

## Technical Data Sheet: MX8636 Quick Response Extended Coverage Light Hazard ELO Sprinkler K11.2

### 1. DESCRIPTION

The Quick Response Extended Coverage Light Hazard ELO Concealed Pendent Sprinkler MX8636 is a thermosensitive solder link spray sprinkler designed for installation on concealed pipe systems where the appearance of a smooth ceiling is desired. The 11.2K sprinkler meets Light Hazard density requirements at lower pressures than 5.6K or 8.0K sprinklers. The fusible operating element and special deflector characteristics meet the challenges of quick response extended coverage standards.

The sprinkler is pre-assembled with a threaded adapter for installation with a low-profile cover assembly that provides up to 1/2" (13 mm) of vertical adjustment. The two-piece design allows installation and testing of the sprinkler prior to installation of the cover plate. The "push-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.

### 2. LISTINGS AND APPROVALS

**cULus Listed:** Category VNIV

\* Refer the Approval Chart and Design Criteria for cULus Listing and FM Approval requirements that must be followed.

### 3. TECHNICAL DATA

#### Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar).  
 Maximum Working Pressure: 175 psi (12 bar).  
 Factory tested hydrostatically to 500 psi (34.5 bar).  
 Thread size: 3/4" (20 mm) NPT  
 Nominal K-factor: 11.2 U.S. (161.3 metric\*\*)

\*\*Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

#### Material Standards:

Sprinkler Body: Brass UNS-C84400  
 Deflector: Brass UNS-C23000 or Bronze UNS-C51000  
 Deflector Pins: Stainless Steel  
 Fusible Element Assembly: Nickel Alloy and Eutectic Solder  
 Lever and Lever Bar: Stainless Steel  
 Seat: Bronze UNS-C31400/UNS-C31600  
 Deflector Carrier: Brass UNS-C84400 or QM Brass  
 Screw: Brass UNS-C36000  
 Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape  
 Cover Adapter: Cold Rolled Steel UNS-G10080, Finish: Clear Chromate over Zinc Plating

#### Cover Assembly Materials:

Cover: Brass UNS-C26800  
 Base: Cold Rolled Steel UNS-G10060/G10080, Finish: Copper Flash  
 Springs: Nickel Alloy  
 Solder: Non-eutectic

#### Available Finishes and Temperature Ratings:

<b>Finish:</b>	Brass	--
<b>Suffix:</b>	A	--
<b>Temperature:</b>	165 °F (74 °C)	205 °F (96 °C)
<b>Suffix:</b>	C	E

Ordering Information: (Refer to Table 1.)

### 4. INSTALLATION

Refer to appropriate NFPA Installation Standards.



**WARNING:** Cancer and Reproductive Harm-  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**For Light Hazard Occupancies Only**

**5. OPERATION**

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the pip 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.

**6. INSPECTIONS, TESTS, AND MAINTENANCE**

Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

**7. AVAILABILITY**

The Model MX8636 Sprinkler is available through a network of domestic and international distributors. See the web site for the closest distributor or contact us.

**8. GUARANTEE**

For details of warranty, refer to the current list price schedule or contact us directly.

TABLE 1: ORDERING INFORMATION					
THE SPRINKLER AND COVER PLATE MUST BE ORDERED SEPERATELY.					
Instructions: Using the sprinkler base part number, add the suffix for the desired Temperature Rating.					
Sprinkler Base Part No.	Size	Temperature Ratings			
	NPT Inch	Classification	Nominal Rating	Maximum Ambient Ceiling Temperature <sup>2</sup>	Suffix
61349A	3/4	Ordinary	165 °F (74 °C)	100 °F (38 °C)	C
		Intermediate	205 °F (96 °C)	150 °F (65 °C)	E
<b>Example:</b> 61349AC = MX8636 with Brass Finish and 165 °F (74 °C) Nominal temperature rating. This sprinkler is to be installed into an area with a maximum ambient temperature of 100 °F (38 °C) meaning if the area will experience temperatures above the maximum ambient rating, you shall use a higher temperature-rated sprinkler.					
Accessories					
<b>Sprinkler Wrenches:</b> A. Standard (Heavy duty) Wrench: Part Number 15467WB <sup>1</sup> . B. Head Cabinet Wrench: Part Number 15466 <sup>1</sup> . <b>Sprinkler Cabinet:</b> Part number 61414.					
Footnotes					
1. Requires a 1/2" ratchet which is not available from Us. 2. Based on NFPA 13, NFPA 13R, and NFPA 13D. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.					

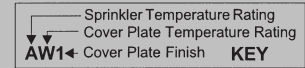
TABLE 2: COVER PLATE ORDERING INFORMATION								
Instructions: Using the cover plate base part number,								
(1) add the suffix for the desired Finish								
(2) add the suffix for the required Cover Plate Nominal Rating.								
Cover Plate Base Part Number <sup>3</sup>	Size Inch (mm)	Style	1: Finishes		Temperature Rating Matrix <sup>1,2</sup>			
			Description	Suffix <sup>4</sup>	Cover Plate Nominal Rating (Required)	Sprinkler Nominal Rating	Sprinkler Max. Ambient Ceiling Temperature <sup>2</sup>	Suffix
61368	3-5/16 (84)	Round	Polished Chrome	F	135 °F (57 °C)	165 °F (74 °C)	100 °F (38 °C)	A
			Painted White	M-W	165 °F (74 °C)	165 °F (74 °C)	100 °F (38 °C)	C
			Painted Ivory	M-I	165 °F (74 °C)	205 °F (96 °C)	150 °F (65 °C)	C
			Painted Black	M-B	<b>Example: 61368FC = 165 °F (74 °C) Temperature Rated 3-5/16" (84 mm) Diameter Round Cover Plate with a Polished Chrome Finish.</b>			
Footnotes								
1. The sprinkler temperature rating is stamped on the deflector. 2. Based on NFPA-13, NFPA 13R, and NFPA 13D. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards. 3. Part number shown is the base part number. For complete part number, refer to current our price list schedule. 4. Where a dash (-) is shown in the Finish suffix designation, insert the desired Temperature Rating suffix. See example above.								

Form No. FX\_121009 18.12.04 Rev 18.1

Sprinkler Base Part Number <sup>1</sup>	hread Size	Nominal K-Factor		Maximum Water Working Pressure	Overall Length (Sprinkler Body)	
	NPT Inches	U.S.	metric <sup>2</sup>		Inches	mm
61349A	3/4	11.2	161.3	175 psi (12 Bar)	2-7/16	61.8

### Approval Chart

Quick Response Extended Coverage Light Hazard ELO  
Concealed Pendent Sprinkler MX8636



Maximum Sprinkler Spacing <sup>4</sup> (Length x Width)	Minimum Water Supply Requirements <sup>4</sup> Flow/Pressure	Maximum Area Per Sprinkler	Listings and Approvals <sup>3</sup> (Refer also to Design Criteria.)
			cULus <sup>5,6</sup>
16' x 16' (4.9 m x 4.9 m)	30 gpm @ 7.2 psi (113.6 L/min @ .50 Bar)	256 ft. <sup>2</sup> (23.8 m <sup>2</sup> )	AW1, BX1
18' x 18' (5.5 m x 5.5 m)	33 gpm @ 8.7 psi (124.9 L/min @ .60 Bar)	324 ft. <sup>2</sup> (30.1 m <sup>2</sup> )	AW1, BX1
20' x 20' (6.1 m x 6.1 m)	40 gpm @ 12.8 psi (151.4 L/min @ .88 Bar)	400 ft. <sup>2</sup> (37.2 m <sup>2</sup> )	AW1, BX1
Sprinkler Temperature Ratings		Cover Assembly Temperature Ratings	
A - 165 °F (74 °C) B - 205 °F (96 °C)		W - 135 °F (57 °C) or 165 °F (74 °C) cover 61368 <sup>1</sup> X - 165 °F (74 °C) cover 61368 <sup>1</sup>	
			Cover Plate Finishes <sup>7</sup>
			1 - Polished Chrome, Painted White, Painted Ivory, or Painted Black

#### Footnotes

- Part number shown is the base part number. For complete part number, refer to current price list schedule.
- Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
- This chart shows the listings and approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals.
- For areas of coverage smaller than shown, use the "Minimum Water Supply Requirement" for the next larger area listed. Flows and pressures listed are per sprinkler.
- Listed by Underwriter's Laboratories, Inc. for use in the U.S. and Canada.
- cULus Listings are limited to Light Hazard occupancies with smooth, flat, horizontal ceilings only.
- Painted finish consists of Polyester Baked Enamel. Other paint colors are available on request with the same listings as the standard paint colors. Listings and approvals apply for any paint manufacturer. Contact us for additional information.

**NOTE: Custom colors are indicated on a label inside the cover assembly. Refer to Figure 1.**

### Design Criteria

(Also refer to Approval Chart 1 above.)

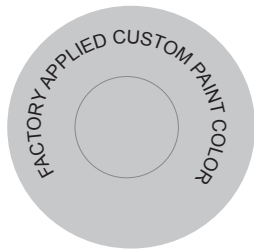
#### cULus Listing Requirements:

Quick Response Extended Coverage Light Hazard ELO Concealed Pendent Sprinkler MX8636 is cULus Listed for installation in accordance with the latest edition of NFPA 13 for extended coverage pendent spray sprinklers:

- Limited to Light Hazard occupancies with smooth, flat, horizontal ceilings only.
- Minimum spacing allowed is 8 ft. (2.4 m) unless baffles are installed in accordance with NFPA 13.
- Minimum distance from walls is 4 in. (102 mm).
- Maximum distance from walls shall be no more than one-half of the allowable distance between sprinklers. The distance shall be measured perpendicular to the wall.
- The sprinkler installation and obstruction rules contained in NFPA 13 for extended coverage pendent spray sprinklers must be followed.

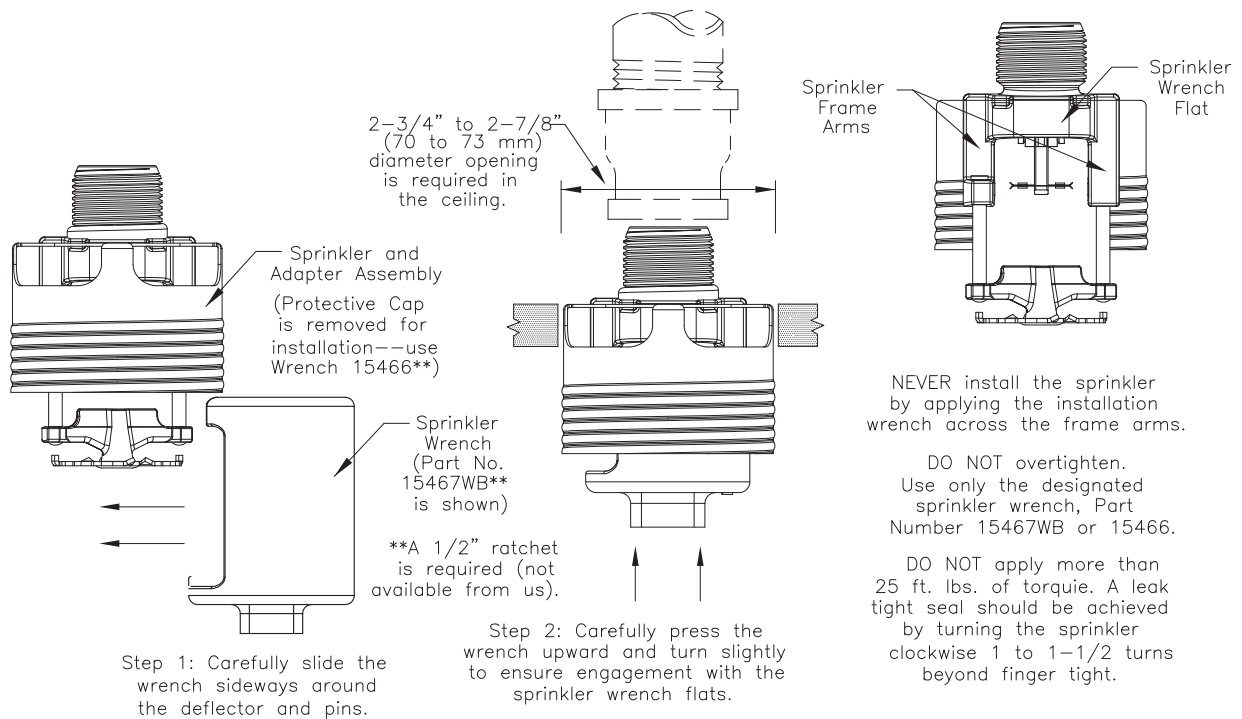
**NOTE: Concealed sprinklers must be installed in neutral or negative pressure plenums only.**

**IMPORTANT: Always refer to Form No. FX\_091699 - Care and Handling of Sprinklers. Also refer to Form No. FX\_080614 for general care, installation, and maintenance information. Minimax sprinklers are to be installed in accordance with the latest edition of Minimax technical data, the appropriate standards of NFPA or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.**

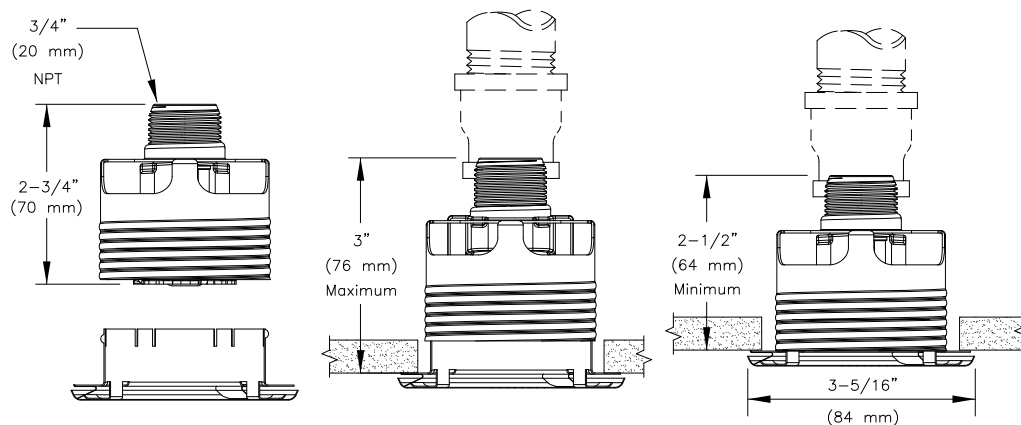


All custom color painted cover plates will have an identifying label affixed to the inside of the cover that indicates the custom color and will have a representative sample (a paint dot) of the paint on the label.

**Figure 1: Identification of Custom Paint for Concealed Covers**



**Figure 2: Sprinkler Installation and Correct Use of Wrenches**



**Figure 3: Sprinkler Dimensions and Cover Installation**