

# SPRINKLER HEAD



## FRONTIER SAFETY LIMITED UK SPRINKLER MANUAL



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## DESCRIPTION

Pendent and upright and conventional and sidewall sprinklers are designed for use in automatic sprinkler systems designed in accordance with standard installation (NFPA13). The temperature response is standard response 5mm glass bulb and fast response 3mm glass bulb. The sprinklers come with compact design, available in different finishes and temperature ratings.

The sprinklers body is made of brass die-casting copper alloy (DZR). The spring seat consists of a spring Belleville washer coated on both side with a Teflon tape.

Pendent and conventional and sidewall sprinklers are installed with adjustable or non-adjustable escutcheon plates. These are intended to be installed finished ceilings. Escutcheon plate adjustment provides convenience in pendent and conventional sprinkler installation in case of areas with finished ceiling or walls.



## TECHNICAL SPECIFICATION

Style	Pendent, Upright, Sidewall, Conventional and Recessed Pendent, Recessed Sidewall, Recessed Conventional
K Factor gpm/(psi) <sup>1/2</sup> (L <sup>3</sup> /min(bar) <sup>1/2</sup> )	5.6 (80)
Nominal Thread Size	1/2" NPT AND 1/2" BSPT
Max. Working Pressure	175 PSI (12BAR)
Factory Test Pressure	500 PSI (35BAR)
Min. Operating Pressure	7 PSI (0.5 BAR)
Finish	Brass and Chrome Plated and White Plated Available

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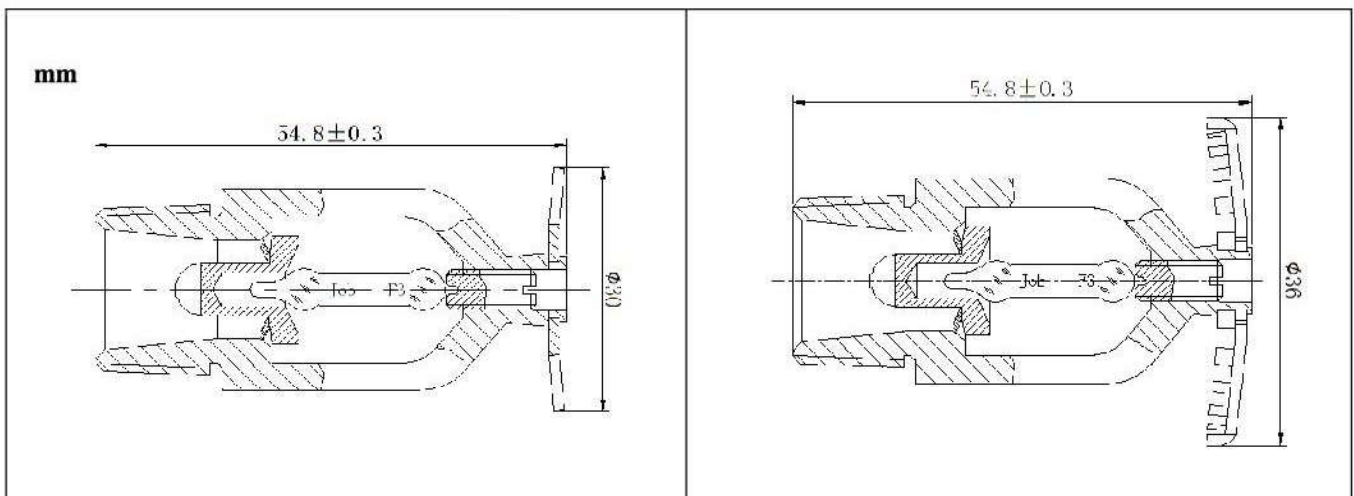
## TECHNICAL SPECIFICATIONS

SIN	Response type	Sprinkler Style	Temp. Rating F (C)
FN001	SR	Sidewall	155 (68)
FN002	QR	Sidewall	155 (68)
FN003	SR	Upright	135(57) 155(68) 175(79)
FN004	QR	Upright	155 (68)
FN005	SR	Pendent	135(57) 155(68) 175(79)
FN006	QR	Pendent	155 (68)
FN007	SR	Conventional	155(68)

## Material Specification

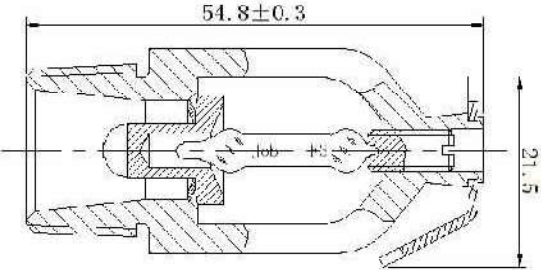
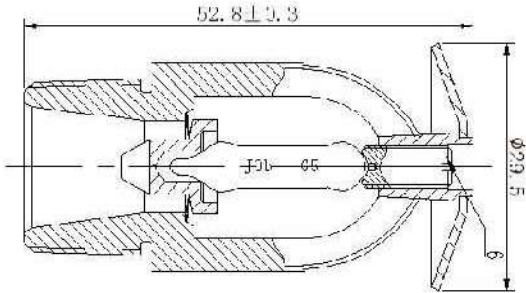
Deflector	Brass UNS-28000
Bulb	Glass with Glycerin Solution JOB G5 or Day-impex-937 for Ut0001, Ut0003, Ut0005, Ut0007 JOB F3 or Day-impex-941 for Ut0002, Ut0004, Ut0006
Load Screw	Brass UNS-28000
Seal	Brass UNS-28000
Frame	Brass UNS-28000
Seal Washer	Belleville Washer coated on both sides with Teflon Tape
Bulb Nominal Diameter	Standard Response 5.0mm, Quick Response 3.0mm

## Each style sprinkler dimension





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<u>Pendent</u>	<u>Upright</u>
	
<u>Horizontal Sidewall</u>	<u>Conventional</u>

## INSTALLATION

The sprinklers which are manufactured and tested in accordance with the rigid requirements of the Standard UL 199, also should be installed in accordance with the current Standard NFPA 13.

The system piping must be properly sized to insure the minimum required flow rate at the sprinkler. Check for the proper model, style, orifice size and temperature rating prior to installation, install sprinkler after the piping is in place to avoid mechanical damage, replace any damage units, wet pipe systems must be protected from freezing.

Upon completion of the installation, the system must be tested per recognized standard. In case of a thread leak, remove the unit, apply new pipe joint compound or tape and re-install.

## INSTALLATION METHODS

- Pendent sprinkler must be mounted in a pendent position, and upright sprinkler must be mounted in upright position, the C U/P sprinkler may be mounted both in upright and pendent position, the horizontal sidewall sprinkler is install at horizontal position, to suit for field condition.
- Hand tighten the sprinkler into the sprinkler fitting. It is recommended that a torque of 7 ~14 ft-lbs be used to obtain a thread 1/2 inch NPT Sprinkler joint. A radial force of 10 – 20 lbs.
- For using only a non-hardening pipe joint compound or Teflon tape apply to the male thread only.
- Hand tighten the sprinkler into fitting, use a 22mm open spanner or 8" (200mm) adjustable wrench on flat to tighten the unit into the fitting, do not use spanner on the frame arms, for it will cause the arms break and glass bulb burst.

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## REMOVE PROTECTIVE COVER

Be sure to remove the plastic protective cover after completed the installation, should not clamp on the frame arms, otherwise will to prevent the heat response function.

### ➤ **Caution :**

A maximum of 21 ft-lbs of torque is to be used to install the sprinkler. Higher levels of torque may distort the sprinkler orifice seat saddle with consequent leakage.

### ➤ **Escutcheon for clean attractive installation**

In case of install a decoration of escutcheon for clean attractive purpose, the step as below:

1. Spin the inner piece of escutcheon into sprinkler threads.
2. Use only a non-hardening pipe joint compound or Teflon tape apply to the male thread only.
3. Hand tighten the sprinkler into fitting, use a 22mm open spanner or 8” (200mm) adjustable wrench to tighten the unit into the fitting.
4. Keep the plastic protective cover clamped on sprinkler arms while inner decoration work.
5. Once decoration work completed, take off the plastic protective cover.
6. Insert the outer piece of escutcheon into inner piece, make the escutcheon flush to the ceiling, then the sprinkler is ready for services.