Ultra Low Flow AQUAMIST Nozzles
Type ULF AM24
Automatic (Closed)

General Description

The TYCO Ultra Low Flow AQUAMIST Nozzles Type ULF AM24 are closed (automatic) nozzles intended for use with engineered, water-mist systems. They are low-pressure nozzles that utilize a single fluid jet impinging on a diffuser to produce a spray having a range of water droplet sizes suitable for the control of Class A fires.

It is recommended that the end user be consulted with respect to the suitability of the materials of construction and finish for any given corrosive environment. The effects of ambient temperature, concentration of chemicals, and gas/chemical velocity should be considered, at a minimum, along with the corrosive nature to which the nozzles may be exposed.

Technical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge Coefficient K</td>
<td>K = 9.2 LPM/bar (0.64 GPM/psi)</td>
</tr>
<tr>
<td>Thread Connection</td>
<td>1/2 in. NPT</td>
</tr>
<tr>
<td>Response Time Index</td>
<td>Quick Response</td>
</tr>
<tr>
<td>Finish</td>
<td>Natural Brass, Chrome Plated, Pure White, Signal White</td>
</tr>
<tr>
<td>Temperature Ratings</td>
<td>Refer to Table A</td>
</tr>
<tr>
<td>Physical Characteristics</td>
<td>Frame: Brass, Inlet Strainer: Copper, Orifice Insert: Brass, Button: Copper, Sealing Assembly: Bronze, Diffuser: Stainless Steel, Bulb: Stainless Steel, Ejection Spring: Stainless Steel</td>
</tr>
<tr>
<td></td>
<td>Loading Screw: Stainless Steel</td>
</tr>
</tbody>
</table>

The Type ULF AM24 can only be installed in non-recessed applications.

Installation

The TYCO Type ULF AM24 AQUAMIST Nozzles must be installed in accordance with this section.

General Instructions

Do not install any bulb type nozzle if the bulb is cracked or there is a loss of liquid from the bulb. With the nozzle held horizontally, a small air bubble should be present. The diameter of the air bubble is approximately 1.6 mm (1/16 in.) for the 57°C (135°F) to 2.4 mm (3/32 in.) for the 93°C (200°F) temperature ratings.

For flush installations, use the Style 20 Escutcheon.

Step 1. Install the Type ULF AM24 Nozzle in the pendant position as shown in Figure 1.

Step 2. With pipe-thread sealant applied to the pipe threads, hand-tighten the nozzle to the nozzle fitting.

Step 3. Tighten the nozzle into the nozzle fitting using only the W-Type 6 Nozzle Wrench, refer to Figure 2. With reference to Figure 1, apply the wrench to the Nozzle Wrench Flats.

Design Criteria

Obtain guidance for the design of a water-mist system that utilizes the TYCO Type ULF AM24 AQUAMIST Nozzles from the Technical Services department.

IMPORTANT

Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

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.
**Care and Maintenance**

The TYCO Type Ulf AM24 AQUAMIST Nozzles 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 action.

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

Automatic nozzles must never be painted, plated, coated, or otherwise altered after leaving the factory. Modified nozzles must be replaced. Nozzles 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 nozzle with a cloth or by brushing it with a soft bristle brush.

Care must be exercised to avoid damage to the nozzles - before, during, and after installation. Nozzles damaged by dropping, striking, wrench twist/slippage, or the like, must be replaced. Also, replace any nozzle that has a cracked bulb or that has lost liquid from its bulb. (Ref. Installation Section.)

Frequent visual inspections are recommended to be initially performed for nozzles installed in potentially corrosive atmospheres to verify the integrity of the materials of construction and finish as they may be affected by the corrosive conditions present for a given installation. Thereafter, annual inspections per applicable standards are required, in addition to inspections required by the authority having jurisdiction.

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 20, 25, and 750), in addition to the standards of any other authorities having jurisdiction. Contact the installing contractor or product manufacturer with any questions.

Water-mist fixed systems should be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes.

**Limited Warranty**

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

---

**Ordering Procedure**

Contact your local distributor for availability. When placing an order, indicate the full product name and Part Number (P/N).

**Type Ulf AM24 AQUAMIST Nozzles**

Specify: Type Ulf AM24 AQUAMIST Nozzle with (specify finish), temperature rating (specify), P/N (specify):

- **Natural Brass**
  - 57°C (135°F) .................................................. 49-210-1-135
  - 68°C (155°F) .................................................. 49-210-1-155
  - 79°C (175°F) .................................................. 49-210-1-175
  - 93°C (200°F) .................................................. 49-210-1-200

- **Chrome Plated**
  - 57°C (135°F) .................................................. 49-210-9-135
  - 68°C (155°F) .................................................. 49-210-9-155
  - 79°C (175°F) .................................................. 49-210-9-175
  - 93°C (200°F) .................................................. 49-210-9-200

- **Signal White** (RAL9003)
  - 57°C (135°F) .................................................. 49-210-4-135
  - 68°C (155°F) .................................................. 49-210-4-155
  - 79°C (175°F) .................................................. 49-210-4-175
  - 93°C (200°F) .................................................. 49-210-4-200

- **Pure White** (RAL9010)
  - 57°C (135°F) .................................................. 49-210-3-135
  - 68°C (155°F) .................................................. 49-210-3-155
  - 79°C (175°F) .................................................. 49-210-3-175
  - 93°C (200°F) .................................................. 49-210-3-200

  *Previously known as Bright White
  **Eastern Hemisphere sales only

**Nozzle Wrench**

Specify: W-Type 6 Nozzle Wrench, P/N 56-000-6-387

**Escutcheon**

Specify: Style 20 Recessed Escutcheon with (specify*) finish, P/N (specify*)

*Refer to Technical Data Sheet TFP770