

# FUSE BLOCKS OVERVIEW



## Description

Littelfuse offers a comprehensive line of fuse blocks that incorporate many benefits such as indication, snap to-release, DIN-Rail mounting and universal mounting holes.

## New Options Available

- Reduced Footprint—Save space with designs up to 35% smaller in width
- Indication—Increase safety and reduce downtime with built-in local neon indication
- Universal Mounting Holes—Simplify replacement with universal mounting options
- DIN Rail Mountable—Ease installation with a 35 mm hat DIN Rail mounting option
- One-Hand Release—Save time by using only one hand for a simple release from DIN Rail

## Fuse Block Selection

The following guidelines should help simplify the selection of proper fuse blocks:

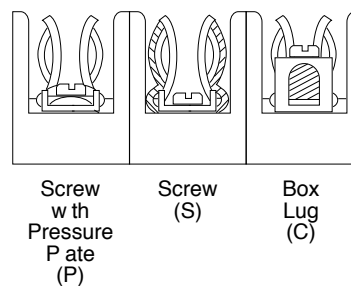
- 1. Determine the system voltage**—Since fuses are selected on the basis of system voltage, fuse blocks are selected to match the voltage rating of the fuse.
- 2. Determine the design short-circuit current**—If available short-circuit current cannot be determined, or if it will vary with equipment location, select fuses with a 200,000 ampere interrupting rating (A.I.R.) and mating fuse blocks with a withstand rating of 200,000 amperes for maximum safety.
- 3. Determine the type and ampere rating of the fuse to be used**—The fuse ampere rating, opening characteristics (fast acting or time-delay) and size are important considerations in fuse selection. Fuse blocks may be used with a fuse rated at the corresponding ampere rating or below. For example, a fuse block rated at 30 amperes may be used with a fuse rated from 0 to 30 amperes.
- 4. Determine if NEC®, CSA, UL, or other requirements are applicable**—Any of these requirements should be obtained from the approving agency in advance of fuse and fuse block selection.

## 5. Select the type of wire termination

Three types of wire termination are available:

- Screw\*—for use with spade lugs or ring terminals
- Screw with Pressure Plate\*—for use with solid or stranded wire without terminal. Recommended where vibration will be a factor
- Box Lug—for use with all types of solid wire and Class B and Class C stranded wire. The most durable, but not for use with welding cable or other rope-stranded conductors.

\*1/4" Quick Connect terminals rated for up to 20 amperes are available on the Midget and Class CC fuse blocks.



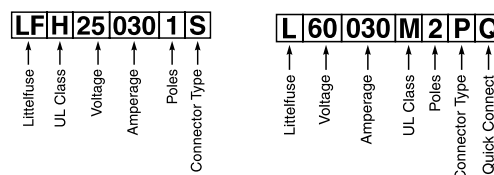
**6. Decide on the number of poles in each block**—The number of poles for each set of fuses is determined by the characteristics of the circuit.

**7. Determine if block should be DIN Rail mounted**—Many of the new Littelfuse fuse blocks are DIN Rail mountable. Be sure to look to corresponding ordering tables to match the correct part number on the following product pages.

**8. Determine if fuse clips need to be reinforced**  
Fuse clips may have a tendency to lose some of their tension over a period of time. This may be prevented by specifying reinforced fuse clips.

## Ordering Information

The Littelfuse fuse block part number consists of the below skeleton. Please refer to UL Class Tables for specific information.



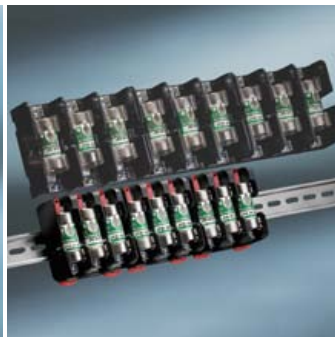
†For all Class R, H, J, and T Fuse blocks

For all Class CC, G, and Midget-Style

†These new fuse blocks replace previous Littelfuse fuse blocks that had very similar part numbers for customer convenience. The only change is an "F" has been added as the second character in the new block part numbers.

Caution: Littelfuse indicating fuse holders are intended to quickly identify open fuses while power is still applied. Only qualified electrically trained technicians should replace fuses and follow standard OSHA and NFPA 70E safe work practices, such as Lock-Out and Tag-Out procedures and verification before replacing any fuses in indicating fuse holders.

# LF SERIES INDICATING FUSE BLOCKS



**Smaller Footprint  
Provides Space Savings**



**DIN-Rail Mounting  
Eases Installation**



**Indication Improves  
Functionality**

## An Indication of Value

The Littelfuse LF Series Fuse Blocks and Covers offer generous space savings and a greater value over previous generations. View the different series classes for available indication, snap-to-release DIN rail mounting, universal mounting holes and touch-safe covers.

# LF SERIES CLASS CC/CD AND MIDGET (10X38 mm) FUSE BLOCKS

600 V



## Description

The Littelfuse Class CC, CD and midget blocks offer generous space savings and enhanced value. DIN rail mounting and universal mounting holes are all available. Indication feature on all Class CD fuse blocks.

## Features/Benefits

- Space-saving design
- Universal mounting holes for easy replacement
- Indication offered on CD blocks
- One hand release from DIN rail optional
- Rejection feature that prevents the insertion of fuses with lower interrupting rating or voltage ratings
- Clip design reduces resistance and heat
- Non DIN Rail fuse blocks have interlocking feature allowing ganging for any number of poles
- Covers available for all amperages to enhance safety

## Specifications

<b>Voltage Rating</b>	600 VAC/600 VDC
<b>Ampere Ratings</b>	Class CC: 30 A Class CD: 60 A
<b>Dielectric strength</b>	1200 V minimum
<b>Clip/terminals</b>	Tin-plated copper alloy
<b>Box lug</b>	Copper
<b>Screw and captive pressure plate</b>	Zinc-plated steel
<b>Base</b>	Thermoplastic UL94 V-0 flammability rating
<b>Approvals</b>	Class CC/CD: UL Listed (File No. E14721) Class CD: CSA Certified (File No. LR73091) Class CC: CSA Certified (File No. LR7316) Midget: UL Recognized (File No. E14721)
<b>Environmental</b>	RoHS Compliant, Lead (Pb) Free

## Recommended Fuses

<b>Class CC Blocks:</b>	
CCMR .....	29
KLDR, KLKR.....	30
<b>Class CD Blocks:</b>	
CCMR .....	29
<b>Midget Blocks:</b>	
BLF, BLN, BLS, FLA, FLM, FLO, FLU, KLK, KLKD, KLO .....	32

## Web Resources

Sample requests, downloadable CAD drawings, fuse block cover datasheet and other technical information:  
[www.littelfuse.com/fuseblocks](http://www.littelfuse.com/fuseblocks)

## Ordering Information (Class CC and Midget 30 A)

AMP RATING	POLES	CLASS CC ORDERING NUMBER		MIDGET ORDERING NUMBER		CONNECTOR TYPE	TORQUE	WIRE RANGE	WIRE TYPE	BASE TEMP	COVER ORDERING NUMBER**
		NON-DIN*	DINR	NON-DIN*	DINR						
30	1	L60030C1C	L60030C1CDINR	L60030M1C	L60030M1CDINR	Box Lug	5.6 N-m (50 in-lbs)	2-4 AWG	CU-AL Solid / Stranded	125°C	SPL001
	2	L60030C2C	L60030C2CDINR	L60030M2C	L60030M2CDINR			6-14 AWG			
	3	L60030C3C	L60030C3CDINR	L60030M3C	L60030M3CDINR		Pressure Plate w/Q.C. Terminal	5.6 N-m (50 in-lbs)	2-4 AWG	CU-AL Solid / Stranded	125°C
30	1	L60030C1PQ	L60030C1PQDINR	L60030M1PQ	L60030M1PQDINR	6-14 AWG					
	2	L60030C2PQ	L60030C2PQDINR	L60030M2PQ	L60030M2PQDINR	Screw w/Q.C. Terminal		5.6 N-m (50 in-lbs)	2-4 AWG	CU-AL Solid / Stranded	125°C
30	3	L60030C3PQ	L60030C3PQDINR	L60030M3PQ	L60030M3PQDINR		6-14 AWG				
	30	1	L60030C1SQ	L60030C1SQDINR	L60030M1SQ		L60030M1SQDINR	Screw w/Q.C. Terminal	5.6 N-m (50 in-lbs)	2-4 AWG	CU-AL Solid / Stranded
2		L60030C2SQ	L60030C2SQDINR	L60030M2SQ	L60030M2SQDINR	6-14 AWG					
3		L60030C3SQ	L60030C3SQDINR	L60030M3SQ	L60030M3SQDINR						

## Ordering Information (Class CD 60 A)

AMP RATING	POLES	ORDERING NUMBER	CONNECTOR TYPE	TORQUE	WIRE RANGE	WIRE TYPE	BASE TEMP RATING	DIN RAIL MOUNT	INDICATION	COVER ORDERING NUMBER**
60	1	LFC600601CID	Box Lug	5.6 N-m (50 in-lbs)	2-4 AWG	CU-AL Solid / Stranded	125°C	•	•	LFC60060FBC
	2	LFC600602CID			6-14 AWG					
	3	LFC600603CID								

\* Gangable

\*\*Covers sold individually. One cover needed for each pole.

Note: Quick Connect Terminals are rated at 20 A

**LF SERIES CLASS CC/CD AND MIDGET (10X38 mm) FUSE BLOCKS**

**Dimensions mm (inches)**

**CLASS CC / MIDGET DIN RAIL 600 V 30 A**



**CLASS CC / MIDGET NON-DIN RAIL 600 V 30 A**



**CLASS CD DIN RAIL 600 V 60 A**



LF Series Fuse Blocks 6

## Class CC/CD and Midget Fuse Blocks

600 Volt



Space saving 600 volt, 30 amp molded case fuse blocks with side barriers for isolation. Class CC blocks and Midget blocks are identical except Class CC blocks incorporate a rejection feature to assure proper fusing.

### Safety

- Rejection feature — Class CC fuse blocks have a rejection feature which prevents the insertion of fuses with lower interrupting rating or voltage ratings. Class CC fuses are rated 600 volts and have an

interrupting rating of 200,000 amperes. Midget fuse voltage ratings vary and their interrupting rating may be as low as 10,000 amperes. *Note that Class CC fuses may be used in Midget fuse blocks, but Midget fuses cannot be used in Class CC blocks.*

### Long life

- High-strength materials — Class CC and Midget fuse blocks are molded of high-strength, high-temperature material to minimize block breakage during handling and installation, as well as damage caused by overheating.
- Reduced resistance, less heat — High conductivity, one-piece copper alloy fuse clips have lower resistance than traditional two-piece brass or phosphor bronze fuse clips, which minimizes heat rise and watts loss within the fuse block.

### Reduced inventory

- Gangable — Interlocking fuse blocks allow ganging to produce a fuse block with any number of poles.
- Flexible terminal arrangements — 30A Class CC and Midget fuse blocks are available with type C box lug, type SQ screw, or type PQ pressure plate terminals. Type SQ terminals have binding-head screws, while type PQ terminals have captive pressure plates. Both terminal types can accommodate side or top mounted quick-connect terminals. This flexibility allows the accommodation of most needs and reduces part inventory requirements.
- 60A CD fuse blocks are available with type C box lug terminals.
- DIN rail mountable — FBDIN1 adapters permit snap-mounting Littelfuse Class CC and Midget 30 amp fuse blocks directly to standard or low profile 35mm symmetrical “hat” and 32mm asymmetrical DIN rails. Patented DIN rail adapters snap securely to Littelfuse fuse blocks and to DIN rails without tools. They can be readily removed from rails by lifting the disconnect tab.
- L60060C 60A fuse blocks have patented integral DIN rail adapters which allow direct mounting to 35mm “hat” type DIN rails.

### Specifications

**Voltage Rating:** 600 Volts AC/600 Volts DC  
**Ampere ratings:** L60030C: 30 amps  
 L60030M: 30 amps  
 L60060C: 60 amps  
**Dielectric strength:** 1200 volts minimum  
**Clip/terminals:** Tin-plated copper alloy  
**Box lug:** Copper  
**Screw and captive pressure plate:** Zinc-plated steel  
**Base:** Thermoplastic. UL 94V0 flammability rating.  
**Approvals:** Class CC: UL Listed (File No. E14721)  
 Midget: UL Recognized (File No. E14721)  
 Class CC/Midget: CSA Certified (File No. LR7316)

### Recommended Fuses

**Class CC Blocks:**

CCMR | KLDR | KLKR

**Midget Blocks:**

BLF | BLS | FLM | FLU | KLKD | LA60Q-2  
 BLN | FLA | FLQ | KLK | KLO

**Class CD Blocks:**

CCMR

*Note: L60030M can be used up to 40A.*

## Class CC/CD and Midget Fuse Blocks

### 600 Volt

#### Class CC 30A Fuse Blocks

Amp Rating	No. of Poles	Catalog Number	Connector Type (Add Suffix Shown)	Maximum Wire Size
30	1	L60030C-1C	Box Lug	#6 CU
	2	L60030C-2C		
	3	L60030C-3C		
30	1	L60030C-1PQ	Pressure Plate/ Q. C. Terminal	#10 CU
	2	L60030C-2PQ		
	3	L60030C-3PQ		
30	1	L60030C-1SQ	Screw/ Q. C. Terminal	#10 CU
	2	L60030C-2SQ		
	3	L60030C-3SQ		

#### Class CD 60A Fuse Blocks

Amp Rating	No. of Poles	Catalog Number	Connector Type (Add Suffix Shown)	Maximum Wire Size
60	1	L60060C-1C	Box Lug	#6 CU
	2	L60060C-2C		
	3	L60060C-3C		
60	Adder Block	L60060C-AC	Box Lug	#6 CU

Note: Quick Connect Terminals are rated at 20 amperes.

#### Midget Fuse Blocks

Amp Rating	No. of Poles	Catalog Number	Connector Type (Add Suffix Shown)	Maximum Wire Size
30	1	L60030M-1C	Box Lug	#6 CU
	2	L60030M-2C		
	3	L60030M-3C		
30	1	L60030M-1PQ	Pressure Plate/ Q. C. Terminal	#10 CU
	2	L60030M-2PQ		
	3	L60030M-3PQ		
30	1	L60030M-1SQ	Screw/ Q. C. Terminal	#10 CU
	2	L60030M-2SQ		
	3	L60030M-3SQ		

Note: Quick Connect Terminals are rated at 20 amperes.

