Residential Fire Protection
Sprinklers & Systems
Product Guide

LFII Residential Sprinklers
Sprinkler System Components
CPVC Pipe & Fittings
Specific Application Attic Sprinklers
LFP®, Antifreeze for Fire Sprinkler Systems
• Developed specifically for residential occupancies
• The most complete system on the market today from a single manufacturer
• Features BlazeMaster® CPVC pipe and fittings, making installation quick, easy flexible, and affordable
• LFP™ Antifreeze is the first and only UL Certified solution for fire sprinkler systems
• Exclusive ten-year limited warranty lets you install with confidence
• Product line meets all NFPA standards
• Components are all UL listed for residential installations
Residential Fire Protection Sprinklers & Systems
Product Guide

Table of Contents
Series LFII Sprinklers 2 - 6
Series LFII Dry Sprinklers 7
Series LFII NFPA 13 Optimized Sprinklers 8 - 11
CPVC Pipe and Fittings 12 - 13
Specific Application Attic Sprinklers 14
LFP™ Antifreeze for Fire Sprinkler Systems 15
System Components 16
Series LFII Sprinklers

**LFII (TY2234) Pendent, Recessed Pendent and Domed Concealed**

- Fast response
- Approved for special applications with beamed ceilings
- Used in wet pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per NFPA 13D
- Used in wet pipe residential occupancies up to and including four stories in height per NFPA 13R
- Used in wet pipe sprinkler systems for the residential portions of any occupancy per NFPA 13
- Can also be used in dry pipe systems per NFPA 13D, 13R, and 13 hydraulic design criteria
- We can match any Sherwin Williams color for Flat Plate and Domed Concealed sprinklers you install. See the cover plate chart on page 7 for standard colors and finishes.

<table>
<thead>
<tr>
<th>K Factor</th>
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<td>Bulb Type</td>
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<tr>
<td>Finish</td>
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<tr>
<td><strong>Tech Data</strong></td>
<td><strong>TFP400 (TFP450 Domed Concealed)</strong></td>
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**LFII (TY1234) Pendent and Recessed Pendent**

- Fast response
- Used in wet pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per NFPA 13D
- Used in wet pipe sprinkler systems for residential occupancies up to and including four stories in height per NFPA 13R

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<td><strong>Tech Data</strong></td>
<td><strong>TFP402</strong></td>
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**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 NFPA 13D
- Used in wet and dry pipe residential occupancies up to and including four stories in height per NFPA 13R
- Used in wet and dry pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

<table>
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**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 NFPA 13D
- Used in wet pipe residential occupancies up to and including four stories in height per NFPA 13R
- Used in wet pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

<table>
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<th>Specification</th>
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</table>
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 NFPA 13D
- Used in wet and dry pipe residential sprinkler systems for residential occupancies up to and including four stories in height per NFPA 13R
- Cover plate conceals sprinkler components above ceiling
- Can also be used in dry pipe systems per NFPA 13D, 13R, and 13 hydraulic design criteria
- We can match any Sherwin Williams color for Flat Plate and Domed Concealed sprinklers you install. See the cover plate chart on page 7 for standard colors and finishes.

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New LFII intermediate temperature cover plates feature a reduced gap between the plate and the ceiling surface for a more flush appearance.

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
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

Before Making A Final Color Selection

The purpose of this color chart is to provide a basic representation of Rapid Response 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. Actual custom color selection should be made from a Sherwin Williams paint swatch. Please contact your Rapid Response representative for more information.
Series LFII Sprinklers

**LFII (TY2284) Flush Pendent**

- Fast response
- Solder type
- Approved for special applications with beamed ceilings
- Used in wet and dry pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per NFPA 13D
- Used in wet and dry pipe residential sprinkler systems for residential occupancies up to and including four stories in height per NFPA 13R
- Used in wet and dry pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

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**LFII (TY2284) Flush Horizontal Sidewall**

- Fast response
- Solder type
- Approved for special applications with beamed ceilings
- Used in wet pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per NFPA 13D
- Used in wet pipe residential sprinkler systems for residential occupancies up to and including four stories in height per NFPA 13R
- Used in wet pipe sprinkler systems for the residential portions of any occupancy per NFPA 13

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Series LFII Dry Sprinklers

**LFII (TY2235) Residential Dry Sprinkler, Recessed Pendent**

- Fast response
- For residential occupancies per NFPA 13D, 13R and residential portions of any occupancy per NFPA 13
- UL listed for use in wet pipe, dry pipe and pre action systems

<table>
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**LFII (TY2335) Residential Dry Sprinkler, Horizontal Sidewall**

- Fast response
- For residential occupancies per NFPA 13D, 13R and residential portions of any occupancy per NFPA 13
- UL listed for use in wet pipe, dry pipe and pre action systems

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NFPA 13 Optimized Sprinklers

**LFII (TY4234) Pendent, Recessed Pendent and Domed Concealed**

- Fast response
- Used in wet pipe residential sprinkler systems for one- and two-family dwellings and mobile homes per NFPA 13D
- Used in wet pipe residential occupancies up to and including four stories in height per NFPA 13R
- Used in wet pipe sprinkler systems for the residential portions of any occupancy per NFPA 13
- We can match any Sherwin Williams color for Flat Plate and Domed Concealed sprinklers you install. See the cover plate chart on page 7 for standard colors and finishes.

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**Tech Data**

- TFP408

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8 Rapid Response.
**LFII (TY3934) 5.8K Pendent, Recessed Pendent**

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

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**Tech Data**

| Tech Data | TFP401 |

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![Image of the sprinkler system installation](image-url)
**NFPA 13 Optimized Sprinklers**

**LFII (TY3334) Horizontal and Recessed Horizontal Sidewall**

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

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K Factor K=5.8 (80,6)
Thread Size 1/2" (15 mm)
Bulb Type 3 mm
Finish White, Chrome, Brass
**LFII (TY4334) Horizontal and Recessed Horizontal Sidewall**

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

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<th>K Factor</th>
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<tr>
<td>Finish</td>
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</tbody>
</table>

**Tech Data** | TFP417

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The Rapid Response Residential Fire Sprinkler System features CPVC Pipe and Fittings manufactured with Lubrizol’s BlazeMaster® compound – listed by Underwriters Laboratories, Inc. for use in:

- Light hazard occupancies as defined in the Standard for Installation of Fire Sprinkler Systems, NFPA 13
- Residential occupancies as defined in the Standard for Installation of Fire Sprinkler Systems in Residential Occupancies up to Four Stories in Height, NFPA 13R
- Residential occupancies as defined in the Standard for Fire Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, NFPA 13D
- Air plenums, as defined by the Installation of Air Conditioning and Ventilating Systems, NFPA 90A and model mechanical codes
- Underground water pressure service, NFPA 24
- Unfinished basements

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

Tyco BlazeMaster® CPVC Piping Systems are UL and cUL 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)

Rapid Seal Sprinkler Head Adapter Fittings

- All-CPVC sprinkler head adapter fittings
- No brass, no lead, no dezincification
- Easier sprinkler installation
- No need for thread tape or sealant
- UL, ULc, FM, NSF, and LPCB approved
- Multiple sizes and styles
Specific Application Sprinklers for Protecting Attics

Specific Application Attic Sprinklers provide superior fire protection in attic spaces and, when compared to Standard Spray Sprinklers, cost savings are achieved by eliminating branch line materials and the associated installation labor. “The Specific Application Sprinklers For Protecting Attics” have undergone the most extensive fire testing ever performed for sloped attic spaces. They are UL Listed with their specific application guidelines for use as special sprinklers as defined by the NFPA.

- Listed for extended coverage in combustible construction
- Full-scale fire tested in both wet and dry system scenarios
- Full-scale tested for use in wood truss construction
- Listed for specific roof slopes

![Diagram of Sprinkler Types]

LFP™ Antifreeze for Fire Sprinkler Systems

LFP™ Antifreeze is the first and only UL Certified antifreeze solution for fire sprinkler systems. This pre-mixed solution is formulated to help protect against freeze damage failure and ensure flow in wet pipe fire sprinkler systems. Additionally, LFP™ Antifreeze is both more cost-effective and easier to install and maintain than alternate freeze protection methods, such as heat tracing or dry systems.

- Helps meet requirements for NFPA 13, 13R, 13D and 25
- Freeze point -10°F (-23.3°C)
- Certified for use in residential, commercial and some storage applications
- Compatible with both CPVC and steel pipe
- Non-toxic*

* For the purpose of this product, non-toxic means acute exposure to ingredients in the LFP™ Antifreeze does not pose a risk of adverse effects in humans or the environment following short-term exposure in scenarios related to fire sprinkler system installation, maintenance, and discharge.
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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 NFPA 13D or 13R 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-1 Riser Manifold
Available in 1” - 2”
Available in either threaded or grooved configurations
Meets NFPA 13, 13R, and 13D 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

Hangers for BlazeMaster® CPVC Products
Rapid Response offers a full line of pipe hangers designed especially for use with BlazeMaster® CPVC Products.
Designed for ease of installation
Hangers have rounded edges to prevent damage to pipe and fittings
Meets the requirements specified in NFPA 13, NFPA 13R, and NFPA 13D

Sprinkler Head Cabinet
Spare sprinkler head cabinets are available.
All cabinets have ample room for sprinkler wrench storage.

Electric Alarm Bell
Ideally suited for residential applications
Unobtrusive to the homeowner, yet absolutely dependable in a fire event
When used with a flow switch, if water flow occurs in a sprinkler system protecting residential occupancies, an audible alarm sounds to alert the occupants and neighbors of trouble

CPVC Installation Equipment
Retrofit Tools
Cutting and Deburring Tools
BlazeMaster Caulk & Walk® Firestop
One-step CPVC Cement and Daubers
Hangers & Fasteners
Global Strength. Local Expertise.
At Your Service.

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