

TD-121 - ATO Fuseholder Application Specification

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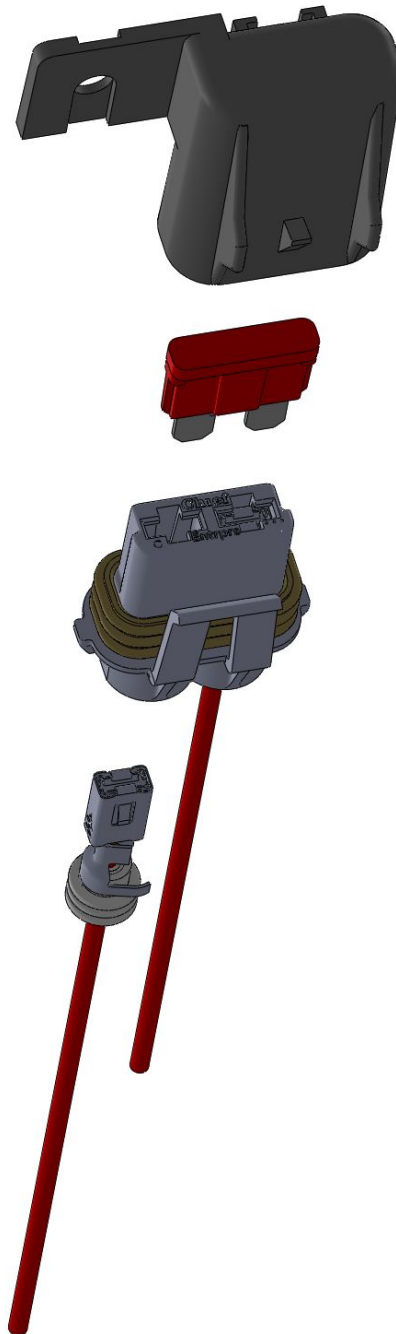


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Description of Product

Chief Enterprises' ATO Fuseholder houses a single ATO/ATC fuse in a sealed chamber. The fuseholder is designed for use in construction, agriculture, and heavy duty transportation applications where ruggedness is required.

A minimal Fuseholder system consists of a Fuseholder (C1258), Fuse (various), Wire Leads (various), and a Cover (12033731). Wire leads with terminals and single wire seals (SWS) are inserted in the bottom of the base (Push-to-Seat terminals). The fuse is mated to the terminals from the top of the fuseholder, and a cover is assembled from the top.

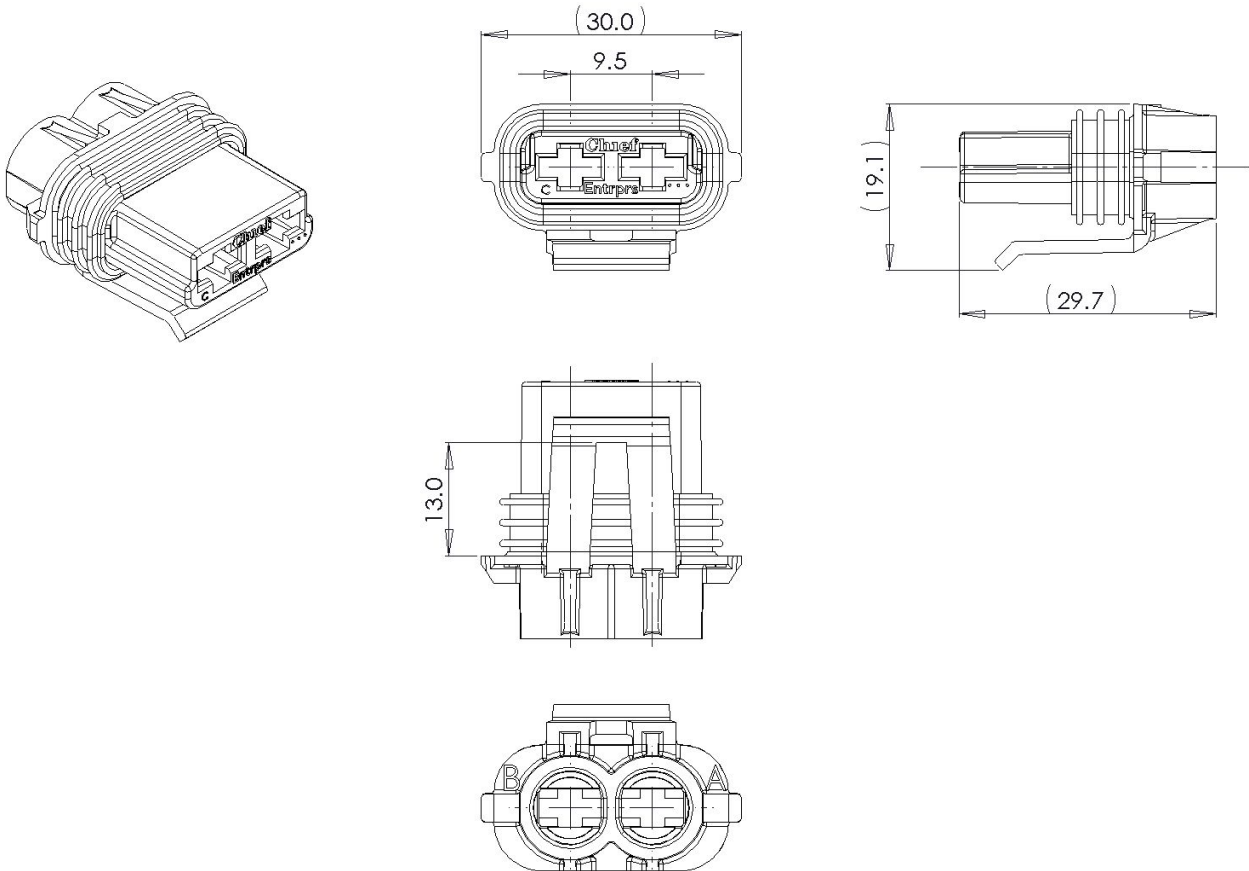
The Chief Fuseholder mates with Delphi™ Cover 12033731, simplifying the transition for most applications using Delphi™ ATO Fuseholder 12033769 or similar.

The Fuseholder has provisions for attachments on the back end, such as TPA, boot, or tether. If the application requires an attachment, our Engineering team can design and implement a solution.

While the design of the Fuseholder has been highly engineered and tested, each application can have unique characteristics that affect its functionality. Recommendations in this document are based on typical configurations and applications, but cannot cover the extent of all uses. We recommend that OEMs test the Fuseholder in their configuration, with the specified electrical components and environmental requirements.

Basic Dimensions

(reference only - see drawings for dimensions and tolerances)



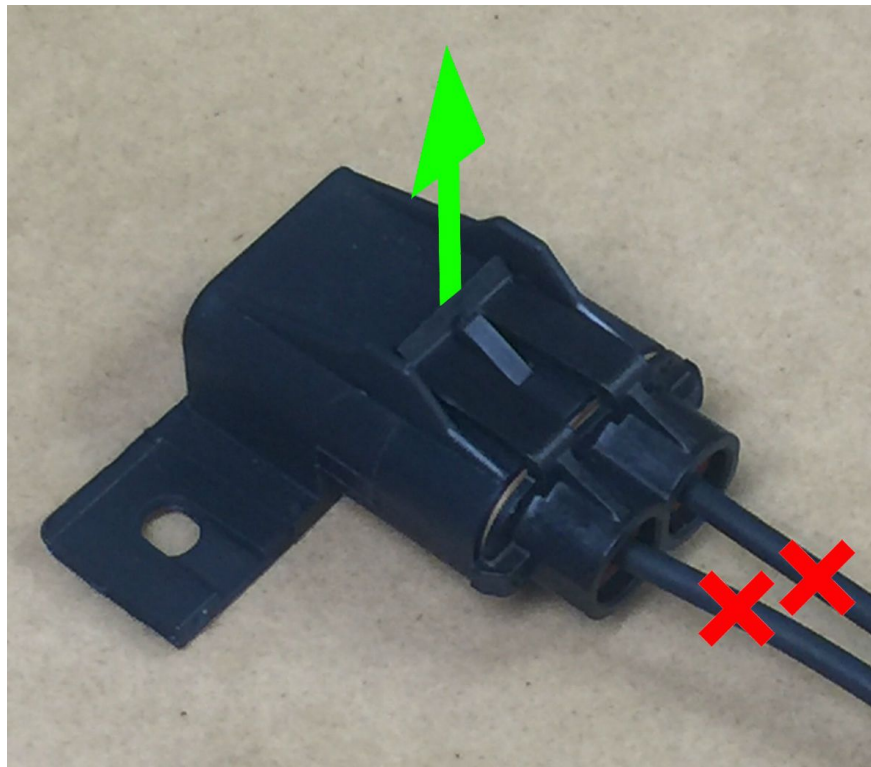
Assembly Instructions

1. Assemble TE MCP Terminals and Single Wire Seals onto wires
2. Insert wire assemblies into cavities A and B until a click is heard. Each cavity will accept a terminal in two orientations -- the terminals can be rotated 180°
3. Gently pull back on the wire assembly to confirm it is seated
4. Install an ATO/ATC fuse
5. Insert Fuseholder into cover until a click is heard
6. Mount cover as required

Disassembly Instructions

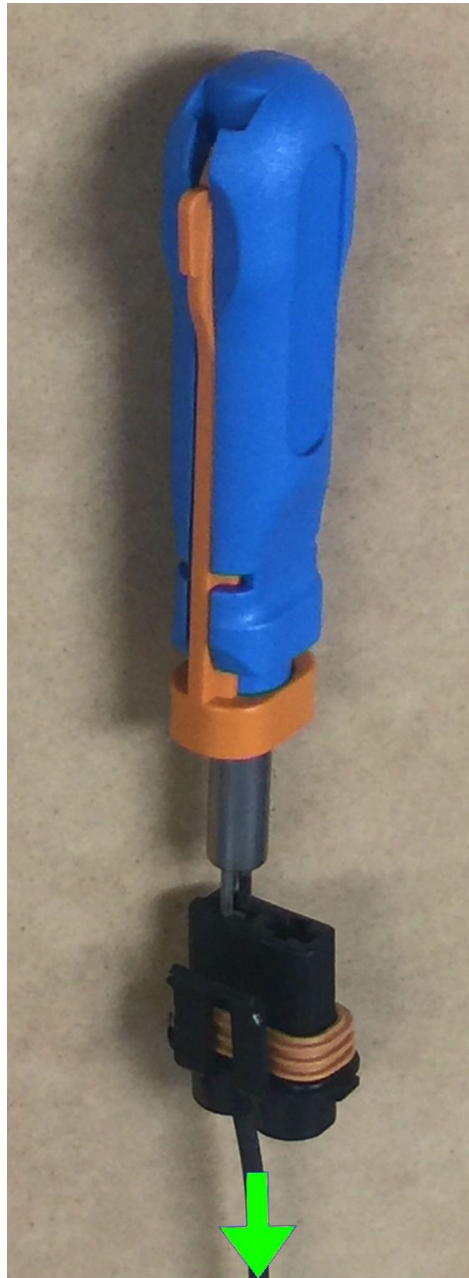
Removing Fuseholder from Cover

1. Lift latch on Fuseholder body
2. Pull on Fuseholder body -- do not pull on wires



Removing Wire Assemblies/Terminals from Fuseholder

1. Remove Cover and Fuse if necessary
2. Insert terminal removal tool 1-1579007-3 into cavity from top
3. Gently pull wire from back until it moves freely. Wiggle tool if necessary



Terminal System

Example part numbers are shown in the table below, this table is for reference only -- the latest information is available from the TE Connectivity. Note that x- and -x represent material, plating, or tooling options.

MCP 6.3						
Cavity Plug: 967652-1						
Terminal Extraction Tool:1-1579007-3						
Wire Size mm ² (AWG)	Insulation Diameter (mm)	Strip Form	Loose Piece	Applicator Tool	Hand Crimp Tool (Die Set)	Single Wire Seal
0.50 - 1.0 (20 - 18)	2.0 - 2.1	x-1241412-x	x-1241413-x	2151234-x	539955-2	1394511-1
>1.0 - 2.5 (16 - 14)	2.2 - 2.7	x-1241414-x	x-1241415-x	2151177-x	539956-2	1394511-1
>2.5 - 4.0 (12)	3.4 - 3.7	x-1241416-x	x-1241417-x	2151151-x	539956-2	1394512-1
>4.0 - 6.0 (10)	4.0 - 4.5	x-1241418-x	x-1241419-x	2151466-x	3-1579021-7	1719043-1

Electrical & Environmental

Ambient Temperature:	-40 to 120° C
Max Current per Terminal:	40 Amps (at 20° C Ambient)
Water & Dust Ingress Protection:	IP 67
Wire Range:	24 to 10 AWG (0.2 to 6.0 mm ²)
Environmental Compatibility:	Resistant to most underhood chemicals, UV Stable
Compliance:	ROHS REACH
	Fuseholder: UL 94V-0
	Seal: UL 94HB
Materials:	Fuseholder: Glass Reinforced PA Seal: Silicone
Design Recommendations:	Maximize wire gauge for heat dissipation Mount in area with airflow, away from heat sources

Validation Testing

Temperature Cycle: ▪	-40 to 125 °C, 10 Cycles (Operational)
Mechanical Shock: ▪	10 pulses at 25g
	100 pulses at 40g
	10 pulses at 50g
	3 pulses at 100g
Drop Test: ▪	1 Meter onto Concrete, All Sides
Vibration: ▪	Random 72 hrs (Operational)
Water & Dust Ingress: ▪	IP 67
Rain & Shine Cycle: ▪	100 cycles/200 Hours (Operational)

- complete & passed
- in process/planned