



Description

The LIFECO Standard and Quick response sprinklers are thermo sensitive glass bulbsprinklers available in different finishes and temperature ratings to meet design requirements. These sprinklers are sidewall standard spray pattern to meet approval agencies requirement. Especially, the Nickel-Chrome plated sprinklers are decorative and attractive, so it is well matched to customer interior decoration. In addition, Nickel-Chrome plating might be utilized to extend the life of copper alloy sprinkler, although it has passed the standard corrosion test.

Materials

Frame Forging	Brass AS1568 Alloy486
Deflector	Copper C2200
Spring Seat	Ni-Be alloy, coated on both sides with Teflon Tape
Bulb	Glass
Bulb Cap	Phosphor Bronze C5191
Screw Brass	Brass C3604
Spring Brass	Brass C3604

Features

- Glass bulb
- Standard Spary Pattern
- K-factor 5.6
- Quick & Standard Response

Technical & Environmental Specification

Minimum Operating Pressure	7 psi (0.5 bar)
Maximum Working Pressure	175 psi (12 bar)
Discharge Coefficient	K = 5.6 GPM/psi ^{1/2} (80.7 LPM/bar ^{1/2})
Temperature Rating	135°F/155°F/175°F/200°F/286°F (57°C/68°C/79°C/93°C/141°C)
Leakage Test at Factory	30Kgf/cm ² (0.3Mpa, 29.4bar, 426.7 psi)

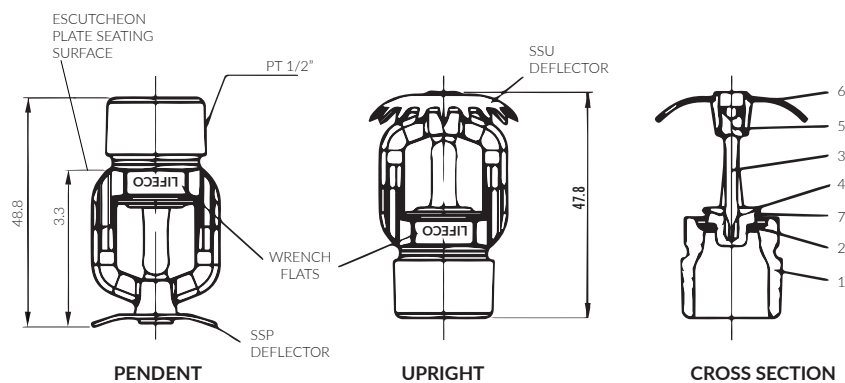
Installation

The LIFECO sprinklers are intended for fire protection systems designed in accordance with the standard installation rules of the applicable listings or approval agency. (eg., NFPA 13 or FM's Loss Prevention Data Sheets)

Note:

Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of fluid from the bulb. And with the sprinkler held horizontally, a small air bubble should be present. The sprinkler joint should be obtained with maximum torque of 28.5 Nm (21 ft-lbs)

Design Criteria



- 1 - Frame 2 - Spring Seat 3 - Glass Bulb 4 - Bulb Cap 5 - Screw 6 - Deflector 7 - Spring

Sprinkler Temperature Ratings & Finishes

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	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

Sprinkler Finishes : Brass, Nickel-Chrome, White Polyester, Black Teflon Coating

Footnotes

- The sprinkler temperature rating is stamped on the deflector.
- Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

Sectional Detail

SIN	Response Type	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals
		PT	NPT	U.S.	Metric	Inches	mm	UL/FM
LF310	SR	1/2"	1/2"	5.6	80.7	1.84	47.8	A1, B1, C1, D1, E1
LF311	QR	1/2"	1/2"	5.6	80.7	1.84	47.8	A1, B1, C1, D1, E1
LF320	SR	1/2"	1/2"	5.6	80.7	1.88	48.8	A1, B1, C1, D1, E1
LF321	QR	1/2"	1/2"	5.6	80.7	1.88	48.8	A1, B1, C1, D1, E1

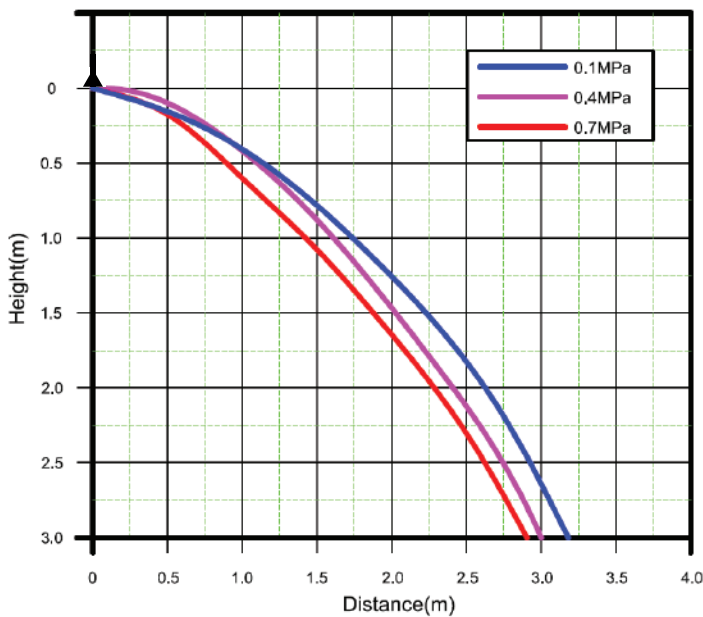
Approved Temperature Ratings

- A - 135°F (57°C)
- B - 155°F (68°C)
- C - 175°F (79°C)
- D - 200°F (93°C)
- E - 286°F (141°C)

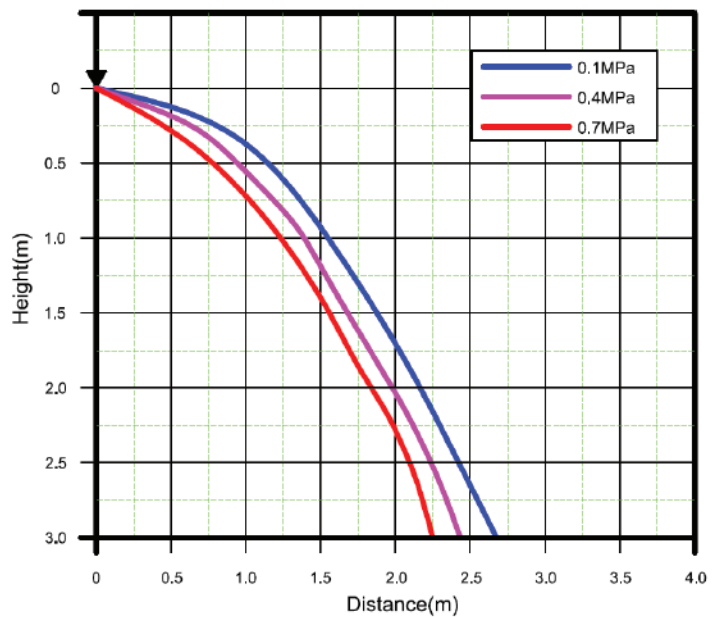
Approved Finishes

- 1- Brass, Nickel-Chrome, White Polyester, and Black Teflon coating

Water Spray Pattern



Upright LF310 / LF311



Pendent LF320 / LF321