

ACHIEVING 48 VOLT READINESS

OFFERING FLEXIBLE AND SCALABLE POWER SOLUTIONS BASED ON YOUR 48V REQUIREMENTS

Because automotive power requirements are changing and becoming quite complex, OEMs are looking for new and innovative ways to save on weight and cost savings while also increasing connector performance. To address these increasing power demands in the automotive industry, switching to 48V from 12V low voltage power delivery backbone can optimize power delivery and efficiency across thermal management systems/components within vehicles, saving 85% or more in wiring weight.

Listening to these industry demands, TE Connectivity (TE) is taking the lead in providing innovative end-to-end connector portfolio of solutions that are currently 48 volt-ready and/or solutions where we can readily achieve 48V compliance.

Based on individual vehicle manufacturer requirements, TE evaluates each connector through various 48V compliance in accordance with both the UL840 (Insulation Coordination Including Clearances and Creepage Distances for Electrical Equipment) and IEC 60664-1 (Insulation coordination for equipment within low-voltage systems - Principles, requirements, and tests) standards to ensure the system's safety and reliability.



SYSTEM OPTIMIZATION



FUEL SAVINGS/
EMISSIONS
REDUCTIONS



INCREASED
POWER FOR NEW
FUNCTIONS



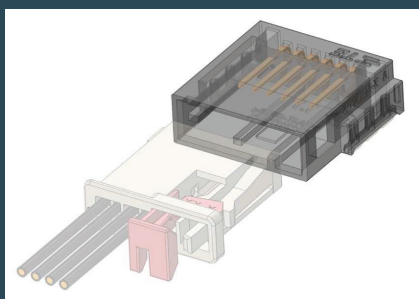
MASS REDUCTION
& IMPROVED
EV RANGE



COST EFFECTIVE
SOLUTION TO
REDUCE CO₂

LOW TO MID VOLTAGE SIGNAL AND POWER CONNECTIVITY SOLUTIONS

MEETING CREEPAGE AND CLEARANCE REQUIREMENTS WITH STRATEGIC TERMINAL REMOVAL



Performance Requirements

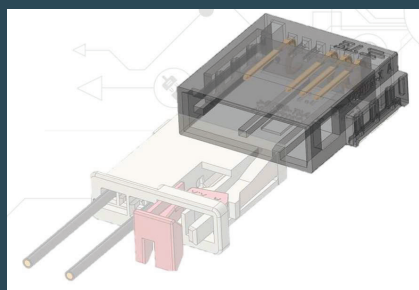
- Voltage Rating: 60V
- Pollution Degree: PD2
- Altitude: 2000m

Material / Header Housing

- Material Group III
- CTI: 300

Material / Plug Housing

- Material Group III
- CTI: 300



48V READY PRODUCTS

Achieving 48V (60V) compliance through Creepage and Clearance Requirements:

- Voltage Rating
- Pollution Degree (1-3)
- Comparative Tracking Index (CTI) / Material Group
- Altitude Correction Factor
- Factor of Safety (customer Specific)

CONTACT OUR 48 VOLT EXPERT TO ALLOW US TO ENABLE YOUR NEW VEHICLE ARCHITECTURE

