

# TECHNICAL APPLICATION GUIDE IN-LINE FUSE HOLDERS





# INTRODUCTION

The outdoor street lighting has taken a step forward towards energy efficiency, longevity and ease of control. Innovative lighting technologies and varying methods of installation are helping cater various aspects of outdoor application requirements such as managing, maintaining and monitoring to ensure smooth traffic flow, people and resource safety and cost savings for the city.

The advantages of installing efficient outdoor lighting systems can be rendered ineffective if they fail prematurely and have to be often replaced. This drives the need for electrical protection.

Mersen's complete line of single and dual pole inline fuse holders are design for electrical protection of outdoor applications with special focus on street lighting. The fuse holders are designed for quick installation and can accommodate class CC and Midget fuses. Securing nuts or screws are captive thus speeding installation by reducing the need to locate and assemble loose components in the field.

#### RECOMMENDED FUSE USAGE

#### FEB and FEX holders use with:

Midget (1-1/2" x 13/32", 10 x 38 mm): ATQ, ATM, TRM, OTM, GGU, GFN, A13X-2, A25Z-2, A60Q-2, A6Y-2B

#### FEC and FEY holders use with:

Class CC: ATDR, ATMR, ATQR

## APPLICATIONS

- Street Lighting
  - Pole Base
  - Luminaire Level
  - **Electrical Cabinet**
- Parking Lot Lighting
- Traffic Signaling
- Sports Lighting
- **Boats and Marinas**
- Humid/corrosive environments

# FUSE HOLDER INFORMATION CHART

SIZE	WIRE RANGE	CRIMPING TOOL OR TORQUE
11	(1)#8-12 SOL/STR	T&B WT-111M
	(2)#12-14 SOL/STR	FCI-BURNDY Y8MRB-1
21	(1)#6 SOL/STR or #4 SOL	T&B TBM2/TBM5 BLUE DIE, WT-115A DIE 0
	(2)#10 SOL/STR	FCI-BURNDY Y2MR
31	(1)#4 STR	T7B TBM2/TBM5 GREY DIE, WT-115A DIE E
	(2)#10 SOL/STR	FCI-BURNDY Y2MR
41	(1)#2 STR	T&B TBM5/TBM8 BROWN DIE, WT-115A DIE F
	(2)#6 SOL/STR	FC1-BURNDY Y2MR
81. 82	(1)#2-12 SOL/STR	#2-3 50IN-LBS
		#4-6 35IN-LBS
		#8 25IN-LBS
		#10-12 20IN-LBS
91, 92	(1)#2-12 SOL/STR EA	#2-3 50IN-LBS
		#4-6 35IN-LBS
		#8 25IN-LBS
		#10-12 20IN-LBS

- Fuse holder, 600V-30A 1 pole inline
- FEB, FEX use misc. or FEC, FEY use Class CC fuse
- 200,000 Amp RMS SYM rating
- Use 60/75 deg C Copper wire only
- Insulate terminals with Mersen FSB1, FSB2, Electrical tape or extruded tube

# CRIMPING TOOL REFERENCE GUIDE

Terminal Type	FCI-Burndy	T&B
1	Y8MRB-1	WT-111M
2	Y2MR	TBM2/TBM5 BLUE DIE, WT-115-A DIE 0
3	Y2MR	TBM2/TBM5 GREY DIE, WT-115-A DIE E
4	Y2MR	TBM2/TBM5 BROWN DIE, WT-115-A DIE F

## APPROVALS











# INSTALLATION INSTRUCTIONS

- Mersen's line of single and dual pole in-line fuse holders accommodate 1-1/2"x13/32" (10x38mm) midget or Class CC fuses
- Securing nuts or screws are captive thus speeding installation by reducing need to locate loose components
- Three internal O-rings per pole seal the fuse holder providing a water resistant compartment for the fuse.
- Captive O-rings are colored (blue for single pole and red for dual pole)
- Also offering Breakaway feature which safely disconnects load in case of pole knockdown
- Permanently installed neutral versions can be identified by white nuts
- Tightening torque for single and double set screw terminations: 35 lbs.-in.
- Tightening torque for dual pole fastening screw: 10-15 lbs.-in.
- For top of the pole applications it is recommended for best practices to install the fuse holder in horizontal position with respect to the pole

 For holders installed in outside environment it is recommended that they are securely fastened to the pole or luminaire.



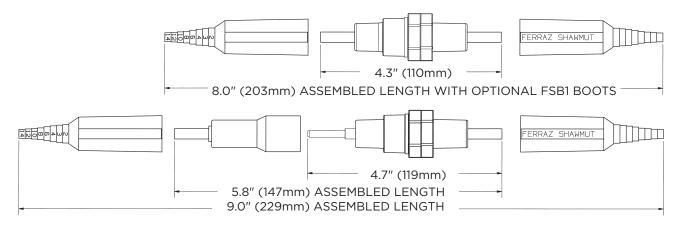
- Non-breakaway units do not include insulator boots. These optional cone shaped boots are available to provide a water tight installation
- FSB1 = Single conductor boot(used to cover all crimp type &single set screw terminals)FSB2
   Double conductor boot (used to cover all double setscrew (Y-type) terminals)
- The FSB1 insulation boot is designed to accommodate wire ranges from #14 to #2 AWG
- To maintain water tightness it is recommended that the boot be cut accurately at designated wire size according to the marking on the boot.
- Failure to do so will allow for moisture to penetrate the fuse terminal causing poor connection
- The insulator boots are designed to form a water tight seal over conductors, but due to varying wire insulation sizes it is suggested that tape wrap be utilized for best results specifically for installations on top of a pole



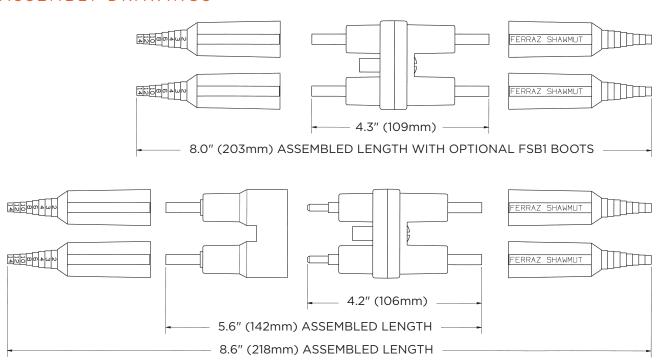


# **ASSEMBLY INSTRUCTIONS**

# FEB AND FEC, NON-BREAKAWAY AND BREAKAWAY ASSEMBLY DRAWINGS



# FEX AND FEY, NON-BREAKAWAY AND BREAKAWAY ASSEMBLY DRAWINGS



For additional information, please contact Mersen Technical Services at TechnicalServices.EP@mersen.com

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