



FIRE SPRINKLER HEAD

"Atlanta Quick Response Type Sprinkler reacts to heat faster than any regular sprinklers"

Glass Bulb • Standard Spray Pattern • K-Factor 5.6 • Quick & Standard Response





FIRE SPRINKLER HEAD

FESCO Sprinklers are thermo-sensitive glass bulb sprinklers available in different finishes and temperature rating to meet design requirements. These sprinklers are standard spray pattern to meet approval of agencies requirements. The Nickel-Chrome plated sprinklers are decorative & attractive so it is well matched to customer's 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.

GLASS BULB TYPE SPRINKLER



Pendent Type
UL/FM



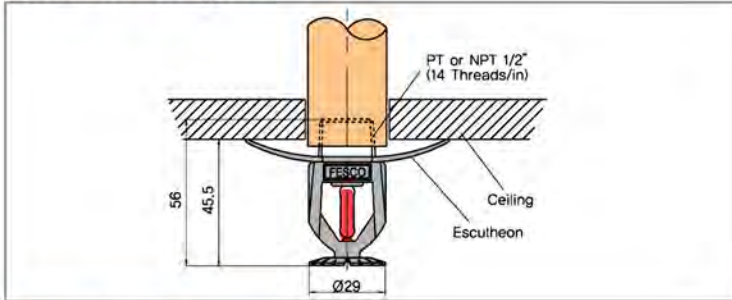
Upright Type
UL/FM



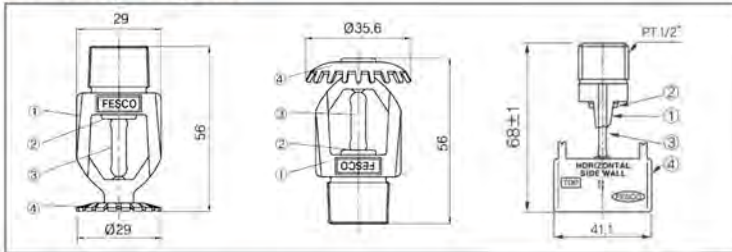
Sidewall Type
UL/FM

Fesco Glass bulb type sprinkler is especially designed to meet various customer requirements. It uses glass bulb which contains special liquid instead of conventional fuse. The glass bulb simplifies sprinkler structure and ensure stable operation in varying ambient temperature.

Installation Diagram



Assembly Diagram



Specification

Sprinkler Type	Pendent	Upright	Sidewall
Working Temperature	68°C(155°F)		93°C(200°F)
Max Ambient Temperature	38°C(100°F)		66°C(150°F)
Temp. Indication Color	Red		Green
Connection Screw Size	15A (PT 1/2", NPT 1/2")		
Orifice Size	ø11.2mm		
Test Pressure	Rated Water Press: 500psi(3.5 Mpa) Air Press:100psi(0.7 MPa)		
Max Pressure	175psi(1.23Mpa)		
Flow Rate	80 l/min-0.1Mpa(K=80)		
Glass Bulb	G5(5mm)		
Weight(KG)	8		
Packaging(Ea)	100		

NO	Part	Material
1	Frame	Forge Brass
2	Bulb Cap	Phospor Bronze
3	Glass Bulb	-
4	Deflector	Copper

GLASS QUICK RESPONSE TYPE SPRINKLER



Pendent Type
UL/FM



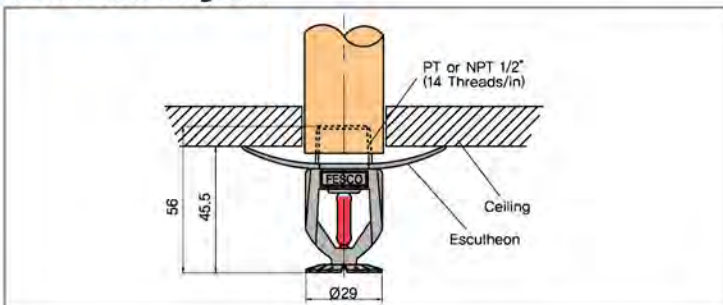
Upright Type
UL/FM



Sidewall Type
UL/FM

Fesco Quick Response Type Sprinkler reacts to heat faster than any regular sprinkler. Ideally designed for in populated areas where mass human loss or injuries can be occurred such as schools, hospitals, office buildings, hotels, restaurants, auditoriums and other facilities with similar occupancy.

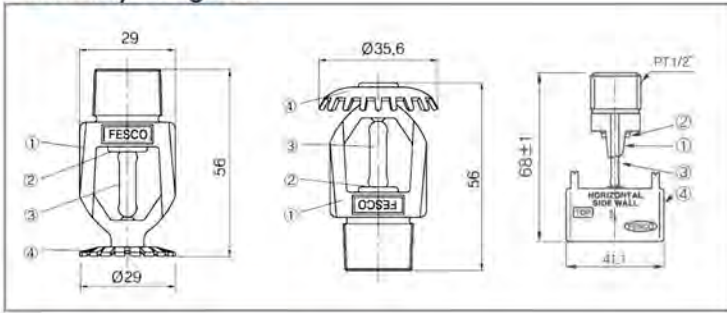
Installation Diagram



Specification

Sprinkler Type	Pendent	Upright	Sidewall
Working Temperature	68°C(155°F)		93°C(200°F)
Max Ambient Temperature	38°C(100°F)		66°C(150°F)
Temp. Indication Color	Red		Green
Connection Screw Size	15A(PT1/2", NPT1/2")		
Orifice Size	ø11.2mm		
Test Pressure	Rated Water Press (500psi)3.5MPa Air Press: (100psi)0.7MPa		
Max Pressure	(175psi)1.23MPa		
Flow Rate	80 /min - 0.1MPa(K=80)		
Glass Bulb	F3(3mm)		
Weight(KG)	8kg / Box		
Packaging(Ea)	100		

Assembly Diagram



NO	Part	Material
1	Frame	Forge Brass
2	Bulb Cap	Phospor Bronze
3	Glass Bulb	-
4	Deflector	Copper

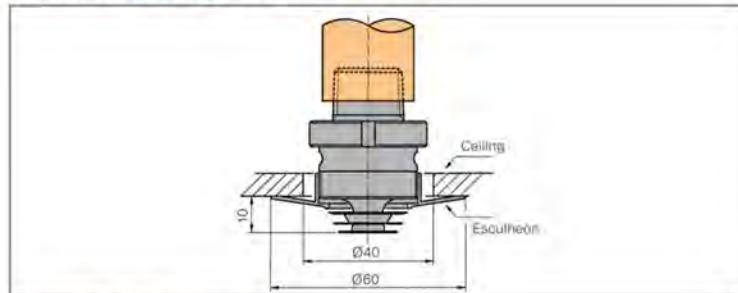
FLUSH TYPE SPRINKLER



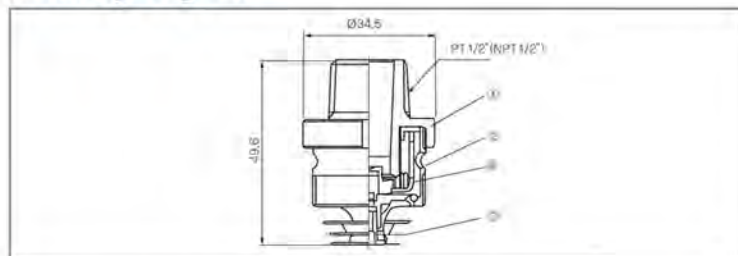
PI 720 UL

Fesco flush type sprinkler is a small high-sensitivity fusible element residential sprinkler designed for installation on concealed pipe systems where the appearance of a smooth ceiling is desired.

Installation Diagram



Assembly Diagram



Sprinkler Type	PI 720	
Working Temperature	72°C(162°F)	105°C(221°F)
Max Ambient Temperature	38°C(100°F)	66°C(150°F)
Response Speed	Standard Response	
Connection Screw Size	15A (PT 1/2", NPT 1/2")	
Orifice Size	ø11.2mm	
Test Pressure	(UL) Water: 500psi(3.5 bar) Air: 100psi(0.7 bar)	
Max Capacity Pressure	175psi(1.2bar)	
Flow Rate	80L/min-0.1Mpa(K=5.6g/min-14.2psi)	
Weight(KG)	11.2.Box	
Packaging(Ea)	100	

NO	Part	Material
1	Body	Forge Brass
2	Frame	Brass
3	Heat Collector	Copper
4	Deflector	Copper

ESCUTCHEON PLATE



INSTALLATION

FESCO 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).**

OPERATION

When the rated temp. is reached, the fluid which is contained in the glass bulb expands sufficiently to shatter the glass bulb, releasing the bulb cap & spring seat assembly. Water flowing through the sprinkler orifice & strikes the deflector forming an intended spray pattern to extinguish or control the fire.

INSPECTION, TEST & MAINTENANCE

Automatic Sprinklers must never be shipped or stored where their temperature will exceed 39°C and they must never be painted, plated, coated or otherwise altered after leaving factory. Modified sprinklers must be replaced. Sprinklers that have been exposed to corrosive products of combustion, but have not operated, should be replaced if they cannot be completely cleaned by wiping the sprinkler with a cloth or by brushing it with a soft bristle brush.

Care must be exercised to avoid damage to the sprinklers both before and after installation. Sprinklers damaged by dropping, striking, wrench twist/slippage, or the like, must be replaced any sprinkler that has a cracked bulb or that has lost liquid from its bulb.

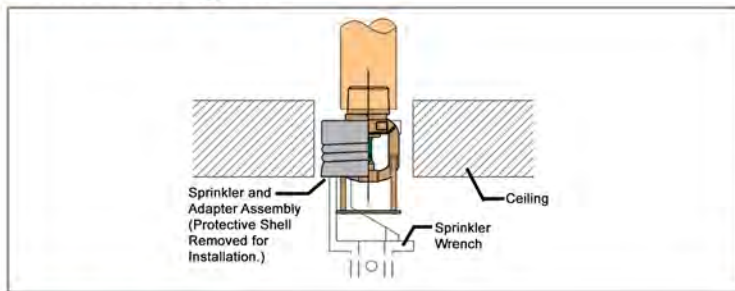
CONCEALED TYPE SPRINKLER



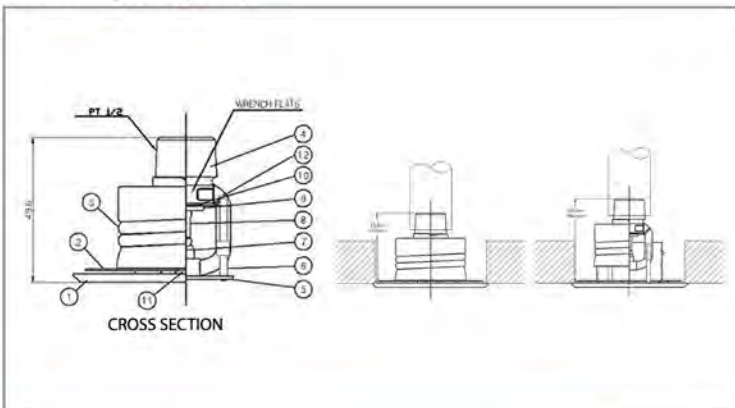
Fesco Standard and Quick Response Concealed Pendent Sprinkler PI820 and PI821 are thermosensitive glass-bulb spray sprinklers with the cover plate. The sprinkler is pre-assembled with a threaded adapter for installation with a low-profile cover assembly that provides up to 10mm of vertical adjustment.

The two-piece design allows installation and testing of the sprinkler prior to installation of the cover plate. The "thread-on", "thread-off" design of the concealed cover plate assembly allows easy installation of the cover plate after the system has been tested and the ceiling finish has been applied. The cover assembly can be removed and reinstalled, allowing temporary removal of ceiling panels without taking the sprinkler system out of service or removing the sprinkler.

Installation Diagram



Assembly Diagram



Maximum Working Pressure

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	Sprinkler: 68°C(155°F) / 93°C(200°F) Cover Assembly: 57°C(135°F) / 74°C(165°F)
Leakage Test at Factory (Air)	426.7 psi (0.3Mpa, 29.4bar,) 30 Kgf/cm ²
Connection Screw Size	15A (PT 1/2", NPT 1/2")

Material

Frame Forging	Brass AS1568 Alloy486 Deflector
Deflector	Copper C2680S Spring Seat
Spring Seat	Ni-Be alloy, coated on both sides with Teflon Tape
Bulb	Glass
Bulb Cap	Phosphor Bronze C5191
Screw	Brass C3604

NO	Part	NO	Part	NO	Part	NO	Part
1	Cover Plate	4	Frame	7	Screw	10	Spring Seat
2	Retainer	5	Deflector	8	Glass Bulb	11	Plate Spring
3	Cover Adapter	6	Deflector Pin	9	Bulb Cap	12	Spring

OPERATION

During fire conditions, when the temperature around the sprinkler approaches its operating temperature, the cover plate detaches. Continued heating of the exposed sprinkler causes the heat-sensitive liquid in the glass bulb to expand and the bulb to shatter, releasing the bulb 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.

