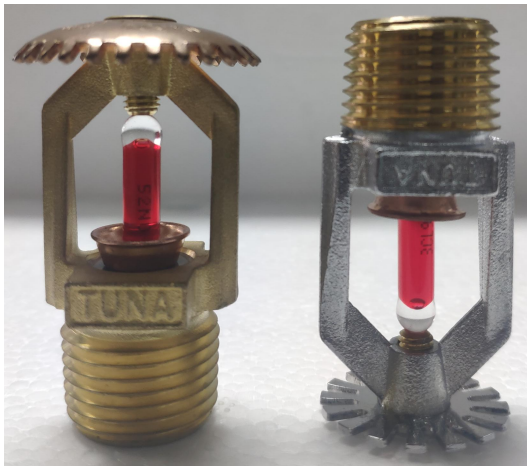
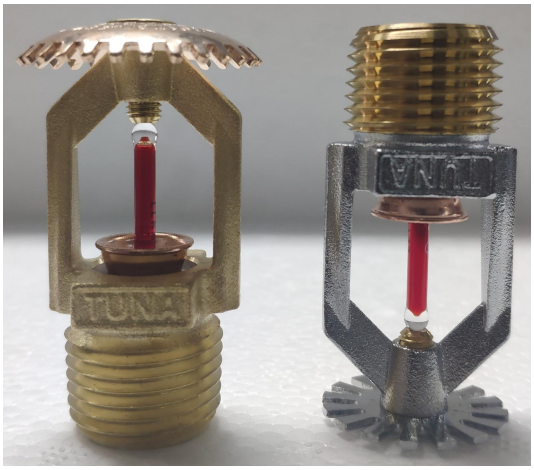
UPRIGHT SPRINKLERS AND PENDENT SPRINKLERS

MODEL: NX023 / NX024 / NX025 / NX026

STANDARD SPRAY, STANDARD / QUICK RESPONSE, 5 / 3 mm BULB TYPE, K5.6, 1/2" CONNECTING THREAD





GENERAL DESCRIPTION

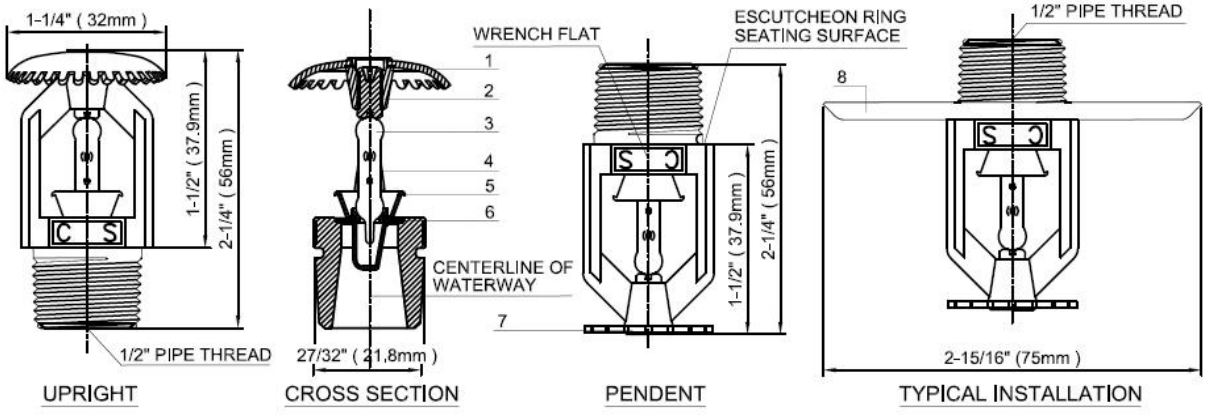
The NX023/NX024 Standard/Quick Response Upright and NX025/NX026 Standard/Quick Response Pendent Sprinklers (Ref. Figure A) are automatic sprinklers of the frangible bulb type. They are "standard/quick response – standard orifice spray sprinkler" intended for use in fire sprinkler systems designed in 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 Upright, Pendent Sprinklers all produce a hemispherical water distribution pattern below the deflector.

During a fire conditions, the thermal-sensitive liquid in the glass bulb expands, causing the bulb to shatter, releasing the button and spring seal assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

COVERAGE

For coverage area and sprinkler placement, refer to NFPA13 standards.

SPRINKLER OPERATION



1.SSU DEFLECTOR 2.SET SCREW 3.GLASS BULB 4.FRAME 5.BUTTON 6.SPRING SEAL 7.SSP DEFLECTOR 8.STANDARD ESCUTCHON

FIGURE A : MODEL NX023/NX024 UPRIGHT & MODEL NX025/NX026 PENDENT SPRINKLERS

TECHNICAL SPECIFICATIONS

Model & Sprinkler I.D. No.	NX023	NX024	NX025	NX026
Style	Upright		Pendent	
Bulb Nominal Dia. & Response	Ø5mm, Standard Response	Ø3mm, Quick Response	Ø5mm, Standard Response	Ø3mm, Quick Response
Thread Size [Optional]	☐NPT1/2 or ☐R1/2			
Nominal Orifice Size	1/2 Inch			
Nominal K-Factor	5.6 (U.S.) / 80 (metric)			
Max. Working Pressure	175 psig / 1.2 MPa (12 bar)			
Factory Hydrostatic Test	100% @ 500psig (3.4 MPa)			
Min. Operating Pressure	7 psig / 0.048 MPa (0.48 bar)			
Sprinkler Finish [Optional]	☐Natural Brass ☐Chrome Plated ☐White Color Coated			
Escutcheon Finish	☐Chrome Plated or ☐Color Coated In Any Color			
Listings and Approvals	UL(United States) / CUL(Canada) /FM			

AVAILABLE TEMPERATURE RATING

Temp. Classification	Ordinary	Ordinary	Intermediate	Intermediate
Nominal Temp. Rating	135°F / 57°C	155°F / 68°C	175°F / 79°C	200°F / 93°C
Max. Ambient Temp. Allowed [5]	115°F / 46°C	135°F / 57°C	155°F / 68°C	180°F / 82°C
Max. Recommended Ambient Temp. [6]	100°F / 38°C	100°F / 38°C	150°F / 65°C	150°F / 65°C
Glass Bulb Color [7]	Orange	Red	Yellow	Green

Footnotes:

[1] Sprinkler I.D. Nos. and nominal U.S. K-factors provided in accordance with the 2002 edition of NFPA 13.

[2] The pipe thread connections accord with ISO7/1.

[3] This table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals.

[4] UL and C-UL Listed. FM Approved. for both Light-Hazard and Ordinary-Hazard occupancies.

[5] Based on National Fire Prevention and Control Administration Contract No. 7-34860.

[6] 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.

[7] The temperature rating is stamped on the deflector or adjacent to orifice seat on frame.

Tel: 0086-25-86986999, Fax: 0086-25-86986999, Email: zhongyan@tuna.com.cn

SPRINKLER MATERIALS

Frame	Brass
Deflector	Bronze
Glass Bulb	Glass with Glycerin Solution, JOB® G5 for NX023/ NX025 JOB® F3 for NX024/ NX026
Set Screw	Brass
Button	Brass
Seal	Teflon® Tape

ACCESSORIES

Standard Escutcheon	
Type	E-1
Installation Wrench	
Type	T-1

DISCHARGE COEFFICIENT

Model NX023/NX024 Upright and Model NX025/NX026 Pendent Sprinklers are rated for use at a maximum service pressure of 175 psig (12 bar).

The nominal discharge curve plotted in Figure B represents the flow "Q" in GPM (LPM) as determined by the following formula:

$$Q = K\ (P)^{0.5}$$

Where:

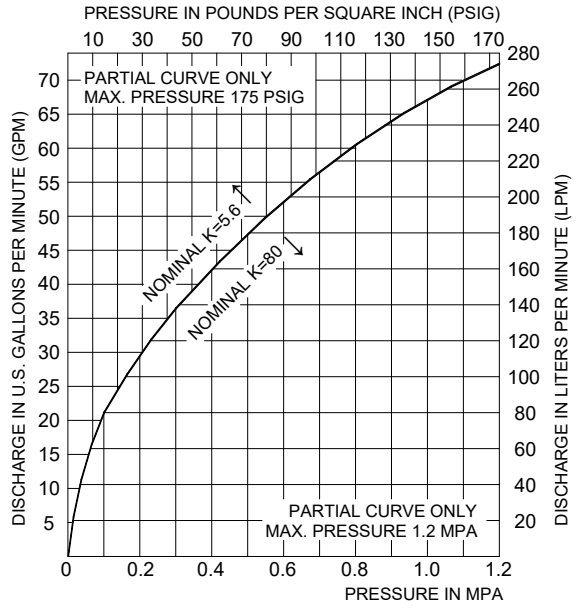


FIGURE B : NOMINAL DISCHARGE CURVE

Q — Flow, GPM (LPM)
K — Discharge Coefficient, *K*=5.6 (80)
P — Discharge Pressure, psig (bar)

Listing standards permit the actual value of "K" to vary from 5.3 to 5.8 (76,4 to 83,6); however, for hydraulic calculations, a K-factor of 5.6 (80,7) is to be applied.

WARNING

The Model NX023/NX024 Upright Sprinklers and Model NX025/NX026 Pendent Sprinklers described herein must be installed and maintained in compliance with this document, as well as 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 manufacturer should be contacted relative to any questions.

INSTALLATION

NOTES

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.

The Model NX023/NX024 Upright Sprinklers and Model NX025/NX026 Pendent Sprinklers must be installed in accordance with the following instructions.

1. Prior to installing the sprinklers, if applicable, verify that the face of the sprinkler fitting is within the proper range of distance, which can be accommodated by the type of escutcheon being used.

2. With pipe thread sealant applied to the pipe threads and after installing standard escutcheon, over the sprinkler threads, hand tighten the sprinkler into the sprinkler fitting.

3. Refer to Figure D and select the appropriate Sprinkler Wrench for tightening the sprinkler into the sprinkler fitting.

NOTES

A leak tight 1/2" pipe thread 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 the sprinkler. Higher levels of torque may distort the sprinkler inlet with consequent leakage or impairment of the sprinkler.

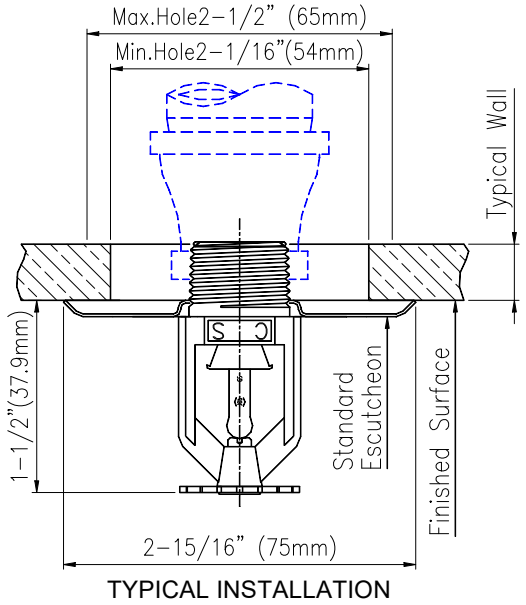


FIGURE C : MODEL NX025/NX026 PENDENT SPRINKLER INSTALLED WITH A STANDARD ESCUTCHEON

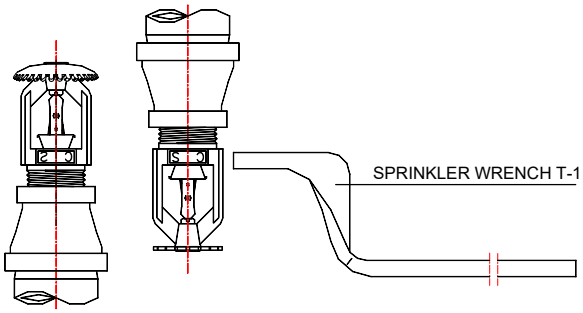


FIGURE D : SPRINKLER WRENCH SELECTION & USE

***P**ush on the Sprinkler Wrench, while it is being turned, to ensure that the Wrench recess stays fully engaged with the sprinkler wrench flats.*

***C**arefully remove the Sprinkler Wrench by disengaging it from the sprinkler wrench flats, and then lowering it down over the sprinkler deflector.*

CARE AND MAINTENANCE

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 to the sprinklers — both before and after installation. Sprinklers damaged by dropping, striking, wrench twist/slippage, or the like, must be replaced. Also, replace any sprinkler that has a cracked bulb or that has lost liquid from its bulb (ref. Installation Section Note).

NOTES

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

***B**efore closing a fire protection system control valve for maintenance work on the fire protection system, which it controls, permission to shut down the affected fire protection system must be obtained from the proper authorities and all personnel who may be affected by this action must be notified.*

***I**t is recommended that automatic sprinkler systems be inspected quarterly by a qualified Inspection Service.*

! WARNING

This product must be installed by an experienced, trained installer, in accordance with the instructions provided with each valve. These instructions contain important information.
Failure to follow these instructions may result in serious personal injury, property damage, or valve leakage.
We reserve the right to change product specifications, designs and standard equipment without notice and without incurring obligations.
If you have any questions about the safe installation and use of this device, contact Nanjing Tuna Fire Protection Co., Ltd. P.C.211112, 599 Zhushan Road, Jiangning District, Nanjing, R. P.China

Tel: 0086-25-86986999, Fax: 0086-25-86986999, Email: zhongyan@tuna.com.cn