

Series TY-FRB — 5.6 K-factor Horizontal and Vertical Sidewall Sprinklers Quick Response, Standard Coverage

General Description

The Series TY-FRB, 5.6 K-factor, Horizontal and Vertical Sidewall Sprinklers described in this data sheet are quick response -standard coverage, decorative 3 mm glass bulb type spray sprinklers designed for use in light and ordinary hazard, commercial occupancies such as banks, hotels, shopping malls, etc. They are designed for installation along a wall or the side of a beam and just beneath a smooth ceiling. Sidewall sprinklers are commonly used instead of pendent or upright sprinklers due to aesthetics or building construction considerations, where piping across the ceiling is not desirable.

The recessed version of the Series TY-FRB Horizontal Sidewall Sprinkler is intended for use in areas with a finished wall. It uses a two-piece Style 10 Recessed Escutcheon with 1/2 in. (12,7 mm) of recessed adjustment or up to 3/4 in. (19,1 mm) of total adjustment from the flush sidewall position, or a two-piece Style 20 Recessed Escutcheon with 1/4 in. (6,4 mm) of recessed adjustment or up to 1/2 in. (12,7 mm) of total adjustment from the flush sidewall position. The adjustment provided by the Recessed Escutcheon reduces the accuracy to which the fixed pipe nipples to the sprinklers must be cut.

Corrosion resistant coatings, where applicable, are utilized to extend the life

of copper alloy sprinklers beyond that which would otherwise be obtained when exposed to corrosive atmospheres. Although corrosion resistant coated sprinklers have passed the standard corrosion tests of the applicable approval agencies, the testing is not representative of all possible corrosive atmospheres. Consequently, it is recommended that the end user be consulted with respect to the suitability of these coatings for any given corrosive environment. The effects of ambient temperature, concentration of chemicals, and gas/chemical velocity, should be considered, as a minimum, along with the corrosive nature of the chemical to which the sprinklers will be exposed.

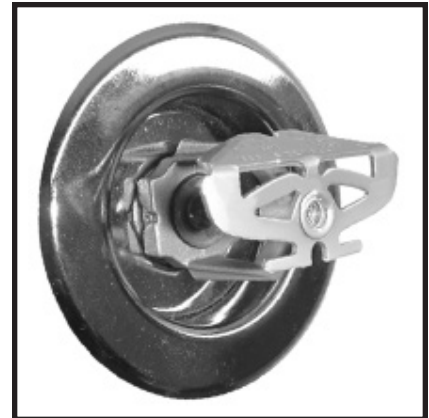
NOTICE

The Series TY-FRB Sprinklers described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the National Fire Protection Association, in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the performance of these devices.

The owner is responsible for maintaining their fire protection system and devices in proper operating condition. Contact the installing contractor or product manufacturer with any questions.

Sprinkler Identification Numbers

TY3331..... Horizontal
TY3431..... Vertical



Technical Data

Approvals

UL and C-UL Listed
FM Approved
LPCB Approved
NYC Approved

(Refer to Table A for complete approval information including corrosion resistant status.)

Maximum Working Pressure

Refer to Table B

Discharge Coefficient

K=5.6 GPM/psi^{1/2} (80,6 LPM/bar^{1/2})

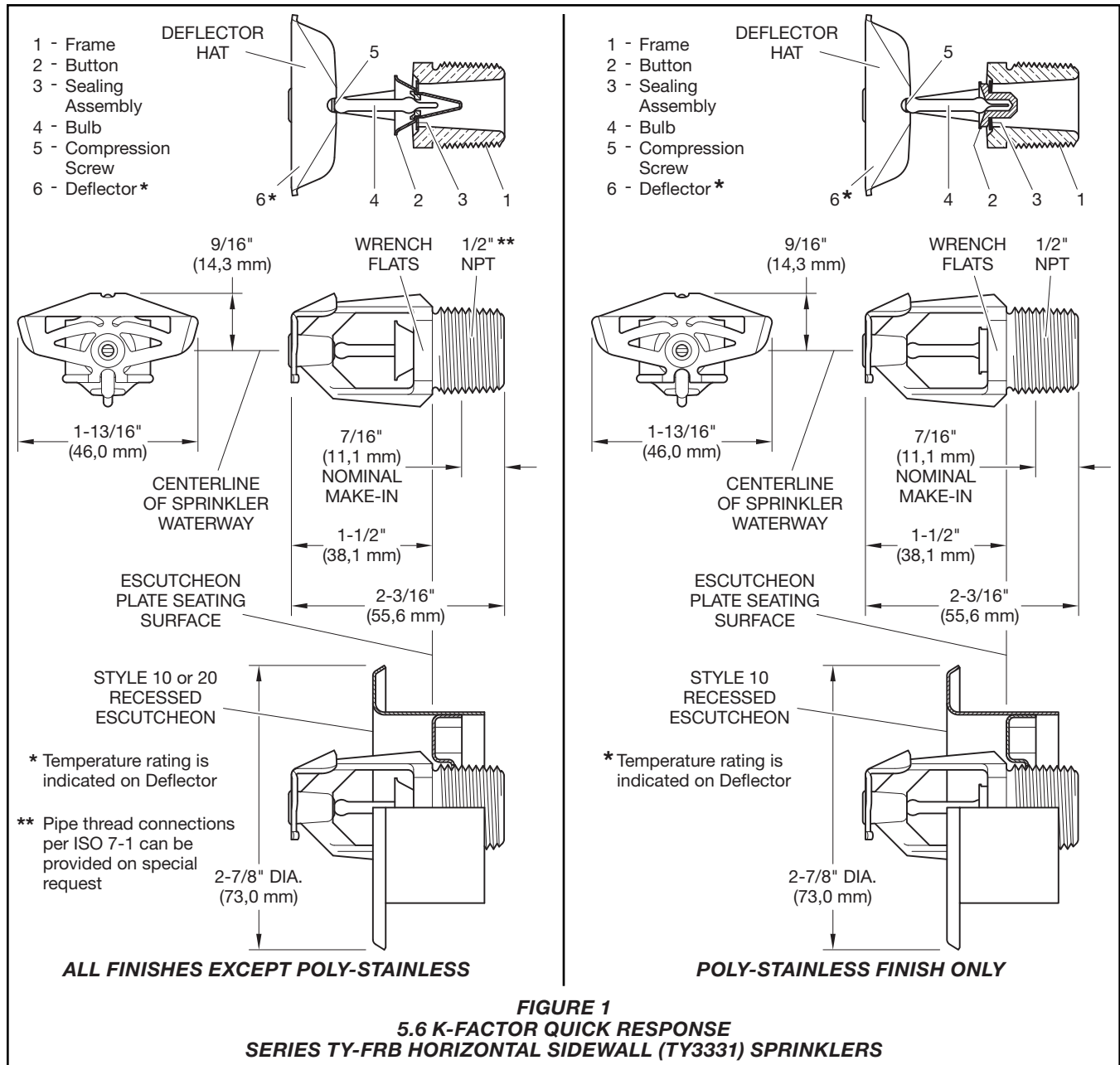
Temperature Ratings

Refer to Table A

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.



Finishes

Sprinkler: Refer to Table C

Recessed Escutcheon: Signal or Pure White, Jet Black, Grey Aluminum, Chrome Plated, or Brass Plated

Physical Characteristics

Frame	.....	Bronze
Button	.....	Brass/Copper
Sealing Assembly	.....	Beryllium Nickel w/TEFLON
Bulb	.....	Glass
Compression Screw	.....	Bronze
HSW Deflector	.....	Bronze
VSW Deflector	.....	Copper

Poly-Stainless

Physical Characteristics

Frame	.....	Bronze
Button	.....	L316 Stainless Steel*
Bulb	.....	Glass
Compression Screw	.....	L316 Stainless Steel*
HSW Deflector	.....	Copper/Bronze
Sealing Assembly	.....	Gold Plated Beryllium Nickel w/TEFLON

*Type L316 stainless steel (UNS 31603) per ASTM A479/479M or BS EN 1008 WN1.4404.

Operation

The glass bulb contains a fluid which expands when exposed to heat. When the rated temperature is reached, the fluid expands sufficiently to shatter the glass bulb, allowing the sprinkler to activate and water to flow.

Design Criteria

The Series TY-FRB, 5.6 K-factor, Horizontal and Vertical Sidewall Sprinklers are intended for fire protection systems designed in accordance with the standard installation rules recognized by the applicable Listing or Approval agency (e.g., UL Listing is based on the requirements of NFPA 13, and FM Approval is based on the requirements of FM's Loss Prevention Data Sheets). Only the Style 10 or 20 Recessed Escutcheon, as applicable, is to be used for recessed horizontal installations.