



Standard Spray Sprinklers

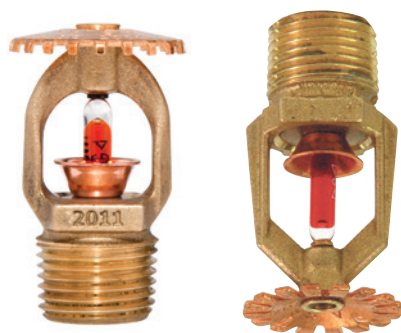
Offered in a wide range of standard and quick response options for light and ordinary hazard occupancies.

- Office Buildings
- Schools
- Libraries
- Theaters
- Banks
- Retail

Standard Spray Sprinklers

TY-B

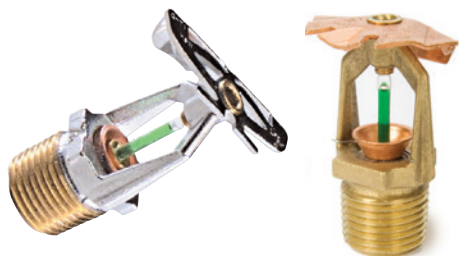
Upright, Pendent, & Recessed Pendent



K Factor	K=2.8 (40,3) • K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	K=2.8 – UL, C-UL, FM, NYC K=5.6 – UL, C-UL, FM, CE, VdS K=8.0 – UL, C-UL, FM, NYC, LPCB, VdS
Temperature	135°F (57°C), 155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°C), 360°F (182°C), Open (TY4151 & TY4251)
Escutcheon	K=5.6 – Style 15, Style 20 K=8.0 – Style 10, Style 40
Escutcheon Finish	Signal White, Pure White, Jet Black, Chrome Plated, Natural Brass
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White, Jet Black, Poly-Stainless, Lead Coated, Wax Coated, Wax over Lead Coated
SIN	TY1151, TY1251, TY315, TY325, TY4151, TY4251, TY4851, TY4951
Wrench Type	W-TYPE 6 / W-TYPE 7 (for recessed escutcheons)
Tech Data Sheet	K=2.8 & K=8.0 – TFP151 / K=5.6 – TFP152

All hazard ■ 5 mm bulb ■ Small frame, narrow profile bulb ■ Discharges a hemispherical water spray pattern in the area beneath the sprinkler ■ Designed for use in light, ordinary, or extra hazard, commercial occupancies such as banks, hotels, shopping malls, factories, refineries, chemical plants, etc.

Horizontal, Recessed Horizontal Sidewall & Vertical Sidewall



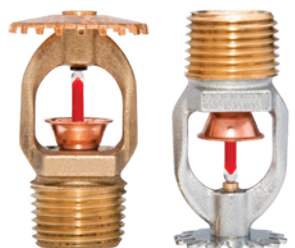
K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM, NYC, LPCB
Temperature	135°F (57°C), 155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°C), 360°F (182°C), Open (HSW TY3351)
Escutcheon	Style 10
Escutcheon Finish	Signal White, Pure White, Jet Black, Chrome Plated, Natural Brass
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White, Jet Black, Poly-Stainless, Lead Coated, Wax Coated, Wax over Lead Coated
SIN	TY3351, TY3451
Wrench Type	W-TYPE 6 / W-TYPE 7 (for recessed escutcheons)
Tech Data Sheet	TFP161

Light hazard/Ordinary hazard ■ 5 mm bulb ■ Small frame ■ Unique deflector design of the horizontal sidewall sprinkler results in smaller profile ■ Designed for installation along a wall or the side of a beam just beneath a smooth ceiling ■ Water discharge is directed primarily outward and downward in a quarter spherical pattern ■ Sidewall sprinklers are often used in lieu of standard pendent or upright sprinklers due to building construction, economic considerations, or aesthetics ■ Special deflector on the vertical sidewall sprinkler allows it to be installed in either a pendent or upright position

Standard Spray Sprinklers

TY-FRB

Upright, Pendent, & Recessed Pendent



K Factor	K=2.8 (40,3) • K=4.2 (60,5) • K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	K=2.8 – UL, C-UL, FM, NYC K=4.2 – UL, C-UL K=5.6 – UL, C-UL, FM, CE, VdS K=8.0 – UL, C-UL, FM, NYC, LPCB, VdS
Temperature	135°F (57°C), 155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°C)
Escutcheon	K=2.8, K=4.2 & K=8.0 – Style 10 • Style 20 • Style 30 • Style 40 K=5.6 – Style 15 • Style 20
Escutcheon Finish	Signal White, Pure White, Jet Black, Chrome Plated, Natural Brass
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White, Jet Black, Poly-Stainless, Lead Coated
SIN	TY313, TY323, TY1131, TY1231, TY2131, TY2231, TY3131, TY3231, TY4131, TY4231, TY4831, TY4931
Wrench Type	W-TYPE 6 / W-TYPE 7 (for recessed escutcheons)
Tech Data Sheet	K=2.8 thru K=8.0 – TFP171 , K=5.6 – TFP172

Light hazard/Ordinary hazard ■ 3 mm bulb ■ Small frame and narrow profile bulb enhance appearance ■ Hemispherical water spray pattern in the area beneath the sprinkler ■ Designed for use in commercial occupancies such as banks, hotels, and shopping malls.

Horizontal, Recessed Horizontal Sidewall & Vertical Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM, NYC, LPCB
Temperature	135°F (57°C), 155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°C)
Escutcheon	Style 10 • Style 20
Escutcheon Finish	Signal White, Pure White, Jet Black, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White, Jet Black, Poly-Stainless, Lead Coated
SIN	TY3331, TY3431
Wrench Type	W-TYPE 6 / W-TYPE 7 (for recessed escutcheons)
Tech Data Sheet	TFP176

Light hazard/Ordinary hazard ■ 3 mm bulb ■ Designed for use in applications where aesthetics must be considered or where building construction makes the installation of standard pendent or upright sprinklers impractical ■ Vertical sidewall sprinkler can be installed in either the pendent or upright position along a wall or the side of a beam and just below a smooth ceiling

Standard Spray Sprinklers

RFII & RFII-MRI

Concealed Pendent



RFII



RFII-MRI

K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	RFII 3mm= UL, C-UL, NYC, VdS RFII 5mm = UL, C-UL, FM, NYC, LPCB RFII-MRI = UL, & C-UL
Temperature	155°F/68°C - Sprinkler, 139°F/59°C - Cover Plate 200°F/93°C - Sprinkler, 165°F/74°C - Cover Plate
Cover Plate Finish	Chrome, Brushed Chrome, Brass, Signal White, Grey White, Pure White, Jet Black, Custom
SIN	RFII: SR-TY3551, QR-TY3531 RFII-MRI: SR-TY3550, QR-TY3530
Wrench Type	RFII
Tech Data Sheet	RFII: TFP181, RFII-MRI: TFP182

Light hazard/Ordinary hazard ■ 5 mm bulb (standard) 3 mm bulb (quick) ■ Internally threaded closure with 1/2" (12,7 mm) of adjustment
 ■ Concealed in an enclosed escutcheon plate with flat cover for use in those applications where aesthetics is a primary consideration
 ■ Separable, two-piece design of the mounting cup and cover plate allows installation of the sprinklers and pressure testing of the fire protection system prior to installation of a suspended ceiling or application of the finish coating to a fixed ceiling ■ Available with optional dust and air seal ■ RFII-MRI Non-Magnetic Model Concealed Pendent Sprinkler Quick & Standard Response, Standard Coverage

ILLUSION™

Concealed Standard Coverage Pendent Sprinklers



K Factor	K=11.2 (161,3)
Thread Size	3/4" NPT
Approvals	UL, C-UL
Temperature	160°F/71°C, - Sprinkler - 139°F/59°C - Cover Plate, 212°F/100°C - Sprinkler - 165°F/74°C - Cover Plate
Cover Plate Finish	Chrome, Brush Chrome, Brass, Signal White, Grey White, Pure White, Custom
SIN	TY5521
Wrench Type	W-TYPE 18
Tech Data Sheet	TFP184

Extra large orifice/Special hazard ■ Coverage per NFPA 13 ■ Available with optional dust and air seal ■ The ILLUSION is concealed in an enclosed escutcheon plate with flat cover for use in those applications where architecturally sensitive areas such as casinos, hotel lobbies, office buildings, churches and restaurants

Standard Spray Sprinklers

TY-L

Upright, Pendent, & Recessed Pendent



K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, LPCB
Temperature	165°F/74°C, 212°F/100°C, 280°F/138°C
Escutcheon	Style 20 • Style 30
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Lead Coated, Wax over Lead Coated, Wax Coated
SIN	TY3111, TY3211, TY4111, TY4211, TY4811, TY4911
Wrench Type	W-TYPE 9 / W-TYPE 10 (for recessed escutcheons)
Tech Data Sheet	TFP110

All hazard ■ Solder type ■ Discharges a hemispherical water spray pattern in the area beneath the sprinkler ■ Designed for use in light, ordinary, and extra hazard, commercial occupancies such as banks, hotels, shopping malls, factories, refineries, chemical plants, etc.

Horizontal Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM
Temperature	165°F/74°C, 212°F/100°C, 280°F/138°C
Sprinkler Finish	Natural Brass, Chrome Plated, Lead Coated, Wax Coated, Wax over Lead Coated
SIN	TY3311
Wrench Type	W-TYPE 9
Tech Data Sheet	TFP120

Light hazard / Ordinary hazard ■ Solder type ■ Suited for hotels, nursing homes and hospitals ■ Design allows piping to be confined to corridors, closets or service areas ■ They are designed for installation along a wall or the side of a beam and just beneath a smooth ceiling.

Standard Spray Sprinklers

TY-FRL

Upright, Pendent, & Recessed Pendent



K Factor	K=2.8 (40,3) • K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	2.8 =UL, C-UL, NYC 5.6 =UL, C-UL, FM, NYC, LPCB 8.0 = UL, C-UL, FM, NYC
Temperature	165°F/74°C, 212°F/100°C
Escutcheon	1/2" NPT - Style 20 3/4" NPT - Style 30
Escutcheon Finish	White Coated, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated
SIN	TY1121, TY1221, TY3121 TY3221, TY4121, TY4221
Wrench Type	W-TYPE 9 / W-TYPE 12 (for recessed escutcheons)
Tech Data Sheet	TFP130

Light hazard/Ordinary hazard - light hazard K=2.8 (40,3) ■ Solder type ■ Typically used in hotels, motels, office buildings and other commercial and industrial applications

Horizontal Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Natural Brass, Chrome Plated
SIN	TY3321
Wrench Type	W-TYPE 9
Tech Data Sheet	TFP140

Light hazard/Ordinary hazard ■ Solder type ■ Designed for compact installation along a wall or on the side of a beam just beneath a smooth ceiling ■ Generally used in lieu of pendent or upright sprinklers because of aesthetics, building construction, where piping across the ceiling is not desirable.



Extended Coverage Sprinklers

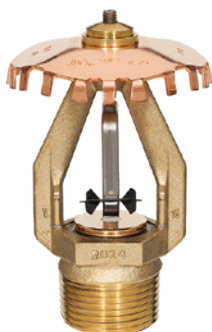
Intended for protection of areas larger than those specified in standard installation rules and specific light, ordinary and extra hazard occupancies.

- Office Buildings
- Libraries
- Hotels
- High-Piled Storage
- Hospitals
- "Big Box" Retailing

Extended Coverage Sprinklers

EC-25

Upright



K Factor	K=25.2 (362,9)
Thread Size	1" NPT or ISO 7-R1
Approvals	UL, C-UL, FM, NYC
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Natural Brass
SIN	TY9128
Wrench Type	W-TYPE 1
Tech Data Sheet	TFP213

For use in high density applications such as "big box" retailing, extra hazard, and high-piled storage occupancies ■ Solder type ■ CMDA and CMSA Applications and FM Approved for storage and non-storage applications ■ Minimum operating pressure of 7 psi (0,48 bar) ■ The maximum coverage area per sprinkler is 196 ft.² (18,2 m²), which is almost double the area offered by standard coverage sprinklers used for similar applications.

EC-11 & EC-14

Upright, Pendent & Recessed Pendent



K Factor	K=11.2 (161,3) • K=14.0 (201,6)
Thread Size	3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, Open
Escutcheon	Style 30 • Style 40 • Style 60
Escutcheon Finish	White Coated, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White, Jet Black, Lead Coated
SIN	TY5137, TY5237, TY6137, TY6237
Wrench Type	W-TYPE 3 / W-TYPE 22 (for recessed escutcheons)
Tech Data Sheet	TFP220

Light hazard/Ordinary hazard ■ 3 mm bulb ■ Designed for maximum coverage applications of 400 ft.² - 14' x 14' (37,2m² - 4,3m x 4,3m) up to 20' x 20' (6,1m x 6,1m) ■ Low profile decorative glass bulb spray sprinklers ■ Series EC-11 and EC-14 Sprinklers feature a UL and C-UL Listing that permits their use with unobstructed or non-combustible obstructed ceiling construction as defined and permitted by NFPA 13, as well as a specific application listing for use under concrete tees.

Extended Coverage Sprinklers

EC-8

Pendent & Recessed Pendent

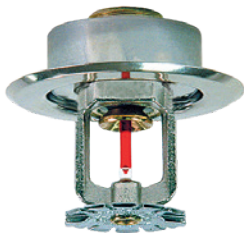


K Factor	K=8.0 (115,2)
Thread Size	3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C
Escutcheon	Style 30 • Style 40
Escutcheon Finish	Natural Brass, Signal White, Chrome Plated
Sprinkler Finish	Natural Brass, Signal White Polyester, Chrome Plated
SIN	TY4232
Wrench Type	W-TYPE 3 / W-TYPE 23 (for recessed escutcheons)
Tech Data Sheet	TFP223

Light hazard ■ 3 mm bulb ■ Covers areas as large as 20' x 20' (6,1 m x 6,1 m) ■ The recessed version of the EC-8, intended for use in areas with a finished ceiling, uses either the two-piece Recessed Escutcheon ■ The Series EC-8 Extended Coverage Pendent Sprinklers are decorative glass bulb sprinklers designed for use in light hazard occupancies.

EC-5

Pendent & Recessed Pendent



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C
Escutcheon	Style 50
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White Polyester
SIN	TY3232
Wrench Type	W-TYPE 6 / W-TYPE 7 (for recessed escutcheons)
Tech Data Sheet	TFP228

Light hazard ■ 3 mm bulb ■ Coverage up to 20' x 20' (6,1 m x 6,1 m)

Extended Coverage Sprinklers

EC-5

Horizontal Sidewall & Recessed Horizontal Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C, 200°F/93°C
Escutcheon	Style 50
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Signal White, Pure White, Natural Brass, Chrome Plated
SIN	TY3302
Wrench Type	W-TYPE 6 / W-TYPE 7 (for recessed escutcheons)
Tech Data Sheet	TFP298

Light hazard ■ 3 mm bulb ■ Coverage up to 16' x 24' (4,9 m x 7,3 m) ■ Designed for use in hydraulically calculated sprinkler systems in commercial occupancies such as churches, restaurant seating areas, hotels, educational facilities, offices, etc.

TY-FRB

Horizontal Sidewall & Recessed Horizontal Sidewall



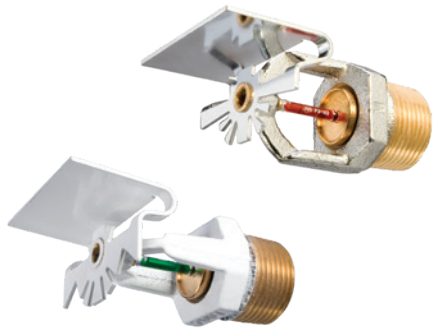
K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C
Escutcheon	Style 10 • Style 20 • Style 30 • Style 40
Escutcheon Finish	White Coated, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Pure White, Signal White, Jet Black, Chrome Plated
SIN	TY3332, TY4332
Wrench Type	W-TYPE 6 / W-TYPE 7 (for recessed escutcheons)
Tech Data Sheet	TFP296

Light hazard ■ 3 mm bulb ■ Two-piece escutcheon converts sidewall sprinklers into low profile sprinkler assemblies with coverage areas up to 16' x 22' (4,9 m x 6,7 m) for K=5.6 and 16' x 24' (4,9 m x 7,3 m) for K=8.0 ■ Provides 3/4" NPT (19,1 mm) of horizontal adjustment from the recessed sidewall position ■ Quick & Standard Response (see tech data sheet) ■ Decorative sprinklers designed for use in hydraulically calculated sprinkler systems in light hazard, commercial occupancies such as churches, restaurant seating areas, hotels, educational facilities, offices, etc.

Extended Coverage Sprinklers

ELO SW-20/SW-24

Horizontal Sidewall



K Factor	K=11.2 (161,3)
Thread Size	3/4" NPT
Approvals	UL, C-UL, NYC
Temperature	155°F/68°C, 200°F/93°C
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White
SIN	TY5332, TY5337
Wrench Type	W-TYPE 3
Tech Data Sheet	TFP230

Extended Coverage Ordinary Hazard (ECOH) ■ 3 mm bulb ■ SW-20 Listed to a 16'-0" (4,9 m) wide and a 20'-0" (6,1 m) throw maximum coverage area, SW-24 Listed to a 16'-0" (4,9 m) wide and a 24'-0" (7,3 m) throw maximum coverage area ■ Standard Response, Extended Coverage Ordinary Hazard (ECOH) Horizontal Sidewall Sprinklers are decorative glass bulb sprinklers designed for use in ordinary hazard occupancies per NFPA 13

TY-FRL

Horizontal Sidewall



K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	165°F/74°C
Sprinkler Finish	Natural Brass, Chrome Plated
SIN	TY3322, TY4322
Wrench Type	W-TYPE 9
Tech Data Sheet	TFP280

Light hazard ■ Solder type ■ Coverage up to 16 feet (4,9 m) wide by 24 feet (7,3 m) long, they are designed for installation along a wall or the side of a beam and just beneath a smooth, flat, horizontal ceiling ■ Designed for use in commercial occupancies such as churches, restaurant seating areas, hotels, educational facilities, offices, etc.

Extended Coverage Sprinklers

CHEC

Concealed Horizontal Extended Coverage Sidewall

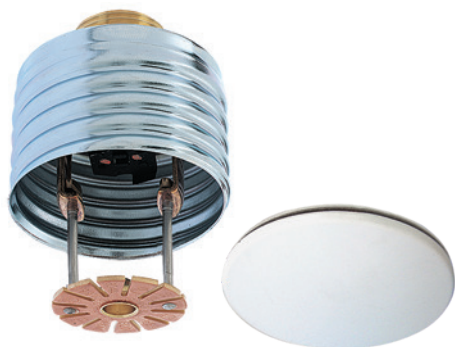


K Factor	K=8.0 (115,2)
Thread Size	3/4" NPT
Approvals	UL, C-UL, NYC
Temperature	155°F/68°C – Sprinkler, 139°F/59°C – Cover Plate
Cover Plate Finish	Signal White, Pure White, Chrome, Custom
SIN	TY4332
Wrench Type	W-TYPE 7
Tech Data Sheet	TFP265

Light hazard ■ 3 mm bulb ■ Coverage up to 16' x 16' (4,9 m x 4,9 m) ■ Lowest flows & pressures allowed by NFPA 13 ■ 1/2" adjustment ■ 12" maximum deflector distance from ceiling ■ No "Slots" in cover plate ■ It is the best choice for architecturally sensitive areas such as dormitories, hotel rooms, reception areas, office buildings, banquet facilities, conference rooms, and hospitals.

ELOC

Extra Large Orifice Concealed Pendent




K Factor	K=11.2 (161,3)
Thread Size	3/4" NPT
Approvals	UL, C-UL, NYC
Temperature	160°F/71°C – Sprinkler – 139°F/59°C – Cover Plate, 212°F/100°C – Sprinkler – 165°F/74°C – Cover Plate
Cover Plate Finish	Chrome Plated, Brass Plated, Signal White, Grey White, Custom
SIN	TY5522
Wrench Type	W-TYPE 18
Tech Data Sheet	TFP250

Light hazard ■ Extra Large Orifice Concealed (ELOC) Pendent Sprinklers are decorative, fast response solder type sprinklers featuring a flat cover plate designed to conceal the sprinkler ■ Covers 400 sq. ft. (37,2 m²) using less pressure than a standard 1/2" (12,7 mm) sprinkler at 225 sq. ft. (20,3 m²) ■ Available with optional dust and air seal ■ Concealed in an enclosed escutcheon plate with flat cover for use in those applications where aesthetics is a primary consideration.

Extended Coverage Sprinklers

RFII & RFII-MRI

Concealed Pendent

 <p>RFII</p> <p>RFII-MRI</p>	K Factor	K=5.6 (80.6)
	Thread Size	1/2" NPT
	Approvals	RFII = UL, C-UL, NYC RFII-MRI = UL, & C-UL
	Temperature	155°F/68°C - Sprinkler 139°F/59°C - Cover Plate, 200°F/93°C - Sprinkler 165°F/74°C - Cover Plate
	Cover Plate Finish	Chrome, Brass, Pure White, Signal White, Grey White, Jet Black, Custom
	SIN	RFII: TY3532 RFII-MRI: TY3537
	Wrench Type	RFII
	Tech Data Sheet	RFII: TFP260 RFII-MRI: TFP262

Light hazard ■ 3 mm bulb ■ Maximum 20' x 20' (6,1 m x 6,1 m) QR Listing ■ Internally threaded closure with 1/2" (12,7 mm) of adjustment ■ Separable, two-piece design of the mounting cup and cover allows installation of the sprinklers and pressure testing of the fire protection system prior to installation of a suspended ceiling or application of the finish coating to a fixed ceiling ■ Concealed in an enclosed escutcheon plate with flat cover for use in those applications where aesthetics is a primary consideration. ■ RFII-MRI Non-Magnetic Model Concealed Pendent Sprinkler for MRI room applications, Extended Coverage, Quick Response

RFIII

Flat Plate Concealed Horizontal Extended Coverage Sidewall

	K Factor	K=8.0 (115,2)
	Thread Size	3/4" NPT
	Approvals	UL, C-UL
	Temperature	160°F/71°C - Sprinkler 139°F/59°C - Cover Plate
	Cover Plate Finish	Ivory, Beige, Pure White, Signal White, Grey White, Brown, Black, Brushed Chrome, Brushed Brass, Custom Paint
	SIN	TY4522
	Wrench Type	W-Type 37
	Tech Data Sheet	TFP270

Light hazard ■ Decorative, link type, sprinkler featuring a unique flat cover designed to conceal the sprinkler within a wall ■ The sprinkler is the best choice for architecturally sensitive areas such as dormitories, hotel rooms, reception areas, office buildings, banquet facilities, conference rooms, and hospitals ■ The Model RFIII ECLH Concealed HSW Sprinklers are designed for installation along a wall or the side of a beam, and beneath a smooth level ceiling.



Storage Sprinklers

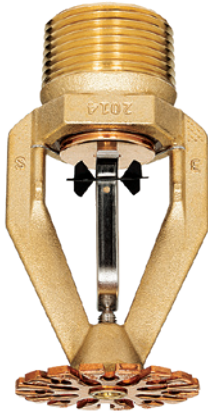
Intended for use in specific storage applications and include a broad offering of early suppression fast response (ESFR) sprinklers.

- High-Piled Storage
- Warehouse
- Box-In-Box Cold Storage
- High Challenge Occupancies
- In-Rack Storage
- Beneath Open Gridded Catwalks

Storage Sprinklers

ESFR-25

Pendent



K Factor	K=25.2 (362,9)
Thread Size	1" NPT or ISO 7-R1
Approvals	UL, C-UL, FM, NYC, LPCB, VdS, CE
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Natural Brass
SIN	TY9226
Wrench Type	W-TYPE 1
Tech Data Sheet	TFP312

Early Suppression, Fast Response (ESFR) ■ Solder type ■ The TYCO Model ESFR-25 Pendent Sprinklers are listed by UL for Specific Applications with a ceiling height greater than 45 ft. (13,7 m) up to and including 48 ft. (14,6 m), and a storage arrangement up to and including 43 ft. (13,1 m) ■ Direct attack on burning fuel by improved heavy sprinkler discharge ■ Patented frame design substantially reduces the frame shadow effects that often produce non-uniformity in spray pattern, Novel orifice seal and unique fast response link design are the very latest in sprinkler technology ■ Suppression-mode sprinklers that are especially advantageous as a means of eliminating the use of in-rack sprinklers when protecting high-piled storage.

ESFR-22

Pendent



K Factor	K=22.4 (320)
Thread Size	1" NPT or ISO 7-R1
Approvals	UL, C-UL, FM
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Natural Brass
SIN	TY8223
Wrench Type	W-TYPE 1
Tech Data Sheet	TFP321

Early Suppression, Fast Response (ESFR) ■ Solder type ■ Suppression-mode sprinklers that are especially advantageous as a means of eliminating the use of in-rack sprinklers when protecting high-piled storage ■ Direct attack on burning fuel by improved heavy sprinkler discharge ■ The TYCO Model ESFR-22 Pendent Sprinklers are listed by UL and C-UL for Specific Applications with a ceiling height of 45 ft. (13,7 m) and a storage arrangement up to and including 40 ft. (12,2 m)

Storage Sprinklers

ESFR-17

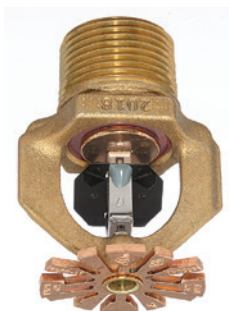
Upright



K Factor	K=16.8 (241,9)
Thread Size	3/4" NPT
Approvals	FM, CE
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Natural Brass
SIN	TY7126
Wrench Type	W-TYPE 21
Tech Data Sheet	TFP316

Early Suppression, Fast Response (ESFR) ■ Solder type ■ Unique, upright design and large K-Factor overcome many pendent obstruction problems ■ Use of this sprinkler is especially advantageous as a means of eliminating the use of in-rack sprinklers when protecting rack storage arrangements, Primarily designed for use in ceiling only sprinkler systems.

Pendent



K Factor	K=16.8 (241,9)
Thread Size	3/4" NPT
Approvals	UL, C-UL, FM
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Natural Brass
SIN	TY7223
Wrench Type	W-TYPE 35
Tech Data Sheet	TFP317

Early Suppression, Fast Response (ESFR) ■ Solder type ■ Primarily designed for use in ceiling only sprinkler systems ■ Model ESFR-17 Pendent Sprinklers are designed to operate at substantially lower-end head pressures, as compared to ESFR Sprinklers having a nominal K-factor of 14.0 ■ They are suppression mode sprinklers that are especially advantageous as a means of eliminating in-rack sprinklers when protecting high-piled storage.

Storage Sprinklers

ESFR-17

Dry-Type Pendent



K Factor	K=16.8 (241,9)
Thread Size	1-1/4" NPT or ISO 7-R 1-1/4
Grooved End	2" Standard Cut Grooved per Tech Data Sheet TFP1898
Approvals	UL, FM
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Natural Brass
SIN	TY7229
Wrench Type	W-TYPE 26
Tech Data Sheet	TFP320

Early Suppression, Fast Response (ESFR) ■ Solder type ■ Eliminates in-rack sprinklers for box-in-box applications ■ Suppression mode sprinklers that are especially advantageous as a means of eliminating in-rack sprinklers when protecting high-piled box-in-box refrigerated storage areas ■ The drop between the inlet and sprinkler remains dry until the sprinkler operates, allowing for a pendent sprinkler installation on a wet pipe sprinkler system where the dry drop and sprinkler are located in an area subjected to freezing temperatures ■ Less costly to install and maintain than pre-action or antifreeze systems ■ The Model ESFR-17 Dry Type Pendent Sprinkler is FM Approved and has successfully undergone full-scale fire testing at FM Global, when used in conformance with applicable FM Global Property Loss Prevention Data Sheets ■ The Model ESFR-17 Dry Type Sprinklers are primarily used for ceiling only sprinkler protection and used to protect solid piled, palletized, and rack storage that is subject to freezing temperatures

ESFR-14

Pendent



K Factor	K=14.0 (201,6)
Thread Size	3/4" NPT or ISO 7-1
Approvals	UL, C-UL, FM
Temperature	155°F/68°C, 200°F/93°C
Sprinkler Finish	Natural Brass
SIN	TY6236
Wrench Type	W-TYPE 34
Tech Data Sheet	TFP319

Early Suppression, Fast Response (ESFR) ■ 3mm bulb type ■ Designed for the protection of rack storage ■ Direct attack on burning fuel by improved heavy sprinkler discharge ■ They are suppression-mode sprinklers that are especially advantageous as a means of eliminating the use of in-rack sprinklers when protecting high-piled storage.

Storage Sprinklers

ULTRA K-17

Upright, Control Mode Specific Application



K Factor	K=16.8 (241,9)
Thread Size	3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	155°F/68°C, 200°F/93°C
Sprinkler Finish	Natural Brass
SIN	TY7153
Wrench Type	W-TYPE 8
Tech Data Sheet	TFP330

5 mm bulb ■ Approved for storage heights of 25' (7,6 m) and building heights to 30' (9,1 m) ■ Full-scale fire testing has shown that the Ultra K17 can control fires with commodities up to Group A plastics, and eliminate the need for in-rack sprinklers.

Upright, Control Mode Specific Application, 286° F



K Factor	K=16.8 (241,9)
Thread Size	3/4" NPT
Temperature	286°F/141°C
Sprinkler Finish	Natural Brass
Wrench Type	W-TYPE 8
Tech Data Sheet	Contact Tyco for Details

5 mm bulb ■ Control mode sprinkler

Storage Sprinklers

K17-231

Pendent & Upright



K Factor	K=16.8 (241,9)
Thread Size	3/4" NPT
Approvals	Upright= UL, C-UL, FM, NYC Pendent= UL, C-UL, NYC
Temperature	155°F/68°C, 200°F/93°C, 286°F/141°C
Sprinkler Finish	Natural Brass
SIN	TY7151, TY7251
Wrench Type	W-TYPE 8
Tech Data Sheet	TFP332

5 mm bulb ■ They are "standard response spray sprinklers" which produce a hemispherical water distribution pattern below the deflector ■ Low-pressure requirement (as low as 7 psi) can save cost by reducing branch line size, taking advantage of maximized spacing, and upgrading existing densities ■ Very large orifice sprinkler for use in high challenge storage occupancies.

ELO-231B

Pendent & Upright



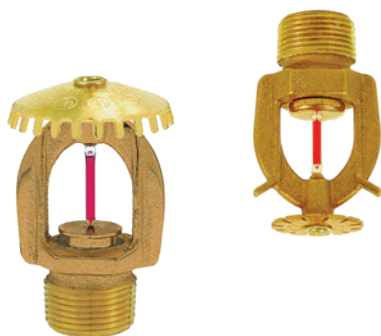
K Factor	K=11.2 (161,3)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	155°F/68°C, 200°F/93°C, 286°F/141°C
Sprinkler Finish	Brass, Chrome Plated, Lead Coated, Wax Coated, Wax over Lead Coated
SIN	TY5151, TY5251, TY5851
Wrench Type	W-TYPE 3
Tech Data Sheet	TFP342

5 mm bulb ■ Extra large orifice sprinklers proven for storage occupancies through full-scale fire testing ■ Can be used as intermediate level version by adding a guard and shield ■ Designed to control high challenge fires with relatively low required pressures

Storage Sprinklers

ELO-231 FRB

Pendent & Upright



K Factor	K=11.2 (161,3)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC, VdS, LPCB
Temperature	155°F/68°C, 200°F/93°C, 286°F/141°C
Sprinkler Finish	Natural Brass, Chrome Plated
SIN	TY5131, TY5231, TY5831
Wrench Type	W-TYPE 3
Tech Data Sheet	TFP344

3 mm bulb ■ Extra large orifice sprinklers proven for storage occupancies through full-scale fire testing ■ Can be used as intermediate level version by adding a guard and shield ■ Designed to control high challenge fires with relatively low required pressures

ELO-231

Pendent & Upright



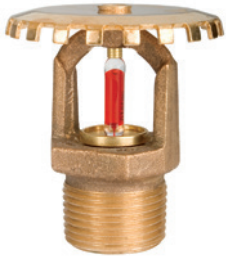
K Factor	K=11.2 (161,3)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	165°F/74°C, 212°F/100°C, 286°F/141°C
Sprinkler Finish	Natural Brass, Chrome Plated, Lead Coated, Wax Coated, Wax over Lead Coated
SIN	TY5111, TY5211, TY5811
Wrench Type	W-TYPE 3
Tech Data Sheet	TFP340

Solder type ■ Extra large orifice sprinklers proven for storage occupancies through full-scale fire testing ■ Can be used as intermediate level version by adding a guard and shield ■ Designed to control high challenge fires with relatively low required pressures

Storage Sprinklers

LD "Large Drop"

Upright, Control Mode Specific Application



K Factor	K=11.2 (161,3)
Thread Size	3/4" NPT
Approvals	UL, C-UL, NYC
Temperature	155°F/68°C, 200°F/93°C, 286°F/141°C
Sprinkler Finish	Natural Brass
SIN	TY5153
Wrench Type	W-TYPE 3
Tech Data Sheet	TFP335

5 mm bulb ■ Control mode sprinkler ■ Can provide a higher level of protection than standard spray sprinklers ■ Can provide an advantage by eliminating in-rack sprinklers ■ Designed for the protection of high-piled storage

TY-B

Pendent & Upright, Intermediate Level



K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Sprinkler Finish	Natural Brass, Lead Coated, Wax Coated, Wax over Lead Coated
SIN	TY3153, TY3251, TY4153, TY4251
Wrench Type	W-TYPE 6
Tech Data Sheet	TFP351

5 mm bulb ■ Intermediate level (in-rack) with shield ■ Used where sprinkler guards are not required ■ Factory assembled unit having an integral water shield ■ Both the Pendent and Upright Sprinklers produce a hemispherical water distribution pattern below the deflector.

Storage Sprinklers

TY-B

Pendent & Upright, Intermediate Level



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Sprinkler Finish	Natural Brass
Guard Finish	Red or Zinc
SIN	TY315, TY325
Wrench Type	W-TYPE 6
Tech Data Sheet	TFP352

5 mm bulb ■ Factory assembled unit having an integral water shield ■ Intermediate Level Sprinklers are primarily designed for use in rack storage sprinkler systems where their thermally sensitive elements must be shielded from the water spray of higher elevation sprinklers that could operate earlier during a fire ■ May also be used in other applications such as beneath open gridded catwalks.

TY-FRB

Pendent & Upright, Intermediate Level



K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Sprinkler Finish	Natural Brass, Lead Coated
SIN	TY3133, TY3231, TY4133, TY4231
Wrench Type	W-TYPE 6
Tech Data Sheet	TFP356

3 mm bulb ■ Intermediate level with shield ■ Factory assembled unit having an integral water shield ■ Used where sprinkler guards are not required

Storage Sprinklers

TY-FRB

Pendent & Upright, Intermediate Level



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
Sprinkler Finish	Natural Brass
Guard Finish	Red or Zinc
SIN	TY313, TY323
Wrench Type	W-TYPE 6
Tech Data Sheet	TFP357

3 mm bulb ■ Factory assembled unit having an integral water shield ■ Intermediate Level Sprinklers are primarily designed for use in rack storage sprinkler systems where their thermally sensitive elements must be shielded from the water spray of higher elevation sprinklers that could operate earlier during a fire ■ May also used in other applications such as beneath open gridded catwalks

TY-L

Pendent & Upright, Intermediate Level



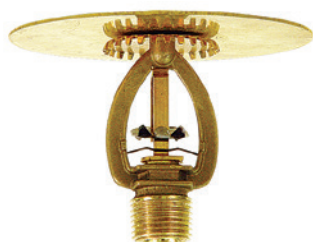
K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM
Temperature	165°F/74°C, 212°F/100°C, 280°F/138°C
Sprinkler Finish	Natural Brass
SIN	TY3113, TY3211, TY4113, TY4211
Wrench Type	W-TYPE 9
Tech Data Sheet	TFP350

Solder type ■ Intermediate level with shield ■ Factory assembled unit having an integral water shield ■ Used where sprinkler guards are not required

Storage Sprinklers

TY-FRL

Pendent & Upright, Intermediate Level



K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, NYC
Temperature	165°F/74°C
Sprinkler Finish	Natural Brass, Chrome Plated
SIN	TY3123, TY3221, TY4123, TY4221
Wrench Type	W-TYPE 9
Tech Data Sheet	TFP355

Solder type ■ Intermediate level with shield ■ Factory assembled unit having an integral water shield ■ Used where sprinkler guards are not required

Sprinkler Guards

Model G1 & G4 Sprinkler Guards Model G1/S1 & G4/S3 Guards with Shields



G1

Approvals	UL, C-UL, FM
Guard Finishes	Plain Brass, Red Painted, Chrome Plated, Zinc Coated, Zinc Chromate
Tech Data Sheet	TFP780

Designed for use with specific types of Series TY-B, TY-FRB, TY-L, and TY-FRL Sprinklers that may be located in areas that make them susceptible to mechanical or physical damage ■ Rugged guard design to minimize possible damage to sprinklers ■ Shields are for use in storage racks or beneath grated mezzanine, or other areas requiring the sprinklers to be shielded from possible discharge from sprinklers above ■ Can be used with either 1/2" or 3/4" NPT sprinklers



S1



G4/S3 with Shield



G4



G4

Storage Sprinklers

Sprinkler Guards

Model G2 Sprinkler Guard, Model WS-2 Shield, and Model WSG-2 Sprinkler Guard with Shield



WSG-2 with Shield

Approvals	UL, C-UL, FM
Guard Finishes	Red Painted, Zinc Coated
Tech Data Sheet	TFP782

Designed for use with Series ELO-231, ELO-231B, or ELO-231FRB Sprinklers that may be located in areas that make them susceptible to mechanical or physical damage ■ Rugged guard design to minimize possible damage to sprinklers ■ Shields are for use in storage racks or beneath grated mezzanine, or other areas requiring the sprinklers to be shielded from possible discharge from sprinklers above ■ Can be used with either 1/2" or 3/4" NPT sprinklers



G2



WS-2 Shield

Model EG-25 Sprinkler Guard for Model ESFR-25 Pendent Sprinkler



Approvals	FM
Guard Finishes	Red Painted, Zinc Chromate
Tech Data Sheet	TFP784

Designed for use with the TYCO Model ESFR-25 Pendent Sprinkler and may be located in areas that make it susceptible to mechanical or physical damage ■ Provides protection from mechanical and/or physical damage, for example, rack storage sprinkler installations ■ Welded assembly fabricated from carbon steel



RAPID RESPONSE® Residential Sprinkler Systems

Offer optimum design and flow characteristics for all residential applications.

- Townhomes
- Assisted Living
- Multi-family
- Student Housing
- Single-family
- Beam and sloped ceilings
- Hotel / motel

Custom paint options available

We offer custom paint cover plates for sprinklers with this icon.
Learn more at www.tyco-fire.com/custompaint.



Rapid Response® Sprinklers

LFII

Pendent & Recessed Pendent



K Factor	K=4.9 (70,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NSF/ANSI 61
Temperature	155°F/68°C, 175°F/79°C
Escutcheon	Style 20
Sprinkler Finish	Pure White, Signal White, Chrome Plated, Natural Brass
SIN	TY2234
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP400

3 mm bulb type ■ Approved for special applications with beamed ceilings

Intended for use in wet & dry pipe scenarios:

- residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- residential occupancies up to and including four stories in height per NFPA 13R
- sprinkler systems for the residential portions of any occupancy per NFPA 13

Pendent & Recessed Pendent



K Factor	K=5.8 (83,5)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NSF/ANSI 61
Temperature	155°F/68°C, 175°F/79°C
Escutcheon	Style 20
Sprinkler Finish	Signal White, Chrome Plated, Natural Brass, Jet Black
SIN	TY3934
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP401

3 mm bulb type

Intended for use in these wet pipe scenarios:

- residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- residential occupancies up to and including four stories in height per NFPA 13R
- sprinkler systems for the residential portions of any occupancy per NFPA 13

Rapid Response® Sprinklers

LFII

Pendent & Recessed Pendent



K Factor	K=3.0 (43,2)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NSF/ANSI 61
Temperature	155°F/68°C, 175°F/79°C
Escutcheon	Style 20
Sprinkler Finish	Signal White, Chrome Plated, Natural Brass
SIN	TY1234
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP402

3 mm bulb type ■ Decorative, fast response, frangible bulb sprinklers designed for use in residential occupancies such as homes, apartments, dormitories, and hotels.

Intended for use in these wet pipe scenarios:

- residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- residential occupancies up to and including four stories in height per NFPA 13R
- sprinkler systems for the residential portions of any occupancy per NFPA 13

Horizontal & Recessed Horizontal Sidewall



K Factor	K=4.4 (63,4)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NSF/ANSI 61
Temperature	155°F/68°C, 175°F/79°C
Escutcheon	Style 20
Sprinkler Finish	Signal White, Chrome Plated, Natural Brass
SIN	TY2334
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP412

3 mm bulb type

Intended for use in these wet pipe scenarios:

- residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- residential occupancies up to and including four stories in height per NFPA 13R
- sprinkler systems for the residential portions of any occupancy per NFPA 13

Rapid Response® Sprinklers

LFII

Horizontal & Recessed Horizontal Sidewall



K Factor	K=4.2 (60,5)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NYC, NSF/ANSI 61
Temperature	155°F/68°C, 175°F/79°C
Escutcheon	Style 20
Sprinkler Finish	Pure White, Signal White, Chrome Plated, Natural Brass
SIN	TY1334
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP410

3 mm bulb type ■ Approved for special applications with beamed ceilings

Intended for use in the following scenarios:

- wet and dry pipe residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- wet and dry pipe residential occupancies up to and including four stories in height per NFPA 13R
- wet and dry pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

Flat Plate Concealed Pendent



K Factor	K=4.9 (70,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NYC, NSF/ANSI 61
Temperature	160°F/71°C - Sprinkler, 139°F/59°C - Cover Plate 212°F/100°C - Sprinkler, 165°F/74°C - Cover Plate
Cover Plate Finish	Ivory, Bright Chrome, Beige, Pure White, Signal White, Grey White, Brown, Black, Brushed Brass, Brushed Chrome, Custom Paint
SIN	TY3596
Wrench Type	W-TYPE 18
Tech Data Sheet	TFP442

Solder type ■ Provides 1/2" inch (12,7 mm) vertical adjustment. This adjustment provides flexibility when cutting fixed sprinkler drops ■ Cover plate conceals sprinkler components above the ceiling

Intended for use in the following scenarios:

- wet and dry pipe residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- wet and dry pipe residential occupancies up to and including four stories in height per NFPA 13R
- wet and dry pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

Rapid Response® Sprinklers

LFII

Domed Plate Concealed Pendent



K Factor	K=4.9 (70,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NYC
Temperature	155°F/68°C – Sprinkler, 139°F/59°C – Cover Plate
Cover Plate Finish	Pure White, Signal White, Chrome, Custom
SIN	TY2234
Wrench Type	W-TYPE 7
Tech Data Sheet	TFP450

3 mm bulb type ■ Can be used for horizontal and sloped ceilings ■ Cover plate conceals sprinkler components above the ceiling

Intended for use in the following scenarios:

- wet and dry pipe residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- wet and dry pipe residential occupancies up to and including four stories in height per NFPA 13R
- wet and dry pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

LFII

Cover Plate & Protective Cap Utility Tool for Concealed Sprinklers



Used with the following Sprinklers	TY2524, TY3531, TY3532, TY3551, TY3596
Tech Data Sheet	Tyco for details

Install and remove cover plates for LFII, RFII, and RFIII concealed sprinklers ■ Also used for removing protective caps before cover plate installation

Rapid Response® Sprinklers

LFII

Dry Type Recessed Pendent



K Factor	K=4.9 (70,6)
Thread Size	1" NPT or ISO 7-R1
Approvals	UL, NSF/ANSI 61
Temperature	155°F/68°C, 175°F/79°C (wet pipe only)
Escutcheon Finish	Signal White, Chrome Plated, Natural Brass
Sprinkler Finish	Signal White, Chrome Plated, Natural Brass
SIN	TY2235
Wrench Type	W-TYPE 7
Tech Data Sheet	TFP460

3 mm bulb type ■ Where sprinklers are required on dry pipe systems that are exposed to freezing temperatures, or where sprinklers are seasonally drained to avoid freezing ■ Offer the features of non-water filled pipe in addition to not having to increase the number of design sprinklers (hydraulic design area) for systems designed to NFPA 13, 13D, or 13R

Intended for use in the following residential sprinkler systems scenarios:

- one/two-family dwellings and mobile homes per NFPA 13D
- residential occupancies up to and including four stories in height per NFPA 13R
- the residential portions of any occupancy per NFPA 13

Dry Type Recessed Horizontal Sidewall



K Factor	K=4.4 (63,4)
Thread Size	1" NPT or ISO 7-R1
Approvals	UL, NSF/ANSI 61
Temperature	155°F/68°C
Escutcheon Finish	Signal White, Chrome Plated, Natural Brass
Sprinkler Finish	Signal White, Chrome Plated, Natural Brass
SIN	TY2335
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP461

3 mm bulb type ■ The Series LFII Dry Type Residential Horizontal Sidewall Sprinklers are typically used where sprinklers and/ or a portion of the connecting piping are exposed to freezing temperatures ■ Offer the features of non-water filled pipe in addition to not having to increase the number of design sprinklers (hydraulic design area) for systems designed to NFPA 13, 13D, or 13R

Intended for use in the following residential sprinkler systems scenarios:

- one/two-family dwellings and mobile homes per NFPA 13D
- residential occupancies up to and including four stories in height per NFPA 13R
- the residential portions of any occupancy per NFPA 13

Rapid Response® Sprinklers

LFII • NFPA 13 Optimized Sprinklers

The large orifice 6.9 K, 5.8 K and 5.6 K sprinklers are primarily intended for residential use where there is a 0.1 gpm/sq. ft. density NFPA 13 design requirement, and are generally used for installations in excess of four stories. They are optimized for residential applications where this higher water-flow demand is required, and can meet those requirements with less pressure and smaller pipe sizes.

Pendent, Recessed Pendent & Domed Concealed

	K Factor	K=6.9 (99,4)
	Thread Size	3/4" NPT
	Approvals	UL, C-UL, FM, NYC, NSF/ANSI 61
	Temperature	155°F/68°C, 175°F/79°C, 139°F/59°C – Cover Plate
	Escutcheon	Style 30
	Escutcheon & Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White
	Cover Plate Finish	Pure White, Signal White, Chrome, Custom
	SIN	TY4234
	Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
	Tech Data Sheet	TFP408

3 mm bulb type

Intended for use in the following scenarios:

- wet pipe residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- wet pipe residential occupancies up to and including four stories in height per NFPA 13R
- wet pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

Horizontal & Recessed Horizontal Sidewall Sprinklers

	K Factor	K=5.8 (83,5)
	Thread Size	1/2" NPT
	Approvals	UL, C-UL, FM, NSF/ANSI 61
	Temperature	155°F/68°C, 175°F/79°C
	Escutcheon	Style 20
	Sprinkler Finish	Signal White, Chrome Plated, Natural Brass
	SIN	TY4334
	Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
	Tech Data Sheet	TFP417

3 mm bulb type ■ Can be used for horizontal and sloped ceilings

Intended for use in the following scenarios:

- wet pipe residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- wet pipe residential occupancies up to and including four stories in height per NFPA 13R
- wet pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

Rapid Response® Sprinklers

LFII • NFPA 13 Optimized Sprinklers

The large orifice 6.9 K, 5.8 K and 5.6 K sprinklers are primarily intended for residential use where there is a 0.1 gpm/sq. ft. density NFPA 13 design requirement, and are generally used for installations in excess of four stories. They are optimized for residential applications where this higher water-flow demand is required, and can meet those requirements with less pressure and smaller pipe sizes.

Horizontal & Recessed Horizontal Sidewall Sprinklers



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NSF/ANSI 61
Temperature	155°F/68°C, 175°F/79°C
Escutcheon	Style 20
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White
SIN	TY3334
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP415

3 mm bulb type ■ Can be used for horizontal and sloped ceilings

Intended for use in the following scenarios:

- wet pipe residential sprinkler systems for one/two-family dwellings and mobile homes per NFPA 13D
- wet pipe residential occupancies up to and including four stories in height per NFPA 13R
- wet pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

RCP-1

Residential Control Panel



Size Range	1" or 1½" (DN25 or DN40)
Approvals	UL Listed
Maximum Water Pressure	300 psi (20,7 bar)
Air Pressure	10 psi (0,7 bar) to 65 psi (4,5 bar)
System	For use in residential dry pipe fire protection systems
Tech Data Sheet	TFP480

Model RCP-1 Residential Control Panel is an integrated valve manifold, air pressure, and electronic control package for controlling the release of water into residential dry pipe sprinkler systems ■ Pre-wired assembly containing pre-programmed control panel, system performance gauges, and an enclosed compressor ■ Supervised system valve system ■ Pre-engineered riser design ■ 48-hour battery backup



Dry Sprinklers

Specifically designed for areas where sprinklers may be subjected to freezing conditions.

- Unheated Warehouses
- Covered Exterior Platforms
- Loading Docks

Dry Sprinklers

DS-1

Pendent, Upright & Horizontal Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	Upright=UL, C-UL, FM, NYC, CE Pendent & HSW= UL, C-UL, CE, FM, NYC, LPCB, VdS
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White
SIN	TY3255, TY3155, TY3355
Wrench Type	W-Type 7
Tech Data Sheet	TFP500

Standard coverage ■ All hazards (light hazards, horizontal sidewall) ■ 5 mm bulb ■ Lengths up to 48" (1220 mm) ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the assembly until the sprinkler operates ■ Designed for use in applications requiring dry sprinklers, or where building construction or aesthetic considerations make the installation of dry horizontal sidewall sprinklers more desirable than the dry pendent type

Pendent, Upright & Horizontal Sidewall



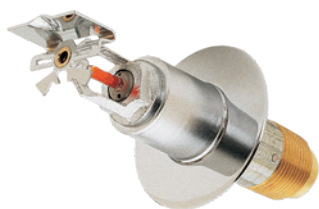
K Factor	K=5.6 (80,6)
Thread Size	3/4" or 1" NPT (Std. Order) ISO 7-R1
Approvals	3/4"= UL, C-UL 1"= UL, C-UL, FM, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White
SIN	TY3235, TY3135, TY3335 TY3935, TY3735
Wrench Type	W-Type 7
Tech Data Sheet	TFP510

Light hazard/Ordinary hazard ■ 3 mm bulb ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the assembly until the sprinkler operates ■ Designed for use in applications requiring dry sprinklers, or where building construction or aesthetic considerations make the installation of dry horizontal sidewall sprinklers more desirable than the dry pendent type

Dry Sprinklers

DS-1

Extended Coverage Horizontal Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL, NYC
Temperature	135°F/57°C, 155°F/68°C
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White
SIN	TY3338, TY3358
Wrench Type	W-Type 7
Tech Data Sheet	TFP520

EC light hazard ■ 3mm and 5mm Glass Bulb ■ Lengths up to 48" (1220 mm) ■ Designed for use in light hazard occupancy applications requiring a dry sprinkler to cover areas up to: 16' x 20' (4,9 m x 6,1 m) or 18' x 16' (5,5 m x 4,9 m) ■ Special assembly provides a seal at the main pipe to prevent water from entering the assembly until the sprinkler operates

DS-1 Stainless Steel

Pendent



K Factor	K=5.6 (80,6)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL, LPCB, CE
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Escutcheon Finish	Stainless Steel
Sprinkler Finish	Stainless Steel
SIN	TY3230, TY3250
Wrench Type	W-Type 7
Tech Data Sheet	TFP560

3mm and 5mm Glass Bulb ■ Quick and Standard Response ■ The stainless-steel construction of these sprinklers extends the life of a sprinkler beyond that of traditional copper alloy sprinklers exposed to corrosive atmospheres ■ Wet-pipe, dry-pipe, or preaction installations ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the assembly until the sprinkler operates.

Dry Sprinklers

DS-1 Stainless Steel

Horizontal Sidewall, and Extended Coverage Horizontal Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Escutcheon Finish	Stainless Steel
Sprinkler Finish	Stainless Steel
SIN	TY3337, TY3357, TY3339
Wrench Type	W-Type 7
Tech Data Sheet	TFP560

3mm and 5mm Glass Bulb ■ Quick and Standard Response ■ The stainless-steel construction of these sprinklers extends the life of a sprinkler beyond that of traditional copper alloy sprinklers exposed to corrosive atmospheres ■ Wet-pipe, dry-pipe, or preaction installations ■ Extended coverages protecting areas up to 16' x 20''(4,9 x 6,1m) ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the assembly until the sprinkler operates.

DS-2

Pendent



K Factor	K=11.2 (161,3)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White
SIN	TY5255, TY5235
Wrench Type	W-Type 17
Tech Data Sheet	TFP530

Standard coverage ■ All hazard (standard response) ■ Light hazard/Ordinary hazard (quick response) ■ 3 mm and 5 mm bulb ■ Extra large orifice ■ Lengths to 48" (1220 mm) ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the sprinkler assembly until the sprinkler operates

Dry Sprinklers

DS-2

Extended Coverage Pendant



K Factor	K=11.2 (161,3)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White
SIN	TY5238
Wrench Type	W-Type 17
Tech Data Sheet	TFP540

EC light hazard & ordinary hazard ■ 3 mm bulb ■ Extra large orifice ■ Lengths to 48" (1220 mm) ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the assembly until the sprinkler operates

DS-C

Concealed Pendant



K Factor	K=5.6 (80,6)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL, NYC
Temperature	155°F/68°C – Sprinkler, 139°F/59°C – Cover Plate, 200°F/93°C – Sprinkler, 165°F/74°C – Cover Plate
Cover Plate Finish	Grey White, Brass, Pure White, Signal White, Jet Black, Chrome, Custom
SIN	TY3535, TY3555
Wrench Type	RFII
Tech Data Sheet	TFP515

Standard coverage ■ All hazard (standard response) ■ Light hazard/ordinary hazard (quick response) ■ 3 mm and 5 mm bulb ■ Lengths to 48" (1220 mm) ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the sprinkler assembly until the sprinkler operates.

Dry Sprinklers

DS-ECC

Extended Coverage Concealed Pendent



K Factor	K=5.6 (80,6)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL, NYC
Temperature	155°F/68°C - Sprinkler, 139°F/59°C - Cover Plate, 200°F/93°C - Sprinkler, 165°F/74°C - Cover Plate
Cover Plate Finish	Grey White, Brass, Pure White, Signal White, Jet Black, Chrome, Custom
SIN	TY3539
Wrench Type	RFII
Tech Data Sheet	TFP518

EC light hazard/EC ordinary hazard ■ 3 mm bulb ■ Lengths to 48" (1220 mm) ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Special assembly provides a seal at the main pipe to prevent water from entering the sprinkler assembly until the sprinkler operates

DS-3

Extended Coverage Horizontal Sidewall




K Factor	K=11.2 (161,3)
Thread Size	1" NPT (Standard Order) ISO 7-R1
Approvals	UL, C-UL, NYC
Temperature	155°F/68°C, 200°F/93°C
Escutcheon Finish	Signal White, Chrome Plated, Brass Plated
Sprinkler Finish	Natural Brass, Chrome Plated, Signal White
SIN	TY5339
Wrench Type	W-Type 8
Tech Data Sheet	TFP550

EC ordinary hazard ■ 3 mm bulb ■ Lengths to 48" (1220 mm) ■ Designed for use in applications where sprinklers and/or connecting piping may be exposed to freezing conditions, or the sprinkler system is seasonally drained ■ Ideal for Exterior Loading Docks and Covered Areas and can eliminate the need for dry or anti-freeze systems.

Dry Sprinklers

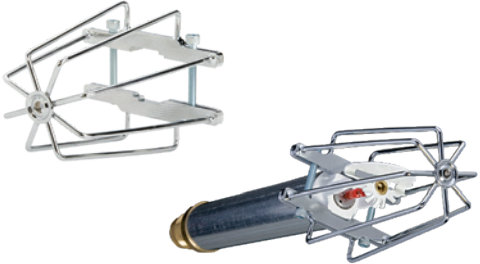
DSB-2

Dry Sprinkler Boot (For Use With TFP Dry Type Sprinklers)

	Includes	1 Boot, 2 Strap Ties, and 1/3 oz. of Adhesive (quantity of adhesive is sufficient for installing 1 Boot)
	Tech Data Sheet	TFP591
<p>Helps to close the air gap created by the clearance hole through a wall or ceiling through which the dry type sprinkler has penetrated</p> <p>■ Helps to stop the air exchange between the inside and outside of the freezer (or any other type of similar construction) to help prevent transfer of moist air into the freezer space</p>		

G5

DS-1 Dry Sprinkler Guards

	Approvals	UL
	Finish	Zinc Chromate
	Tech Data Sheet	TFP783
<p>The TYCO Model G5 Sprinkler Guards are designed to be used in areas that make the sprinklers susceptible to mechanical or physical damage ■ For use with Series DS-1 Dry Sprinklers standard, deep and no escutcheons</p>		



Special Application Sprinklers

Intended for specific applications such as combustible concealed spaces and areas subject to corrosion.

- Attic Spaces
- Corrosive Environments
- High Security Institutions
- Window Protection

Special Application Sprinklers

Attic

BB (Back-to-Back), SD (Single Directional), HIP, & AP (Attic Plus)



Back-To-Back



Hip



Single Directional

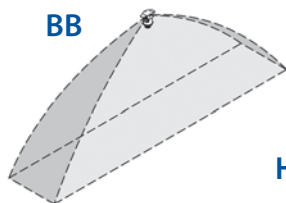
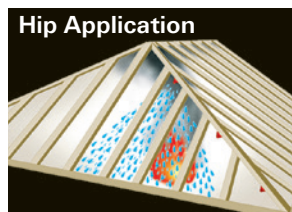
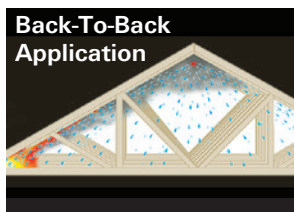


Attic Plus (AP)

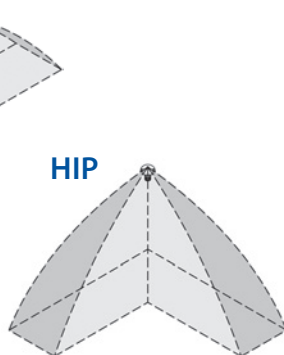
K Factor	K=4.2 (60,5), K=5.6 (80,6), K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL
Temperature	200°F/93°C for BB (K4.2 and K8.0), HIP, AP 212°F/100°C for BB (K5.6), SD
Sprinkler Finish	Natural Brass
SIN	TY4180, TY4181, TY4182 TY3180, TY3181, TY3182 TY2180, TY2181, TY2182 TY3183, TY3184, TY3185 TY3187, TY3190, TY2190
Wrench Type	W-TYPE 3, W-TYPE 6, W-TYPE 20
Tech Data Sheet	TFP610

"Specific Application Sprinklers for Protecting Attics" ■ 3 mm bulb or solder type
 ■ Wet or dry pipe systems ■ Provides a tested method of protecting an attic ■
 Provides a specific cost advantage by reducing the amount of piping required ■
 Cover attics to 60'-0" wide with a single line of piping, eliminating the need for as
 many as five branch lines ■ Saves up to 80% of the piping that would be required
 with standard sprinklers while providing a higher level of protection.

Spray Patterns



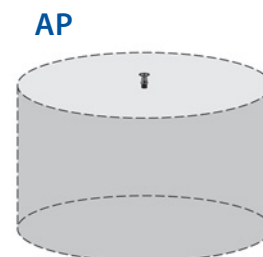
BB



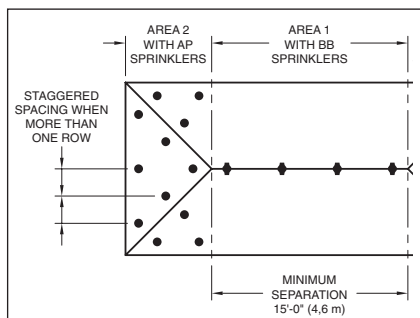
HIP



SD



AP



Special Application Sprinklers

RAVEN Studio Sprinkler

Pendent & Horizontal Sidewall Sprinklers



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL
Temperature	165°F/74°C
Sprinkler Finish	White, Grey, Custom
Escutcheon Finish	White, Grey, Chrome/Electropolish, Custom, Primed White or Grey (for paint-in-place)
SIN	Standard Coverage: TY1281 – Pendent, TY1381 – HSW Extended Coverage: TY1282 – Pendent, TY1382 – HSW
Wrench Type	W-Type 25
Tech Data Sheet	TFP658

TYCO RAVEN Studio Sprinklers 5.6K Pendent and Horizontal Sidewall (HSW) Quick Response, Standard Coverage for Light and Ordinary Hazard applications and Extended Coverage for Light Hazard applications only, are intended for use in areas as designed per NFPA 13 ■ The flush design is made aesthetically appealing by concealing the deflector and other operating parts behind the link assembly. ■ Additionally, RAVEN Studio is the only sprinkler UL Listed with a paint-in-place escutcheon. Both the sprinkler and escutcheon are also available in a range of factory-painted custom colors.

RAVEN

Institutional Pendent & Horizontal Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL
Temperature	165°F/74°C
Escutcheon Material	Carbon Steel, or Stainless Steel
Escutcheon Finish	Grey, Chrome, White, or Electropolished (SS only)
Sprinkler Finish	Grey or White
SIN	TY3281, TY3282, TY3381, TY3382
Wrench Type	W-Type 25
Tech Data Sheet	TFP651

Quick Response ■ Standard and Extended Coverage ■ Designed for use in areas such as correctional, detention, and mental health care facilities as well as other commercial buildings ■ Both the pendent and horizontal sidewall styles are available for standard or extended coverage applications ■ Tamper-resistant features ■ 175 psi (12,1 bar).

Special Application Sprinklers

TFP PH2

Institutional Pendent Sprinklers

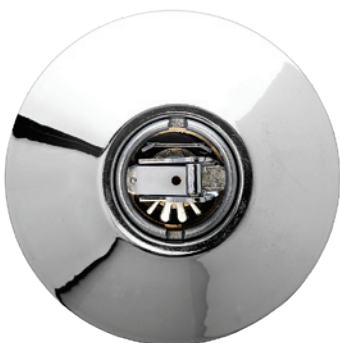


K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NYC
Temperature	165°F/74°C, 212°F/100°C
Sprinkler Finish	Chrome Plated
Escutcheon Finish	Chrome Plated
SIN	TY3290
Wrench Type	Model 1509-3
Tech Data Sheet	TFP650

The Tyco Model TFP PH2, 5.6 K-factor, Institutional Pendent Sprinklers are standard response standard coverage, fusible solder type spray sprinklers designed for use in areas such as correctional, detention, and mental health care facilities. ■ The unique features of the Model TFP PH2 provide a tamper resistant sprinkler design that helps eliminate the opportunity for individuals to injure themselves or others with the components of a fire sprinkler. ■ At the same time, the Model TFP PH2 optimizes an aesthetically appealing flush design that conceals most of the operating parts.

TFP PH5

Institutional Horizontal Sidewall Sprinklers



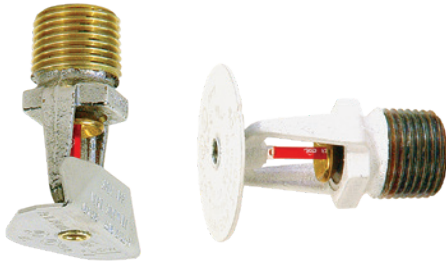
K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, NYC
Temperature	165°F/74°C
Sprinkler Finish	Chrome Plated
Escutcheon Finish	Chrome Plated
SIN	TY3390
Wrench Type	Model 1509-3
Tech Data Sheet	TFP650

The Tyco Model TFP PH5, 5.6 K-factor, Institutional Horizontal Sidewall Sprinklers are standard-response, standard-coverage spray sprinklers designed for use in areas such as correctional, detention, and mental health care facilities. ■ The unique features of the Model TFP PH5 provide a tamper-resistant sprinkler design that helps eliminate the opportunity for individuals to injure themselves or others with components of a fire sprinkler. ■ The Model TFP PH5 optimizes an aesthetically appealing flush design that conceals most of the operating parts.

Special Application Sprinklers

WS™

Window Sprinklers, Horizontal & Pendent Vertical Sidewall



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, ULC, NYC, ICC
Temperature	155°F/68°C, 200°F/93°C
Sprinkler Finish	Signal White Polyester, Chrome Plated, Natural Brass, Jet Black
SIN	TY3388, TY3488
Wrench Type	W-Type 20
Tech Data Sheet	TFP620

3 mm bulb ■ Only UL tested sprinklers that can protect glazing in a wall or window and allow it to maintain its mechanical equivalent rating up to two hours ■ First sprinklers to be UL/C-UL Listed, ICC-ES, and ULC Listed & Approved for maintaining a rated assembly ■ Pendent allows installation farther away from the glass than the sidewall ■ Sidewall permits the window mullion to act as a baffle, allowing the sprinklers to be spaced closely together, if necessary ■ Provides the only UL tested option when seeking wall fire ratings when using heat strengthened, tempered, or ceramic glass.

CC1

Combustible Concealed Space Sprinklers™, Upright



K Factor	K=2.8 (40,3)
Thread Size	1/2" NPT
Approvals	UL
Temperature	175°F/79°C
Sprinkler Finish	Natural Brass
SIN	TY1189
Wrench Type	W-Type 20
Tech Data Sheet	TFP630

3 mm bulb ■ Sprinklers are fast response, specific application sprinklers designed to provide protection of light hazard combustible, as well as non-combustible, concealed spaces ■ Meets NFPA® Requirements for Specialty Listed Sprinklers in Combustible Concealed Spaces ■ Allows the use of BlazeMaster® CPVC pipe with the benefit of superior sprinkler protection for Wood truss spaces.

Special Application Sprinklers

CC2

Combustible Concealed Space Sprinklers™, Upright



K Factor	K=4.2 (60,5), K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL
Temperature	175°F/79°C
Sprinkler Finish	Natural Brass
SIN	TY2189, TY3189
Wrench Type	W-Type 6
Tech Data Sheet	TFP632

3 mm bulb ■ Specific application sprinklers ■ Provides protection of specific light hazard combustible, as well as non-combustible, concealed spaces requiring sprinkler protection ■ The CC2 Sprinklers comply with the criterion for the protection of combustible concealed spaces as described in NFPA 13 ■ Allows the use of BlazeMaster® CPVC pipe in combustible concealed areas with the benefit of superior sprinkler protection for Wood truss spaces ■ Can be used on steel dry pipe sprinkler systems ■ Increased spacing from 10 ft. (3,1 m) to 12 ft. (3,7 m) ■ Increased coverage area from 100 ft² (9,3 m²) to 144 ft² (13,4 m²)

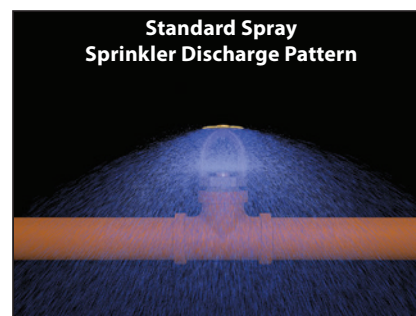
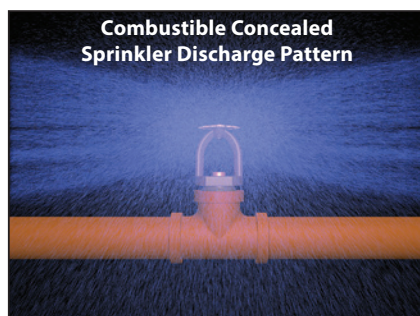
CC3

Combustible Concealed Space Sprinklers™, Upright



K Factor	K=4.2 (60,5), K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL
Temperature	200°F/93°C
Sprinkler Finish	Natural Brass
SIN	TY2199 - 4.2K, TY3199 - 5.6K
Wrench Type	W-Type 6
Tech Data Sheet	TFP633

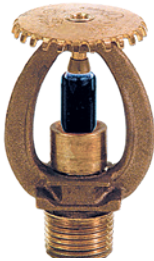
3 mm bulb ■ The CC3 Combustible Concealed Sprinklers are quick response, upright, specific application sprinklers designed to provide protection of specific light hazard combustible, as well as non-combustible, concealed spaces requiring protection ■ The Model CC3 Sprinklers comply with the criteria for the protection of combustible concealed spaces as described in NFPA 13 ■ The Model CC3 are designed for installation on BlazeMaster CPVC wet pipe systems and steel wet pipe or dry pipe sprinkler systems.



Special Application Sprinklers

Issue D Quartzoid®

High Temperature, Upright & Pendent



K Factor	K=5.6 (80,6), K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, FM, LPCB
Temperature	400°F/204°C, 500°F/260°C, 650°F/343°C (K=5.6 only)
Sprinkler Finish	Natural Brass, Chrome Plated, Lead Coated
SIN	TY3191, TY3296, TY4191, TY4292
Wrench Type	W-Type 11
Tech Data Sheet	TFP690

Standard coverage ■ All hazard ■ 11 mm bulb ■ Extra-high and ultra-high temperature ratings and corrosion resistant coatings ■ Temperature Ratings to 650°F (343°C) available.

TY-B

Conventional (Old Style)



K Factor	K=5.6 (80,6) , K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, LPCB, VdS, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C, Open (TY4651)
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White, Wax Coated, Lead Coated, Wax Over Lead Coated
SIN	TY3651, TY4651
Wrench Type	W-Type 6
Tech Data Sheet	TFP661

Ordinary and Extra High Hazard ■ 5 mm bulb ■ These sprinklers are intended to be installed either pendent or upright, and in either position, they produce a spherical water discharge pattern with approximately 50% of the discharge directed upwards and approximately 50% of the discharge directed downwards. ■ The NFPA permits the use of "Old Style Sprinklers" where special construction features require a unique water distribution.

Special Application Sprinklers

TY-B

Conventional (Old Style)



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, VdS, LPCB (TY3650 Only)
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White
SIN	TY365, TY3650
Wrench Type	W-Type 6
Tech Data Sheet	TFP662

Ordinary and Extra High Hazard ■ 5 mm bulb ■ These sprinklers are intended to be installed either pendent or upright, and in either position, they produce a spherical water discharge pattern with approximately 50% of the discharge directed upwards and approximately 50% of the discharge directed downwards.

TY-FRB

Conventional (Old Style)



K Factor	K=5.6 (80,6) , K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, LPCB, VdS, NYC
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White, Jet Black
SIN	TY3631, TY4631
Wrench Type	W-Type 6
Tech Data Sheet	TFP666

Ordinary and Extra High Hazard ■ 3 mm bulb ■ These sprinklers are intended to be installed either pendent or upright, and in either position, they produce a spherical water discharge pattern with approximately 50% of the discharge directed upwards and approximately 50% of the discharge directed downwards.

Special Application Sprinklers

TY-FRB

Conventional (Old Style)



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, VdS, LPCB (TY3630 Only)
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
Sprinkler Finish	Natural Brass, Chrome Plated, Pure White, Signal White
SIN	TY363, TY3630
Wrench Type	W-Type 6
Tech Data Sheet	TFP667

Ordinary and Extra High Hazard ■ The TYCO Series TY-FRB, Conventional Sprinklers, are quick response, standard coverage, decorative 3 mm glass bulb type spray sprinklers ■ These sprinklers are intended to be installed either pendent or upright, and in either position, they produce a spherical water discharge pattern with approximately 50% of the discharge directed upwards and approximately 50% of the discharge directed downwards.

FTR-1

Fixed Temperature Release



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C
Sprinkler Finish	Natural Brass, White Polyester Coated, Gray Teflon® Coated
SIN	TY3030
Wrench Type	W-Type 6
Tech Data Sheet	TFP1388

3 mm bulb ■ Fixed-temperature, heat detector intended for wet or dry pilot release service ■ Maximum 40 ft. x 40 ft. spacing ■ Can be used for pilot line service, instead of standard sprinklers, to activate deluge and preaction systems equipped with either wet or dry pilot line detection ■ Corrosion resistant assembly option for outdoor applications (Teflon® coated)

Special Application Sprinklers

TY-B & TY-FRB (Alternate Materials Of Construction)

Upright & Pendent Sprinklers



K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, LPCB, Lloyds
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Escutcheon Style	Style 10 • Style 40
Sprinkler Finish	Stainless Steel, SMO, Titanium
SIN	Refer to Tech Data Sheet for SIN Numbers
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP680

TY-B: 5 mm diameter heat sensitive glass bulb, standard response ■ TY-FRB: 3 mm diameter heat sensitive glass bulb, quick response
 ■ Corrosion resistant, standard coverage spray sprinklers designed for use in commercial occupancies where corrosive atmospheres may exist ■ Alternate materials of construction (Stainless Steel, SMO, or Titanium) are utilized to extend the life of a sprinkler beyond that which might be expected of copper alloy sprinklers exposed to corrosive atmospheres, (SMO = stainless-molybdenum alloyed)

Vertical, Horizontal & Recessed Horizontal Sidewall Sprinklers



K Factor	K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, LPCB
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Escutcheon Style	Style 10
Sprinkler Finish	Stainless Steel, SMO, Titanium
SIN	Refer to Tech Data Sheet for SIN Numbers
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP680

TY-B: 5 mm diameter heat sensitive glass bulb, standard response ■ TY-FRB: 3 mm diameter heat sensitive glass bulb, quick response
 ■ Corrosion resistant, standard coverage spray sprinklers designed for use in commercial occupancies where corrosive atmospheres may exist ■ Alternate materials of construction (Stainless Steel, SMO, or Titanium) are utilized to extend the life of a sprinkler beyond that which might be expected of copper alloy sprinklers exposed to corrosive atmospheres (SMO = stainless-molybdenum alloyed)

Special Application Sprinklers

TY-B & TY-FRB (Poly-Stainless)

Upright, Pendent & Horizontal Sidewall Sprinklers



K Factor	K=5.6 (80,6) • K=8.0 (115,2)
Thread Size	1/2" NPT • 3/4" NPT
Approvals	UL, C-UL, LPCB, Lloyds
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C, 360°F/182°C
Escutcheon Style	Style 10 • Style 40
Sprinkler Finish	Poly-Stainless
SIN	Refer to Tech Data Sheet for SIN Numbers
Wrench Type	W-TYPE 6, W-Type 7 (For recessed escutcheons)
Tech Data Sheet	TFP682

TY-B: 5 mm diameter heat sensitive glass bulb, standard response ■ TY-FRB: 3 mm diameter heat sensitive glass bulb, quick response ■ Corrosion resistant, standard coverage spray sprinklers designed for use in commercial occupancies where corrosive atmospheres may exist ■ Corrosive environments can wreak havoc on standard sprinkler heads. The TYCO Poly-Stainless sprinklers are here to maintain the aesthetics of a sprinkler in a wide range of corrosive locations.



Sprinkler Accessories

For use with the sprinklers and nozzles described in this catalog.

- Improve Appearance
- Protection From Damage
- Conceal Clearance Holes
- Onsite Emergency Storage Supply

Sprinkler Accessories

Escutcheon Plates

Recessed Escutcheons and Protective Paint Caps



Thread Size	1/2" NPT - Styles 10, 15, 20, & 50 3/8" NPT - Styles 70 3/4" NPT - Styles 30, & 40
Escutcheon Styles	Styles 10, 15, 20, 30, 40, 50, & 70
Finishes	Pure White, Signal White, Jet Black, Chrome Plated, Brass Plated, Plain
Tech Data Sheet	TFP770

Consists of a mounting plate and closure for finished appearance in ceilings or soffits ■ Intended for use in areas with finished ceilings or walls, and the adjustment provided by these escutcheons reduces the accuracy to which fixed piping to the sprinklers must be cut, while providing a decorative recessed sprinkler installation ■ Primarily designed for use with standard spray, quick response sprinklers and the Designer residential sidewall sprinklers ■ Maximum 1/2" to 3/4" adjustment

Style 65, One-Piece Flat Escutcheon

Style 401, Two-Piece Adjustable Escutcheon



Thread Size	1/2" NPT • 3/4" NPT
Escutcheon Styles	Styles 65, 401
Finishes	Chrome, Signal White, or Brass
Tech Data Sheet	TFP777

Used to improve the overall appearance of the sprinkler installation by concealing the clearance holes required for wall or ceiling installation ■ Deep, two-piece, adjustable ■ Available for 1/2" and 3/4" NPT

Sprinkler Accessories

Escutcheon Plates

Style 60, Two-Piece Flush Escutcheon



Thread Size	3/4" NPT
Approvals	UL, FM
Escutcheon Styles	Styles 60
Finishes	Chrome, Signal White, or Brass
Tech Data Sheet	TFP778

Used to improve the overall appearance of the sprinkler installation by concealing the clearance holes required for wall or ceiling installation ■ Deep, two-piece, adjustable ■ $\frac{3}{4}$ " total adjustment

Sprinkler Head Cabinet

3, 6 or 12 Capacity



Thread Size	1/2" NPT • 3/4" NPT • 1" NPT
Tech Data Sheet	TFP785

Provides storage for spare sprinklers and sprinkler wrench ■ Spare sprinklers facilitate the prompt replacement of operated or damaged sprinklers and return of fire protection system to service as soon as possible



Nozzle & Nozzle Accessories

Designed for use in a variety of special hazard application – may be required to provide a properly designed special hazard fire protection system.

- Flammable Liquid Ranks & Operations
- Flammable Liquid Storage
- Offshore Platforms
- Industrial Process Equipment
- Computer Rooms
- Clean Rooms

Nozzles and Accessories

D3

Protectospray Directional Spray Nozzle



K Factor	K=1.2 (17,3) to 7.2 (103,7)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM
Spray Angles	65°, 80°, 95°, 110°, 125°, 140°, 160°, and 180°
Nozzle Finish	Bronze: Natural Finish, Teflon Coated, Lead Coated, Chrome, or Natural Stainless Steel
Wrench Type	W-Type 11
Tech Data Sheet	TFP802, Blow-off Plugs TFP890

Designed for use in water spray fixed systems for fire protection applications ■ Open orifice type for use in deluge systems ■ Nozzles are external deflector types that discharge a uniformly filled cone of medium velocity water droplets ■ Blow-Off Plugs are available and designed for both indoor or outdoor use.

D3S

Protectospray Directional Spray Nozzle



K Factor	K=1.1 (15,8) to 2.8 (40,3)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM
Nozzle Finish	Bronze, Chrome Plated Bronze, Stainless Steel
Wrench Type	W-Type 11
Tech Data Sheet	TFP804

The D3S Nozzles that are typically used in non-NFPA installations feature an integral strainer for use when the Authority Having Jurisdiction requires the use of individual strainers ■ The D3S Nozzles are external deflector type nozzles that discharge a uniformly filled cone of medium velocity water droplets.

HV "High Velocity"

Directional Spray Nozzle



K Factor	K=1.6 (23,0) • K=1.8 (25,9) • K=2.8 (40,3) • K=4.6 (66,2) K=5.5 (79,2) • K=6.4 (92,2)
Thread Size	1" NPT 1-1/4" (only K=6.4)
Approvals	UL, C-UL, FM
Nozzle Finish	Natural Brass or Stainless Steel
Wrench Type	Common Adjustable Wrench
Tech Data Sheet	TFP815

Open, directional spray nozzles ■ Designed for use in fixed water spray fire protection systems where a high velocity water application is needed, such as the protection of flammable liquids, electrical transformers, circuit breakers, oil-fired boilers and lube oil systems ■ Available in six different orifice sizes and six angle spray patterns ■ Produces a solid conical spray pattern

Nozzles and Accessories

EA-1

Automatic Protectospray Directional Spray Nozzle



K Factor	K=1.4 (20,2), K=2.8 (40,3), K=5.6 (80,6)
Thread Size	1/2" NPT
Approvals	UL, C-UL, FM
Temperature	135°F/57°C, 175°F/79°C, 250°F/121°C, 325°F/163°C, 400°F/204°C, 500°F/260°C
Spray Angles	65°, 80°, 95°, 110°, 125°, 140°, 160°, and 180°
Sprinkler Finish	Natural Finish Bronze, Lead Coated Bronze, Chrome Plated, Wax Coated Bronze
Wrench Type	W-TYPE 11
Tech Data Sheet	TFP800

Medium velocity, Bulb type frangible element for use in closed head systems ■ Discharges a filled cone of water droplets at relatively low velocity ■ The Type EA-1 Nozzles are also especially effective for area coverage and are sometimes used in lieu of standard sprinklers where directional spray is considered more appropriate.

TN-25

Horizontal Spray Nozzle, Open

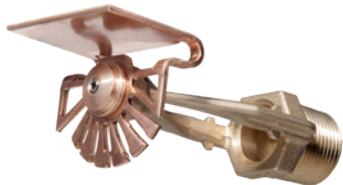


K Factor	K=25.2 (362,9)
Thread Size	1" NPT or ISO 7-R 1
Approvals	UL, C-UL
Nozzle Finish	Natural Brass
Wrench Type	W-Type 1
Tech Data Sheet	TFP850

The TYCO Model TN-25 Horizontal Spray Nozzle is a specialized open nozzle for use in tunnel fire protection deluge systems, providing an improved alternative to traditional designs ■ Model TN-25 Nozzle allows for a single pipe to run the length of a tunnel, compared to traditional designs that use multiple pipes in order to provide sufficient coverage.

TN-17

Horizontal Spray Nozzle, Open



K Factor	K=16.8 (241,9)
Thread Size	3/4" NPT or ISO 7-R 3/4
Approvals	UL, C-UL
Nozzle Finish	Natural Brass
Wrench Type	W-Type 21
Tech Data Sheet	TFP852

The TYCO Model TN-17 Horizontal Spray Nozzle having a 16.8 (K240) K-factor is a specialized open nozzle for use in tunnel fire protection deluge systems, providing an improved alternative to traditional designs ■ With its ability to provide extended coverage, the Model TN-17 Nozzle allows for a single pipe to run the length of a tunnel, compared to traditional designs that use multiple pipes in order to provide sufficient coverage ■ The Model TN-17 Nozzle is an open nozzle designed to be integrated into a deluge fire protection system.

Nozzles and Accessories

D4a

Directional Spray Nozzles, Open, Medium Velocity



K Factor	K=1.2 (17,3) • K=1.8 (25,9) • K=2.3 (33,1) • K=3.0 (43,2) K=4.1 (59,0) • K=5.6 (80,6) • K=7.2 (103,7)
Thread Size	1/2" NPT
Approvals	UL, C-UL
Spray Angles	65°, 80°, 95°, 110°, 125°, 140°, 160°, and 180°
Nozzle Finish	Natural Finish Bronze, Teflon Coated Bronze
Wrench Type	Common Adjustable Wrench
Tech Data Sheet	TFP806

Nozzles are external deflector types that discharge a uniformly filled cone of medium velocity water droplets ■ The Type D4a Nozzles feature a four arm body design that helps assist against mechanical or physical damage ■ Open orifice design type for use in deluge systems

AM4 AQUAMIST

Non-Automatic Open Type



K Factor	K=0.24 (3,5)
Thread Size	1/2" NPT
Nozzle Finish	Natural Stainless Steel
Wrench Type	W-Type 6
Tech Data Sheet	TFP2204

Open, directional mist nozzles ■ They are intermediate pressure nozzles which utilize a single fluid jet impinging on a diffuser to produce a spray having a range of water droplet sizes suitable for the extinguishment of Class B fires, as well as incidental Class A fires ■ Maximum utilization of water for flammable liquid fire protection.

AM10 and AM10B AQUAMIST

Non-Automatic Open Type



K Factor	K=0.24 (3,5)
Thread Size	1/2" NPT
Nozzle Finish	Stainless Steel
Wrench Type	W-Type 6
Tech Data Sheet	TFP2210

Open mist nozzles ■ Designed for use in water "low pressure" mist protection systems protecting flammable liquids and turbine bearings ■ Minimal water demand ■ Min. operating pressure is 170 psi (11,6 bar)

Nozzles and Accessories

AM24 AQUAMIST

Automatic Type Mist Nozzle



K Factor	4.7 lpm/bar 1/2, 0.33 gpm/psi 0.5
Thread Size	1/2" NPT
Approvals	UL
Temperature	135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C
Sprinkler Finish	Natural Brass, Chrome Plated, White Polyester
Wrench Type	Common Adjustable Wrench
Tech Data Sheet	Tyco for details

Listed and Approved for Marine Type Approved by Lloyds, USCG, DNV, American Bureau of Shipping, MCA, Germanischer Lloyd, Bureau Veritas ■ Intended Applications – IMO Mandated Local Application System for Protection of Class A Machinery Spaces ■ Nozzle pressure: 175-250 psi (12,1 to 17,2 bar)

F822 thru F834 Mulsifyre®

Directional Spray Nozzles, Open, High Velocity



K Factor	K=2.0 (28,8) • K=2.3 (33,1) • K=2.7 (38,9) K=2.6 (37,4) • K=4.6 (66,2) • K=5.1 (73,4)
Thread Size	3/4" NPT
Approvals	UL, ULC
Nozzle Finish	Brass
Wrench Type	Common Adjustable Wrench
Tech Data Sheet	TFP810

Two configurations: basic Mulsifyre Nozzle & Mulsifyre Nozzle with Model F880 Dust Cap, ■ Available in six different models provide a wide range of orifice sizes and water distribution characteristics ■ Air aspirating foam-water nozzles, for use with all types of foam (required for Non-AFFF type foams) ■ Designed for use in water spray fixed systems for fire protection applications where a high velocity water application may be required, Pendent & upright designs, Open nozzle for use on deluge systems.

F822S thru F834S Mulsifyre®

Directional Spray Nozzles, Open, With Strainers, High Velocity



K Factor	K=2.0 (28,8) • K=2.3 (33,1) • K=2.7 (38,9) K=2.6 (37,4) • K=4.6 (66,2) • K=5.1 (73,4)
Thread Size	3/4" NPT
Approvals	FM
Nozzle Finish	Brass
Wrench Type	Common Adjustable Wrench
Tech Data Sheet	TFP811

Two configurations: basic Mulsifyre Nozzle & Mulsifyre Nozzle with Model F880 Dust Cap, ■ Available in six different models provide a wide range of orifice sizes and water distribution characteristics ■ Air aspirating foam-water nozzles, for use with all types of foam (required for Non-AFFF type foams) ■ Designed for use in water spray fixed systems for fire protection applications where a high velocity water application may be required, Pendent & upright designs, Open nozzle for use on deluge systems.

Nozzles and Accessories

Cooling Tower Nozzle

Type 1 and 2



K Factor	K=2.9 (42,0)
Thread Size	3/4" NPT
Approvals	UL, FM
Nozzle Finish	Bronze or Stainless Steel
Wrench Type	W-Type 11
Tech Data Sheet	TFP830

Intended for use in fire protection systems for cross flow cooling towers with combustible fill sections ■ Open nozzle design for use in water spray deluge system ■ Installed under the distribution basin, they discharge water in a relatively narrow, elongated spray pattern ■ Type 1 has a waterway designed for use in towers with diffusion decks, Type 2 for those without diffusion decks

B-1

Upright & Pendent Foam-Water Sprinkler



K Factor	K=3.0 (43,2)
Thread Size	1/2" NPT
Approvals	UL, C-UL, Military
Nozzle Finish	Natural Bronze
Wrench Type	Common Adjustable Wrench
Tech Data Sheet	TFP840

Air aspirating foam-water nozzles ■ Pendent & upright styles ■ Open nozzle for use in NFPA 16 foam-water sprinkler systems

Nozzles and Accessories

Type DN-5

Corrosion Resistant Duct Nozzle, Open, Medium Velocity



K Factor	K=6.0 (86,5)
Thread Size	1/2" NPT
Approvals	FM
Nozzle Coating	HALAR (ECTFE)
Tech Data Sheet	TFP808

The TYCO Type DN-5 Corrosion Resistant Duct Nozzle is an open (non-automatic) directional spray nozzle designed for use in water spray fixed systems for fire protection applications in extremely corrosive duct environments. ■ It is an external deflector type nozzle that discharges medium velocity water droplets. ■ The Type DN-5 Corrosion Resistant Duct Nozzle is effective in discharging water to vertical, horizontal, curved, and irregular shaped surfaces within a duct to achieve fire suppression and potential extinguishment.

DDS Duct Deluge System

For The Protection of Ventilation Ductwork Handling Corrosive Gases



Approvals	FM
Corrosive Environments	<ul style="list-style-type: none"> - Steel Manufacturing, - Copper Mineral Processing, - Lead Mineral Processing, - Zinc Mineral Processing, - Coal Power Generation, - Semiconductor Fabrication, - Pulp & Paper Facilities
Tech Data Sheet	TFP870

The TYCO DDS Duct Deluge System is designed specifically for the protection of ventilation ductwork handling corrosive gases, including extremely corrosive gases as defined in FM Property Loss Prevention Data Sheet 7-78. ■ The DDS System features the TYCO DN-5 Corrosion Resistant Duct Nozzle, which is an open (non automatic) directional spray nozzle, and also includes the TYCO Red-E Cabinet, Protectowire linear heat detection, and FlexHead duct mounting hardware. ■ Ventilation ductwork handling extremely corrosive environments in industrial settings.