Engineering Specification

Model F1FR Series Quick Response Automatic Sprinklers

**Recommended CSI MasterFormat Specification Location: 21 13 00, Fire Suppression Sprinkler Systems (formerly 13930)**

Sprinklers shall be a quick response**, [**standard spray upright**] [**standard spray pendent**] [**conventional upright/pendent**] [**vertical sidewall**] [**horizontal sidewall**]** that is **[**cULus Listed**] [**FM Approved**]**. Sprinkler frame and deflector shall be of bronze frame construction having a ½” NPT thread. Water seal assembly shall consist of a Teflon-coated Belleville spring washer and top-loaded extruded cup with 3 mm glass bulb containing no plastic parts. Sprinkler temperature rating shall be **[**135°F (57°C)**] [**155°F (68°C)**] [**175°F (79°C)**] [**200°F (93°C)**] [**286°F (141°C)**]**. Sprinklers shall have a nominal K-factor of **[**2.8 gpm/psi1/2 (40 l/min/bar1/2) – small orifice**] [**4.2 gpm/psi1/2 (61 l/min/bar1/2) – small orifice**] [**5.6 gpm/psi1/2 (81 l/min/bar1/2) – standard orifice**]**. Sprinklers shall have a rated working pressure of 175 psi (12.1 bar). Standard finish: **[**Bronze**] [**Chrome Plated**] [**White Polyester**] [**Special finish– specify**]**.

Sprinklers shall be of the Model F1FR Series. Refer to Reliable Bulletin 014 for associated sprinkler identification number (SIN) with respect to style, orifice size and thread combination.

**For recessed sprinklers, add**:

**{**Recessed escutcheon assembly shall be a factory-assembled, two-piece steel escutcheon of push-on and thread off design with ½” adjustment. Standard finish shall be **[**White Polyester**] [**Chrome Plated**] [**Brass**] [**Special finish – specify**]**.**} {**Recessed escutcheon assembly shall be a two-piece “friction fit” escutcheon with **[***Model F2 escutcheon:* ½” (13 mm)**] [***Model F1 escutcheon:* ¾”(19 mm)**]** adjustment. Standard finish: **[**White Polyester**] [**Chrome Plated**] [**Brass**] [**Special finish– specify**]**.**}**

Recessed escutcheons that are listed for use with each Model F1FR Series recessed sprinkler shall be used.

**For concealed pendent sprinklers, add**:

Concealed pendent sprinklers shall have a factory-installed, steel sprinkler cup. Method of attaching the cover plate to the sprinkler cup shall be a push-on and thread-off design allowing **[**1/2” (13 mm)**] [**5/8” (8 mm)**]** of adjustment. The cover plate temperature rating shall be **[**135°F (57°C)**] [**165°F (74°C)**]**. A factory applied protective cap shall be provided to protect against installation damage. Standard cover plate finish: **[**Chrome**] [**White**] [**Special finish– specify**]**.

Cover plates used with the Model F1FR56 Concealed Pendent and F1FR56LL Concealed Pendent sprinklers shall be the Model CCP cover plate.