Model TY7158 — 16.8 K-factor Standard Coverage Upright Storage Sprinkler — Specific Use

General Description

The TYCO 16.8 K-factor Model TY7158 Standard Coverage Upright Storage Sprinkler is an automatic, standard response, standard coverage sprinkler intended for a specific end use application.

The TYCO Model TY7158 Sprinkler has been subjected to full-scale fire testing at UL LLC using test parameters specified by TYCO that are considered representative of the specific end use. The fire test performance results of the large scale testing have been verified by UL. Details of the tests performed and results obtained may be found in UL Test Report 'Report of a Special Services Investigation Involving K16.8 gpm/(psi)½ Upright and Pendent Sprinkler Protection of a Shelf Display and Rack Storage Arrangement of Cartoned Group A Plastic' (Report Number NC27954).

For further details, contact the Technical Services Department.

NOTICE

The Model TY7158 Standard Coverage Upright Storage Sprinkler 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 performance of these devices.

The owner is responsible for maintaining their fire protection system and devices in proper operating condition. Contact the installing contractor or product manufacturer with any questions.

IMPORTANT

Always refer to Technical Data Sheet TFP700 for the "INSTALLER WARNING" that provides cautions with respect to handling and installation of sprinkler systems and components. Improper handling and installation can permanently damage a sprinkler system or its components and cause the sprinkler to fail to operate in a fire situation or cause it to operate prematurely.

Sprinkler Identification Number (SIN)

TY7158

Technical Data

Approvals

Fire Test Performance Characteristics Verified

UL VERIFIED verifyUL.com A826244

Maximum Working Pressure
175 psi (12,1 bar)

Pipe Thread Connection
3/4 inch NPT

Minimum Spacing
6 ft (1,83 m)

Discharge Coefficient
K=16.8 GPM/psi½ (241,9 LPM/bar½)

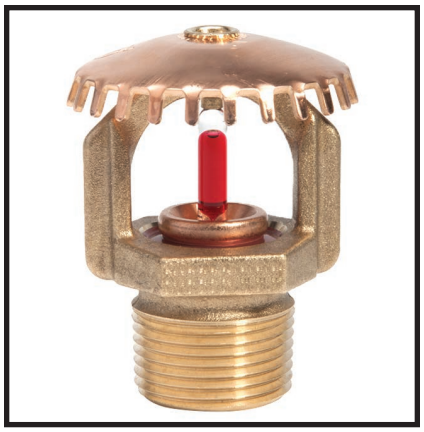
Temperature Ratings
155°F (68°C)
200°F (93°C)*
286°F (141°C)*

* Fire testing of the TYCO Model TY7158 Sprinkler was completed only in the 155°F (68°C) temperature rating. The results of such fire testing is outlined in UL test report number NC27954.

Finish
Natural Brass

Physical Characteristics

Frame	Brass
Deflector	Commercial Bronze
Compression Screw	Brass
Bulb (5 mm)	Glass
Button	Brass
Sealing Assembly	Beryllium Nickel w/TEFLON



Operation

When the glass bulb reaches its rated temperature of 155°F (68°C), 200°F (93°C), or 286°F (141°C) the glass bulb bursts allowing the sprinkler to activate and flow water.

Installation

Install the TYCO Model TY7158 Standard Coverage Upright Sprinkler in accordance with this section.

General Instructions
Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of liquid from the bulb. With the sprinkler held horizontal, a small air bubble should be present. For the Model TY7158 Sprinkler, the diameter of the air bubble is approximately 1/16 inch (1,6 mm).

A leak tight 3/4 inch NPT sprinkler joint should be obtained by applying a minimum-to-maximum torque or 10 to 20 ft.-lbs. (13,4 to 26,8 Nm). Higher levels of torque may distort the sprinkler inlet with consequent leakage or impairment of the sprinkler. Only the W-type 8 Sprinkler Wrench (Ref. Figure 2) shall be used during installation.

Sprinkler Installation
Install the Model TY7158 Upright Sprinkler only in the upright position as follows:

Step 1. Apply pipe-thread sealant to sprinkler threads.

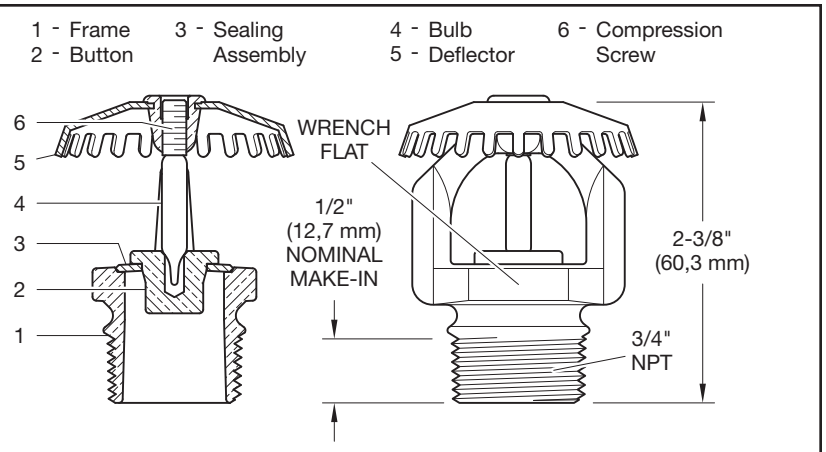


FIGURE 1
MODEL TY7158 STANDARD COVERAGE, UPRIGHT STORAGE SPRINKLER, 16.8 K-FACTOR

Step 2. Hand-tighten sprinkler into sprinkler fitting. Do not apply force to glass bulb, grasp only by wrench flats while hand-tightening.

Step 3. Wrench tighten the Model TY7158 sprinkler 1-1/4 to 1-1/2 turns beyond hand-tightening or by applying a minimum-to-maximum torque of 10 to 20 ft.-lbs. (13,4 to 26,8 Nm) by fully engaging (seating) the wrench on the sprinkler flats (Ref. Figure 1) using only the W-Type 8 Sprinkler Wrench (Ref. Figure 2).

NOTICE

Higher levels of torque may distort sprinkler inlet with consequent leakage or impairment of sprinkler.

Care and Maintenance

The TYCO Model TY7158 Standard Coverage Upright Sprinkler must be maintained and serviced in accordance with this section.

Before closing a fire protection system main control valve for maintenance work on the fire protection system that it controls, obtain permission to shut down the affected fire protection system from the proper authorities and notify all personnel who may be affected by this decision.

Inspection, testing, and maintenance must be performed as indicated below and in accordance with the local requirements and/or national codes. Any impairment must be immediately corrected.

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 any authorities having jurisdiction. Contact the installing contractor or product manufacturer regarding any questions.

Automatic sprinkler systems are recommended to be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes.

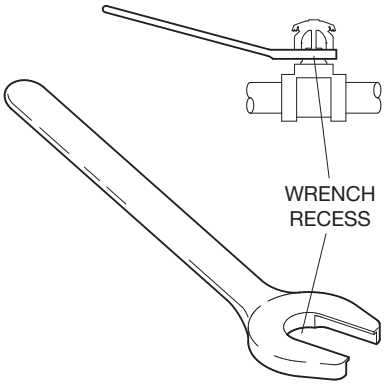


FIGURE 2
W-TYPE 8
SPRINKLER WRENCH

Limited Warranty

For warranty terms and conditions, visit www.tyco-fire.com.

Ordering Procedure

When placing an order, indicate the full product description and Part Number (P/N).

Sprinkler Assembly
Specify: Model TY7158 Standard Coverage Upright Sprinkler, SIN TY7158, temperature rating (specify), P/N (specify):

155°F (68°C) 51-901-1-155
200°F (93°C)* 51-901-1-200
286°F (141°C)* 51-901-1-286

* Fire testing of the TYCO Model TY7158 Sprinkler was completed only in the 155°F (68°C) temperature rating. The results of such fire testing is outlined in UL Test Report Number NC27954.

Sprinkler Wrench
Specify: W-Type 8 Sprinkler Wrench, P/N 56-892-1-001

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