PAVLOU
FIREFIGHTING EQUIPMENT & SERVICES

AEROSOL GENERATORS
Aerosol Fire Extinguishing Technology

HAFEX® PRODUCT CATALOGUE

K TYPE GRAND HAFEX UNITS

HFX-1100SR

HFX-1100SS

Models: HFX-1100SR & HFX-1100SS

Coverage Volume: 11m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 10300 g. ±%3

Compound Weight: 1100 g

Dimensions (mm): 210 (W) x 287 (L) x 200 (H)

Discharge Time: 13-16 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

HFX-2200SR

HFX-2200SS

Models: HFX-2200SR & HFX-2200SS

Coverage Volume: 22m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 17600 g. ±%3

Compound Weight: 2200 g

Dimensions (mm): 287 (W) x 287 (L) x 240 (H)

Discharge Time: 14-17 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)

EN 2: A, B, C, F

K TYPE GRAND HAFEX UNITS

HFX-3400SR

HFX-3400SS

Models: HFX-3400SR & HFX-3400SS

Coverage Volume: 34m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 20400 g. ±%3

Compound Weight: 3400 g

Dimensions (mm): 287 (W) x 287 (L) x 264 (H)

Discharge Time: 14-17 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment) EN 2: A, B, C, F

K TYPE GRAND HAFEX UNITS

HFX-4500SR

HFX-4500SS

Models: HFX-4500SR & HFX-4500SS

Coverage Volume: 45m^3

Compound: K (Potassium Nitrate Based)

Gross Weight: 28600 g. ±%3

Compound Weight: 4500 g

Dimensions (mm): 361 (W) x 361 (L) x 268 (H)

Discharge Time: 15-18 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment) EN 2: A, B, C, F

5

K TYPE GRAND HAFEX UNITS

HFX-6000SR

HFX-6000SS

Models: HFX-6000SR & HFX-6000SR

Coverage Volume: 60m^3

Compound: K (Potassium Nitrate Based)

Gross Weight: 33000 g. ±%3

Compound Weight: 6000 g

Dimensions (mm): 361 (W) x 361 (L) x 302 (H)

Discharge Time: 16-19 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment) EN 2: A, B, C, F

HFX-7600SR

HFX-7600SS

Models: HFX-7600SR & HFX-7600SS

Coverage Volume: 76m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 39800 g. ±%1

Compound Weight: 7600 g

Dimensions (mm): 361 (W) x 361 (L) x 350 (H)

Discharge Time: 17-20 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

7

HFX-20SR

HFX-20SS

Models: HFX-20SR & HFX-20SS

Coverage Volume: 0,2m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 500 g. ±%2

Compound Weight: 20 g

Dimensions (mm): 50 (W) x 50 (L) x 93 (H)

Discharge Time: 3-5 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

HFX-50SR

HFX-50SS

Models: HFX-50SR & HFX-50SS

Coverage Volume: 0,5m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 700 g. ±%2

Compound Weight: 50 g

Dimensions (mm): 50 (W) x 50 (L) x 130 (H)

Discharge Time: 3-5 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)

EN 2: A, B, C, F

HFX-100SR

HFX-100SS

Models: HFX-100SR & HFX-100SS

Coverage Volume: 1m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 1330 g. ±%4

Compound Weight: 100 g

Dimensions (mm): 80 (W) x 80 (L) x 113 (H)

Discharge Time: 4-6 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)

EN 2: A, B, C, F

10

HFX-200SR

HFX-200SS

Models: HFX-200SR & HFX-200SS

Coverage Volume: 2m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 1760 g. ±%2

Compound Weight: 200 g

Dimensions (mm): 80 (W) x 80 (L) x 147 (H)

Discharge Time: 3-5 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)

EN 2: A, B, C, F

HFX-500SR

HFX-500SS

Models: HFX-500SR & HFX-500SS

Coverage Volume: 5m³

Compound: K (Potassium Nitrate Based)

Gross Weight: 3950 g. ±%3

Compound Weight: 500 g

Dimensions (mm): 100 (W) x 100 (L) x 243 (H)

Discharge Time: 5-7 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

HFX-500SRS

HFX-500SSS

Models: HFX-500SRS & HFX-500SSS

Coverage Volume: 3,4m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 3950 g. ±%3

Compound Weight: 500 g

Dimensions (mm): 100 (W) x 1000 (L) x 243 (H)

Discharge Time: 5-7 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)

EN 2: A, B, C, F

HFX-1100SRS

HFX-1100SSS

Models: HFX-1100SRS & HFX-1100SSS

Coverage Volume: 7,4m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 10300 g. ±%3

Compound Weight: 1100 g

Dimensions (mm): 210 (W) x 287 (L) x 200 (H)

Discharge Time: 13-16 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

S TYPE GRAND HAFEX UNITS

HFX-2200SRS

HFX-2200SSS

Models: HFX-2200SRS & HFX-2200SSS

Coverage Volume: 14,7m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 17600 g. ±%3

Compound Weight: 2200 g

Dimensions (mm): 287 (W) x 287 (L) x 240 (H)

Discharge Time: 14-17 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

S TYPE GRAND HAFEX UNITS

HFX-3400SRS

HFX-3400SSS

Models: HFX-3400SRS & HFX-2400SSS

Coverage Volume: 22,7m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 20400 g. ±%3

Compound Weight: 3400 g

Dimensions (mm): 287 (W) x 287 (L) x 264 (H)

Discharge Time: 25-28 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

HFX-20SRS

HFX-20SSS

Models: HFX-20SRS & HFX-20SRS

Coverage Volume: 0,14m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 500 g. ±%2

Compound Weight: 20 g

Dimensions (mm): 50 (W) x 50 (L) x 93 (H)

Discharge Time: 4-6 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

S TYPE MINI HAFEX UNITS

HFX-50SRS

HFX-50SSS

Models: HFX-50SRS & HFX-50SSS

Coverage Volume: 0,34m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 700 g. ±%2

Compound Weight: 50 g

Dimensions (mm): 50 (W) x 50 (L) x 130 (H)

Discharge Time: 3-5 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

HFX-100SRS

HFX-100SSS

Models: HFX-100SRS & HFX-100SSS

Coverage Volume: 0,67m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 1300 g. ±%4

Compound Weight: 100 g

Dimensions (mm): 80 (W) x 80 (L) x 113 (H)

Discharge Time: 5-7 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)

EN 2: A, B, C, F

HFX-200SRS

HFX-200SSS

Models: HFX-200SRS & HFX-200SSS

Coverage Volume: 1,4m³

Compound: S (Strontium Nitrate Based)

Gross Weight: 1760 g. ±%2

Compound Weight: 200 g

Dimensions (mm): 80 (W) x 80 (L) x 147 (H)

Discharge Time: 3-5 seconds

Activation Method: Electrical, Thermal (Optional)

Suitable Fire Classes: A, B, C (Electrical Equipment)
EN 2: A, B, C, F

HAFEX®
AUXILIARY
EQUIPMENT

200 A+ VEHICLE FIRE CONTROL PANEL

- It can be installed in all vehicles with 12V or 24V operating voltage
- 3 checkpoints: Engine, Battery and Fuel Tank
- Manual Activation
- 1 Extinguishment Order
- Compatible with common detectors, LHD linear heat detection cable and devices with thermal activation ampoule
- 4 Modes of Operation: Automatic, Manual, Test and Change-Over Mode
- The device is capable of automatic or manual activation of aerosol generators or extinguisher bottles with solenoid valves
- Monitored input/output contacts in case of open circuit failure
- Audio-visual notification in case of damage or fire
- It has a dry contact terminal
- Easy to use – has two multi-function buttons

Compact panel for internal combustion engine and electric motor fire detection/extinguishing

200 A+ VEHICLE FIRE CONTROL PANEL
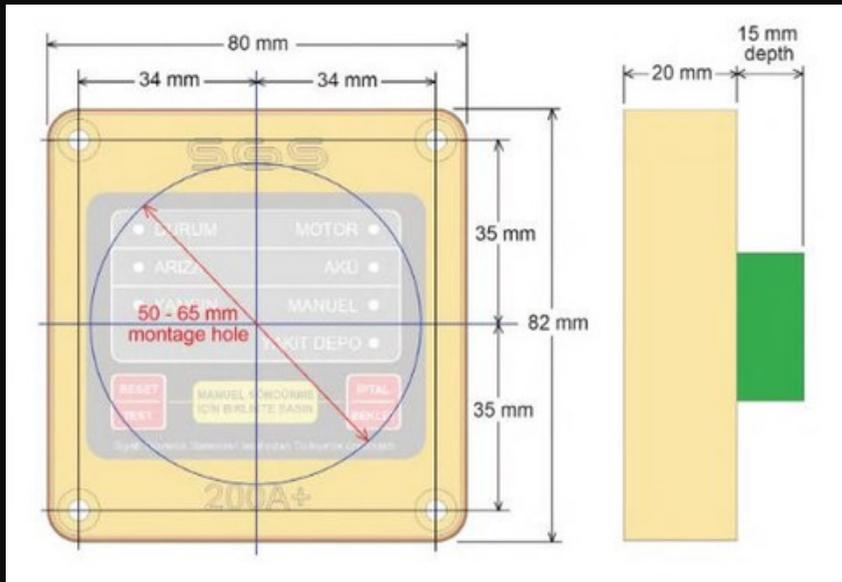
Supply Voltage and Current Consumption	
Supply Voltage Range	10 – 33V DC
Quiescent Current	32 mA @ 12V DC
	20 mA @ 24V DC
Fire State Current (Manual)	85 mA @ 12V DC
	50 mA @ 24V DC
Engine and Battery Compartment Detection Inputs	
Supply Voltage	12V DC Nominal
Alarm Condition	<700 Ohm
Short Circuit Condition	<50 Ohm
Current Capacity	25 mA Maximum
End Of Line Element (EOL) 1	10uf/50V %10 ceramic capacitor
Engine Compartment Fire Extinguishing Output	
Current Capacity	1 A continuous, 2A maximum @ 25°C
Monitoring Voltage	5V DC
Monitoring Current	2 mA Maximum
End Of Line Element (EOL)	1N4004 – 4007 general purpose diode
Short Circuit Condition	<170 Ohm
Open Circuit Condition	>1K Ohm
Fuel Tank Detection Input	
Alarm Condition	470 Ohm<R<2K2 Ohm
Open Circuit Condition	>4K7 Ohm
Short Circuit Condition	<220 Ohm
Monitoring Voltage	5V DC
Monitoring Current	2 mA Maximum
End Of Line Element (EOL)	2K2 1/4W %1 resistor
Auxilary Relay Outputs	
Sounder Output Current Capacity	200 mA continuous, 400 mA maximum @ 25°C
Fault Output Current Capacity	200 mA continuous, 400 mA maximum @ 25°C
Relay Contact Current Capacity	2A maximum @ 24V DC
Dimensions	W: 80 mm, L: 82 mm, D: 20 mm (Top)
	W: 80 mm, L: 82 mm, D: 53 mm (Full)

HFX 48GSM

- It can operate with supply voltage from 48V DC to 60V DC
- No additional voltage is required
- False alarm situations are minimized with the "cross-zone" operation of conventional smoke detector and LHD heat detection cable entries
- It can be integrated into the BSC / BTS remote monitoring infrastructure with its Alarm and Fault auxiliary relays
- It takes less space and is easy to install with its compact ABS body Structure

Detection / extinguishing panel for areas operating under 48V voltage – suitable for application in telecommunications and network areas

HFX 48GSM

Rated operating voltage	48V DC
Operating voltage range	30 – 60V DC
Standby current	15mA@48V
Alarm condition current	45mA@48V
24V DC supply regulator current	3A (max.)
24V DC supply short circuit protection	Electronics
Number of detection inputs	3
Detection input supply voltage	24V DC
Detection input current capacity	25mA@24V
Line resistance for alarm condition	<700 Ohm
Line resistance for short circuit	<50 Ohm
Number of extinguisher outputs	4
Extinguisher output supply voltage	24V DC
Extinguisher output current capacity	2A@24V
Extinguishing output short circuit protection	PPTC polymer
Extinguish delay (countdown) time	30 sec
Aerosol extinguisher trigger time	1 sec
Voltage capacity of Alarm and Fault relay	250V (max.)
Current capacity of Alarm and Fault relays	2A (max.)
Dimensions (mm)	212x123x60

HFX200L MICRO FIRE CONTROL PANEL

A/C panel suitable for electrical panels (rail)

The HFX 200L MICRO FIRE panel utilizes the signal from a LHD linear heat detection cable or a thermostat for fire detection. It is installed on the rail of electrical panels, it is small in size, suitable for use in cabinets. It has the ability to activate aerosol generators or cylinders with extinguishing gas with a detonator. Operates on 100-240 VAC and includes a rechargeable lithium battery. The battery automatically activates in the event of a power failure and does not need any other external DC power supply for autonomy. It has audio-visual signaling in case of detection or damage through the monitored contacts and a multi-purpose button.

Applications

- Electrical Distribution and Control Panels
- GSM base stations
- Bank ATM devices
- Industrial hoods
- Computer server rooms
- Industrial machinery
- Elevator control systems

HFX200L MICRO FIRE CONTROL PANEL

- Suitable for mounting on a PC (electrical panel) rail
- Sensing capability with LHD linear heat sensing cable or thermostats
- Operating voltage: 100 – 240V AC
- Built-in rechargeable battery that turns on automatically in the event of a power outage
- Visual and audible warning in case of alarm and malfunction
- Audio-visual signaling in case of detection of fire or damage through monitored contacts
- Multipurpose button
- Alarm relay output
- Fire line short circuit protection
- Very low power consumption

Maximum Operating Values	
Supply Source Voltage	240V AC @ 50Hz Supply Source
Alarm Relay Output Voltage	250V
Alarm Relay Output Current	2A
Extinguishing Activation Current	2A
Operating Temperature Range	- 40 ° C to + 85 ° (All values are valid for + 25 ° C ambient temperature)

Normal Operating Values	
Voltage	220V AC 50 Hz
Extinguishing Activation Voltage	4.2V DC
Built-in Lithium-ion Battery Capacity	4.2V (full charge)
Extinguishing Activation Current	900mAh
Standby Time	7 days

BPA BATTERY POWERED ACTIVATOR

HAFEX – BPA (Battery Powered Actvator) has a built-in lithium CR2 battery with a capacity of 3V 800mAh, which can detect the ambient temperature with a Linear Heat Detection cable (LHD) in small volumes and activate up to 2 aerosol fire extinguishers.
It is possible, instead of using the internal battery, to power the device from an external 3V DC 2A supply source. It has a fuse to protect against overvoltage.

It also has the ability to connect two BPA units together.

CAUTION: **USE ONLY 3V CR2 NON-RECHARGEABLE BATTERY**

Autonomous aerosol generators activator

BPA BATTERY POWERED ACTIVATOR

In case of external supply, the battery must be removed.

Attention to battery polarity is required during installation.

Always check the cable for damage before connecting to the device.

LHD Heat Detection Cable

HAFEX-BPA General Connection Diagram

HFXSQR SEQUENTIAL ACTIVATOR

Σειριακός ενεργοποιητής γεννητριών αερολύματος
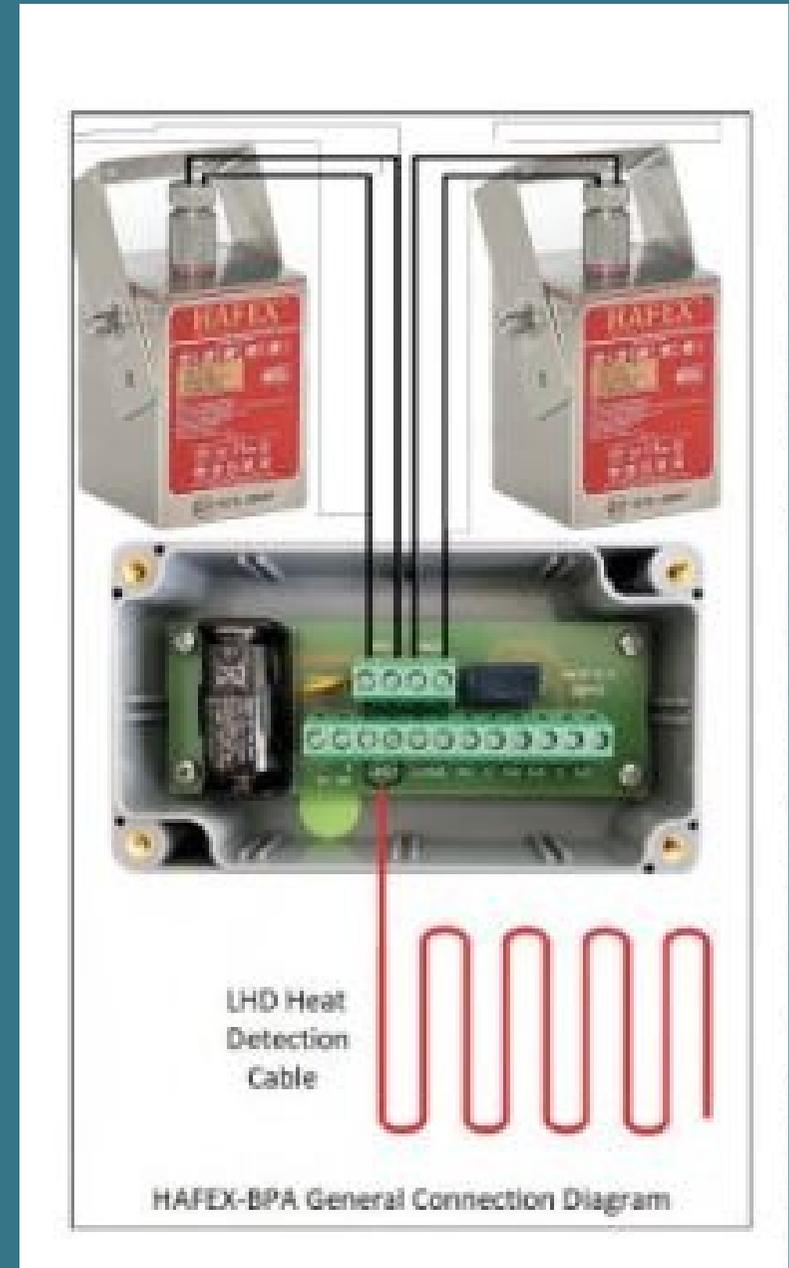
Για την ενεργοποίηση πολλαπλών συσκευών αερολύματος απαραίτητη είναι η χρήση ενός σειριακού ενεργοποιητή. Με αυτή την συσκευή ξεπερνάμε την αδυναμία του πίνακα κατάσβεσης να ενεργοποιήσει πολλές συσκευές.

Ο κάθε σειριακός ενεργοποιητής μπορεί να ελέγχει μέχρι και 4 γεννήτριες αερολύματος. Υπάρχει η δυνατότητα σύνδεσης των σειριακών ενεργοποιητών μεταξύ τους, επιτρέποντας τον έλεγχο έως και 256 γεννητριών αερολύματος από την έξοδο κατάσβεσης ενός πίνακα.

HFXSQR SEQUENTIAL ACTIVATOR

Τα αντίστοιχα προϊόντα των ανταγωνιστών συνδέονται μεταξύ τους σαν σύνδεσμοι αλυσίδας. Κάθε sequencer ενεργοποιείται από τον προηγούμενο sequencer. Επομένως, σε περίπτωση βλάβης ενός sequencer, όλοι οι επόμενοι μένουν απενεργοποιημένοι. Στην HAFEX κάθε sequencer λειτουργεί ανεξάρτητα από τον άλλο. Για αυτό το λόγο μια πιθανή βλάβη ενός σειριακού ενεργοποιητή δεν θα προκαλέσει την κατάρρευση ολόκληρου του συστήματος.

Connection Diagram For Using Hafex Sequential Activator Within The Fire Extinguishing System
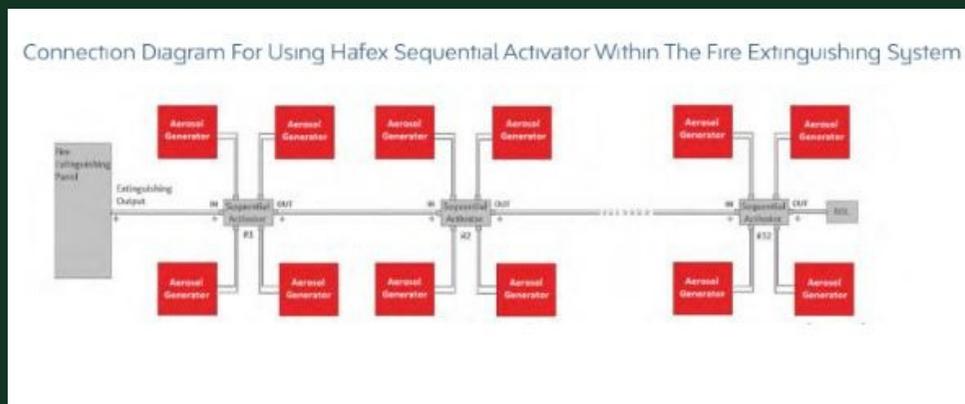
HFXTBA THERMOBULB ACTIVATOR 68°C 79°C 93°C 141°C

- Δεν απαιτείται πηγή ενέργειας για την ενεργοποίηση γεννήτριας αερολύματος
- Κατάλληλο για mini και grand μονάδες HAFEX®.
- Δείκτης χρόνου απόκρισης (RTI) = 24√
- Μέσο φορτίο θραύσης = 4,1 kN~ 418 kg
- Πιστοποιήσεις: UL και LPCB

Συσκευή αμπούλας για θερμική ενεργοποίηση
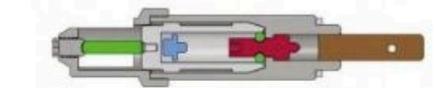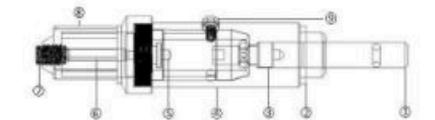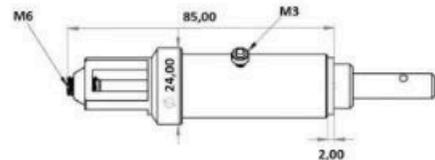
Legends

Part No	Part Name / Material
1	Igniter / Brass
2	Washer / SS 304
3	Trigger Pin / SS 303
4	Activator Body / SS 303
5	Spring Cap / SS 304
6	Termo Bulp / Glass
7	Set Screw / SS 303
8	Bulp Cap / SS 303
9	Safty Screw / SS 304

Certificates

ΠΑΫΛΟΥ
ΥΠΗΡΕΣΙΕΣ & ΠΡΟΪΟΝΤΑ ΠΥΡΑΣΦΑΛΕΙΑΣ

HAFEX®

🌐 https://www.pavlou.com.gr