

## FRN-R TYPE FUSES 250 VOLT FUSES

Cat. No.	Volts	Net Price
<b>5/16" DIAMETER x 2" LENGTH</b>		
FRN-R-1/4	250	\$15.91
FRN-R-1/2	250	12.18
FRN-R-1	250	10.33
FRN-R-1-6/10	250	10.57
FRN-R-1-8/10	250	15.91
FRN-R-2	250	8.55
FRN-R-2-1/2	250	11.91
FRN-R-3	250	9.47
FRN-R-3-2/10	250	9.47
FRN-R-3-1/2	250	11.01
FRN-R-4	250	9.47
FRN-R-4-1/2	250	11.01
FRN-R-5	250	7.84
FRN-R-6	250	9.47
FRN-R-6-1/4	250	10.91
FRN-R-7	250	11.01
FRN-R-8	250	9.47
FRN-R-10	250	7.84
FRN-R-12	250	9.47
FRN-R-15	250	6.30
FRN-R-20	250	6.30
FRN-R-25	250	6.30
FRN-R-30	250	6.30
<b>3/16" DIAMETER x 3" LENGTH</b>		
FRN-R-35	250	11.48
FRN-R-40	250	11.48
FRN-R-45	250	11.48
FRN-R-50	250	11.48
FRN-R-60	250	11.48
<b>5/32" DIAMETER x 5 7/8" LENGTH</b>		
FRN-R-70	250	25.82
FRN-R-80	250	25.82
FRN-R-100	250	25.82
<b>5/32" DIAMETER x 7 1/8" LENGTH</b>		
FRN-R-125	250	56.78

## FRS-R TYPE FUSES 600 VOLT FUSES

Cat. No.	Volts	Net Price
<b>3/4" DIAMETER x 5" LENGTH</b>		
FRS-R-1	600	\$20.69
FRS-R-1-6/10	600	20.69
FRS-R-2	600	17.00
FRS-R-2-1/2	600	20.69
FRS-R-3	600	15.80
FRS-R-4	600	15.80
FRS-R-5	600	15.80
FRS-R-6	600	15.80
FRS-R-6-1/4	600	19.26
FRS-R-7	600	19.26
FRS-R-8	600	15.80
FRS-R-10	600	15.80
FRS-R-12	600	15.80
FRS-R-15	600	13.92
FRS-R-20	600	13.92
FRS-R-25	600	13.92
FRS-R-30	600	13.92
<b>1" DIAMETER x 5 1/2" LENGTH</b>		
FRS-R-35	600	23.88
FRS-R-40	600	23.88
FRS-R-45	600	23.88
FRS-R-50	600	23.88
FRS-R-60	600	23.88
<b>1 1/4" DIAMETER x 7 7/8" LENGTH</b>		
FRS-R-70	600	49.38
FRS-R-100	600	49.38
<b>1 3/4" DIAMETER x 9 5/8" LENGTH</b>		
FRS-R-125	600	98.80
FRS-R-200	600	98.80



### NORTH AMERICAN STYLE HIGH SPEED FUSES

These specialized devices provide low energy let-thru (I<sup>2</sup>T), low watts loss, superior cycling capacity, low arc voltage, as well as excellent DC performance. These devices provide an excellent solution for medium power applications. UL recognized, STD 248-13.

Cat. No.	Volts	Net Price
FWA-200A	150	\$31.75
FWA-250A	150	31.75

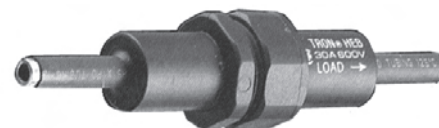
Cat. No.	Volts	Net Price
FWX-50A	250	\$68.85
FWX-60A	250	68.85
FWX-70A	250	82.90
FWX-80A	250	90.19
FWX-100A	250	82.90



### TYPE GMC

Type GMC 5mm x 20mm. Time-Lag. Glass Body, Electroplated end caps.

Cat. No.	Volts	Net Price
GMC-63-R	250	\$2.26
GMC-100-R	250	2.29
GMC-200-R	250	2.29
GMC-250-R	250	1.35
GMC-315-R	250	2.29
GMC-500-R	250	1.04
GMC-600-R	250	1.43
GMC-750-R	250	1.43
GMC-800-R	250	1.04
GMC-1-R	250	1.04
GMC-1.5-R	250	1.43
GMC-1.6-R	250	1.43
GMC-2-R	250	1.04
GMC-2.5-R	250	1.26
GMC-3-R	250	1.04
GMC-3.15-R	250	1.43
GMC-3.5-R	125	1.43
GMC-4-R	125	1.04
GMC-5-R	125	1.04
GMC-6-R	125	1.04
GMC-8-R	125	1.43
GMC-10-R	125	1.04



### TYPE HEB IN-LINE WATER-PROOF

For 1 3/32" x 1 1/2" Fuses KTK, FNM, BAF, FNQ. Waterproof for exposed location. Accepts various wire sizes #14-#4 solid. Body Matl: Phenolic. Lead Matl: Copper Crimp.

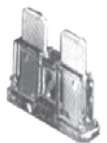
#### FUSEHOLDER WITHOUT BREAK-A-WAY

Cat. No.	Wire Size		Net Price
	Load	Line	
HEB-AA	#12-#8	#12-#8	\$20.24



Buses ATC fuses for Automotive use.

Cat. No.	Volts	Net Price
ATC-3	32	\$ .57
ATC-4	32	.57
ATC-5	32	.80
ATC-7-1/2	32	.57
ATC-10	32	.57
ATC-15	32	.57
ATC-20	32	.57
ATC-25	32	.57
ATC-30	32	.57



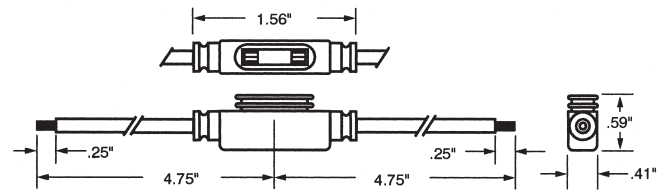
ATM-25



ATM-30

### AUTOMOTIVE FUSES BUSS ATM FUSES FOR AUTOMOTIVE USE

Cat. No.	Volts	Net Price
ATM-2	32	\$ .83
ATM-4	32	1.02
ATM-5	32	.83
ATM-7-1/2	32	1.02
ATM-10	32	.83
ATM-15	32	.83
ATM-20	32	.83
ATM-25	32	.83
ATM-30	32	.83

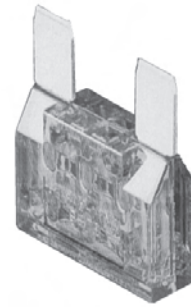


### IN-LINE FUSEHOLDERS FOR MINI® FUSES HHL AND HHM SERIES

In-Line Fuseholders for MINI® Fuses. **Voltage Rating:** 32V, 16A for HHL, 24A for HHM. Body material withstands high temps. Protective cover has removable straps.

#### MINI® FUSE BLADE TYPE HOLDER

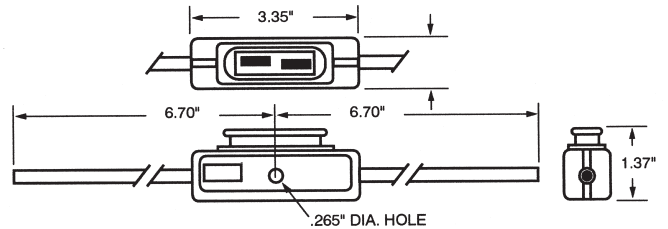
Cat. No.	Description	Fuse Size	Electrical Connection	Net Price
HHL	Fuseholder w/cover	2-20 amps	#16 lead wire; 4" length	\$4.68
HHL-B	Body only			2.85
HHM-B	Fuseholder w/cover	2-30 amps	#12 lead wire; 4" length	2.01
HHM-B	Body only			2.01
HHM-C	Cover only			.52



MAX-20

### 32 VOLT AUTOMOTIVE FUSES MAXI® FUSE FOR AUTOMOTIVE USE

Cat. No.	Net Price
MAX-20	\$3.81
MAX-30	5.93
MAX-40	5.93
MAX-50	5.93
MAX-60	5.93

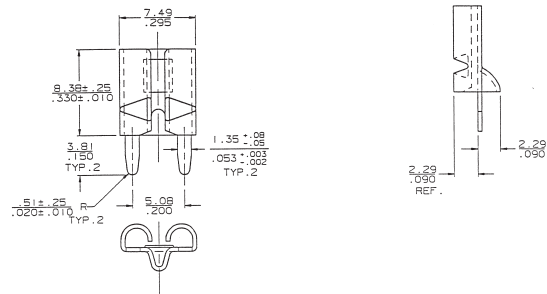


### IN-LINE FUSEHOLDERS FOR MAXI® FUSES HHX SERIES

In-line fuseholder for MAXI® fuses. **Voltage rating:** 32V, 48A. Firewall mounting hole permits two or more holders to be mounted together. Cover comes with a removable strap.

#### MAXI® FUSE BLADE TYPE HOLDER

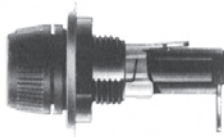
Cat. No.	Description	Fuse Size	Electrical Connection	Net Price
HHX	Fuseholder w/cover	20-60 amps	#6 lead wire; 5" length	\$24.18
HHX-B	Body only			14.90
HHX-C	Cover only			4.44



**Material:** CDA 260 Brass  
**Thickness:** .41/.016  
**Plating:** Bright tin  
**Packaging Spec.:** #IPO407  
 (Packed 1000 per bag)

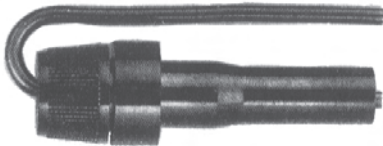
#### FUSEHOLDER

Cat. No.	Description	Net Price
1A5600	Fuse clip for ATC fuses	\$4.48



### PANEL MOUNTED RIGHT ANGLE FUSEHOLDER

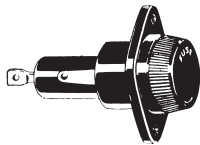
Cat. No.	Features	Net Price
HTB-24I	Knob Type Carrier	\$4.73
HTB-26I	Knob Type Carrier	5.01
HTB-44I	Knob Type Carrier	5.58
HTB-48I	Knob Type Carrier	5.99
HTB-64I	Knob Type Carrier	7.67



HRJ holder for type SFE fuses. Rated 20 amps, 32 volts. Bayonet type knob.

### IN-LINE FUSE HOLDER FOR 1/4" X ANY LENGTH FUSE

Cat. No.	Amps	Net Price
HRJ	20	\$3.77



HPF

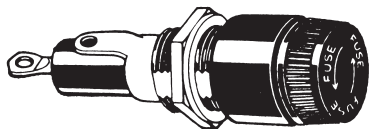
### PANEL MOUNTED FUSEHOLDERS FOR 13/32 X 1-1/2 INCH FUSES

Screw type knob. Moulded phenolic body. One piece side terminal and threaded insert eliminates two-piece solder fabrication. Combination 1/4" quick-connect/solder terminals. Holder attaches to front panel by screws or rivets. Strong coil spring provides contact pressure on ends of fuses.

Cat. No.	Amp/Volts	Fuse size	Net Price
HPF	30/600	13/32" x 1 1/2"	\$11.11
HPF-C*	15/250	13/32" x 1 1/2"	19.00
HPF-L	5/600	13/32" x 1 3/8"	16.73

\*Has transparent knob.

## PANEL MOUNTED FUSEHOLDERS

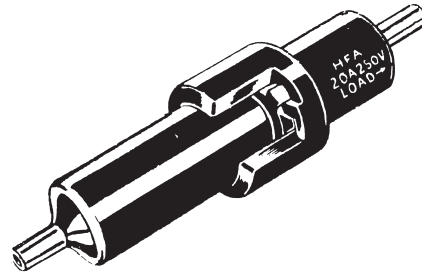


HJM  
HKP

### PANEL MOUNTED FUSEHOLDERS

Panel mounted non-indicating fuseholders. With model HCM knob grips 3/32" fuse tightly and pulls it from holder when knob is removed. 1/4" fuse is not held by knob but extends from holder when knob is removed. HJM, HJM-CC for 1/4" x 1" fuses, HKP, HKP-CC, HKP-HH for 1/4" x 1 1/4" fuses. -CC is 3/32" shorter behind panel. HKP-HH, quick connect terminals.

Cat. No.	Amps/Volts	Net Price
<b>FOR 1/4" X 1" FUSE</b>		
HJM	5/125	\$6.86
HJM-CC	5/125	3.65
<b>FOR 1/4" X 1 1/4" FUSE</b>		
HKP	30/250	5.30
HKP-CC	30/250	5.30
HKP-HH	15/250	6.60
HKP-L	30/250	8.60
<b>REPLACEMENT KNOB FOR HKP HOLDER</b>		
9435 1/2	Knob only	1.41



The Bussmann HFA In-the-line waterproof fuseholder is easy to install and give fuse protection in exposed locations against damage from water, weather, salt spray and corrosive fumes. Rated at 20 amperes, 250 volts or less for 1/4 x 1 1/4 inch.

Cat. No.	Wire Size	Net Price
HFA	12-16	\$18.97



### WATERPROOF IN-LINE FUSEHOLDER

HFB is ideal for harsh environments, water, salt spray, ultraviolet, ozone and organic solvents. Simple assembly. One-piece molded thermoplastic. High visibility yellow colour for easy identification. Rated 30 amps, 32 volts.

### FOR 1/4" X 1 1/4" FUSES

Cat. No.	Wire Size	Net Price
HFB	12-18	\$6.46

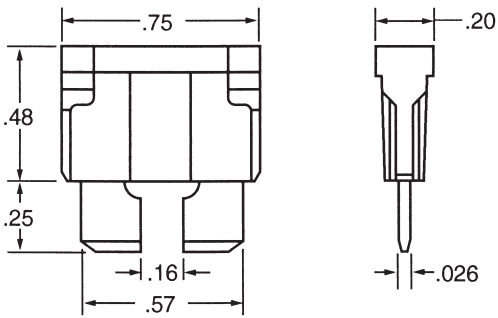


### UNIVERSAL IN-LINE FUSEHOLDER

HHB is an economical and versatile nylon fuseholder for normal environments. Simple crimp assembly. Snap-lock feature provides strong positive union of fuseholder housing. High visibility yellow colour for easy identification. Rated 30 amps, 32 volts.

### FOR 1/4" X 3/8", 1", 1 1/4" FUSES

Cat. No.	Wire Size	Net Price
HHB	12-16	\$1.57



REFERENCE DIMENSIONS

## LOW VOLTAGE AUTOFUSE® FUSE FAST-ACTING TYPE

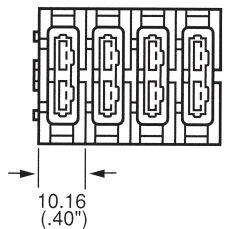
Designed and originated by Littelfuse for the automotive industry, the ATO® fuse has become the original equipment circuit protection standard for foreign and domestic automobiles and trucks.

**DESIGN STANDARDS:** U.L. Standard for Automotive Blade Type Fuses. SAE (Society of Automotive Engineers) J1284. **COLOUR CODING:** Autofuse® fuses are colour-coded for easy amperage identification.

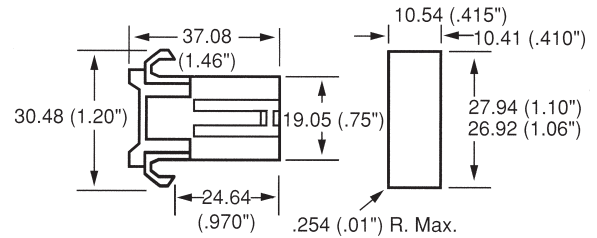
### ELECTRICAL CHARACTERISTICS

TIME CURRENT CHARACTERISTICS			
% of Rating	Current Rating	Operating Time	
		Minimum	Maximum
110%	1-40 Amp	100 Hours	—
135%	1-2 Amp	.50 sec	600 sec
	3-40 Amp	.75 sec	600 sec
200%	1-2 Amp	.10 sec	5 sec
	3-40 Amp	.15 sec	5 sec
350%	1-2 Amp	.020 sec	.5 sec
	3-40 Amp	.080 sec	.5 sec

Cat. No.	Ampere Rating	Voltage Rating	Colour Code	Nominal Resistance Cold Ohms	Minimum Melting I <sup>2</sup> t A <sup>2</sup> Sec.	Net Price
257 001	1	32	Black	0.123	0.4	<b>\$.61</b>
257 002	2	32	Grey	0.050	1.4	<b>\$.61</b>
257 003	3	32	Violet	0.031	7.4	<b>\$.61</b>
257 004	4	32	Pink	0.023	14	<b>\$.61</b>
257 005	5	32	Tan	0.018	26	<b>\$.61</b>
257 07.5	7½	32	Brown	0.011	60	<b>\$.61</b>
257 010	10	32	Red	0.0077	115	<b>\$.61</b>
257 015	15	32	Blue	0.0048	340	<b>\$.61</b>
257 020	20	32	Yellow	0.0033	520	<b>\$.61</b>
257 025	25	32	Natural	0.0025	1080	<b>\$.61</b>
257 030	30	32	Green	0.0019	1510	<b>\$.61</b>
257 035	35	32	Blue Green	0.0016	2280	<b>\$.61</b>
257 040	40	32	Amber	0.0014	3310	<b>\$.61</b>



TYPICAL MULTIPLE MOUNTING (FUSEHOLDERS INTERLOCKED)



Add .400" to width for each additional fuseholder

RECOMMENDED PANEL MOUNTING HOLE  
(.04"/.078" THICK PANEL)

## SPECIAL TYPES FOR AUTOFUSE® FUSES IN-LINE TYPE

### SPECIFICATIONS:

#### Electrical:

Intended for use with 32-volt Autofuse® fuses rated to 20 or 30 amperes depending on wire size and terminal combinations.

#### Mounting:

Capable of snap-mounting to panel from rear. Fuseholders interlock for multiple mounting.

#### Molded Parts:

Black thermoplastic (UL 94V2).

#### Terminals:

Brass, Tin-plated. Snap-lock into body.

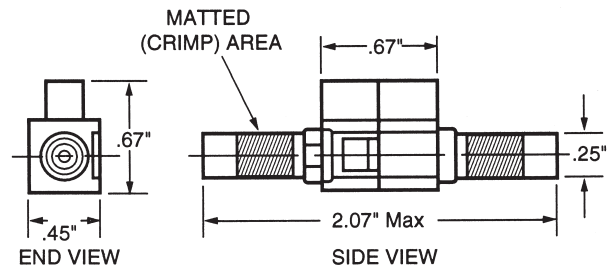
#### Ambient Temperature:

-40°C to +85°C.

#### Wire:

Stranded with PVC insulation, black #14 AWG for **155 300 Series** and orange #10 AWG for **155 400 Series**.

Cat. No.	Description	Fuse Amperage Rating	Net Price
<b>UNASSEMBLED, NO FUSE</b>			
155 320U	Terminals designed for #14 AWG stranded wire and marked "14".	3-20	<b>\$1.20</b>
155 430U	Terminals designed for #10 AWG stranded wire and marked "10".	25-30	<b>1.33</b>
<b>ASSEMBLED WITH 8" WIRE LOOP, NO FUSE</b>			
155 300	#14 wire/terminals rated to 20A	3-20	<b>1.94</b>
155 400	#10 wire/terminals rated to 30A	25-30	<b>2.81</b>



OVERALL HEIGHT WITH FUSE INSTALLED IN 1.0" REF.

## SPECIAL TYPES FOR MINI® FUSES IN-LINE TYPE EASY CRIMP FUSEHOLDER

Use standard crimping tool and crimp the matted area to secure wire. (Possible crimp tool—Ideal #30-428 [Toothed Die slot] or equivalent.)

### SPECIFICATIONS:

#### Terminals:

Copper Alloy/Tin plated.

#### Body:

Black thermoplastic.

#### Operating Temp.:

-40°C to +105°C.

### ORDERING INFORMATION

Cat. No.	Description	Net Price
153 002	20A Max. rating—Terminals will accept #16-22 AWG (1.0-.33mm <sup>2</sup> ) stranded wire (use appropriate wire size based on fuse usage). For example—Use #16 AWG wire for 20A fuse.	<b>\$1.28</b>
153 003	30A Max. rating—Terminals will accept #10-14 AWG (5.0-2.0mm <sup>2</sup> ) stranded wire (use appropriate wire size based on fuse usage). For example—Use #10 AWG wire for 30A fuse.	<b>1.28</b>

Tool For Fuse Removal or Replacement: Part No. 097024.