

Accessories for use with ESFR and Rapid Install (RIS) ESFR Pendent Sprinklers

IMPORTANT

Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

Always refer to Technical Data Sheet TFP700 for the "INSTALLER WARNING" that provides cautions with respect to handling and installation of sprinkler systems and components. Improper handling and installation can permanently damage a sprinkler system or its components and cause the sprinkler to fail to operate in a fire situation or cause it to operate prematurely.

Scan the QR code or enter the URL in a web browser to access the most up-to-date electronic version of this document. Data rates may apply.



docs.jci.com/tycofire/TFP784

General Description

The TYCO Model ES-1 and ES-2 Sprinkler Shields and Model EG-25 Sprinkler Guard are designed for use with the TYCO Model ESFR Pendent Sprinkler range. The sprinkler shield and guard assemblies are for sprinkler installation locations susceptible to mechanical or physical damage.

The sprinkler guard and shield applications are as follows:

- Pendent ESFR sprinklers located in areas not susceptible to the threat of mechanical or physical damage can be equipped with Model ES-1 and

ES-2 Sprinkler Shields for protection from water spray of higher elevation sprinklers. See Table A for sprinkler applications.

- The Model EG-25 Sprinkler Guard, shown in Figure 2 and Figure 3, provides protection for TYCO Model ESFR-22 and ESFR-25 Pendent Sprinklers from mechanical and/or physical damage, for example, rack storage sprinkler installations.

The Models ES-1 and ES-2 Sprinkler Shields and Model EG-25 Sprinkler Guard are intended for use in fire sprinkler systems designed in accordance with the standard installation rules recognized by the applicable Listing agency.

NOTICE

The Models ES-1 and ES-2 Sprinkler Shields and Model EG-25 Sprinkler Guard described herein must be installed and maintained in compliance with this document and with the applicable standards of FM, in addition to the standards of any Authorities Having Jurisdiction. Failure to do so may impair the performance of these devices.

Owners are responsible for maintaining their fire protection system and devices in proper operating condition. The installing contractor or sprinkler manufacturer should be contacted with any questions.

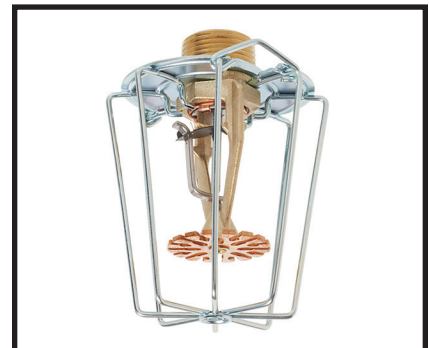
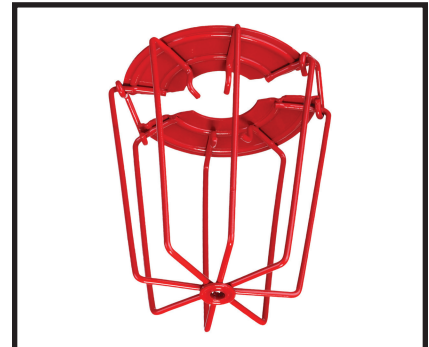
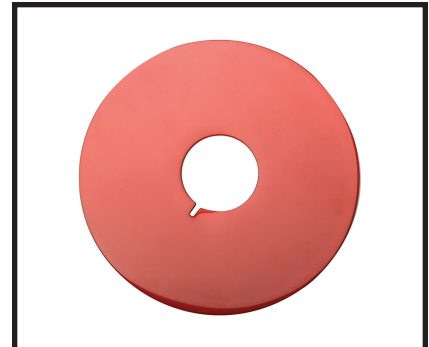
Technical Data

Approvals
FM Approved

Finishes
Red paint, zinc coat and zinc chromate

Physical Characteristics

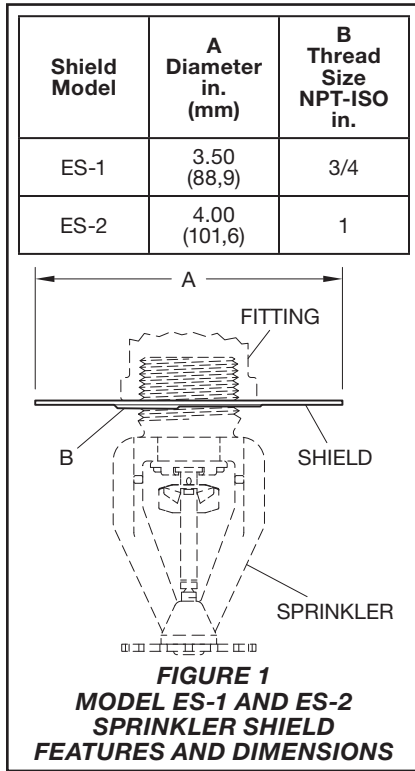
- Models ES-1 and ES-2 Sprinkler Shields:
- Stamped and formed carbon steel sheet
- Model EG-25 Sprinkler Guard:
- Welded assembly fabricated from carbon steel



Model	SIN	ESFR Sprinkler		Thread Size NPT-ISO in.	Technical Data Sheet	Shield Model		Guard Model	Guard Locknut
		K-Factor				ES-1	ES-2	EG-25	
		gpm/psi ^{1/2}	Lpm/bar ^{1/2}						
ESFR-14	TY6236	14.0	201,6	3/4	TFP319	1			
ESFR-17	TY7223	16.8	241,9		TFP317	1			
ESFR-17	TY7236	16.8	241,9		TFP322	1			
ESFR-22	TY8223	22.4	320,0	1	TFP321		1	1	2
ESFR-25	TY9226	25.2	362,9		TFP312		1	1	2
ESFR-22	TY8220	22.4	320,0	RIS	TFP327			1	
ESFR-25	TY9220	25.2	362,9		TFP328			1	

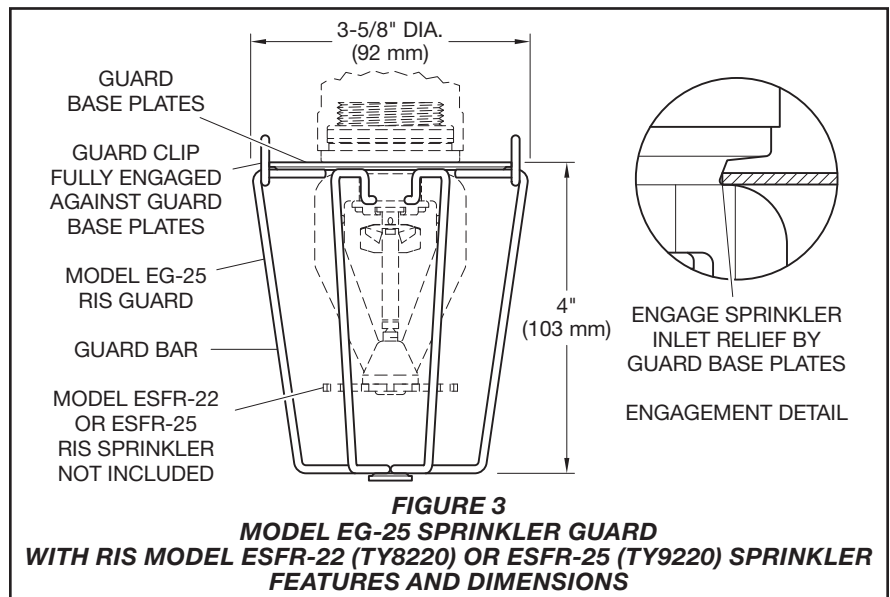
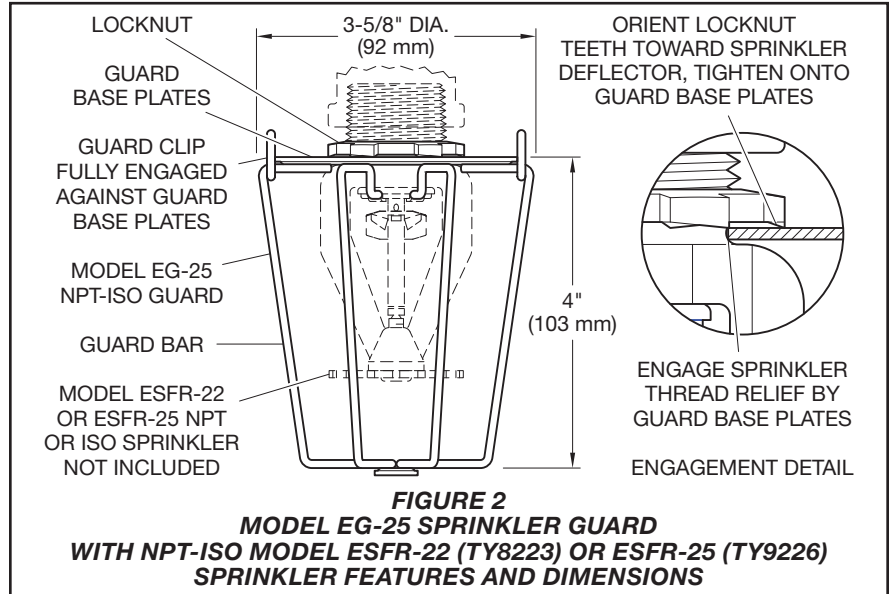
- NOTES**
 1. FM Approved
 2. Locknut provided for NPT-ISO Model ESFR-22 (TY8223) and ESFR-25 (TY9226) sprinklers only

TABLE A
SPRINKLER SHIELD AND GUARD APPLICATIONS
LABORATORY LISTINGS AND APPROVALS



Design Criteria

In accordance with the requirements of FM, sprinkler shields and guards shall be approved. Sprinkler shields and guards are only approved for use with sprinklers specified in Table A.



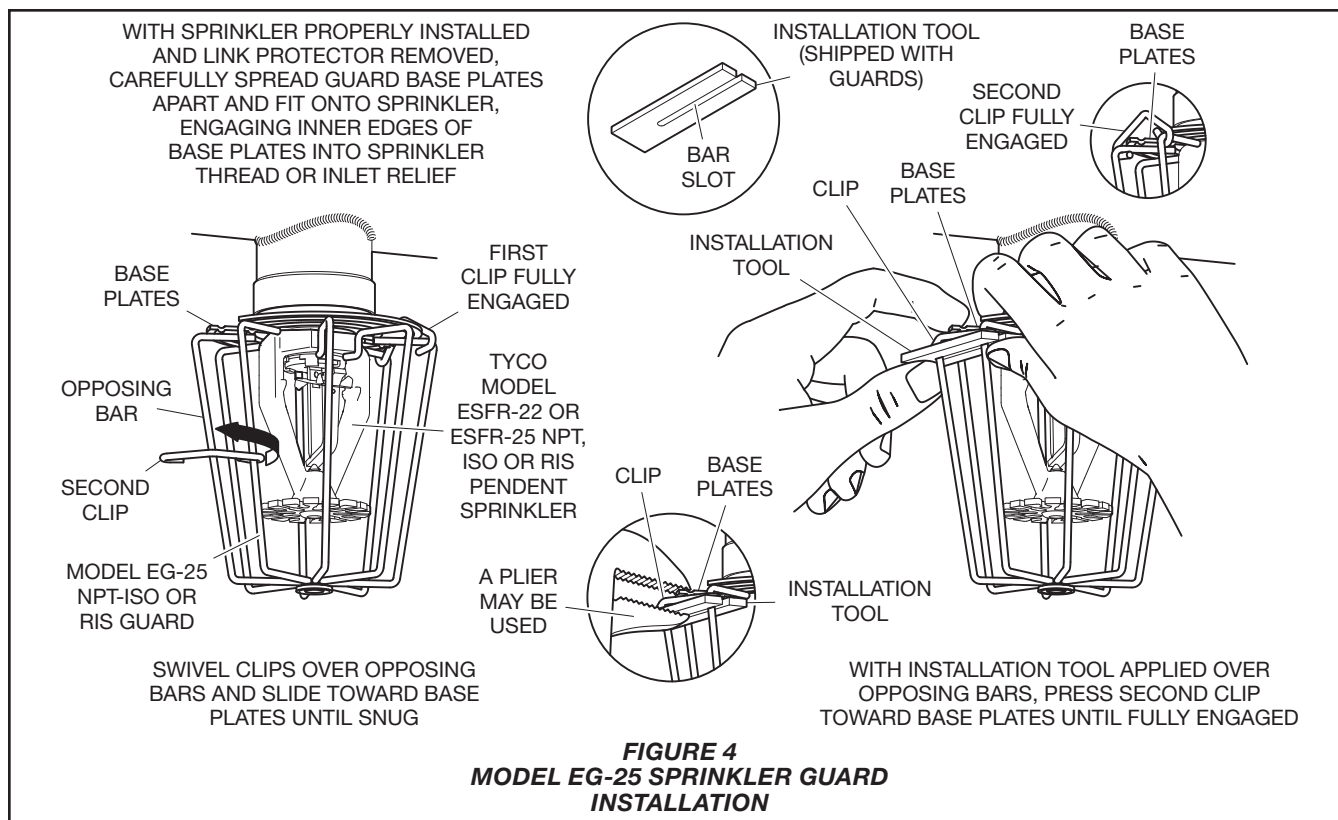


FIGURE 4
MODEL EG-25 SPRINKLER GUARD
INSTALLATION

Installation

The TYCO Model ES-1 and ES-2 Sprinkler Shields and Model EG-25 Sprinkler Guard must be installed onto appropriate TYCO ESFR Sprinklers in accordance with this section.

Installing the Model ES-1 and ES-2 Sprinkler Shield

Note: TYCO ESFR Sprinklers must be installed in accordance with their respective Technical Data Sheet, see Table A.

See Figure 1 for sprinkler shield features, dimensions and installation details.

Step A. With the stamped markings facing toward the deflector, thread the shield onto the sprinkler threads to the end nearest the frame arms.

Step B. Install the sprinkler into the sprinkler fitting in accordance with the applicable sprinkler technical data sheet, see Table A.

Step C. Rotate the shield clockwise until flush against the face of the sprinkler fitting.

Installing the Model EG-25 Sprinkler Guard

Note: The Model ESFR-22 Sprinkler must be installed in accordance with Technical Data Sheet TFP321 and Model ESFR-25 Sprinkler must be installed in accordance with Technical Data Sheet TFP312 before installing the Model EG-25 Sprinkler Guard.

Model ESFR-22 and ESFR-25 NPT-ISO sprinklers only: Fully assemble provided locknut onto sprinkler threads, teeth oriented toward deflector, before installing into sprinkler fitting.

NOTICE

For guard with the locknut feature, failure to install the provided locknut may impact protective capabilities of the guard.

See Figures 2 and 3 for guard features and dimensions and Figure 4 for installation details.

Step 1. With the clips loose, carefully spread the two halves of the sprinkler guard apart so the bars pass by the sprinkler deflector and the base plates pass by the sprinkler thread relief from the side.

Step 2. Position the guard on center relative to the sprinkler, engaging the base plates evenly onto the sprinkler thread or inlet relief. Align the guard base plate gaps parallel with the sprinkler frame arms.

Step 3. Swivel the first clip to engage the open end onto the opposing bar and slide toward the base plates until fully seated against the base plates

Step 4. Swivel the second clip to engage the open end onto the opposing bar and slide toward the base plates until fully seated against the base plates.

Note: The Installation Tool shown in Figure 4 may be used as an aid when sliding and seating the clips. Pliers may be used in addition to the Installation Tool to facilitate seating the clips.

Step 5. NPT-ISO sprinklers only: Hand tighten locknut onto guard base plates.

NOTICE

To complete the installation, the clips must seat against the base to be fully seated.

Care and Maintenance

The TYCO Model ES-1 and ES-2 Sprinkler Shields and Model EG-25 Sprinkler Guard do not require any regularly scheduled maintenance; however, proper installation of the sprinkler shield or guard should be verified during the annual visual inspection of the sprinkler.

NOTICE

Before closing a fire protection system main control valve for maintenance work on the fire protection system that it controls, obtain permission to shut down the affected fire protection system from the proper authorities and notify all personnel who may be affected by this action.

Sprinkler shields and guards found to be damaged or visibly deformed must be replaced.

Responsibility lies with sprinkler owners for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of FM (for example, FM Datasheet 8-9), in addition to the standards of any other authorities having jurisdiction. Contact the installing contractor or sprinkler manufacturer regarding any questions.

Automatic sprinkler systems are recommended to be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes.

Owners must assure that the sprinklers are not used for the hanging of any objects and are only cleaned by means of gently dusting with a feather-duster. Otherwise, non-operation in the event of a fire or inadvertent operation may result.

Limited Warranty

For warranty terms and conditions, visit www.tyco-fire.com.

Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name and Part Number (P/N).

Model ES-1 and ES-2 Sprinkler Shields

Specify: Model (specify ES-1 or ES-2) Sprinkler Shield, (specify finish), P/N (specify):

ES-1

Red Painted91-070-3-346
Zinc Coating91-070-9-346

ES-2

Red Painted91-070-3-348
Zinc Coating91-070-9-348

Model EG-25 Sprinkler Guard

Specify: Model EG-25 Sprinkler Guard, (specify NPT, ISO, or RIS) Connection, (specify finish), P/N (specify):

NPT or ISO*

Red Painted56-949-1-025
Zinc Chromate56-949-9-025

RIS

Red Painted56-959-1-025
Zinc Chromate56-959-9-025

*Includes Locknut

Additional Guard Installation Tools

Specify: Guard Installation Tool, P/N 56-000-8-597

Note: *The Model EG-25 Sprinkler Guard Installation Tool is included with orders in original carton quantities.*



TFP784 Change History Appendix

ISSUE DATE	NOTES
03-23	Throughout document, changed instances of NPT to NPT-ISO.
12-22	Page 1, updated title, formerly ESFR Pendent Sprinkler Accessories; Page 1, updated QR code and URL; Page 2, Table A, added guard locknut to Model EG-25 Sprinkler Guard application with ESFR-22 TY8223 and ESFR-25 TY9226 NPT sprinklers; Page 2, Table A, added ESFR-22 TY8220 and ESFR-25 TY9220 RIS sprinkler application to Model EG-25 Sprinkler Guard; Page 2, Figure 2, and Page 4, Ordering Procedure, Model EG-25 Sprinkler Guard sub-section, added locknut included with NPT guards; Page 2, added new Figure 3 for ESFR RIS sprinkler application with Model EG-25 Sprinkler Guard; Page 3, Figure 4, formerly Figure 3, and Installation, Model EG-25 Sprinkler Guard sub-section, expanded application to include NPT and RIS sprinklers and added locknut to procedure; Page 4, changed corporate address and telephone number to 1467 Elmwood Avenue, Cranston, RI 02910 Telephone +1-401-781-8220, formerly 1400 Pennbrook Parkway, Lansdale, PA 19446 Telephone +1-215-362-0700.
01-22	Clarified EG-25 Sprinkler Guard is compatible but not Listed or Approved for use with Model ESFR-22 Sprinkler, updating Approvals sub-section on page 1 by adding note referring to Table A for Laboratory Listings and Approvals applicability.
11-21	Page 1, added QR code and URL to allow convenient access to electronic version from printed document; Page 1, changed title to ESFR Pendent Sprinkler Accessories, formerly Model EG-25 Sprinkler Guard for Model ESFR-25 Pendent Sprinkler; Page 1, General Description section and page 2, Table A Laboratory Listings and Approvals, added Model ESFR-22 pendent sprinkler compatible but not Listed or Approved with EG-25 guard; Page 1, General Description section and page 2, Table A Laboratory Listings and Approvals, added Models ES-1 and ES-2 ESFR Sprinkler Shields.
08-18	Updated Tyco® branding and document format; Added Johnson Controls copyright; Added disclaimer stating specifications and information subject to change without notice; Added reference to Regulatory and Health Warning Technical Data Sheet TFP2300.
12-17	New Technical Data Sheet TFP784 describes Model EG-25 Sprinkler Guard for Model ESFR-25 Pendent Sprinkler application.