

# Automatic Sprinklers

WK1001 to WK8001

**SPKING®**

BY **WEFLO®**

## DESCRIPTION AND OPERATION



The SPKING WK1001 to WK8001 Automatic Sprinklers are small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements.

½" Sidewall, Upright, Pendent sprinkler, Standard/Quick Response, is 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 SPKING WK1001 to WK8001 Automatic Sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip cap assembly removed) on deluge systems. During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the pip cap and sealing spring assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.



WK1001



WK2001

## LISTING

**UL/ULC 199 Listed**

**NOTE:** Other international approval certificates are available upon request.

## TECHNICAL DATA

### Specifications:

Style: Pendent, Upright, Sidewall

Minimum Operating Pressure: 7 psi (0.5 bar)

Maximum Working Pressure: 175 psi (12 bar)

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread Size: ½" NPT, 15 mm BSPT

Nominal K-Factor: 5.6 U.S. (80.6 metric♦)

Overall Length: 2-3/8" (60 mm)

Finish: Brass, Chrome Plated and White Polyester Available

♦ Metric K-factor measurement shown is in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

### Material Standards:

Frame: DZR Brass

Bulb: Glass with Glycerin Solution

Bulb Nominal Diameter: Standard Response 5.0mm, Quick Response 3.0mm

Seal Spring: Beryllium Nickel w/Teflon

Load Screw: Brass UNS-C28000

Pip Cap: Brass UNS-C28000

For Polyester Coated Sprinklers: Belleville Spring-Exposed

**Temperature Ratings:** Refer to Table 1.



WK3001



WK4001



WK5001



WK6001



WK7001



WK8001

## 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.

• **Designs, materials and specifications shown are subject to change without notice due to the continuous development of our products.**

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- 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

- Sprinkler must be properly oriented.
- Only using the 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.

**Note:** Do not apply wrench to frame arms.

## REMOVE PROTECTIVE COVER

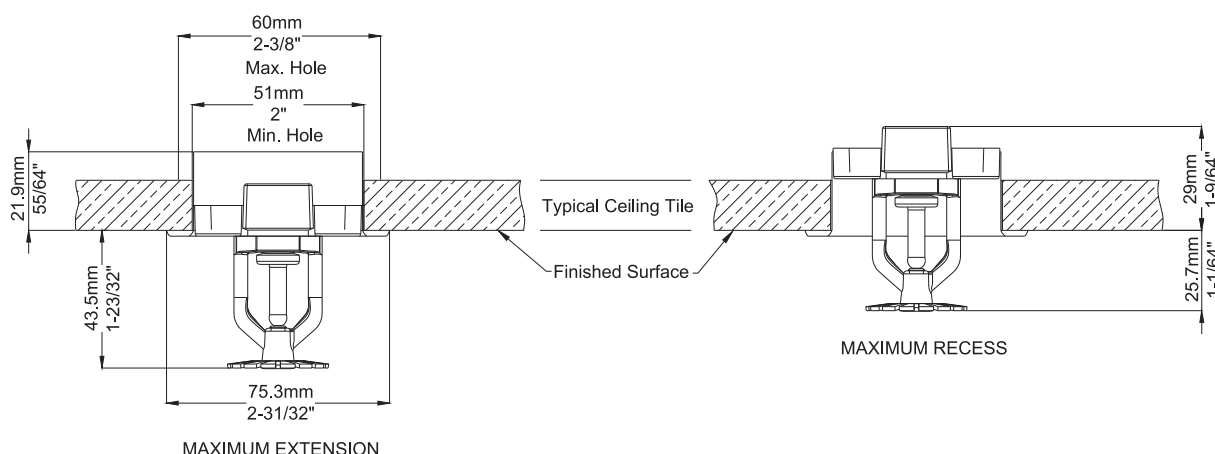
Be sure to remove the plastic protective cover after completed the installation.

**Caution:** It is recommended not to exceed 14 ft-lb torque for 1/2 inch NPT sprinkler threads.

## ESCUTCHEON FOR CLEAN ATTRACTIVE INSTALLATION

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

- Spin the inner piece of escutcheon into sprinkler threads.
- Use 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 to tighten the unit into the fitting.
- Keep the plastic protective cover clamped on sprinkler arms while inner decoration work.
- Once decoration work completed, take off the plastic protective cover.
- Insert the outer piece of escutcheon into inner piece, make the escutcheon flush to the ceiling, then the sprinkler is ready for services.



## INSPECTIONS, TESTS AND MAINTENANCE

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

**TABLE 1: SPRINKLER TEMPERATURE RATINGS**

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating	Maximum Ambient Ceiling Temperature	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

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