

# Model A Recessed

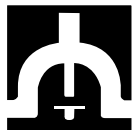
## 2.8, 4.2 & 8.0 K-factor

## Standard Response

## Standard Coverage

### Recessed Pendent Fusible Solder Type Sprinkler

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## General Description

The Central Model A Standard Response Recessed Pendent Sprinklers are automatic sprinklers of the fusible solder type. They are standard response - standard orifice spray sprinklers intended for use in fire sprinkler systems designed in accordance with the standard installation rules recognized by the applicable Listing or Approval agency (e.g., UL Listing is based on NFPA 13 requirements).

The Central Model A Recessed Pendent Sprinklers incorporate a center strut mechanism with a special two-piece recessed escutcheon assembly permitting 1/2" of field-adjustment. Unlike most other recessed sprinklers, the upper escutcheon support piece is factory installed on the base of the sprinkler frame, assuring a Listed installation. The ceiling escutcheon plate is easily installed after the sprinkler is in place either by the standard "push-on" escutcheon or the special "thread-on" escutcheon. This feature allows removal of ceiling panels for easy access to ceiling equipment without taking the system out of service to remove the sprinkler.

**Operation:** A fusible alloy is sealed into a bronze actuating rod (center strut) by a stainless steel ball. When the alloy melts at its rated temperature, the ball is forced upward into the center strut, releasing the two ejectors and operating the sprinkler.

### WARNING

*The Model A Upright & Pendent Sprinklers described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the National Fire Protection Association, in addition to the standards of any other authorities having jurisdiction.*

*Failure to do so may impair the integrity of these devices.*

*The owner is responsible for maintaining their fire protection system and devices in proper operating condition. The installing contractor or sprinkler manufacturer should be contacted relative to any questions.*



## Technical Data

### Sprinkler Identification Number

SIN C1711 - A (K=2.8)  
 SIN C2711 - A (K=4.2)  
 SIN C4711 - A (K=8.0)  
 SIN C4011 - A (K=8.0, 1/2" NPT)

### Approvals

UL & ULC Listed. NYC Approved (Refer to Table 1-3. The approvals apply only to the service conditions indicated in the Design Criteria Section)

### Maximum Working Pressure

175 psi (12,1 bar)

### Pipe Thread Connection

1/2 inch NPT -(K=2.7, 4.2 & 8.0)  
 3/4 inch NPT - (K=8.0)

### Discharge Coefficient

K = 2.8 GPM/psi<sup>1/2</sup> (40,3 LPM/bar<sup>1/2</sup>)  
 K = 4.2 GPM/psi<sup>1/2</sup> (60,5 LPM/bar<sup>1/2</sup>)  
 K = 8.0 GPM/psi<sup>1/2</sup> (116,8 LPM/bar<sup>1/2</sup>)

### Temperature Ratings

165°F/74°C or 212°F/100°C

### Finishes

Sprinkler: White Polyester, Chrome Plated, or Natural Brass  
 Recessed Escutcheon: White Coated, Chrome Plated, or Brass Plated

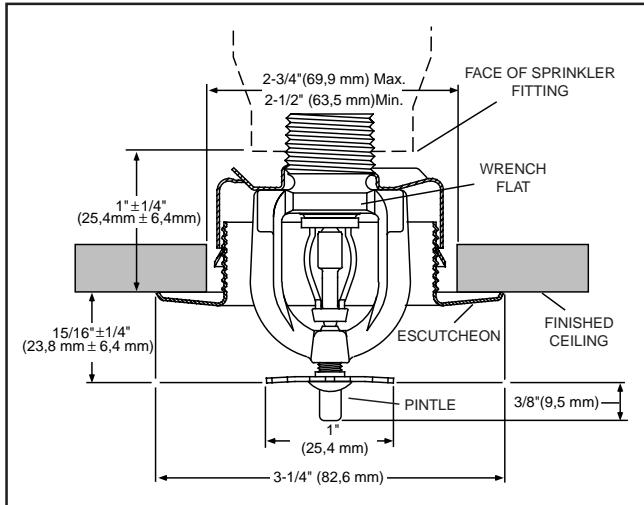
### Physical Characteristics

The Model A Recessed Pendent Sprinklers utilize a dezincification resistant (DZR) bronze frame and a brass deflector. The waterway is sealed with copper seal disk, and the fusible assembly is constructed of bronze and stainless steel components. The support cup is steel.

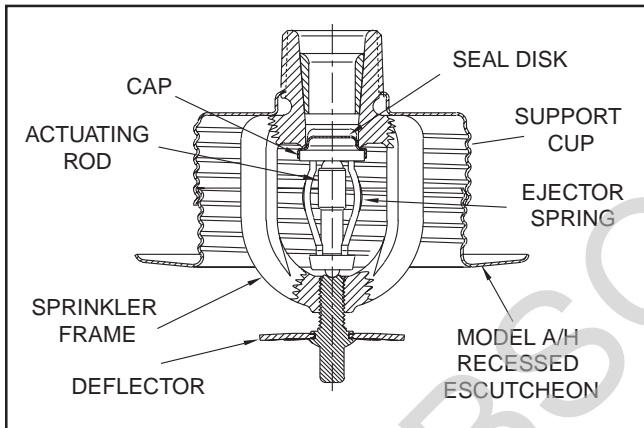


## Standard Spray Recessed Pendent Sprinklers

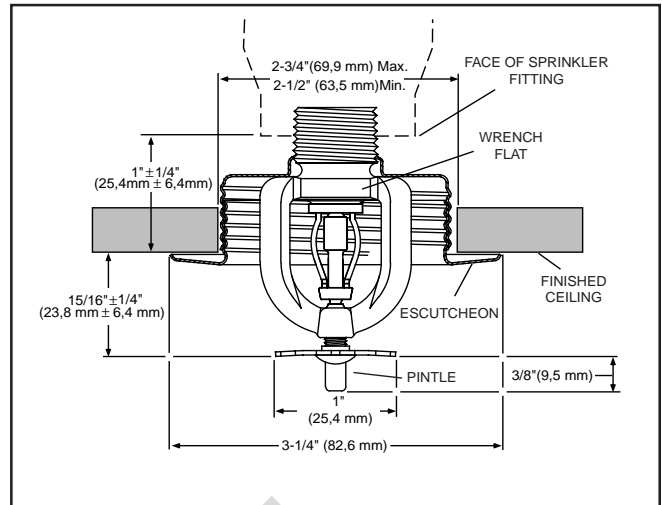
**Figure 1 - Model A Recessed Sprinkler with Push-on Escutcheon**



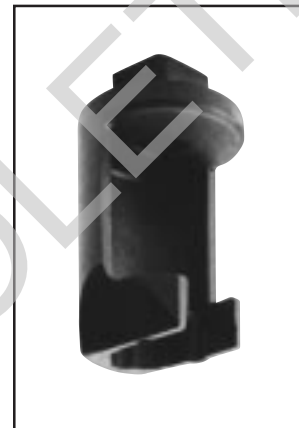
**Figure 3 - Cross Section Model A Recessed Sprinkler**



**Figure 2 - Model A Recessed Sprinkler with Threaded Escutcheon**



**Figure 4 - Universal Wrench (Part #1122 - K=2.8 & 4.2) (Part #1123 - K=8.0)**



**Figure 5 - Recessed Escutcheon Tool (Part #10654000)**



## Installation

The Model A Recessed Pendant Sprinklers must be installed in accordance with the following instructions.

### NOTES

A leak tight 1/2 inch NPT sprinkler joint should be obtained with a torque of 7 to 14 ft.lbs. (9,5 to 19,0 Nm). A maximum of 21 ft.lbs. (28,5 Nm) of torque is to be used to install 1/2 inch NPT sprinklers. A leak tight 3/4 inch NPT sprinkler joint should be obtained with a torque of 10 to 20 ft.lbs. (13,4 to 26,8 Nm). A maximum of 30 ft.lbs. (40,7 Nm) of torque is to be used to install 3/4 inch NPT sprinklers. Higher levels of torque may distort the sprinkler inlet with consequent leakage or impairment of the sprinkler.

*Do not attempt to make up for insufficient adjustment in the escutcheon plate by under- or overtightening the sprinkler. Readjust the position of the sprinkler fitting to suit.*

**Step 1.** Pendant sprinklers must be installed only in the pendant position. The deflector is to be parallel to the ceiling, roof, or mounting surface, as applicable.

**Step 2.** With pipe thread sealant applied to the pipe threads, hand tighten the sprinkler into the sprinkler fitting.

**Step 3.** Tighten the sprinkler into the sprinkler fitting using only the Universal Wrench (Ref. Figure 4). With reference to Figure 1 or 2, the Universal Wrench is to be applied to the sprinkler wrench flats only.

After the ceiling has been installed or the finish coat has been applied, slide on the Model A/H Recessed Escutch-

eon over the Model A Recessed Sprinkler and push-on or thread on the recessed escutcheon until its flange comes in contact with the ceiling.

Installation of the Model A/H Recessed Escutcheon can be accomplished by hand or by using the Recessed Escutcheon Tool (Ref. Figure 5) and a telescoping pole assembly. Every Model A Recessed Escutcheon has 4 tabs on the interior opening of the escutcheon. By matching these tabs to the corresponding groove on the Recessed Escutcheon Tool and with the telescoping pole attached, the recessed escutcheon can be installed without the aid of a ladder. Care should be exercised to assure that the Actuator Rod and Ejector Springs of the sprinkler are not damaged during the installation of the recessed escutcheon.



The Model A Recessed Pendent Sprinklers are UL, ULC Listed and NYC Approved for use in accordance with current NFPA standards. The Recessed Pendent Sprinklers are only listed with the Series A/H Recessed Escutcheon Assemblies.

The Model A Recessed Pendent Sprinklers are available with a two types of support cups, one that accepts a push-on escutcheon and one that accepts a threaded escutcheons. The recessed escutcheons are manufactured out of a metal or plastic material that has been specifically tested and listed for use with the Model A Recessed Pendent Sprinklers. The plastic recessed escutcheon is only listed for use with the push-on support cup assembly.

Do not install the Model A Recessed Pendent Sprinklers in ceilings which have positive pressure in the space above.

**Table 1 - Laboratory Listings and Approvals (2.8 K-factor Sprinklers)**

		SPRINKLER FINISH		
Temperature Rating	Frame Color Code	Natural Brass	Chrome Plated	Polyester Coated
165°F/74°C	Unpainted	1,2,3	1,2,3	1
212°F/100°C	White	1,2,3	1,2,3	1

**Table 2 - Laboratory Listings and Approvals (4.2 K-factor Sprinklers)**

		SPRINKLER FINISH		
Temperature Rating	Frame Color Code	Natural Brass	Chrome Plated	Polyester Coated
165°F/74°C	Unpainted	1,2,3	1,2,3	1
212°F/100°C	White	1,2,3	1,2,3	1

**Table 3 - Laboratory Listings and Approvals (8.0 K-factor Sprinklers with 1/2" or 3/4" NPT)**

		SPRINKLER FINISH		
Temperature Rating	Frame Color Code	Natural Brass	Chrome Plated	Polyester Coated
165°F/74°C	Unpainted	1,2,3	1,2,3	1
212°F/100°C	White	1,2,3	1,2,3	1

**Notes:**

1. Listed by Underwriters Laboratories, Inc.
2. Listed by Underwriters' Laboratories of Canada.
3. Approved by the City of New York under BSA 375-75-SA



## Care & Maintenance

The Model A Recessed Pendent sprinklers must be maintained and serviced in accordance with the following instructions.

### NOTES

*Absence of an escutcheon which is used to cover a clearance hole, may delay the time to operation in a fire situation.*

*Before closing a fire protection system main control valve for maintenance work on the fire protection system it controls, permission to shut down the affected fire protection systems must be obtained from the proper authorities. All personnel who may be affected by this action must be notified.*

Sprinklers which are found to be leaking or exhibiting visible signs of corrosion must be replaced.

Automatic sprinklers must never be shipped or stored where their temperatures will exceed 100°F/38°C and they must never be painted, plated, coated or otherwise altered after leaving the 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 - before, during, and after installation. Sprinklers damaged by dropping, striking, wrench twist/slippage, or the like, must be replaced.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the National Fire Protection Association (e.g., NFPA 25), in addition to the standards of any other authorities having jurisdiction. The installing contractor or sprinkler manufacturer should be contacted relative to any questions.

It is recommended that automatic sprinkler systems be inspected, tested, and maintained by a qualified Inspection Service.

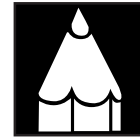


## Limited Warranty

Products manufactured by Tyco Fire Products are warranted solely to the original Buyer for ten (10) years against defects in material and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by Tyco Fire Products. No warranty is given for products or components manufactured by companies not affiliated by ownership with Tyco Fire Products or for products and components which have been subject to misuse, improper installation, corrosion, or which have not been installed, maintained, modified or repaired in accordance with applicable Standards of the National Fire Protection Association, and/or the standards of any other Authorities Having Jurisdiction. Materials found by Tyco Fire Products to be defective shall be either repaired or replaced, at Tyco Fire Products' sole option. Tyco Fire Products neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. Tyco Fire Products shall not be responsible for sprinkler system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

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**THE FOREGOING WARRANTY IS MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**



## Ordering Information

**Ordering Information:** When placing an order, indicate the full product name. Please specify the quantity, model, style, orifice size, temperature rating, type of finish or coating, and sprinkler wrench. Refer to price list for complete listing of Part Numbers.

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