



# SEALED DIRECT WIRE FUSE AND RELAY ENCLOSURES

# **Industrial & Commercial Transportation**

TE Connectivity's sealed direct wire fuse and relay enclosure products allow customers to conveniently design-in electrical circuit protection and load switching capability quickly and economically. This product family offers 27-60 circuit capability which enables configuration flexibility for broad use in harsh environment, high vibration, and mobile equipment, recreational machines, and commercial vehicles of all types. The modular design permits easy tool-less mounting, provides full environmental protection, and uses proven sealed MCP 2.8 mm/6.3 mm receptacle terminals providing prompt assembly time and reduced applied costs.

### **APPLICATIONS**

- On-highway and off-road trucks
- Commercial passenger buses and school buses
- Construction machinery and equipment
- Agricultural and turf-care equipment
- Industrial machinery and power equipment
- Recreational products snowmobiles, boats, personal water craft, utility vehicles, all-terrain vehicles, motorcycles, and beyond...

# **60 Position Fuse and Relay Enclosure**

#### **FEATURES**

- Designed for 2.8 mm plug-in blade ATM type mini fuse and 280 micro relay components
- Utilizes sealed AMP MCP 2.8 mm receptacle terminals
- Accommodates multiple mounting configurations and brackets
- Sealed to IP67 requirements with cover installed
- For use with 14 AWG GXL 18 AWG SXL wire
- Dual cover latches with cover position assurance capability
- 5 columns x 12 rows



#### ORDERING INFORMATION

Direct Wire Fuse and Relay Solutions - 60 Way Fuse Box	Part Number
60P direct wire fuse enclosure assembly with seal and dual cover position assurance (CPA)	1443997-1
60P direct wire fuse enclosure assembly with seal	1443997-2
Standard height cover with spare fuse holders and with top side graphic	1443996-1
Standard height cover without spare fuse holders and with top side graphic	1443996-2
Standard height cover with spare fuse holders and without top side graphic	1443996-3
Standard height cover without spare fuse holders and without top side graphic	1443996-4

# **40 Position Fuse and Relay Enclosure**

#### **FEATURES**

- Designed for 2.8 mm plug-in blade ATM type mini fuse and 280 micro relay components
- Utilizes sealed AMP MCP 2.8 mm receptacle terminals
- Accommodates multiple mounting configurations, bracket mounting per customer design and application
- Sealed to IP67 requirements with cover installed
- For use with 18 AWG SXL 12 AWG GXL
- Integrated harness strain relief
- 4 columns x 10 rows



Bracket shown is representative only; bracket component is not available from TE Connectivity.

#### ORDERING INFORMATION

Direct Wire Fuse and Relay Solutions - 40 Way Fuse Box	Part Number
40P direct wire fuse enclosure assembly (4x10) with cover position assurance (CPA)	1587335-1
40P direct wire fuse enclosure base	109853-1
Cover assembly with seal and with top side graphic	109854-1

# 27, 38, & 49 Position Fuse and Relay Enclosures

#### **FEATURES**

- Designed for 3, 2, or 1 mini ISO relay(s) and 2.8 mm plug-in blade fuse component
- Utilizes sealed AMP MCP 2.8 mm and 6.3 mm receptacle terminals
- Accommodates multiple mounting configurations and brackets
- Sealed to IP67 requirements with cover installed
- For use with 10 AWG FLR 18 AWG SXL wire
- Dual cover latches with cover position assurance capability





Direct Wire Fuse and Relay Solutions - 27, 38, & 49 Way Fuse Box	Part Number
27P direct wire fuse & relay (3x) enclosure assembly w/ seal and dual cover CPA	2297813-3
38P direct wire fuse & relay (2x) enclosure assembly w/ seal and dual cover CPA	2297813-2
49P direct wire fuse & relay (1x) enclosure assembly w/ seal and dual cover CPA	2297813-1
Raised height cover with spare fuse holders and with top side graphic	2098164-1
Raised height cover without spare fuse holders and with top side graphic	2098164-2
Raised height cover with spare fuse holders and without top side graphic	2098164-3
Raised height cover without spare fuse holders and without top side graphic	2098164-4



#### **Applicable Companion Components**

# ORDERING INFORMATION

Direct Wire Fuse and Relay Solutions - Applicable Companion Components	Part Number
AMP MCP 2.8 mm receptacle contact, 14 AWG, tin plated	1-968857-1
Single wire seal, $ ilde{\varnothing}$ 2.2 - 3.0 mm insulation for use with 1-968857-1 contact	828905-1
Cavity seal plug	828922-1
AMP MCP 2.8 mm receptacle contact, 12 AWG, tin plated	1-1719506-1
Single wire seal, Ø2.5+ mm insulation for use with 1-1719506-1 contact	282536-1
Fuse removal tool - automotive blade plug-in mini fuse	1443998-1
AMP MCP 6.3 mm receptacle contact, 10 awg, tin plated	1241418-4
Single wire seal, Ø4.0 - 4.5 mm insulation for use with 1241418-4 contact	1719043-1



6.3 mm AMP MCP terminal establishes multiple points of contact on both sides of each ISO relay blade terminal, providing stable electrical connection and solid relay retention performance; while 3-gland wire seal provides redundant and robust sealing characteristics to wire and plastic housing.

2.8 mm AMP MCP terminal establishes multiple points of contact on both sides of each ATM mini fuse blade terminal, providing stable electrical connection and solid fuse retention performance; while 3-gland wire seal provides redundant and robust sealing characteristics to wire and plastic housing.

# **Design-In Guidelines**

- Direct wire fuse and relay enclosures can be assembled directly to the harness and are intended to be provided by your harness supplier.
- Multiple, distributed, auxiliary power distribution modules using these parts can be assembled into a vehicle's electrical wiring architecture.
- These products are ideally suited for applications where volumes or design and project timing do not justify development of new or custom electrical enclosures.
- These direct wire fuse and relay enclosures are designed to accommodate a customer supplied bracket for secure vehicle mounting and wiring access, see customer drawing for details.
- Sealed product designed for mounting in areas of high heat or vibration; but away from hazardous, articulating or rotating sections of the vehicle.
- Product Specification: 108-2206
- Application Specifications: 114-18388, 114-18148-5

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