AG-IND-PE PETROL STATIONS SYSTEM

Fixed and automatic dry chemical fire suppression system, for attended and unattended fuel service stations / 15 kg

Data sheet 13122 Rev.00

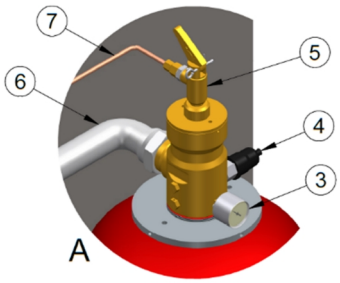
Product description

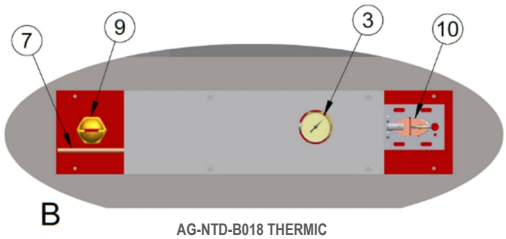
The AG-IND-PE system is specifically designed for the protection of service stations, where the handling of flammable liquids and the possible presence of combustible vapours make them areas with a potential fire risk. The system can be adapted to any type of structure and facility layout, providing effective and reliable protection for vehicle fuel supply installation.

The fire suppression system for petrol stations is completely autonomous and does not require electrical power for operation, as it incorporates a fully automatic pneumatic-manual thermal detection and control system. This feature makes it a particularly suitable solution for unattended service stations.

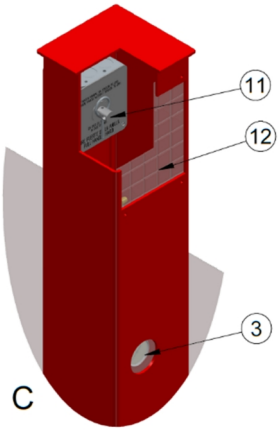
The simplicity of its design, together with its minimal maintenance requirements, increases its operational reliability. In addition, it has been specifically developed for outdoor use, withstanding the typical environmental conditions found at service stations.

The extinguishing agent used is BC dry chemical powder, especially suitable for extinguishing liquid fuel fires such as gasoline or diesel. The system operates at a pressure of 360 psi (25 bar) and uses 15 kg of extinguishing agent per nozzle.

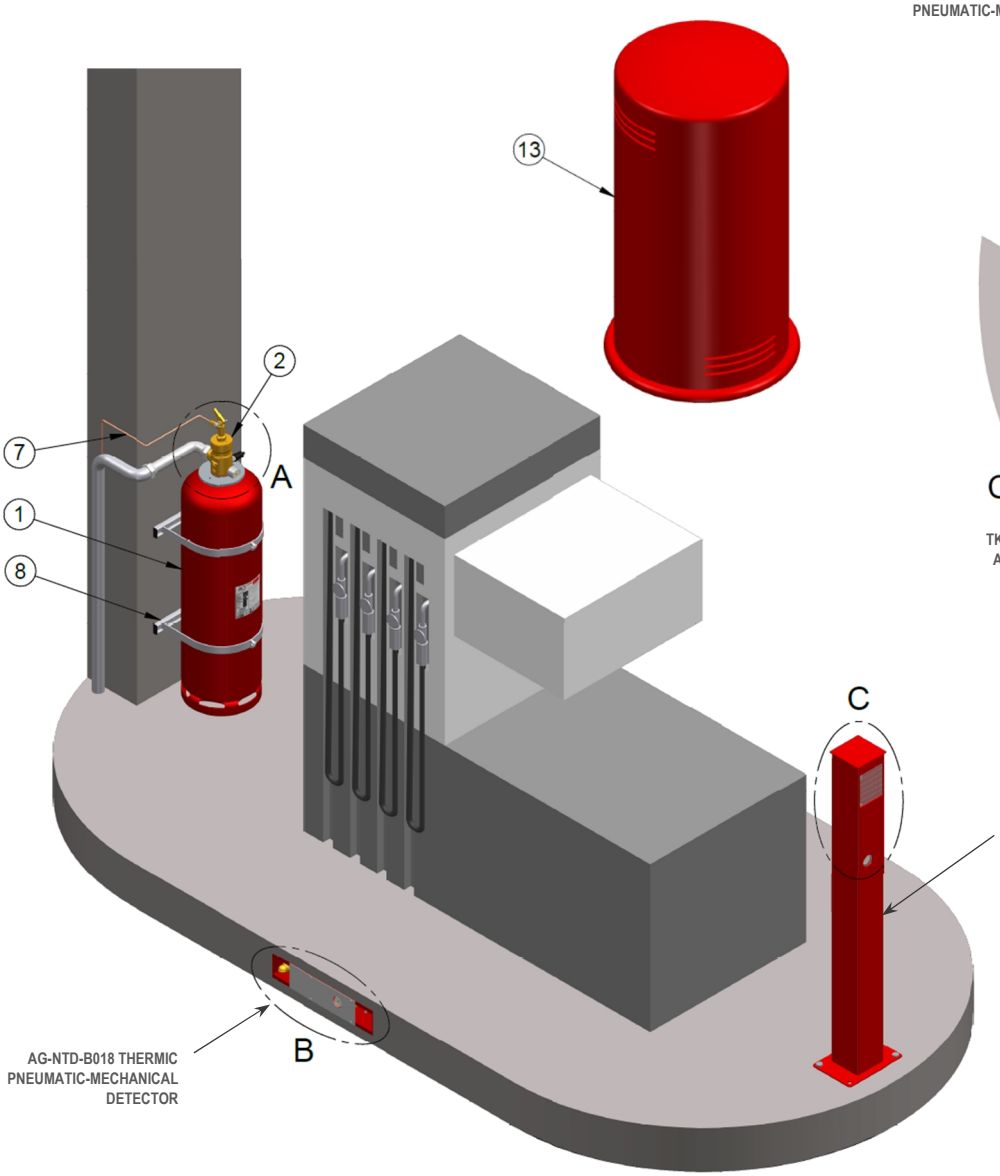




AG-NTD-B018 THERMIC
PNEUMATIC-MECHANICAL DETECTOR



TK-RPPM MANUAL-PNEUMATIC
ACTIVATION VERTICAL POST



ACTIVATION VERTICAL POST:
- MANUAL-MECHANICAL TK-RPM
- MANUAL-PNEUMATIC TK-RPPM

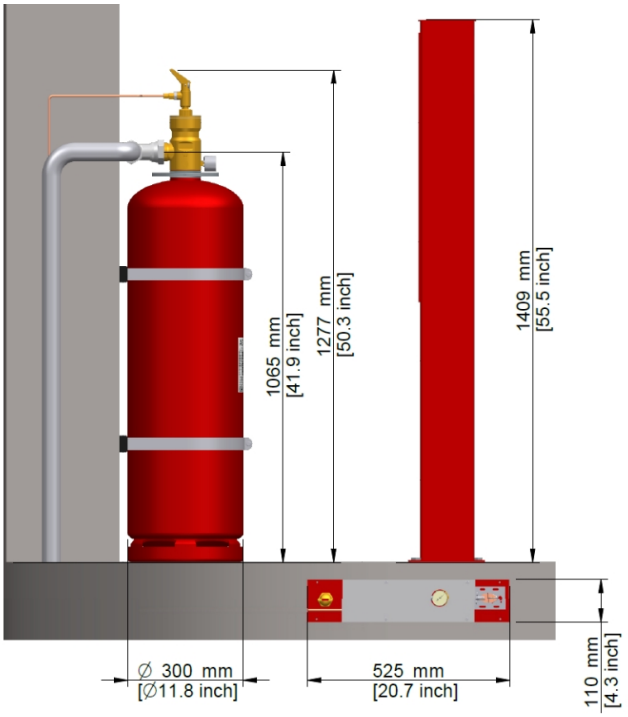
AG-NTD-B018 THERMIC
PNEUMATIC-MECHANICAL
DETECTOR

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System components

Nº	Description	Type	Qty
1	Cylinder	AG-SIMxx	1
2	Container valve	RGS-MAM-40	1
3	Pressure gauge	5140-W40, UF40I-P24	1
	Pressure gauge with electrical contacts (optional)	5140-E40SP13, UF40I-E24	
4	Pressure switch (optional)	POPRENA50, POPRENC50, APRESA50, APRESC50	1
	ATEX pressure switch (optional)	Popreco-AD413	
5	Pneumatic-manual actuator	227CNM	1
	Pneumatic actuator	227CN, 227CNTK	
	Electrical actuator (optional)	227SOL, 227SOLC, 227SOLC125, 227SOLC-ADx	1
6	Discharge hose	FH-40HC	1
7	Activation copper pipe	POLATCU	-
8	Fixing brackets	POHCxxx	1
9	Nozzle	SIDITA 15	1
10	Thermic-manual actuador	KCTM	1
11	Remote manual pull station	TK-DMS, TK-DMS2	1
12	Protective glass	-	1
13	Protective enclosure (optional)	-	1

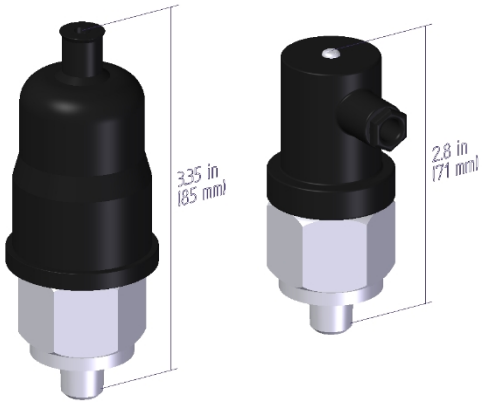
Dimensions



Pressure switch (optional)

The pressure switch is a monitoring device that sends an electrical signal to the fire control panel when the pressure in the cylinder drops.

It is factory-supplied preassembled on the cylinder valve, in the corresponding port. Inside the device, there is a dry contact that opens or closes an electrical circuit depending on the pressure condition. There are two variants available: NC (normally closed, opens under pressure) and NO (normally open, closes under pressure).



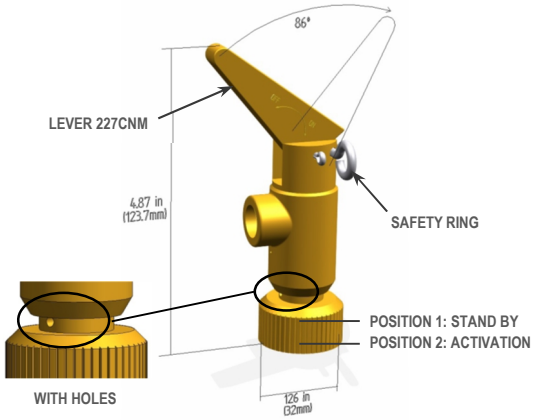
Pneumatic activation

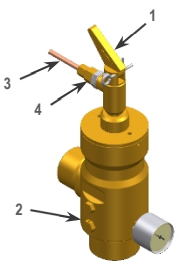
Pneumatic-manual actuator head 227CNM

This actuator allows the valve of the dry chemical cylinder to be activated either pneumatically or manually, using either of the two actuation methods. The 227CNM pneumatic-manual actuator heads are connected to the upper actuation port of the valve via a swivel nut that allows proper orientation.

All pneumatic-manual actuator heads include a T-fitting (227TE), an elbow fitting (227CO), or a POA8CU adapter for copper tubing in their pneumatic actuation ports.

The head is automatically activated when the AG-NTD-B018 thermal detector senses a temperature increase, or alternatively through manual activation of this detector or the remote vertical activation post TK-RPM / TK-RPPM





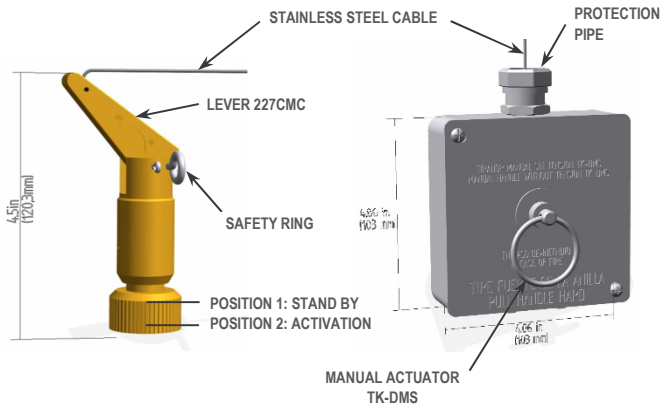
1- Pneumatic-manual actuator head 227CNM
2- RGS-MAM-40 valve
3- Copper tube POLATCU
4- Adaptor POA8CU

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Manual activation

227CMC manual cable-operated actuator head and remote manual pull station TK-DMS

They are used to manually and remotely operate the RGS-MAM-40 container valve. The CMC actuator head can be installed on the upper actuation port of the valve, or on the electrical actuator mounted on the valve, and is connected via cable inside a conduit (protective tube) to the TK-DMS remote manual activation station. The end of the lever includes a hole for securing the cable.



Electrical activation (optional)

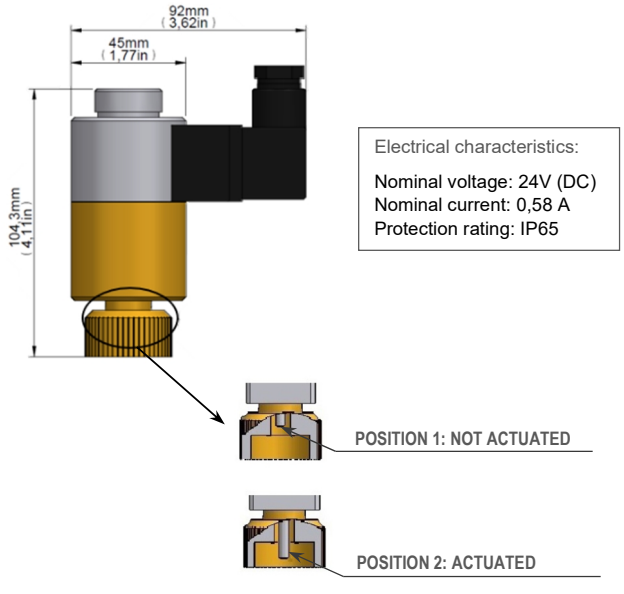
227SOL resettable electric actuator head (24VDC)

The purpose of this actuator is to electromagnetically actuate the container valves where it is installed. It is activated when the coil is energized, causing the solenoid to operate and actuate the valve.

This actuator is resettable — the pin returns to the standby position by threading a reset screw into its revolving nut.

The mechanism used to connect it to the container valve includes a revolving nut, allowing it to be properly oriented in the desired direction.

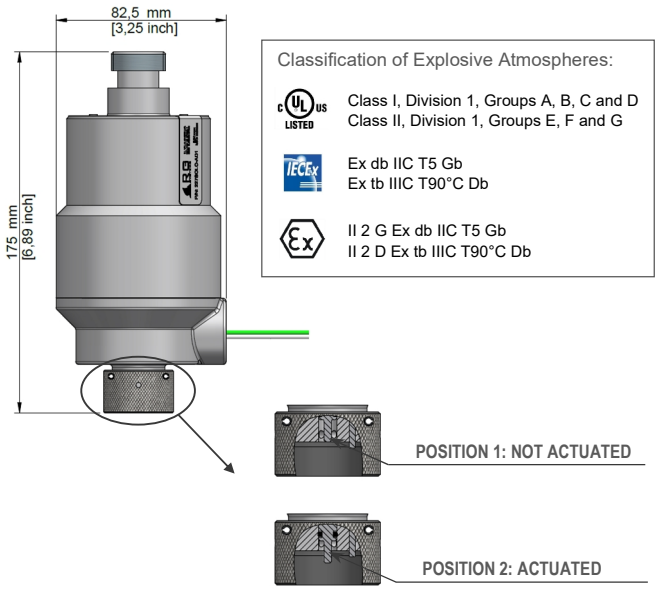
If installation conditions require special protection, please contact AG-IND to inquire about the availability of appropriately rated enclosures.



227SOLC-ADx resettable electric actuator head for use in hazardous locations (24VDC)

This actuator allows the RGS-MAM-40 container valve to be operated electromechanically. It has been designed for installation in environments with explosion risk, incorporating specific protection features and complying with ATEX, IECEx, and UL standards.

The valve coupling mechanism uses a swivel nut, which facilitates correct orientation during installation. In addition, it can be equipped with sensors that allow verification of both the proper installation of the actuator and the system activation.

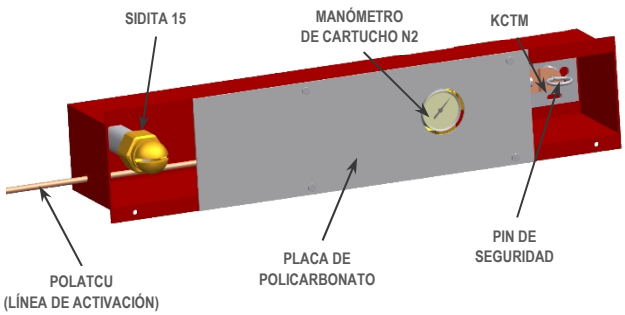


Thermic pneumatic-mechanical detector AG-NTD-B018

The AG-NTD-B018 module is a metal box installed on the kerb of the island, under the dispenser, and it enables the fire suppression system to be activated pneumatically. Its main components are the KCTM thermal fuse, a pressurized N_2 cartridge, and the SIDITA 15 nozzle.

In the event of a fire, the increase of temperature causes the thermal fuse to rupture. This releases the N_2 from the cartridge, which flows through the copper tube (POLATCU) to the cylinder valve actuator, causing the discharge of the extinguishing agent. The system allows multiple valves to be activated simultaneously, which enables the discharge of several cylinders connected to different metal boxes, including the one that has been activated.

The module can also be activated manually by removing the safety pin.



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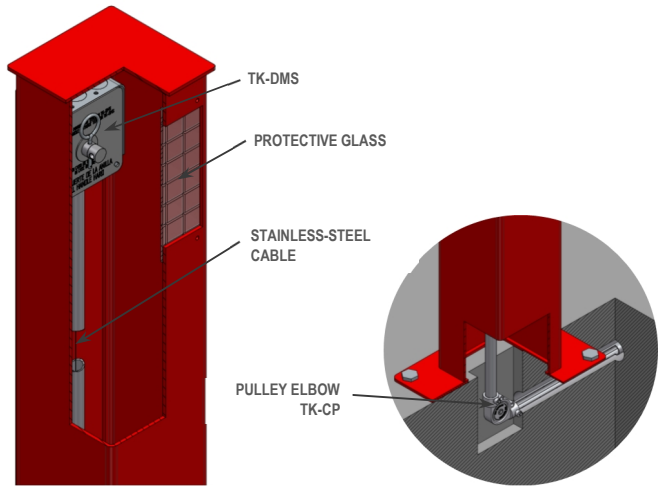
Vertical activation post

In the event of a fire, and before the system operates automatically, it can be manually activated using the vertical activation post installed near the dispenser.

To activate it, the glass must be broken, the safety pin removed, and the ring pulled firmly to activate the TK-DMS manual actuator. Once the ring is pulled, the system can operate in two ways: mechanically (TK-RPM) or pneumatically (TK-RPPM).

TK-RPM manual-mechanical post

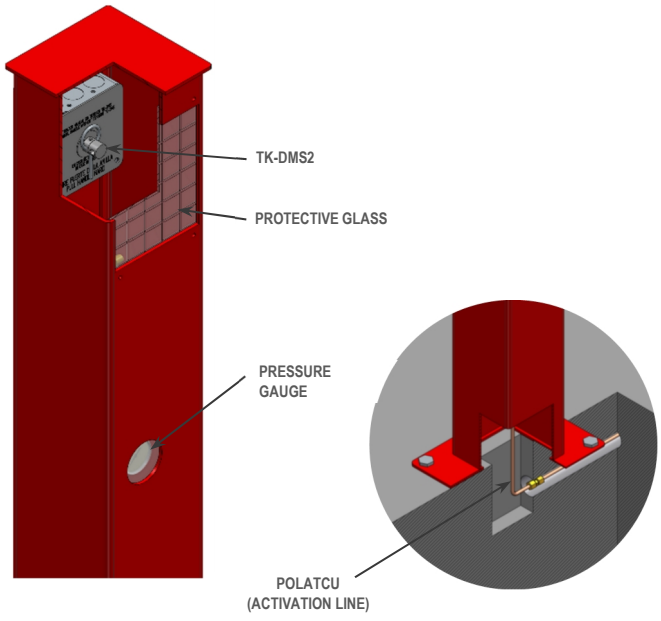
The TK-RPM post is connected to the dry chemical cylinder via a stainless-steel cable. The cable is installed inside a steel pipe, using pulley elbows (TK-CP) that allow for the directional changes required by obstacles and the elevation variations needed to reach the actuator and discharge the system.



TK-RPPM manual-pneumatic post

The TK-RPPM post is connected to the dry chemical cylinder via the POLATCU copper tube to pneumatically activate the system. When the TK-DMS manual actuator is operated, the nitrogen contained in the pilot cartridge is released. The N_2 flows through the copper pipe along the activation line to the pneumatic actuator (227CNM) of the agent cylinder, causing the system to discharge.

Optionally, it can include an electric activation head (227SOLCR / 227SOLCR / 227SOLCR125 / 227SOLC-ADx) for remote system activation.

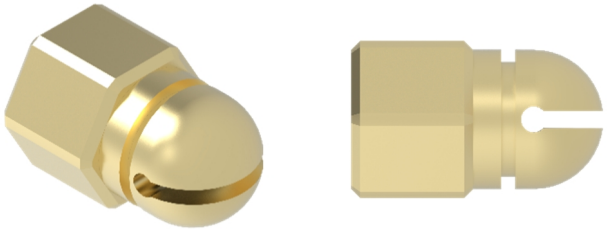


SIDITA 15 local application nozzle

The SIDITA 15 nozzle is designed for local application fire supression systems and is especially suitable for protecting flammable liquids or areas with spill risks. Its function is to discharge dry chemical powder directly onto the area to be protected, ensuring effective extinguishing.

It features a horizontal slotted opening that produces a flat discharge directed at the base of the flame, allowing the dry chemical to spread across the ground and helping to counteract adverse environmental conditions. It has a 180° discharge angle, whose effective range may vary depending on wind speed.

The nozzle is installed horizontally at a height of 7 to 14 cm above the ground, inside the protective housing of the AG-NTD-B018 thermal pneumatic-mechanical detector.



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