



BLIND MATING MOBILE CHARGING CONNECTOR

TE Connectivity (TE)'s blind mating mobile charging connector is intended for smaller mobile robots and autonomous vehicles typically used in warehouse environments. Autonomous Mobile Robots (AMR) are currently used mostly for material handling (picking, movement, storage, sorting) in the warehouse automation space.

The charging connector is available in 2 and 3 power contact options with up to 8 signal contacts to ease installation and rework cycle times.

BENEFITS

- High mating cycle life
- Modular solution that will support different configurations, data, sensing
- First make last break power contact (3P only)
- Floating panel mount design maximizes misalignment tolerance capability
- UL recognized to UL 1977

APPLICATIONS

- Charging for Autonomous Mobile Robots/Automated Guided Vehicles (AMR/AGV)
- Blind mate battery charging
- Industrial, hospitality, retail, medical

Blind Mating Mobile Charging Connector

FEATURES

Robust Design for High Cycle Life

- Designed for a minimum of 12,000 mating cycles
 - Low insertion force power contacts
 - Spring probe signal contacts
- Blind mate capability
 - Allows for misalignment of at least +/-15mm for x and +/- 10 for y direction
 - +/- approx. 5° for z direction (mating)
- Up to 8 signal contacts
 - Up to 0.5A per line
- Terminates to 22-30 AWG stranded wire
- Rear pluggable interface to ease installation and rework cycle times
- Spring probe contacts for high cycle life
- Utilizes Mini Universal MATE-N-LOKII Connector interface for signal contact mating

Connection Flexibility

- 2 & 3 power contact options
 - Up to 50A and up to 125V
 - Up to 40A per line at up to 100V
 - Terminates to 10 or 8 AWG stranded copper wire
- First make, last break contact for use in grounding, system enabling or applications that require charging two battery strings independently
- Touch safe contacts for extra safety if rework is needed

SPECIFICATIONS

- Product Spec [108-160493](#)
- Application Spec [114-160271](#)



PART NUMBERS

| Part Number | Description |
|----------------------------|---|
| 2390328-1 | Power contact, socket, crimp |
| 2390329-1 | Power contact, pin, crimp |
| 2399991-1 | 2 power + 8 signal robot mounted connector kit |
| 2399992-1 | 2 power + 8 signal charger docking connector kit |
| 2400405-1 | 3 power + 8 signal robot mounted connector kit |
| 2400406-1 | 3 power + 8 signal charger docking connector kit |
| 794192-1 | Mini Universal MATE-N-LOCKII Plug Housing |
| 1-794217-0 | Mini Universal MATE-N-LOCKII contact for 30-26AWG |
| 1-794219-0 | Mini Universal MATE-N-LOCKII contact for 26-22AWG |

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