

DuraQuench™ OH-UPR NOZZLE



Description

The OH-UPR nozzle is an automatic, upright, closed head, low pressure water mist nozzle used in the Fike DuraQuench water mist system for protection of enclosed garages, underground garages and similar applications. The upright nozzle design makes it possible to protect such applications with low water flows and water pressures and at the same time protect the nozzles themselves.

Approvals

The OH-UPR nozzle has been tested by an ISO17025 accredited test lab and third party accepted to the CEN/TS 14972:2016 water mist standard for non-automatic, fully enclosed garages. The test protocol is a revised version of the VdS car park test protocol. The tests were witnessed by DnV GL.

Application

| General | |
|--------------------------------------|---|
| Coverage | 172 ft ² (13.12 ft. x 13.12 ft.) 16.00 m ² (4 m x 4 m) |
| Distance to Wall (max) | 6.56 ft. (2 m) |
| Room size (max) | Unlimited |
| Height (max) | 9.84 ft (3 m) |
| Distance below ceiling to glass bulb | 1.97 in. – 7.87 in. (50 mm – 200 mm) |
| Hydraulic | |
| Water density | 3.00 mm/m ² |
| Minimum system operation time | As required by AHJ |
| Minimum design area | As required by AHJ |

Specifications

| | |
|------------------------------|--|
| Water Pressure | 87 psi (6 bar) minimum |
| | 232 psi (16 bar) maximum |
| K-factor | 1.34 (gpm/√psi) 19.4 (lpm/√bar) |
| Flow Rate | 12.5 gpm (47.5 lpm) nominal |
| Nominal Release Temperature | 135°, 154°, 174°, 199°, 286°F (57°, 68°, 79°, 93°, 141°C) |
| Time Response Index (metric) | RTI <50 Fast Response Class |
| Droplet Size | DV ₉₀ < 300 μm |
| Weight | 0.47 lbs. (0.211 kg) |
| Housing | Brass or Stainless Steel |
| Coating | NiSn (brass only) |
| Strainer | Stainless Steel |
| Thread Type | ½" NPT / ½" BSPT |
| Cover Plate Finish | Chrome, White RAL 9010 (other RAL colors available) |

Ordering

02-16720-X -X -X -X
A B C D

A: Material

1 = Brass
2 = Stainless Steel

B: Connection Threads

1 = NPT
2 = BSPT

C: Cover Plate

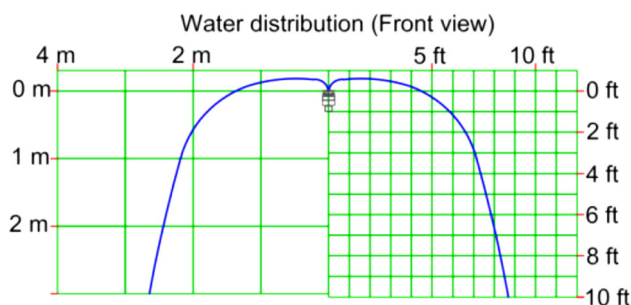
1 = Chrome Plated
2 = White (RAL 9010)

D: Temperature

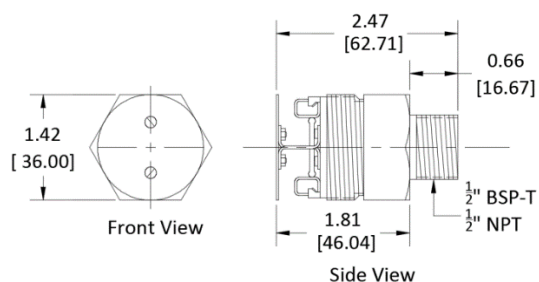
1 = 135°F (57°C)
2 = 154°F (68°C)
3 = 174°F (79°C)
4 = 199°F (93°C)
5 = 286°F (141°C)

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Spray Pattern



Dimensions



OH-UPR Nozzle

Installations

The OH-UPR nozzles are installed recessed in a ceiling, using the proper tools, as not to damage either nozzle or the surrounding ceiling, with a maximum distance of 13.12 ft. (4 m) between the nozzles and a maximum of 6.56 ft. (2 m) between to any walls.

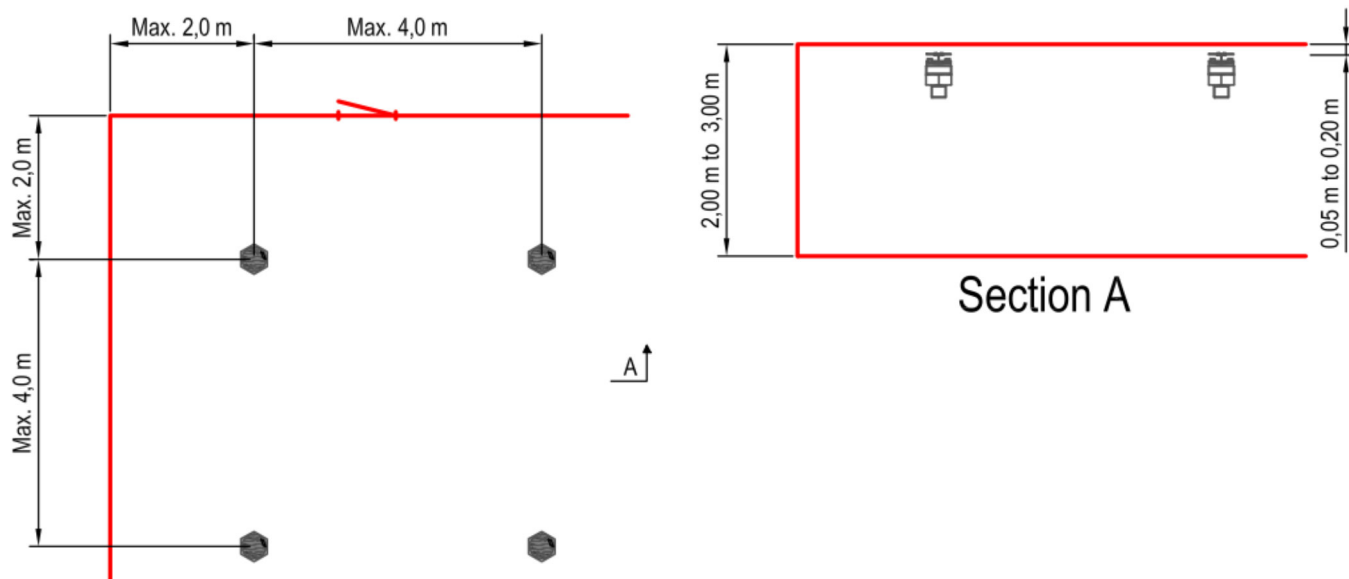
The OH-UPR should only be installed in clean, non-corrosive pipe systems, which do not cause galvanic corrosion to the nozzle, the system components and pipe hangers, and with clean rinsed internal surfaces free of impurities. The OH-UPR nozzles can either be installed in wet pipe systems, but can also be installed in pre-action system as long as it is used together with the Model C-EL-PA valves. Refer to Fike data sheet W.1.11.01 for further information on the C-EL-PA valve. The system should be installed using materials found acceptable by the authorities having jurisdiction.

Nozzle Position

The OH-UPR nozzles are installed upright in 1.97 in. (50 mm) to 7.87 in. (200 mm) below the ceiling, creating not only protection of the nozzle itself from hit from vehicles, but also eases the installation time and thereby reduces the total system and installation cost.

Caution: The OH-UPR nozzle is a fragile component, containing a glass release element under pressure. Dropped or otherwise damaged nozzles should not be reinstalled.

Typical Layout



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