



POWER DISTRIBUTION

Industrial & Commercial Transportation

Whether you are on the road or at the worksite, the complexity and number of electrical and electronic functions in your vehicle increases the need for a reliable multi-purpose power network. We offer a portfolio of rugged, flexible, and cost-effective solutions for complex heavy vehicle and equipment networks. Our sealed direct wire fuse and relay enclosure products and sealed two position fuse holders are specifically designed to withstand tough conditions and round the clock operations. These rugged products provide the easy-to-use, off-the-shelf solution that you need to build an economical electrical network.

Our sealed direct wire fuse and relay enclosure products control and distribute the current flow within a vehicle's electric power network. They are available in several arrangements and are easy to mount by their optional flanges or by using DEUTSCH or AMPSEAL 16 connector mounting clips. Our sealed two position fuse holders include the sealed mini fuse holder and the sealed MAXI fuse holder. Either option makes adding accessible circuit protection quick and easy into any vehicle. With our portfolio of power distribution products and our expertise in connectivity we are here to help solve your biggest harsh environment connection system challenges.

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...

SEALED DIRECT WIRE FUSE AND RELAY ENCLOSURES

Our sealed direct wire fuse and relay enclosure products allow you to conveniently design-in electrical circuit protection and load switching capability quickly and economically. This product family offers 8-60 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. These rugged enclosures are offered with integrated flanges for easy mounting. They can also be mounted using standard DEUTSCH DT and AMPSEAL 16 connector mounting clips, which are available in 90° and 180° options and in thermoplastic or metal material.



60 Position Fuse and Relay Enclosures

FEATURES

- Designed for 2.8 mm plug-in blade ATM type mini fuse and up to eight (8) 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 (30x) enclosure assembly with seal and dual cover position assurance	1443997-1
60P direct wire fuse (30x) enclosure assembly with seal	1443997-2
60P direct wire fuse (30x) enclosure assembly with seal and dual cover position assurance (CPA), and mounting flange	2304643-4
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

Sealed Direct Wire Fuse and Relay Enclosures

27, 38, & 49 Position Fuse and Relay Enclosures

FEATURES

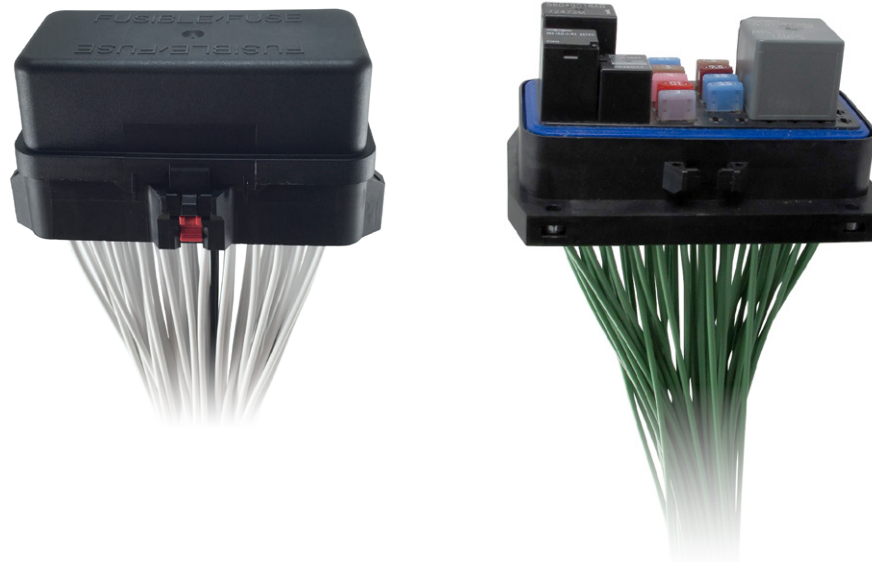
- Designed for 3, 2, or 1 mini ISO relay(s) and 2.8 mm plug-in blade fuse component
- Utilizes sealed AMP MCP 2.8 mm and 6.3 mm receptacle terminals
- Accommodates multiple mounting configurations and brackets
- Sealed to IP67 requirements with cover installed
- For use with 10 AWG FLR - 18 AWG SXL wire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



ORDERING INFORMATION

Direct Wire Fuse and Relay Solutions - 27, 38, & 49 Way Fuse Box

	Part Number
27P direct wire fuse (6x) & relay (3x) enclosure assembly w/ seal and dual cover CPA	2297813-3
27P direct wire fuse (22x) & relay (1x) enclosure assembly w/ seal, dual cover CPA, and mounting flange	2304643-1
38P direct wire fuse (14x) & relay (2x) enclosure assembly w/ seal and dual cover CPA	2297813-2
38P direct wire fuse (14x) & relay (2x) enclosure assembly w/ seal, dual cover CPA, and mounting flange	2304643-2
49P direct wire fuse (22x) & relay (1x) enclosure assembly w/ seal and dual cover CPA	2297813-1
49P direct wire fuse (6x) & relay (3x) enclosure assembly w/ seal, dual cover CPA, and mounting flange	2304643-3
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

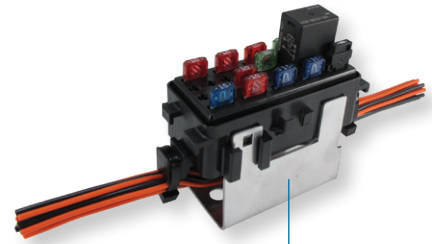


Sealed Direct Wire Fuse and Relay Enclosures

40 Position Fuse and Relay Enclosures

FEATURES

- Designed for 2.8 mm plug-in blade ATM type mini fuse and up to eight (8) 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

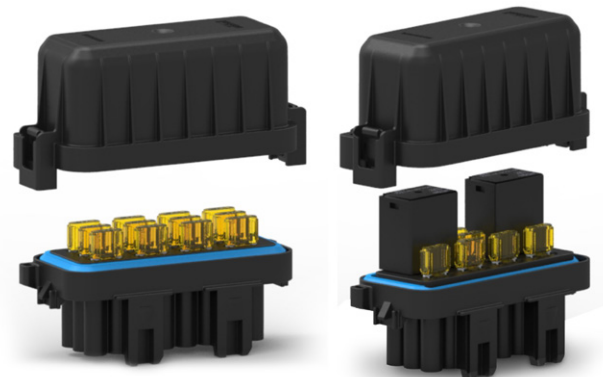
Direct Wire Fuse and Relay Solutions - 40 Way Fuse Box

	Part Number
40P direct wire fuse (20x) enclosure assembly 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

24 Position Fuse and Relay Enclosures (coming soon)

FEATURES

- Designed for 2.8 mm plug-in blade ATM type mini fuse and up to two (2) 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
- 3 columns x 8 rows



12 mini fuse variant

2- 280 micro relay, 6-mini fuse variant

ORDERING INFORMATION

Direct Wire Fuse and Relay Solutions - 24 Way Fuse Box

	Part Number
24P direct wire fuse (12x) enclosure assembly with seal and dovetails for mounting clips	2318956-1
Raised height cover for 24P enclosure	2318957-2

Sealed Direct Wire Fuse and Relay Enclosures

8 Position Fuse and Relay Enclosures (coming soon)

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
- Sealed to IP67 requirements with cover installed
- For use with 14 AWG GXL - 18 AWG SXL wire
- Dual cover latches



4 mini fuse variant

1- 280 micro relay,
1-mini fuse variant

ORDERING INFORMATION

Direct Wire Fuse and Relay Solutions - 8 Way Fuse Box

	Part Number
8P direct wire fuse (4x) enclosure assembly with seal	2319020-1
8P direct wire fuse (1x) & relay (1x) enclosure assembly with seal	2319020-2
Raised height cover for 8P enclosure	2319021-2

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, Ø2.2 - 3.0 mm insulation for use with 1-968857-1 contact, white	828905-1
Cavity seal plug, natural	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, gray	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, green	1719043-1
DT mounting clip, straight, SS, 11 mm dia. hole	1027-003-1200
DT mounting clip, straight, zinc plated steel, 13 mm dia. hole	1027-004-1200
DT mounting clip, straight, SS, 13 mm dia. hole	1027-005-1200
DT mounting clip, side, zinc plated steel, 11 mm dia. hole	1027-008-1200
DT mounting clip, side, zinc plated steel, 8.2 mm dia. hole	1027-017-1200
DT mounting clip, straight, plastic, gray, 5.08 mm dia. hole	1011-026-0205
DT mounting clip, straight, plastic, black	1011-030-0205
DT mounting clip, straight, plastic, black, fir tree	1011-310-0205
AMPSEAL 16 mounting clip, straight, plastic, black, 20.5 mm length fir tree	1924487-1
AMPSEAL 16 mounting clip, straight, plastic, black, 20.5 mm length fir tree, anti-rotation	1924487-2
AMPSEAL 16 mounting clip, straight, plastic, black, 11 mm length fir tree	1924487-3

Sealed Direct Wire Fuse and Relay Enclosures

AMP MCP Terminal Benefits



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

TE TECHNICAL SUPPORT CENTER

USA:	+(1) 800.522.6752
Canada:	+(1) 905.475.6222
China:	+(86) 400.820.6015
France:	+(33) 1.3420.8686
Germany:	+(49) 6251.133.1999
India:	+(91) 80.285.40800
UK:	+(44) 8706.080.208



SEALED TWO POSITION FUSE HOLDERS

We offer two types of sealed two position fuse holders. Our compact, IP67 rated, two position mini fuse holder accepts AMP MCP (Multiple Contact Point) 2.8 contacts. It is constructed of heavy-duty thermoplastic to withstand severe vibration and mechanical shock. This rugged mini fuse holder can accommodate two active fuses and two spares. Our two position MAXI fuse holder accepts MCON 8 mm receptacle contacts. The heavy-duty thermoplastic MAXI fuse holder is designed for harsh environments and accommodates a single fuse.

Both the sealed mini fuse holder and the MAXI fuse holder can be mounted using standard DEUTSCH DT and AMPSEAL 16 connector mounting clips, which are available in 90° and 180° options and in thermoplastic or metal material. When you need to add accessible circuit protection into your heavy-duty vehicle or equipment, you can count on our two position fuse holders to help make it easy.



FEATURES

- Compact size
- Accommodates two active and two spare fuses
- Environmentally sealed IP67 rating
- Available with integrated mounting feature, or dovetail that accepts mounting clips
- Due to mounting being on the housing assembly instead of the cover, there is a reduced applied load on the seal, which provides a more robust seal interface

BENEFITS

- Quickly and easily add a sealed fuse anywhere
- Several mounting options, with readily available mounting clips
- Accepts industry standard mini fuses
- Uses high performance AMP MCP terminal system for proven reliability

Sealed Two Position Fuse Holders

Dual Sealed Mini Fuse Holders

FEATURES

- Designed for 2.8 mm plug-in blade ATM type mini fuse
- Utilizes sealed AMP MCP 2.8 mm receptacle terminals
- Accommodates two active and two spare fuses
- Environmentally sealed IP67 rating
- Available with integrated mounting feature, or dovetail that accepts mounting clips
- Due to mounting being on the housing assembly instead of the cover, there is a reduced applied load on the seal, which provides a more robust seal interface



ORDERING INFORMATION

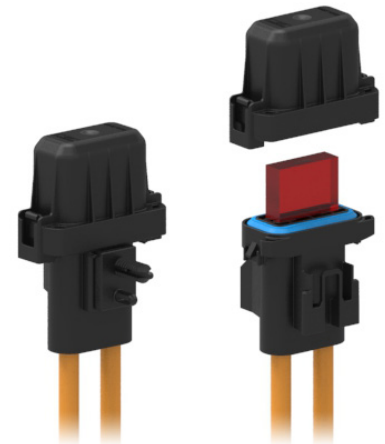
Direct Wire Fuse Solutions – Dual Sealed Mini Fuse Holder

	Part Number
2P direct wire fuse (2x + 2 spares) housing with integrated mounting feature for customer supplied bracket	2066046-1
2P direct wire fuse (2x + 2 spares) housing with dovetail for connector mounting clips	2066046-2
Cover, 25A & 15A markings	2066502-1
Cover, 25A & 10A markings	2066502-2
Cover, with no current markings	2066502-3

Single MAXI Fuse Holders (coming soon)

FEATURES

- Designed for plug-in blade MAXI type fuses
- Utilizes sealed MCON 8 mm receptacle terminals
- Accommodates multiple mounting configurations
- For use with 2.5 mm² - 10.0 mm² wire
- Dual cover latches



ORDERING INFORMATION

Direct Wire Fuse Solutions – Single MAXI Fuse Holder

	Part Number
2P direct wire fuse (1x) housing with integrated mounting feature for customer supplied bracket	2319827-1
2P direct wire fuse (1x) housing with dovetail for mounting clips	2319827-2
Raised height cover for 2P MAXI Fuse Holder	2319021-2

Sealed Two Position Fuse Holders

Applicable Companion Components

ORDERING INFORMATION

Dual Mini Fuse Holder - Applicable Companion Components	Part Number
AMP MCP 2.8 mm receptacle contact, 14 AWG, tin plated	1-968857-1
AMP MCP 2.8 mm receptacle contact, 12 AWG, tin plated	1-1719506-1
Single wire seal, Ø2.7-3.0 mm insulation for 1-1719506-1, gray	282536-1
Single wire seal, Ø2.2-3.0 mm insulation, white	828905-1
Sealing plug, natural	828922-1

Single MAXI Fuse Holder - Applicable Companion Components	Part Number
AMP MCON 8 mm receptacle contact, 2.5-4.0 mm ² , silver plated	1-2208765-3
AMP MCON 8 mm receptacle contact, 6.0-10.0 mm ² , silver plated	1-2208766-3
Single wire seal, Ø5.7-6.5 mm insulation, white	2300588-1
Single wire seal, Ø5.4-6.8 mm insulation, brown	2300588-2
Single wire seal, Ø4.4-5.0 mm insulation, grey	2300588-3
Single wire seal, Ø4.0-4.4 mm insulation, yellow	2300588-4
Single wire seal, Ø3.3-3.7 mm insulation, blue	2300588-5
Single wire seal, Ø2.7-3.0 mm insulation, green	2300588-6

Dual Mini Fuse Holder and Single MAXI Fuse Holder - Applicable Companion Components	Part Number
DT mounting clip, straight, SS, 11 mm dia. hole	1027-003-1200
DT mounting clip, straight, zinc plated steel, 13 mm dia. hole	1027-004-1200
DT mounting clip, straight, SS, 13 mm dia. hole	1027-005-1200
DT mounting clip, side, zinc plated steel, 11 mm dia. hole	1027-008-1200
DT mounting clip, side, zinc plated steel, 8.2 mm dia. hole	1027-017-1200
DT mounting clip, straight, plastic, gray, 5.08 mm dia. hole	1011-026-0205
DT mounting clip, straight, plastic black	1011-030-0205
DT mounting clip, straight, plastic, black, fir tree	1011-310-0205
AMPSEAL 16 mounting clip, straight, plastic black, 20.5 mm length fir tree	1924487-1
AMPSEAL 16 mounting clip, straight, plastic, black, 20.5 mm length fir tree, anti-rotation	1924487-2
AMPSEAL 16 mounting clip, straight, plastic, black, 11 mm length fir tree	1924487-3

Sealed Two Position Fuse Holders

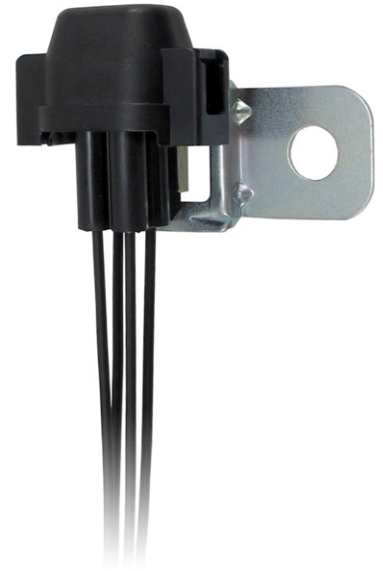
Dual Sealed Mini Fuse Holders

SPECIFICATIONS

Contact Insertion:	15 N max
Contact Retention:	80 N min
Sealing:	IP67
Insulation Resistance:	100 M Ω min
Types of Fuses Used:	Mini fuse
Spare Fuse Quantity:	2, without electrical supply
Working Temperature:	-40° to +125° C

APPLICABLE DOCUMENTS

Product Specification:	108-72108
Application Specification:	114-72110



Single Sealed MAXI Fuse Holders (coming soon)

SPECIFICATIONS

Sealing:	IP67
Types of Fuses Used:	MAXI fuse
Spare Fuse Quantity	0
Working Temperature:	-40° to +125° C or limited by fuse and wire temperature rating
Terminal System	8mm MCON, silver plated

APPLICABLE DOCUMENTS

Product Specification:	TBD
Application Specification:	TBD



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PRODUCT SHEET

TE Connectivity Industrial & Commercial Transportation

3700 Reidsville Road
Winston-Salem, NC 27101 USA

Tel +1-336-727-5706
www.te.com