

# 08

## FUSE & CIRCUIT PROTECTION

FUSIBLE ET PROTECTION DE CIRCUIT

PROTECCIÓN DE FUSIBLE Y CIRCUITO

- 116 High Amperage Circuit Breakers
- 116 Standard & Miniature Blade Circuit Breakers
- 117 Universal Circuit Breakers
- 118 Miniature Blade Fuses & Holders
- 120 Standard Blade Fuses & Holders
- 122 Micro Blade Fuses & Holders
- 123 Large Blade Fuses & Holders
- 124 Automotive Link Fuses
- 126 Glass Fuses & Holders
- 127 Assortment Kits
- 128 Bolt-On Fuses
- 130 Fuse Panels & Terminal Strips
- 131 Relays

TO PROTECT YOUR EQUIPMENT'S SENSITIVE AND CRITICAL COMPONENTS FROM POWER SURGES AND OTHER POWER PROBLEMS, GROTE'S FUSE & CIRCUIT PROTECTION PRODUCTS OFFER YOU THE SELECTION, THE TYPE AND THE QUALITY YOU NEED TO MAKE SURE THAT YOUR INVESTMENT IS PROTECTED AND YOUR EQUIPMENT IS PERFORMING OPTIMALLY, EVERY TIME.

GROTE'S WIDE ARRAY OF FUSE & CIRCUIT PROTECTION PRODUCTS AND TOOLS, ENSURES THE JOB GETS DONE RIGHT THE FIRST TIME!

HIGH AMPERAGE THERMAL CIRCUIT BREAKERS



- For use in auxiliary and accessory circuits – trucks, buses, RV and marine applications
- Also used as battery chargers and DC audio systems
- Thermoplastic; UL Rated 94V-0 housing
- Surface Mount, Type III; Single Pole; Manual Reset; Ignition protected
- Complies with SAE J1625 and J1171 standards
- Operating Temperature -40°C (-40°F) to 85°C (185°F)
- Stud insulators provided; 1/4"-28 thread studs

PART #	CURRENT RATING	DESCRIPTION
82-2251	40A	Type III, Manual Reset, Surface Mount
82-2247	50A	Type III, Manual Reset, Surface Mount
82-2216	60A	Type III, Manual Reset, Surface Mount
82-2248	70A	Type III, Manual Reset, Surface Mount
82-2177	80A	Type III, Manual Reset, Surface Mount
82-2178	100A	Type III, Manual Reset, Surface Mount
82-2249	120A	Type III, Manual Reset, Surface Mount
82-2250	135A	Type III, Manual Reset, Surface Mount
82-2176	150A	Type III, Manual Reset, Surface Mount
82-2217	200A	Type III, Manual Reset, Surface Mount



82-2176

UNIVERSAL CIRCUIT BREAKER



82-2197



82-2201

PLUG-IN STYLE

- 12V DC; Type 1, Auto-Reset
- SAE J553C
- Replacement for Standard Blade type fuses
- Dimensions: .840" x .4000" (10.2mm) x 1.500" (38.1mm)
- See Standard Blade fuse holders / fuse panels on page 117 & 126

PART #	CURRENT RATING	DESCRIPTION
82-2195	10A	Type I, Auto-Reset
82-2196	15A	Type I, Auto-Reset
82-2197	20A	Type I, Auto-Reset
82-2199	25A	Type I, Auto-Reset
82-2198	30A	Type I, Auto-Reset
82-2200	35A	Type I, Auto-Reset
82-2201	40A	Type I, Auto-Reset

STANDARD BLADE CIRCUIT BREAKER

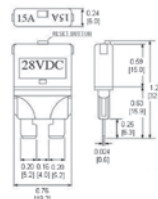


82-2355



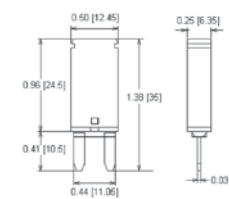
82-2357

- 12V DC; Type III, Manual-Reset
- Voltage: Up to 28VDC
- Interrupt Rating: 2,000A @ 28VDC
- Materials: Thermoplastic (UL Rated 94-V-0)
- Conforms to American National Standard SAE J553 Type III
- Operating Temperature: -40°C to 85°C



PART #	CURRENT RATING	COLOR	DESCRIPTION
82-2355	10A	Red	Type III, Manual Reset
82-2356	15A	Blue	Type III, Manual Reset
82-2357	20A	Yellow	Type III, Manual Reset
82-2358	25A	White	Type III, Manual Reset
82-2359	30A	Green	Type III, Manual Reset

- Voltage: 14VDC
- Materials: Thermoplastic – (UL Rated 94-V-0)
- Testing Standard: SAE J553
- Operating Temperature: -40°C to 85°C



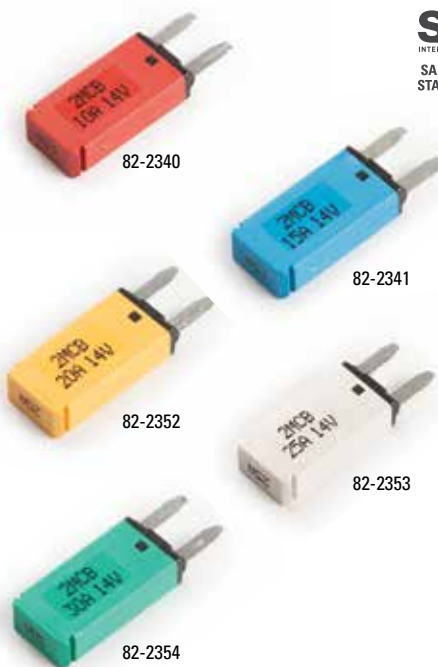
TYPE I

PART #	CURRENT RATING	COLOR	DESCRIPTION
82-2340	10A	Red	Type I, Auto-Reset
82-2341	15A	Blue	Type I, Auto-Reset
82-2342	20A	Yellow	Type I, Auto-Reset
82-2343	25A	White	Type I, Auto-Reset
82-2344	30A	Green	Type I, Auto-Reset

TYPE II

PART #	CURRENT RATING	COLOR	DESCRIPTION
82-2350	10A	Red	Type II, Modified-Reset
82-2351	15A	Blue	Type II, Modified-Reset
82-2352	20A	Yellow	Type II, Modified-Reset
82-2353	25A	White	Type II, Modified-Reset
82-2354	30A	Green	Type II, Modified-Reset

MINIATURE BLADE CIRCUIT BREAKERS



82-2340

82-2341

82-2352

82-2353

82-2354

UNIVERSAL CIRCUIT BREAKER

- 12V DC; Type 1, Auto-Reset
- 2, #10-32 stud terminals (hex nuts and washers included)
- SAE J553C

WITHOUT BRACKET

PART #	CURRENT RATING
82-2179	10A
82-2180	15A
82-2181	20A
82-2182	25A
82-2183	30A
82-2184	35A
82-2210	40A
82-2185	50A

WITH HORIZONTAL BRACKET

PART #	CURRENT RATING
82-2189	10A
82-2190	15A
82-2191	20A
82-2192	25A
82-2193	30A
82-2187	35A
82-2194	40A
82-2188	50A
82-2186	40A*

\*molded bracket



82-2191

82-2183

82-2186

SNAP-IN STYLE

- 12V DC; Type II, Modified-Reset
- Opens automatically on overload
- Replaces round glass-style fuses
- Fits 1 1/4" Long x 1/4" fuse clips

PART #	CURRENT RATING	DESCRIPTION
82-2170	10A	Type II, Modified-Reset
82-2171	15A	Type II, Modified-Reset
82-2172	20A	Type II, Modified-Reset
82-2173	30A	Type II, Modified-Reset
82-2174	40A	Type II, Modified-Reset

UNIVERSAL CIRCUIT BREAKER



82-2171



MINIATURE BLADE FUSES

Fast Acting/Blade Mounting

A cost-effective standard automotive fuse for use in automotive, battery and general DC applications.

2A-30A, 32VDC



82-ANM-5A

SPECIFICATIONS

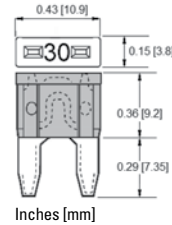
Voltage: 32VDC

Amperage: 2A, 3A, 4A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A, 35A

Interrupt Rating: 1000A @ 32 VDC

Terminals: Zinc Alloy

Body Material: Nylon PA 66



APPROVALS: MEETS SAE STANDARDS & ISO 8820 STANDARD SPECIFICATIONS



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANM-2A	2A	Gray	5	Miniature Blade Fuse
82-ANM-3A	3A	Violet	5	Miniature Blade Fuse
82-ANM-4A	4A	Pink	5	Miniature Blade Fuse
82-ANM-5A	5A	Tan	5	Miniature Blade Fuse
82-ANM-7.5A	7.5A	Brown	5	Miniature Blade Fuse
82-ANM-10A	10A	Red	5	Miniature Blade Fuse
82-ANM-15A	15A	Blue	5	Miniature Blade Fuse
82-ANM-20A	20A	Yellow	5	Miniature Blade Fuse
82-ANM-25A	25A	Clear	5	Miniature Blade Fuse
82-ANM-30A	30A	Green	5	Miniature Blade Fuse
82-ANM-35A	35A	Blue-Green	5	Miniature Blade Fuse
82-ANM-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		7	Miniature Blade Fuse Assortment
82-ANM-8P	(2A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		9	Miniature Blade Fuse Assortment & Puller
82-ANM-8T	(2A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		9	Miniature Blade Fuse Assortment & Tester
82-ASST-43	(5A, 10A, 15A, 20A, 25A, 30A)		43	Miniature Blade Fuse Assortment & Tester
82-ASST-64	(2A, 3A, 4A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A) + (30A, 40A, 50A)		64	Miniature & Large Blade Fuse Assortment & Tester
82-ASST-80M	(3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		80	Miniature Blade Fuse Assortment
82-ASST-180			180	Low Profile Miniature, Miniature, Standard Blade Fuses
<b>FUSE HOLDER</b>				
82-2241	30A (12GA)	Red	1	Miniature Blade Fuse Holder, 12" with Protective Cap
82-2208	20A (14GA)	Red	1	Miniature Blade Fuse Holder, 7" with Protective Cap
82-2213	Max 10A Primary Circuit, 10A Auxiliary Circuit (Total not to exceed 20A combined)	Red	1	"Add A Fuse" Miniature Blade Fuse Holder; 16GA

WITH LED INDICATOR

MINIATURE BLADE FUSES



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANM-I-3A	3A	Violet	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-5A	5A	Tan	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-7.5A	7.5A	Brown	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-10A	10A	Red	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-15A	15A	Blue	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-20A	20A	Yellow	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-25A	25A	Clear	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-30A	30A	Green	2	Miniature Blade Fuse with LED Indicator
82-ANM-I-5	(10A, 15A, 20A, 25A, 30A)		5	Miniature Blade Fuse with LED Indicator Assortment

LOW PROFILE

MINIATURE BLADE FUSES

SPECIFICATIONS

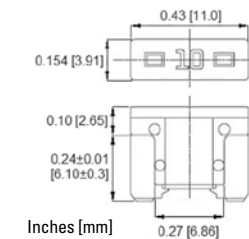
Voltage: 32VDC

Amperage: 3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A

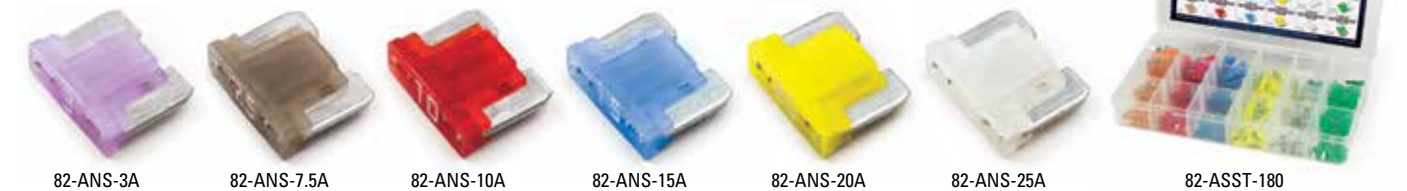
Interrupt Rating: 1000A @ 32 VDC

Terminals: Zinc Alloy

Body Material: Nylon PA 66



APPROVALS: MEETS SAE STANDARDS & ISO 8820 STANDARD SPECIFICATIONS



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANS-3A	3A	Violet	5	Low Profile Miniature Blade Fuse
82-ANS-5A	5A	Tan	5	Low Profile Miniature Blade Fuse
82-ANS-7.5A	7.5A	Brown	5	Low Profile Miniature Blade Fuse
82-ANS-10A	10A	Red	5	Low Profile Miniature Blade Fuse
82-ANS-15A	15A	Blue	5	Low Profile Miniature Blade Fuse
82-ANS-20A	20A	Yellow	5	Low Profile Miniature Blade Fuse
82-ANS-25A	25A	Clear	5	Low Profile Miniature Blade Fuse
82-ANS-30A	30A	Green	5	Low Profile Miniature Blade Fuse
82-ANS-I-5 (LED)	(10A, 15A, 20A, 25A, 30A)		5	Low Profile Miniature Blade Fuse LED Assortment
82-ANS-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		7	Low Profile Miniature Blade Fuse Assortment
82-ANS-7P	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		8	Low Profile Miniature Blade Fuse Assortment & Puller
82-ANS-7T	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		8	Low Profile Miniature Blade Fuse Assortment & Tester
82-ASST-180			180	Low Profile Miniature, Miniature, Standard Blade Fuses
<b>FUSE HOLDER</b>				
82-2218	Max 10A Primary Circuit, 10A Aux Circuit (Total not to exceed 15A combined)	Red	1	"Add A Fuse" Low Profile Miniature Blade: 16GA

Fast Acting/Blade Mounting

Low Profile version of the Miniature Automotive Blade fuse.

3A-30A, 32VDC





STANDARD BLADE FUSES

Fast Acting/Blade Mounting

A cost-effective standard automotive fuse for use in automotive, battery and general DC applications.

2A-40A, 32VDC

SPECIFICATIONS

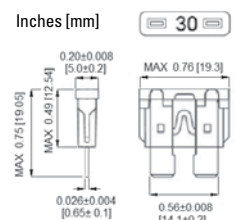
Voltage: 32VDC

Amperage: 1A, 2A, 3A, 4A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A, 35A, 40A

Interrupt Rating: 1000A @ 32 VDC

Terminals: Zinc Alloy

Body Material: Nylon PA 66



APPROVALS: MEETS SAE STANDARDS & ISO 8820 STANDARD SPECIFICATIONS



82-ANR-15A



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANR-1A	1A	Black	5	Standard Blade Fuse
82-ANR-2A	2A	Gray	5	Standard Blade Fuse
82-ANR-3A	3A	Violet	5	Standard Blade Fuse
82-ANR-4A	4A	Pink	5	Standard Blade Fuse
82-ANR-5A	5A	Tan	5	Standard Blade Fuse
82-ANR-7.5A	7.5A	Brown	5	Standard Blade Fuse
82-ANR-10A	10A	Red	5	Standard Blade Fuse
82-ANR-15A	15A	Blue	5	Standard Blade Fuse
82-ANR-20A	20A	Yellow	5	Standard Blade Fuse
82-ANR-25A	25A	Clear	5	Standard Blade Fuse
82-ANR-30A	30A	Green	5	Standard Blade Fuse
82-ANR-35A	35A	Blue-Green	5	Standard Blade Fuse
82-ANR-40A	40A	Orange	5	Standard Blade Fuse
82-ANR-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		7	Standard Blade Fuse Assortment
82-ANR-7P	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		8	Standard Blade Fuse Assortment & Puller
82-ANR-6T	(5A, 10A, 15A, 20A, 25A, 30A)		7	Standard Blade Fuse Assortment & Tester
82-ASST-44	(5A, 10A, 15A, 20A, 25A, 30A)		43	Standard Blade Fuse Assortment & Tester
82-ASST-53	(10A, 15A, 20A, 30A) + (30A, 40A, 50A)		45	Standard Blade & Large Blade Fuse Assortment & Tester
82-ASST-80R	(3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		80	Standard Blade Fuse Assortment
82-ASST-180			180	Low Profile Miniature, Miniature and Standard Blade Fuses

WITH LED INDICATOR

STANDARD BLADE FUSES

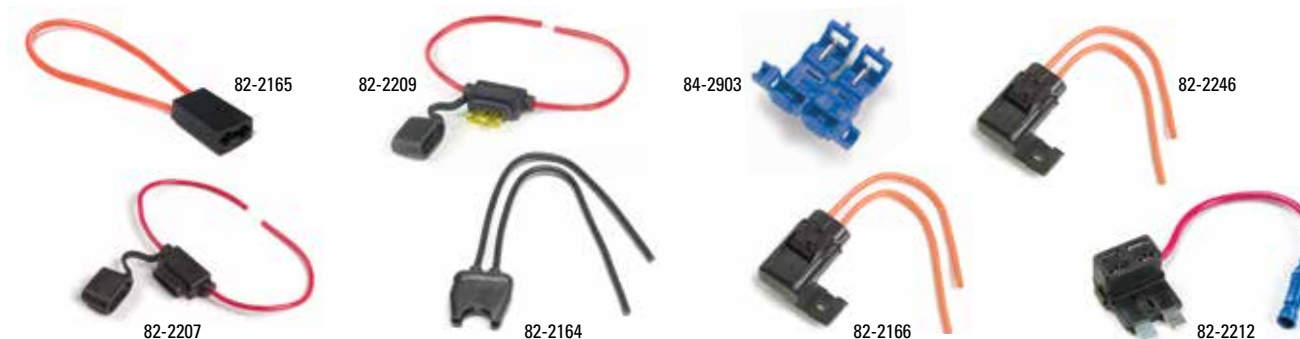


82-ANR-I-5



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANR-I-3A	3A	Violet	2	Standard Blade Fuse with LED Indicator
82-ANR-I-5A	5A	Tan	2	Standard Blade Fuse with LED Indicator
82-ANR-I-7.5A	7.5A	Brown	2	Standard Blade Fuse with LED Indicator
82-ANR-I-10A	10A	Red	2	Standard Blade Fuse with LED Indicator
82-ANR-I-15A	15A	Blue	2	Standard Blade Fuse with LED Indicator
82-ANR-I-20A	20A	Yellow	2	Standard Blade Fuse with LED Indicator
82-ANR-I-25A	25A	Clear	2	Standard Blade Fuse with LED Indicator
82-ANR-I-30A	30A	Green	2	Standard Blade Fuse with LED Indicator
82-ANR-I-40A	40A	Orange	2	Standard Blade Fuse with LED Indicator
82-ANR-I-5	(10A, 15A, 20A, 25A, 30A)		5	Standard Blade Fuse with LED Indicator Assortment

STANDARD BLADE FUSE HOLDERS



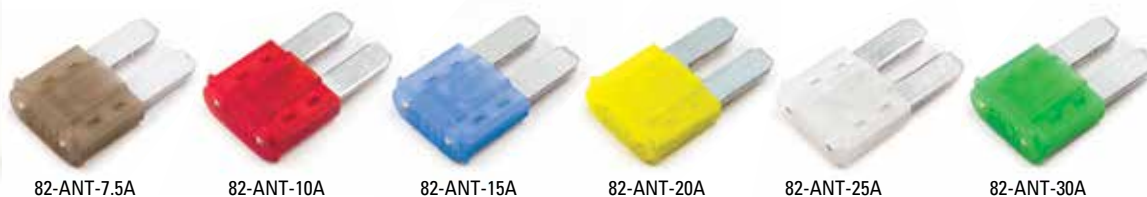
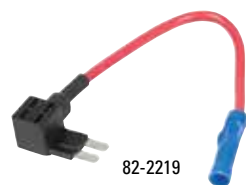
PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-2209	20A (14GA), 7"	Red	1	Standard Blade with Cap and 20A Fuse
82-2164	20A (14GA), 7"	Black	1	Standard Blade
82-2207	20A (16GA), 7"	Red	1	Standard Blade with Cap
82-2165	30A (12GA), 8"	Orange	1	Standard Blade
82-2246	40A (10GA), 12"	Red	1	Standard Blade with Cap
82-2166	30A (12GA), 10"	Orange	1	Standard Blade with Cap and Mounting Tab
84-2903	20A (18-14GA)	Blue	1	Self Stripping Standard Fuse Holder
82-2212	Max 10A Primary Circuit, 10A Aux Circuit (Total not to exceed 20A combined)	Red	1	Add A Fuse Holder with 16GA wire

MICRO BLADE – 2 BLADE FUSES

Fast Acting/Blade Mounting

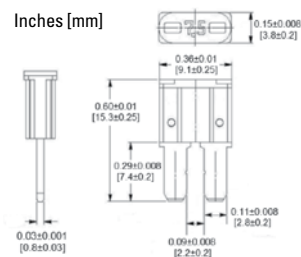
- New standard for vehicle circuit protection
- Sub-miniature design
- Space saving – smaller than the Miniature fuse

5A-30A, 32VDC



SPECIFICATIONS

**Voltage:** 32VDC  
**Amperage:** 5A, 7.5A, 10A, 15A, 20A, 25A, 30A  
**Interrupt Rating:** 1000A @ 32 VDC  
**Terminals:** Zinc Alloy  
**Body Material:** Nylon PA 66



APPROVALS: MEETS SAE STANDARDS & ISO 8820 STANDARD SPECIFICATIONS

PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANT-5A	5A	Tan	5	Micro Blade – 2 Blade Fuse
82-ANT-7.5A	7.5A	Brown	5	Micro Blade – 2 Blade Fuse
82-ANT-10A	10A	Red	5	Micro Blade – 2 Blade Fuse
82-ANT-15A	15A	Blue	5	Micro Blade – 2 Blade Fuse
82-ANT-20A	20A	Yellow	5	Micro Blade – 2 Blade Fuse
82-ANT-25A	25A	Clear	5	Micro Blade – 2 Blade Fuse
82-ANT-30A	30A	Green	5	Micro Blade – 2 Blade Fuse
82-ANT-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		7	Micro Blade – 2 Blade Fuse Assortment
82-ANT-7P	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)		8	Micro Blade – 2 Blade Fuse Assortment & Puller
<b>FUSE HOLDER</b>				
82-2219	Max 10A Primary Circuit, 10A Aux Circuit (Total not to exceed 15A combined)	Red	1	“Add A Fuse” Micro Blade – 2 Blade: 16GA

MICRO BLADE – 2 BLADE FUSES

WITH LED INDICATOR



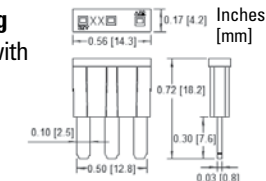
PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANT-I-5A	5A	Tan	2	Micro Blade – 2 Blade Fuse with LED Indicator
82-ANTI-7.5A	7.5A	Brown	2	Micro Blade – 2 Blade Fuse with LED Indicator
82-ANT-I-10A	10A	Red	2	Micro Blade – 2 Blade Fuse with LED Indicator
82-ANT-I-15A	15A	Blue	2	Micro Blade – 2 Blade Fuse with LED Indicator
82-ANT-I-20A	20A	Yellow	2	Micro Blade – 2 Blade Fuse with LED Indicator
82-ANT-I-25A	25A	Clear	2	Micro Blade – 2 Blade Fuse with LED Indicator
82-ANT-I-30A	30A	Green	2	Micro Blade – 2 Blade Fuse with LED Indicator

MICRO BLADE – 3 BLADE FUSES

Fast Acting/Blade Mounting

- Provides 2 fuse elements with a common center terminal

5A-15A, 32VDC



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANK-5A	5A	Tan	5	Micro Blade – 3 Blade Fuse
82-ANK-7.5A	7.5A	Brown	5	Micro Blade – 3 Blade Fuse
82-ANK-10A	10A	Red	5	Micro Blade – 3 Blade Fuse
82-ANK-15A	15A	Blue	5	Micro Blade – 3 Blade Fuse

LARGE BLADE FUSES

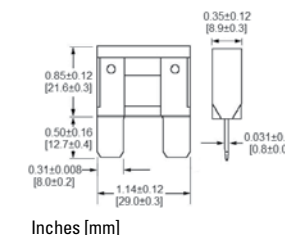
Fast Acting/Blade Mounting

A cost-effective automotive fuse for use in automotive, battery and general DC applications.

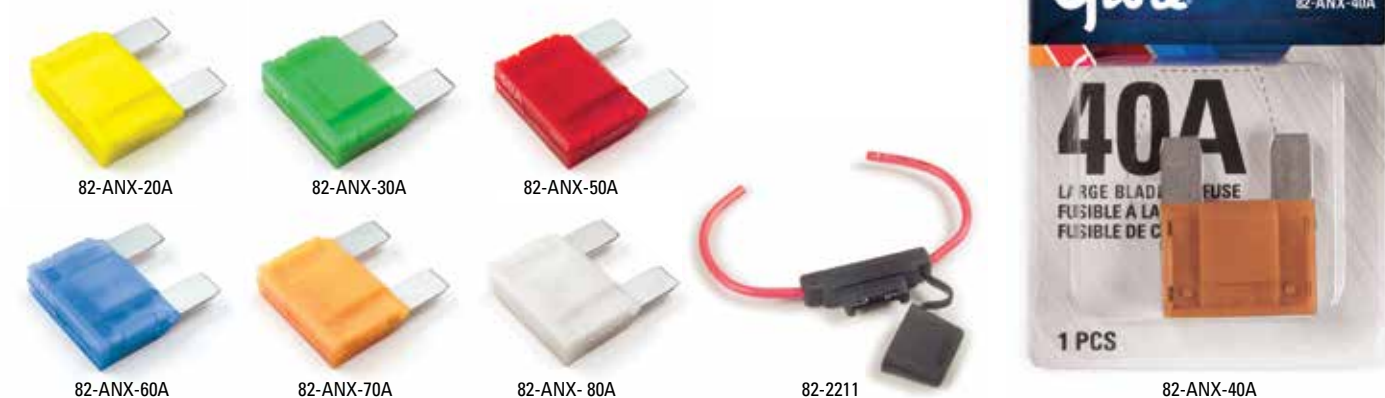
20A-80A, 32VDC

SPECIFICATIONS

**Voltage:** 32VDC  
**Amperage:** 20A, 30A, 40A, 50A, 60A, 70A, 80A  
**Interrupt Rating:** 1000A @ 32 VDC  
**Terminals:** Zinc Alloy  
**Body Material:** Nylon PA 66



APPROVALS: MEETS SAE STANDARDS & ISO 8820 STANDARD SPECIFICATIONS



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-ANX-20A	20A	Yellow	1	Large Blade Fuse
82-ANX-30A	30A	Green	1	Large Blade Fuse
82-ANX-40A	40A	Orange	1	Large Blade Fuse
82-ANX-50A	50A	Red	1	Large Blade Fuse
82-ANX-60A	60A	Blue	1	Large Blade Fuse
82-ANX-70A	70A	Tan	1	Large Blade Fuse
82-ANX-80A	80A	Clear	1	Large Blade Fuse
82-ASST-53	(10A, 15A, 20A, 30A) + (30A, 40A, 50A)		45	Standard & Large Blade Fuse Assortment & Tester
82-ASST-64	(2A, 3A, 4A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A) + (30A, 40A, 50A)		64	Miniature & Large Blade Fuse Assortment & Tester
<b>FUSE HOLDER</b>				
82-2211	60A (8GA)		1	Fuse Holder for Large Blade Style Fuses, 12"



AUTOMOTIVE LINK FUSE

Fast Acting/Blade Mounting

A cost-effective high-current automotive fuses for use in automotive, battery and general DC application.

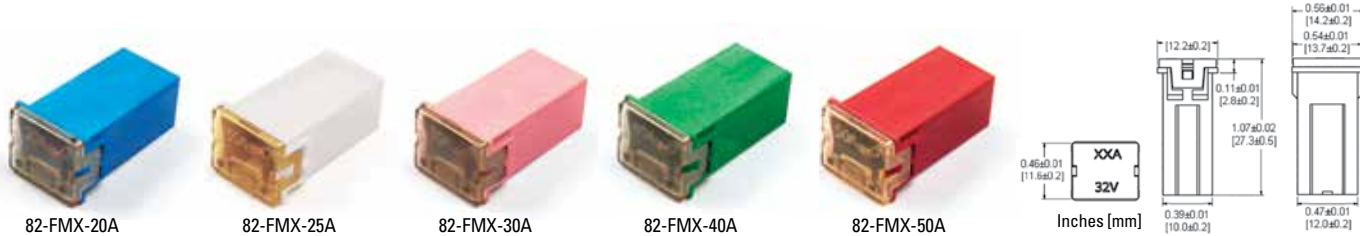
20A-60A, 32VDC

SPECIFICATIONS

Voltage: 32VDC

Amperage: 15A, 20A, 25A, 30A, 40A, 50A, 60A, 70A, 80A, 100A, 120A

Interrupt Rating: 1,500A @32VDC



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-FMX-20A	20A	Blue	1	Automotive Link Fuse, Female
82-FMX-25A	25A	Clear	1	Automotive Link Fuse, Female
82-FMX-30A	30A	Pink	1	Automotive Link Fuse, Female
82-FMX-40A	40A	Green	1	Automotive Link Fuse, Female
82-FMX-50A	50A	Red	1	Automotive Link Fuse, Female
82-FMX-60A	60A	Yellow	1	Automotive Link Fuse, Female

AUTOMOTIVE LINK FUSE

LOW PROFILE



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-FMXLP-20A	20A	Blue	1	Automotive Link Fuse, Low Profile, Female
82-FMXLP-25A	25A	Clear	1	Automotive Link Fuse, Low Profile, Female
82-FMXLP-30A	30A	Pink	1	Automotive Link Fuse, Low Profile, Female
82-FMXLP-40A	40A	Green	1	Automotive Link Fuse, Low Profile, Female
82-FMXLP-50A	50A	Red	1	Automotive Link Fuse, Low Profile, Female
82-FMXLP-60A	60A	Yellow	1	Automotive Link Fuse, Low Profile, Female

AUTOMOTIVE LINK FUSE

MICRO



PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-FMX-M-15A	15A	Gray	1	Automotive Link Fuse, Micro, Female
82-FMX-M-20A	20A	Blue	1	Automotive Link Fuse, Micro, Female
82-FMX-M-25A	25A	White	1	Automotive Link Fuse, Micro, Female
82-FMX-M-30A	30A	Pink	1	Automotive Link Fuse, Micro, Female
82-FMX-M-40A	40A	Green	1	Automotive Link Fuse, Micro, Female

AUTOMOTIVE LINK FUSE

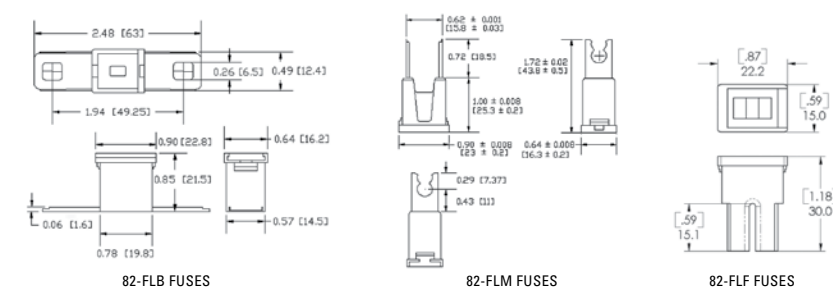


PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-FLB-40A	40A	Green	1	PAL Fuse Link, 13/16" Male Axial Terminal
82-FLB-60A	60A	Yellow	1	PAL Fuse Link, 13/16" Male Axial Terminal
82-FLB-70A	70A	Brown	1	PAL Fuse Link, 13/16" Male Axial Terminal
82-FLD-80A	80A	Black	1	PAL Fuse Link, 9/16" Male Axial Terminal
82-FLF-20A	20A	Light Blue	1	PAL Fuse Link, Female Terminal
82-FLF-30A	30A	Pink	1	PAL Fuse Link, Female Terminal
82-FLF-40A	40A	Green	1	PAL Fuse Link, Female Terminal
82-FLF-50A	50A	Red	1	PAL Fuse Link, Female Terminal
82-FLF-60A	60A	Yellow	1	PAL Fuse Link, Female Terminal
82-FLM-60A	60A	Yellow	1	PAL Fuse Link, Male Radial Terminal
82-FLM-80A	80A	Black	1	PAL Fuse Link, Male Radial Terminal
82-FLM-100A	100A	Blue	1	PAL Fuse Link, Male Radial Terminal
82-FLM-120A	120A	Gray	1	PAL Fuse Link, Male Radial Terminal
82-FLS-30A	30A	Pink	1	PAL Fuse Link, Female Terminal
82-FLS-40A	40A	Green	1	PAL Fuse Link, Female Terminal

AUTOMOTIVE LINK FUSE ASSORTMENT

- Includes the top male and female automotive fusible links for late model import vehicles
- Includes 1 each of: FLB 40A/60A/70A, FLD 80A, FLF 20A/30A/40A/50A/60A, FLM 80A/100A, FLS 30A/40A, FMX 20A/30A/40A

PART #	CURRENT RATING	PACK	DESCRIPTION
82-ASST-45	(20A, 30A, 40A, 50A, 60A, 70 A, 80A, 100A)	16	Automotive Link Fuse Assortment



GLASS FUSES

FSA, AGC, AGX, AGW, AGA, FSO



Fast Acting / Glass Construction

- For Automotive Circuits
- Visual indication glass body
- SAE specifications
- Size varies with rating to prevent over-fusing
- For use with In-Line holders and ¼" clips.

1A-30A, 32VAC

Agency Standards and Listings:

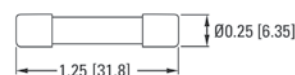
- UL Listed 100mA~10A
- UR Recognized 12A~30A
- CSA Certified 100mA~30A

Interrupt Ratings:

- 10,000 amperes at 125V AC (100mA~10A)
- 35 amperes at 250V AC (100mA~1A)
- 100 amperes at 250V AC (1.2A~3.5A)
- 200 amperes at 250V AC (4A~10A)
- 300 amperes at 32V AC (12A~30A)

Operating Temperature:

-55°C to +125°C (-67°F to +257°F)



Inches [mm]

Physical Specifications:

Materials: Glass Body/Nickel Plated Brass Contacts

Electrical Characteristics

- Rated Current: 100%
- @ 100% – 4 hours min
- @ 135% – 1 hour max
- @ 200% – 5 sec max



82-AGC-60



82-FSA-9-G



82-FSO-7-G

PART #	CURRENT RATING	PACK	DESCRIPTION
82-FSA-1A-G	1A	5	AGC, Glass Fuse
82-FSA-2A-G	2A	5	AGC, Glass Fuse
82-FSA-3A-G	3A	5	AGC, Glass Fuse
82-FSA-5A-G	5A	5	AGC, Glass Fuse
82-FSA-10A-G	10A	5	AGC, Glass Fuse
82-FSA-15A-G	15A	5	AGC, Glass Fuse
82-FSA-20A-G	20A	5	AGC, Glass Fuse
82-FSA-25A-G	25A	5	AGC, Glass Fuse
82-FSA-30A-G	30A	5	AGC, Glass Fuse
82-FSA-9-G	(1A, 2A, 3A, 5A, 10A, 15A, 20A, 25A, 30A)	9	AGC, Glass Fuse Assortment
82-AGC-60	(5A, 10A, 15A, 20A, 25A, 30A)	60	AGC, Glass Fuse Assortment & Tester
82-AGX-5	(5A, 7.5A, 10A, 20A, 30A)	5	AGX, Glass Fuse Assortment
82-AGW-5	(5A, 7.5A, 10A, 20A, 30A)	5	AGW, Glass Fuse Assortment
82-AGA-6	(3A, 5A, 7.5A, 10A, 20A, 30A)	6	AGA, Glass Fuse Assortment
82-FSO-7-G	(4A, 6A, 7.5A, 9A, 14A, 20A, 30A)	7	SFE, Glass Fuse Assortment

ASSORTMENT KITS

Assortment Kits

Grote's assortment packs contain a variety of popular fuses that will provide you with replacement fuses for circuit protection as you need them!

The Grote assortment pack is perfect for the shop at home or at work! Choose from a variety of assortment packs that best suit your needs and applications.



PART #	CURRENT RATING	PACK	DESCRIPTION
<b>MINIATURE BLADE FUSES WITH LED INDICATOR</b>			
82-ANM-I-5	(10A, 15A, 20A, 25A, 30A)	5	Miniature Blade Fuses with LED Indicator
<b>MINIATURE BLADE FUSES</b>			
82-ANM-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	7	Miniature Blade Fuses
82-ANM-8P	(2A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	9	Miniature Blade Fuses + Puller
82-ANM-8T	(2A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	9	Miniature Blade Fuses + Tester
82-ASST-43	(5A, 10A, 15A, 20A, 25A, 30A)	43	Miniature Blade Fuses + Tester
82-ASST-64	(2A, 3A, 4A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A) + (30A, 40A, 50A)	64	Miniature Blade and Large Blade Fuses + Tester
82-ASST-80M	(3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	80	Miniature Blade Fuses
82-ASST-180	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	180	Low Profile Miniature Blade and Standard Blade Fuses
<b>LOW PROFILE MINIATURE BLADE FUSES</b>			
82-ANS-I-5	(10A, 15A, 20A, 25A, 30A)	5	Low Profile Miniature LED Blade Fuses
82-ANS-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	7	Low Profile Miniature Blade Fuses
82-ANS-7P	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	8	Low Profile Miniature Blade Fuses + Puller
82-ANS-7T	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	8	Low Profile Miniature Blade Fuses + Tester
<b>STANDARD BLADE FUSES WITH LED INDICATOR</b>			
82-ANR-I-5	(10A, 15A, 20A, 25A, 30A)	5	Standard Blade Fuses with LED Indicator
<b>STANDARD BLADE FUSES</b>			
82-ANR-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	7	Standard Blade Fuses
82-ANR-7P	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	8	Standard Blade Fuses + Puller
82-ANR-6T	(5A, 10A, 15A, 20A, 25A, 30A)	7	Standard Blade Fuses + Tester
82-ASST-44	(5A, 10A, 15A, 20A, 25A, 30A)	43	Standard Blade Fuses + Tester
82-ASST-53	(10A, 15A, 20A, 30A) + (30A, 40A, 50A)	45	Standard Blade & Large Blade Fuses + Tester
82-ASST-80R	(3A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	80	Standard Blade Fuses
82-ASST-180	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	180	Low Profile Miniature, Miniature, Standard Blade Fuses
<b>LARGE BLADE FUSES</b>			
82-ASST-53	(10A, 15A, 20A, 30A) + (30A, 40A, 50A)	45	Standard Blade & Large Blade Fuses + Tester
82-ASST-64	(2A, 3A, 4A, 5A, 7.5A, 10A, 15A, 20A, 25A, 30A) + (30A, 40A, 50A)	64	Miniature Blade and Large Blade Fuses + Tester
<b>MICRO BLADE – 2 BLADE FUSES</b>			
82-ANT-7	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	7	Micro Blade – 2 Blade Fuses
82-ANT-7P	(5A, 7.5A, 10A, 15A, 20A, 25A, 30A)	8	Micro Blade – 2 Blade Fuses + Puller
<b>FUSIBLE LINK ASSORTMENT</b>			
82-ASST-45	(20A, 30A, 40A, 50A, 60A, 70A, 80A, 100A)	16	Automotive Link Fuse Assortment



**BOLT ON FUSES**

**Fast Acting Automotive Bolt On Limiter Fuse**

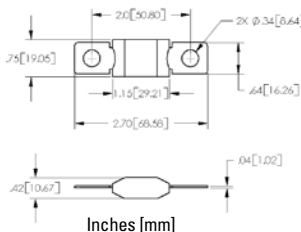
Bolt On type fuses are used in circuit where high current are present and are typically found in select late model cars and trucks. Bolt On type fuses are ideal for battery and/or alternator applications.

100A-300A, 32VDC



**SPECIFICATIONS**

**Voltage:** 32VDC  
**Amperage:** 80A, 100A, 125A, 150A, 175A, 200A, 225A, 250A, 300A  
**Interrupt Rating:** 2000A @ 32V  
**Operating Temperature:** -40°C to +125°C (-40°F to +257°C)  
**Body Material:** Polypropylene



**APPROVALS:** MEETS SAE STANDARDS & ISO 8820 STANDARD SPECIFICATIONS

PART #	CURRENT RATING	COLOR	PACK	DESCRIPTION
82-MGGA-80A	80A	Black	1	Bolt On Fuse
82-MGGA-100A	100A	Black	1	Bolt On Fuse
82-MGGA-125A	125A	Black	1	Bolt On Fuse
82-MGGA-150A	150A	Black	1	Bolt On Fuse
82-MGGA-175A	175A	Black	1	Bolt On Fuse
82-MGGA-200A	200A	Black	1	Bolt On Fuse
82-MGGA-225A	225A	Black	1	Bolt On Fuse
82-MGGA-250A	250A	Black	1	Bolt On Fuse
82-MGGA-300A	300A	Black	1	Bolt On Fuse
82-MGGA-FB			1	Fuse Block – Bolt On Fuse

**FUSE TESTER/PULLER**



- For standard blade automotive fuses
- Use to remove or insert or test fuses
- Can test fuses in or out of a fuse block
- Has a green indicator light on the end of the tester. Indicator light will remain on if fuse is good. If fuse is broken, the LED light will not light up

PART #	PACK	DESCRIPTION
82-PUL-07	1	Fuse Tester & Puller

**FUSE PULLER**



- For automotive miniature blade fuses
- Material: ABS

PART #	PACK	DESCRIPTION
82-PUL-01	1	Fuse Puller

**FUSE TAPS – INSULATED**



PART #	DESCRIPTION	SIZE	PACK
84-2917	Fuse Taps – Uninsulated	.187"	25
84-2919	Fuse Taps – Uninsulated	.187"	8
84-2916	Fuse Taps – Uninsulated	.250"	25
84-2918	Fuse Taps – Uninsulated	.250"	8

**IN-LINE FUSE HOLDERS**

- Nylon fuse holder for glass tube fuses
- Fits ¼" x 1 ¼" glass fuses
- Protects electrical equipment
- In-Line fuse holders include a fuse

PART #	CURRENT RATING	DESCRIPTION
82-2160	20A (18GA)	7" In-Line Fuse Holder (Black)
82-2162	10A (18GA)	7" In-Line Fuse Holder (White)
82-2161	15A (16GA)	7" In-Line Fuse Holder (Red)
82-2163	30A (14GA)	7" In-Line Fuse Holder (Black)



82-2160

82-2162

82-2161

82-2163

**BAYONET STYLE FUSE HOLDER**

- Nylon fuse holder for glass tube fuses
- Fits ¼" x 1 ¼" glass fuses
- Protects electrical equipment

PART #	CURRENT RATING	DESCRIPTION
82-2167	30A (12GA)	7" Bayonet Fuse Holder (Black)
82-2168	20A (14GA)	7" Bayonet Fuse Holder (Black)
82-2169	20A (14GA)	12" Bayonet Fuse Holder (Black)



82-2167

82-2169

**FUSEBLOCK – GLASS FUSES**

- For use with glass fuses
- Quick disconnect take off, .250"

PART #	DESCRIPTION	SIZE
82-2301	Glass Fuses Fuse Block – 4 Fuse	3" x 2.5"
82-2302	Glass Fuses Fuse Block – 6 Fuse	4.5" x 2.5"



82-2301

**PANEL MOUNT FUSE**

- Provides circuit protection for electrical systems
- 15A, .250" quick disconnect contacts, glass fuse
- Round fuseholder mounts easily into any dashboard

PART #	CURRENT RATING	DESCRIPTION
82-2215	15A	.250" Panel Mount Fuse



82-2215



LED STANDARD BLADE FUSE PANELS



82-BLR-I-310

- Fuse Type: Standard Automotive Blade
- Cover: Opaque Lexan (UL 94-V2)
- Indicating LED – Red
- Compact, lightweight and rugged construction
- Protects electrical equipment
- Base: Black thermoplastic (UL-Flame 94-V0)
- Terminals: Tin plated brass .250" quick disconnect
- Stud: #10-32 steel, nickel plated
- Max current rating: 25 A per circuit; 100 A max

PART #	DESCRIPTION
82-BLR-I-304	LED Standard Blade Fuse Panel w/cover – 4 Position
82-BLR-I-306	LED Standard Blade Fuse Panel w/cover – 6 Position
82-BLR-I-310	LED Standard Blade Fuse Panel w/cover – 10 Position

STANDARD BLADE FUSE PANELS



82-2304

- Fuse Type: Standard Automotive Blade
- Compact, lightweight and rugged construction
- Protects electrical equipment
- Base: Black thermoplastic (UL-Flame 94-V0)
- Terminals: Tin plated brass .250" quick disconnect
- Stud: #10-32 steel, nickel plated
- Max current rating: 25 A per circuit; 100 A max

PART #	DESCRIPTION
82-2303	Standard Blade Fuse Panel – 6 Position
82-2304	Standard Blade Fuse Panel – 8 Position
82-2305	Standard Blade Fuse Panel – 10 Position

LED MINIATURE BLADE FUSE PANELS



82-BLM-I-306

- Fuse Type: Miniature Automotive Blade
- Cover: Opaque Lexan (UL 94-V2)
- Indicating LED – Red
- Compact, lightweight and rugged construction
- Protects electrical equipment
- Base: Black thermoplastic (UL-Flame 94-V0)
- Terminals: Tin plated brass .250" quick disconnect
- Stud: #10-32 steel, nickel plated
- Max current rating: 25 A per circuit; 100 A max

PART #	DESCRIPTION
82-BLM-I-304	LED Miniature Blade Fuse Panel w/cover – 4 Position
82-BLM-I-306	LED Miniature Blade Fuse Panel w/cover – 6 Position
82-BLM-I-310	LED Miniature Blade Fuse Panel w/cover – 10 Position

TERMINAL STRIPS – STUD TYPE

- Anti-corrosive nuts and washers
- 30 AMP @ 12V DC
- Stud: #10-32 brass, mounted on 5/8" centers

PART #	DESCRIPTION
82-2311	Terminal Strips, Stud Type – 4 Stud
82-2312	Terminal Strips, Stud Type – 6 Stud
82-2313	Terminal Strips, Stud Type – 8 Stud
82-2314	Terminal Strips, Stud Type – 10 Stud



82-2313

BARRIER STRIPS – SCREW TYPE

- Black phenolic base
- 30 AMP @ 12V DC
- Brass screws with 3/8" centers; #8 mounting screw
- Temperature rating: 150°C (302°F)

PART #	DESCRIPTION
82-2332	Barrier Strips, Screw Type – 4 Position
82-2334	Barrier Strips, Screw Type – 6 Position
82-2338	Barrier Strips, Screw Type – 10 Position



82-2338

RELAYS

- General purpose relays designed to fit standard vehicles and equipment
- Available in standard and micro blade termination
- Available in 12V or 24V
- Can be purchased stand alone – or with a pigtail connection

RELAY ONLY

PART #	VOLTAGE	AMPS	FORM
84-1076	12V	30/40	S.P.D.T.
84-1093	24V	30/40	S.P.D.T.
84-1079	12V	40/30	S.P.D.T.
84-1077*	12V	30/20	S.P.D.T.

\* Micro Blade

RELAY + PIGTAIL

PART #	VOLTAGE	AMPS	FORM
84-1040	12V	30/40	S.P.D.T.
84-1094	24V	40/30	S.P.D.T.
84-1080*	12V	40/30	S.P.D.T.

\* Includes voltage spike resistor

PIGTAIL ONLY

PART #	GAUGE	LENGTH	APPLICATION
84-1041	14	12"	Pigtail for 84-1076 & 84-1093
84-1078	12	12"	Pigtail for 84-1079 (Weather Resistant)



84-1079

84-1093



84-1077

84-1076



84-1040



84-1041

84-1078