

Automotive

Used in older-model cars, glass tube fuses today are found primarily in automotive accessory applications. The expansive Bussmann series line of glass fuses includes many types and sizes in addition to those listed in this catalog. Call Eaton for more product details if you have requirements which are not covered here.

Appliances and consumer electronics

Glass and ceramic tube fuses are often used to protect appliances and consumer electronics. As electronic equipment becomes smaller, the circuits and components become more delicate and easily damaged. Fuses are the preferred method of protection due to their accuracy, small size and reliability. Fuses are available in a wide variety of amp ratings to provide precise protection. Generally, two sizes of user-replaceable fuses are found: the 1/4" x 1-1/4" and 5x20 mm. Each is available in a variety of volt and amp ratings.

Fuse types

There are two basic types of fuses available for appliances and consumer electronics: fast-acting or time-delay. Any replacement fuse must match the one it's replacing. In general, fast-acting fuses are a single strand of wire or strip of metal. Time-delay fuses usually have a coiled wire, a thick element wrapped in wire, or a spring. Most electronic fuses will have the voltage and amp rating stamped on the end cap. The type of fuse can generally be visually identified. Also, owner's manuals will have the correct replacement fuse generically identified. For example: "Use a 2 amp, time-delay, 250 volt fuse."

Glass and ceramic tube fuse sizes

Glass and ceramic tube fuse sizes

Both glass and ceramic tube fuses vary by diameter and length. The chart below provides a visual reference for the various sizes of the Bussmann series fuse families. Images are shown to scale.

Fuse selection criteria

- For electronic/electrical applications, fuses must be rated at 125 V or better.
- Voltage must match or exceed the fuse being replaced (125 V for household current; 12 V for auto; 24 V for heavy duty).
- Fuses must match required fuse characteristic – either fast-acting or time-delay.
- Amp rating must match that of the original fuse.

A note on voltage rating

All fuses have a voltage rating. To maintain safety, this voltage rating should not be exceeded in application, although it is acceptable to use a higher voltage rated fuse in a lower voltage application. For example: A fuse rated for 125 volts is appropriate in household (110 V) or automotive (12 V), while a fuse rated for 32 volts is appropriate for automotive (12 V), but not for household (125 V). Always replace a fuse with one of the same or higher voltage rating.

See page 54 for specifications.



* Mounts in HLR in-line holder, see page 14.

Fast-acting 1/4" diameter automotive fuses

AGA

1/4" x 5/8" fast-acting glass tube fuses

See page 28 for available assortments.



Amps	Catalog no.*	Retail pack**
1/4	AGA-1/4	—
1	AGA-1	—
1-1/2	AGA-1-1/2	—
2	AGA-2	—
2-1/2	AGA-2-1/2	—
3	AGA-3	—
5	AGA-5	—
6	AGA-6	—
7-1/2	AGA-7-1/2	—
10	AGA-10	—
15	AGA-15	—
20	AGA-20	BP/AGA-20-RP
30	AGA-30	—

* 5 Fuses per pack, 10 packs per shelf carton.

** 5 Fuses per pack, 5 packs per shelf carton.

AGW

1/4" x 7/8" fast-acting automotive glass tube fuses

See page 28 for available assortment.



Amps	Catalog no.*	Retail pack**
1	AGW-1	—
1-1/2	AGW-1-1/2	—
2-1/2	AGW-2-1/2	—
3	AGW-3	—
4	AGW-4	—
5	AGW-5	—
6	AGW-6	—
7-1/2	AGW-7-1/2	—
10	AGW-10	—
15	AGW-15	BP/AGW-15-RP
20	AGW-20	—
30	AGW-30	—

* 5 Fuses per pack, 10 packs per shelf carton.

** 5 Fuses per pack, 5 packs per shelf carton.

AGX

1/4" x 1" fast-acting automotive glass tube fuses

See page 28 and 52 for available assortments.



Amps	Catalog no.*
1	AGX-1
2	AGX-2
2-1/2	AGX-2-1/2
3	AGX-3
5	AGX-5
7	AGX-7
8	AGX-8
10	AGX-10
15	AGX-15
20	AGX-20
25	AGX-25
30	AGX-30

* 5 Fuses per pack, 10 packs per shelf carton.

GBB

1/4" x 1-1/4" very fast-acting ceramic tube fuses



Amps	Catalog no.*
1-1/4	GBB-1-1/4-R
10	GBB-10-R
15	GBB-15-R
30	GBB-30-R

* 5 Fuses per pack, 10 packs per shelf carton.

ABC

1/4" x 1-1/4" fast-acting ceramic tube fuses

See page 52 for available assortment.



Amps	Catalog no.*	Retail pack**
1/4	ABC-1/4-R	—
1/2	ABC-1/2-R	—
1	ABC-1-R	—
2	ABC-2-R	—
2-1/2	ABC-2-1/2-R	—
3	ABC-3-R	—
4	ABC-4-R	—
5	ABC-5-R	—
6	ABC-6-R	—
7	ABC-7-R	—
8	ABC-8-R	—
10	ABC-10-R	BP/ABC-10
12	ABC-12-R	—
15	ABC-15-R	BP/ABC-15
20	ABC-20-R	BP/ABC-20
25	ABC-25-R	—
30	ABC-30-R	—

* 5 Fuses per pack, 10 packs per shelf carton.

** 2 Fuses per pack, 5 packs per shelf carton.

AGC

1/4" x 1-1/4" fast-acting automotive glass tube fuses

See pages 27, 28, 32, 35 and 52 for available assortments.



Amps	Catalog no.*	Retail pack**
1/8	AGC-1/8-R	—
1/4	AGC-1/4-R	—
3/10	AGC-3/10-R	—
3/8	AGC-3/8-R	—
1/2	AGC-1/2-R	BP/AGC-1/2-RP
3/4	AGC-3/4-R	—
1	AGC-1-R	BP/AGC-1-RP
1-1/4	AGC-1-1/4-R	—
1-1/2	AGC-1-1/2-R	BP/AGC-1-1/2-RP
2	AGC-2-R	BP/AGC-2-RP
2-1/2	AGC-2-1/2-R	BP/AGC-2-1/2-RP
3	AGC-3-R	BP/AGC-3-RP
3-2/10	AGC-3-2/10-R	—
3-1/2	AGC-3-1/2-R	—
4	AGC-4-R	BP/AGC-4-RP
5	AGC-5-R	BP/AGC-5-RP
6	AGC-6-R	BP/AGC-6-RP
6-1/4	AGC-6-1/4-R	—
7	AGC-7-R	—
7-1/2	AGC-7-1/2-R	BP/AGC-7-1/2-RP
8	AGC-8-R	—
10	AGC-10-R	BP/AGC-10-RP
12	AGC-12-R	—
15	AGC-15-R	BP/AGC-15-RP
20	AGC-20-R	BP/AGC-20-RP
25	AGC-25-R	BP/AGC-25-RP
30	AGC-30-R	BP/AGC-30-RP
35	AGC-35-R	BP/AGC-35-RP
40	AGC-40-R	—
50	AGC-50	—

* 5 Fuses per pack, 10 packs per shelf carton.

** 5 Fuses per pack, 5 packs per shelf carton.

Fast-acting fuses

GBC

1/4" x 31/32" fast-acting German automotive fuses

See page 28 for available assortment.



Color code	Amps	Catalog no.*	Retail pack**
Yellow	5	GBC-5	—
White	8	GBC-8	BP/GBC-8-RP
Red	16	GBC-16	BP/GBC-16-RP
Blue	25	GBC-25	BP/GBC-25-RP

* 5 Fuses per pack, 10 packs per shelf carton.
** 5 Fuses per pack, 5 packs per shelf carton.

SFE

1/4" size-rejecting fast-acting automotive glass tube fuses

See pages 28, 32 and 35 for available assortments.



Amps	Fuse length	Catalog no.*	Retail pack**
4	5/8"	SFE-4	—
6	3/4"	SFE-6	—
7-1/2	7/8"	SFE-7-1/2	—
9	7/8"	SFE-9	—
14	1-1/16"	SFE-14	BP/SFE-14-RP
20	1-1/4"	SFE-20	BP/SFE-20-RP
30	1-7/16"	SFE-30	BP/SFE-30-RP

* 5 Fuses per pack, 10 packs per shelf carton.
** 5 Fuses per pack, 5 packs per shelf carton.

AGU

13/32" x 1-1/2" fast-acting automotive glass tube fuses

Available with gold-plated end caps for high-end stereo and AV markets.



Amps	Catalog no.*	Retail pack**
Nickel-plated		
10	AGU-10	—
15	AGU-15	—
20	AGU-20	—
25	AGU-25	—
30	AGU-30	—
35	AGU-35	—
40	AGU-40	BP/AGU-40-RP
50	AGU-50	BP/AGU-50-RP
60	AGU-60	BP/AGU-60-RP
Gold-plated		
10	AGU-10GP	—
15	AGU-15GP	—
20	AGU-20GP	—
25	AGU-25GP	—
35	AGU-35GP	—
40	AGU-40GP	BP/AGU-40GP-RP
50	AGU-50GP	BP/AGU-50GP-RP
60	AGU-60GP	BP/AGU-60GP-RP

* 10 Fuses per pack, 10 packs per shelf carton.
** 2 Fuses per pack, 5 packs per shelf carton.

Time-delay 1/4" diameter fuses

MDA

1/4" x 1-1/4" time-delay ceramic tube fuses



Amps	Catalog no.*
1	MDA-1-R
1-1/2	MDA-1-1/2-R
2	MDA-2-R
2-1/2	MDA-2-1/2-R
3	MDA-3-R
4	MDA-4-R
5	MDA-5-R
6	MDA-6-R
7	MDA-7-R
8	MDA-8-R
10	MDA-10-R
12	MDA-12-R
15	MDA-15-R
20	MDA-20-R
25	MDA-25-R
30	MDA-30-R

* 5 Fuses per pack, 10 packs per shelf carton.

MDL

1/4" x 1-1/4" time-delay glass tube fuses

See page 52 for available assortment.



Amps	Catalog no.*	Retail pack**
1/16	MDL-1/16-R	—
1/8	MDL-1/8-R	—
1/4	MDL-1/4-R	BP/MDL-1/4
3/8	MDL-3/8-R	—
1/2	MDL-1/2-R	BP/MDL-1/2
3/4	MDL-3/4-R	—
1	MDL-1-R	BP/MDL-1
1-1/4	MDL-1-1/4-R	—
1-1/2	MDL-1-1/2-R	BP/MDL-1-1/2
2	MDL-2-R	BP/MDL-2
2-1/2	MDL-2-1/2-R	BP/MDL-2-1/2
3	MDL-3-R	BP/MDL-3
3-2/10	MDL-3-2/10-R	—
3-1/2	MDL-3-1/2-R	—
4	MDL-4-R	BP/MDL-4
5	MDL-5-R	BP/MDL-5
6	MDL-6-R	BP/MDL-6
6-1/4	MDL-6-1/4-R	—
7	MDL-7-R	BP/MDL-7
7-1/2	MDL-7-1/2-R	—
8	MDL-8-R	BP/MDL-8
10	MDL-10-R	BP/MDL-10
12	MDL-12-R	—
15	MDL-15-R	BP/MDL-15
20	MDL-20-R	BP/MDL-20
25	MDL-25	BP/MDL-25
30	MDL-30	BP/MDL-30
35	MDL-35	—
40	MDL-40	—

* 5 Fuses per pack, 10 packs per shelf carton.
** 2 Fuses per pack, 5 packs per shelf carton.

MDQ

1/4" x 1-1/4" dual-element, time-delay glass tube fuses



Amps	Catalog no.*
2	MDQ-2
4	MDQ-4
5	MDQ-5
6	MDQ-6

* 5 Fuses per pack, 10 packs per shelf carton.

Fast-acting 5x20 mm fuses

GDA

IEC 5x20 mm high-breaking capacity fast-acting ceramic tube fuses



Amps	Catalog no.*
500 mA	GDA-500MA
630 mA	GDA-630MA
1	GDA-1A
1.25	GDA-1.25A
1.6	GDA-1.6A
2	GDA-2A
2.5	GDA-2.5A
3.15	GDA-3.15A
4	GDA-4A
5	GDA-5A
6.3	GDA-6.3A

* 5 Fuses per pack, 10 packs per shelf carton.

GDB

IEC 5x20 mm fast-acting glass tube fuses



Amps	Catalog no.*
160 mA	GDB-160MA
2	GDB-2A
4	GDB-4A
6.3	GDB-6.3A
8	GDB-8A
10	GDB-10A

* 5 Fuses per pack, 10 packs per shelf carton.

GMA

UL 5x20 mm fast-acting glass tube fuses

See page 52 for available assortments.



Amps	Catalog no.*	Retail pack**
63 mA	GMA-63-R	—
100 mA	GMA-100-R	—
125 mA	GMA-125-R	—
200 mA	GMA-200-R	BP/GMA-200MA
250 mA	GMA-250-R	BP/GMA-250MA
300 mA	GMA-300-R	—
315 mA	GMA-315-R	—
500 mA	GMA-500-R	BP/GMA-500MA
600 mA	GMA-600-R	—
750 mA	GMA-750-R	BP/GMA-750MA
800 mA	GMA-800-R	—
1	GMA-1-R	BP/GMA-1A
1.25	GMA-1.25-R	—
1.5	GMA-1.5-R	—
1.6	GMA-1.6-R	—
2	GMA-2-R	BP/GMA-2A
2.5	GMA-2.5-R	—
3	GMA-3-R	BP/GMA-3A
3.15	GMA-3.15-R	—
3.5	GMA-3.5-R	—
4	GMA-4-R	—
5	GMA-5-R	BP/GMA-5A
6	GMA-6-R	BP/GMA-6A
7	GMA-7-R	BP/GMA-7A
8	GMA-8-R	—
10	GMA-10-R	BP/GMA-10A

* 5 Fuses per pack, 10 packs per shelf carton.
** 2 Fuses per pack, 5 packs per shelf carton.

Time-delay 5x20 mm fuses

GDC

IEC 5x20 mm time-delay glass tube fuses



Amps	Catalog no.*	Retail pack**
500 mA	GDC-500MA	—
1	GDC-1A	—
1.6	GDC-1.6A	—
2	GDC-2A	—
2.5	GDC-2.5A	—
3.15	GDC-3.15A	—
4	GDC-4A	—
5	GDC-5A	BP/GDC-5A
6.3	GDC-6.3A	—

* 5 Fuses per pack, 10 packs per shelf carton.
** 2 Fuses per pack, 5 packs per shelf carton.

GMC

UL 5x20 mm medium time-delay glass tube fuses



Amps	Catalog no.*	Retail pack**
500 mA	GMC-500-R	BP/GMC-500MA
630 mA	GMC-630-R	—
1	GMC-1-R	—
1.5	GMC-1.5-R	—
1.6	GMC-1.6-R	—
2	GMC-2-R	—
3	GMC-3-R	—
3.5	GMC-3.5-R	—
4	GMC-4-R	—
5	GMC-5-R	BP/GMC-5
6	GMC-6-R	—
7	GMC-7-R	BP/GMC-7

* 5 Fuses per pack, 10 packs per shelf carton.
** 2 Fuses per pack, 5 packs per shelf carton.

GMD

UL 5x20 mm medium time-delay glass tube fuses



Amps	Catalog no.*
500 mA	GMD-500-R
1	GMD-1-R
2	GMD-2-R
3	GMD-3-R

* 5 Fuses per pack, 10 packs per shelf carton.

GMF

Non-rejection time-delay in-line fuse with cap



Amps	Catalog no.*
2-1/2	GMF-2-1/2
2-8/10	GMF-2-8/10
3	GMF-3
3-2/10	GMF-3-2/10
4	GMF-4

* 5 Fuses per pack, 10 packs per shelf carton.

Use with HLR in-line fuse holder page 14.