



Gears & Fuse Gears

American General Purpose Fuses Cylindrical & Blade Fuse Blocks In-Line FEB/FEC/FEX/FEY



600 VOLTS

Ferraz Shawmuts 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.

Ratings

- 600 VAC, 30A
- Withstand Rating: Midget Fuse 100kA I.R., Class CC 200kA I.R.
- Temperature Rating 155°C

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

Approvals

- 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



Applications:

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

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, A13X2, A25Z-2, A60Q-2, A6Y-2B
- FEC and FEY holders will accommodate these Ferraz Shawmut Fuses: Class CC: ATDR, ATMR, ATQR

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Catalog Numbering System

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

Nomenclature Legend

Family	Description	Terminal End View	Terminal	Load or Line Terminal Type					Option Description
				Type	Conductor Size	No. Per Terminal	Solid	Stranded	
FEB	Single pole midget		11	Cu Crimp	#8-#12	1	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	#12-#14	2	Yes	Yes	
					#6	1	Yes	Yes	
					#4	1	Yes	No	
FEX	Dual Pole midget		31	Cu Crimp	#10	2	Yes	Yes	
					#4	1	No	Yes	
FEY	Dual pole Class CC		41	Cu Crimp	#6	2	Yes	Yes	
					#2	1	No	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.



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

Midget (10x38mm)		Midget (10x38mm) Breakaway		Class CC		Class CC Breakaway	
Cat. Number	Ref. Number	Cat. Number	Ref. Number	Cat. Number	Ref. Number	Cat. Number	Ref. Number
FEB-11-11	S230522	FEB-11-11-BA	T230523	FEC-11-11	M230563	FEC-11-11-BA	N230564
FEB-11-21	V230524	FEB-11-21-BA	W230525	FEC-11-21	P230565	FEC-11-21-BA	Q230566
FEB-11-31	X230526						
FEB-11-41	Y230527	FEB-11-41-BA	Z230528				
		FEB-11-81-BA	A230529				
FEB-11-82	B230530	FEB-11-82-BA	C230531				
FEB-11-91	D230532	FEB-11-91-BA	E230533	FEC-11-91	R230567	FEC-11-91-BA	S230568
FEB-11-92	F230534	FEB-11-92-BA	G230535				
FEB-11-S	H230536						
FEB-21-11	J230537						
FEB-21-21	K230538	FEB-21-21-BA	L230539	FEC-21-21	T230569	FEC-21-21-BA	V230570
FEB-21-91	M230540	FEB-21-91-BA	N230541				
FEB-31-31	P230542	FEB-31-31-BA	Q230543				
FEB-41-41	R230544	FEB-41-41-BA	S230545				
FEB-81-81	T230546	FEB-81-81-BA	V230547	FEC-81-81	W230571	FEC-81-81-BA	X230572
FEB-81-91	W230548	FEB-81-91-BA	X230549				
FEB-81-S	Y230550						
FEB-82-82	Z230551	FEB-82-82-BA	A230552				
FEB-82-92	B230553	FEB-82-92-BA	C230554				
		FEB-91-91-BA	D230555				
FEBN-11-11	E230556	FEBN-11-11-BA	F230557				
FEBN-11-91	G230558	FEBN-11-91-BA	H230559				
FEBN-81-81	J230560	FEBN-81-81-BA	K230561				
FEB-SS	L230562						

Note: Consult factory for other configurations.

Midget (10x38mm) Dual Pole		Midget (10x38mm) Dual Pole Breakaway		Class CC Dual Pole		Class CC Dual Pole Breakaway	
Cat. Number	Ref. Number	Cat. Number	Ref. Number	Cat. Number	Ref. Number	Cat. Number	Ref. Number
FEX-11-11	Y230573	FEX-11-11-BA	G230512	FEY-11-11	F230580	FEY-11-11-BA	L230516
FEX-11-21	Z230574	FEX-11-21-BA	H230513	FEY-11-21	G230581	FEY-11-21-BA	M230517
FEX-11-31	A230575			FEY-11-31	H230582		
FEX-11-41	B230576			FEY-11-41	J230583		
						FEY-11-91-BA	N230518
FEX-21-21	C230577	FEX-21-21-BA	J230514	FEY-21-21	K230584	FEY-21-21-BA	P230519
FEX-81-81	D230578						
FEX-81-91	E230579	FEX-81-91-BA	K230515				

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

Note: Not supply by Ferraz Shawmut.

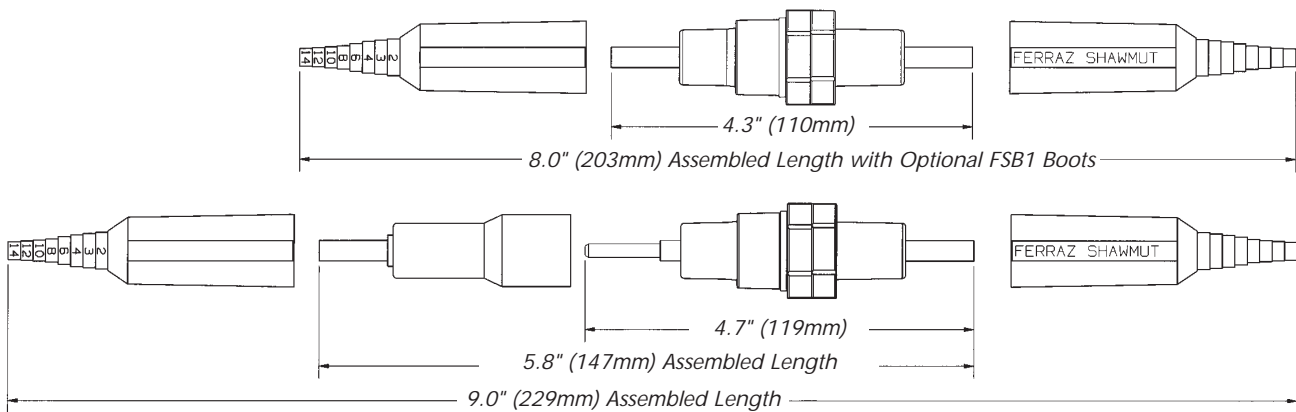
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FEB and FEC, Non-Breakaway and Breakaway Assembly Drawings



FEX and FEY, Non-Breakaway and Breakaway Assembly Drawings

