

FirePro.

BTA V3

Bulb Thermal Actuator with guard

Data Sheet

Issue March 2025

Version 5.0



Reinventing
Fire Suppression

Features

- Suitable for electrical panels, generator/boiler rooms, obstructive accessible areas, etc.
- No electrical power source is required.

Product Overview

The FirePro BTA V3 with guard allows fire detection and automatic activation of the fire extinguishing aerosol generator in an enclosure with the use of a bulb thermal sensor at a pre-selected temperature.

Approval / Certificates

K-0210989/01 Product Certificate issued by KIWA, as per TIC Scheme K21045 "Fire Protection Systems"

Product Number

Complete Unit with guard

BTA V3, at 57°C for cylindrical-type Generators
BTA V3, at 68°C for cylindrical-type Generators
BTA V3, at 79°C for cylindrical-type Generators
BTA V3, at 93°C for cylindrical-type Generators
BTA V3, at 141°C for cylindrical-type Generators
BTA V3, at 182°C for cylindrical-type Generators

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BTA V3, at 57°C for box-type Generators
BTA V3, at 68°C for box-type Generators
BTA V3, at 79°C for box-type Generators
BTA V3, at 93°C for box-type Generators
BTA V3, at 141°C for box-type Generators
BTA V3, at 182°C for box-type Generators

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Individual Order - Parts Ordering

BTA Mechanical Part V3, at 57°, with guard
BTA Mechanical Part V3, at 68°, with guard
BTA Mechanical Part V3, at 79°, with guard
BTA Mechanical Part V3, at 93°, with guard
BTA Mechanical Part V3, at 141°, with guard
BTA Mechanical Part V3, at 182, with guard

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BTA Adaptor for Cylindrical-Type Generators

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BTA Sleeve for Box-Type Generators

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Activator Type: Thermal

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Technical

Mechanical Part

- BTA Mechanical Part consists of:
 - a) Thermo Lock with Glass Retort,
 - b) Spring Transmission of percussive mechanism, which initiates the capsule,
 - c) Safety Ring and Pin during transportation.
 - d) Protective Guard
- Length 74mm, Diameter 25mm.
- Note: the FP-20TH generator includes the thermal activation part. Thus, only the mechanical part is needed for the complete BTA.

Thermal Activation Part

- Activator with Thermal Activation Type. Consisting of the capsule and the solid compound.

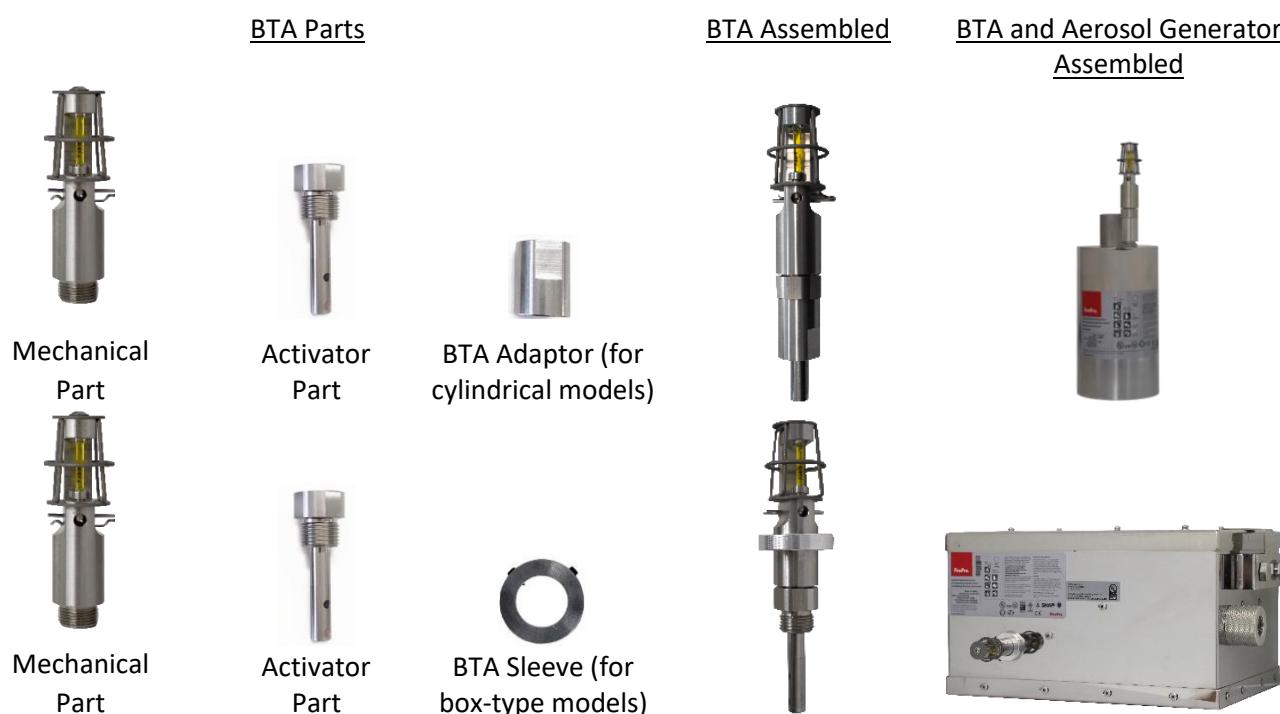
Bulb

- Length 20mm, Diameter 3mm.
- The liquid within the bulb expands while the

surrounding temperature increases. At the operating temperature the glass bulb 'bursts', allowing the thermal mechanism to actuate the built-in firing pin, which in turn initiates the capsule, and causes ignition of the solid compound of the Thermal Actuator.

- Response Time Index RTI 24m/ s.
- The surface area of the glass is maximized to allow optimum conductivity of heat from surrounding air to bulb liquid.
- The super-fast THERMO BULB is a high-performance fast response THERMO BULB featuring improved strength and sensitivity characteristics. The response time is 25% faster than that of the standard fast bulb with superior strength condition.
- Strength (Crush Load) = 4.1 kN.
- Bulb Color indicates the operating temperature: Orange 57°C, Red 68°C, Yellow 79°C, Green 93°C, Blue 141°C, Mauve 182°C.

Installation Notes



Component Assembly - Disassembly

FirePro DOES NOT ALLOW the replacement of the glass bulb, which is pre-installed on the BTA unit. The BTA unit is made up of various delicate mechanical components that are carefully assembled and adjusted prior to dispatch as a complete assembled unit, ensuring with this way, the proper and reliable operation of the unit. Please note that ALL individual components of the BTA unit are glued together.

DO NOT ATTEMPT to tamper/ apply any external force to the BTA during installation. Ensure that the safety pin is free to move prior to removing it (from the device) when the installation is completed.

Product Handling - Limitations

The BTA needs to be handled with care, as its operation is dependent on a fragile glass bulb. The glass bulb of the BTA is susceptible to external shocks / vibrations and could break if installed in the wrong application. BTA should NOT be used in harsh environment, in the presence of intense vibrations or subjected to external forces/shocks, such as industrial heavy vehicles, rolling stock.

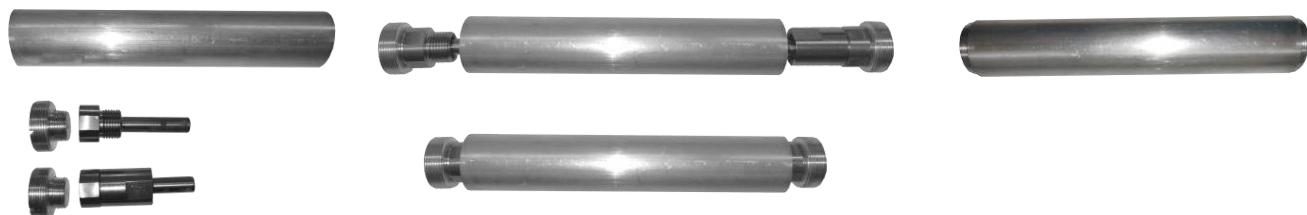
Bulb Thermal Actuator Packing Information (Applies on Air Freight Packaging only)

The BTA activators are fully enclosed and protected inside an aluminium housing during delivery. The aluminium packing can accommodate two BTA activators. The BTA activators intended for the cylindrical type generators, will have the BTA Adaptor installed on the main body of the activator, whereas for BTA Actuators for the box-type generators, do not need the adaptor. The BTA activators are installed on the end caps which in turn will be screwed on to the aluminium tube prior to delivery.

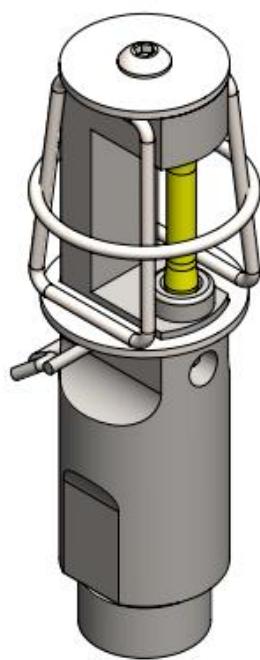
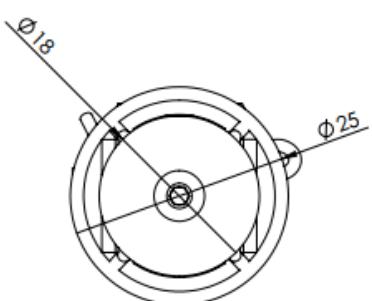
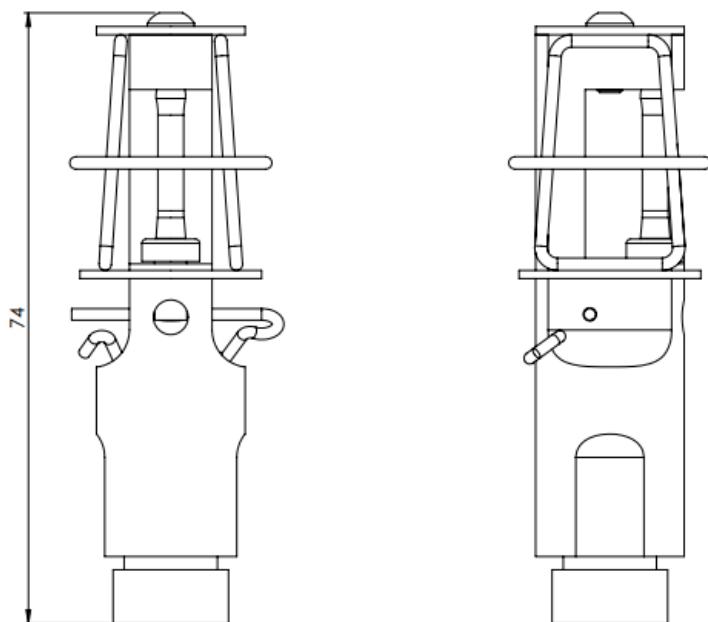
The protective, metal enclosure, provides sufficient protection to prevent any self-activation, due to dry heat, impact or vibration. Furthermore, even in the remote case of activation of the BTA activators, the metal housing will withstand any thermal energy and pressure exerted.

The protective enclosure is safe for transport by air, and as such is classified as non-dangerous cargo.

For further information in regards to the unpacking instructions please refer to the "Unpacking Instructions for Bulb Thermal Activator – BTA V3".



Drawing – Dimensions



DISCLAIMER

FirePro Systems makes no representations or warranties of any kind, either express or implied, statutory or otherwise, including but not limited to warranties of merchantability, fitness for a particular purpose, of title, or of non-infringement of third party rights, including the intellectual property rights of others.

Any information provided by FirePro Systems, relevant to the system engineering of the project is indicative and for guidance purposes only.

It is the contractor's responsibility to verify whether any circuit design is compatible with the equipment used in the system. Furthermore, the responsibility for the preparation and/ or approval of a project, subject to its specifications/ technical features and its related documentation, designs or drawings adherence (e.g. design documentation, construction, as-built drawings, circuit diagram, cable lengths and voltage drop calculations, etc.) to local, national and international laws and regulations, falls entirely within the scope of the contractor/ consultant assigned for the installation and commissioning.

LIMITATION OF LIABILITY

In no event, regardless of cause, shall FirePro Systems be liable for any indirect, special, incidental, punitive or consequential damages of any kind, whether arising under breach of contract, tort (including negligence), strict liability or otherwise, even if advised of the possibility of such damages.

NOTE

FirePro is constantly updating its products and systems to the state of the art and therefore reserves the right to make changes in design, equipment and technology. You cannot therefore base any claims on the data, illustrations or descriptions contained in this literature.

