



# FUSES



## GLASS/CERAMIC CARTRIDGE FUSES

**5/pkg 100/bulk**

TYPE	AMPS/VOLTS	
2AG .177 x .57 glass, fast blow	225 Series—1/10, 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4, 5, 6, 7, 8, 10 (all are 250v)	
2AG .177 x .57 glass, slow blow	229 Series—1/4, 3/8 (375ma), 1/2, 6/10, 3/4, 1, 1 1/2, 2, 2 1/2, 3, 3 1/2, 4, 5, 7 (all are 250v)	
EUROPEAN 5 x 20mm glass, fast blow	GMA (217 Series)—1/32, 1/20 (50ma), 1/16 (62ma), 1/10 (100ma), 1/8 (125ma), 175/100 (175ma), 2/10 (200ma), 1/4 (250ma), 3/10 (300ma), .315, 4/10 (400ma), 1/2 (500ma), 6/10 (600ma), 630ma, 8/10 (800ma), 1, 1-1/4, 1-6/10, 2, 2-1/2, 3-2/10 (3.15), 4, 5, 6-3/10 (6.3), 8, 10 (all are 250v)	
EUROPEAN 5 x 20mm glass, slow blow	GDC (218 Series)—Same values as GMA (217 series) fuses above.	
1AG 1/4 x 5/8 glass, fast blow	AGA—1/16, 1/10, 1/4, 3/8, 1/2, 6/10, 3/4, 1, 1-1/2 (all are 125v) AGA—2, 2-1/2, 3, 5, 6, 7, 7-1/2, 10, 15, 20, 25, 30 (all are 32v)	
7AG 1/4 x 7/8 glass, fast blow	AGW—1/2, 1, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 7-1/2, 10, 15, 20, 25, 30 (all are 32v)	
8AG 1/4 x 1 glass, fast blow	AGX—1/200, 1/100, 1/32, 1/16, 1/10, 1/8, 2/10, 3/16, 1/4, 3/10, 3/8, 4/10, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2 (all are 250v) AGX—2-1/2, 3, 4, 5 (all are 125v) AGX—6, 7, 8, 10, 12, 15, 20, 25, 30 (all are 32v)	 <b>BUSSMANN</b>
3AG 1/4 x 1 1/4 glass, fast blow	AGC—1/200, 1/100, 1/32, 1/20, 1/16, 1/10, 1/8, 15/100, 175/1000, 2/10, 3/16, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 3/4, 8/10, 1, 1-1/4, 1-1/2, 1-6/10, 1-3/4, 1-8/10, 2, 2-1/4, 2-1/2, 3, 3-2/10, 3-1/2, 4, 5, 6, 6-1/4, 7, 7-1/2, 8, 9, 10 (all are 250v) AGC—12, 15, 20, 25, 30 (all are 32v)	
3AG 1/4 x 1 1/4 glass, slow blow	MDL—1/100, 1/32, 1/16, 1/10, 1/8, 15/100, 175/1000, 2/10, 3/16, 1/4, 3/10, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1, 1-2/10, 1-1/4, 1-1/2, 1-6/10, 2, 2-1/4, 2-1/2, 2-8/10, 3, 3-2/10, 3-1/2, 4, 5, 6, 6-1/4, 7, 7-1/2, 8 (all are 250v) MDL—10, 12, 15, 20, 25, 30 (all are 32v)	
3AB 1/4 x 1 1/4 ceramic, fast blow	ABC—1/4, 1/2, 3/4, 1, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 20 (all are 250v) ABC—25, 30 (all are 125v)	
3AB 1/4 x 1 1/4 ceramic, slow blow	MDA—1-100, 1/32, 1/16, 1/10, 1/8, 15/100, 175/1000, 2/10, 3/16, 1/4, 3/10, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1, 1-1/4, 1-1/2, 1-6/10, 2, 2-1/2, 3, 3-2/10, 3-1/2, 4, 5, 6, 7, 8, 10, 12, 15, 20 (all are 250v) MDA—25, 30 (all are 32v)	
5AG 13/32 x 1 1/2 glass, fast blow	AGU—1, 2, 3 (all are 250v) AGU—4, 5, 8, 10, 15, 20, 25, 30, 35, 40, 50, 60 (all are 32v)	

# FUSES

## WIRE LEAD FUSES

AMPS	MICRO (radial) fast blow 125v .25" x .35"	GMW (radial) fast blow 125v .27" x .25"	PICO (axial) fast blow 125v .095" x .28"	2AG (axial) fast blow 250v .177" x .57"	3AG (axial) fast blow 250v 1/4" x 1-1/4"	3AG (axial) slow blow 250v 1/4" x 1-1/4"
1/500	273.002				GJV-1/500*	
1/200	273.005	GMW-1/200			GJV-1/200*	
1/100	273.010 LF	GMW-1/100*			GJV-1/100*	MDV-1/100*
1/64	273.015	GMW-1/64				
1/32	273.031	GMW-1/32			GJV-1/32*	MDV-1/32*
1/20	273.050 LF	GMW-1/20				
1/16	273.062	GMW-1/16	251.062		GJV-1/16	MDV-1/16
1/10	273.100 LF	GMW-1/10			GJV-1/10*	MDV-1/10
1/8	273.125	GMW-1/8	251.125		GJV-1/8	MDV-1/8
2/10	273.200 LF	GMW-2/10				MDV-175-10 MDV-2/10 MDV-3/16
1/4	273.250 LF	GMW-1/4	251.250 LF		GJV-1/4	MDV-1/4
3/10	273.300 LF	GMW-3/10			GJV-3/10	MDV-3/10
3/8			251.375		GJV-3/8	MDV-3/8
4/10	273.400 LF	GMW-4/10			GJV-4/10*	MDV-4/10
1/2	273.500 LF	GMW-1/2	251.500 LF		GJV-1/2	MDV-1/2
6/10	273.600 LF	GMW-6/10			GJV-6/10*	MDV-6/10
7/10	273.700 LF					MDV-8/10
3/4	273.750 LF	GMW-3/4	251.750	224.750	GJV-3/4	MDV-3/4
8/10	273.800 LF				GJV-8/10*	MDV-8/10
1	273001	GMW-1	251001	224001	GJV-1	MDV-1 MDV-1 1/4
1-1/2	27301.5	GMW-1 1/2	25101.5	22401.5	GJV-1 1/2	MDV-1 1/2
1-3/4					GJV-1 3/4	MDV-1 6/10
2		GMW-2	251002	224002	GJV-2	MDV-2
2-1/2			25102.5		GJV-2 1/2	MDV-2 1/2
3	273003	GMW-3	251003		GJV-3	MDV-3
3-2/10					GJV-3 2/10	MDV-3 2/10
3-1/2			25103.5		GJV-3 1/2	
4	273004	GMW-4	251004		GJV-4	MDV-4
5	273005	GMW-5	251005		GJV-5	MDV-5
6					GJV-6	MDV-6
7			251007		GJV-7	MDV-7
8					GJV-8	MDV-8*
10			251010		GJV-10	MDV-10* 32v
12			251012 32v		GJV-12*	MDV-12* 32v
15			251015 32v		GJV-15*	MDV-15* 32v

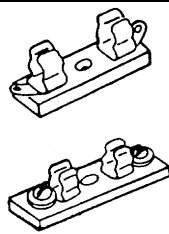
\*NOT A STOCK ITEM (SPECIAL ORDER FROM FACTORY).

## GLASS/CERAMIC FUSE HOLDERS

FUSE SIZE	FUSE BLOCK	PANEL MOUNT	LIGHTED PANEL MOUNT	IN-LINE	FUSE CLIPS
5mm x 20mm		345623 LF		IL-520 DNR	111501 LF
1AG 1/4" x 5/8"					1A1119-10 BUSS
2AG .177" x .57"					
3AG, 3AB 1/4" x 1-1/4"	4405 BUSS* (solder)	HKP BUSS*	HKL BUSS* (neon)	155020A LF	1A1119-10 BUSS
5AG 13/32" x 1-1/2"	2807 BUSS (single) 2808 BUSS (dual)	HPG BUSS		HEB-AA BUSS	
7AG 1/4" x 7/8"					1A1119-10 BUSS
8AG 1/4" x 1"	4520 BUSS	HJM BUSS			1A1119-10 BUSS

\*For a more complete listing of this type holder, see boxes below.

## 3AG FUSE BLOCKS

# FUSES	SOLDER TYPE	SCREW TYPE
1	4405 BUSS	3833-1 BUSS
2	4408 BUSS	3833-2 BUSS
4		3833-4 BUSS
5		3833-5 BUSS
10		3833-10 BUSS
12		3833-12 BUSS

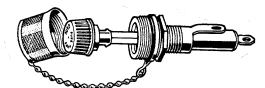
## 3AG PANEL MOUNT HOLDERS

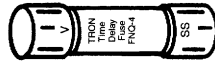
TRADITIONAL, SOLDER TYPE	LOW PROFILE, 3/16" quick-connect terminal	SQUARE, LOW PROFILE 3/16" quick-connect terminal	P.C. MOUNT (screwdriver slot knob)	BLOWN-FUSE INDICATING TYPE
HKP BUSS cap only: # 9435-1/2 BUS washer only: #9732 BUS	HTB-44i BUSS (rt. angle term.) HTB-22i BUSS (in-line term.)	348677 LF (black cap) extra cap: 348001 LF (red) 348005 LF (green) 348009 LF (black)	345101 LF	344125 LF (neon) HKL BUSS (neon) HJL BUSS (neon) HKX BUSS (22v-33v)

**FUSE PULLER**—For 1/4" diameter fuses. Makes it easy and safe to remove or replace fuses even in hard to get at fuse blocks. #FP-A3 BUSS

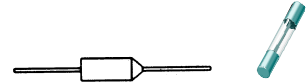
**SHIELDED PANEL MOUNT FUSEHOLDERS**—For use where fuse and fuseholder could pick up stray RF or act as a radiating antenna and cause RF interference. HMR

BUSS (for 1/4" x 1-1/4" fuses)  
HMS BUSS (for 1/4" x 1" fuses)





# FUSES



## CARTRIDGE TYPE FUSES by BUSSMAN

SIZE	AMPS/VOLTS
13/32" x 1 1/2"	KAA-5, 7, 8, 10, 15, 25, 30 (all are 130v) KAW-10, 15, 20, 25, 30 (all are 130v)
	BBS-2/10, 4/10, 1/2, 6/10, 3/4, 8/10, 1, 1-1/2, 1-6/10, 1-8/10, 2, 3, 4, 5 (all are 600v) BBS-6, 7, 8, 10 (all are 250v) BBS-15, 20, 25, 30 (all are 48v)
13/32" x 1-3/8" non-time delay	BAF-1/2, 1, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 6-1/4, 7, 8, 9, 10, 12, 15 (all are 250v) BAF-20, 25, 30 (all are 125v)
	KTK-1/10, 1/8, 2/10, 1/4, 3/10, 1/2, 3/4, 1, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 7, 8, 10, 12, 15, 20, 25, 30 (all are 600v)
13/32" x 1-1/2" fast blow	FNM-1/10, 15/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1-1/8, 1-1/4, 1-4/10, 1-1/2, 1-6/10, 1-8/10, 2, 2-1/4, 2-1/2, 2-8/10, 3, 3-2/10, 3-1/2, 4, 4-1/2, 5, 5-6/10, 6, 6-1/4, 7, 8, 9, 10 (all are 250v) FNM-12, 15 (all are 125v) FNM-20, 25, 30 (all are 32v)
	FNW-12, 15, 20, 25, 30 (all are 250v) FNQ-1/10, 1/8, 15/100, 2/10, 3/16, 1/4, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1-1/8, 1-1/4, 1-1/2, 1-6/10, 2, 2-1/4, 3, 3-2/10, 3/1/2, 4, 4-1/2, 5, 5-6/10, 6, 6-1/4, 7, 8, 9, 10, 12, 15, 20, 25, 30 (all are 500v)
13/32" x 1-1/2" slow blow	SC-1/2, 1, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60 (all are 300v)
	NOTE: SC-1/2 to SC-15 (1-15/16" length), SC-20 (1-13/32" length), SC-25 & SC-30 (1-5/8" length), SC-35 to SC-60 (2-1/4" length). Various lengths prevents oversizing.
9/16" x 1" fast blow	KAB-5, 6, 8, 10, 12, 15, 20, 25, 30 (250v) — extremely fast rectifier fuse KAX-15 (250v)
9/16" x ??? fast blow	NON-1, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 10, 12, 12, 15, 20, 25, 30 (all are 250v)
9/16" x 2" slow blow	FRN-R-1/10, 1/8, 15/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1-1/8, 1-1/4, 1-4/10, 1-1/2, 1-6/10, 1-8/10, 2, 2-1/4, 2-1/2, 2-8/10, 3, 3-2/10, 3-1/2, 4, 4-1/2, 5, 5-6/10, 6, 6-1/4, 7, 7-1/2, 8, 9, 10, 12, 15, 17-1/2, 20, 25, 30 (all 250v)
13/16" x 3" fast blow	NON-35, 40, 45, 50, 60 (all are 250v)
13/16" x 3" slow blow	FRN-R-35, 40, 45, 50, 60 (all are 250v)
13/16" x 5" fast blow	NOS-1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 20, 25, 30 (all are 600v)
13/16" x 5" slow blow	FRS-R-1, 2-1/2, 3, 5, 10, 20, 25, 30 (all are 600v)
1-1/16 x 5-1/2" fast blow	NOS-35, 40, 45, 50, 60 (all are 600v)
1-3/16" x 5" fast blow	KBC-5 (600v)

THERMAL CUTOFF DEVICES •15 amps	
°C	PART #
72°	NTE 8070
77°	NTE 8076
84°	NTE 8081
87°	NTE 8085
93°	NTE 8090
98°	NTE 8096
100°	NTE 8098
104°	NTE 8103
110°	NTE 8108
117°	NTE 8115
121°	NTE 8118
128°	NTE 8125
141°	NTE 8139
144°	NTE 8139A
152°	NTE 8149
167°	NTE 8167A
184°	NTE 8181
216°	NTE 8213
228°	NTE 8226
240°	NTE 8242

CARTRIDGE TYPE FUSE HOLDERS				
FUSE SIZE	FUSE BLOCK	PANEL MOUNT	IN-LINE	FUSE CLIP
13/32" x 1-1/2"	2807 BUSS (holds 1)	HPG BUSS (locknut)	HEB-AA BUSS (water-proof)	
	2808 BUSS (holds 2)	HPF BUSS (flange & screws)		
13/32" x 1-15/16"	2961 BUSS	HPF-EE BUSS (flange & screws)		
9/16" x 1"				127001 LF (non-stock)
9/16" x 2"	1B0001 BUSS (holds 1)			
	1B0003 BUSS (holds 3)			
13/16" x 3"				129001 LF (non-stock)

FUSEPULLER: Pulls 13/32" to 13/16" diameter fuses #FP-2 BUSS



**WANNA "ACKS" US A QUESTION?**  
We are here to help, so please do call!

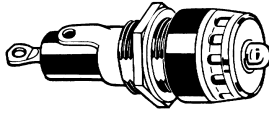


FP-2

# FUSES



GMT



## PIN-INDICATING TYPE

GMT "GRASSHOPPER" fast blow	GMT-18/100, 1/4, 1/2, 65/100, 3/4, 1, 1-1/3, 1-1/2, 2, 3, 3-1/2, 4, 5, 7-1/2, 10 (all are 125vac)
FAST BLOW 1/4" x 1-1/4" 125v	GBA-1/2, 3/4, 1, 1-1/2, 2, 3, 4, 5, 6, 8, 10, 12, 15
FAST BLOW RED PIN 13/32" x 1-1/2"	MIN-1*, 2* 3*, 5*, 10, 15 (all are 250v) MIN- 20*, 25*, 30* (all are 32v)
SLOW BLOW SLIVERED PIN 13/32" x 1-1/2"	FNA-3 2/10 (125v) Note: Many other current values are available by special order from Bussman. Just ask!
FUSE HOLDERS	GBA FUSE HOLDER: HLD BUSS (panel mount) MIN & FNA FUSE BLOCK: 2708 BUSS



B8000 Series


## CIRCUIT BREAKERS -mount in 1/2" hole

AMPS	ROCKER TYPE	TOGGLE TYPE	PUSH-BUTTON TYPE
1	-	W31-X2M1G-1	W58XB1A4A-1
2	-	W31-X2M1G-2	W58XB1A4A-2
3	B8003 PHI	-	W58XB1A4A-3
4	-	-	35-2104 GC
5	B8005 PHI	W31-X2M1G-5	35-2105 GC
6	-	-	35-2106 GC
7	B8007 PHI	-	35-2107 GC
8	-	-	35-2108 GC
10	B8010 PHI	W31-X2M1G-10	35-2110 GC
12	-	-	35-2112 GC
15	B8015 PHI	W31-X2M1G-15	35-2115 GC
20	-	W31-X2M1G-20	35-2120 GC
25	-	W31-X2M1G-25	35-2125 GC
30	-	W31-X2M1G-30	35-2130 GC

GC BREAKERS--Mount in 1/2" hole. Rated at 50vdc, 250vac, push-button style.

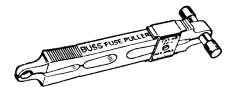
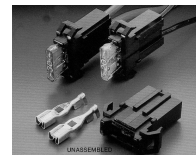
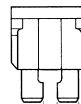
PHILMORE BREAKERS--Snap in 1/2" hole. Rated at 32vdc, 250vac, rocker style.

## STUD-MOUNTED FUSES by BUSSMANN

LENGTH	PART #/AMPS
9/16" x 2-7/8"	KAC-30 (600v)
1" x 2-21/32" fast blow	KAA-70, 150, 200 (130v) 
13/16" x 3-3/16" fast blow	KAB-40, 45, 50, 60 (250v)
13/16" x 4-3/8" fast blow	KAC-40 (250v)
1-1/16" x 3-7/8" slow blow	ACK-300 (125v) (our favorite fuse!)
1-3/16" x 3-3/16" fast blow	KBH-50 (500v)
1-7/32" x 3-1/8" fast blow	KAB-70, 200 (250v)
1-1/2" x 3-27/32" fast blow	KAB-350 (250v)
5-7/8" LONG fast blow	NON-70 (250v)
5-7/8" LONG slow blow	FRN-R-70, 75, 80, 90, 100 (all are 250v)
7-1/8" LONG slow blow	FRN-R-110, 125, 150, 175, 200 (all are 250v)
7-7/8" LONG fast blow	NOS-70, 100 (all are 600v)
8-5/8" LONG slow blow	FRN-R-225, 300, 400 (all are 250v)
10-3/8" LONG slow blow	FRN-R-450, 500, 600 (all are 250v)



BUSSMANN



## ATC & ATM AUTOMOTIVE FUSES (blade-type) -fast blow -32v

PART #	AMPS (+ COLOR SCHEME)
ATC Series standard size	1A (black), 2A (gray), 3A (violet), 4A (pink), 5A (tan), 7½ A (brown), 10A (red), 15A (blue), 20A (yellow), 25A (clear), 30A (green), 40A (amber).
ATM Series miniature size	2A (gray), 3A (violet), 4A (pink), 5A (tan), 7½ A (brown), 10A (red), 15A (blue), 20A (yellow), 25A (clear), 30A (green).
ACCESSORIES	ATC IN-LINE FUSE HOLDER: #155300 LF ATC & GLASS TUBE FUSE PULLER: FP-C BUSS