CYLINDER AG-INDLC-3-KBC / AG-INDLC-5-xBC

Pre-engineered fixed dry chemical extinguishing system for piping networks / 3,5 to 5 kg
Attached pressure / Local application
Data sheet 13202 Rev.00

Product description

The AG-INDLC-3-KBC and AG-INDLC-5-xBC dry chemical cylinders with attached pressure are designed for pre-engineered fixed extinguishing systems, which operate with a predefined piping network and a fixed quantity of agent — in this case between 3,5 and 5 kg of extinguishing agent.

Dry chemical systems are suitable for the protection of Class A hazards (combustible solid materials), Class B hazards (flammable liquids and gases), and Class C hazards (energized electrical equipment).

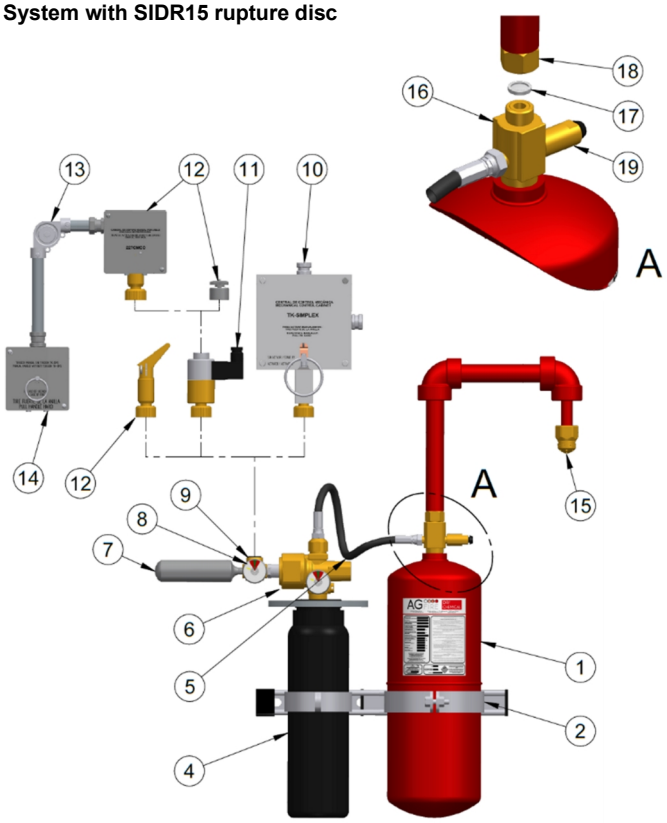
The system consists of a cylinder filled with dry chemical powder connected to a piping network that distributes the agent to either total flooding or local application nozzles. The dry chemical cylinder is pressurized by an attached bottle that contains the expellant agent (N_2), typically at 200 bar with a pressure regulator RGS-MAM-RD11 valve. Activation can be performed through manual, electrical, thermal, mechanical, and thermo-mechanical methods. Optionally, it can include a mechanical detection system. Once activated, the dry chemical cylinder is pressurized, and when the specified operation pressure (15 bar) is reached, the chemical agent is released and distributed over the protected area through the nozzles. The discharge of the dry chemical cylinder operates with a rupture disc (SIDR15).

Applications

Pre-engineered dry chemical cylinders are designed for a wide range of industrial applications, including paint booths and preparation areas, coating and finishing operations, machinery and equipment areas, boiler rooms, furnaces, and electrical and mechanical rooms, as well as facilities for the storage of flammable liquids, hazardous materials, and bulk products, spill containment dikes, and quench and dip tanks.

System components

System with SIDR15 rupture disc



Nº	Description	Type	Qty
1	Cylinder	INDLC-3-KBC, INDLC-5-ABC, INDLC-5-BC	1
2	Fixing Brackets	POHCxxx	1
4	N_2 expellant cylinder (200 bar)	101M3UFxx	1
5	Impulsion hose	DH15, DH15CO, DH15I, DH16, DH16I	1
6	Expellant cylinder valve	RGS-MAM-RD11	1
7	N_2 Pilot cartridge	100M008UFxx, 100M018UFxx	1
8	Pressure Gauge	5140-W25, 5140-W250, UF40I-P16, UF40I-P150, UF40I-P200	2
	Pressure Gauge with electrical contacts (optional)	5140-E40SP13, 5140-E250SP144, 5140-E250SP180, UF40I-E16, UF40I-E150, UF40I-E200	
9	Cartridge valve	RGS-MAM-03	1
10	Mechanical detection and actuator (optional)	TK-SIMPLEX-B, TK-COMPLEX-B, TK-SIMPLEX-C, TK-COMPLEX-C, KCTM-R, KCTM-C	1
11	Electrical actuator (optional)	227SOLR, 227SOLCR, 227SOLCR125	
12	Manual actuator	227DMR, 227DMS, 227CMCC, 227CMC, 227CN, 227CNM, KCTM-R, KCTM-C	
13	Pulley elbow	TK-CPx	-
14	Remote manual pull station	TK-DMS, TK-DMS2	-
15	Nozzle	AG-O-2, AG-TK-1	1
16	Container valve	RGS-MAM-10	1
17	Bursting dic	SIDR15	1
18	Bursting dic cap		1
19	Bleed valve	POVV8	1

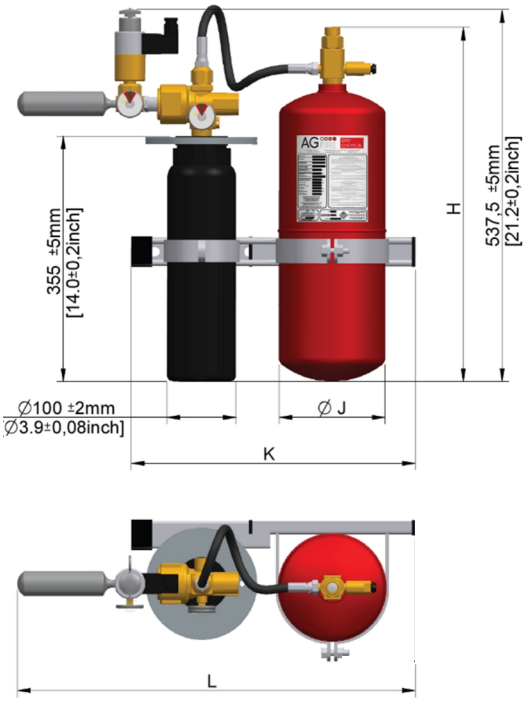
Technical data

DRY CHEMICAL CYLINDER WITH ATTACHED PRESSURE				
Model type	**Dry chemical filling lbs (kg)**	**Risk type**	**Dry chemical type**	**Number of nozzles**
INDLC-3-KBC	7.7 (3.5)	Aplicación local	KBC	1
INDLC-5-ABC	11.0 (5)	Aplicación local	ABC	1
INDLC-5-BC	11.0 (5)	Aplicación local	BC	1

NOTE: Class D and potassium bicarbonate Class BC dry chemical systems are also available. Contact AG Fire.

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Dimensions

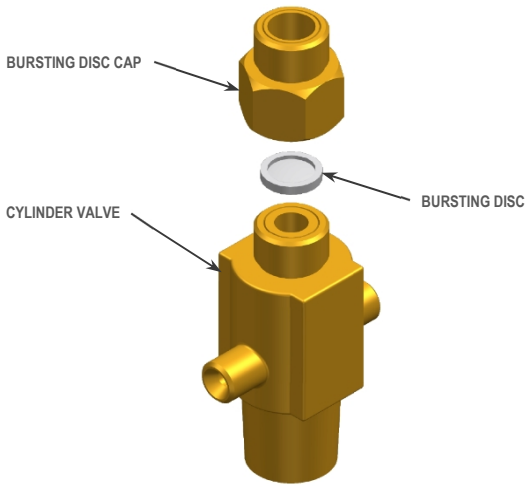


Expellant cylinder	101M2UFxx
Capacity	0.07 ft³ (2L)
N_2 pressure	200 bar

Agent cylinder		INDLC-3-KBC	INDLC-5-ABC / INDLC-5-BC
H	Inch (mm)	18.5 ±0.2 (469 ±5)	20.2 ±0.2 (512 ±5)
J	Inch (mm)	Ø4.3 ±0.2 (Ø110 ±5)	Ø6.0 ±0.2 (Ø153 ±5)
K	Inch (mm)	14.4 ±0.2 (367 ±5)	16.2 ±0.2 (410,5 ±5)
L	Inch (mm)	20.9 ±0.2 (532 ±5)	22.7 ±0.2 (575,6 ±5)

SIDR15 bursting disc

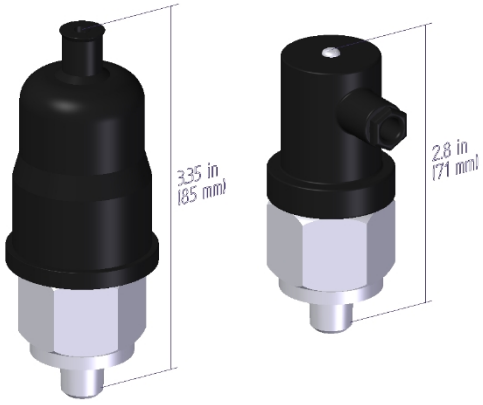
This bursting disc allows the dry chemical cylinder to be discharged once a pressure of 15 bar is reached. The disc is installed at the outlet of the cylinder, between the cylinder valve and its cap. When the required pressure is reached, the disc bursts and the extinguishing agent flows into the discharge pipe, from where it is distributed to the nozzles.



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).



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Electrical activation (optional)

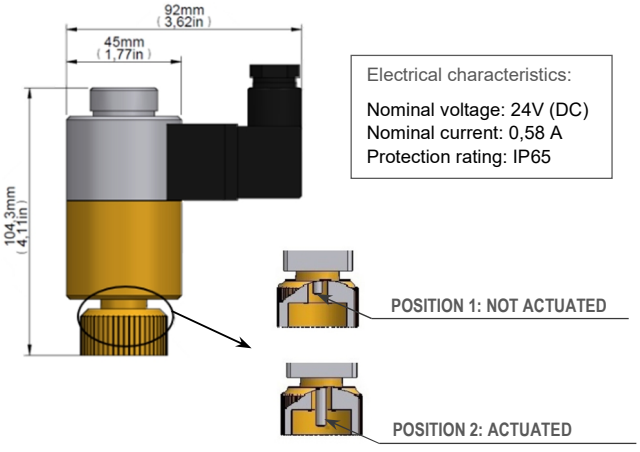
227SOLR resettable electric actuator head (24VDC)

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.



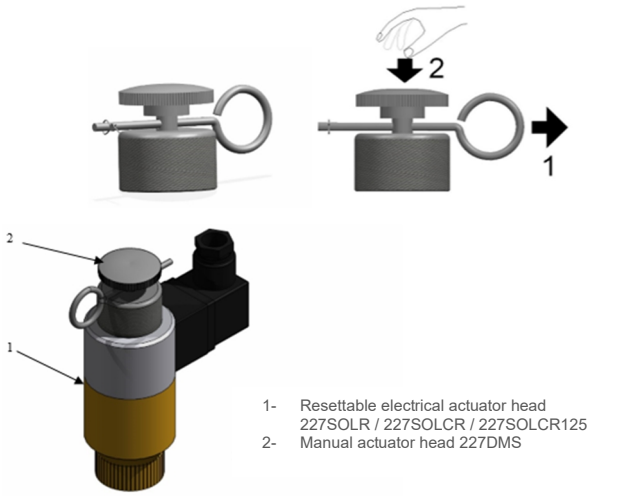
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Manual activation

227DMS manual actuator head

This actuator allows manual activation of the container valves where it is installed. Once the safety pin is removed from the actuator, the push button can be pressed to activate the container valve and initiate discharge.

The 227DMS is connected ONLY to the upper actuation port of the 227SOLR, 227SOLCR and 227SOLCR125 electric actuators, by means of a revolving nut that allows its proper orientation.

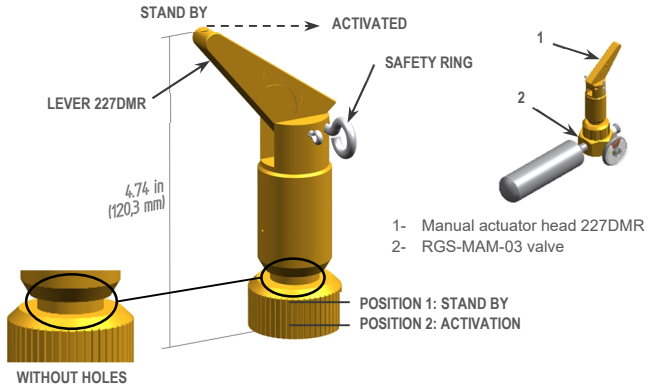


1- Resettable electrical actuator head 227SOLR / 227SOLCR / 227SOLCR125
2- Manual actuator head 227DMS

227DMR manual actuator head

The function of this actuator is to manually activate the container valves where it is installed. Once the safety ring is removed from the actuator, the manual lever can be turned in the opposite direction.

The 227DMR manual actuator can be installed on the upper actuation port of the RGS-MAM-03 valve, or mounted on top of the electric actuator installed on that valve, using a revolving nut that allows proper orientation.



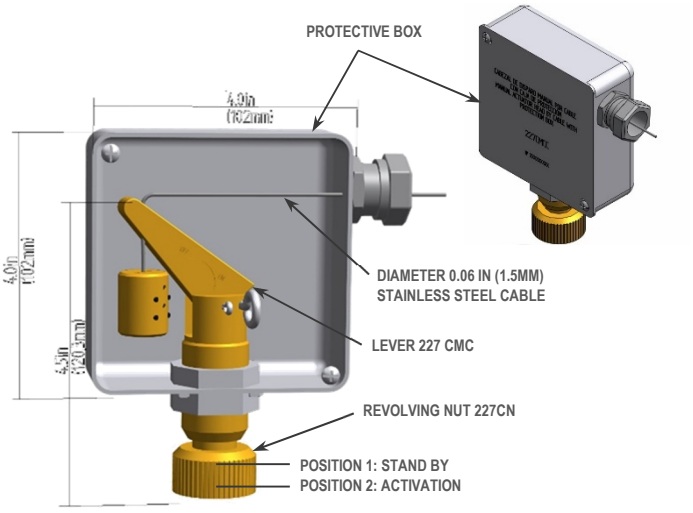
1- Manual actuator head 227DMR
2- RGS-MAM-03 valve

227CMC manual cable-operated actuator head and 227CMCC with protective box

It is used to remotely actuate the extinguishing system. This cable-operated manual actuator head can be installed on top of the electric actuator mounted on the RGS-MAM-03 valve, and is connected by cable inside a conduit (protective pipe) to the remote manual pull station.

The lever end includes a hole to tie the cable. The only difference between the 227CMC and 227CMCC models is that the latter (227CMCC) is housed inside a protective enclosure.

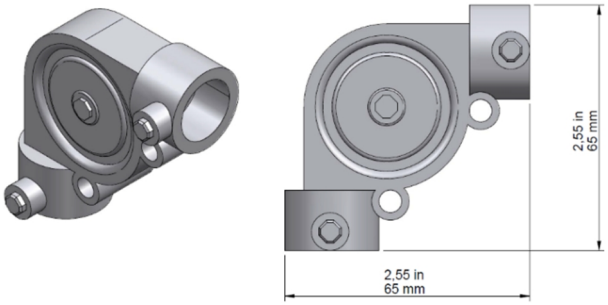
The cable is installed inside a steel pipe, using pulley elbows (TK-CPx) that allow for the directional changes required by obstacles and the elevation variations needed to reach the 227CMC or 227CMCC manual cable-operated actuator head.



TK-CPx pulley elbow

The pulley elbow is installed as part of the manual cable-operated actuator head and provides a change of direction with minimal force loss due to friction. Its function is to drive the stainless steel cable to avoid obstacles through the necessary directional changes to connect the remote manual pull station without tension (TK-DMS) with the 227CMC or 227CMCC manual cable actuator.

In addition, it connects the detection kits with the mechanical control unit and with all components that operate using detection cable. It contains a small internal bearing to guide the cable and completely eliminate friction.



ⓘ **This document provides a simplified overview of the most common system components. A wide range of detection, activation and control devices is available to meet the specific requirements of each installation.**

For further information, please contact AG FIRE SPRINKLER.

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Nozzles

Its function is to discharge the extinguishing agent into the protected area as homogeneously as possible to achieve effective suppression. With the AG-INDLC-3-KBC and AG-INDLC-5-xBC dry chemical cylinders 1 nozzle is installed, which model depends on the application:

AG-O-2 local application nozzle

Designed for local application fire protection systems, it is threaded onto the discharge pipe in a vertical position.



AG-TK-1 local application nozzle

Developed for the protection of flammable liquid storage tanks or to cover by immersion areas prone to flammable liquid spills. It is installed next to the tank and discharges at a 90º angle to the piping, creating a flat semicircular chemical blanket over the surface of the flammable liquid.



WARNING: This type of system is manufactured and approved for use in fixed dry chemical extinguishing installations. These products are not designed for any other use or purpose. If the product user has any questions regarding the application or use of the product, please contact +34 947 28 11 08. Any unauthorized use or application and/or any other unauthorized modification of the product or its function may cause serious accidents and/or personal injury. AG Fire is not responsible for any unauthorized use of the application.

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