



- **ULTRASAFE™ Fuse Holders / USCC, USM & DC**
- **ULTRASAFE™ Fuse Holders / USFM**
- **ULTRASAFE™ Fuse Holders / US3J & US6J**
- **ULTRASAFE™ Fuse Holders / US14 & US22**
- **Fuse Blocks / Class J**
- **Space-Saving Fuse Blocks / SJ Series**
- **Fuse Blocks / Midget & Class CC**
- **In-Line Fuse Holders / FEB FEC, FEX, FEY Series - Midget/Class CC**

Fuse Blocks & Holders

“Finger Safe” IEC, Traditional, Panel Mount . . . You name the block, we’ve got it in stock.

Your problem: You need a range of standard fuse blocks to meet industrial requirements. You need DIN-rail mounting fuse holders that save space and conform with today’s “finger safe” IEC standards. You need panel-mount fuse holders, blocks that safely handle stress on conductors, accessories to make pulling fuses safer.

Our solution: Ferraz Shawmut’s extensive line of fuses is matched by our line of fuseblocks. Need a durable Class H, K, or R block? We’ve got configurations that accept nearly all 250 and 600V power fuses. How about Class CC or Class J IEC-style holders? Turn to our popular ULTRASAFE™ models for the small footprints, blown-fuse indicators, and finger-safe changeouts you want. The same goes for traditional Class J blocks, space-saving “SJ” blocks, 600V Class CC and midget dimension holders, and a dozen other fuse holder solutions.

Want more information fast? For more technical or application-specific information, please call our Fuse Block experts, at 978-462-6662; 416-252-9371 in Canada; or visit our website at us.ferrazshawmut.com.

- **Fuse Blocks / Class H, K & R**
- **Fuse Blocks / Class T**
- **Fuse Blocks / Class G**
- **Fuse Blocks / 5x20QC1 / 6x32QC1**
- **Panel Mount Fuse Holders / GPM Series**
- **Fuse Blocks / Amp-trap® Form 101**
- **Modular Semiconductor Fuse Blocks**
- **Semiconductor Fuse Holders / 703, U705, U710 Series**
- **Ferrule Fuse Holders / PS20x127**
- **Modular Fuse Bases / CC, MSC, CMS**
- **Fuse Bases / NH Dimension**
- **Dead Front Fuse Covers / DFC Series**
- **Fuse Block Accessories / DFC3M, DFC3LP & DRM**
- **Ferrule Fuse Clips / PC Board Mount Fuse Clips**
- **Medium Voltage Fuse Clips / 228-700 Series**

USCC & USM

24, 48 & 600 VOLT/ULTRASAFE™ FUSEHOLDERS



ULTRASAFE MODULAR FUSE HOLDERS

Ferraz Shawmut ULTRASAFE™ modular 24, 48 and 600 volt Fuse Holders introduce a new level of safety for Class CC (USCC) and Midget 1-1/2" x 13/32" (USM) as well as DC rated fuses up to 30 amperes. ULTRASAFE holders qualify as "finger safe" under IEC and DIN standards to an IP20 grade of protection, including fuse changing (with the flick of a finger). ULTRASAFE holders are available in 1, 2, 3 or 4 poles, with or without blown-fuse indicators in each pole. AC indicators are orange and DC are red. The multi-pole units can also be made up by ordering pin-tie handles for field assembly. ULTRASAFE holders save up to 15% mounting space and any combination can be snapped onto 35mm DIN rail for extra savings in panel building time. ULTRASAFE holders with Class CC fuses chosen for Type "2" protection give one of the safest protection packages in the industry. Ultrasafe body material is tough and durable polyamide, with exceptional insulating properties.

HIGHLIGHTS:

- Finger Safe
- Optional Indicator Lights
- DIN Rail Mount
- Compact Footprint
- Quick, Easy Fuse Change

APPLICATIONS:

- All circuits up to 600 volts for motors, control circuits, transformers, etc.
- Non-load disconnect
- 12, 24 and 48 volt DC circuits

RECOMMENDED FUSE USAGE

USCC use with **ATDR***, **ATMR**, **ATQR**

USM use with **ATQ**, **ATM***, **A6Y-2B**, **A25Z-2**, **TRM**, **OTM**, **A15QS-2**, **GFN**, **GGU**, **A60Q-2**

* Recommended for DC Applications DCT

Ratings

- 600VAC, 30A
Min. voltage to operate indicator light:
90VAC 115 VDC
[Less than 0.7 mA leakage current at 600V]
- Special Indicator for 24VDC, 30A
- Special Indicator for 48VDC, 30A
- Short Circuit Current Rating: Class CC 200kA, Midget Fuse 100kA
- 800VAC, 1000VDC 30A ratings on USM without indicators

Approvals

- All Ultrasafe Fuse Holders meet the requirements of UL512
- UL Listed Class CC Guide IZLT, File E52283
- UL Recognized Component Midget Guide IZLT2, File E52283
- CSA Certified Class CC & Midget C22.2, Class 6225 File 32169
- IEC 269 690VAC, 32A Midget version only.



USCC & USM

24, 48 & 600 VOLT/ULTRASAFE™ FUSEHOLDERS

For use with Class CC Fuses

CATALOG NO.	DESCRIPTION
USCC1	1 pole
USCC1I	1 pole with indicator
USCC2	2 pole
USCC2I	2 pole with indicators
USCC3	3 pole
USCC3I	3 pole with indicators
USCC3IN	3 pole with indicators and a 4th neutral pole
USCC3N	3 pole with a 4th neutral pole
USCC4	4 pole
USCC4I	4 pole with indicators

For use with Midget (1-1/2" x 13/32") Fuses

USM1	1 pole
USM1I	1 pole with indicator
USM2	2 pole
USM2I	2 pole with indicators
USM3	3 pole
USM3I	3 pole with indicators
USM3IN	3 pole with indicators and a 4th neutral pole
USM3N	3 pole with a 4th neutral pole
USM4	4 pole
USM4I	4 pole with indicators

Neutral Link Pole

USN	1 Pole with Integral Neutral Link
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Accessories

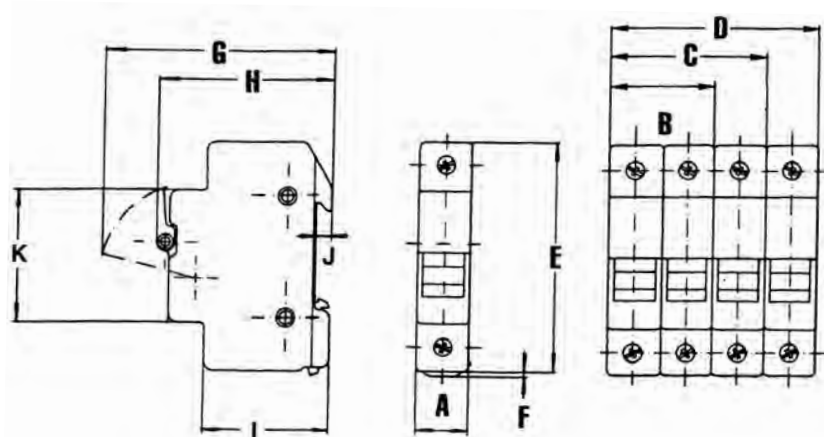
USPTH2	Pin-tie handle for 2 poles
USPTH3	Pin-tie handle for 3 poles
USPTH4	Pin-tie handle for 4 poles

Special Indicator Options For use with Low Voltage DC Rated Class CC & Midget Fuses

PART NUMBER	INDICATOR TYPE	OPERATING VOLTAGE	LEAKAGE CURRENT
USM1I-DC24	LED	12 to 24 VDC	10mA max.(@24vdc)
USM1I-DC24P	LED	20 to 24 VDC	1mA max.(@24vdc)
USM1I-DC48	LED	35 to 48 VDC	10mA max.(@48vdc)
USCC1I-DC24	LED	12 to 24 VDC	10mA max.(@24vdc)
USCC1I-DC48	LED	35 to 48 VDC	10mA max.(@48vdc)

Dimensions

DIMENSION	mm	In
A	17.5	0.69
B	35.0	1.38
C	52.5	2.07
D	70.0	2.76
E	78.0	3.07
F	2.5	0.10
G	78.0	3.07
H	59.0	2.32
I	42.5	1.67
J	5.0	0.20
K	45.0	1.77



Terminal screws: Phillips/slot head

Suggested screw torque: 14.75 in.-lbs.

Connector type: Pressure plate

Wire range: #6 to #14 (solid/stranded Cu)

Load-break disconnect: No



USFM

600 VOLT/ULTRASAFE™ FUSE MODULES



ULTRASAFE FUSE MODULES

Ferraz Shawmut ULTRASAFE™ Fuse Modules have a unique, compact design suited for use with 45mm wide IEC contactors. These modules also offer other features not found on other Class CC and midget Ultrasafe fuse holders such as an auxiliary contact option. When the auxiliary is wired to an adjacent contactor the load is dropped out by the contactor immediately once someone tries to open the fuse extractor handle. Additionally, the fuse module features padlock capabilities, compact busbars for line side terminations, and tool free removal from DIN rail. Yet the fuse modules still incorporate well known Ultrasafe features such as IP20 protection, easy operating fuse extraction handles and an open fuse visual indication option.

HIGHLIGHTS:

- Dedicated 3-pole fuse module
- Finger Safe
- Compact Footprint with 45mm width
- Auxiliary Contact Option (1NO/1NC)
- Ability to padlock in OPEN position with 1/4" shank diameter
- DIN rail mount with tool free removal
- Quick, easy fuse change
- Optional indicator lights

APPLICATIONS:

- Primarily for motor circuits to replace circuit breakers for higher SCCR ratings
- Other circuits up to 600 volts for control circuits, transformers, etc.
- Non-load disconnect
- Padlock compliance

Ratings

- 600VAC: 30A-UL/CSA
- 690VAC: 32A-IECA
- Short Circuit Current Rating: CC, 200kA-UL/CSA Midget, up to 100kA w/midget fuse dependent on fuse I.R.
- 100kA-IEC

Approvals

- All Ultrasafe Fuse Modules meet the requirements of UL512
- UL Listed, Class CC
- Guide IZLT, File E52283
- UL Recognized Component Midget
- Guide IZLT2, File E52283
- CSA Certified
- Class CC & Midget
- C22.2, Class 6225 01
- File 32169
- IEC 269
- 690VAC, 32A
- 10x38mm version only

RECOMMENDED FUSE USAGE

USFMCC use with **ATDR, ATMR, ATQR**
USFMM use with **ATQ, ATM, A6Y-2B, A25Z-2**
TRM, OTM, A15QS, GFN, GGU, A60Q-2
USFM10 use with **IEC 10x38mm gG, aM, gR fuses**

USFM

600 VOLT/ULTRASAFE™ FUSE MODULES

For use with Class CC Fuses

CATALOG NO.	DESCRIPTION
USFMCC	3 pole fuse module
USFMCCI	3 pole fuse module with indicators
USFMCCM	3 pole fuse module with microswitch style auxiliary contact
USFMCCMI	3 pole fuse module with microswitch style auxiliary contact and indicators

For use with Midget (1-1/2" 13/32") Fuses

CATALOG NO.	DESCRIPTION
USFMM	3 pole fuse module
USFMMI	3 pole fuse module with indicators
USFMMM	3 pole fuse module with microswitch style auxiliary contact
USFMMMI	3 pole fuse module with microswitch style auxiliary contact and indicators

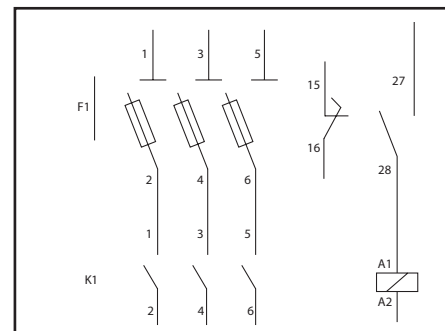
For use with 10x38mm IEC (gG, aM, gR) Fuses

CATALOG NO.	DESCRIPTION
USFM10	3 pole fuse module
USFM10I	3 pole fuse module with indicators
USFM10M	3 pole fuse module with microswitch style auxiliary contact
USFM10MI	3 pole fuse module with microswitch style auxiliary contact and indicators

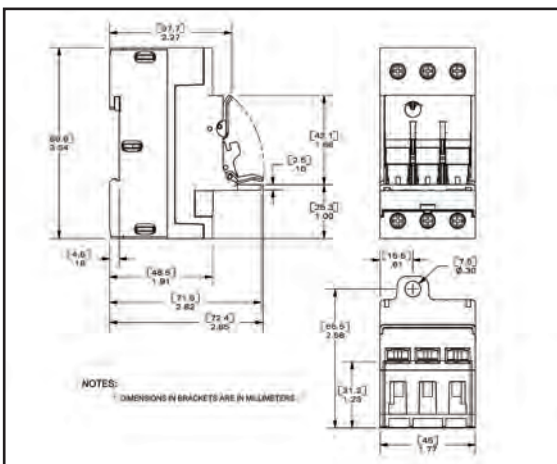
Accessories

CATALOG NO.	DESCRIPTION
USFMAC11	1NO (late make)/NC (early break) auxiliary contact
USFMFC1	Flexible connector to mate with IEC contactor 45mm lead length
USFMFC2	Flexible connector to mate with IEC contactor 70mm lead length
USFMFC3	Flexible connector to mate with IEC contactor 85mm lead length
USFMBB2	Busbar to connect 2 modules together
USFMBB3	Busbar to connect 3 modules together
USFMBB4	Busbar to connect 4 modules together
USFMBB5	Busbar to connect 5 modules together
USFMBBC1	Busbar connector terminal

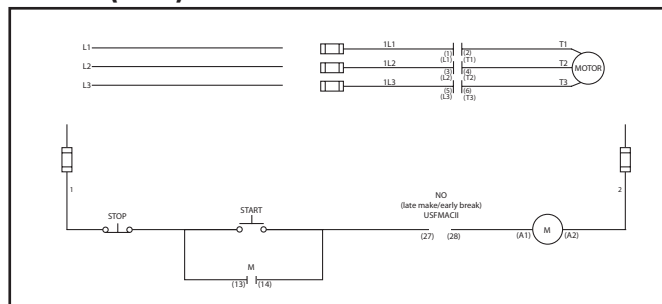
IEC



DIMENSIONS



UL/CSA (ANSI)



Terminal screws: Pozidriv#2, Suggested screw torque: 13 Lbs-in (1.5 N-m), Connector type: Pressure plate, Wire range: #10 to #16 AWG (1-4)mm² (75°C solid/stranded Cu only), Load-break disconnect: No (when auxiliary contact is installed in fuse module and properly wired to adjacent IEC contactor the load will be dropped out prior to disconnection between fuse and clip inside holder upon operation of the fuse extractor handle).



US3J & US6J

600 VOLT/ULTRASAFE™ FUSE HOLDERS



ULTRASAFE MODULAR FUSE HOLDERS FOR CLASS J FUSES

Ferraz Shawmut ULTRASAFE™ modular 600 volt Fuse Holders for Class J fuses introduce a new level of safety and ease for installing or replacing Class J fuses. ULTRASAFE holders qualify as “finger safe” to an IP20 grade of protection under IEC standards. The US3J accommodates 30A Class J or 22 x 58 mm French Ferrule* fuses. The US6J is for 60A Class J fuses. ULTRASAFE holders are available in compact 1, 2, or 3 pole units, with or without blown-fuse indicators in each pole. Multi-pole units can also be made up in the field by using the multiple-pole Assembly Kits.

All units have provisions for locking in the open position for safety during fuse changeouts or equipment servicing. US3J and US6J holders can be snap-mounted to 35 mm DIN rail and they have a unique latch which will stay open to allow re-positioning of the holder in the future. Ultrasafe body material is tough and durable polyamide.

*Holder not UL listed with these fuses

HIGHLIGHTS:

- Finger Safe
- Optional Indicator Lights
- DIN Rail Mount
- Compact Footprint
- Quick, Easy Fuse Change

APPLICATIONS:

- 600 volt motors, transformers, lighting, heating, control circuits, general loads
- Non-load disconnect

Ratings

- 600VAC: 30A & 60A
- Short Circuit Current Rating: 200kA
- Min. voltage to operate indicator light: 90VAC, 115VDC [Less than 0.7 mA leakage current at 600V]

Approvals

- All Ultrasafe Fuse Holders meet the requirements of UL512
- UL Listed Guide IZLT, File E52283
- CSA Certified Class 6225 File 32169
- IEC 269

RECOMMENDED FUSE USAGE

US3J, US6J use with AJT, A4J, HSJ



US3J & US6J

600 VOLT/ULTRASAFE™ FUSE HOLDERS

Catalog Numbers & Descriptions – For use with 30A Class J Fuses

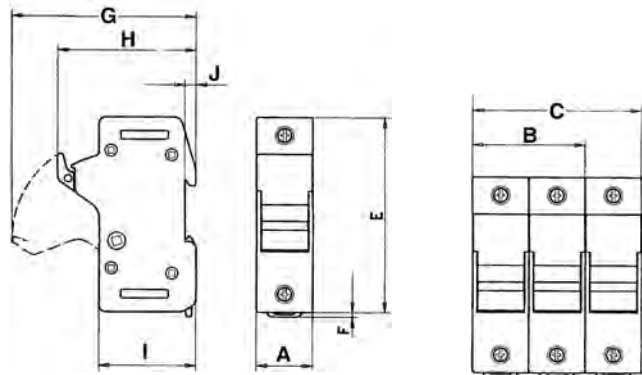
CATALOG NO.	DESCRIPTION
US3J1	1 Pole
US3J2	2 Pole
US3J3	3 Pole
US3J1I	1 Pole with Indicator
US3J2I	2 Pole with Indicators
US3J3I	3 Pole with Indicators
US3JN	1 Pole - Neutral
US3J2PAK	2 Pole Assembling Kit
US3J3PAK	3 Pole Assembling Kit
US3J4PAK	4 Pole Assembling Kit

Catalog Numbers & Descriptions – For use with 60A Class J Fuses

CATALOG NO.	DESCRIPTION
US6J1	1 Pole
US6J2	2 Pole
US6J3	3 Pole
US6J1I	1 Pole with Indicator
US6J2I	2 Pole with Indicators
US6J3I	3 Pole with Indicators
US6JN	1 Pole - Neutral
US6J2PAK	2 Pole Assembling Kit
US6J3PAK	3 Pole Assembling Kit
US6J4PAK	4 Pole Assembling Kit

Dimensions

DIMENSION	US3J		US6J	
	mm	In	mm	In
A	32.5	1.28	40	1.57
B	65	2.56	80	3.15
C	97.5	3.84	120	4.72
E	114	4.49	122	4.80
F	3	0.12	3	0.12
G	106	4.17	115	4.53
H	80	3.15	89	3.50
I	56	2.20	62	2.44
J	6.5	0.26	6.5	0.26



Terminal screws: Phillips/slot head
Suggested screw torque: 30A - 35 in-lbs.
 60A - 45 in-lbs.
Connector type: Pressure plate
Wire range: #2 to #14 (solid/stranded Cu)
Load-break disconnect: No

US14 & US22

750 VOLT/ULTRASAFE™ FUSE HOLDERS



ULTRASAFE MODULAR FUSE HOLDERS FOR 14 X 51 AND 22 X 58 MM FUSES

Ferraz Shawmut ULTRASAFE™ modular 750 volt Fuse Holders offer the highest levels of safety and features for 14 x 51 mm and 22 x 58 mm fuses. Like all ULTRASAFE™ holders, they qualify as “finger safe” to an IP20 grade of protection under IEC standards, including fuse changing (with the flick of a finger). The US14 and US22 ranges are available in 1, 2 or 3 pole units, with or without blown-fuse indicator lights in each pole.

These holders come standard with a mechanical indicator that shows fuse presence. If a striker fuse is used, this mechanical indicator will also indicate a blown fuse. Microswitches can be supplied with the holders (or ordered separately for field installation) to allow remote communication. These holders also feature padlocking capabilities, DIN rail mounting with our unique latching system to allow re-positioning, and the capability to be joined as multiple poles in the field.

HIGHLIGHTS:

- Finger Safe
- Optional Indicator Lights
- Optional Microswitches
- DIN Rail Mount
- Compact Footprint
- Quick, Easy Fuse Change

APPLICATIONS:

- All circuits up to 750 volts using semiconductor fuses for protection of small inverters, UPS systems, motor drives, etc.
- No-load disconnect
- IP20 requirements

Ratings

- 750V AC
- 50A (14 x 51 mm)
- 125A (22 x 58 mm)
- Short Circuit Current Rating: 200kA

Approvals

- All Ultrasafe Fuse Holders meet the requirements of UL512
- UL Recognized Component Guide IZLT2, File E52283
- CSA Certified Class 6225, File 32169
- IEC 269, 947-3

RECOMMENDED FUSE USAGE

US14 use with 14 x 51 mm **A70QS, A70P, URC, URD, gD14**
US22 use with 22 x 58 mm **A70QS, URD, gD22**



US14 & US22

750 VOLT/ULTRASAFE™ FUSE HOLDERS

Catalog Numbers and Descriptions - For use with 14 x 51 mm Fuses up to 50A

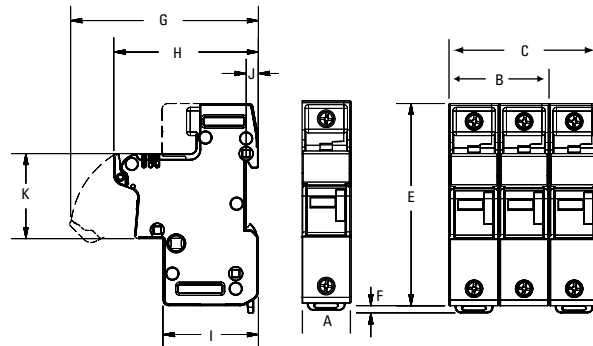
CATALOG NO.	DESCRIPTION
US141	1 Pole
US142	2 Pole
US143	3 Pole
US141I	1 Pole with Indicator
US142I	2 Pole with Indicators
US143I	3 Pole with Indicators
US141M	1 Pole with Microswitch
US142M	2 Pole with Microswitch
US143M	3 Pole with Microswitch
US143M2	3 Pole with 2 Microswitches
US141MI	1 Pole with Microswitch & Indicator
US142MI	2 Pole with Microswitch & Indicators
US143MI	3 Pole with Microswitch & Indicators
US143M2I	3 Pole with 2 Microswitches & Indicators
US141N	1 Pole - Neutral
US14PAK	Accessory - Multi-pole Assembly Kit
US14S1P	Accessory - 1 Pole Microswitch
US14S3P	Accessory - 3 Pole Microswitch
US14S3P2	Accessory - 3 Pole, 2 Microswitches

Catalog Numbers and Descriptions - For use with 22 x 58 mm Fuses up to 125A

CATALOG NO.	DESCRIPTION
US221	1 Pole
US222	2 Pole
US223	3 Pole
US221I	1 Pole with Indicator
US222I	2 Pole with Indicators
US223I	3 Pole with Indicators
US221M	1 Pole with Microswitch
US222M	2 Pole with Microswitch
US223M	3 Pole with Microswitch
US223M2	3 Pole with 2 Microswitches
US221MI	1 Pole with Microswitch & Indicator
US222MI	2 Pole with Microswitch & Indicators
US223MI	3 Pole with Microswitch & Indicators
US223M2I	3 Pole with 2 Microswitches & Indicators
US22N	1 Pole - Neutral
US22PAK	Accessory - Multi-pole Assembly Kit
US22S1P	Accessory - 1 Pole Microswitch
US22S3P	Accessory - 3 Pole Microswitch
US22S3P2	Accessory - 3 Pole, 2 Microswitches

Accessories for Assembling Multiple Poles

US14PAK	US22PAK	Multi-pole Assembly Kit
US14S1P	US22S1P	Microswitch for single pole
US14S3P	US22S3P	Microswitch for 3 pole
US14S3P2	US22S3P2	2 Microswitches for 3 pole



Dimensions

DIMENSION	US14		US22	
	mm	In	mm	In
A	26.5	1.04	35.0	1.38
B	53.0	2.09	70.0	2.76
C	79.5	3.13	105.0	4.13
E	107.0	4.21	124.0	4.88
F	3.80	0.15	3.80	0.15
G	94.0	3.70	103.0	4.06
H	76.5	3.01	76.5	3.01
J	6.50	0.26	6.5	0.26
K	45.0	1.77	45.0	1.77

Terminal screws: Phillips/slot head

Suggested screw torque: 50A - 35 lbs.-in.
125A - 45 lbs.-in.

Connector type: Pressure Plate

Wire range: US14 #2 to #14 (solid/stranded Cu)
US22 1/0 to #14 (solid/stranded Cu)

Load-break disconnect: No



CLASS J

600 VOLT/FUSE BLOCKS



CLASS J FUSE BLOCKS

Ferraz Shawmut Class J Fuse Blocks accommodate all Class J fuses. A choice of screw, pressure plate, box and special order stud connectors fit a wide range of stranded or solid copper or aluminum wire. Insulators are either molded glass-filled polycarbonate (GFPC) or phenolic with verified dielectric strength in excess of 2500V. 30 and 60A fuse blocks feature a unique adder block which can be snapped onto 1-, 2- or 3-pole blocks to form multi-pole segmented blocks of as many poles as desired. All fuse clips are made of high conductivity tin-plated copper, with a choice of spring reinforced or non-spring reinforced clips in 30A and 60A. Clips 100A and above are spring reinforced.

Ratings

- 600VAC:
30A, 60A, 100A,
200A, 400A, 600A
- Short Circuit Current
Rating: 200kA

Approvals














- All fuse blocks meet
the requirements of
UL Std. 512
- UL Listed,
Guide IZLT, File E52283
- CSA Certified
Class 6225, File 32169

RECOMMENDED FUSE USAGE

Class J Blocks (600V) use with AJT, A4J, HSJ

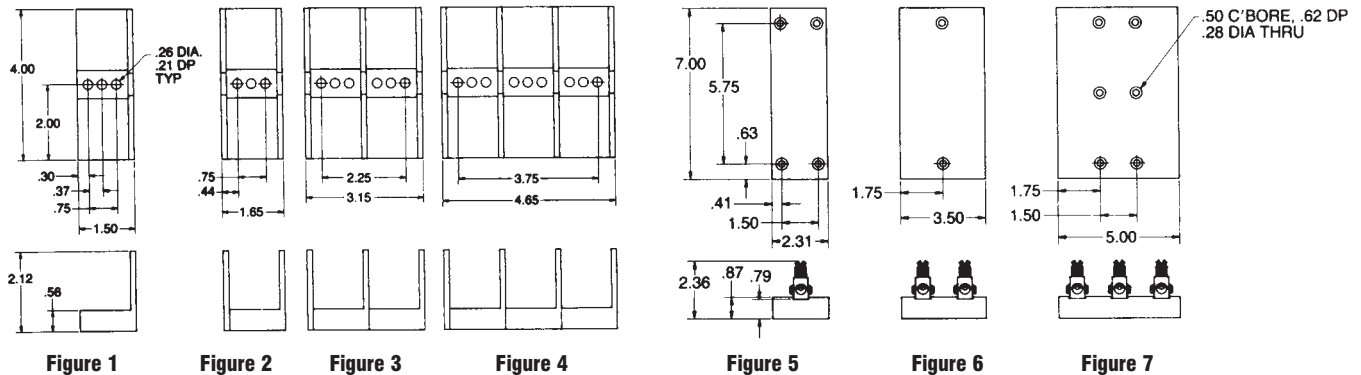


Clip & Connector Types

30A & 60A CLIPS	CONNECTORS	CONNECTORS	CONNECTORS	CONNECTORS
SPRING REINFORCED 	NON-SPRING REINFORCED: 30A & 60A BOX 	SPRING REINFORCED: 30A & 60A BOX 	SPRING REINFORCED: 100A BOX 	SPRING REINFORCED: 400A BOX IN-LINE CLIP 
NON-SPRING REINFORCED 	30A SCREW 	30A SCREW 	200A BOX SIDE-CLIP 	600A BOX IN-LINE CLIP 
	30A PRESSURE PLATE 	30A PRESSURE PLATE 	400A BOX SIDE-CLIP 	

CLASS J

600 VOLT/FUSE BLOCKS



30A figures are standard dimension fuse blocks. See also 30A space-saving "SJ" Series.

Recommended mounting screws for all 30A, 60A and 100A fuse blocks: 1/4" (.250" dia.)

600 Volt, 30, 60 & 100 Ampere Class J Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER		FIG.	CONNECTOR TORQUE In - lb
		TYPE	WIRE RANGE	TYPE OF CLIP			
				NON-SPRING REINFORCED	SPRING REINFORCED		
30 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu #2-14	60300J	60305J	1	35
				60301J	60306J	2	
				60302J	60307J	3	
				60303J	60308J	4	
	ADDER 1 2 3	SCREW	Cu #10-14	60310J	60315J	1	20
				60311J	60316J	2	
				60312J	60317J	3	
				60313J	60318J	4	
	ADDER 1 2 3	PRESSURE PLATE	Cu #10-14	60320J	60325J	1	20
				60321J	60326J	2	
				60322J	60327J	3	
				60323J	60328J	4	
ADDER 1 2 3	BOX	Cu* #4-14	-	60355J	1	35	
			-	60356J	2		
			-	60357J	3		
			-	60358J	4		
60 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu #2-14	60600J	60605J	1	45
				60601J	60606J	2	
				60602J	60607J	3	
				60603J	60608J	4	
	ADDER 1 2 3	BOX	Cu* #4-14	-	60655J	1	45
				-	60656J	2	
				-	60657J	3	
				-	60658J	4	
100 PHENOLIC INSULATOR	1 2 3	BOX	Al/Cu 2/0-#6	-	61036J	5	120
				-	61037J	6	
				-	61038J	7	
	1 2 3	BOX	Cu* 2/0-#12	-	61006J	5	50
				-	61007J	6	
				-	61008J	7	
				-			

Note: To convert 30A or 60A adder pole to single pole, use end barrier #U09617.

* Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.



CLASS J

600 VOLT/FUSE BLOCKS

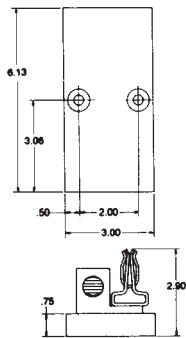


Figure 1

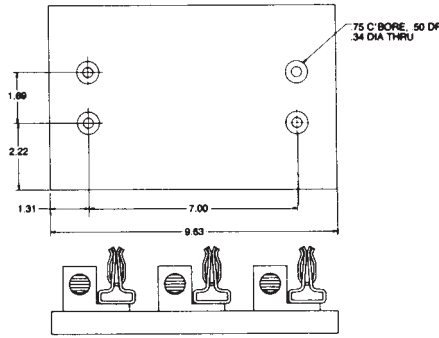


Figure 2

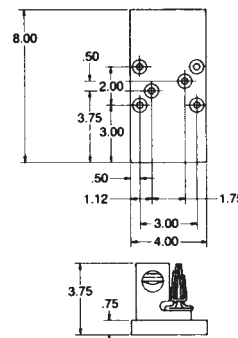


Figure 3

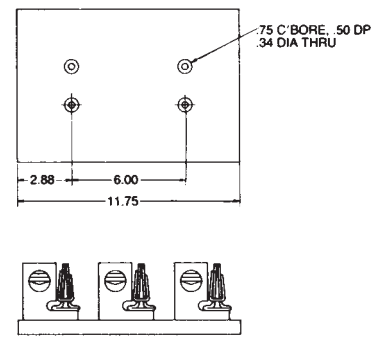


Figure 4

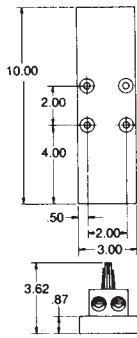


Figure 5

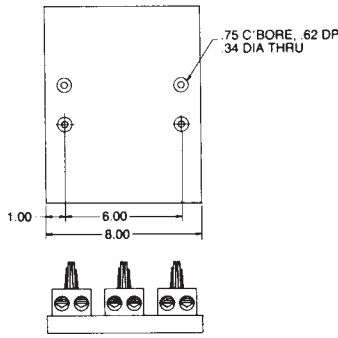


Figure 6

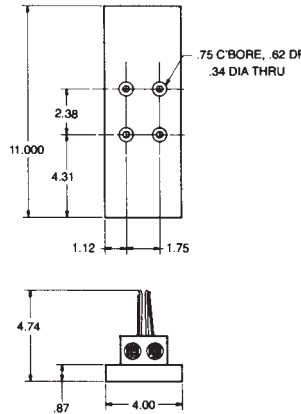


Figure 7

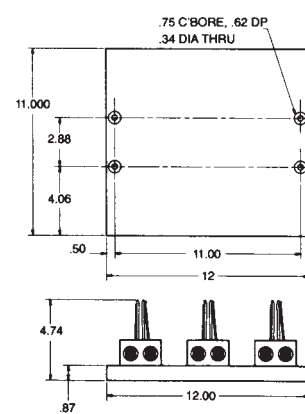


Figure 8

Recommended mounting screws:

All 200A, 400A & 600A - 5/16" (.313" dia.)

600 Volt, 200, 400 & 600 Ampere Class J Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NO.	FIG.	CONNECTOR TORQUE In - lb
		TYPE	WIRE RANGE			
200 PHENOLIC INSULATOR	1	BOX	Al/Cu	62001J	1	375
	3	SIDE-CLIP	350kcmil-#6	62003J	2	
	1	BOX	Cu**	62051J	1	275
	3	SIDE-CLIP	350kcmil-#6	62053J	2	
400 PHENOLIC INSULATOR	1	BOX*	Al/Cu	64001J	3	375
	3	SIDE-CLIP	1000-250kcmil	64003J	4	
	1	BOX	Al/Cu	64031J	5	275
	3	IN-LINE CLIP	(2) 350kcmil-#4	64033J	6	
	1	BOX*	Cu**	64051J	3	375
	3	SIDE-CLIP	1000-250kcmil	64053J	4	
	1	BOX	Cu**	64061J	5	275
	3	IN-LINE CLIP	(2) 350kcmil-#6	64063J	6	
600 PHENOLIC INSULATOR	1	BOX	Al/Cu	6631J	7	500
	3	IN-LINE CLIP	(2) 500kcmil-#4	6633J	8	
	1	BOX	Cu**	6661J	7	375
	3	IN-LINE CLIP	(2) 500kcmil-#4	6663J	8	

* Not UL Listed or CSA Certified

** Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

SJ SERIES

600 VOLT/FUSE BLOCKS



SPACE-SAVING FUSE BLOCKS

Ferraz Shawmut expands its popular “SJ” series fuse blocks to now include a 100A version in addition to the existing 30A design. These blocks occupy up to 25% less mounting space than standard Class J fuse blocks. A patented built-in DIN rail adapter on the 30A SJ block adds further design versatility. A choice of box, screw, or pressure plate connectors fit a wide range of stranded, solid copper, or aluminum wire for the 30A design, while the 100A design features a box connector. Insulators are glass-filled polycarbonate with verified dielectric strength in excess of 2500V. Both the 30A and 100A SJ blocks feature a unique adder block which can be snapped onto 1-, 2-, or 3-pole blocks to form multi-pole segmented blocks of as many poles as desired. All fuse clips are spring reinforced, made of high conductivity tin-plated copper.

RECOMMENDED FUSE USAGE

Class J Blocks (600V) use with **AJT, A4J, HSJ**

Ratings

- 600VAC:
30A, 100A
- Short Circuit Current
Rating: 200kA

Approvals

- All fuse blocks meet the requirements of UL 512
- UL Listed, Guide IZLT, File E52283
- CSA Certified Class 6225, File 32169



Clip & Connector Types

30A CLIP



30A CONNECTORS

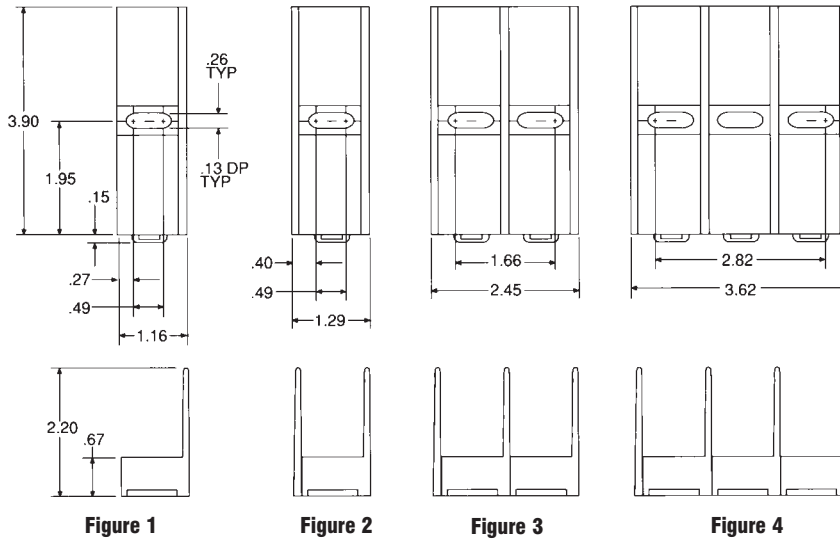


100A CONNECTORS

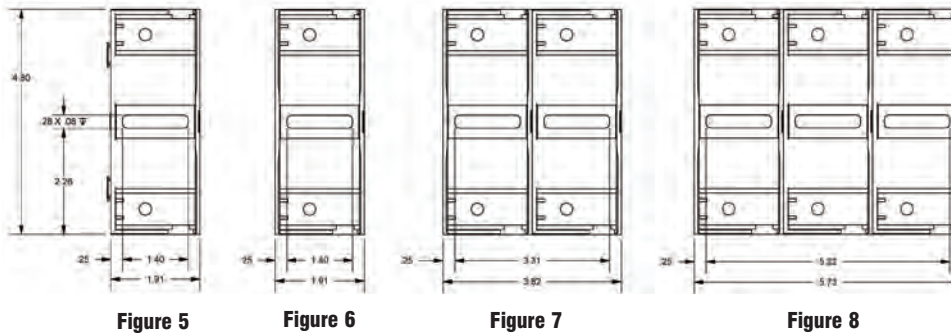


SJ SERIES

600 VOLT/FUSE BLOCKS



Recommended mounting screws for 30A fuse blocks: 1/4" (.250" dia.)



600 Volt, 30A Class J Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER	FIG.	CONNECTOR TORQUE In - lb
		TYPE	WIRE RANGE			
30 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu #2-14	60305SJ	1	35
				60306SJ	2	
				60307SJ	3	
				60308SJ	4	
	ADDER 1 2 3	SCREW	Cu #10-14	60315SJ	1	20
				60316SJ	2	
				60317SJ	3	
				60318SJ	4	
	ADDER 1 2 3	PRESSURE PLATE	Cu #10-14	60325SJ	1	20
				60326SJ	2	
				60327SJ	3	
				60328SJ	4	
ADDER 1 2 3	BOX	Cu* #4-14	60355SJ	1	35	
			60356SJ	2		
			60357SJ	3		
			60358SJ	4		
100 GFPC INSULATOR	ADDER 1 2 3	BOX SIDE CLIP	Al/Cu 2/0#6	61005SJ	5	100 (AL WIRE) 60 (CU WIRE)
				61006SJ	6	
				61007SJ	7	
				61008SJ	8	

Note: To convert 30A "SJ" adder pole to single pole, use end barrier #U09372.

* Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

MIDGET & CLASS CC

600 VOLT/FUSE BLOCKS



600 VOLT MIDGET AND CLASS CC FUSE BLOCKS

Ferraz Shawmut Midget Fuse Blocks accommodate all 30 ampere 1-1/2" x 13/32" midget fuses. Class CC Fuse Blocks accommodate all 30 ampere Class CC fuses. A choice of box, screw, or pressure-plate connectors fit a wide range of stranded or solid copper wire. Insulators are glass-filled polycarbonate (GFPC) with verified dielectric strength in excess of 2500V. Fuse blocks feature a unique adder block which can be snapped onto 1-, 2- or 3-pole blocks to form multi-pole segmented blocks of as many poles as desired. All fuse clips are made of high conductivity tin-plated copper alloy.

Ratings

- 600VAC: 30A
- Short Circuit Current Rating: CC, 200kA using screw, pressure plate or box connections, 10kA using quick connects Midget, 100kA dependent I.R. 10kA w/quick connect termination
- Temperature/flammability: GFPC insulators rated 125°C, 94V-0 flammability

Approvals

- All fuse blocks meet the requirements of UL Std. 512
- **Midget Block**
UL Recognized Component Guide IZLT2, File E52283
- CSA Certified Class 6225, File 32169
- **Class CC Block**
UL Listed, Guide IZLT, File E52283
- CSA Certified Class 6225, File 32169

RECOMMENDED FUSE USAGE

Midget Fuse Block use with **ATQ, ATM, A6Y-2B, A25Z-2, TRM, OTM, A115QS-2, GFN, GGU, A60Q-2**

Class CC Fuse Block use with **ATDR, ATMR, ATQR**

Clip & Connector Types

30A MIDGET/CC

COPPER BOX CONNECTOR



SCREW WITH DOUBLE QUICK-CONNECTS



PRESSURE PLATE WITH DOUBLE QUICK-CONNECTS

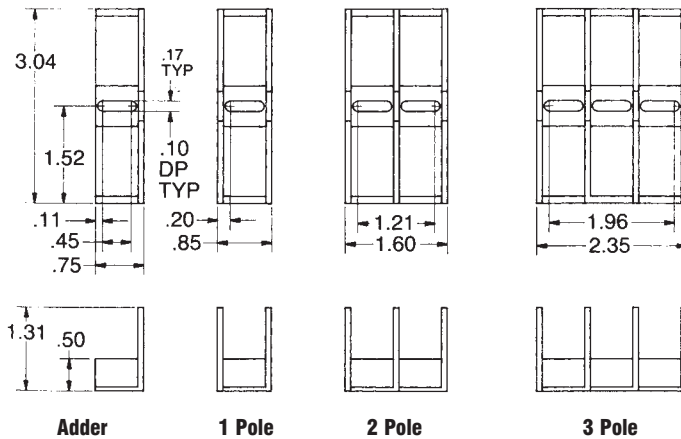


PRESSURE PLATE WITH DOUBLE QUICK-CONNECTS (CLASS CC REJECTION END)



MIDGET & CLASS CC

600 VOLT/FUSE BLOCKS



Recommended mounting screws for all Midget and Class CC fuse blocks: #8 (.164" dia.)

600 Volt, 30A Midget and Class CC Fuse Blocks

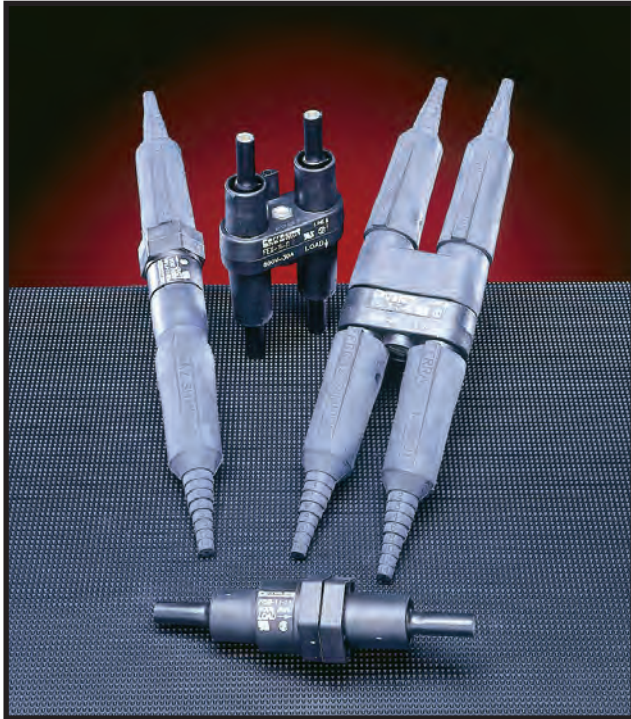
CONNECTOR		POLES*	CATALOG NUMBER				CONNECTOR TORQUE In - lb
TYPE	WIRE RANGE		TYPE OF FUSE				
			MIDGET	LISTING	CLASS CC	LISTING	
Screw w/double quick connects at both ends	Cu #10-14	ADDER	30310	UL & CSA	30310R	UL & CSA	20
		1	30311		30311R		
		2	30312		30312R		
		3	30313		30313R		
		4	30314		30314R		
Pressure plate (sems) w/double quick connects at both ends	Cu #10-14	ADDER	30320	UL & CSA	30320R	UL & CSA	20
		1	30321		30321R		
		2	30322		30322R		
		3	30323		30323R		
		4	30324		30324R		
Copper box	Cu #6-14	ADDER	30350	UL & CSA	30350R	UL & CSA	35
		1	30351		30351R		
		2	30352		30352R		
		3	30353		30353R		
		4	30354		30354R		

Note: To convert Midget or Class CC adder pole to single pole, use end barrier #U09301.
 * Available in any number of poles. Replace last digit in Catalog Number with number of poles needed.
 Example: 303112 is a 12-pole screw/double QC connector Midget Fuse Block.
 Total width of N poles = (N x .76) + .08 inches. 12 poles = (12 x .76") + .08" = 9.20".

Note: Please see fuse block accessories (H 66) for information regarding fuse block accessories; DFC3M, DFC3LP or DRM.

FEB, FEC, FEX, FEY

600 VOLT/IN-LINE FUSE HOLDERS



Ferraz Shawmut's complete line of single and dual pole in-line fuse holders accommodate either 1-1/2" x 13/32" (10x38mm) midget or Class CC fuses. The fuse holders are designed for quick installation. Securing nuts or screws are captive thus speeding installation by reducing the need to locate and assemble loose components in the field. Three internal O-rings per pole seal the fuse holder providing a water-resistant compartment for the fuse. The captive O-rings are colored (blue for single pole and red for dual pole) for quick detection. Optional cone shaped insulator boots can be slipped on to provide a watertight seal (breakaway versions come with boots standard). Both single and dual pole versions have an optional breakaway feature which safely disconnects the load in case of a pole knockdown. Fuses remain safely encapsulated within the watertight fuse holder on the load side. Once the pole has been reinstalled the fuse holder can be easily reconnected.

HIGHLIGHTS

- Breakaway version quickly disconnects line side during pole knockdown in compliance with state and federal highway commission standards
- 3 O-rings per pole for water tight applications
- Colored O-rings for quick detection
- Single and dual poles
- Accepts midget or Class CC fuses
- Wide assortment of terminal variations
- High heat, impact resistant insulator
- Captive nut or screw for quick installations
- Polarized dual pole provides simultaneous disconnection
- Permanently installed neutral versions quickly identified by white nuts
- Tulip fuse clip for improved contact and low losses
- Environmentally friendly-no lead solder used
- Highly visible catalog number even with insulation boots installed
- Wire gage size identified on insulation boots for quick, accurate trimming

APPLICATIONS:

- Street lighting
- Parking lot lighting
- Traffic signaling
- Sports lighting
- Boats and marinas
- Humid/corrosive environments



Ratings	Approvals
<ul style="list-style-type: none"> ➤ 600 VAC, 30A Short Circuit Current Rating: Midget Fuse 100kA, Class CC, 200kA ➤ Temperature Rating 155°C 	<ul style="list-style-type: none"> ➤ UL Listed Class CC Guide IZLT, File E52283 ➤ UL Recognized Component Midget Guide IZLT2, File E52283 ➤ CSA Certified Class CC and Midget Class 6225, File 32169



Recommended Fuse Usage

FEB and FEX holders will accommodate these Ferraz Shawmut Fuses:
Midget (1-1/2" x 13/32", 10 x 38mm): ATQ, ATM, TRM, OTM, GGU, GFN, A13X-2, A25Z-2, A60Q-2, A6Y-2B

FEC and FEY holders will accommodate these Ferraz Shawmut Fuses:
Class CC: ATDR, ATMR, ATQR

FEB, FEC, FEX, FEY

600 VOLT/IN-LINE FUSE HOLDERS

Catalog Numbering System

Family	Load Terminal		Line Terminal		Option	
	Type	Material	Type	Material		
FEB-	1	1	-	1	1	-BA

Nomenclature Legend

Family	Description	Load or Line Terminal Type							Option
		Terminal End View	Terminal	Type		No. Per Terminal	Solid	Stranded	Description
FEB	Single pole midjet		11	Cu Crimp	#8-#12 #12- #14	1 2	Yes Yes	Yes Yes	BA (breakaway version equipped with breakaway stud, breakaway boot, and insulating boots for both line and load sides)
FEC	Single pole Class CC		21	Cu Crimp	#10 #6 #4	2 1 1	Yes Yes Yes	Yes Yes No	
FEX	Dual Pole midjet		31	Cu Crimp	#10 #4	2 1	Yes No	Yes Yes	
FEY	Dual pole Class CC		41	Cu Crimp	#6 #2	2 1	Yes No	Yes Yes	
FEBN	Single pole neutral		81	Cu single Set Screw	#2-#12	1	Yes	Yes	
			91	Cu Double Set Screw	#2-#12	1 each	Yes	Yes	
			82	Al single Set Screw	#2-#12	1	Yes	Yes	
			92	Al double Set Screw	#2-#12	1 each	Yes	Yes	

Notes:

1. Non-breakaway units do not include insulator boots. These optional cone shaped boots are available to provide a watertight installation. The insulator boots are designed to form a watertight seal over conductors, but due to varying wire insulation sizes it is suggested that tape wrap be utilized for best results.

FSB1 = Single conductor boot (used to cover all crimp type & single set screw terminals)

FSB2 = Double conductor boot (used to cover all double set screw (Y-type) terminals)

Insulator boot trimming instructions: Locate wire gage size to be utilized marking on the boot and cut just beneath it.

2. Tightening torque for single and double set screw terminations: 35 lbs.-in.

3. Tightening torque for dual pole fastening screw: 10-15 lbs.-in.

4. FEBN versions have a permanently mounted dummy fuse for neutral applications.

FEB, FEC, FEX, FEY

600 VOLT/IN-LINE FUSE HOLDERS

Ferraz Shawmut In-Line Fuse Holder Family - Typical Combination Chart

Midget (10x38mm)	Midget (10x38mm) Breakaway	Class CC	Class CC Breakaway	Midget (10x38mm) Dual Pole	Midget (10x38mm) Dual Pole Breakaway	Class CC Dual Pole	Class CC Dual Pole Breakaway
FEB-11-11	FEB-11-11-BA	FEC-11-11	FEC-11-11-BA	FEX-11-11	FEX-11-11-BA	FEY-11-11	FEY-11-11-BA
FEB-11-21	FEB-11-21-BA	FEC-11-21	FEC-11-21-BA	FEX-11-21	FEX-11-21-BA	FEY-11-21	FEY-11-21-BA
FEB-11-31				FEX-11-31		FEY-11-31	
FEB-11-41	FEB-11-41-BA			FEX-11-41	FEX-11-41-BA	FEY-11-41	
	FEB-11-81-BA						
FEB-11-82	FEB-11-82-BA						
FEB-11-91	FEB-11-91-BA	FEC-11-91	FEC-11-91-BA				FEY-11-91-BA
FEB-11-92	FEB-11-92-BA						
FEB-11-S							
FEB-21-11							
FEB-21-21	FEB-21-21-BA	FEC-21-21	FEC-21-21-BA	FEX-21-21	FEX-21-21-BA	FEY-21-21	FEY-21-21-BA
FEB-21-91	FEB-21-91-BA						
FEB-31-31	FEB-31-31-BA						
FEB-41-41	FEB-41-41-BA						
FEB-81-81	FEB-81-81-BA	FEC-81-81	FEC-81-81-BA	FEX-81-81			FEY-81-81-BA
FEB-81-91	FEB-81-91-BA			FEX-81-91	FEX-81-91-BA		
FEB-81-S							
FEB-82-82	FEB-82-82-BA						
FEB-82-92	FEB-82-92-BA						
	FEB-91-91-BA						
FEBN-11-11	FEBN-11-11-BA						
FEBN-11-91	FEBN-11-91-BA						
FEBN-81-81	FEBN-81-81-BA						
FEB-SS							



Note: Consult factory for other configurations.

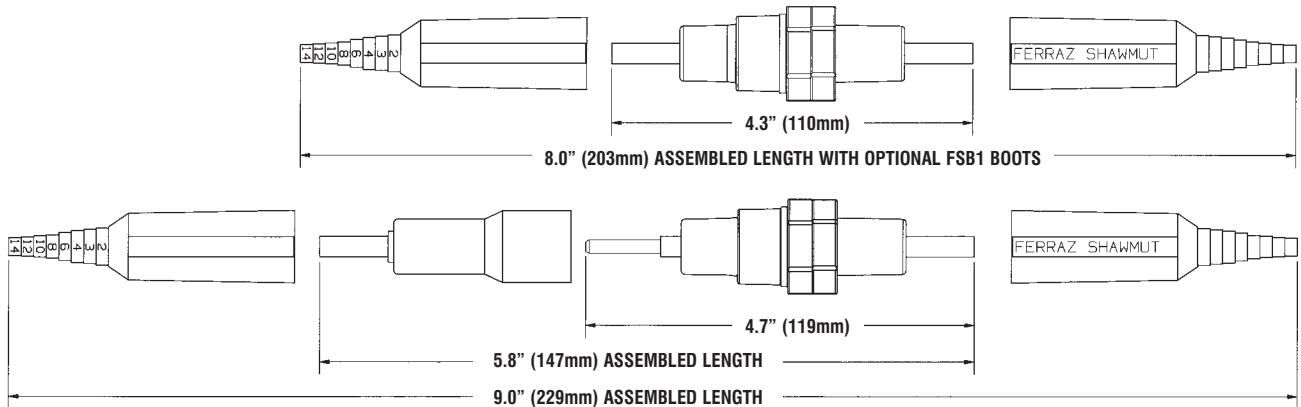
Crimping Tools Reference Chart, The following crimping tools (or equivalent) are recommended:

Terminal Type	FCI-Burndy	T&B
1	Y8MRB-1	WT-111M
2	Y2MR	TBM2/TBM5 BLUE DIE, WT-115-A DIE O
3	Y2MR	TBM2/TBM5 GREY DIE, WT-115-A DIE E
4	Y2MR	TBM2/TBM5 BROWN DIE, WT-115-A DIE F

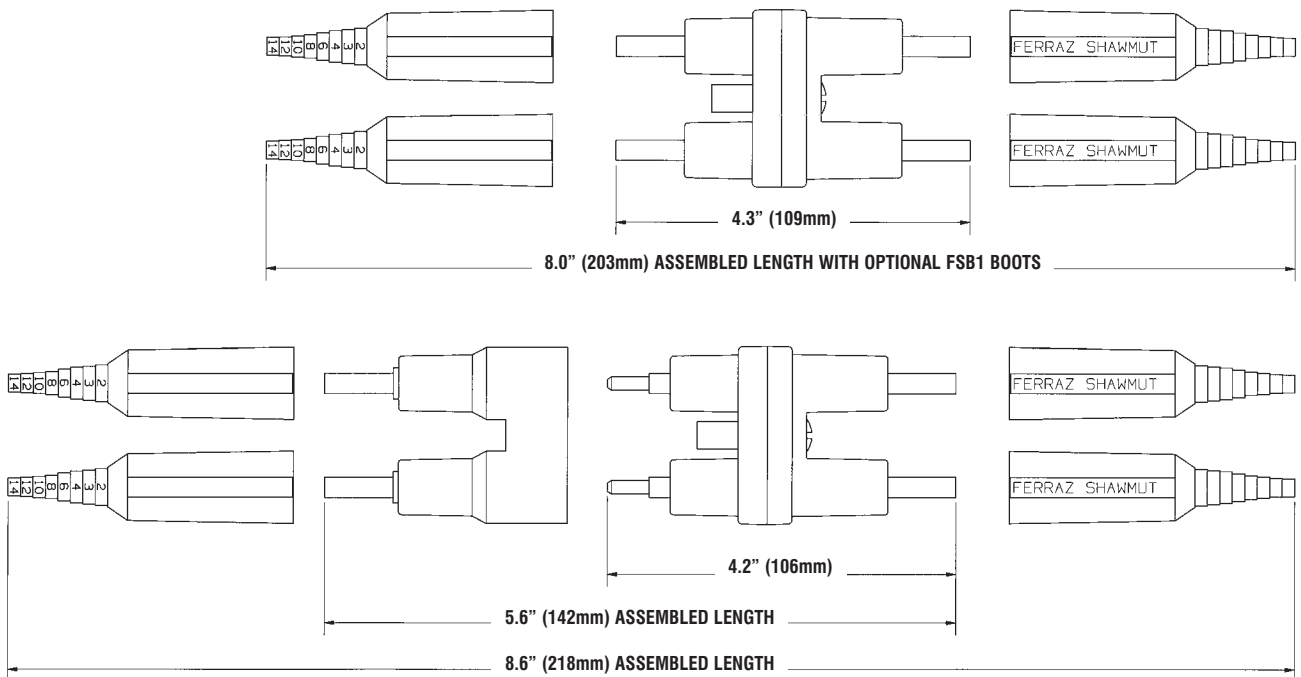
FEB, FEC, FEX, FEY

600 VOLT/IN-LINE FUSE HOLDERS

FEB and FEC, Non-Breakaway and Breakaway Assembly Drawings



FEX and FEY, Non-Breakaway and Breakaway Assembly Drawings



CLASS H, K & R

250 & 600 VOLT/FUSE BLOCKS



CLASS H, K AND R FUSE BLOCKS

Ferraz Shawmut Class H, K and R Fuse Blocks accommodate all Class H, K and R 250 and 600V power fuses. A choice of screw, pressure plate, box and special order stud connectors fit a wide range of stranded or solid copper or aluminum wire. Insulators are either molded glass-filled polycarbonate (GFPC) or phenolic with verified dielectric strength in excess of 2500V. 30, 60 and 100A fuse blocks feature a unique adder block which can be snapped onto 1-, 2- or 3-pole blocks to form multi-pole segmented blocks of as many poles as desired. All fuse clips are made of high conductivity tin-plated copper, with a choice of spring reinforced or non-spring reinforced clips in 30A and 60A. Clips 100A and above are spring reinforced.

Ratings

- 250VAC:
30A, 60A, 100A,
200A, 400A, 600A
- 600VAC:
30A, 60A, 100A,
200A, 400A, 600A
- Short Circuit
Current Ratings:
250 & 600VAC
w/class H fuses - 10kA
w/class K fuses - 50kA
w/class R fuses - 200kA

Approvals

- All fuse blocks meet the requirements of UL Std. 512
- UL Listed, Guide IZLT, File E52283
- UL Recognized Component Guide IZLT2, File E52283
- CSA Certified Class 6225, File 32169

















RECOMMENDED FUSE USAGE

Class R Blocks (250V) use with **A2D-R, A2K-R, TR-R**
Class R Blocks (600V) use with **A6D-R, A6K-R, TRS-R**
Class H & K Blocks (250V) use with **OT, RF, A2Y types 1 & 3**
OTN, CRN, NRN

Class H & K Blocks (600V) use with **OTS, RFS, A6Y types 1 & 3**
CRS, NRS



Clip & Connector Types

30A & 60A CLIPS	CONNECTORS	CONNECTORS	CONNECTORS	CONNECTORS
SPRING REINFORCED: CLASS R 	NON-SPRING REINFORCED: 30A & 60A BOX 	SPRING REINFORCED: 30A & 60A BOX 	SPRING REINFORCED: 100A BOX 	SPRING REINFORCED: 400A BOX IN-LINE CLIP 
CLASS H & K 	30A SCREW 	30A SCREW (R) 	200A BOX SIDE-CLIP 	600A BOX IN-LINE CLIP 
NON-SPRING REINFORCED 	30A PRESSURE PLATE 	30A PRESSURE PLATE 	400A BOX SIDE-CLIP 	

CLASS H, K & R

250 VOLT/FUSE BLOCKS

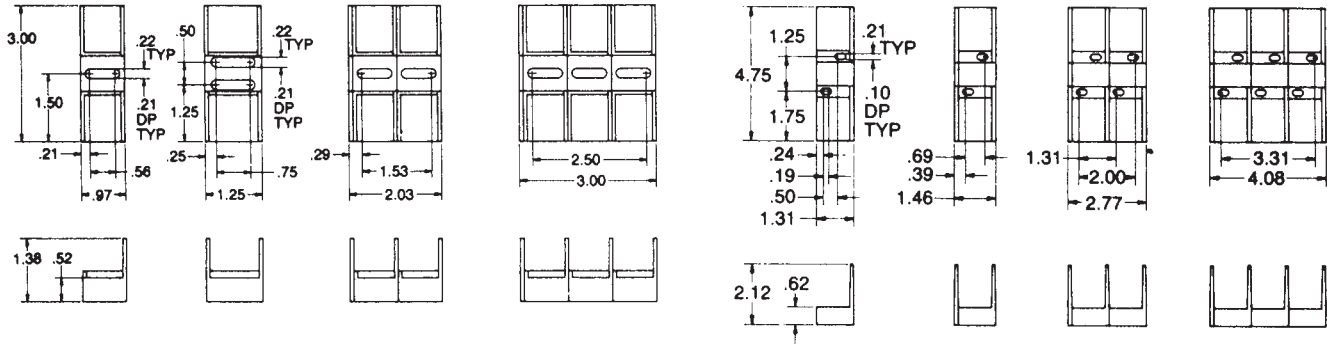


Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Recommended mounting screws for all 30A and 60A fuse blocks: #10 (.190" dia.)

250 Volt, 30 & 60 Ampere Class H, K and R Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER			FIG.	CONNECTOR TORQUE In - lb
				TYPE OF CLIP				
		TYPE	WIRE RANGE	CLASS H & K NON-SPRING REINFORCED	CLASS H & K SPRING REINFORCED	CLASS R SPRING REINFORCED		
30 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu #2-14	20300	20305	20305R	1	35
				20301*	20306*	20306R*	2	
				20302	20307	20307R	3	
				20303	20308	20308R	4	
	ADDER 1 2 3	SCREW	Cu #10-14	20310	20315	20315R	1	20
				20311*	20316*	20316R*	2	
				20312	20317	20317R	3	
				20313	20318	20318R	4	
	ADDER 1 2 3	PRESSURE PLATE	Cu #10-14	20320	20325	20325R	1	20
				20321*	20326*	20326R*	2	
				20322	20327	20327R	3	
				20323	20328	20328R	4	
ADDER 1 2 3	BOX	Cu** #4-14	-	20355	20355R	1	35	
			-	20356*	20356R*	2		
			-	20357	20357R	3		
			-	20358	20358R	4		
60 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu #2-14	20600	20605	20605R	5	45
				20601	20606	20606R	6	
				20602	20607	20607R	7	
				20603	20608	20608R	8	
	ADDER 1 2 3	BOX	Cu** #4-14	-	20655	20655R	5	45
				-	20656	20656R	6	
				-	20657	20657R	7	
				-	20658	20658R	8	

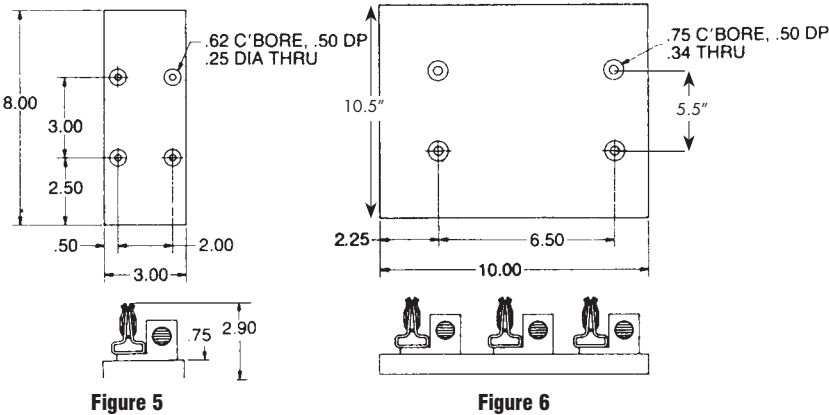
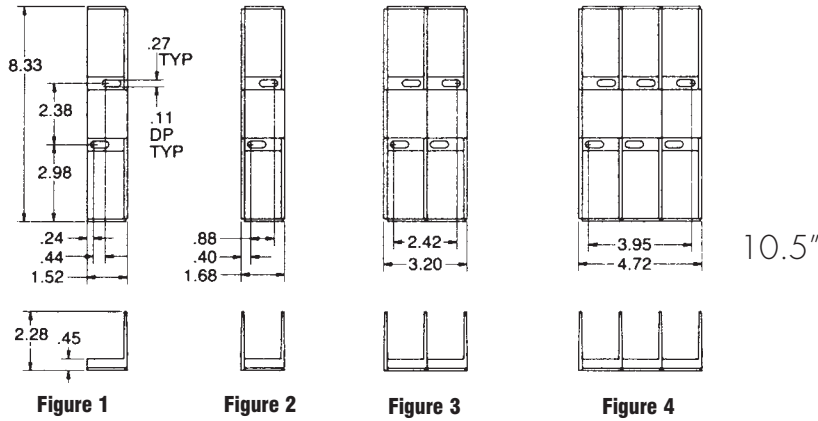
Note: To convert 30A adder pole to single pole, use end barrier #U09322. To convert 60A adder pole to single pole, use end barrier #U09365.

* 1-pole, 30A block does not accept adder pole.

** Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

CLASS H, K & R

250 VOLT/FUSE BLOCKS



Recommended mounting screws:
 All 100A-1/4" (.250" dia.)
 200A, 1-pole - #10 (.190" dia.)
 200A, 3-pole - 5/16" (.313" dia.)



250

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER		FIG.	CONNECTOR TORQUE In - lb
				TYPE OF CLIP			
		TYPE	WIRE RANGE	CLASS H & K SPRING REINFORCED	CLASS R SPRING REINFORCED		
100 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu 2/0-#6	21035	21035R	1	120
				21036	21036R	2	
				21037	21037R	3	
				21038	21038R	4	
	ADDER 1 2 3	BOX	Cu* 2/0-#12	21005	21005R	1	50
				21006	21006R	2	
				21007	21007R	3	
				21008	21008R	4	
200 PHENOLIC INSULATOR	1 3	BOX SIDE-CLIP	Al/Cu 350kcmil-#6	22001	22001R	5	375
				22003	22003R	6	
	1 3	BOX SIDE-CLIP	Cu* 350kcmil-#6	22051	22051R	5	275
				22053	22053R	6	

Note: To convert 100A adder pole to single pole, use end barrier #U09363.

* Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

CLASS H, K & R

250 VOLT/FUSE BLOCKS

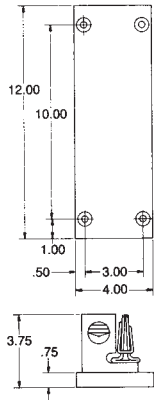


Figure 1

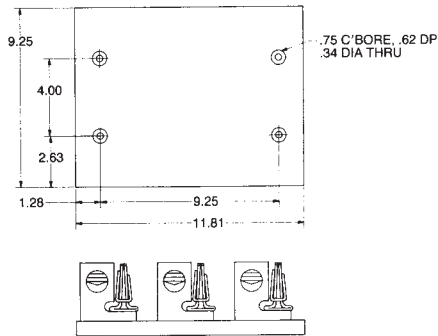


Figure 2

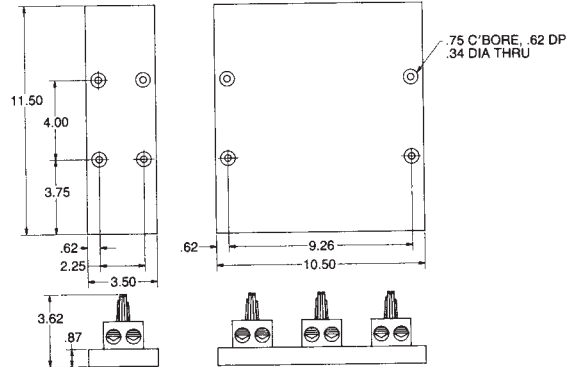


Figure 3

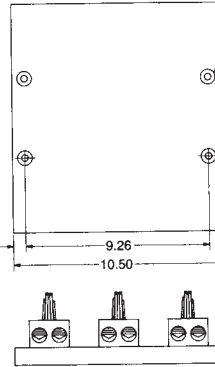


Figure 4

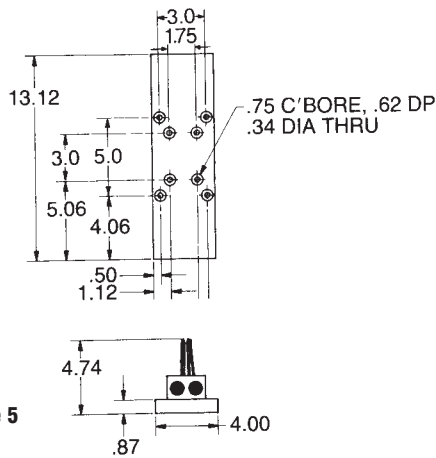


Figure 5

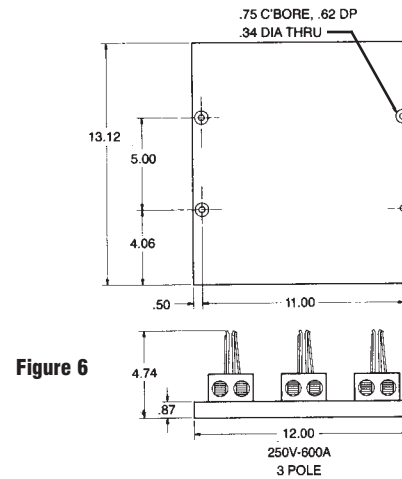


Figure 6

250 Volt, 400 & 600 Ampere Class H, K and R Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER		FIG.	CONNECTOR TORQUE In - lb
				TYPE OF CLIP			
		TYPE	WIRE RANGE	CLASS H & K SPRING REINFORCED	CLASS R SPRING REINFORCED		
400 PHENOLIC INSULATOR	1	BOX*	Al/Cu	24001	24001R	1	375
	3	SIDE-CLIP	1000-250kcmil	24003	24003R	2	375
	1	BOX*	Cu**	24051	24051R	1	375
	3	SIDE-CLIP	1000-250kcmil	24053	24053R	2	375
600 PHENOLIC INSULATOR	1	BOX	Al/Cu	24031	24031R	3	275
	3	IN-LINE CLIP	(2) 350kcmil-#4	24033	24033R	4	275
	1	BOX	Cu**	24061	24061R	3	275
	3	IN-LINE CLIP	(2) 350kcmil-#6	24063	24063R	4	275
600 PHENOLIC INSULATOR	1	BOX	Al/Cu	2631	2631R	5	500
	3	IN-LINE CLIP	(2) 500kcmil-#4	2633	2633R	6	500
600 PHENOLIC INSULATOR	1	BOX	Cu**	2661	2661R	5	375
	3	IN-LINE CLIP	(2) 500kcmil-#4	2663	2663R	6	375

Recommended mounting screws for all 400A and 600A fuse blocks: 5/16 (.313" dia.)

* Not UL Listed or CSA Certified

** Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

CLASS H, K & R

600 VOLT/FUSE BLOCKS

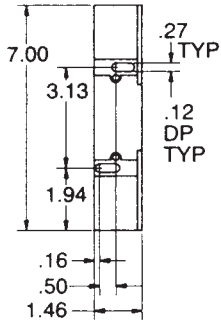


Figure 1

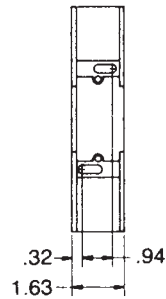


Figure 2

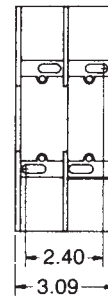


Figure 3

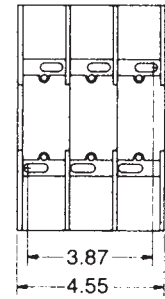
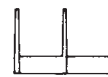
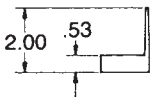


Figure 4



Recommended mounting screws for all 30A and 60A fuse blocks: 1/4" (.250" dia.)

600 Volt, 30 & 60 Ampere Class H, K and R Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER			FIG.	CONNECTOR TORQUE In - lb
				TYPE OF CLIP				
		TYPE	WIRE RANGE	CLASS H & K NON-SPRING REINFORCED	CLASS H & K SPRING REINFORCED	CLASS R SPRING REINFORCED		
30 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu #2-14	60300	60305	60305R	1	35
				60301	60306	60306R	2	
				60302	60307	60307R	3	
				60303	60308	60308R	4	
	ADDER 1 2 3	SCREW	Cu #10-14	60310	60315	60315R	1	20
				60311	60316	60316R	2	
				60312	60317	60317R	3	
				60313	60318	60318R	4	
	ADDER 1 2 3	PRESSURE PLATE	Cu #10-14	60320	60325	60325R	1	20
				60321	60326	60326R	2	
				60322	60327	60327R	3	
				60323	60328	60328R	4	
ADDER 1 2 3	BOX	Cu* #4-14	-	60355	60355R	1	35	
			-	60356	60356R	2		
			-	60357	60357R	3		
			-	60358	60358R	4		
60 GFPC INSULATOR	ADDER 1 2 3	BOX	Al/Cu #2-14	60600	60605	60605R	1	45
				60601	60606	60606R	2	
				60602	60607	60607R	3	
				60603	60608	60608R	4	
	ADDER 1 2 3	BOX	Cu* #4-14	-	60655	60655R	1	45
				-	60656	60656R	2	
				-	60657	60657R	3	
				-	60658	60658R	4	

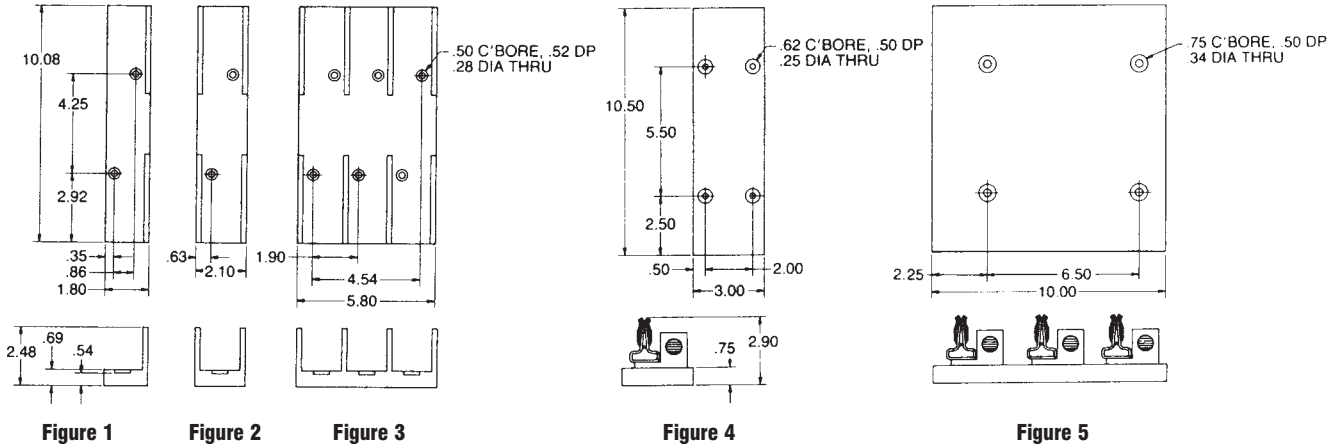
Note: To convert 30A or 60A adder pole to single pole, use end barrier #U09361.

* Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.



CLASS H, K & R

600 VOLT/FUSE BLOCKS



Recommended mounting screws:
 All 100A-1/4" (.250" dia.)
 200A, 1-pole - #10 (.190" dia.)
 200A, 3-pole - 5/16" (.313" dia.)

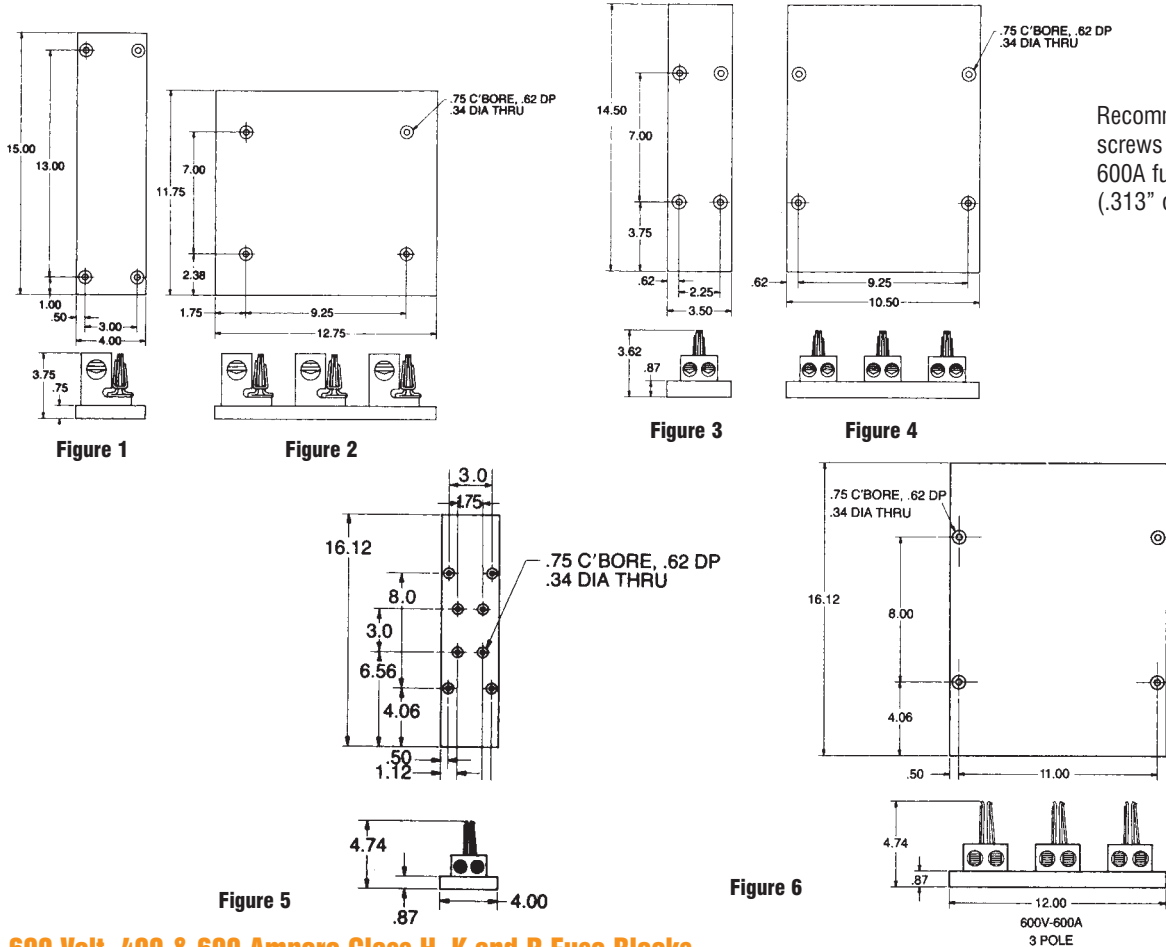
600 Volt, 100 & 200 Ampere Class H, K and R Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER		FIG.	CONNECTOR TORQUE In - lb
				TYPE OF CLIP			
		TYPE	WIRE RANGE	CLASS H & K SPRING REINFORCED	CLASS R SPRING REINFORCED		
100 PHENOLIC INSULATOR	ADDER 1 3	BOX	AL/Cu 2/0-#6	61035	61035R	1	120
				61036	61036R	2	
				61038	61038R	3	
	ADDER 1 3	BOX	Cu* 2/0-#12	61005	61005R	1	50
				61006	61006R	2	
				61008	61008R	3	
200 PHENOLIC INSULATOR	1 3	BOX SIDE-CLIP	AL/Cu 350kcmil-#6	62001	62001R	4	375
				62003	62003R	5	
	1 3	BOX SIDE-CLIP	Cu* 350kcmil-#6	62051	62051R	4	275
				62053	62053R	5	

Note: Adder poles can only be added to other fuse blocks. There is no end barrier to convert them to single pole fuse blocks.
 * Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

CLASS H, K & R

600 VOLT/FUSE BLOCKS



600 Volt, 400 & 600 Ampere Class H, K and R Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER		FIG.	CONNECTOR TORQUE In - lb
				TYPE OF CLIP			
		TYPE	WIRE RANGE	CLASS H & K SPRING REINFORCED	CLASS R SPRING REINFORCED		
400 PHENOLIC INSULATOR	1	BOX*	Al/Cu	64001	64001R	1	375
	3	SIDE-CLIP	1000-250kcmil	64003	64003R	2	
	1	BOX*	Cu**	64051	64051R	1	375
	3	SIDE-CLIP	1000-250kcmil	64053	64053R	2	
600 PHENOLIC INSULATOR	1	BOX	Al/Cu	6631	6631R	5	500
	3	IN-LINE CLIP	(2) 500kcmil-#4	6633	6633R	6	
	1	BOX	Cu**	6661	6661R	5	375
	3	IN-LINE CLIP	(2) 500kcmil-#4	6663	6663R	6	

* Not UL Listed or CSA Certified

** Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.



CLASS T

300 & 600 VOLT/FUSE BLOCKS



CLASS T FUSE BLOCKS

Ferraz Shawmut Class T Fuse Blocks accommodate Class T fuses up to 600A. Insulators are either the durable, glass-filled polycarbonate (GFPC) or phenolic with verified dielectric strength in excess of 2500V. Ferraz Shawmut is the only manufacturer to offer Class T blocks with copper connectors.

FEATURES/BENEFITS

- Unique integral DIN rail adapters for 600V, 30 & 60A blocks
- Full barrier design (30 & 60A) increases pole to pole safety
- Unique adder-block design (30 & 60A) for design flexibility
- Spring reinforcing standard for all 30 & 60A clips
- Features high conductivity copper alloy fuse clips
- Cool running high amperage (100 - 600A) connectors
- Copper connectors available 30 - 600A

RECOMMENDED FUSE USAGE

Class T Blocks (300V) use with **A3T**
Class T Blocks (600V) use with **A6T**

Ratings

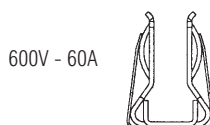
- 300VAC:
30A, 60A, 100A,
200A, 400A, 600A
- 600VAC:
30A, 60A, 100A,
200A, 400A, 600A
- Short Circuit
Current Rating:
200KA

Approvals

- All fuse blocks meet the requirements of UL Std. 512
- UL Listed,
Guide IZLT, File E52283
- UL Recognized
Component
Guide IZLT2, File E52283
- CSA Certified
Class 6225, File 32169

CLIP & CONNECTOR TYPES

SPRING REINFORCED 30A & 60A CLIPS



CONNECTORS FOR SPRING REINFORCED 30A & 60A CLIPS



CONNECTORS

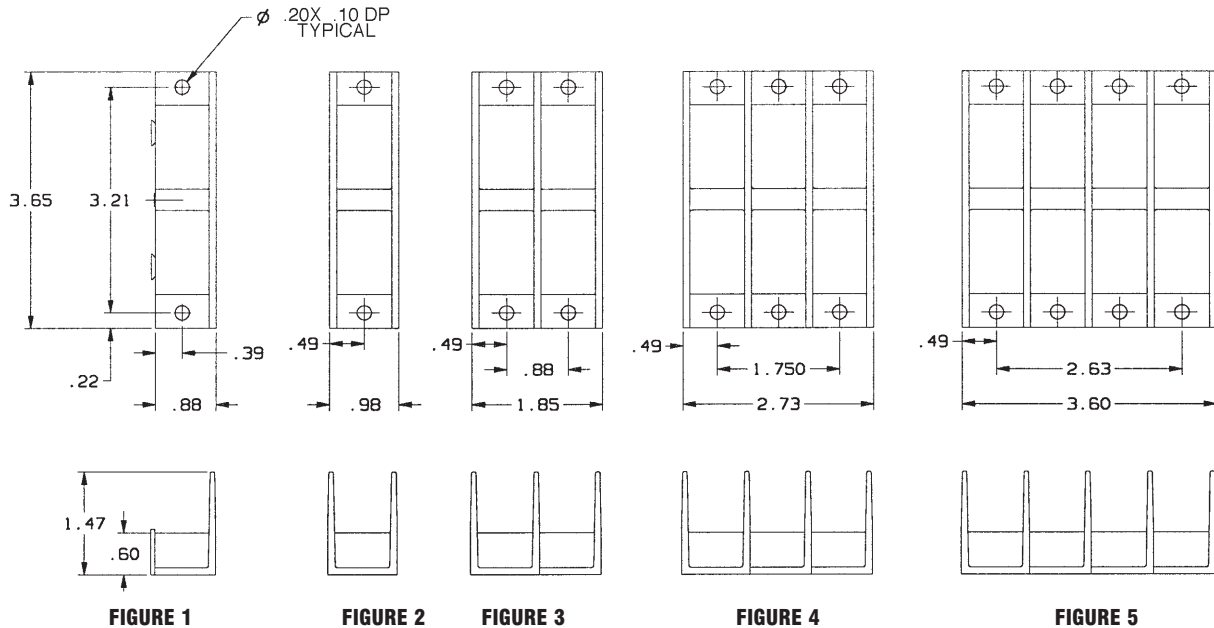


CONNECTORS



CLASS T

300 VOLT/FUSE BLOCKS



300 Volt, 30 & 60 Ampere Class T Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER	FIG.	CONNECTOR TORQUE In - lb
		TYPE	WIRE RANGE	SPRING REINFORCED		
30 GFPC INSULATOR	ADDER 1 2 3 4	BOX	Al/Cu #2-14	30305T	1	35
				30306T	2	
				30307T	3	
				30308T	4	
				30309T	5	
	ADDER 1 2 3 4	SCREW	Cu #10-14	30315T	1	20
				30316T	2	
				30317T	3	
				30318T	4	
				30319T	5	
	ADDER 1 2 3 4	PRESSURE PLATE	Cu #10-14	30325T	1	20
				30326T	2	
				30327T	3	
				30328T	4	
				30329T	5	
	ADDER 1 2 3 4	BOX	Cu* #4-14	30355T	1	35
30356T				2		
30357T				3		
30358T				4		
30359T				5		
60 GFPC INSULATOR	ADDER 1 2 3 4	SCREW	Cu #10-14	30615T**	1	20
				30616T**	2	
				30617T**	3	
				30618T**	4	
				30619T**	5	
	ADDER 1 2 3 4	BOX	Al/Cu #2-14	30605T	1	45
				30606T	2	
				30607T	3	
				30608T	4	
				30609T	5	
	ADDER 1 2 3 4	BOX	Cu* #4-14	30655T	1	45
				30656T	2	
30657T				3		
30658T				4		
			30659T	5		

Recommended base mounting screws: #10 (.190" dia.)

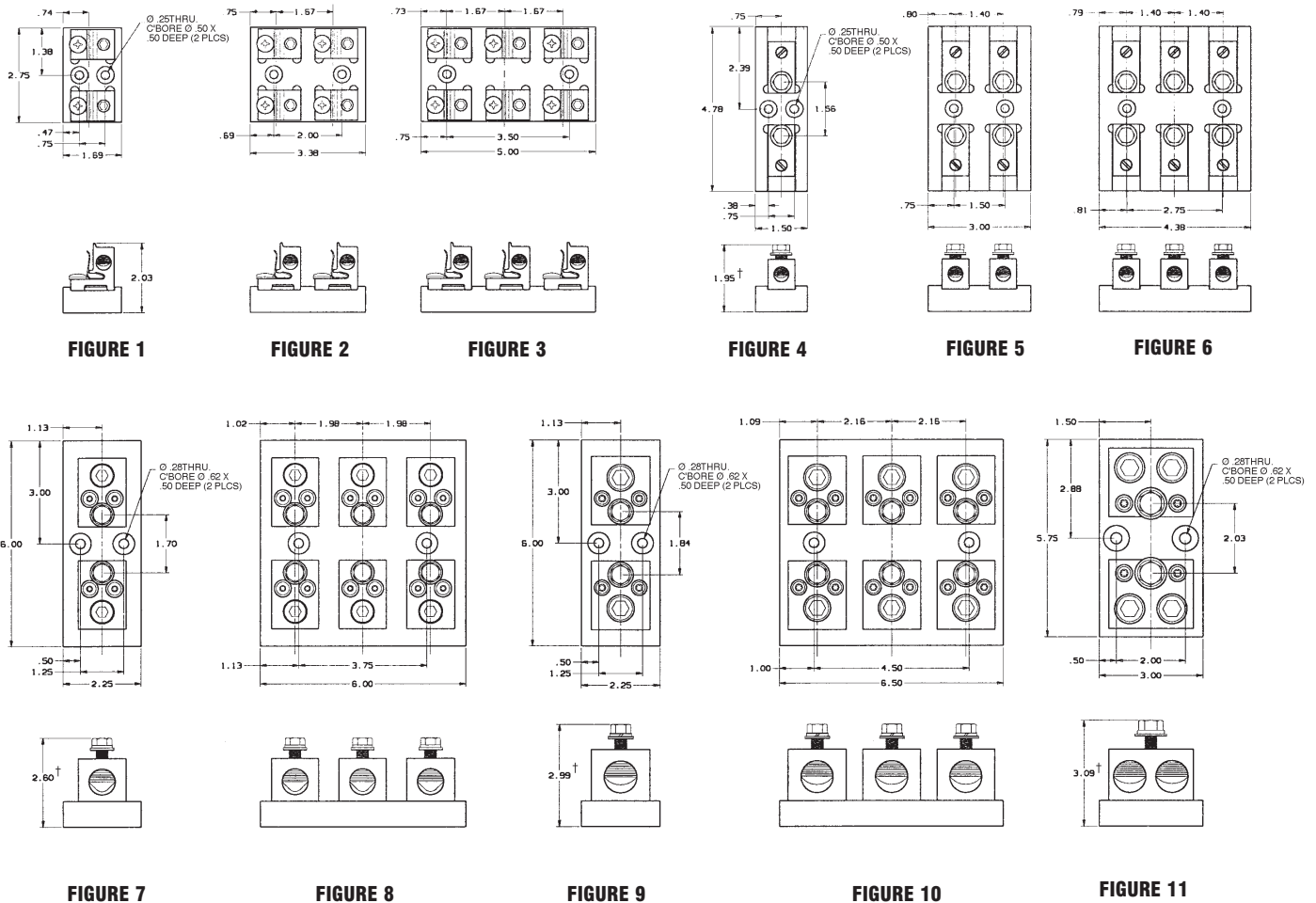


Note: * Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

** UL Component Recognized

CLASS T

300 VOLT/FUSE BLOCKS



300 Volt, 100, 200, 400 & 600 Ampere Class T Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NO. SPRING REINFORCED	FIG.	TORQUE (IN-LBS)	
		TYPE	WIRE RANGE			CONNECTOR	FUSE BOLT
100 PHENOLIC INSULATOR	1	BOX SIDE-CLIP	Al/Cu	31031T	1	120	-
	2		Al/Cu	31032T	2		
	3		Al/Cu	31033T	3		
	1	BOX	Cu*	31001T	4	50	72
	2		Cu*	31002T	5		
	3		Cu*	31003T	6		
200 PHENOLIC INSULATOR	1	BOX	Al/Cu	32031T	7	275	132
	3		Al/Cu	32033T	8		
	1	BOX	Cu*	32051T	7	275	132
	3		Cu*	32053T	8		
400 PHENOLIC INSULATOR	1	BOX	Al/Cu	34031T	9	600	228
	3		Al/Cu	34033T	10		
	1	BOX	Cu*	34051T	9	375	228
	3		Cu*	34053T	10		
600 PHENOLIC INSULATOR	1	BOX	Al/Cu (2) 600 kcmil-#2	36031T	11	600	360
	1	BOX	Cu* (2) 600 kcmil-#2	36051T	11	375	360

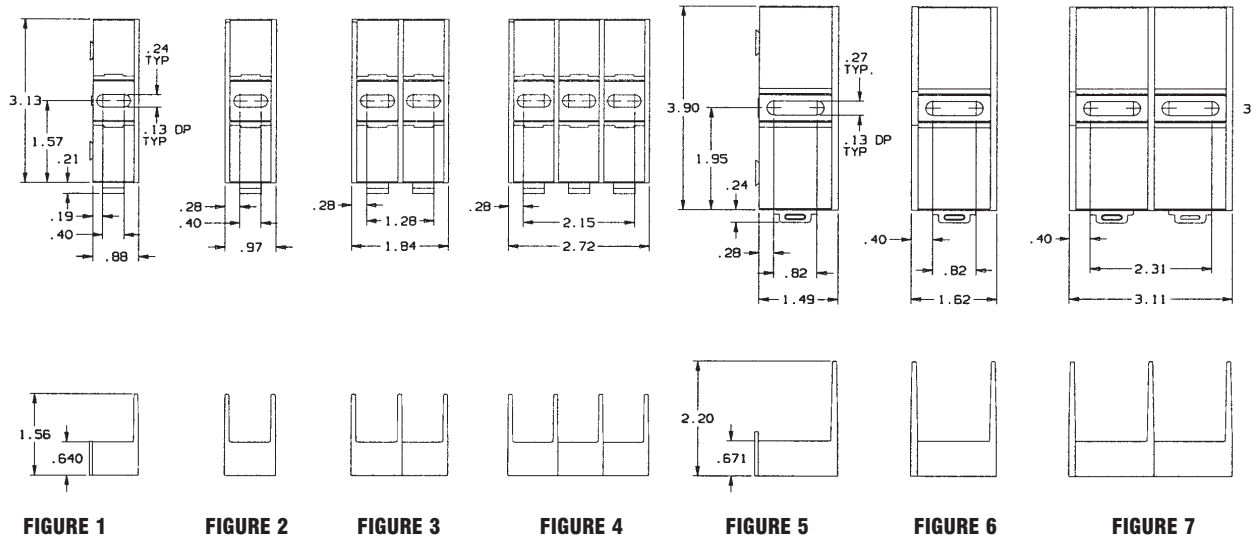
† Note: Height includes nominal fuse blade thickness

Recommended base mounting screws:
100A & 200A, #10 (.190" dia.)
400A & 600A, 1/4" (.250" dia.)

Note: * Fuse blocks have copper box connectors and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

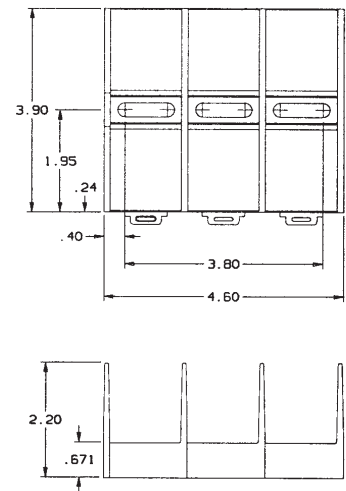
CLASS T

600 VOLT/FUSE BLOCKS



600 Volt, 30 & 60 Ampere Class T Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER	FIG.	CONNECTOR TORQUE In - lb
		TYPE	WIRE RANGE			
30 GFPC INSULATOR	ADDER	BOX	Al/Cu #2-14	60305T	1	35
	1			60306T	2	
	2			60307T	3	
	3			60308T	4	
	ADDER	SCREW	Cu #10-14	60315T	1	20
	1			60316T	2	
	2			60317T	3	
	3			60318T	4	
	ADDER	PRESSURE PLATE	Cu #10-14	60325T	1	20
	1			60326T	2	
	2			60327T	3	
	3			60328T	4	
ADDER	BOX	Cu* #4-14	60355T	1	35	
1			60356T	2		
2			60357T	3		
3			60358T	4		
60 GFPC INSULATOR	ADDER	SCREW	Cu #10-14	60615T**	5	20
	1			60616T**	6	
	2			60617T**	7	
	3			60618T**	8	
	ADDER	BOX	Al/Cu #2-14	60605T	5	45
	1			60606T	6	
	2			60607T	7	
	3			60608T	8	
	ADDER	BOX	Cu* #4-14	60655T	5	45
	1			60656T	6	
	2			60657T	7	
	3			60658T	8	



Recommended mounting screws:
30A, #10 (.190" dia.)
60A, 1/4" (.250" dia.)

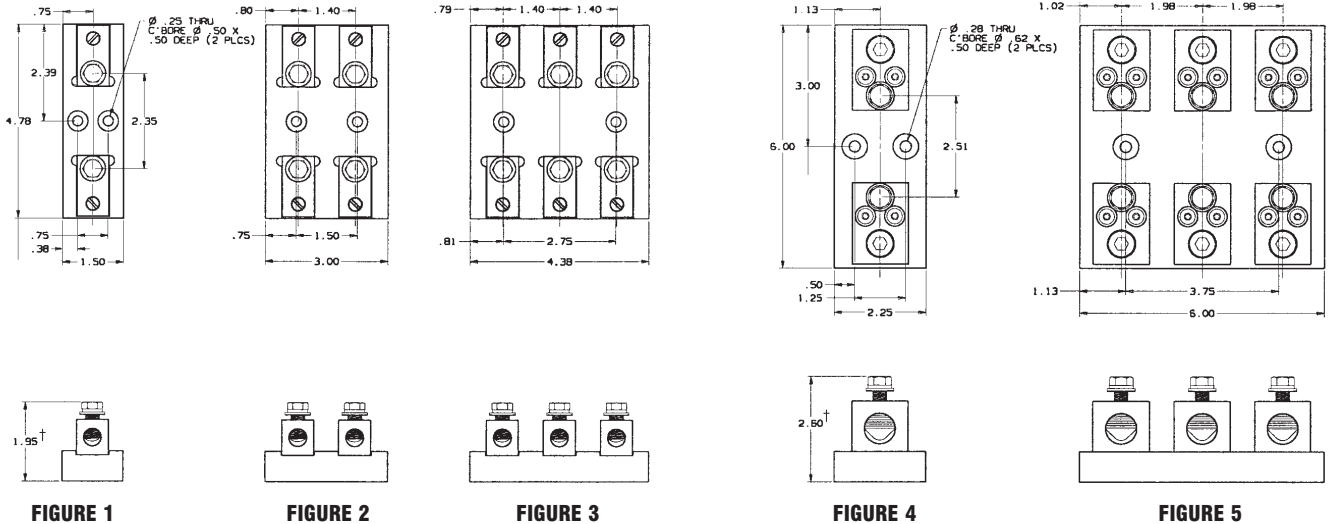
Note: * Fuse blocks have copper box connectors and clips and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

** UL Component Recognized



CLASS T

600 VOLT/FUSE BLOCKS



Recommended base mounting screws:
 100A & 200A, #10 (.190" dia.)
 400A & 600A, 1/4" (.250" dia.)

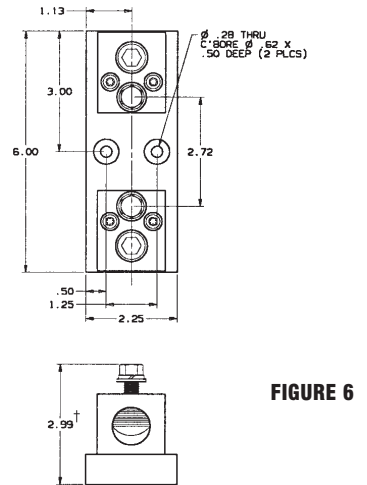


FIGURE 6

600 Volt, 100, 200, 400 & 600 Ampere Class T Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NO.	FIG.	TORQUE (IN-LBS)	
		TYPE	WIRE RANGE			CONNECTOR	FUSE BOLT
100 PHENOLIC INSULATOR	1	BOX	Al/Cu	61031T	1	120	72
	2		2/0-#6	61032T	2		
	3		61033T	3			
200 PHENOLIC INSULATOR	1	BOX	Cu*	61051T	1	50	72
	2		2/0-#12	61052T	2		
	3		61053T	3			
400 PHENOLIC INSULATOR	1	BOX	Al/Cu	62031T	4	275	132
	3		350 kcmil-#6	62033T	5		
	1		Cu*	62051T	4		
3	350 kcmil-#6	62053T	5				
600 PHENOLIC INSULATOR	1	BOX	Al/Cu	64031T	6	600	228
	1		600 kcmil-#2	64051T	6		
600 PHENOLIC INSULATOR	1	BOX	Cu*	66031T	7	600	360
	1		(2) 600 kcmil-#2	66051T	7		

Note: * Fuse blocks have copper box connectors and are for copper wires only. These are specifically designed with the same coefficient of expansion as copper wire for improved heat cycling and meet or exceed OEM "no aluminum" specifications.

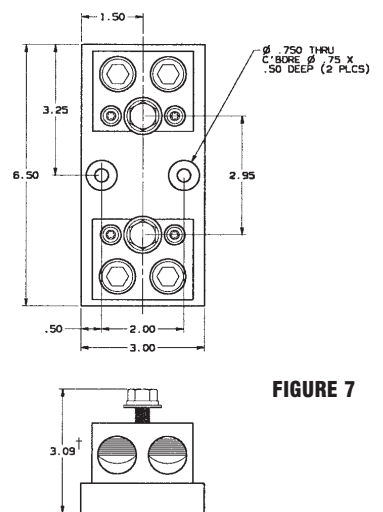


FIGURE 7

† Note: Height includes nominal fuse blade thickness

CLASS G

480 & 600 VOLT/FUSE BLOCKS



CLASS G FUSE BLOCKS

Ferraz Shawmut Class G Fuse Blocks accommodate all 15, 20, 30 and 60 ampere Class G fuses. A choice of box, screw or pressure-plate connectors fit a wide range of stranded or solid copper wire. Insulators are glass-filled polycarbonate (GFPC) with verified dielectric strength in excess of 2500V. Fuse blocks feature a unique adder block which can be snapped onto 1-, 2-, or 3-pole blocks to form multi-pole segmented blocks of as many poles as desired. All fuse clips are made of high conductivity tin-plated copper alloy.

Features/Benefits

- **Unique integral DIN rail adapters** for 15, 20 & 30A blocks
- **Unique adder-block design** (all ampere ratings) for design flexibility
- **Spring reinforcing** standard for 60A clips
- **Features high conductivity** copper alloy fuse clips



Ratings

- 600VAC: 15A & 20A
- 480VAC: 30A & 60A
- Short Circuit Current Rating: 100kA using screw, pressure plate or box connections, 10kA using quick connects.
- Temperature/flammability: GFPC insulators rated 125°C RTI, 94V-0 flammability

Approvals

- All fuse blocks meet the requirements of UL Std. 512
- UL Listed
Guide IZLT, File E52283
- CSA Certified
Class 6225, File 32169



RECOMMENDED FUSE USAGE

Class G Blocks use with **AG**

Clip & Connector Types

15, 20, 30, 60A G

COPPER BOX CONNECTOR OR ALUMINUM BOX CONNECTOR

15, 20, 30A G

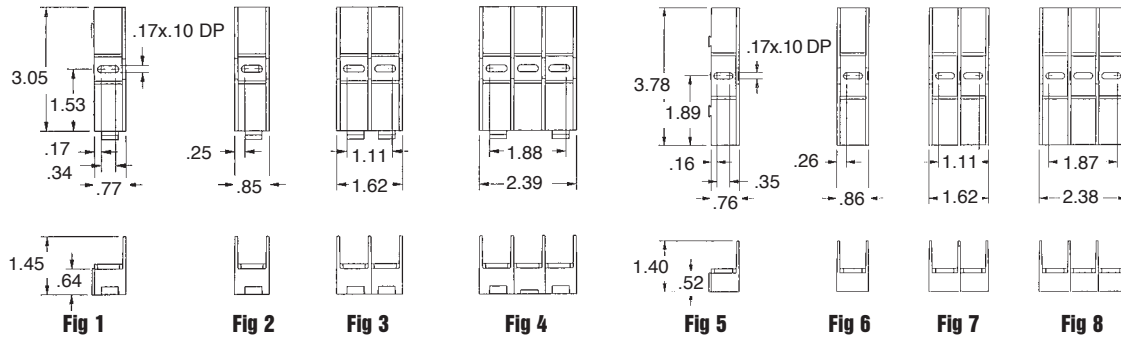
SCREW WITH DOUBLE QUICK-CONNECTS

15, 20, 30A G

PRESSURE PLATE WITH DOUBLE-QUICK CONNECTS

CLASS G

480 & 600 VOLT/FUSE BLOCKS

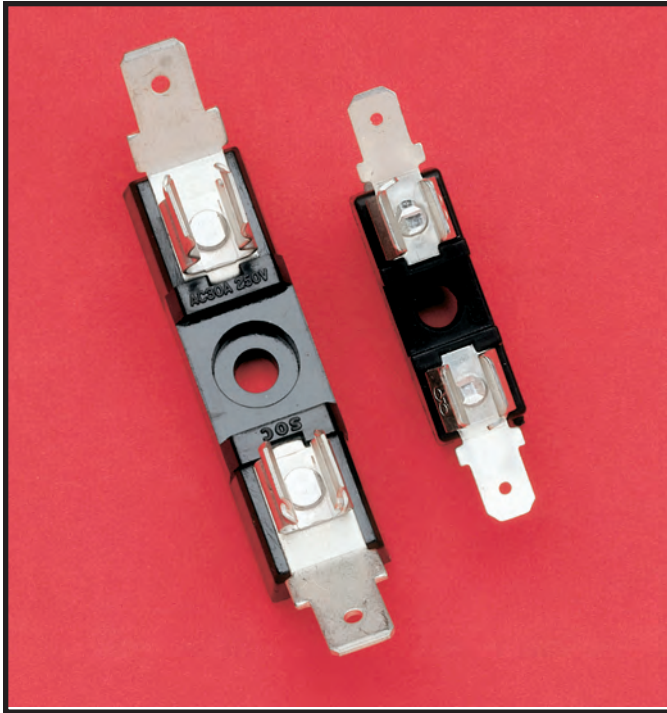


600 Volt, 15 & 20 Ampere; 480 Volt 30 & 60 Ampere Class G Fuse Blocks

AMPERE RATING	POLES	CONNECTOR		CATALOG NUMBER	FIG	CONNECTOR TORQUE IN-LB
		TYPE	WIRE RANGE			
15 GFPC INSULATOR	ADDER 1 2 3	SCREW W/DOUBLE QUICK CONNECTS AT BOTH ENDS	Cu #10-14	40110G	1	20
				40111G	2	
				40112G	3	
				40113G	4	
	ADDER 1 2 3	PRESSURE PLATE (SEMS) W/DOUBLE QUICK CONNECTS AT BOTH ENDS	Cu #10-14	40120G	1	20
				40121G	2	
40122G				3		
40123G				4		
ADDER 1 2 3	COPPER BOX	Cu #6-14	40150G	1	35	
			40151G	2		
			40152G	3		
			40153G	4		
20 GFPC INSULATOR	ADDER 1 2 3	SCREW W/DOUBLE QUICK CONNECTS AT BOTH ENDS	Cu #10-14	40210G	1	20
				40211G	2	
				40212G	3	
				40213G	4	
	ADDER 1 2 3	PRESSURE PLATE (SEMS) W/DOUBLE QUICK CONNECTS AT BOTH ENDS	Cu #10-14	40220G	1	20
				40221G	2	
40222G				3		
40223G				4		
ADDER 1 2 3	COPPER BOX	Cu #6-14	40250G	1	35	
			40251G	2		
			40252G	3		
			40253G	4		
30 GFPC INSULATOR	ADDER 1 2 3	SCREW W/DOUBLE QUICK CONNECTS AT BOTH ENDS	Cu #10-14	40310G	1	20
				40311G	2	
				40312G	3	
				40313G	4	
	ADDER 1 2 3	PRESSURE PLATE (SEMS) W/DOUBLE QUICK CONNECTS AT BOTH ENDS	Cu #10-14	40320G	1	20
				40321G	2	
40322G				3		
40323G				4		
ADDER 1 2 3	COPPER BOX	Cu #6-14	40350G	1	35	
			40351G	2		
			40352G	3		
			40353G	4		
60 GFPC INSULATOR	ADDER 1 2 3	ALUMINUM BOX	Al/Cu #2-14	40605G	5	45
				40606G	6	
				40607G	7	
				40608G	8	
	ADDER 1 2 3	COPPER BOX	Cu #4-14	40655G	5	45
				40656G	6	
40657G				7		
40658G				8		

5X20QC1/6X32QC1

FUSE BLOCKS



RECOMMENDED FUSE USAGE

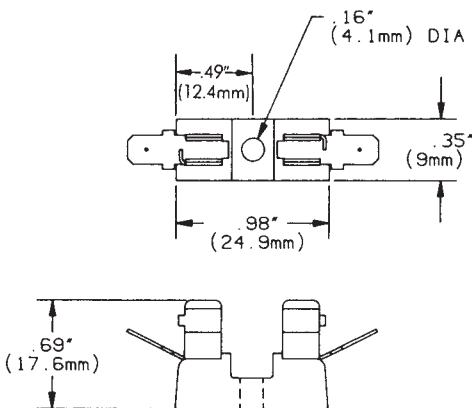
5X20QC1 use with **GGM, GGA, GSA, GSB, GDG**

6X32QC1 use with **GSA, GDL, GGC, GAB**

5X20QC1

SINGLE POLE FUSE BLOCK for 5mm x 20mm fuses

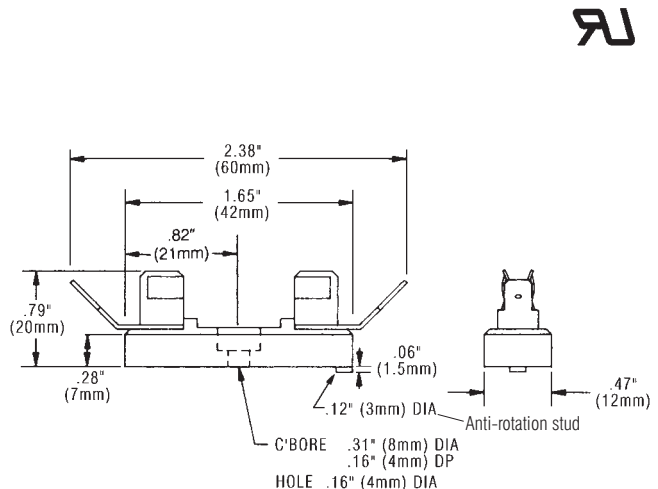
- Tin plated clips
- Polyester insulator
- 3/16" quick-connect terminals
- Rated 15A, 250V
- UL Recognized



6X32QC1

SINGLE POLE FUSE BLOCK for 1/4" x 1-1/4" fuses

- Tin plated phosphor bronze clips
- Phenolic insulator
- 1/4" quick-connect terminals
- Rated 30A, 250V - UL Recognized



GPM SERIES

PANEL MOUNT/FUSE HOLDERS



GPM PANEL MOUNT FUSE HOLDERS

Ferraz Shawmut GPM Panel Mount Fuse Holders are in sizes to accommodate Class CC and Midget (1-1/2" x 13/32") fuses. All 30A holders have glass-filled thermoplastic insulators for extra dependability and trouble-free installation. Patented design allows same body to accept screw or bayonet knob. Flange design allows front or rear mounting.

Approvals

- UL Recognized, Guide IZLT2, File E52283
CSA Certified, Class 6225, File 32169



RECOMMENDED FUSE USAGE

GPM Fuse Holders will accommodate these Ferraz Shawmut fuses:

- GPM-SRR, GPM-BRR, GPM-WTR:** ATQR, ATDR, ATMR
- GPM-SRR90, GPM-BRR90, GPM-WTR90:** ATQR, ATDR, ATMR
- GPM-S, GPM-B, GPM-WT:** ATQ, ATM, TRM, OTM, GGU,
- GPM-S90, GPM-B90, GPM-WT90:** A13X-2, A25Z-2, A60Q-2, A6Y-2B

Catalog Numbers & Descriptions

CATALOG NO.	FIG.	CAP TYPE	AMPS	VOLTS	FUSE TYPE	TERMINAL TYPE
GPM-S	1	Screw Knob	30	600	1-1/2" x 13/32"	1/4" Quick-connect/Solder
GPM-S90	2	Screw Knob	30	600	1-1/2" x 13/32"	1/4" Quick-connect/Solder, Right Angle
GPM-SRR	1	Screw Knob	30	600	Class CC	1/4" Quick-connect/Solder
GPM-SRR90	2	Screw Knob	30	600	Class CC	1/4" Quick-connect/Solder, Right Angle
GPM-B	1	1/4 Turn Bayonet Knob	30	600	1-1/2" x 13/32"	1/4" Quick-connect/Solder
GPM-B90	2	1/4 Turn Bayonet Knob	30	600	1-1/2" x 13/32"	1/4" Quick-connect/Solder, Right Angle
GPM-BRR	1	1/4 Turn Bayonet Knob	30	600	Class CC	1/4" Quick-connect/Solder
GPM-BRR90	2	1/4 Turn Bayonet Knob	30	600	Class CC	1/4" Quick-connect/Solder, Right Angle
GPM-WT	1	Water-tight Screw Knob	30	600	1-1/2" x 13/32"	1/4" Quick-connect/Solder
GPM-WT90	2	Water-tight Screw Knob	30	600	1-1/2" x 13/32"	1/4" Quick-connect/Solder, Right Angle
GPM-WTR	1	Water-tight Screw Knob	30	600	Class CC	1/4" Quick-connect/Solder
GPM-WTR90	2	Water-tight Screw Knob	30	600	Class CC	1/4" Quick-connect/Solder, Right Angle

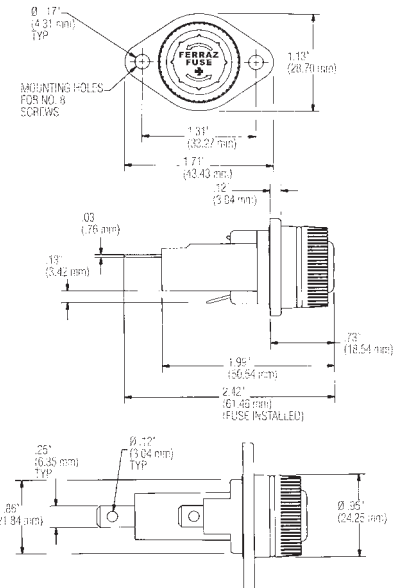


Figure 1

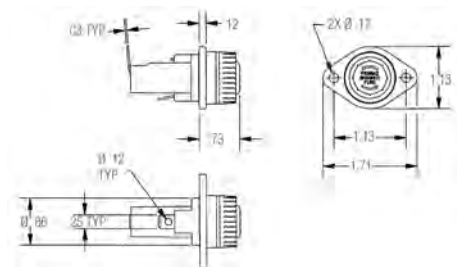


Figure 2

GPM SERIES

PANEL MOUNT/FUSE HOLDERS

Ferraz Shawmut GPM Panel Mount Fuse Holders will accommodate 1" x 1-1/4" 3AG fuses and 5mm x 20mm fuses; most are approved by U.L. and CSA. Cap and body material is bakelite or polycarbonate and function as a screw-in or bayonet style closure. Finger-grip or screwdriver slots are available. All holders are rated for up to 250 volts with amp ratings ranging from 3A to 15A.

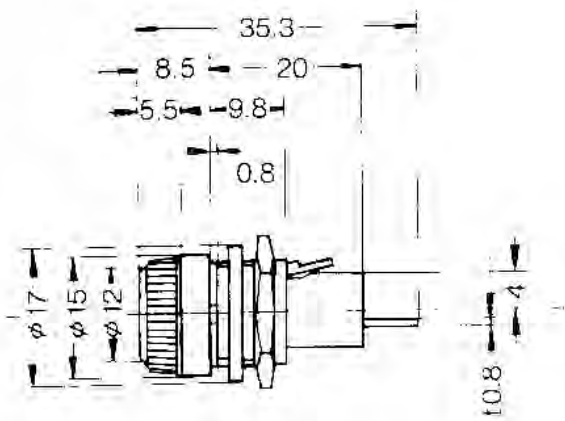
CAT. NO.	CAP TYPE	VOLTS	AMPS	FUSE SIZE	TERMINAL TYPE	APPROVALS
GPM-A	Finger-grip/Screw-in	250	10	5mm x 20mm	Solder	UR/CSA
GPM-A1	Finger-grip/Screw-in	250	10	5mm x 20mm	Solder	
GPM-A2	Finger-grip/Screw-in	250	10	5mm x 20mm	Solder	UR/CSA
GPM-A3	Finger-grip/Screw-in	250	3	5mm x 20mm	Solder	UR/CSA
GPM-A4	Finger-grip/Screw-in	250	6.3	5mm x 20mm	Solder, right angle	
GPM-A5	Screwdriver Slot	250	10	5mm x 20mm	Solder	
GPM-A6	Screwdriver Slot	250	6.3	5mm x 20mm	Solder, right angle	UR/CSA
GPM-A8	Screwdriver Slot	250	10	5mm x 20mm	Solder, right angle	UR/CSA
GPM-A9	Screwdriver Slot	250	6.3	5mm x 20mm	Solder, right angle	UR/CSA
GPM-A10	Screwdriver Slot	250	6.3	5mm x 20mm	3/16" Solder/QC	UR/CSA
GPM-A11	Screwdriver Slot	250	10	5mm x 20mm	Solder, right angle	UR/CSA

RECOMMENDED FUSE USAGE

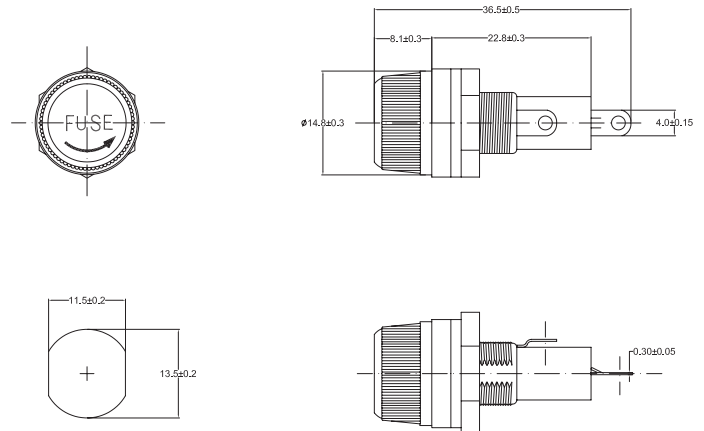
GPM-A: GGM, GGA, GSB, GSC, GDG, GSD, GSF



GPM-A



GPM-A1

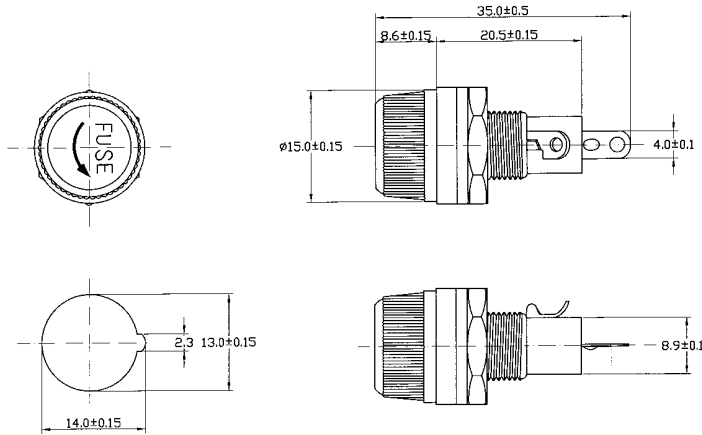


GPM SERIES

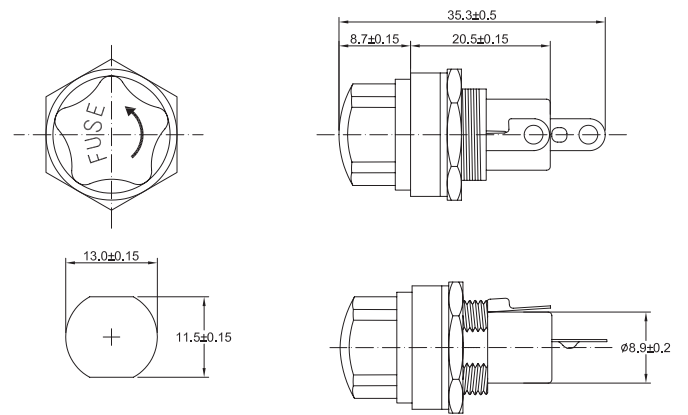
PANEL MOUNT/FUSE HOLDERS



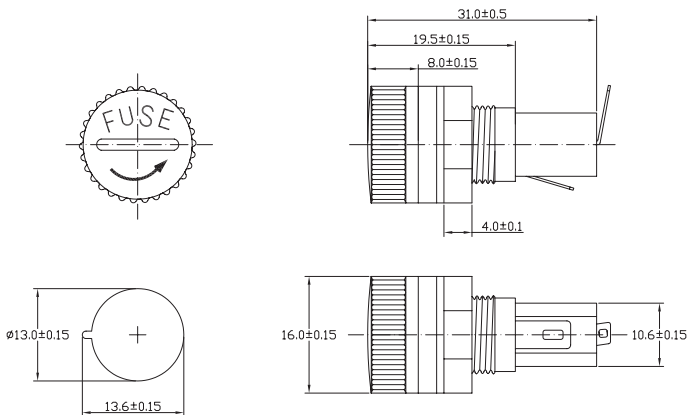
GPM-A2



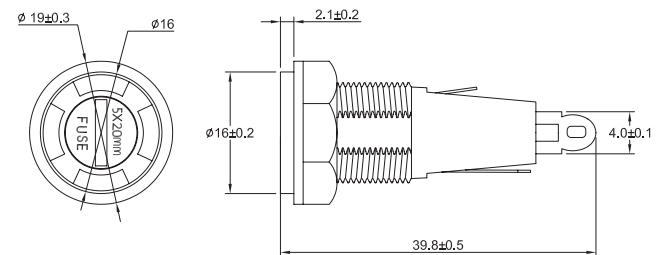
GPM-A3



GPM-A4



GPM-A5

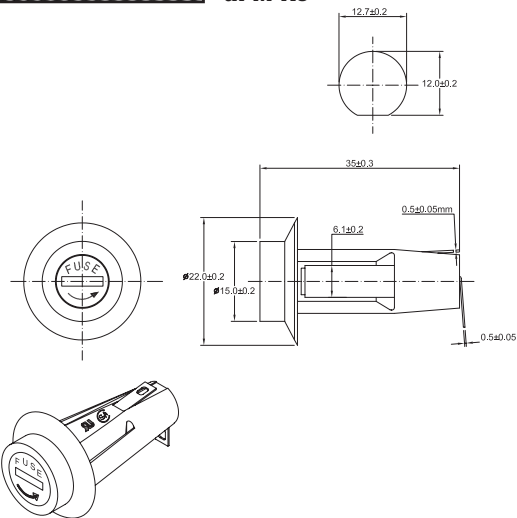


GPM SERIES

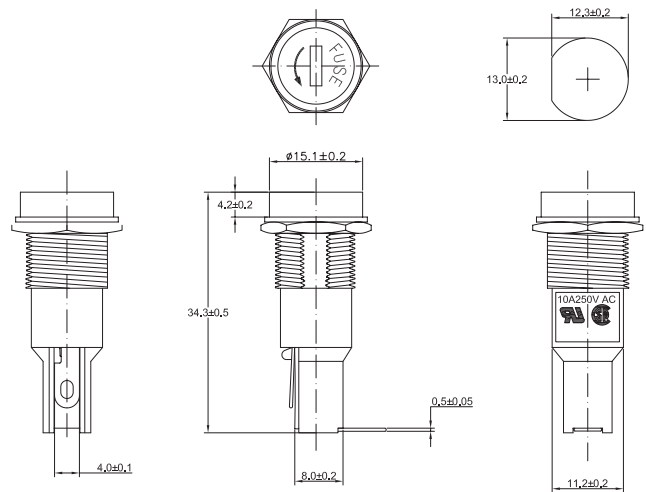
PANEL MOUNT/FUSE HOLDERS



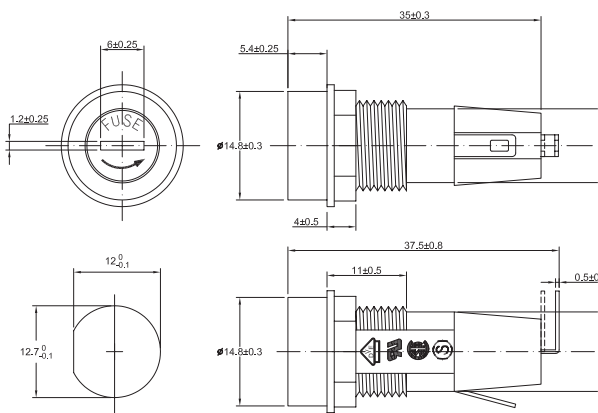
GPM-A6



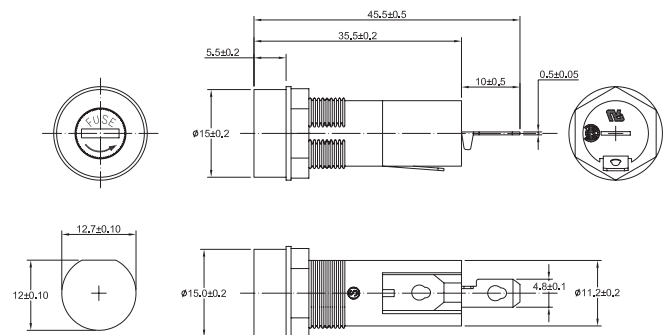
GPM-A8



GPM-A9



GPM-A10

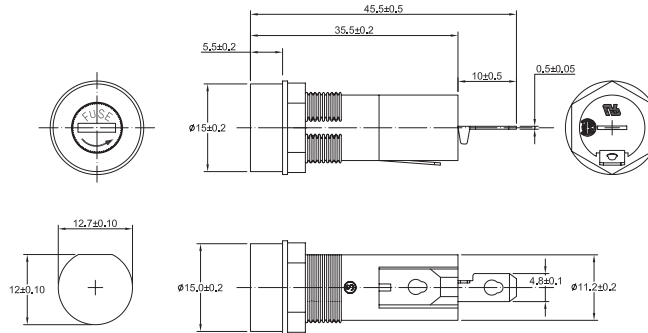


GPM SERIES

PANEL MOUNT/FUSE HOLDERS



GPM-A11



CAT. NO.	CAP TYPE	VOLTS	AMPS	FUSE SIZE	TERMINAL TYPE	APPROVALS
GPM-G	Finger-grip/Screw-in	250	15	3AG	3/16" Solder/QC	UR/CSA
GPM-G1	Finger-grip/Screw-in	250	10	3AG	3/16" Solder/QC	UR/CSA
GPM-G2	Finger-grip/Screw-in	250	10	3AG	Solder	
GPM-G3	Screwdriver Slot	250	10	3AG	Solder	UR/CSA
GPM-G5	Finger-grip/Bayonet	250	10	3AG	1/4" Solder/QC	UR/CSA
GPM-G6	Finger-grip/Bayonet	250	10	3AG	Solder	UR/CSA
GPM-G7	Screwdriver Slot	250	15	3AG	3/16" Solder/QC	UR/CSA
GPM-G8	Finger-grip/Screw-in	250	15	3AG	Quick-connect	

GPM SERIES

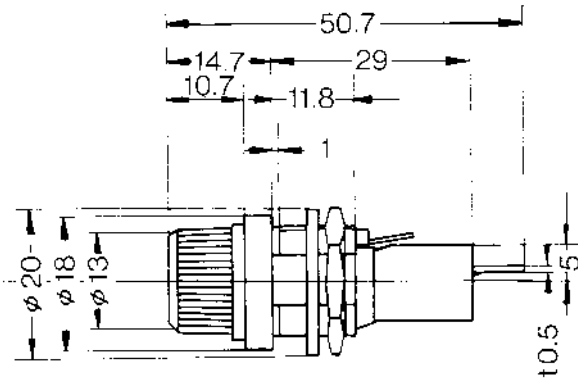
PANEL MOUNT/FUSE HOLDERS

RECOMMENDED FUSE USAGE

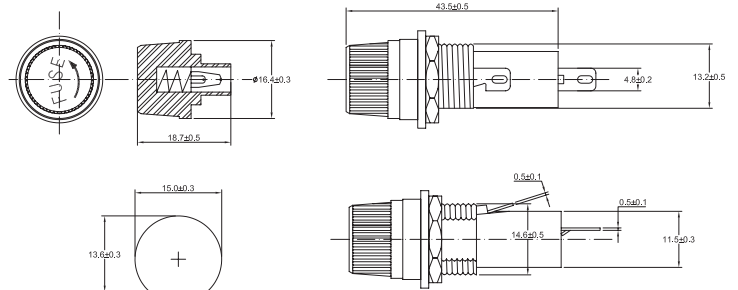
GPM-G: GGC, GDL, GSA, GAB



GPM-G



GPM-G1

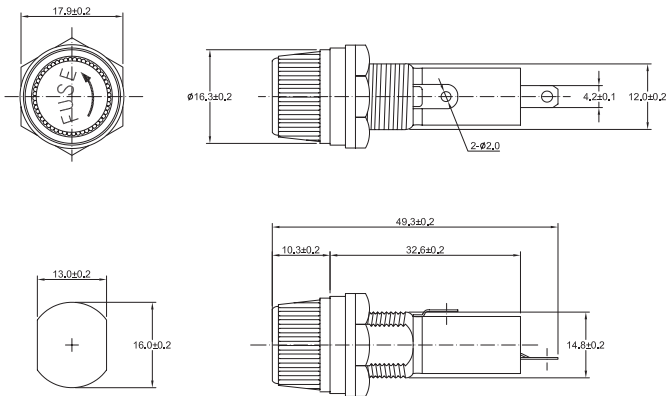


GPM SERIES

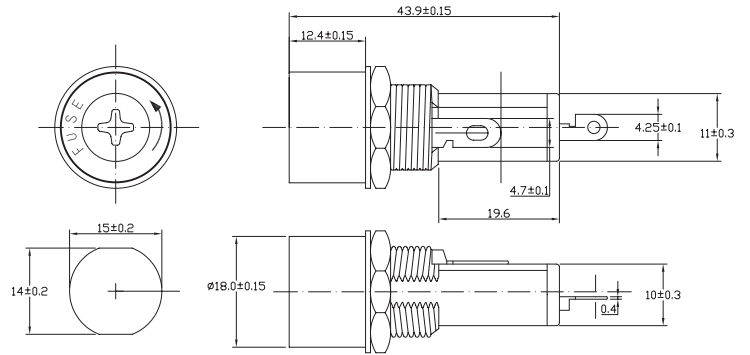
PANEL MOUNT/FUSE HOLDERS



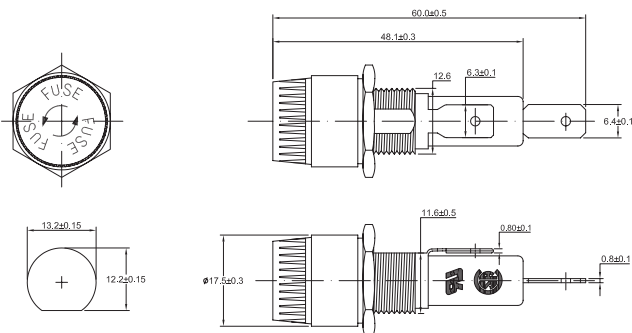
GPM-G2



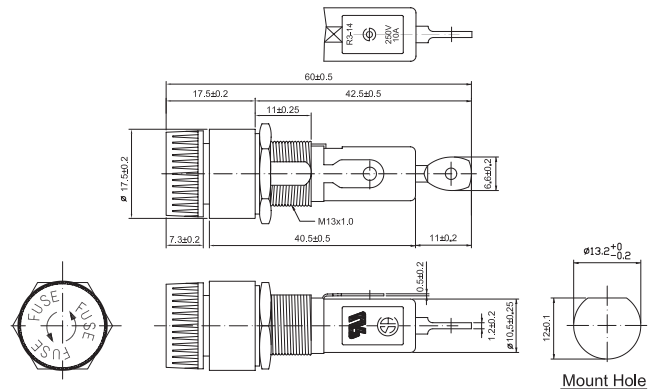
GPM-G3



GPM-G5



GPM-G6



GPM SERIES

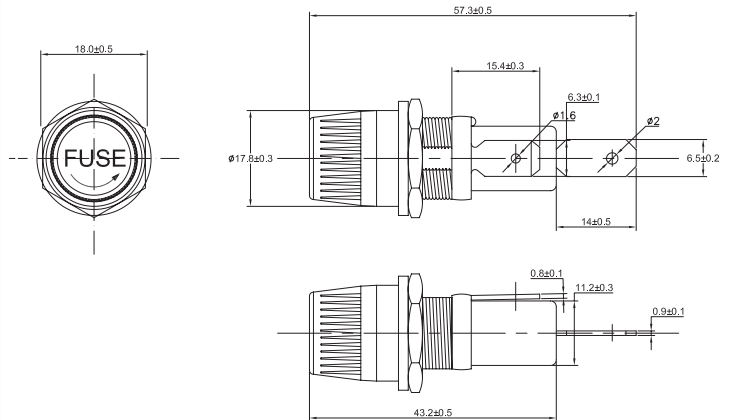
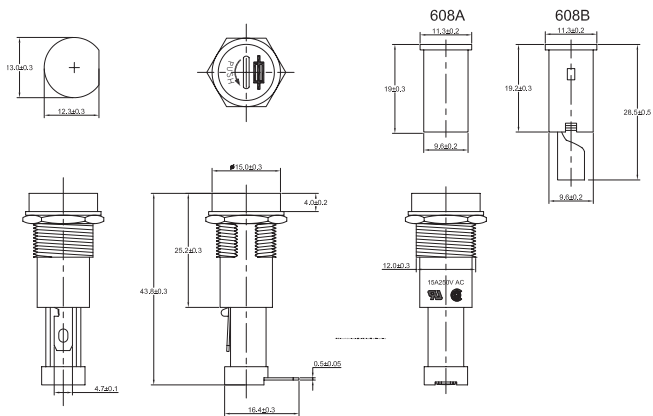
PANEL MOUNT/FUSE HOLDERS



GPM-G7



GPM-G8



P243/P266/P292

FUSE BLOCKS



FUSE BLOCKS FOR SEMICONDUCTOR FUSES

Ferraz Shawmut P243 and P266 series fuse blocks for Form 101 fuses are glass-filled polycarbonate or laminated phenolic insulator blocks with studs to accommodate bolt-in fuses. The P292 series has a laminated phenolic insulator base with fuse clips. All studs, clips and mounting hardware are tin or zinc plated.

- | Ratings | Approvals |
|-------------------------------------|---------------------------------------------------|
| ➤ 1 to 1000A | ➤ UL Recognized Component Guide IZLT2 File E52283 |
| ➤ Clip Type: 1200VAC or less | ➤ CSA Certified Class 6225, File 32169 |
| ➤ Stud Type: 1000VAC or less | |

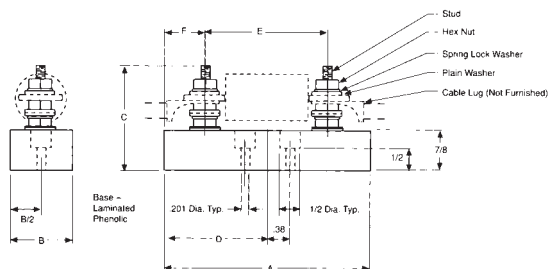


Figure 1

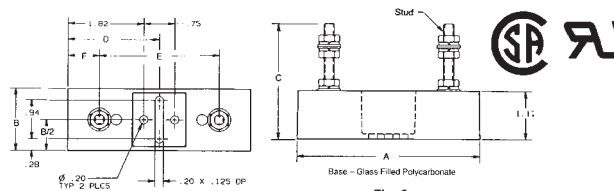


Figure 2

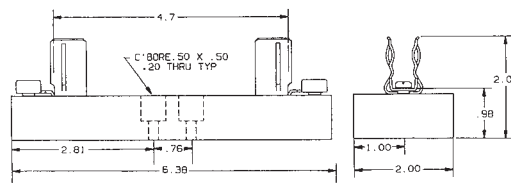


Figure 3

Dimensions

FOR USE WITH	AMPERES	CATALOG NO.	DIMENSIONS - INCHES							STUD SIZE	TORQUE (in lbs)
			FIG.	A	B	C	D	E	F		
A13X, A15QS	70-450	P243D	2	4.40	1.50	2.79	2.20	2.06	1.17	1/4-20	36
A13X, A15QS	500-600	P243G	2	4.40	1.50	2.79	2.20	2.44	0.98	5/16-18	84
A25X, A25Z, A30QS	35-60	P243G	2	4.40	1.50	2.79	2.20	2.44	0.98	5/16-18	84
A25X, A25Z, A30QS	70-200	P243	1	4.50	1.50	2.50	2.25	2.38	1.06	1/4-20	36
A25X, A25Z, A30QS	225-600	P243G	2	4.40	1.50	2.79	2.20	2.44	0.98	5/16-18	84
A50P	35-60	P243G	2	4.40	1.50	2.79	2.20	2.44	0.98	5/16-18	84
A50P, A50QS	70-200	P243E	2	4.40	1.50	2.79	2.20	2.88	0.76	1/4-20	36
A50P, A50QS	225-600	P266C	1	6.00	2.00	3.00	3.00	3.28	1.36	3/8-16	144
A60X, A60Z, A70QS-4	35-200	P243C	2	4.40	1.50	2.79	2.20	3.62	0.39	1/4-20	36
A60X, A60Z, A70QS-4	225-600	P266A	1	6.00	2.00	3.00	3.00	4.06	0.97	3/8-16	144
A70P, A70Q, A70QS-4	35-100	P243C	2	4.40	1.50	2.79	2.20	3.62	0.39	1/4-20	36
A70QS-4K	125-200	P266A	1	6.00	2.00	3.00	3.00	4.06	0.97	3/8-16	144
A70P, A70Q	125-400	P266A	1	6.00	2.00	3.00	3.00	4.06	0.97	3/8-16	144
A70P, A70Q, A70QS-4K	450-600	P266F	1	8.00	2.50	3.00	4.00	5.09	1.45	3/8-16	144
A100P	35-100	P266G	1	6.00	2.00	2.50	3.00	4.25	0.88	1/4-20	36
A100P	125-400	P266L	1	6.00	2.00	3.00	3.00	4.66	0.67	3/8-16	144
A120X	1-30	P292	3	-	-	-	-	-	-	-	-
A30QS	700-800	FH25F4	1	6.00	2.00	3.00	3.00	2.66	1.67	3/8-16	144
A50QS	700-800	FH50F4	1	8.00	2.50	3.00	4.00	4.21	1.84	1/2-13	360
A50QS	900-1000	FH50F5	1	8.00	2.50	3.00	4.50	4.97	1.50	1/2-13	360
A70QS-4K	450-600	FH70F3	1	8.00	2.50	3.00	4.00	5.09	1.91	1/2-13	360

Note: FH Blocks are 1" thick.
* Not UL or CSA Certified

1SC/1MSC

MODULAR SEMICONDUCTOR FUSE BLOCKS



Ferraz Shawmut 1SC and 1MSC semiconductor fuse blocks feature modular mounting that offers greater flexibility in adjusting to various fuse lengths. Both stud type and integral box connector versions are offered to allow for user preference of wire terminations. The integral box connector versions also provide for greater heat dissipation. All modular blocks are supplied in pairs but need to be ordered as two items to suit one fuse. Mounting hardware is supplied with the blocks.

HIGHLIGHTS:

- Modular two-piece design
- Compact footprint
- Stud versions
- Heat dissipating integral box connector versions
- Accommodates a large range of semiconductor fuses
- Rugged phenolic insulators

Ratings

- 600VAC (1MSC)
- 1000 VAC (1SC)
- up to 800 amperes

Approvals

- UL Recognized Component Guide IZLT2, File E171957

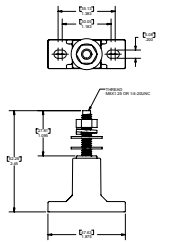


Fig. 1

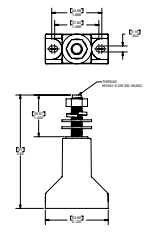


Fig. 2

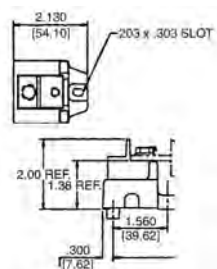


Fig. 3

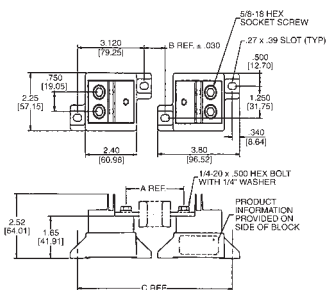


Fig. 4

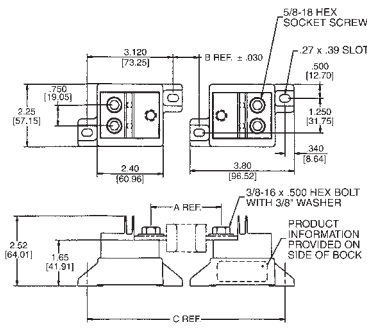


Fig. 5

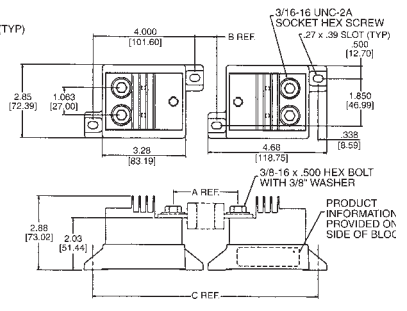


Fig. 6

Dimensions

CATALOG NUMBR	VOLTAGE RATING	AMPERE RATING	UR	CONNECTOR		HARDWARE		TIGHTENING Torque (lb.-in.)		Fig.
				Type	Wire Range	Bolt	Washer	Fuse	Cable	
1SC250	1,000	400	Yes	1/4" Stud	—	—	—	61	61	1
1SC375	1,000	800	Yes	3/8" Stud	—	—	—	192	192	2
1MSC101	600	100	Yes	Al Box	Al/Cu 2/0 - #6	1/4"	0.655"	120	120	3
1MSC102	600	400	Yes	Al Box	Al/Cu (2) 250kcmil - #6	3/8"	0.900"	275	275	4
1MSC103	600	400	Yes	Al Box	Al/Cu (2) 250kcmil - #6	3/8"	0.900"	275	275	5
1MSC104	600	600	Yes	Al Box	Al/Cu (2) 250kcmil - #6	3/8"	0.900"	375	375	6
1MSC108	2,500	400	No	Al Box	Al/Cu (2) 250kcmil - #6	1/4"	0.655"	275	275	*
1MSC109	2,500	400	No	Al Box	Al/Cu (2) 250kcmil - #6	3/8"	0.900"	275	275	*
1MSC110	5,000	400	No	Al Box	Al/Cu (2) 250kcmil - #6	3/8"	0.900"	275	275	*
1SCM8	1,000	400	Yes	M8 Stud	—	—	—	60	60	1
1SCM10	1,000	800	Yes	M8 Stud	—	—	—	190	190	2

703, U705, U710

SEMICONDUCTOR FUSE HOLDERS



750V SEMICONDUCTOR FUSE HOLDERS

Ferraz Shawmut Semiconductor Fuse Holders feature open face styles. Each version is rated 750 volts and accommodates 14 x 51 mm or 22 x 58 mm fuses. 703, U705 and U710 holders feature Ferraz Shawmut's unique adder-block design which can be snapped onto 1-, 2-, or 3-pole blocks to form multi-pole segmented blocks of as many poles as desired. A choice of box, screw or pressure plate connectors is offered to fit a wide range of standard or solid copper wire. All versions have verified dielectric strengths in excess of 2500V. A patented built-in DIN rail adapter on the U710 blocks adds further design versatility. All fuse clips are made of high conductivity tin-plated copper with spring reinforced clips.

HIGHLIGHTS:

- Thermoplastic bases
- DIN Rail (U710) or Screw Mount
- Adder block design

APPLICATIONS:

- All circuits up to 750 volts using semiconductor fuses for protection of small inverters, UPS systems, motor drives, etc.

Ratings

- 750V AC
- 30A (703)
- 50A (U7050)
- 100A (U7100)
- Short Circuit Current Rating up to 200kA dependent on fuse I.R.

Approvals

- UL Recognized Component Guide IZLT2, File E52283
- CSA Certified Class 6225, File 32169



RECOMMENDED FUSE USAGE

703 use with 14x51mm **A70QS, A70P, URD**
U705 use with 14x51mm **A70QS, A70P, URD**
U710 use with 22x58mm **A70QS, URD**, up to **100A**

703, U705, U710

SEMICONDUCTOR FUSE HOLDERS

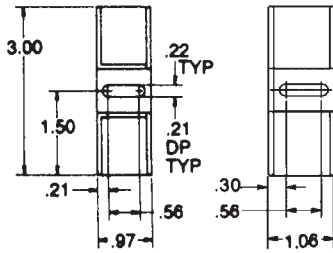


Fig. 1

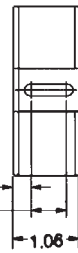


Fig. 2

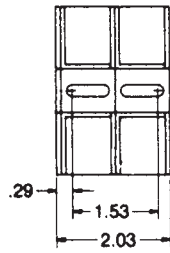


Fig. 3

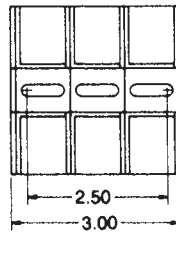


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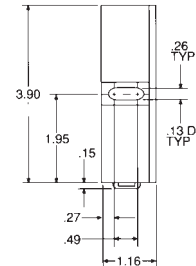


Figure 5

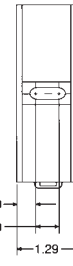
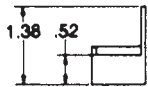


Figure 6



**Recommended mounting
screws; #10 (.190" dia)**

750 Volt Fuse Holders for 14 x 51mm & 22 x 58 mm Fuses

CATALOG NUMBER	FUSE SIZE	Ampacity Rating	POLES	CONNECTOR		FIGURE	CONNECTOR TORQUE (IN-LB)
				TYPE	WIRE RANGE		
U70505	14 x 51	50	Adder	Box	Al/Cu #2-14	1	35
U70506			1				
U70507			2				
U70508			3				
70315	14 x 51	30	Adder	Screw	Cu #10-14	1	20
70316			1				
70317			2				
70318			3				
70325	14 x 51	30	Adder	Pressure Plate	Cu #10-14	1	20
70326			1				
70327			2				
70328			3				
70355	14 x 51	30	Adder	Box	Cu* #4-14	1	35
70356			1				
70357			2				
70358			3				
U71005	22 x 58	100	Adder	Box	Al/Cu #2-14	5	35
U71006			1				
U71007			2				
U71008			3				

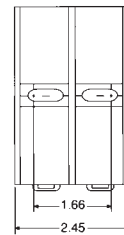


Figure 7

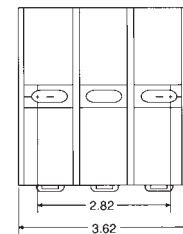


Figure 8

*Copper box connectors and clips-for copper wires only.

Note: To convert 30A adder pole to single pole, use end barrier #U09322

100A adder pole to single pole, use end barrier #U09372.



PS 20x127 FERRULE FUSE HOLDERS AND NO-LOAD DISCONNECTORS



Fuse Holders and Fuse no-load Disconnectors for 20x127 Ferrule-type fuses

HIGHLIGHTS:

- Solid assembly offers good thermal and mechanical withstand rating
- Fuse mounting in holders or no-load disconnectors with or without open fuse indicating microswitches
- Phenolic resin models for basic applications, fiber-glass polyester for applications in corrosive atmospheres or applications for traction
- Voltage = 1,500 V and 2,500 V

Dimensions

DESCRIPTION	Insulation voltage rating U_i AC 50/60 Hz or DC	Fuse current rating I_n (A)	Maximum operating current of fuse (A)					Advised copper wire size mm^2	Fire and fumes class NF F 16-101 and 102 and UL
			1000 V gLB	= 1000 V gRC	= 1000 V gRB	= 1500 V gRB	= 1500 V gRD		
PSI 20X127	1500 V without terminal covers	50		50				10	basic model 12-F1 UL 94 V1 salt spray-proof model 11-F1 UL 94 VO
PSI 20X127 PRE	2500 V with terminal covers and only salt spray-proof model	63		56			16		
PSII 20X127 PRE		80	80			25			
PSIII 20X127 PRE		100	90			35			
PSIV 20X127 PRE		125	100			50			

Connecting with 50 mm² max. cable with copper terminals or with a 15 x 8 max. rigid or flexible bar.

Dielectric withstand tests

	R.M.S. voltage 1 mn 50/60 Hz	Impulse voltage 1.2/50 s (IEC 694 et CEI 60)
Between close phases and phase and ground Between phases and microswitch	6kV(1) - 10 kV(2) 12 kV	12 kV(1) - 20 kV(2)

Connecting with 16mm² max.. width, 5mm max. thick terminal

(1) Basic model

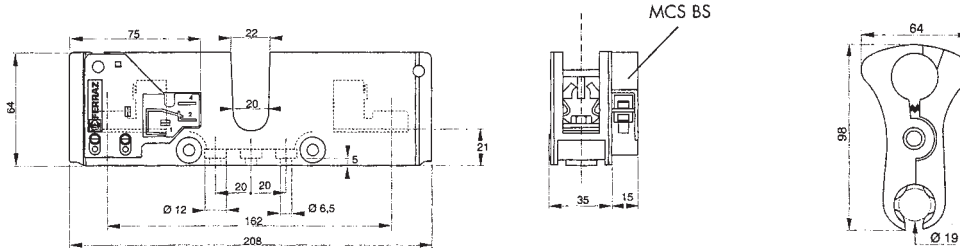
Max. temperature (°C)/ Relative humidity (%): 20 °C/95% - 40°C/80% - 50°C/50%

(2) Salt spray-proof model

Moist tropical and equatorial climate or corrosive atmosphere.

PS 20x127 FERRULE FUSE HOLDERS AND DISCONNECTORS

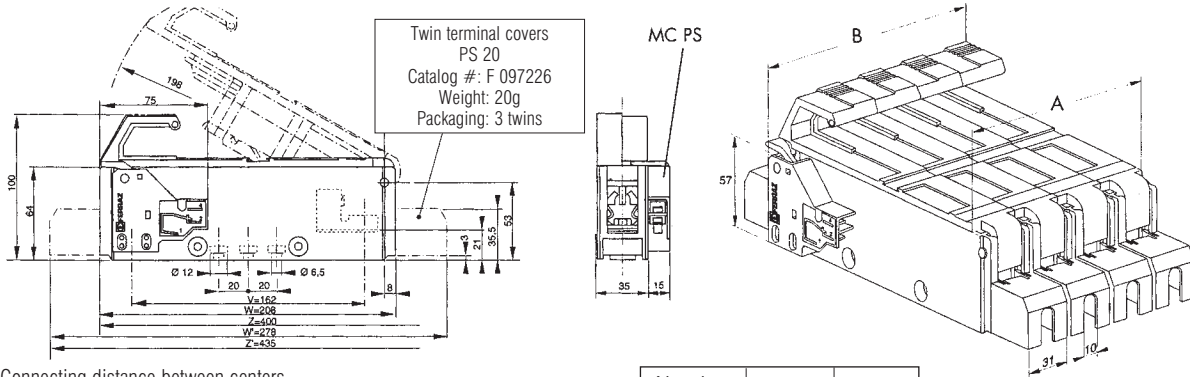
Fuse Holders and Accessories



Description	Catalog Number	Weight (g)	Packaging
PSI 20x127	X 097310	260	3 pieces
PSI 20x127 + MCS BS	X 220130	290	2 pieces

PMCP 20+22
Catalog #: K 100036
Weight: 40g
Packaging: 1

Fuse non-load Disconnectors and Accessories



V: Connecting distance between centers
W: Clip for rail mounting in two positions
W': With terminal cover length
Y: Space factor with a 90° fuse carrier position
Z: Without terminal cover, space factor with a 180° fuse carrier position
Z': With terminal cover, space factor with 180° fuse carrier position

Twin terminal covers
PS 20
Catalog #: F 097226
Weight: 20g
Packaging: 3 twins

Number of poles	A	B
1	35	50
2	69	84
3	103	118
4	137	152

Description (basic model)	Catalog Number
PSI 20x127 PRE	F 097203
PSII 20x127 PRE	G 097227
PSIII 20x127 PRE	H 097228
PSIV 20x127 PRE	J 097229
PSI 20 x 127 PRE+MC PS	H 097205
PSII 20 x 127 PRE+MC PS	D 097293
PSIII 20 x 127 PRE+MC PS	E 097294
PSIV 20 x 127 PRE+MC PS	F 097295

Preisolating and blown fuse indicating microswitch features	
Microswitch rated current	Non-inductive circuit interrupting rating
3A - 50 Hz	3A - 50 Hz
3A - DC	3A - DC

Reliable minimum operating voltage/current:
10V - 10mA
Connecting with 6.35 mm lug

Catalog Number (salt spray-proof model)	Ref. Number
PSI 20x127 PRE BS	G 097204
PSII 20x127 PRE BS	L 097231
PSIII 20x127 PRE BS	T 097261
PSIV 20x127 PRE BS	C 097292
PSI 20 x 127 PRE BS+MC PS	J 097206
PSII 20 x 127 PRE BS+MC PS	G 097296
PSIII 20 x 127 PRE BS+MC PS	H 097297
PSIV 20 x 127 PRE BS+MC PS	J 097298

Distances when mounting on a conductive board @ U_i = 2500 VAC



CC, MSC, CMS

MODULAR FUSE BASES

MODULAR FUSE-LINK BASES FOR CARTRIDGE FUSE-LINKS

Ferraz Shawmut CC, MSC and CMS modular fuse bases accommodate industrial cylindrical fuse-links 8 x 31 mm, 10 x 38 mm, 14 x 51 mm and 22 x 58 mm, North American Class CC and Midget (1-1/2" x 13/32") fuses. They have operating handles for non load-break disconnecting and electrical isolation for fuse-link replacement without tools. All contacts are silver-plated. 2, 3 or 4-pole units can be made up with assembly pins and operating handle ties.



CC Series

- **4 Size Ranges:**
 - CC.8** accepts 8 x 31mm fuse-links
 - CC.10** accepts Class CC, Midget and 10 x 38mm fuse-links
 - CC.14** accepts 30A/250V Class H/K/R & 14 x 51mm fuse-links
 - CC.22** accepts 22 x 58mm fuse-links
- Screw mount or symmetrical DIN rail mount (with adaptor)
- Steel bail handle tie
- Thermoplastic base



MSC Series

- **2 Size Ranges:**
 - MSC.8** accepts 8 x 31mm fuse-links
 - MSC.10** accepts Class CC, Midget and 10 x 38mm fuse-links
- Symmetrical DIN rail mount
- Optional neutral incorporated
- Optional indicator light in 1-pole unit shows open fuse when lit
- Steel pin handle tie
- Thermoplastic base



CMS Series

- **2 Size Ranges:**
 - CMS.14** accepts 30A/250V Class H/K/R & 14 X 51mm fuse-links
 - CMS.22** accepts 22 x 58mm fuse-links
- Optional neutral incorporated
- Optional indicator light shows open fuse when lit
- Optional microswitch on 1-pole & 3-pole
- Thermoplastic base

CC.8, CC.10, CC.14, CC.22

MODULAR FUSE BASES



23002-G



23210-G

CC.8 – 25A, 400VAC, Fits 8mm x 31mm Fuse-links

POLES	CATALOG NUMBER		Width (No. of 17.5mm MODULES)
	SCREW MOUNT	RAIL MOUNT	
1	23002-G	23102-G	1
N*	23000-G	23100-G	1
1 + N*	23010-G	23110-G	2
2	23012-G	23112-G	2
3	23014-G	23114-G	3
3 + N*	23018-G	23118-G	4

* with neutral incorporated

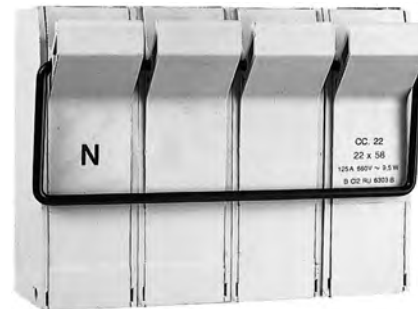
CC.10 – 32A, 690V AC

Fits Class CC, 1-1/2" x 13/32" and 10 x 38mm Fuse-links

POLES	CATALOG NUMBER		Width (No. of 17.5mm MODULES)
	SCREW MOUNT	RAIL MOUNT	
1	23202-G	23302-G	1
N*	23200-G	23300-G	1
1 + N*	23210-G	23310-G	2
2	23212-G	23312-G	2
3	23214-G	23314-G	3
3 + N*	23218-G	23318-G	4



23414-G



23618-G

CC.14 – 50A, 690VAC

Fits 30A, 250V Class H, K, R and 14 x 51mm Fuse-links

POLES	CATALOG NUMBER		Width (No. of 17.5mm MODULES)
	SCREW MOUNT	RAIL MOUNT	
1	23402-G	23502-G	1.5
N*	23400-G	23500-G	1.5
1 + N*	23410-G	23510-G	3
2	23412-G	23512-G	3
3	23414-G	23514-G	4.5
3 + N*	23418-G	23518-G	6

* with neutral incorporated

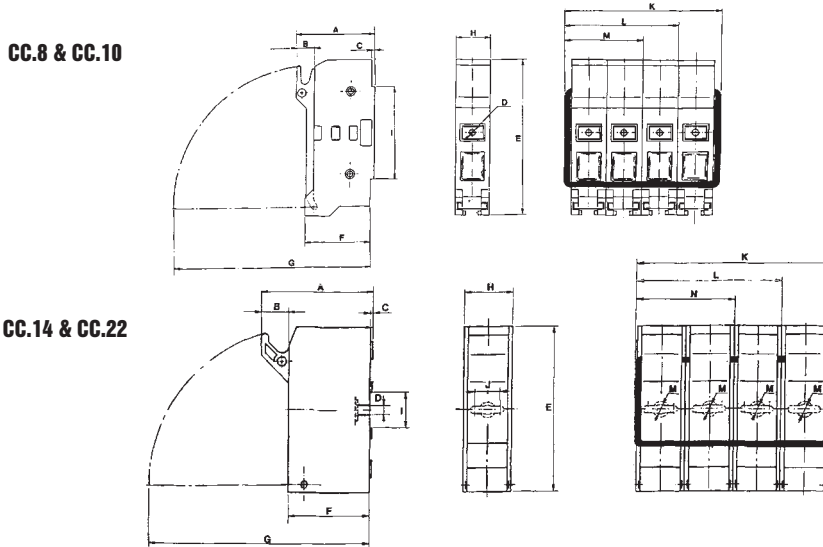
CC.22 – 125A, 690VAC, Fits 22 x 58mm Fuse-links

POLES	CATALOG NUMBER		Width (No. of 17.5mm MODULES)
	SCREW MOUNT	RAIL MOUNT	
1	23602-G	23702-G	2
N*	23600-G	23700-G	2
1 + N*	23610-G	23710-G	4
2	23612-G	23712-G	4
3	23614-G	23714-G	6
3 + N*	23618-G	23718-G	8



CC.8, CC.10, CC.14, CC.22

MODULAR FUSE BASES



Dimensions

	A	B	C	D	E	F	G	H	I	K	L	M
CC.8 & CC.10	40 (1.58)	9 (.35)	2 (.079)	5.5 (.22)	77.5 (3.05)	33 (1.30)	100 (3.94)	17.5 (.069)	46 (1.81)	35 (1.38)	60 (2.36)	42.5 (1.67)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
CC.14	62 (2.44)	15.5 (.61)	1 (.04)	7.25 (.29)	94 (3.70)	45.5 (1.79)	127 (5.00)	27 (1.06)	20.3 (.80)	15.2 (.60)	112 (4.41)	85 (3.35)	6 (.24)	58 (2.29)
CC.22	71 (2.80)	16 (0.63)	1 (0.04)	7.25 (0.29)	106 (4.17)	55 (2.17)	148 (5.83)	34 (1.34)	20.3 (0.80)	18 (0.71)	139 (5.47)	105 (4.14)	6 (.24)	71 (2.80)

Accessories

	POLES	CC.8 CATALOG NO.	CC.10 CATALOG NO.	CC.14 CATALOG NO.	CC.22 CATALOG
HANDLE TIE	2	23934-G	23934-G	23941-G	23948-G
	3	23935-G	23935-G	23942-G	23949-G
	4	23936-G	23936-G	23943-G	23950-G
SYMMETRICAL RAIL ADAPTOR		23937-G	23937-G	23951-G	23951-G



**Handle Tie
23936-G**



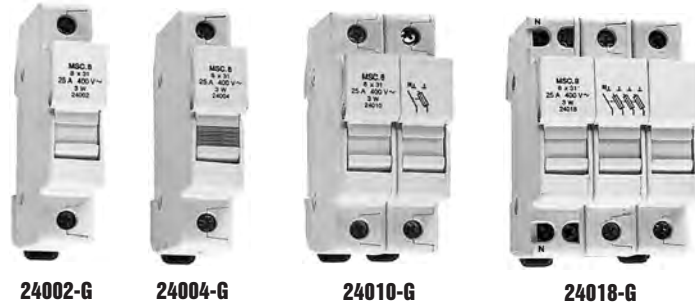
**Symmetrical Rail Adaptor
23937-G**

MSC.8, MSC.10

MODULAR FUSE BASES

MSC.8 – 25A, 400VAC, Fits 8 X 31mm Fuse-links

CATALOG POLES	No. of NUMBER	Width (No. of 17.5mm MODULES)
1	24002-G	1
1 + N*	24006-G	1
1 + N*	24010-G	2
2	24012-G	2
3	24014-G	3
3 + N*	24018-G	3
3 + N*	24016-G	4
4	24019-G	4
N*	24000-G	1



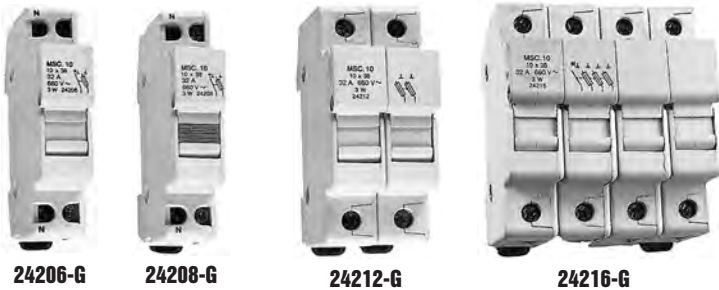
With Built-in Indicator Light

1	24004-G	1
1 + N*	24008-G	1

* with neutral incorporated

MSC.10 – 32A, 690VAC, Fits Class CC, 1-1/2" x 13/32" and 10 x 38mm Fuse-links

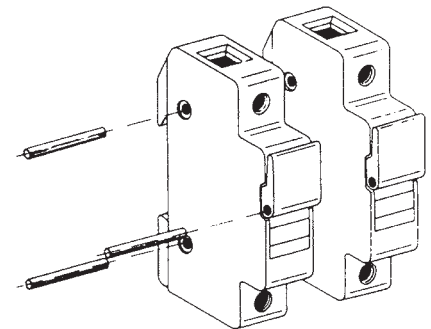
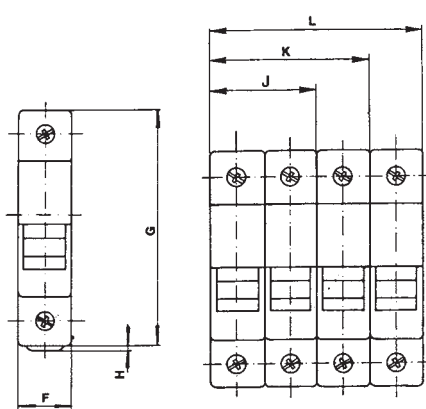
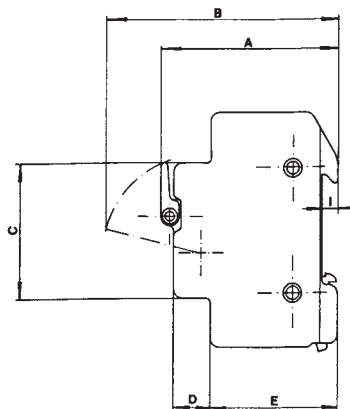
POLES	NUMBER	Width CATALOG (No. of 17.5mm MODULES)
1	24202-G	1
1 + N*	24206-G	1
1 + N*	24210-G	2
2	24212-G	2
3	24214-G	3
3 + N*	24218-G	3
3 + N*	24216-G	4
4	24219-G	4



With Built-in Indicator Light

1	24204-G	1
1 + N*	24208-G	1

* with neutral incorporated



Assembly Pins

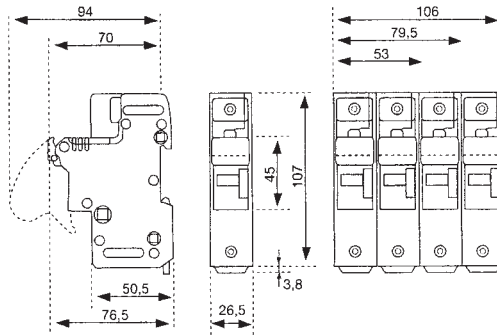
Dimensions – mm (Inches)

A	B	C	D	E	F	G	H	J	K	L
59	78	45	12.5	42.5	17.5	78	2.5	35	52.5	70
(2.32)	(3.07)	(1.77)	(.49)	(1.67)	(.69)	(3.07)	(.098)	(1.38)	(2.07)	(2.76)

No. of POLES	CATALOG NUMBER
2	14030-G
3	14031-G
4	14032-G

CMS.14

MODULAR FUSE BASES



- Indicator for fuse melts and/or stricker (120/690V)
- Clip for rail mounting in two positions
- Cable size max. 35 mm²
- Provision for locking
- IP 20

CMS 14: Holder for 14x51 Fuse
In max: 50A; Vn max: 690V

POLES	CATALOG NUMBER				In MAX			Torque	No. of 17.5mm Modules
	Standard	+ indicator	+ Microswitch	Micro + Ind.	400V	500V	690V	Max N-m	
N	29000-G								1,5
1	29002-G								1,5
1+N	29010-G	29004-G	29020-G	29120-G					3
2	29012-G	29013-G	29021-G	29121-G	50A	32A	25A	3.5	3
3	29014-G	29015-G	29024-G	29124-G					4,5
3*			29025-G*	29125-G*					6
3+N	29016-G	29017-G	29026-G	29126-G					6
4	29019-G								6

*2 microswitches

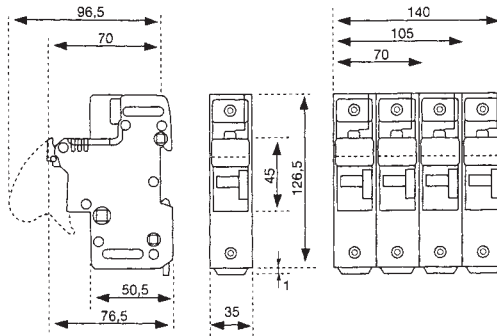
Accessories(*)**

Description	CATALOG NUMBER	No. of 17.5mm Modules
Micro Kit 1P	29051-G	1,5
Micro Block 3P	29052-G	4,5
Block 2 Micro 3P	29053-G	4,5
Fuse holder assembly pins	29050-G	
Lock	29057-G	

(***) See technical features for mounting information

CMS.22

MODULAR FUSE BASES



- Indicator for fuse melts and/or stricker (120/690V)
- Clip for rail mounting in two positions
- Cable size max. 50 mm²
- Provision for locking
- IP 20

CMS 22: Holder for 22x58 Fuse
In max: 125A; Vn max: 690V

POLES	CATALOG NUMBER				In MAX			Torque	No. of 17.5mm Modules
	Standard	+ indicator	+ Microswitch	Micro + Ind.	400V	500V	690V	Max N-m	
N	29200-G								1,5
1	29202-G	29204-G	29220-G	29320-G					1,5
1+N	29210-G	29211-G							3
2	29212-G	29213-G	29221-G	29321-G	125A	100A	80A	4.5	3
3	29214-G	29215-G	29224-G	29324-G					4,5
3*			29225-G*	29325-G*					6
3+N	29216-G	29217-G	29226-G	29326-G					6
4	29219-G								6

*2 microswitches

Accessories(***)

Description	CATALOG NUMBER	No. of 17.5mm Modules
Micro Kit 1P	29251-G	1,5
Micro Block 3P	29252-G	4,5
Block 2 Micro 3P	29253-G	4,5
Fuse holder assembly pins	29250-G	
Lock	29057-G	

(***) See technical features for mounting information



CMS

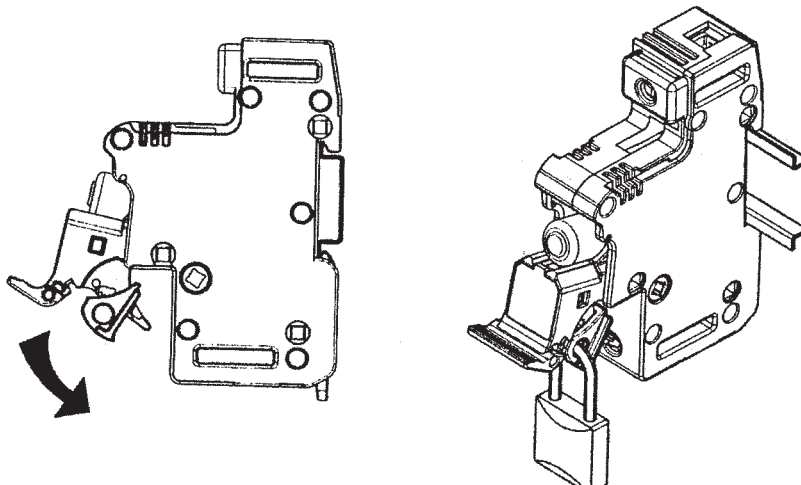
MODULAR FUSE BASES

Table of electrical characteristics

	Rating Un(V)	Uimp	Fuse Current rating In(A)	Maimum fuse operating current (A)				Recom- mended copper wire size (mm2)	Max Torque N-m			
				gG	aM	gRC	UR					
CMS 14	690	8	0,25	0,25	0,25				3,5			
			0,5									
			1									
			2									
			4									
			6									
			8									
			10							10	10	2,5
			12							12	12	
			16							16	16	
			20							20	20	2,5
			25							25	20	4
			32							32	25	6
40	40	30	6									
50	50	38	10									
CMS 22	690	8	1	↓	1			4				
			2									
			4									
			6									
			8									
			10									
			12									
			16									
			20						20	20	4	
			25						25	25	6	
			32						32	42	10	
			40						40	40	10	
			50						50	50	10	
			63						51	63	16	
			80						64	60	25	
100	100	70	35									
125	100	74	35									

Lock installation

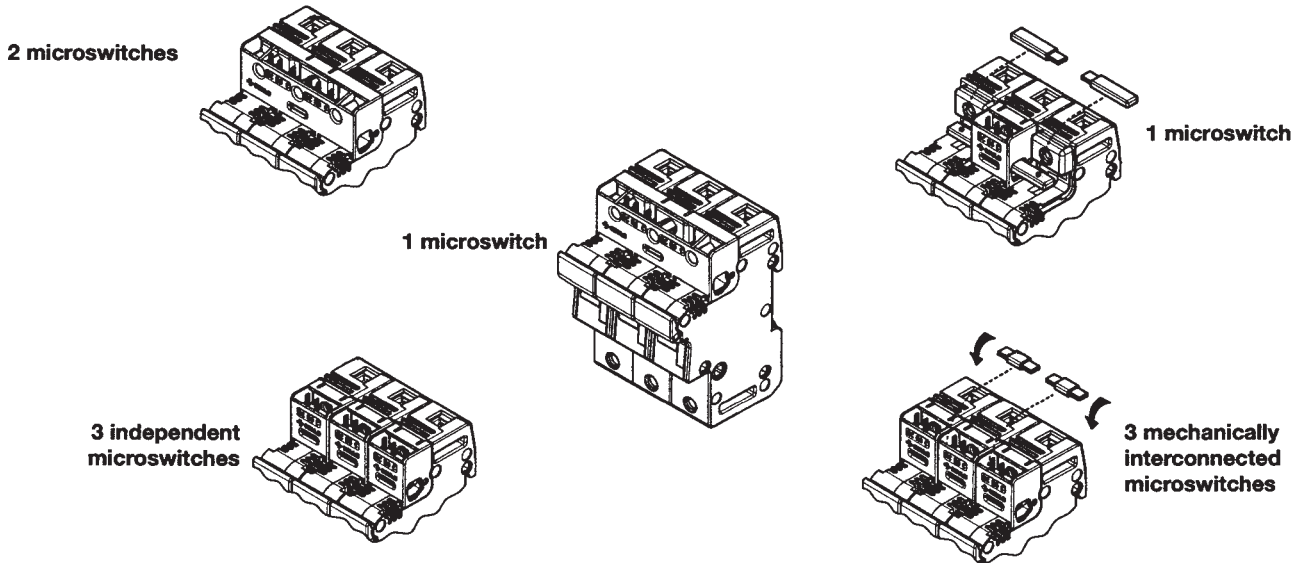
Padlock Catalog Number 29057-G



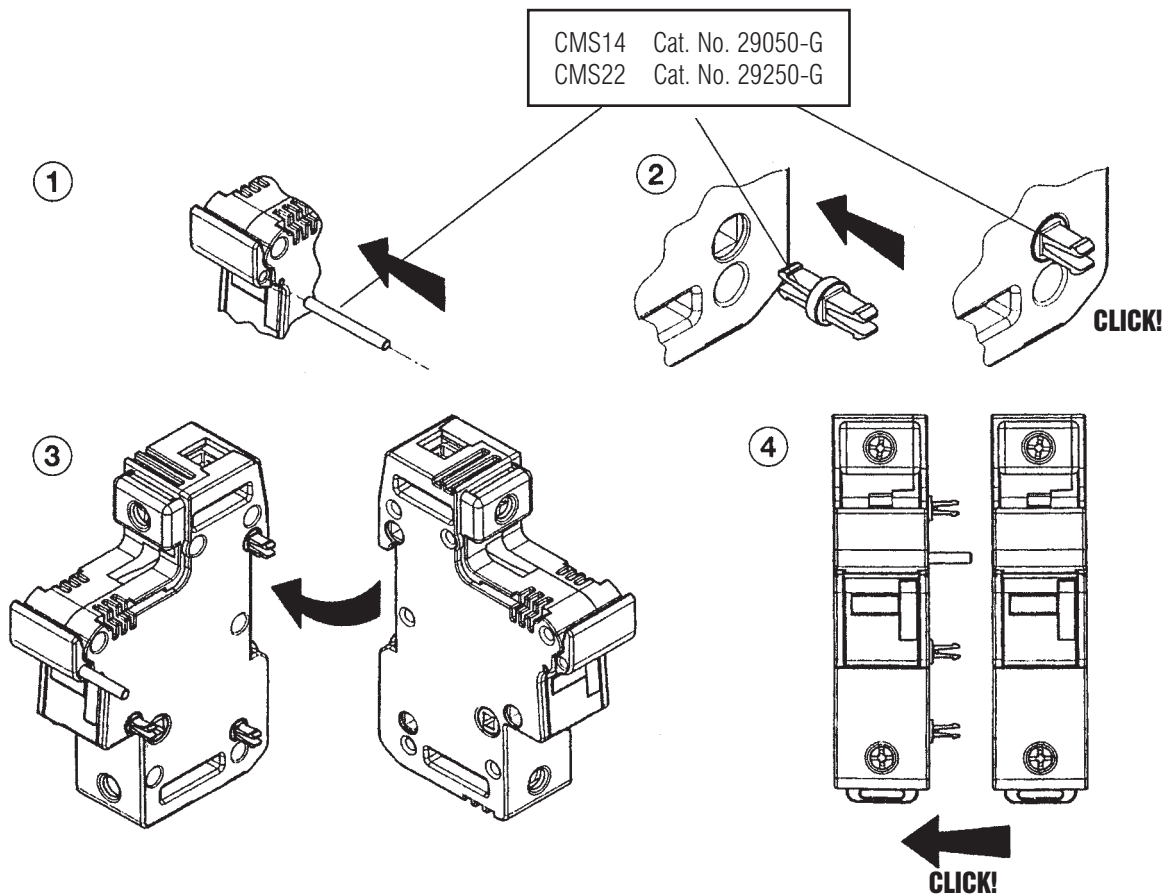
CMS

MODULAR FUSE BASES

Microswitch options



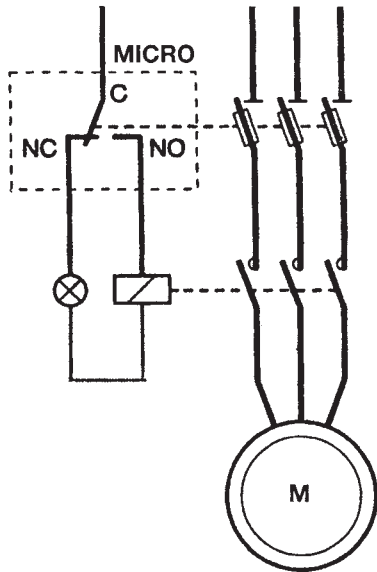
Fuse holder assembly



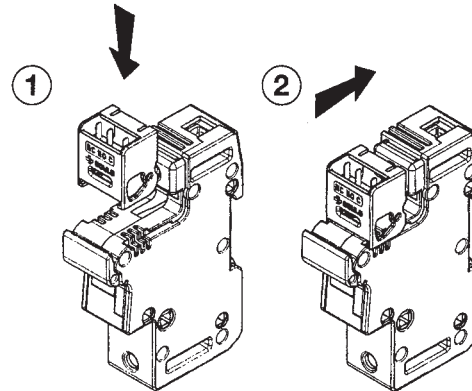
CMS

MODULAR FUSE BASES

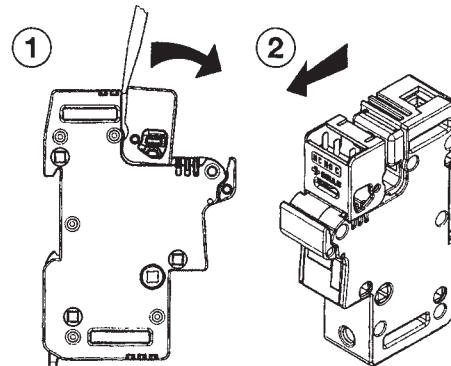
Microswitch mounting instructions(*)



Assembly



Disassembly



Auxilliary microswitch characteristics

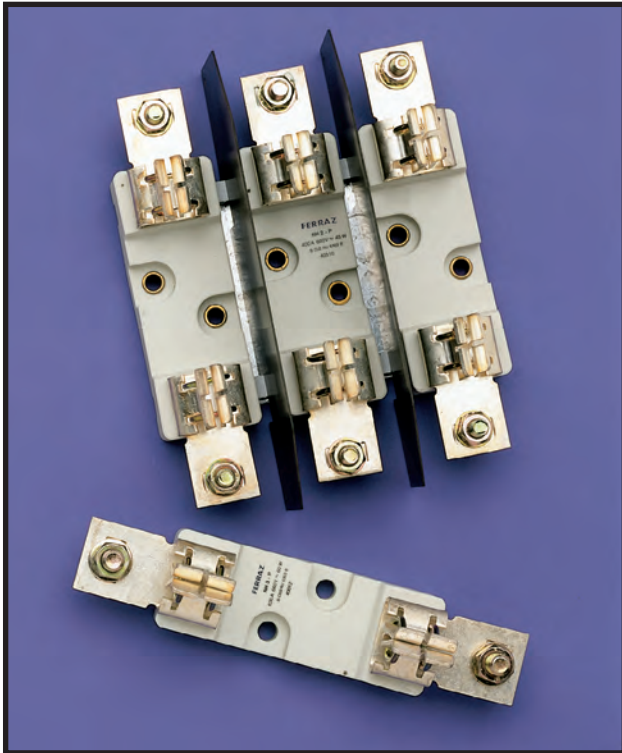
(*) Microswitch functions

Blown fuse:	Fuse holder containing fuse with striker sends message when fuse blown	Nominal current and	6A	AC12
		interrupting rating(1) at 250V	3A	AC13
Prebreaking:	When fuse holder opens	Nominal current and	0,3A	AC14
		interrupting rating(1) at 12 V and 24 V	0,1A	DC12/13/14
Presence:	Sends message or not depending on fuse presence	Nominal current and	6A	DC12/DC13
		interrupting rating(1) at 12 V and 24 V	5A	AC13
			2A	AC14/DC13
			0,6A	DC14

(1) According IEC947-5 Standard

NH DIMENSION

FUSE BASES



690V CERAMIC FUSE BASES FOR NH FUSE-LINKS

- Ceramic insulating bases
- Silver plated contacts
- High spring contact pressure
- Screw mounting



40002-G

40006-G

Single-Pole Fuse Bases

SIZE	RATED CURRENT (A)	CATALOG NUMBER
00-E	160	40002-G
00-EB	160	40003-G
0-E	160	40004-G
0-P	160	40006-G
1-P	250	40008-G
2-P	400	40010-G
3-P	630	40012-G
4-P	1250	40014-G

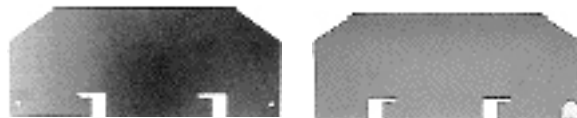


40510-G

Three-Pole Fuse Bases

SIZE	RATED CURRENT (A)	CATALOG NUMBER
00-E	160	40502-G
00-EB	160	40503-G
0-E	160	40504-G
1-P	250	40508-G
2-P	400	40510-G
3-P	630	40512-G

Notes: Size 1 fuse base will accept size 0 fuses.
 Size 2 fuse base will accept size 1 fuses.
 Size 3 fuse base will accept size 1 & 2 fuses.
 Size 4 has a special nut to assure contact pressure.
 Types E and EP have square contacts
 Types P and PP have pincer contacts
 Type EB has pressure-plate cable connection.



FRICITION FIT
45110-G

TAB FASTENED
45212-G

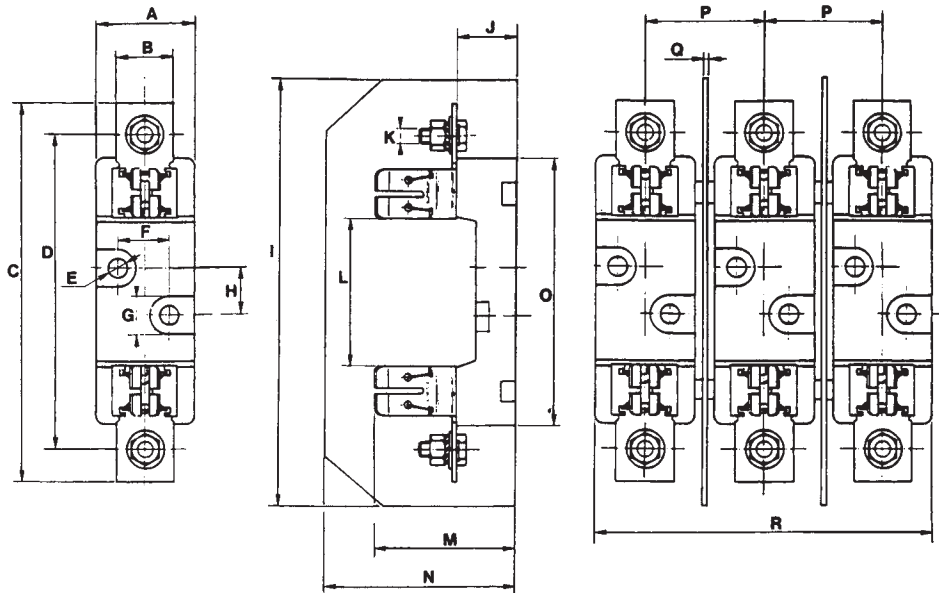
Insulating Barriers for Ceramic NH Fuse Bases

SIZE	RATED CURRENT (A)	CATALOG NUMBER
00	100	45102-G
0	160	45104-G
1-2	400	45110-G
3	630	45112-G

00	100	45202-G
0	160	45204-G
1-2	400	45210-G
3	630	45212-G
4	1250	45214-G



NH DIMENSION



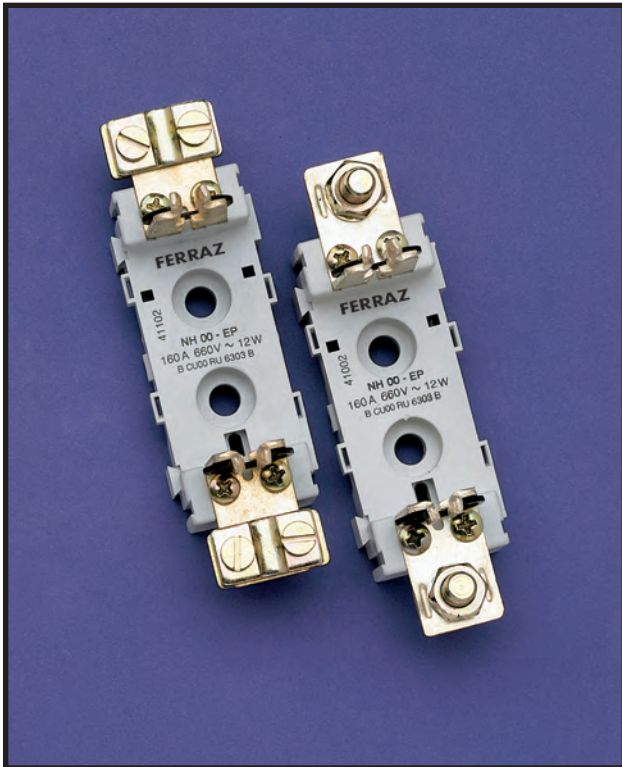
Dimensions of Ceramic Fuse Bases for NH Fuse-Links

	00-E, EB	0-E	0-P	1-P	2-P	3-P	4-P
A	33	32	32	55	55	55	80
B	20	20	25	32	35	40	45
C	118.5	269	166	210	227	241	312
D	100	151	150	175	200	210	262
E*	8	8.5	8.5	11	11	11	11
F	-	-	-	30	30	30	45
G	14.5	14	14	22	22	22	-
H	25	25	25	25	25	25	30
I	145	185	185	250	250	250	-
J	21.5	29	29	35	35	35	45
K	8	8	8	10	10	12	16
L	55	72	74	84	84	84	111
M	52.5	60	60	71	89	103	145
N	80	85	85	100	100	127	-
O	84	120	120	148	148	148	192
P	34	47	47	62	69	82	-
Q	1	2	2	2	2	2	-
R	101	126	126	177	190	213	-

* 8mm for all multiple pole bases; dimensions in chart for single pole bases.

NH DIMENSION

FUSE BASES



690V POLYESTER FUSE BASES FOR NH FUSE-LINKS

- Polyester insulating bases
- Silver plated contacts
- High pressure spring contacts
- Screw or rail mount

Connection Detail



Type 00-EP* – Fuse Bases for NH-00 Fuse-links

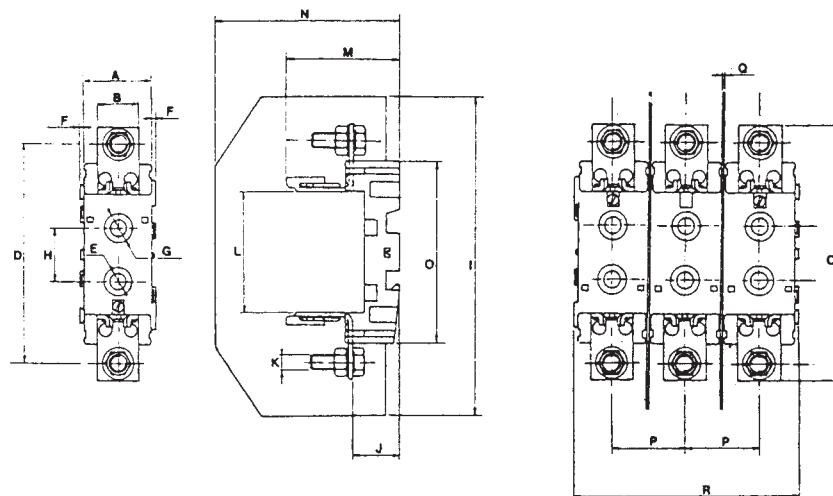
POLES	CATALOG NUMBER			
	SCREW CONNECTOR		PRESSURE PLATE CONNECTOR	
	SCREW MT.	RAIL MT.	SCREW MT.	RAIL MT.
1	41002-G	42002-G	41102-G	42102-G
2	41012-G	42012-G	41112-G	42112-G
3	41016-G	42016-G	41114-G	42114-G
4	41019-G	42019-G	41119-G	42119-G



* EP bases have square contacts.

Dimensions

	00-EP
A	32
B	20
C	117
D	100
E	8
F	2
G	14
H	25
I	145
J	21.5
K	8
L	56
M	52
N	85
O	84
P	34
Q	1
R	104



NH DIMENSION

FUSE BASES

Type 0-EP* – Fuse Bases for NH-0 Fuse-links

POLES	CATALOG NUMBER	
	MOUNTING STYLE	
	SCREW	DIN RAIL
1	41202-G	42202-G
2	41212-G	42212-G
3	41214-G	42214-G
4	41219-G	42219-G

* EP bases have square contacts. PP bases have pincer contacts.



42202-G



41412-G



41514-G

Type 0-PP – Fuse Bases for NH-0 Fuse-links

1	41302-G	42302-G
2	41312-G	42312-G
3	41314-G	42314-G
4	41319-G	42319-G

Type 1-PP – Fuse Bases for NH-1 Fuse-links

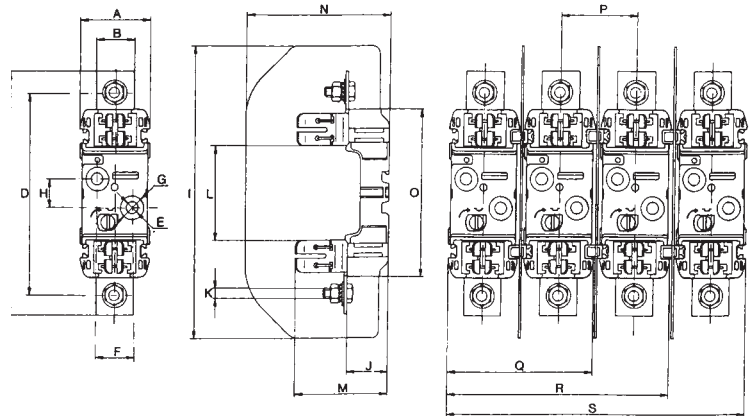
1	41402-G	42402-G
2	41412-G	42412-G
3	41414-G	42414-G
4	41419-G	42419-G

Type 2-PP – Fuse Bases for NH-2 Fuse-links

1	41502-G	42502-G
2	41512-G	42512-G
3	41514-G	42514-G
4	41519-G	42519-G

Type 3-PP – Fuse Bases for NH-3 Fuse-links

1	41602-G	42602-G
2	41612-G	42612-G
3	41614-G	42614-G
4	41619-G	42619-G



Dimensions of Polyester Fuse Bases for NH Fuse-Links

	0-EP	0-PP	1-PP	2-PP	3-PP
A	46	46	60	60	60
B	20	25	32	35	40
C	168	168	209	225	241
D	150.5	150.5	176	201	210
E	7.5	7.5	10.5	10.5	10.5
F	-	-	30	30	30
G	14.5	14.5	20.5	20.5	20.5
H	25	25	25	25	25
I	185	185	250	250	270
J	29	29	35	35	35
K	M8	M8	M10	M10	M12
L	74	75	81	81	81
M	59	61	71	89	103
N	95	95	122.5	122.5	142.5
O	122	122	146	146	146
P	48.5	48.5	65.5	65.5	81.5
Q	94	94	125.5	125.5	141.5
R	142	142	191	191	223
S	190	190	256.5	256.5	304.5

NH DIMENSION

FUSE BASES

Insulating Barriers for Polyester NH Fuse Bases

SIZE	RATED In CURRENT (A)	CATALOG NUMBER*	STANDARD PACK
00	100	44502-G	2
0	160	44504-G	2
1-2	400	44510-G	2
3	630	44512-G	2



44502-G



44510-G

*Not for use with 4106-G and 42016-G. Use 84392-G.

Separators

0	160	44604-G	2
1-2	400	44610-G	2
3	630	44612-G	2



44610-G



44702-G

Fuse Shields

00	100	44802-G	3
0	160	44804-G	3
1-2	400	44810-G	3



44802-G

Terminal Shields

00	100	44702-G	6
0	160	44704-G	6
1-2	400	44710-G	6

One Cable – Terminal for NH Bases

BASE SIZE	CABLE SIZE (mm)		CATALOG NUMBER	STANDARD PACK
	MAX.	MIN.		
00	50	6	45421-G	60
00-0	95	10	45423-G	50
1	150	16	45425-G	30
2-3	240	50	45427-G	15



45425-G

Two Cable – Terminal for NH Bases

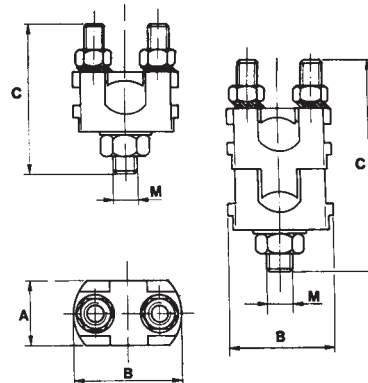
BASE SIZE	CABLE 1 (Size mm)		CABLE 2 (Size mm)		CATALOG NUMBER	STANDARD PACK
	MAX.	MIN.	MAX.	MIN.		
00	50	6	50	6	45431-G	60
00-0	95	10	95	10	45433-G	30
1	150	25	150	16	45435-G	20
2-3	240	95	240	50	45437-G	5



45435-G

Dimensions of Terminals

CATALOG NUMBER	A	B	C	M
45421-G	18	26	34	6
45423-G	24	35	52	8
45425-G	26	41	58	10
45427-G	36	53	68	12
45431-G	18	26	39	6
45433-G	24	35	82	8
45435-G	26	41	84	10
45437-G	36	53	98	12



DFC SERIES

DEAD-FRONT FUSE COVERS



DFC DEAD-FRONT FUSE COVERS

Ferraz Shawmut DFC Dead-Front Fuse Covers snap on to individual fuses installed in fuse blocks, covering exposed live clips and terminals and reducing accidental contact by personnel. They are sized to fit Class G, H, J, K, R, CC or Midget fuses for increased safety and (optional) open-fuse indication. All DFC Dead-Front Fuse Covers are reusable when a fuse is replaced – simply detach from the open fuse and re-attach to the new replacement fuse. On indicator models an orange indicator light will illuminate to indicate an open fuse. DFC Fuse Cover ends can be easily cut to accommodate existing wiring, safety switches or special installations. A blank label is provided with each DFC to write in circuit or fuse information.

Ratings

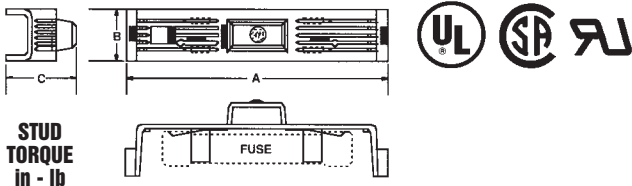
- Fit fuses rated 0 to 100A
- **Indicating:** 90 to 600VAC
115 to 600VDC
- **Non-Indicating:** 0 to 600V AC/DC

Approvals

- UL Listed (All except Midget size) Guide JDVS, File E90426
- UL Recognized Component (Midget) Guide JDVS2, File E90426
- CSA Certified Class 6228, File 70159

Features/Benefits

- **Innovative design** provides dead-front electrical safety to personnel
- **Optional orange indicator light** shows open fuse
- **Many sizes** to fit virtually all popular fuses/fuse blocks
- **Reusable** with no changes or additional cost
- **Labels provided** for write-in identification
- **Thermoplastic** flammability rating of UL 94-V2
- **Low leakage current** <0.6 mA at 600V



Catalog Numbers – Descriptions – Dimensions

CATALOG NUMBER		FUSES ACCOMMODATED			DIMENSIONS (inches)		
NON-INDICATING	INDICATING	AMPS	VOLTS	CLASS	A	B	C
DFC-1	DFC-1I	0-30 and 35-60	600 250	J R, K, H	4.68	1.36	1.97
DFC-2	DFC-2I	0-30	600	R, K, H	7.45	1.35	1.80
DFC-3	DFC-3I	65-100	600	J	7.57	1.30	2.20
DFC-4	DFC-4I	65-100	250	R, K, H	8.73	1.40	2.02
DFC-5	DFC-5I	35-60	600	R, K, H	7.46	1.35	2.00
DFC-6	DFC-6I	35-60	600	J	4.64	1.40	2.17
DFC-7	DFC-7I	0-30	600	Midget, CC, G	3.71	0.69	1.37
DFC-8	DFC-8I	65-100	600	R, K, H	10.55	1.55	2.26
DFC-9	DFC-9I	0-30	250	R, K, H	3.71	0.85	1.55
DFC-10	DFC-10I	0-30	600	SJ	4.56	1.06	2.02
DFC-11	DFC-11I	65-100	600	SJ	5.52	1.7	2.04

WARNING: To avoid electrical shock, **TURN POWER OFF** before installing, removing or servicing.

DFC SERIES

DEAD-FRONT FUSE COVERS

Ferraz Shawmut Fuses and Fuse Blocks for use with DFC

FUSE	FUSE BLOCK	DFC	FUSE	FUSE BLOCK	DFC
AG(0-30)	40xxxG	-7I, -7	A6K(35-60)R	606xxR	-5I, -5
AJT(1-30)	603xxJ	-1I, -1	A6K(70-100)R	610xxR	-8I, -8
AJT(1-30)	603xxSJ	10I, -10	A6Y(0-30)-2B	303xx	-7I, -7
AJT(35-60)	606xxJ	-6I, -6	A60Q(0-30)-2	303xx	-7I, -7
AJT(70-100)	610xxJ	-3I, -3	A60X(0-30)-1	603xx	-1I, -1
AJT(70-100)	6100xxSJ	-11I, -11	A70P(10-30)-1	203xx	-9I, -9
ATDR(0-30)	303xxR	-7I, -7	GFN(0-30)	303xx	-7I, -7
ATM(0-30)	303xx	-7I, -7	GGU(0-30)	303xx	-7I, -7
ATMR(0-30)	303xxR	-7I, -7	HSJ(15-30)	603xxSJ	-10I, -10
ATQ(0-30)	303xx	-7I, -7	HSJ(70-100)	6100xxSJ	-11I, -11
ATQR(0-30)	303xxR	-7I, -7	OT(0-30)	203xx	-9I, -9
A13X(1-30)-2	303xx	-7I, -7	OT(35-60)	206xx	-1I, -1
A2D(0-30)R	203xxR	-9I, -9	OT(65-100)	210xx	-4I, -4
A2D(70-60)R	206xxR	-1I, -1	OTM(0-30)	303xx	-7I, -7
A2D(65-100)R	210xxR	-4I, -4	OTS(0-30)	603xx	-2I, -2
A2K(0-30)R	203xxR	-9I, -9	OTS(35-60)	606xx	-5I, -5
A2K(35-60)R	206xxR	-1I, -1	OTS(65-100)	610xx	-8I, -8
A2K(70-100)R	210xxR	-4I, -4	RF(0-30)	203xx	-9I, -9
A2Y(0-30)	203xx	-9I, -9	RF(35-60)	206xx	-1I, -1
A2Y(35-60)	206xx	-1I, -1	RF(65-100)	210xx	-4I, -4
A2Y(70-100)	210xx	-4I, -4	RFS(0-30)	603xx	-2I, -2
A25X(1-30)-1	203xx	-9I, -9	RFS(35-60)	606xx	-5I, -5
25Z(1-30)-2	303xx	-7I, -7	RFS(65-100)	610xx	-8I, -8
A4J(1-30)	603xxJ	-1I, -1	TR(0-30)R	203xx	-9I, -9
A4J(1-30)	603xxSJ	-10I, -10	TR(35-60)R	206xx	-1I, -1
A4J(35-60)	606xxJ	-6I, -6	TR(70-100)R	210xx	-4I, -4
A4J(70-100)	610xxJ	-3I, -3	TRM(0-30)	303xx	-7I, -7
A4J(70-100)	6100xxSJ	-11I, -11	TRS(0-30)R	603xxR	-2I, -2
A50P(10-30)	203xx	-9I, -9	TRS(35-60)R	606xxR	-5I, -5
A6D(0-30)R	603xxR	-2I, -2	TRS(65-100)R	610xxR	-8I, -8
A6D(35-60)R	606xxR	-5I, -5	TRS(35-60)RDC	606xxR	-5I, -5
A6D(70-100)R	610xxR	-8I, -8	TRS(70-100)RDC	610xxR	-8I, -8
A6K(0-30)R	603xxR	-2I, -2			

Note: DFC Covers fit single pole blocks and each pole of multi-pole blocks.

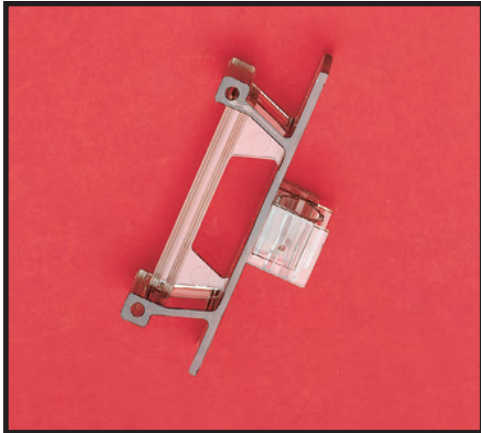
Consult factory for data sheets of DFC trim instructions for safety switches.

WARNING: To avoid electrical shock, **TURN POWER OFF** before installing, removing or servicing.



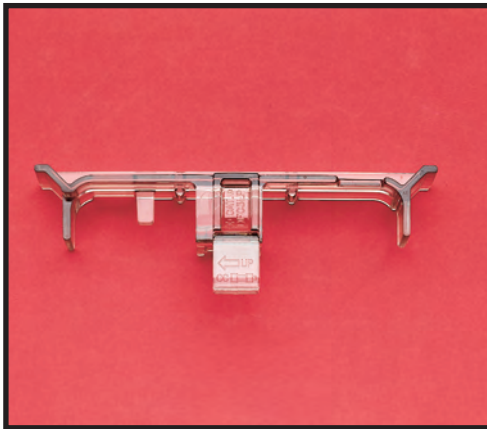
DFC3M/DFC3LP/DRM

FUSE BLOCK ACCESSORIES



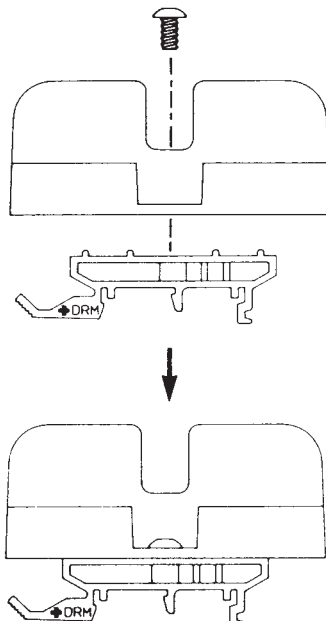
DFC3M SAFETY PULLER PROTECTS PERSONNEL, COVERS LIVE PARTS

The DFC3M Safety Puller is intended to hold and safely enclose 1-1/2" x 13/32" Midget or Class CC fuses for insertion or removal from fuse clips, making fuse installation easy and safe without the use of a standard fuse puller. The DFC3M is made of clear polycarbonate, so the fuse can be identified when installed in a 303 series fuse block.



DFC3LP SAFETY PULLER HOLDS FUSE, PROTECTS PERSONNEL AND SAVES SPACE

The DFC3LP holds and safely encloses 1-1/2" x 13/32" Midget or Class CC fuse, similar to the DFC3M, but with a lower profile in height so it takes less room where space is restricted. The DFC3LP is made of clear polycarbonate so the fuse can be seen after installation in a fuse block such as the Ferraz Shawmut 303 series.



DRM ADAPTS 303 SERIES MIDGET AND CLASS CC FUSE BLOCKS TO DIN RAIL

The DIN rail adapter, DRM, provides quick mounting for all Ferraz Shawmut 303 Series Midget and Class CC fuse blocks to all symmetrical 35mm DIN or asymmetrical 32mm "G" rail. A DRM adapter is attached to each pole with the screw provided. The DRM is molded of black polycarbonate and is mounted or dismounted from the rail simply by depressing the finger pull.

FUSE CLIPS

FOR FERRULE FUSES / PC BOARD MOUNT



30A & 60A FERRULE - FUSE CLIPS

Fuse Clips for 30 & 60 Ampere Ferrule-type Fuses

CAT. NO.	FOR FUSE RATING/SIZE			MOUNTING DETAILS	
	VOLTS	AMPS (max)	FERRULE DIA.	HOLE SIZE	SCREW SIZE
C08915P	600	30	13/32"	.72 dia.	#8
C08919P	600	30	13/32"	.196 dia.	#10
C08916P	250	30	9/16"	.172 dia.	#8
C08917P	250	60	13/16"	.22 X .30"	#10
	600	30	13/16"	.22 X .30"	#10
C08918P	600	60	1-1/16"	.22 X .30"	#10

All clips are UL Recognized: Guide IZLT2, File E52283
All clips are tin-plated copper alloy, non-spring reinforced.

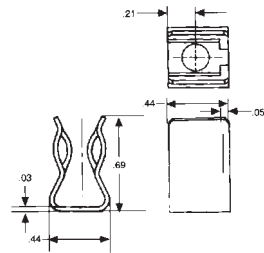


FIGURE 1

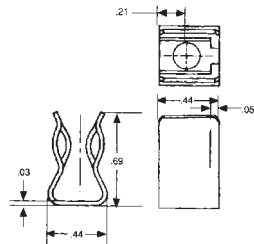


FIGURE 2

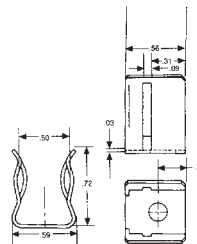


FIGURE 3

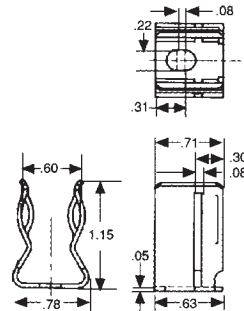


FIGURE 4

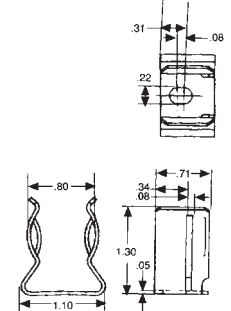
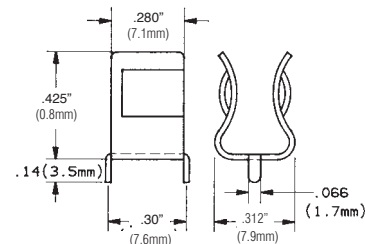


FIGURE 5



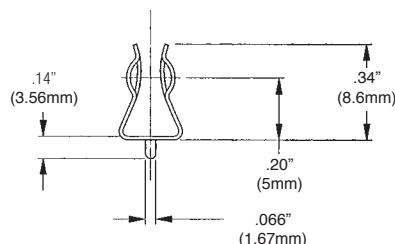
SDC6 PC BOARD CLIPS

- PC board mount fuse clip
- For 1/4" diameter fuses
- Tin plated hard brass



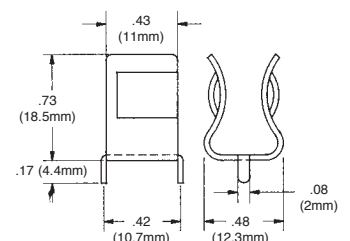
SDC5 PC BOARD CLIPS

- PC board mount fuse clip
- For 5mm diameter fuses
- Tin plated hard brass



SDC7 PC BOARD CLIPS

- PC board mount fuse clip
- For 13/32" (10mm) diameter fuses
- Tin plated spring brass



228-700 SERIES

MEDIUM VOLTAGE/FUSE CLIPS



Cat. No. 228-700-520
(Pair at bottom)

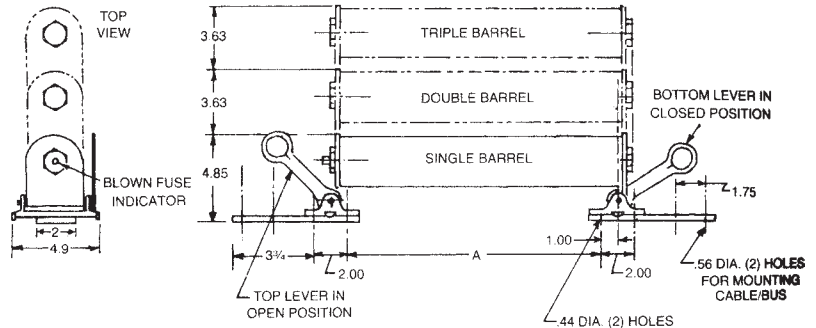
Cat. No. 228-700-530
(Single at top)

CLIP LOCK DESIGN FOR CL-14 SERIES

The Clip Lock design provides a reliable, high-pressure contact. Ferraz Shawmut CL-14 fuses have copper tabs which slide into position between the clip casting and cam. When the cam is locked by moving the pull ring, a high-pressure contact is made between the clip casting and fuse tab. Each clip includes two .44" diameter counter-sunk holes on 2" centers and two flat head socket screws (3/8-16 UNRC, recommended torque 200 pound-inches) for mounting the clip on standard NEMA insulators. These clips will accommodate 5kV and 15kV CL-14 fuses rated 10E to 600E. Order catalog number 228-700-520 for one pair of fuse clips, enough for one fuse.

CL-14 Fuse Catalog Number	A Dimensions - Inches
A055C1DORO-(10E-150E)	13.25
A055C1DORO-(200E-400E)	19.25
A055C2DORO-(450E-600E)	19.25
A155C1DORO-(10E-50E)	16.25
A155C1DORO-(65E-100E)	19.25
A155C2DORO-(125E)	19.25
A155C3DORO-(150E-300E)	19.25

Mounting Details for Clip Lock Cat. No. 228-700-520



CLIPS FOR 3" DIAMETER FERRULE FUSES

These spring-reinforced clips will accommodate all 3" diameter, one and two barrel E-rated and R-rated medium voltage ferrule-type fuses. The clip and reinforcing spring are intended to be bolted to a copper bus bar through two .41" x 1.06" slots. A minimum copper-bus cross section of 1/4" x 1-1/2" is recommended for maximum fuse ratings of 24R and 450E. Catalog number is 228-700-530 for one pair of spring-reinforced clips, enough for one fuse.

Cat. No. 228-700-530

