For the Protection of Electronic and Electrical Circuits and Devices

BUSS QUALITY

SMALL DIMENSION

FUSES and FUSEHOLDERS

BUSSMANN MFG. DIVISION
McGraw-Edison Company
University at Jefferson  St. Louis, Mo. 63107
Phone: Area Code 314  421-1740
DIMENSIONS

All dimensions shown are average. When dimensional tolerances are required, or specifications are not otherwise specified, refer to blueprints.

WEIGHTS

Weights shown are approximate. They include weight of fuses in can but do not include weight of shipping box.

BLOWING TIME CHARTS

Charts showing time-current characteristics of BUSS and FUSETRON small dimension fuses will be found on pages 21 and 22.

RESISTANCE OF FUSES

The approximate resistance of fuse acting fuses, the type generally used for instrument protection, is given to assist in circuit design.

These resistance values can be used as a guide but the actual resistance of any individual fuse may vary due to commercial tolerances and the degree of blowing of the fuse.

The resistance of other fuses is not shown because it generally has little significance in the circuit. Should, however, the resistance of any fuse be the important factor, fuses can be furnished to deliver desired tolerances, if specified. The additional cost of such controlled resistance will depend upon the tolerances desired.

VOLTAGE RATING OF FUSES

The voltage rating of a fuse indicates the maximum voltage for which the fuse is designed and rated. A typical voltage rating might read "for 250 volts or less". This shows that the fuse may be used on circuits of ANY voltage up to 250V. It will operate properly on any circuit of lower voltage since it is the current in amperes flowing through the fuse that causes it to blow, regardless of the circuit voltage.

The voltage rating is only important to indicate the highest voltage at which the fuse is tested to safely clear the circuit.

VIBRATION CHARACTERISTICS

To determine the vibration characteristics of BUSS and FUSETRON fuses, a costly Caladine Vibration System has been installed.

This system permits the evaluation of the vibration characteristics of Small Dimension fuses at cycles of 5 to 2000 per second and acceleration levels up to 30g (vector) or with displacements up to 25 inch double amplitudes.

Tests with this equipment have permitted great improvement in the designing of fuses to withstand vibration.

UNDERWriters’ LABORATORIES LISTING

Where Underwriters’ Laboratories listing is shown, this means that the fuse meets the requirements for special classifications in UL Standard No. 198.

MILITARY SPECIFICATIONS

Most BUSS fuses and FUSEholders are also available to meet the requirements of the Military Specifications. For more information, ask for a BUSS Bulletin covering products that meet such specifications.

SPECIAL FUSES, FUSE CLIPS, FUSE BLOCKS OR FUSEHOLDERS

Sometimes a special fuse or fuse mounting not shown is required. In such cases, we welcome your requests either to change — or to help in designing or selecting the special type of fuse or fuse mounting best suited to your particular conditions.

Submit design or sketch, showing type of fuse to be used, number of circuits, type of terminal, etc. If your problem is still in the engineering stage, tell us your requirements; voltage, load characteristics, etc.

Be sure to state voltage and amperes before design is finalized.

Frequently, a standard fuse or fuse mounting that is readily available from local wholesalers’ stocks can be adapted to meet your requirements. This makes it possible for you to continue your equipment or easily obtain replacements.

At any time our staff of fuse engineers is at your service to help solve your problems in electrical protection.
**BLOWING TIME CHARTS ON FUSETRON Dual-Element FUSES AND BUSS FUSES**

As a guide to help in the selection of the proper size and type of fuse these charts are given. They indicate the time-current characteristics of FUSETRON and BUSS fuses.

It must be realized that the information given is only approximate — if more accuracy is needed for some specific problem in electrical protection tell us your requirements. Our fuse engineers are always at your service.

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**BUSS FAST ACTING FUSES FOR PROTECTION OF INSTRUMENTS, etc.**

### ⅛ x 1 Inch. Glass tube

- **Buss Case**
- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**
- **Buss Case**
- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**

**Resistance of Fast-Acting Fuses**

See note on resistance of fuse on opposite page.

**Symbol**

- **Cold**
- **Hot**

**Cold**

- **Voltage**
- **Symbol**
- **A**
- **Ground**

**Hot**

- **Voltage**
- **Symbol**
- **A**
- **Ground**

**Buss Case**

- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
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**Buss Case**

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- **Wire**
- **Finial**

---

**BUSS GLASS TUBE FUSES, ⅛ x 1 Inch**

- Formerly called BAG

**Test**

- **Specification**
- **Cold**
- **Hot**

**Voltage**

- **Symbol**
- **A**

**Buss Case**

- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**

**Buss Case**

- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**

---

**BUSS INDICATING FUSES, ¼ x ⅛ Inch**

- Formerly called GBA

**Buss Case**

- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**

**Buss Case**

- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**

---

**BUSS CERAMIC TUBE FUSES, ⅛ x ⅛ Inch**

- Formerly called CFB

**Buss Case**

- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**

**Buss Case**

- **Instantaneous**
- **Case**
- **Clamshell**
- **Ribbon**
- **Coil**
- **Wire**
- **Finial**

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**EFFECT OF AMBIENT TEMPERATURE ON OPERATING CHARACTERISTICS OF FUSETRON dual-element FUSES**

Fusotron dual-element fuse ratings are based on an ambient temperature of 20° to 26° F. Higher or lower ambient temperatures affect the carrying capacity as shown on the chart.

For instance, an ambient of 104° F. reduces the carrying ‘capacity 5%.

On loads of 5000 or less, ambient other than 70° to 80° F. affect the blowing time as shown on the chart.

It must be remembered that these figures are only approximate and that they would be affected by the condition of the clips and other contacts.

Chart #2664 effect of ambient temp. on all fuses (general statement).

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**AMBIENT TEMPERATURE EFFECT ON NORMAL OPENING FUSES**

- **Temperature**
- **Rating**
- **Voltage**
- **Rating**
- **Voltage**

---

**FUSETRON FVA dual-element Fuses**

- **1⅛ x ⅛ Inch. Fibre tube**

**FUSETRON MDL dual-element Fuses**

- **1⅛ x ⅛ Inch. Glass tube**

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**FUSETRON FVM dual-element Fuses**

- **1⅛ x ⅛ Inch. Fibre tube**

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**FUSETRON FVA dual-element Fuses**

- **1⅛ x ⅛ Inch. Fibre tube**

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**FUSETRON MDL dual-element Fuses**

- **1⅛ x ⅛ Inch. Glass tube**
FUSETRON CERAMIC TUBE FUSES, ¼ x 1½ inch

DUAL-ELEMENT - SLOW BLOWING TYPE

Test specifications — carry 100%, open at 15% within 1 hour. Listed by Underwriters Laboratories, Inc. for No. 20, 1000, 2500, and 5000 volts. Voltage Symbol Ansprex 250 or less MDF 250 or less 75%, 80%, 85%, 15%, 10%, 10%, 5%. 32 or less MDF 5%, 10%, 10%, 20%, 30%. Current range S, shelf package 100. Shipping weight 0.9 lbs per 100.

FUSETRON MELAMINE TUBE FUSES Type MDF. These fuses are same as fuses MDF and MCO below, and come in same sizes except they have a Melamune tube.

FUSEGLASS TUBE FUSES, ¼ x 1½ inch

DUAL-ELEMENT - SLOW BLOWING TYPE

Test specifications — carry 100%, open at 15% within 1 hour. Listed by Underwriters Laboratories, Inc. for No. 20, 1000, 2500, and 5000 volts. Voltage Symbol Ansprex 250 or less MDF 250 or less 75%, 80%, 85%, 15%, 10%, 10%, 5%. 32 or less MDF 5%, 10%, 10%, 20%, 30%. Current range S, shelf package 100. Shipping weight 1.2 lbs per 100.

Buss Glass Tube Fuses, ¾ x 1½ inch

DUAL-ELEMENT - SLOW BLOWING TYPE

Test specifications — carry 100%, open at 15% within 1 hour. Listed by Underwriters Laboratories, Inc. for No. 20, 1000, 2500, and 5000 volts. Voltage Symbol Ansprex 250 or less MDF 250 or less 75%, 80%, 85%, 15%, 10%, 10%, 5%. 32 or less MDF 5%, 10%, 10%, 20%, 30%. Current range S, shelf package 100. Shipping weight 1.2 lbs per 100.

FUSEGLASS TUBE FUSES, ¾ x 1½ inch

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Test specifications — carry 100%, open at 15% within 1 hour. Listed by Underwriters Laboratories, Inc. for No. 20, 1000, 2500, and 5000 volts. Voltage Symbol Ansprex 250 or less MDF 250 or less 75%, 80%, 85%, 15%, 10%, 10%, 5%. 32 or less MDF 5%, 10%, 10%, 20%, 30%. Current range S, shelf package 100. Shipping weight 1.2 lbs per 100.

TRON FUSE CLIPS

Clips are made of a bronze of distinctly superior quality. This metal gives clips great gripping strength and ability to retain spring under adverse conditions. Beryllium copper is by far the most satisfactory metal yet discovered for use in fuse clips. It has the ability to retain spring pressure better than any other metal. It also has exceedingly high electrical conductivity. Clips are Alloysplated as this alloy plating is very resistant to corrosion and has a high conductivity.

BUSINESS CLIP ASSEMBLIES

Assembly consists of clip, brass terminal base, and screws as shown in table. Carton quantity, all clip assemblies: 100.

BUSINESS CLIPS

With Terminal Screw only

<table>
<thead>
<tr>
<th>No.</th>
<th>Former Fuse Type</th>
<th>Former No.</th>
<th>Screws</th>
<th>Terminal Screw</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>5842-02</td>
<td>4402</td>
<td>5842-02</td>
<td>4402</td>
<td>5842-02</td>
<td>4402</td>
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</table>

With Terminal and Terminal Screw

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</table>

Buss Insulated Twin-Clips for ¼ inch Fuses

Make it easy to replace blown pipe fuses without cutting or unsoldering pigtailed. Twin-Clips snap on to fuse. No. 3431 One pair of Buss Twin-Clips. Packed 5 pairs in a handy carton. Shipping Wt. 1.0 lbs per 100 pairs.
### BUSS FUSES, 1/4 x 1/2 inch FUSES

These fuses are used on 120/240 volt, ACR, RAF, RAF and DIN panelboard systems. They are designed to prevent damage to wiring and equipment in case of overload or short-circuit. The fuses are made of high melting point materials and are suited for use in household and industrial applications.

**Glass Tube Type**
- Formerly called SAG.
- Listed by Underwriters' Laboratories, Inc. in a 3 amp. and smaller sizes.
- Custom quantities 10, shall package 100. Shipping weight 1.8 lbs. per 100.

**Bakelite Tube Type**
- Formerly called SAB.
- Because of higher value voltage ratings the use of RAF or ABK fuses is recommended instead of ARI fuses.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Symbol</th>
<th>Amps</th>
<th>Number of pieces per box</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 volts</td>
<td>V20</td>
<td>1, 2, 4</td>
<td>50</td>
</tr>
<tr>
<td>25 volts</td>
<td>V25</td>
<td>1, 2, 4, 5</td>
<td>50</td>
</tr>
<tr>
<td>30 volts</td>
<td>V30</td>
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</tr>
<tr>
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<td>V50</td>
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<td>50</td>
</tr>
</tbody>
</table>

**Fast Acting Tube Type**
- Rated at 100,000 ampere hours at 250 volts. Custom quantities 10, shall package 100. Shipping weight 1.8 lbs. per 100.

### BUSETRON FIBRE TUBE FUSES, 1/4 x 1/2 inch

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**Fast Acting**
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**BUSS Space Saver Panel Mounted FUOSEHOLDERS**

For ¼" x 1½" inch Fuses

These compact BUSS fuseholders require only 1½" in mounting holes—only 1" behind mounting legs. Each type has a bayonet type knob for easy gripping and has a "breakout" type push-out hole.

One holder has a bayonet type knob for easy gripping and has a "breakout" type push-out hole.

The other has a screw type knurled knob recessed in holder body. This prevents anyone removing fuse without a screwdriver.

- Side terminals held mechanically as well as soldered and are designed to withstand severe service.
- Body is molded phenolic and contains a zinc-plated, chromate dipped steel fastening nut and neoprene washer.
- Easiest to adjust against potential in punchhole or permits use of locking key in drilled holes. Locking keys available without charge, Specify thickness of punch.

- Easy-Off" Knob type, specify BUSS symbol HY-TA.
- Screwscrew 3-½ Knob, specify BUSS symbol HMM.
- Current carrying capacity, 15 amperes at any voltage up to 250.

Fuseholders available with quick-connect terminals.

**BUSS Shielded Panel Mounted FUOSEHOLDERS**

Prevent Radio Frequency Interference

BUSS shielded fuseholders are for use where fuse and fuseholder could pick up radio frequency radiation and interfere with circuits containing fuseholder or act as a radiating antenna and interfere with or disrupt other nearby circuits.

They may be used as an ordinary fuseholder and accomplish both shielding and grounding, eliminating need for separate shielded metal case around fuseholder.

- Fuseholders available with quick-connect terminals.
- Current carrying capacity, 30 amperes at any voltage up to 250.

Fuseholders are available to take two sizes fuses.

- BUSS HMR Fuseholder takes ½ x 1½ inch fuses.
- BUSS HMF Fuseholder takes ⅛ x 1½ inch fuses.

Both fuseholders comply with the requirements of MIL-M-2024 B for interference control.

Give fuseholder symbol, then fuse-size symbol, then line-type symbol.

**TRON Waterproof FUOSEHOLDERS**

TRON Insu-Line Waterproof fuseholders fill the need for a watertight fuseholder that are easy to install and give fuse protection in exposed locations.

- The fuseholder completely encloses the fuse and protects it against damage from water, weather, salt spray, corrosive fumes and the like.

TRON HEB fuseholder takes ½ x 1½" inch fuse such as KTC, FNAM, RAF, etc., at rated voltage of fuse up to 600 volts.

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**TRON PIGTAIL FUSES**

Sub-miniature — hermetically sealed — visual indicating

- Fuse fuses are so small that they can easily be used as an integral part of circuits — to protect miniaturized devices — or gigantic multielement electronic devices — without exceeding the proper fuse rating.

Fuse element hermetically sealed

- Fuse fuses may be operated or uninstalled without danger of losing material affecting operation. Not affected by mechanical vibration and temperature variation. Designed for use in high shock and vibration applications.

- Fuses are well-proportioned and operate without external fluid or wiring, so they can be installed anywhere in the circuit. Likewise, they may be used as replacement units or in parallel with such components as resistors or condensers. Tiny tube construction permits visual inspection of element.

**GFA TRON Fuses**

Body size only .05 x .30 inches

<table>
<thead>
<tr>
<th>Symbol &amp; Assay</th>
<th>Type</th>
<th>Test</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFA 1 1/16 A</td>
<td>Red-Orange</td>
<td>1/2</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 2 1/16 A</td>
<td>Red-Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 3 1/16 A</td>
<td>Yellow-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 4 1/16 A</td>
<td>Brown</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 5 1/16 A</td>
<td>Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 6 1/16 A</td>
<td>Blue</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 7 1/16 A</td>
<td>Black</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 1 1/16 B</td>
<td>Red-Yellow</td>
<td>1/2</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 2 1/16 B</td>
<td>Red-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 3 1/16 B</td>
<td>Yellow-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 4 1/16 B</td>
<td>Brown</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 5 1/16 B</td>
<td>Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 6 1/16 B</td>
<td>Blue</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFA 7 1/16 B</td>
<td>Black</td>
<td>1/4</td>
<td>Green</td>
</tr>
</tbody>
</table>

**GLN and GLX TRON Fuses**

Body size only .14 x .30 inches

<table>
<thead>
<tr>
<th>Symbol &amp; Assay</th>
<th>Type</th>
<th>Test</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLN 1 1/16 A</td>
<td>Red-Orange</td>
<td>1/2</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 2 1/16 A</td>
<td>Red-Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 3 1/16 A</td>
<td>Yellow-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 4 1/16 A</td>
<td>Brown</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 5 1/16 A</td>
<td>Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 6 1/16 A</td>
<td>Blue</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 7 1/16 A</td>
<td>Black</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 1 1/16 B</td>
<td>Red-Yellow</td>
<td>1/2</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 2 1/16 B</td>
<td>Red-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 3 1/16 B</td>
<td>Yellow-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 4 1/16 B</td>
<td>Brown</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 5 1/16 B</td>
<td>Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 6 1/16 B</td>
<td>Blue</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GLN 7 1/16 B</td>
<td>Black</td>
<td>1/4</td>
<td>Green</td>
</tr>
</tbody>
</table>

**TRON GFT Fuses**

Body size only .14 x .30 inches

<table>
<thead>
<tr>
<th>Symbol &amp; Assay</th>
<th>Type</th>
<th>Test</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFT 1 1/16 A</td>
<td>Red-Orange</td>
<td>1/2</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 2 1/16 A</td>
<td>Red-Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 3 1/16 A</td>
<td>Yellow-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 4 1/16 A</td>
<td>Brown</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 5 1/16 A</td>
<td>Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 6 1/16 A</td>
<td>Blue</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 7 1/16 A</td>
<td>Black</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 1 1/16 B</td>
<td>Red-Yellow</td>
<td>1/2</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 2 1/16 B</td>
<td>Red-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 3 1/16 B</td>
<td>Yellow-Yellow</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 4 1/16 B</td>
<td>Brown</td>
<td>1/4</td>
<td>Green</td>
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<tr>
<td>GFT 5 1/16 B</td>
<td>Orange</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 6 1/16 B</td>
<td>Blue</td>
<td>1/4</td>
<td>Green</td>
</tr>
<tr>
<td>GFT 7 1/16 B</td>
<td>Black</td>
<td>1/4</td>
<td>Green</td>
</tr>
</tbody>
</table>

Color ratings are available with a nominal test characteristic.

**BUSS GFT Fuses — HLT Fuseholders**

**Signal Indicating**

Alert Activating

For multiple circuit apparatus where space is at a premium.

- GFT fuse and HLT fuseholders permit multiple mounting of fuses in limited space, for protection of communication equipment, control machines, computers, control circuits or any equipment requiring an 120 volt or less.

- The walls of the holder form a barrier around space so that adjacent fuses are protected from damage when the fuse blows to isolate a fault.

- Holders take panel mounting space of only ½" in horizontal or 1½" in vertical.

- Fuses give visual indication when blown by release of a snapping indicator.

- The spring center a colored plastic flag, in a different color for each fuse ampere rating.

- The indicator spring when released makes contact with an alarm terminal in the fuseholder, which can be connected to activate a signal circuit.

- Blown fuses are readily replaced without use of insulated tools.

- When mounted on minimum centers, removal of fuse is easy by use of a wire hook.
TRON RECTIFIER FUSES

For Protection of Semi-Conductor Rectifiers and Like Applications

Another Outstanding Development by the Makers of BUSS Fuses

These TRON fuses are especially designed for the protection of semi-conductor rectifiers, SCR's, Thyristors, Solid State Devices or wherever a very fast actuating fuse is needed. They provide extremely fast opening on overload and fault currents, with a high degree of restriction of the lea-thru current.

If each diode is protected by a TRON fuse, the fuse will open very quickly when the current drawn exceeds the rating of the diode.

Thus when a short-circuit occurs in a diode the fuse opens and takes that diode out of the circuit. This protects other good diodes in the rectifier which might otherwise be damaged.

Write for time-current characteristic charts.

Dimensions of TRON Rectifier Fuses

For 130 volts or less

Voltage Symbol Amperes
130 or less GUR 1, 1 1/2, 2, 3, 4, 5, 6, 7, 8, 9 or 10.
65 or less GB 12, 15, 20, 25 or 30.
Circuit quantity 5. Shipping weight 1 lb. per 100.

Voltage Symbol Amperes
130 or less RAH 1, 1 1/2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 17 1/2, 20, 25 or 30.
Circuit quantity 10. Shipping weight 1 1/2 lbs. per 100.

For 250 volts or less

Voltage Symbol Amperes
250 or less RAH 1, 1 1/2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 17 1/2, 20, 25 or 30.
Circuit quantity 10. Shipping weight 1 1/2 lbs. per 100.

BUSH Panel Mounted FUSEHOLDERS

Lamp Indicating Series HG for Military Types FHL10U, FHL11U, FHL12U

For ¼ x 1/16 and ¾ x 1/16 inch Fuses

Transparent knob permits indicating light to be readily assayed.
Fuses are held in beryllium copper fuse clips on a fuse carrier.
Fuse carrier slides into holder and locks in with bayonet type knob.
Terminals are pure brass with external tooth lock washers and hex nuts, 8-32 threads.

"O" ring and gasket makes holder drip proof from front of panel.
Test hole is provided in body so circuit can be tested without disturbing fuse carrier.
Holder designed for panels up to ½ inch thick.
Holder is inserted in panel from rear. Mounting screws can be conveniently tightened from front of panel.

BUSS HGB-C

Fuselholder
Military Type FHL11U

Single Pole for ¼ x 1/16 inch fuses
Made to Military Specification Type MIL-F-19307B
SN N 9920-581-2959. Drawing No. 9000-56202-74220 Rev. D
For circuits of 90 to 250 volts — Maximum ampere rating 30 —
Nose type lamp — Lamp resistor 120,000 ohms — Clear flat sided knob. Body of molded alloy.
BUSS HGB. Same as HGB-C except clear octagon knob.
Circuit quantity 10. Shipping Weight 10 1/4 lbs. per 100.

BUSS HGA-C

Fuselholder
Military Type FHL10U

Two Pole for ¼ x 1/16 inch fuses
Made to Military Specification Type MIL-F-19307B
SN N 9920-296-0969. Drawing No. 9000-56202-74128 Rev. D
For circuits of 90 to 250 volts — Maximum ampere rating 30 —
Nose type lamp — Lamp resistor 120,000 ohms — Clear flat sided knob. Body of molded alloy.
Circuit quantity 10. Shipping Weight 38 lbs. per 100.
BUSS HGA. Same as HGA-C except clear octagon knob and molded black phenolic body.
Circuit quantity 10. Shipping Weight 31 1/4 lbs. per 100.

BUSS HGC

Fuselholder
Military Type FHL12U

Single Pole for ¾ x 1/16 inch fuses
Made to Military Specification Type MIL-F-19307B
SN N 9920-552-0269. Drawing No. 9000-56202-74230 Rev. D
For circuits of 90 to 500 volts — Maximum ampere rating 30 —
Nose type lamp — Lamp resistor 330,000 ohms — Clear octagon knob. Body of molded silver.
HIGH INTERRUPTING CAPACITY
HGC Fuselholders, with BUSS KLM fuses, have been tested and found safe on circuits capable of delivering 60,000 amperes at 550 volts or less both AC or DC.
Circuit quantity 10. Shipping Weight 5 lbs. per 100.

HOLDER FOR SPARE FUSES — A spare holder for spare fuses dimensionally interchangeable with any of above holders can be obtained.

Dimensions of HGB-C and HGB

When toothing up for mounting holder, get latest blueprint.

Dimensions of HGA-C and HGA

When toothing up for mounting holder, get latest blueprint.

Dimensions of HGC

When toothing up for mounting holder, get latest blueprint.
Buss Panel Mounted Fuseholders

Lamp Indicating Series HK and HJ
For 4 1/4 x 1 and 4 1/4 x 1/4 inch Fuses

Type HJL

Body of HJL

Flushed Knob

Bayonet type knob. Body of molded phenolic. Strong coil spring provides contact pressure at ends of fuse. Transparent knob permits indicating light to be readily seen.

HKL, HKL-X and HJL side and end terminals—and HKX, HKXU, HKX and HKR side terminal—are held mechanically as well as by solder. Heat of soldering cannot cause terminals to loosen or come off. HKX, HKXU, HKX and HKR end terminals are held mechanically but more outwardly approximately 1/4 inch when fuse is inserted. Fuseholder is designed to withstand vibration as required in aircraft applications.

Holder is inserted through front panel and can be used in panels up to 1/8 inches thick.

Furnished with holder is a flat recessed washer and metal fastening nut that is inserted and then tightened. A fastener on threaded section prevents rotation when holder is used in a punched hole—or permits use of a locking slug in a drilled hole. Holes shown on dimensional drawing.

1/4-inch locking slugs are obtainable on request, without extra charge.

If holders that are drip proof from front of panel are required, they can be furnished at slight additional cost. Flat washer on body is replaced with "EP" ring and "EP" ring is added to knob. To specify them add letter W to Type shown in table below. (Example: HKL-W).

When fuses rated at 1/4 ampere or less are used in fuseholders rated at 90 volts or less, special consideration should be given to the relationship between resistance value of the fuse and the parallel resistance value of the lamp and resistor.

**Holdlers have Non-Interchangeable Fuse Carriers**

Carriers of HKX, HKXU, HKX and HKR holders with fuse will not fit in HKL, HKL-X or HJL holders and vice versa. This assurance indicated by the lamp when the fuse is blown because the higher voltage lamp cannot be unintentionally installed in a low voltage circuit and vice versa. The bodies of the HKX, HKXU, HKX and HKR are also known in color to distinguish them from the HKL, HKL-X and HJL which have black bodies.

**For Military Use**

The HK series fuseholders are also available in military type. These fuseholders meet all the requirements of Military Specification MIL-D-97270D, and cover the entire voltage range from 12 to 300 volts.

The body molding material is Nyla Greys dished phenolic SQ(E) of MIL-M-14. The Type Designation is stamped on the body. The assembly is equipped with an internal pushlockwasher and washer-dipped terminals. The fastener is fusible resistant and drip proof, and meets a 200-hour salt spray test.

To provide a more positive finger grip, fuseholders are supplied with a knob that has two flat parallel sides to make it easier to change the fuse with a gloved hand.

Dimensions of HKL and HJL same as HKL-X. Dimensions of HKX and HKXU same as HKX.

When upgrading for mounting holder, get latest blueprint.

**Military Type Designation**

<table>
<thead>
<tr>
<th>Lamp Designation</th>
<th>Ampacity</th>
<th>Code</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHH-1C1</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
<tr>
<td>PHH-1C2</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
<tr>
<td>PHH-1C3</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
<tr>
<td>PHH-1C4</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
<tr>
<td>PHH-1C5</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
<tr>
<td>PHH-1C6</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
<tr>
<td>PHH-1C7</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
<tr>
<td>PHH-1C8</td>
<td>12.5</td>
<td>Clear</td>
<td>Amber</td>
</tr>
</tbody>
</table>

**Dimensions**

<table>
<thead>
<tr>
<th>Dimensions in inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
</tr>
<tr>
<td>5/8</td>
</tr>
</tbody>
</table>

**Fuse Blocks for Rectifier Protection Fuses**

<table>
<thead>
<tr>
<th>Type</th>
<th>Symbol</th>
<th>Ampacity</th>
<th>Black</th>
<th>Dimensions of Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pole</td>
<td>RAC</td>
<td>1 to 30</td>
<td>3505</td>
<td>1/4 x 3/8</td>
</tr>
<tr>
<td>2 pole</td>
<td>RAC</td>
<td>1 to 30</td>
<td>3505</td>
<td>1/4 x 3/8</td>
</tr>
<tr>
<td>4 pole</td>
<td>RAC</td>
<td>1 to 30</td>
<td>3505</td>
<td>1/4 x 3/8</td>
</tr>
<tr>
<td>6 pole</td>
<td>RAC</td>
<td>1 to 30</td>
<td>3505</td>
<td>1/4 x 3/8</td>
</tr>
<tr>
<td>1 pole</td>
<td>RAC</td>
<td>35 to 60</td>
<td>3512</td>
<td>3/8 x 1/2</td>
</tr>
<tr>
<td>2 pole</td>
<td>RAC</td>
<td>35 to 60</td>
<td>3512</td>
<td>3/8 x 1/2</td>
</tr>
<tr>
<td>4 pole</td>
<td>RAC</td>
<td>35 to 60</td>
<td>3512</td>
<td>3/8 x 1/2</td>
</tr>
<tr>
<td>6 pole</td>
<td>RAC</td>
<td>35 to 60</td>
<td>3512</td>
<td>3/8 x 1/2</td>
</tr>
</tbody>
</table>

**GBB**

Use any Buss block for 3/4 x 1/4 inch fuse.
BUSS GRASSHOPPER FUSES

A color code is used on the incasing bar to indicate type and amperage of fuse. This helps in assuring proper replacement.

For quick identification of circuit in trouble, when fuse blows — indicator spring rises well above insulating bar and sharp spout on alarm spring makes positive contact on alarm buzzer.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Minimum Holding Time</th>
<th>Max. Short Circuit</th>
<th>Volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>30A</td>
<td>15</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>15A</td>
<td>15</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>6A</td>
<td>20</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>3A</td>
<td>20</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>0A</td>
<td>20</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

BUSS Panel Mounted FUSEHOLDERS Series HPC

For ½ x 1¼ and ¾ x 1½ inch FUSES

Screw type knob. Strong coil spring provides contact pressure on ends of fuse. Side terminal is held mechanically as well as by solder. Heat of soldering cannot cause it to loosen or come off.

Vibration will not loosen fuses of terminals which are designed to withstand severe service.

Holder is attached to panel with screws or rivets. It can be mounted with flange on front side of panel of any thickness. With clamp on rear side, panel of thickness up to ¼ inch can be used.

HPC-L Fuseholder for ½ x 1¼ inch BUSS (BBS) fuses

Listed by Underwriters' Laboratories, Inc. For 3 ampere rating and any voltage up to 600 volts.

Carton quantity 10. Shipping Weight 6.5 lbs. per 100.

BUSS HPC Fuseholder for ¾ x 1½ inch fuses

(AGU, ABU, RAF, BAN, FNM, MDR, KLM, etc.)

Listed by Underwriters' Laboratories, Inc. For 30 ampere rating for any voltage up to 600.

Quick-connector terminals also available — specify HPC-K.

Carton quantity 3. Shipping Weight 6.5 lbs. per 100.

BUSS HPC-C Fuseholder for ¾ x 1½ inch fuses

Like HPC but has transparent knob giving visual indication of blown fuse when indicating fuses are used.

Takes MINI, MIC, FNA.

Listed by Underwriters' Laboratories, Inc. For 15 ampere rating for any voltage up to 250.

Quick-connector terminals also available — specify HPC-CK.

Carton quantity 3. Shipping Weight 6.5 lbs. per 100.

BUSS HPC-D Fuseholder for ½ x 1¼ inch fuses

Like HPC but has “G2” rings added to make holder waterproof under 6 foot head of water when mounted with flap in front of panel.

Normal current carrying capacity 30 amperes for any voltage up to 600.

Carton quantity 10. Shipping Weight 7.1 lbs. per 100.

HPC and HPC-D HOLDERS — A spare holder for spare fuses dimensionally interchangeable with any of above holders can be obtained. Words “Spare Fuse” shown on cap.

BUSS KAZ Actuator

BUSS KAZ Actuators are used primarily to call attention to the opening of a larger fuse (30 amperes or larger). These fuses can provide visual indication or when used in a special microswitch fuse block (BUSS No. 2837 or 2838), can provide a signal actuating scheme to announce trouble at a distant station.

The indicating mechanism in the KAZ Actuator is a spring operated pin which is released by the opening of an internal element. Applied in parallel with larger fuses, the KAZ Actuator finds useful application in fused breaker units, semi-conductor power rectifier circuits, power factor correction capacitors, and other circuits where fuses larger than 30 amperes are used.

Although these fuses may be mounted “staggered” on larger fuses, 2 and 3 pole KAZ Actuators Blocks are available for remote signaling.

200,000 amperes interrupting rating, 600 volts or less, 125 x 7.1, Operates at 10 amperes or more.

For detailed information ask for bulletin KAFS.

BUSS HIGH VOLTAGE FUSES

HVA, HVB, HVD and HVT Fuses are suitable for protection of circuits up to 20 KVA on d.c. and 30 KVA on a.c.

<table>
<thead>
<tr>
<th>Voltage of Fuse</th>
<th>Symbol</th>
<th>Rated at</th>
<th>Panel Amperes</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500 volts</td>
<td>HVA</td>
<td>1500</td>
<td>10</td>
<td>14 x 14</td>
</tr>
<tr>
<td>1000 volts</td>
<td>HVB</td>
<td>750</td>
<td>10</td>
<td>14 x 14</td>
</tr>
<tr>
<td>500 volts</td>
<td>HVD</td>
<td>375</td>
<td>10</td>
<td>14 x 14</td>
</tr>
</tbody>
</table>

For higher interrupting capacity see

For HVA fuses up to 1700 KVA a.c. only.

For HVB, HVD and HVT fuses up to 1250 KVA a.c. only.

For HVT fuses up to 500 KVA a.c. only.

For HVT fuses up to 1250 KVA a.c. only.

HIGH VOLTAGE FUSES

FUSE BLOCKS FOR BUSS HIGH VOLTAGE FUSES

Like HPC but has transparent knob giving visual indication of blown fuse when indicating fuses are used.

Takes MINI, MIC, FNA.

Listed by Underwriters' Laboratories, Inc. For 15 ampere rating for any voltage up to 250.

Quick-connector terminals also available — specify HPC-C.

Carton quantity 3. Shipping Weight 6.5 lbs. per 100.
BUSS Panel Mounted FUSE HOLDERS

Non-Indicating Series HJ, HK, and HCM

For 1/4 x 1, 1/4 x 1 1/4, and 1/4 x 1 1/4 inch FUSES

Bayonet type knob.
Sawing call gives positive contact pressure at end of fuse.
Side terminal is held mechanically as well as by solder. Heat of soldering cannot cause it to loosen or come off.
Vibration will not cause failure of terminals as they are designed to withstand severe service.
Holder is inserted through hole in panel and can be used in panels up to 1/4 inch thick.
Nongeared washer and pin plated, chromate dip steel fastening nut is furnished with each holder.
Body is molded black phenolic.
Fin flat spot lacks a locking feature in used in punched hole — or permits use of a locking key in drilled holes.

HKP Fuseholder for 1/4 x 1 1/4 inch fuses

Illustrated with quick-contact terminals — specify HKP-HH.
Normal current carrying capacity 30 amperes.
Knob grips fuse tightly and pulls it from holder when knob is removed.
Listed by Underwriters’ Laboratories, Inc. for 15 ampere rating for any voltage up to 250.
Ceramic quantity 10. Shipping Weight 5/4 lb. per 50.
To order with standard terminals — specify HKP.

HJF Fuseholder for 1/4 x 1 inch fuses

Normal current carrying capacity 30 amperes.
Knob grips fuse tightly and pulls it from holder when knob is removed.
Listed by Underwriters’ Laboratories, Inc. for 5 ampere rating for any voltage up to 250.
Ceramic quantity 10. Shipping Weight 5/4 lb. per 50.
Quick-contact terminals also available — specify HJF-US.
HJF-CC & HKPCC — These holders project a shorter distance behind panel than do the regular HJF or HKP. Dimensions as shown for HJF or HKP except 1/4 inch dimension is 1/8 inch and 3/4 inch dimension is 3/8 inch.

FUSE HOLDERS

For military use.

Series HJ, HK, and HCM fuseholders are also available in military types. They meet all the requirements of Military Specification MIL-F-40172B.

Military Type Designation

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFM1G</td>
<td>HFM2G</td>
<td>HFM3G</td>
</tr>
</tbody>
</table>

* DO NOT ORDER BY THIS SYMBOL — USE MILITARY TYPE DESIGNATION.

For Military Use

Mechanical Indicating — Limiter type

ACH, ACT, and ACO Limiter types have some dimmensions as shown for ACH limiters in same size range. They are available in ampere ratings of 1, 2, 3, 5, 10, 15, 20, 25, 30, 40, 50, and 60. ACF limiters are made with an alkyl body, suitable for ambient temperatures from —55°C to +4°C. Interrupting rating of 120 volts AC, 250 amperes at 208 volts AC. ACF and ACT limiters have phenolic composition bodies. For time-current characteristics see charts on page 13.

For Indication

Series HJ, HK, and HCM fuseholders are also available in military types. They meet all the requirements of Military Specification MIL-F-40172B.

Military Type Designation

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFM1G</td>
<td>HFM2G</td>
<td>HFM3G</td>
</tr>
</tbody>
</table>

* DO NOT ORDER BY THIS SYMBOL — USE MILITARY TYPE DESIGNATION.

It is not uncommon to use these fuses in aircraft distribution systems. They have a silver plate and copper link which will maintain its time-current characteristics throughout the life of the fuse. Their high clear visibility through the mica window.

Symbol and ampere ratings are stamped on the fuse terminal.
Center to center dimensions 25 inches. Width of molding, 5 inches. Height of molding, 5 inches.

MOUNTING BOULDS FOR MILITARY LIMITERS

Molded alloy base with molded plastic InseL Top. Counterpack mounting holes for No. 10 flat head screw.

No. 4816 furnished with step nuts.
No. 4816-PN free running lock nuts.

BUSS AIRCRAFT FUSES

Those fuses are designed to Indian faults or grounds in aircraft distribution systems. They have a silver plate and copper link which will maintain its time-current characteristics throughout the life of the fuse. Their high clear visibility through the mica window.

Symbol and ampere ratings are stamped on the fuse terminal.
Center to center dimensions 25 inches. Width of molding, 5 inches. Height of molding, 5 inches.

No. 4816 furnished with step nuts.
No. 4816-PN free running lock nuts.

BUSS FUSES, Stud mounted type

For military use.

Military Type Designation

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS26H01</td>
<td>ACT</td>
<td>HCM</td>
</tr>
</tbody>
</table>

* DO NOT ORDER BY THIS SYMBOL — USE MILITARY TYPE DESIGNATION.

FUSE BLOCKS FOR ABOVE FUSES

For all metal parts silver plated. Clips are beryllium copper. Copper, 4104 through 4126 have molded phenolic base. Series 387 have molded mica base and are qualified to MIL-18, 10, 300. For ACF, ACT, and ACO fuses used for ACF, ACT, and ACO fuses, see page 13.

For Indication

Series HJ, HK, and HCM fuseholders are also available in military types. They meet all the requirements of Military Specification MIL-F-40172B.

Military Type Designation

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFM1G</td>
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TEST PROD HOLE — These fuseholders with test prod hole in knob can be obtained by giving catalog symbol by 41 (Example HKP41).

--14--
BUSS Type C Fuses and FUSETRON Type N Fuses and Fusholders

FUSETRON Type N are "slowing-blowing" fuses for use where harmless surges or starting currents prevail. BUSS Type C are "quick-blowing" fuses for fast interruption of a fault current.

Fusholders are installed by pushing it into panel from front side. Snap-in steel clip on bush embraces edge of hole in panel and locks holder securely in place in panel from 1/4 to 3/4 inch thick.

Fusholders and covers are mounted behind the insulator to provide "Live" fuse protection. Fusholders are available at the lower cost. Covers may be ordered separately.

BUSS Type C Fuses

<table>
<thead>
<tr>
<th>Size</th>
<th>UL 1050V Class</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
<th>125</th>
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</thead>
<tbody>
<tr>
<td>HN 0</td>
<td>1/16</td>
<td>1/4</td>
<td>1/2</td>
<td>1/4</td>
<td>1/2</td>
<td>1/4</td>
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<td>1/4</td>
<td>1/2</td>
<td>1/4</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>N 1</td>
<td>11/32</td>
<td>1/4</td>
<td>5/16</td>
<td>1/4</td>
<td>5/16</td>
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<tr>
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<td>5/16</td>
<td>1/4</td>
<td>5/16</td>
<td></td>
</tr>
</tbody>
</table>

Series HH and HI — Body, molded of black phenolic with bayonet type knub with metal holding ears. Two contacts, ready to be straddled to ends of wire, furnished with holder. Strong coil spring ensures constant positive pressure on ends of fuse assuring low resistance.

Holders can be mounted in panels up to 5/16 inch thick by means of BUS No. 9669 spring nut (order separately)

Plat area on holder prevents rotation when used in matched panel mounting hole.

Contracted design to take different size wire. For 18 to 22 wire add "B" to fuse size. For 22 wire add "BB". (Example H11-B). A SPECIFY WHICH DESIRED.

Series HD and HA — Same as Series HH and HI — except holding ears on bayonet knub are of molded phenolic.

FUSETRON Type N Fusholders

<table>
<thead>
<tr>
<th>Size</th>
<th>UL 1050V Class</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
<th>125</th>
</tr>
</thead>
<tbody>
<tr>
<td>HN 0</td>
<td>1/16</td>
<td>1/4</td>
<td>1/2</td>
<td>1/4</td>
<td>1/2</td>
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</tr>
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<td>1/4</td>
<td>5/16</td>
<td>1/4</td>
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<td>1/4</td>
<td>5/16</td>
<td></td>
</tr>
</tbody>
</table>

BUSS In-the-Line Fusholders For 1/4 inch Fuses, 1/2 to 1 1/2 inches long

When wiring up for mounting holder, get fuse (blueprint).

Holder Assemblies with Fuse and Wire Loop

Series HH fuse has 19 inches of 10/4 standard wire. HH series have 8 inches of wire. Assemblies have fuse installed. BUSS 9690 spring nut furnished with holder to permit panel mounting.

Use Assembly Symbol in Ordering

<table>
<thead>
<tr>
<th>Size</th>
<th>Description</th>
<th>Weight</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HN 0</td>
<td>1/16 inch</td>
<td>15</td>
<td>2.3</td>
</tr>
<tr>
<td>N 1</td>
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<td>15</td>
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<td>N 2</td>
<td>5/32 inch</td>
<td>15</td>
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<tr>
<td>N 3</td>
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<td>15</td>
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</tr>
<tr>
<td>N 7</td>
<td>1/16 inch</td>
<td>15</td>
<td>2.3</td>
</tr>
</tbody>
</table>

BUSS In-the-Line or Panel Mounted Fusable & Holder COMBINATIONS

For values of 300 or less—Non-Indicating

Holders and covers are mounted behind the insulator to provide "Live" fuse protection. Covers may be ordered separately.

When wiring up for mounting holder, get fuse (blueprint).

GLQ Bus fuses or GMQ Bus fuses used in HLQ fuse holders give best limiting combination.

Fuses are furnished with terminals to mount fuses in holder. This prevents use of a fuse of larger amperage size than marked on holder.

Series HA — BUSS Panel Mounted FUSEHOLDER — Lamp Indicating — Signal Activating

For 1/4 x 1/2 inch

HBA GLD Fuse 1/4 to 5 amp.

Series HA fuseholder is designed for use on circuits of 125 volts or less. When used with BUSS GLD fuses, provides a simultaneous lamp and external signal indication when fuse opens.

Holders are of molded phenolic with amber knob. Strong coil spring provides pressure at ends of fuse. Terminals on holder are held mechanically as well by screws. The holder is inserted through front of panel and can be used in panels up to 1/4 inch thick. A flat area on the threaded section prevents rotation when holder is used in a punched hole. A laterally placed or a lacking dog in a drilled hole.

When wiring up for mounting holder, get fuse (blueprint).