tyco®

Residential Fire Protection Sprinklers & Systems
Product Guide

Tyco® LFII Residential Sprinklers
Tyco TY-FRB Sprinklers
Sprinkler System Components
CPVC Pipe & Fittings

The power behind **your mission**

Johnson Controls

tyco

- Features BlazeMaster® CPVC pipe and fittings that enable a quick, easy and affordable installation

- Exclusive 10-year Limited Warranty lets you install with confidence

- Received Australian Watermark Certification evaluated to WMTS 486:2016 - Sprinklers for home applications

WaterMark
WMK26392
WMTS-486:2016
Home Sprinklers

Committed Customer Support

Johnson Controls is committed to serving our customers and providing cutting-edge solutions to achieve your business objectives.

Our highly-trained specialists work closely with Lubrizol to deliver the highest standards of customer service and technical support to ensure optimal product performance and user experience.

10-Year Limited Warranty

10 YEAR LIMITED WARRANTY

We have the unique distinction of standing behind the fire suppression products we manufacture by offering a 10-year limited warranty. This exhibits our commitment to product quality worldwide. Please see the General Terms and Conditions of Sale at **www.tyco-fire.com**

For all products listed in this product guide, always refer to the technical data sheet for complete description and all listing criteria, design parameters, installation instructions, care and maintenance guidelines and limited warranty.

Series LFII Sprinklers

LFII (TY2236) Pendent, Recessed Pendent and Domed Concealed

- Fast response

- Offers improved sprinkler adjustment and allows the sprinkler to be used with either the Tyco Style 15 escutcheon (5/8″ adjustment) or the Style 20 escutcheon (1/2″ adjustment)

- Approved for special applications with beamed ceilings

- Used in wet pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per BS9251 standard

- Used in wet pipe residential occupancies up to and including four stories in height per BS9251 standard

- Used in wet pipe sprinkler systems for the residential portions of any occupancy per BS9251 standard

- Can also be used in dry pipe systems per BS9251 standard hydraulic design criteria

K Factor	K=4.9 (70,6)
Thread Size	1/2″ (15 mm)
Escutcheon	Style 15 or Style 20
Bulb Type	3 mm
Finish	White, Chrome, Brass, Custom
Tech Data	**TFP403**
Approval	UL WaterMark WMK26392 WMTS-486:2016 Home Sprinklers

TY-FRB (TY313 / TY323*) Upright, *Pendent, and *Recessed Pendent

- Fast response

- Light hazard/Ordinary hazard light hazard K=5.6

- Small frame and narrow profile bulb enhance appearance

- The recessed version of the Series TY-FRB Pendent Sprinkler, where applicable, is intended for use in areas with a finished ceiling. This recessed pendent sprinkler uses one of the following:

- A two-piece Style 15 Recessed Escutcheon with recessed adjustment up to 15.9mm from the flush pendent position.

- A two-piece Style 20 Recessed Escutcheon with recessed adjustment up to 12.7mm from the flush pendent position.

K Factor	5.6 (80.6)
Thread Size	½″ (19.05mm)
Bulb Type	3 mm
Finish	Natural Brass, Polyester. Chrome Plated
Tech Data	**TFP410**
Approval	UL WaterMark WMK26392 WMTS-486:2016 Home Sprinklers

LFII (TY1334) Horizontal and Recessed Horizontal Sidewall

- Fast response
- Used in wet and dry pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per BS9251 standard
- Used in wet and dry pipe residential occupancies up to and including four stories in height per BS9251 standard
- Used in wet and dry pipe sprinkler systems for the residential portions of any occupancy per BS9251 standard

K Factor	K=4.2 (60,5)
Thread Size	1/2" (15 mm)
Escutcheon	Style 20
Bulb Type	3 mm
Finish	White, Chrome, Brass
Tech Data	**TFP410**
Approval	UL WaterMark WMK26392 WMTS-486:2016 Home Sprinklers

LFII (TY2334) Horizontal and Recessed Horizontal Sidewall

- Fast response
- Used in wet pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per BS9251 standard
- Used in wet pipe residential occupancies up to and including four stories in height per BS9251 standard
- Used in wet pipe sprinkler systems for the residential portions of any occupancy per BS9251 standard

K Factor	K=4.4 (63,4)
Thread Size	1/2" (15 mm)
Escutcheon	Style 20
Bulb Type	3 mm
Finish	White, Chrome, Brass
Tech Data	**TFP412**
Approval	UL WaterMark WMK26392 WMTS-486:2016 Home Sprinklers

Series LFII Sprinklers

LFII (TY3596) Flat Plate Concealed Pendent

- Fast response

- Solder type

- Can be used for horizontal and sloped ceilings

- Used in wet and dry pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per BS9251 standard

- Used in wet and dry pipe residential sprinkler systems for residential occupancies up to and including four stories in height per BS9251 standard

- Cover plate conceals sprinkler components above ceiling

- Can also be used in dry pipe systems per BS9251 standard hydraulic design criteria

K Factor	K= 4.9 (70,6)
Thread Size	1/2" (15 mm)
Finish	White, Chrome, Brass, Custom
Tech Data	**TFP442**
Approval	UL WaterMark WMK26392 WMTS-486:2016 Home Sprinklers

Flat Plate Concealed Cover Plate Colors & Finishes

**Grey White
(RAL 9002)**

**Signal White
(RAL 9003)**

**Pure White
(RAL 9010)**

**Light Ivory
(RAL 1015)**

**Beige
(RAL 1001)**

**Terra Brown
(RAL 8028)**

**Jet Black
(RAL 9005)**

**Brushed
Brass**

**Brushed
Chrome**

**Custom Colors
Available**
tyco-fire.com/custompaint

Before making a final color selection

The purpose of this color chart is to provide a basic representation of Tyco Flat Plate Concealed Cover Plate finish colors. This color chart shall not be used for final color selection, as color differences may occur in print and on monitors when compared to the actual product. Please contact your Johnson Controls representative for more information.

Flat Plate Concealed Cover Plate Tool

- Specially designed for installing and removing Tyco LFII, RFII and RFIII Flat plate concealed cover plates

- Contains foam insert to prevent scratching of cover plate finish

- Attaches to painter's pole, or a length of 1" CPVC pipe

- No need for ladder or scaffold to install cover plates

CPVC Pipe & Fittings

The Tyco Fire Sprinkler System features CPVC Pipe and Fittings manufactured with Lubrizol's BlazeMaster® compound UL Listed for use in:

- Light hazard occupancies as defined in the Standard for Installation of Fire Sprinkler Systems, BS9251 standard

- Residential occupancies as defined in the Standard for Installation of Fire Sprinkler Systems in Residential Occupancies up to Four Stories in Height, BS9251 standard

- Residential occupancies as defined in the Standard for Fire Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes, BS9251 standard

- Air plenums, as defined by the Installation of Air Conditioning and Ventilating Systems, BS9251 standard and model mechanical codes

- Underground water pressure service, BS9251 standard

- Unfinished basements

- Embedded in concrete

  (Note: for complete listing and approval information, please refer to the installation instructions and technical manual IH-1900)

CPVC Compatibility

Understanding CPVC compatibility is extremely important when installing your residential sprinkler system. To ease the burden associated with researching and selecting accompanying construction products, Lubrizol developed the FBC™ System Compatible Program.

Visit

www.lubrizol.com/CPVC/FBC-System-Compatible-Program for more information and to view identified compatible and incompatible products.

Install With Confidence

Tyco BlazeMaster® CPVC Piping Systems are cULus Listed, FM Approved, and exceed ASTM standards. Benefits over traditional piping systems include:

- Resistant to rust, scale and foreign contaminant buildup

- Superior flow characteristics for increased hydraulic capabilities (C-Factor=150)

- Easily transported, handled and modified on site

- Can be easily connected to copper and steel piping

- Resist sweating and condensation

- Immune to Microbiologically Influenced Corrosion (MIC)

Fire Performance

CPVC has an LOI (Limited Oxygen Index) that is better than wood, PVC, PB or other common building materials. It will not support combustion; therefore, it cannot be the source of a fire or cause a fire to spread.

- Does not contribute to flashover

- Low smoke generation

- Toxicity is extremely low when compared with common building and finishing materials; equal to wood and less than wool or cotton*

*University of Pittsburgh protocol

System Components

Residential Domestic Shut-off Valve 1" and 2"

- Used in piping systems that supply water to both domestic service and the fire sprinkler system per BS9251 standard in one/two- family dwellings and mobile homes

- In the set position, water is available on demand to the domestic system, and the valve acts as a check valve for the fire protection system

- When a sprinkler operates, the supply to the domestic system is automatically shut off, maximizing the available water supply for fire protection

- Eliminates the need for expensive pumps, pressurized tanks, or electrically operated domestic shutoff valves

"Powerball" Butterfly Valves

- Ideal for use in residential sprinkler systems as main control valves

- An alternative to bulky OS&Y valves

- Mandated visual indicator showing that the valve is open or closed

- Available from 1" through 2-1/2"

Resi-Riser

- Compact, pre-assembled, ready to install sprinkler riser

- Brass construction for use in potable water supply

- Available in 1" – 2" (25 mm – 50 mm) sizes

- Integral test and drain assembly, flow switch with retard mechanism, 300 psi gauge, and check valve

- Compact size allows for easy installation between 2" x 4" studs in wall

- Molded mounting points allow for fast and easy left or right-hand installation

- Available with or without pressure relief valve feature and flow switch retard mechanism

RM-2 Riser Manifold

- Available in 2' (DN50) through 6" (DN150)

- Available in either threaded or grooved configurations

- Meets BS9251 standard requirements

Model VS-SP WaterFlow Detector

- Used with wet pipe sprinkler systems in residential dwellings and mobile homes

- Actuation of the switch can initiate an alarm indicating that the sprinkler system is operating

- Sustained flow of 8 gallons per minute will deflect the vane and actuate a single-pole, double-throw snap action switch

- Can be wired to a local bell and/or protection panel for outside notification to an alarm company or fire department

Sprinkler Head Cabinet

- Spare sprinkler head cabinets are available

- All cabinets have ample room for sprinkler wrench storage.

CPVC Installation Equipment

- Retrofit Tools

- Cutting and Deburring Tools

- BlazeMaster Caulk & Walk® Firestop

- One-step CPVC Cement and Daubers

- Hangers & Fasteners

Pipe

CPVC Pipe

Length	Size	Sleeve Quantity	Part Number
4500mm	20mm	25	80300
	25mm	16	80301
	32mm	9	80302
	40mm	7	80303
	50mm	4	80304

Tee

Equal Tee

Size	Bag Quantity	Box Quantity	Part Number
20mm	20	180	80000
25mm	12	96	80001
32mm	5	55	80002
40mm	5	30	80003
50mm	3	18	80004

Reducing Tee Head
CPVC Reducing Tee
SLIP x SLIP x SLIP

Size	Bag Quantity	Box Quantity	Part Number
32mm x 25mm x 25mm	10	80	80136
32mm x 32mm x 40mm	5	10	80138
40mm x 32mm x 25mm	7	42	80141
32mm x 32mm x 25mm	10	70	80262
40mm x 40mm x 25mm	5	45	80264
50mm x 50mm x 25mm	3	24	80266
50mm x 50mm x 32mm	3	24	80274

Sprinkler Head Tee
CPVC Sprinkler Head Tee
SLIP X Female NPT X SLIP

Size	Bag Quantity	Box Quantity	Part Number
25mm x 15mm	10	30	80251
32mm x 15mm	7	28	80252
50mm x 15mm	4	8	80253
40mm x 15mm	5	15	80254

Elbow

CPVC Elbow 90°
SLIP X SLIP

Size	Bag Quantity	Box Quantity	Part Number
20mm	24	240	80025
25mm	12	132	80026
32mm	10	90	80027
40mm	5	45	80028
50mm	4	24	80029

Sprinkler Head
Elbow 90°
CPVC Sprinkler Head

Size	Bag Quantity	Box Quantity	Part Number
25mm x 15mm	10	50	80198

Elbow

CPVC Elbow 45° **SLIP x SLIP**	25mm	20	180	80051
	32mm	15	90	80052
	40mm	7	56	80053
	50mm	4	28	80054
CPVC Elbow 45° **SLIP x SLIP**	25mm	10	70	80010
	32mm	4	40	80011
	40mm	4	20	80012
	50mm	3	12	80013

Coupling

	Size	Bag Quantity	Box Quantity	Part Number
Equal Coupling **CPVC Coupling** **SLIP x SLIP**	20mm	25	300	80075
	25mm	20	160	80076
	32mm	10	120	80077
	40mm	10	70	80078
	50mm	5	40	80079
CPVC Reducing **Coupling**	25mm x 20mm	20	60	80220
GRV CPLG Adaptor **Adaptor Coupling** **Brass Groove x SLIP**	32mm	4	28	80160
	40mm	3	24	80161
	50mm	3	15	80162
Female Adapter **SLIP x Female Thread**	25mm (BSP)	6	30	82001
	40mm (BSP)	3	18	82003
GRV CPLG Adaptor **Adaptor Coupling** **Brass Groove x SLIP**	25mm x 15mm (NPT)	16	80	80176W
CPVC SPIGOT Adapter **SPIG X Female Thread** **NPT**	25mm x 15mm	16	80	80178

Reducer

	Size	Bag Quantity	Box Quantity	Part Number
Reducing Bushes CPVC Reducer SPIG X SLIP	32mmx 25mm	20	200	80202
	40mm x 25mm	20	200	80204
	40mm x 32mm	10	60	80205
	50mm x 25mm	10	100	80207
	50mm x 32mm	10	100	80208
	50mm x 40mm	10	30	80209
	75mm x 50mm	4	36	80210
	50mm x 25mm	10	120	80077
	50mm x 32mm	10	70	80078
	50mm x 40mm	5	40	80079
CPVC Cap	25mm	25	225	80100
	25mm	20	300	80101
	32mm	10	60	80102
	40mm	10	30	80103
	50mm	5	20	80104

Solvent Cement

	Pallet Quantity	Box Quantity	Part Number
TFP – 600 One Step Cement, Pint (473mL)	204	12	90766

About Johnson Controls

At Johnson Controls, we transform the environments where people live, work, learn and play. From optimizing building performance to improving safety and enhancing comfort, we drive the outcomes that matter most. We deliver our promise in industries such as healthcare, education, data centers and manufacturing. With a global team of 105,000 experts in more than 150 countries and over 130 years of innovation, we are the power behind our customers' mission. Our leading portfolio of building technology and solutions includes some of the most trusted names in the industry, such as Tyco®, York®, Metasys®, Ruskin®, Titus®, Frick®, Penn®, Sabroe®, Simplex®, ANSUL® and Grinnell®.

For more information, contact your regional Fire Suppression product representative, or visit **www.tycofpp.com/tyco-cpvc**

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