight
- Thin walled
- 30% lighter than similar thick walled wire
- Dual jacket insulation



<b>136-5938</b>	0.5 WHITE	100E0111-0.50-9
<b>136-5941</b>	1.5 WHITE	100E0111-1.50-9
<b>136-5940</b>	1.0 WHITE	100E0111-1.00-9
<b>136-5942</b>	2.5 WHITE	100E0111-2.50-9

## TYPE 55® HARSH ENVIRONMENT WIRE

- Single or dual wall construction
- Small size, ultra lightweight
- Mechanically rugged
- Exceptional resistance to most chemicals & electrical arc tracking



<b>869-7330</b>	RED	55A0111-24-2
<b>869-7337</b>	BLUE	55A0111-22-6

# CABLE & WIRE CHEAT SHEET



## APPROVALS AND STANDARDS



**BASEC:** The British Approvals Service for Cables is an independent testing and approvals body for cable and wire. BASEC certification ensures a product meets its claimed national and international standards.



**UL:** A UL Listed cable or wire indicates that product samples have passed safety requirements set by the safety and certification company, Underwriters Laboratories. UL is an internationally recognised standard.

**DEF STAN:** A cable marked as meeting a Defence Standard (DEF STAN) will be of a high grade and high specification for use by the MoD, specifically for aircraft and military applications.

**Mil Spec:** A cable or wire which complies with Mil Spec (Military Specification) means it is approved for United States military use. Mil Spec can also apply to products other than cables, such as connectors.

**RoHS:** The Restriction of Hazardous Substances Directive specifies maximum limits of certain hazardous substances in electrical and electronic products. Cable and wire is included in this.



**REACH:** REACH is an acronym of Registration, Evaluation, Authorisation and Restriction of Chemicals. As a European regulation designed to protect human health from the risks posed by chemicals, REACH is applicable to cables and wires by the production and use of chemicals in the sheath and other parts.

## CABLE SHEATH TYPES

A summary of commonly found sheath types in the RS range:

<b>PVC</b>	Polyvinyl Chloride <ul style="list-style-type: none"> <li>• Excellent insulating properties</li> <li>• Stable, robust, very durable</li> <li>• Cost effective choice</li> </ul>
<b>Rubber</b>	<ul style="list-style-type: none"> <li>• Ideal for outdoor and wet environments</li> <li>• Withstands rough treatment</li> <li>• Abrasion proof</li> </ul>
<b>PTFE</b>	Polytetrafluoroethylene
<b>ETFE</b>	Ethylene Tetrafluoroethylene (also known as TEFZEL) <ul style="list-style-type: none"> <li>• Used in high temperature applications</li> <li>• Unaffected by most oils or fuels</li> <li>• Certain types suitable for temperatures to 400°C</li> </ul>
<b>LSZH</b>	Low Smoke Zero Halogen <ul style="list-style-type: none"> <li>• Preferred type for populated or enclosed areas</li> <li>• Used in trains, aircraft and shipping applications</li> <li>• Suitable in areas of poor ventilation</li> </ul>
<b>PE</b>	Polyethylene <ul style="list-style-type: none"> <li>• Used extensively in communication cabling</li> <li>• Excellent UV resistance</li> <li>• Available in high and low density forms (HDPE/LDPE)</li> </ul>
<b>XLPE</b>	Cross linked polyethylene <ul style="list-style-type: none"> <li>• Widely used for power cables</li> <li>• Improved insulating properties over PVC</li> <li>• Higher current rating than PVC</li> </ul>
<b>EPR</b>	Ethylene propylene rubber <ul style="list-style-type: none"> <li>• Offers good weathering stability</li> <li>• Heat resistant to 160°C</li> <li>• Durable and long lasting</li> </ul>
<b>PET</b>	Polyethylene terephthalate <ul style="list-style-type: none"> <li>• Moisture resistant and tough</li> <li>• Good chemical resistance</li> <li>• Excellent mechanical, electrical and thermal properties</li> </ul>
<b>FEP</b>	Fluorinated ethylene propylene <ul style="list-style-type: none"> <li>• Good weather resistance</li> <li>• Low flammability</li> <li>• Good temperature stability</li> </ul>

## WIRE SIZING - AWG AND CSA

**AWG** - American Wire Gauge. A widely accepted measure of cross sectional area of a wire denoted as a simple number.

**CSA** - The surface Cross-Sectional Area of a conductor in mm<sup>2</sup>.

Both units of measure are used in determining wire thickness and it is useful to remember that as AWG increases, the wire becomes thinner and the CSA decreases.

An approximate conversion between AWG and CSA is shown opposite for selected sizes.

The complete AWG range for wire contains over 40 sizes with respective cross sectional areas and current carrying capacities.

AWG	CSA (mm <sup>2</sup> )
0	53.5
5	16.76
7	10.55
10	5.26
12	3.31
15	1.65
18	0.82
20	0.52
25	0.16



# Accelerating Industrial Internet of Things (IOT)

**As Industry 4.0 (I4.0) advances machine-to-machine (M2M) communications, factories can now integrate crucial processes and reduce production cycles. But are these improvements enough to make factories smarter?**

It is 2:00 am, and the machine in Europe is down. The planner accesses the system and finds out that products have to be shipped in the morning.

He immediately sees open capacities and a stock of raw material in his factory in the US and triggers a start of production there. Back in Europe, a maintenance technician is informed and he sees immediately machine process data in his office and can locate the problem to a workstation.

On the shop floor, from his tablet, the technician accesses the workstation and begins modifying the data-acquisition time for the process data. In minutes, he recognizes and solves the problem. The machine is back up and running again.



## UNDERSTANDING THE CHALLENGE

For most companies, this level of speed is the aspiration, not the reality. What is perhaps most significant is that this case is only about one small part of the capability a smart factory can perform. In the digital factories of tomorrow, everyday operations will include predictive maintenance, flexible machine use-and-upgradability, production and raw material footprints of goods, tracking and tracing of goods in productions with mass customization, and energy efficiency.

There are many opportunities for generating value. This involves making process data and metadata from machines more available to – and transparent for – planners and technicians, down to the most granular machine level. Looking at current machine infrastructures, there is a large quantity of data that is created but not available. The challenge is that machines have a hierarchic control structure which is – in most aspects – optimized for fast and efficient machine control. The data relevant to this control structure is transferred with very low latency, with the control system requiring cycle times in the range of milliseconds. This increases the stress on the machine control, which must process additional data that is not latency relevant. To resolve this type of challenge, our team approaches the critical issues from three perspectives.

**+20%**

Reduction in process inefficiencies realized.

## ENABLING THE SMART FACTORY

Our Three Perspectives:  
Devices, Connectivity, Content

- **Smart devices:** Determining which components will enable data creation, starting with smart relays over additional sensors and connectors that function as smart devices, by collecting – for example – information about energy consumption or monitoring condition.
- **Physical connectivity:** Positioning more smart devices inside a machine creates additional connections, which generates more data to be transferred and at the same time, reduces the size and cost of nodes; this leads to the need for alternative connectivity solutions including wave-guided data transfer and wireless solutions.
- **Connecting the content:** Managing a data path for added value data; the connectivity solution will need to manage, aggregate, buffer, and process data as well as open up a secure path to transmit data to the enterprise-level IT system.

**14.0**

Industrial IoT, combination of information and communication with production processes.

## ACHIEVING RESULTS

Before we recommend our innovations to our customers, we rollout our ideas in our own digital factories. This ensures that the solutions are tested to be smart and bring the value that we anticipate. Through these initiatives, we have implemented smart-data aggregators in a model which have enabled us to visualize real-time data for complete production value streams of connectors on factory level. This enabled our production team not only to drive incredible improvements in yield and process time but also to an overall reduction in process inefficiency. In the next steps, this approach will be extended to synchronize material management and rollout the system to more TE factories

Currently, the industry is changing from traditional factories towards smart and digital factories. In this transitional phase, it is important to find solutions that can be applied to upgrade factories instead of looking only towards Greenfield applications. We believe that in this phase it is especially important to enable fast benefits that justify investment needs for the upgrade, while not losing the focus on doing this with an architecture that will leverage a variety of productivity improvements in future. This means being backwards compatible while opening new opportunities. Smart connectivity achieves this act of balances easily and is therefore our key to smart factories..

## CPC SERIES CABLE CLAMP KIT - 8.36MM MAX. BUNDLE

- Straight body style
- Black colour thermoplastic body material
- UL94 V-0 flammability



<b>411-438</b>	SIZE 17A	182655-1
<b>411-416</b>	SIZE 11B	182658-1
<b>411-422</b>	SIZE 13	182663-1

## AMP-LATCH STRAIN RELIEFS

- Thermoplastic, Glass Filled



<b>718-8813</b>	10 POSITION	3-1437020-7
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## CPC SERIES CABLE CLAMP KIT - 8.36MM MAX. BUNDLE

- Black Screw Thermoplastic Cable Clamp
- 8.36mm Max. Bundle



<b>680-6703</b>	EACH	1-206062-4
<b>190-4038</b>	BAG OF 400	1-206062-4

## MATE-N-LOK CLAMP

- Compatible With Connector Shell Size 9
- UL 94V-0



<b>720-2159</b>	9 POSITION	316454-1
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## MCP SERIES COVER - CABLE EXIT

- UL94-HB Flammability rating
- 180° Cable exit angle
- -40 to +140°C Temperature range



<b>395-7577</b>	BLACK VERTICAL	965784-1
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## AMPLIVAR PIGTAIL WIRE SPLICE CONNECTOR

- Insulation displacing serrations in barrel eliminate need to pre-strip wire
- High tensile crimp
- Vibration and corrosion resistant
- Contaminant free high-quality electrical connection



<b>680-1991</b>	0.8 - 2.5MM² WIRE SIZE	62306-2
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## MINISEAL BUTT SPLICE CONNECTOR

- Small and lightweight design
- Easy one-step installation
- Immersion resistant
- Environmentally sealed against liquid penetration and resulting corrosion



<b>444-5659</b>	0.15 - 0.75 MM²	D-436-36
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## INSULATED CRIMP BOOTLACE FERRULE

- 8mm Pin Length
- 2.2mm Pin Diameter



<b>680-3038</b>	2 X 1.5MM² WIRE SIZE, BLACK	966144-6
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## DURASEAL BUTT WIRE SPLICE CONNECTOR

- The TE Duraseal kit is especially suited for use in automotive (approved by most car manufacturers) and marine builds, where environmental sealing is important



<b>533-673</b>	0.25 - 1.6 MM² WIRE SIZE	DS-18-22-RS
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## FASTIN-FASTON SERIES 250 RECEPTACLE AND TAB HOUSINGS

- Provide electrical and mechanical protection
- Polarization to prevent mismatching
- Nylon UL 94 V2 housings available
- Locking latches for a secure mating connection



<b>245-1573</b>	6.35MM TAB SIZE, NATURAL	180908-0
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## PIDG INSULATED CRIMP SPADE CONNECTOR

- 2.6mm² to 6.6mm²
- 12AWG to 10AWG
- M6 Stud Size Nylon



<b>528-9214</b>	YELLOW	130625
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## VERSAFIT V2 HEAT-SHRINK TUBING 2:1

- Flame retardant
- 2:1 shrink ratio
- Fast installation time due to low shrink temperature
- Highly flexible



<b>874-1181</b>	18MM	V2-18.0-0-FSP-SM
<b>874-1172</b>	12MM	V2-12.0-0-FSP-SM
<b>874-1184</b>	2.5MM	V2-25.0-0-FSP-SM

## RNF100 HEAT-SHRINK TUBING 2:1 (SPOOLS)

- Excellent all round performance
- Shrink ratio 2:1
- Available in a wide range of sizes and colours



<b>170-6428</b>	12.7MM	RNF-100-1/2-0-STK
<b>170-6440</b>	25.4MM	RNF-100-1-0-STK
<b>170-6377</b>	2.4MM	RNF-100-3/32-0-STK
<b>170-6434</b>	19MM	RNF-100-3/4-0-STK

## RNF100 HEATSHRINK TUBING 2:1 (1.2M LENGTHS)

- Excellent all round performance
- Shrink ratio 2:1
- Available in a wide range of sizes and colours



<b>170-6620</b>	6.4MM	RNF-100-1/4-X-STK
<b>113-2568</b>	38MM	RNF-100-1-1/2-X-STK
<b>170-6664</b>	25.4MM	RNF-100-1-X-STK
<b>170-6614</b>	4.8MM	RNF-100-3/16-X-STK
<b>170-6591</b>	3.2MM	RNF-100-1/8-X-STK

## CGAT ADHESIVE LINED HEAT SHRINK TUBING 3:1

- High strength bonding
- Moisture proof
- Flame retardant jacket
- Environmental sealing



<b>157-3903</b>	24MM	CGAT-24/8-0
<b>157-3824</b>	18MM	CGAT-18/6-0
<b>157-3795</b>	6MM	CGAT-6/2-0
<b>157-3789</b>	3MM	CGAT-3/1-0-RS-157-3789
<b>157-3830</b>	40MM	CGAT-39/13-0

## CRN SERIES HEATSHRINK TUBING 2:1

- A semi-rigid, flame retardant, black polyolefin heat shrinkable tubing
- Ideally suited for applications requiring strain relief or abrasion resistance such as solder and crimp joints
- Outstanding physical and electrical performance



<b>342-7284</b>	1.6MM	CRN-1/16-0-STK
<b>342-7341</b>	12.7MM	CRN-1/2-0-STK
<b>342-7329</b>	6.4MM	CRN-1/4-0-STK
<b>342-7307</b>	3.2MM	CRN-1/8-0-STK

## CGPT SERIES REFILL FLAME RETARDANT 2:1

- Easy to store
- Easy to dispense
- Well suited for repairs
- Wide variety of sizes



<b>170-6670</b>	1.6MM	CGPT-R-1.6-0
<b>170-6737</b>	12.7MM	CGPT-R-12.7-0
<b>170-6743</b>	19MM	CGPT-R-19-0
<b>170-6686</b>	2.4MM	CGPT-R-2.4-0

## HEATSHRINK PRE-PRINTED CABLE MARKERS SIZE 3//1

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C
- The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions
- The cable markers are highly flame-retardant to ASTM B876 (burn time more than 5 seconds)



<b>392-371</b>	0	TRSA-1019/C/1/0
<b>392-387</b>	1	TRSA-1019/C/1/1
<b>392-393</b>	2	TRSA-1019/C/1/2
<b>392-400</b>	3	TRSA-1019/C/1/3

## HEATSHRINK PRE-PRINTED CABLE MARKERS SIZE 12//4 - 1-9

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C
- The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions
- The cable markers are highly flame-retardant to ASTM B876 (burn time more than 5 seconds)



<b>393-166</b>	0	TRSA-1019/G/1/1
<b>393-172</b>	1	TRSA-1019/G/1/2
<b>393-188</b>	2	TRSA-1019/G/1/3
<b>393-245</b>	3	TRSA-1019/G/1/9

## TRSA HEATSHRINKABLE MARKER KITS

- Good resistance to common fluids
- Minimum shrink temperature: 80°C
- 3:1 Shrink ratio



<b>873-9175</b>	A-Z SIZE C WHITE	TRSA-1019/C/1/AU-KIT
<b>873-9179</b>	A-Z SIZE E WHITE	TRSA-1019/E/1/AU-KIT

## HEATSHRINK PRE-PRINTED CABLE MARKERS SIZE 6//2

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C
- The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions
- The cable markers are highly flame-retardant to ASTM B876 (burn time more than 5 seconds)



<b>392-769</b>	0	TRSA-1019/E/1/0
<b>392-775</b>	1	TRSA-1019/E/1/1
<b>392-781</b>	2	TRSA-1019/E/1/2
<b>392-797</b>	3	TRSA-1019/E/1/3

## HEATSHRINK PRE-PRINTED CABLE MARKERS SIZE 12//4 - A-Z

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C
- The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions
- The cable markers are highly flame-retardant to ASTM B876 (burn time more than 5 seconds)



<b>393-289</b>	A	TRSA-1019/G/1/A
<b>393-295</b>	B	TRSA-1019/G/1/B
<b>393-302</b>	C	TRSA-1019/G/1/C
<b>393-318</b>	D	TRSA-1019/G/1/D

## TRSA HEATSHRINKABLE MARKER KITS

- Good resistance to common fluids
- Minimum shrink temperature: 80°C
- 3:1 Shrink ratio



<b>170-4488</b>	4-12MM	TRSA-1019/G/1-KIT-NO.3
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# PROTECT IT WITH TUBING

## Heat Shrink Tubing from TE Connectivity

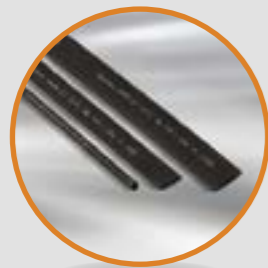
Looking for an alternative to taping, molding or potting? Do you need a reliable, flexible and water tight solution to protect your wires? Leverage TE's comprehensive portfolio of heat shrink tubing products in a wide range of applications from transportation to appliances, lighting, aerospace, industrial and more.



## LEARN MORE ABOUT PRODUCTS

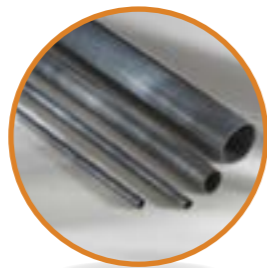
### SINGLE WALL TUBING

- Bundling protection
- Abrasion resistant
- Strain relief
- Quick installation
- Variety of colors available for coding
- Low shrink temperature
- MIL-SPEC
- Meets UL VW1 - flammability
- Meets UL/CSA - electrical insulation
- Cost effective
- UL rating - minimize catastrophic failure of a system



### DUAL WALL TUBING

- Waterproof - submersion
- Cable repair - bonding & sealing
- Splice sealing
- Direct burial water - proofing
- Strain relief
- Meets UL VW - 1 flammability rating
- Electrical insulation
- MIL-SPEC
- UL rating - minimize catastrophic failure of a system



### SPECIALTY TUBING

- Abrasion protection
- Greater than 150°C rated - high temperature environments
- Fungal and mold protection
- UL rating - minimize catastrophic failure of a system
- Flame retardant
- Water, heat and humidity resistant
- MIL-SPEC



### PRO-CRIMPER III RATCHET CRIMPING TOOL

- High carbon-steel construction for durability
- Extra strength pivot pins
- Ratchet control ensures that a full crimp cycle is achieved
- Standard Die Envelope (SDE) for flexibility and cost savings



**314-1362** 15 - 18 AWG  
**162-5717** 28 - 16 AWG  
**864-3560** 20 - 16AWG

58583-1  
 58495-1  
 58529-1

### AMPLIMITE SERIES INSERTION & EXTRACTION TOOL

- Insertion and extraction
- Compatible contacts: HD-20
- High quality



**301-8414** CONTACT SIZE 20

91067-2

### UNIVERSAL CRIMP TOOL FOR DEUTSCH CONNECTORS

- Adjusting screw includes jam nut
- Compatible with a wide range of Deutsch connector crimps
- Lightweight and comfortable to use



**425-973** 16 AWG

HDT-48-00

### AMP TYPE II INSERTION & EXTRACTION TOOL

- Contact Extraction
- Contact-to-Housing



**162-5723** 26 - 14 AWG

305183

### MATE-N-LOK SERIES CRIMP EXTRACTION TOOL

- Stock number 115-1856 is for extracting both pin and socket contacts from Universal Mate-N-Lok from connector housings
- Stock number 782-5263 is for extracting socket contacts from Universal Mate-N-Lok from connector housings
- Stock number 782-5269 is for extracting pin contacts from Universal Mate-N-Lok from connector housings



**115-1856**  
**782-5263**  
**782-5269**

1804030-1  
 1-305183-2  
 1-305183-1



# CONNECT WITH RS

At RS Components, we stock over **38,000 TE Connectivity products** including these popular categories:



Non-Latching Relays



Contactors



Industrial Circular Connectors



PCB Headers



Wire Housings & Plugs



PCB Terminal Blocks



Heat-Shrink & Cold-Shrink Sleeves



Cable Glands



Crimp Contacts



Through Hole Fixed Resistors

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