THE EVOLUTION OF POWER

POWER CONNECTORS PORTFOLIO

CONNECT LIKE A PRO

Delivering trusted performance, TE Connectivity's (TE) wire-to-wire, wire-to-board, and wire-to-panel power connectors are engineered to address the most demanding design challenges. TE's connectors combine proven interconnect technology with innovative features like locking capabilities, sealed protection, and vibration resistance, ensuring high reliability and versatility across a variety of applications. TE Connectivity is the power behind the system to ensure seamless connections that stand the test of time.

FROM FAILURE TO FIX: ENSURING RELIABLE CONNECTIONS

Connector failure often stems from improper installation, backout, or harsh environmental conditions. These issues can cause inefficiencies or even lead to system downtime. ExploreTE's portfolio of power connectors that are designed to resist extreme environments, maintain secure connections, and handle high electrical loads, ensuring reliable performance even in the most demanding situations.

CHALLENGES	SOLUTIONS
IMPROPER SELECTION Moisture and undersized connectors can lead to decreased connector life or potential failure.	**ENVIRONMENTAL SEALING** Select appropriate Ingress Protection (IP) rating and seals to protect against dust and moisture in extreme environments.
OPERATING TEMPERATURE Connectors not rated for extremely high or low temperatures may eventually fail.	**MATERIAL SELECTION** Select materials suitable for the application environment to prevent potential corrosion.
MATING FACTOR Frequent mating and unmating of a connector can potentially cause failure.	**PLATING TECHNOLOGY** Select connectors with appropriate mating cycles, durability, and performance.
IMPROPER DESIGN AND INSTALLATION Shock or other damaging motions along with improper mounting may result in connector contacts, mating shells and cable damage.	**CONNECTOR DESIGN / CUSTOMIZATION** Consider connector's shape, size, mating mechanism, and pin positioning.
VIBRATION / LOOSE WIRING High vibration in industrial applications can cause the terminal wires to loosen, resulting in broken or intermittent connections.	**LOCKING / COUPLING METHODS** Select the appropriate locking/coupling mechanism to ensure connector durability in harsh environments.

POWER CONNECTORS BUILT FOR PERFORMANCE

UNIVERSAL MATE-N-LOK CONNECTORS

- Industry-standard power connector for a variety of applications
- Housings that feature positive polarization, positive locking, and rear cavity identification for easy, error-resistant assembly
- Resistant to high-current shock (gold plating options)
- Cap and plug housings, as well as headers, are available in material meeting UL 94 V-0 and the Glow Wire test (GWT)
- Splash proof sealing

WTW Wire-to-Wire · WTB Wire-to-Board · WTP Wire-to-Panel · Flame Resistance · TPA Terminal Position Assurance · IP Rated · Color and Keying

MICRO MATE-N-LOK CONNECTORS

- 3 mm centerline, Current rating 5A
- Dual beam contact design for reliable interconnection
- Contacts available in strip or loose piece
- Surface mount or through hole headers
- PCB headers are IR reflow process compatible
- Customizable low pitch power connectors
- Positive latching mechanism to prevent unmating
- Single and dual-row configurations are available

WTW Wire-to-Wire · WTB Wire-to-Board · WTP Wire-to-Panel · Flame Resistance

MINI-MATE-N-LOK CONNECTORS

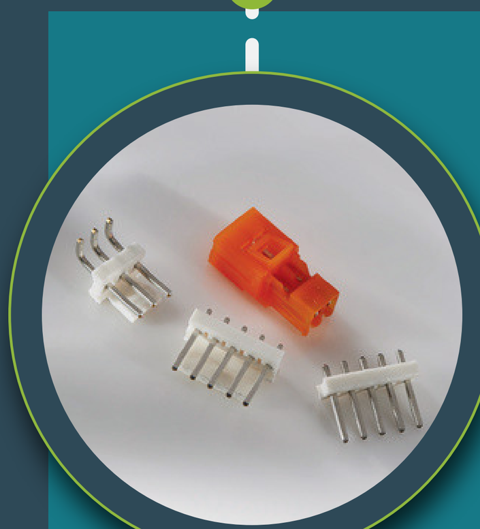
- Pins and sockets can be accommodated in the same housings
- Contacts fully protected in the housings
- Fully polarized to provide proper plug-to-cap mating incorporating a positive locking mechanism to help prevent accidental disengagement of mated connectors
- Free-hanging or panel mount.
- Test probe contacts available
- Splash proof design
- 4.14 mm centerline

WTW Wire-to-Wire · WTB Wire-to-Board · WTP Wire-to-Panel · Flame Resistance · IP Rated · Color and Keying

COMMERCIAL MATE-N-LOK CONNECTORS

- Designed for high performance applications
- Dual locking lances for secure engagement
- UL 94-V2 Certified
- Industrial and commercial applications
- Polarized and Cavity identification
- Detent and positive locking
- Free hanging and panel mount

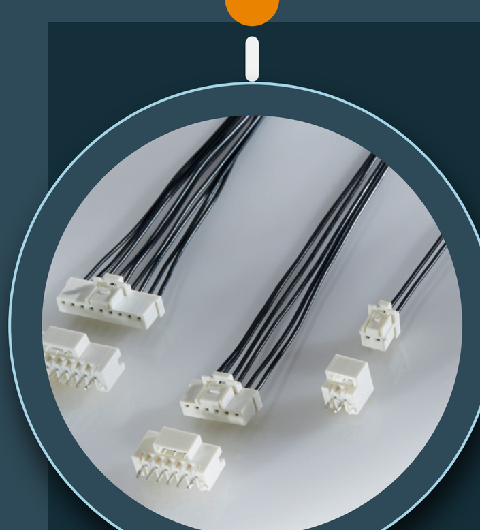
WTW Wire-to-Wire · WTB Wire-to-Board · Flame Resistance



MTA 156 IDC CONNECTORS

- Reduce labor, lower costs, and simplify assembly processes
- End to end stackable connectors use insulation displacement contacts (IDC) that allow for wire termination without stripping or crimping
- Connector styles include both closed end and feed-through, with and without locking ramps and polarizing tabs
- Molded ribs on housing do not allow reverse mating
- Contacts are lubricated for fretting corrosion protection
- One-step assembly, no wire stripping, no contact damage and simpler tooling

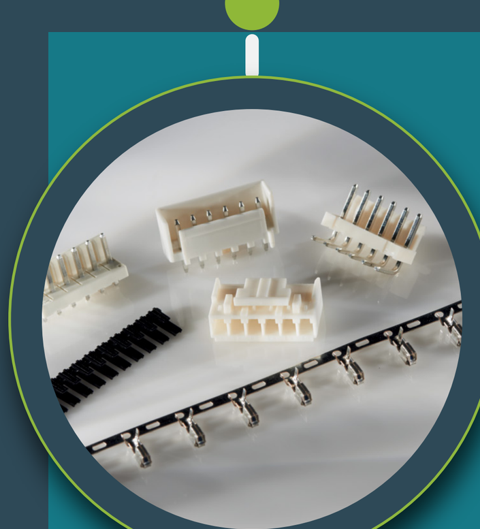
WTW Wire-to-Wire · WTB Wire-to-Board · IDC Insulation Displacement Connector · Flame Resistance



GRACE INERTIA CONNECTORS

- Error Proof Assembly with Inertia Locking
- Design-in variety needed for always-on connectivity
- Lance-less contacts to prevent tangled wires
- Offers optional TPA's in 3.3 mm and 3.5 mm to ensure contacts are seated and don't back out

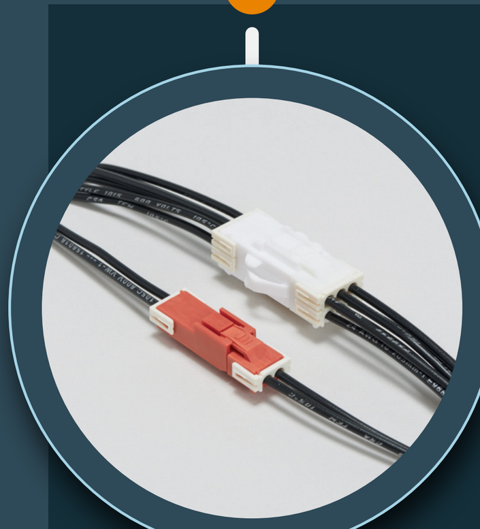
WTW Wire-to-Wire · WTB Wire-to-Board · Flame Resistance · Color and Keying · TPA Terminal Position Assurance · IDC Insulation Displacement Connector



ECONOMY POWER CONNECTORS

- High amperage power connector – 7.5A (EP), 11A (EP II)
- Low profile mating height
- Polarization
- End to end stackable High Current PCB Connectors
- Audible locking latch for secure connection
- Widely utilized for power circuit applications that require a large current-carrying capacity
- Optional terminal position assurance (TPA)

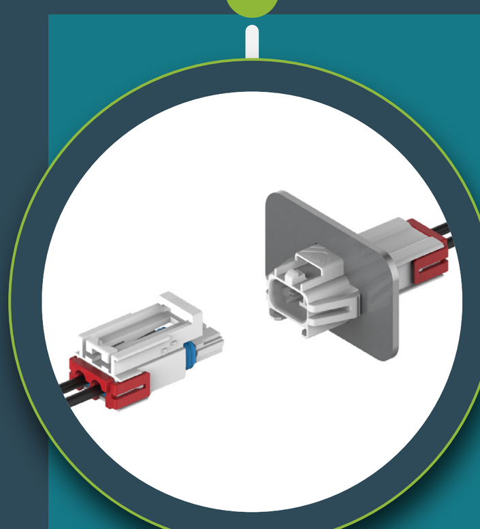
WTB Wire-to-Board · TPA Terminal Position Assurance · Flame Resistance · Color and Keying



POWER DOUBLE LOCK CONNECTORS

- Secondary Locking 14A Power Connectors
- Stackable High Current PCB Connectors
- Audible click when contact is fully inserted into the housing
- Polarizing ribs on plug housing allows for proper mating
- High-force contacts for use in applications where vibration is prominent
- Lanceless contacts to prevent tangling
- Optional terminal position assurance (TPA)

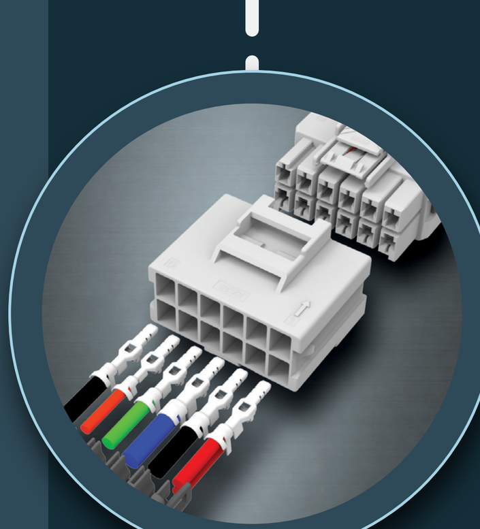
WTW Wire-to-Wire · WTB Wire-to-Board · WTP Wire-to-Panel · Flame Resistance · TPA Terminal Position Assurance · Color and Keying



POWER VERSA-LOCK CONNECTORS

- Flexible housing design use for both unsealed and sealed applications
- Four points of contact between tab and receptacle contacts and alternative mounting methods to reduce movement in vibration applications
- Scoop Proof design to allow for blind mating without risk of bending pins
- Space saving with 5.0 mm centerline spacing
- 18° angled Twist and Lock connector allows for condensation to drip away from the connection
- IP67 optional sealing system

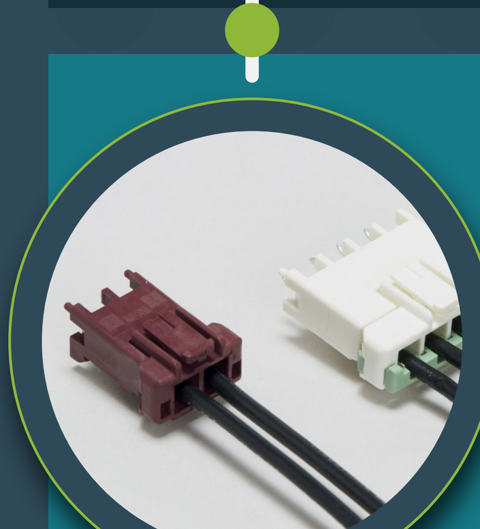
WTW Wire-to-Wire · WTP Wire-to-Panel · IP Rated · Flame Resistance · TPA Terminal Position Assurance · Color and Keying



POWER TRIPLE LOCK CONNECTORS

- Power Connectors with 3-in-1 Locking for reliability (TPA, CPA)
- Tab and receptacle style contacts for more reliable connectivity with asymmetrical design to allow only one way to introduce contact.
- Contacts are lanceless to prevent snag points for wires and lower possibility to be misformed in stamping process
- Robust single latch making housing less complicated. Latch has audible click to ensure housings are fully mated.
- Rear cavity identification to facilitate assembly operation

WTW Wire-to-Wire · WTB Wire-to-Board · WTP Wire-to-Panel · Flame Resistance · TPA Terminal Position Assurance · Color and Keying · CPA Connector Position Assurance



POWER KEY CONNECTORS

- Low profile and 5 mm pitch
- Easy-to-mate, audible click, positive locking housings
- PCB potting process friendly (gas bubble release)
- Protected locking levers and lanceless contacts
- Designed to optimize contact seating and prevent assembly challenges caused by mis-mating and wire entanglement
- Support efficient assembly with multiple color and physical keying options to prevent mis-mating, as well as housing lances to avoid tangled wires

WTB Wire-to-Board · TPA Terminal Position Assurance · Flame Resistance · Color and Keying

VAL-U-LOK CONNECTORS

- Housings that accept TPA devices are intermatable with existing VAL-U-LOK connectors and headers
- Contacts incorporate features that align with features on the TPA devices to ensure proper interface
- Housings are offered in 3 different materials to allow users to better match their application requirement, Position sizes 2-24 in double row configuration. UL 94 V-0 flammability rating and glow wire tested. MFBL also available in 3 position.
- Vertical headers available with optional polarization pegs and drain holes and offer a blind mate version. Right angle headers offer optional screw mount flanges.

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Engineering solutions begin here, connect now!

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SAMPLES

06-25

TE connectivity