User Guide

Bulb Thermal Actuator (BTA)

February 2015 Version 2
# Table of Contents

1. Overview ................................................................................................................................. 3

A. Bulb Thermal Actuator, short type .......................................................................................... 4

2. Bulb Thermal Actuator short type, assembling ......................................................................... 5

3. Interfacing the Bulb Thermal Actuator with the condensed aerosol fire extinguishing unit ...... 5

B. Bulb Thermal Actuator, long type .......................................................................................... 8

4. Bulb Thermal Actuator long type, assembling ........................................................................ 9

5. Interfacing the Bulb Thermal Actuator with the condensed aerosol fire extinguishing unit ..... 10
1. Overview

This User Guide provides information on interfacing the Bulb Thermal Actuator with the condensed aerosol fire extinguishing units.

There are two models of Bulb Thermal Actuator, the short type used by the cylindrical types of condensed aerosol fire extinguishing units and the long type used by the box type condensed aerosol fire extinguishing units, figure 1.

![Figure 1](image-url) "Short type and Long type Bulb Thermal Actuators"

The rated temperatures for Bulb Thermal Actuator

- 3mm
- 57°C / 135°F
- 68°C / 155°F
- 79°C / 175°F
- 93°C / 200°F
- 141°C / 286°F
- 182°C / 360°F

Bulb types per color / temperature
A. Bulb Thermal Actuator, Short Type
2. **Bulb Thermal Actuator short type, assembling**

The Bulb Thermal Actuator short type consists of two parts: The bulb holder (Part1) and the activator part (Part2).

![Bulb Thermal Actuator parts](image1)

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3. **Interfacing the Bulb Thermal Actuator with the condensed aerosol fire extinguishing unit**

**Step 1:** All the cylindrical condensed aerosol fire extinguishing units (except the **FP-20S** which has one) have two activation interfaces: a) the electrical interface and b) the thermal interface. Locate the thermal interface where the Bulb Thermal Actuator will be connected.

![Cylindrical type, Condensed aerosol fire extinguishing unit - activation interfaces](image2)
**Step 2:** Connect the activator part (Part2) of the Bulb Thermal Actuator (turning it clockwise) with bulb holder (Part1) of the Bulb Thermal Actuator.

![Figure 4 “Assembling the Bulb Thermal Actuator”](image1)

**Step 3:**
On the condensed aerosol fire extinguishing unit, unscrew (anticlockwise) the thermo-connector cover of the thermal interface and remove the conical valve located inside. The thermo-connector cover and the conical valve are not used when the Thermal Bulb Actuator is going to be interfaced.

**Step 4:** Connect the Thermal Bulb Actuator to the condensed aerosol fire extinguishing unit (turning it clockwise).

![Figure 5 “Interfacing the Bulb Thermal Actuator to the condensed aerosol fire extinguishing unit”](image2)
**Step 5:** The condensed aerosol fire extinguishing unit is ready for installation.

**Step 6:** After installation remove the safety pin. The Bulb Thermal Actuator is operational and ready for use. When the Bulb Thermal Actuator is activated, the condensed aerosol fire extinguishing unit is simultaneously activated.

![Figure 6 "Removing the safety pin"](image-url)
B.  Bulb Thermal Actuator, Long Type
4. Bulb Thermal Actuator long type, assembling

The Bulb Thermal Actuator - Long type consists of two parts: a) The bulb holder (Part1) and b) the activator part (Part2).

Figure 7 "Bulb Thermal Actuator long type parts"

In the Bulb Thermal Actuator - Long type kit you will find a sealing washer and an Allen - key.

Figure 8 "Sealing Washer & Allen Key"
5. Interfacing the Bulb Thermal Actuator with the condensed aerosol fire extinguishing unit

**Step 1:** All the box type condensed aerosol fire extinguishing units have two activation interfaces: a) the electrical interface and b) the thermal interface. Locate the thermal interface where the Bulb Thermal Actuator - Long type will be connected.

![Thermal Interface](image)

*Figure 9* "Box Type, Condensed aerosol fire extinguishing unit - activation interfaces"

**Step 2:** Connect the activator part (Part2) of the Bulb Thermal Actuator (turning it clockwise) with bulb holder (Part1) of the Bulb Thermal Actuator.

![Assembling the Bulb Thermal Actuator long type](image)

*Figure 10* "Assembling the Bulb Thermal Actuator long type"

**Step 3:** On the condensed aerosol fire extinguishing unit, unscrew (anti-clockwise) and remove the sealing plug of the thermal interface.

![Removing the sealing plug](image)

*Figure 11* "Removing the sealing plug from the box type condensed aerosol fire extinguishing unit"
Step 4: Remove the "FIBER WASHER" from the "BTA PLUG 1" (The "FIBER WASHER" will be used later).

![Image of FIBER WASHER and BTA PLUG 1]

Figure 12 "Removing the fibre washer"

Step 5: Pass the "SEALING WASHER" and the "FIBRE WASHER" onto the Bulb Thermal Actuator.

![Image of sealing washer and fibre washer on Bulb Thermal Actuator]

Figure 13 "Inserting the sealing washer and fibre washer to the Bulb Thermal Actuator"

Step 6: Align the Bulb Thermal Actuator with the thermal interface of the condensed aerosol fire extinguishing unit. Insert the Bulb Thermal Actuator into the thermal interface hole and screw it clockwise until it is tightly sealed to the condensed aerosol unit.

![Image of Bulb Thermal Actuator inserted into condensed aerosol unit]

Figure 14 "Inserting the Bulb Thermal Actuator in the condensed aerosol unit"

Step 7: Slide the sealing washer onto the side of the condensed aerosol unit and tighten carefully the screws of the "sealing washer" by using 2 mm Allen key.

![Image of sealing the Bulb Thermal Actuator to the condensed aerosol unit]

Figure 15 "Sealing the Bulb Thermal Actuator to the condensed aerosol fire extinguishing unit"
Step 8: After installation of the device, remove the safety pin on the Bulb Thermal Actuator. The extinguishing unit is now operational and ready for use. When the Thermal Bulb Actuator is activated, the condensed aerosol fire extinguishing unit is simultaneously activated.

Figure 16 "Removing the safety pin"
Notes:
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