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SYSTEMS

The extinguishing action of Carbon Dioxide (CO2) occurs firstly for the smothering of the fire (CO2 takes oxygen out of the air), and secondly for the cooling caused by the rapid gas expansion. It can be used on live electrical appliances. It is used to extinguish fires caused by flammable liquids, e.g. petrol, oils, paints, alcohol, etc. Example of a Co2 automatic system diagram With 67 It cylinders diam. 267

Location	CODE	No.	Description
2	2257	1	Closed check valve
3	2256-1	12	Servocontrol hose 1/4 L 500 mm
4	2258-3	12	Hand-pressure control for VRF
5		1	Pressure Switch
6		1	Ball valve
8	2256-4	1	Servocontrol hose 1/4 L 800 mm
9	2184	14	Spring weight control system
10	1903-1	14	Cylinder cap nut
11	2255	14	Rapid flow valve 3/4 "25E VFR
12	2257-4	2	Two-way internal valve
13	2258-2	2	Manual electric control 24 Vdc 12w IP65
14	2256-3	14	Delivery hose L 430mm
15	2257-1	14	Ball check valve
16	2256-4	1	Servocontrol hose 1/4 L 800mm
17		1	Reduction G1FxG1 / 4M Ogiva





CODE	Kg	Lt	Ø	Н	PRICE
31279	20	27	232	850	
31409	30	40	232	1180	
31509	50	67	267	1470	

With the implementation of the European legislation PED 2014/68 / UE - DM 6/03/2000, the manifold must be inspected and certified. All of its components must be subjected to hydraulic test pressure and the manifold must be marked with an EC tag with all its data and a manufacturer's certificate must be issued. Emme Antincendio builds collectors according to the laws in force and issues the necessary certification.



FIRE SUPPRESSION SYSTEMS



FIRE SUPPRESSION SYSTEMS



CODE

2260-4

PRICE

This system allows you to install a fully automatic system and does not need any power source or batteries.

Operation is based on the physical principle that air expands while heating up expands. The air expansion thermostat is a small tank built that consist of two copper cups sealed with a small capillary tube diam 3x2 and a threaded terminal. Installed on the ceiling, in case of fire the air, normally at atmospheric pressure, heats up and increases the pressure which, through a 3x2 copper capillary tube, is conveyed to the pneumatic control, which is able to turn the pressure into mechanical drive and activates the pilot Co2 cylinder. The cylinders are then connected in battery with the same gas pressure and are all activated and discharged in the space where the fire is.



Introduction to sprinkler systems Features of Sprinkler heads

What are the characteristics of a sprinkler?

Installation orientation

- Upright, with deflector facing upwards.
- Pendent, with deflector facing downwards.
- Orizontal Sidewall, with horizontal deflector.
- Vertical Sidewall, with vertical deflector but horizontal jet.
 - Concealed, completely embedded in the ceiling.
 - Recessed, partially embedded in the ceiling.

Form and direction of the jet in the discharge phase

- Spray paraboloidal jet > 80% directly downward <20% upwards.
- Conventional paraboloidal jet >40% upward <60% directly downward.
- Flat paraboloidal jet the amount directly discharged downwards is between 60-80%.

 Sidewall, semiparaboloidal shape discharged downwards and the wall behind. Thermal sensitivity

The response time of the heating element is measured in RTI (response time index)

- STANDARD RESPONSE RTI> 80.
 - FAST RESPONSE RTI <50.

Glass bulb sprinkler		Fus	Fuse sprinkler		
Storage Nominal operating temperature ° C	Bulb liquid color	Nominal operating tempera- ture °C nominal ° C	Arms color		
57	Orange	From 57 to 55	No color		
68	Red	From 80 to 107	White		
79	Yellow	From 121 to 149	Blue		
93	Green	From 163 to 191	Red		
100	Green	From 204 to 246	Green		
121		From 260 to 302	Orange		
141	Blue	From 220 to 242	Diack		
163		F10111 320 t0 343	BIACK		
182					
204	Mallow	Activation	temperature		
227	Plack	- 30° more than the maxi	mum ambient temperature		
260	DIACK	- depending on the heat generated by the fi			
286					
343					

SPRINKLER PENDENT 1/2 "SP K factor 80 - 2011/305 / EU (CPR)

UNI EN 12259-1 with paraboloidal water distribution, suitable for giving the expected delivery when the jet is directed downwards against the deflector washer. The "SU" sprinkler code and the operating temperature of the glass bulb (with clip) are indicated on the deflecting washer.

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Sprinkler Pendent Quick Response

Standard specifications Version: Pendent	fitting: 1/2 " Response: F3
Factor K: 80	UNI EN 12259-1
Finishing: Brass	
Homologation: 2011/305 / EU	(CPR)



CODE	TEMPERATURE	PRICE
2197	57°C = 135°F	
2197-1	68°C = 155°F	
2197-2	79 ° C = 175 ° F	
2197-3	93 ° C = 200 ° F	
2197-4	141 ° C = 286 ° F	

Frontal sidewall sprinkler

Frontal sidewall sprinkler with wall water distribution system. Side jet. Used to protect middle shelves or near walls.

Standard specifications Factor K: 80 fitting: 1/2 " Finishing: Brass



CODE	TEMPERATURE	PRICE
2202	57°C = 135°F	
2202-1	68°C = 155°F	
2202-2	79 ° C = 175 ° F	
2202-3	93 ° C = 200 ° F	
2202-4	141 ° C = 286 ° F	
2202-5	182 ° C = 360 ° F	

Sprinkler Pendent Standard Response

SPRINKLER PENDENT 3/4 "SP K factor 115 - 2011/305 / EU (CPR) -

UNI EN 12259-1 with paraboloidal water distribution, suitable for giving the expected delivery when the jet is directed downwards against the deflector washer. The "SP" sprinkler code and the operating temperature of the glass bulb (without clip) are indicated on the deflecting washer.

Standard specifications	Response 3/4"
Version: Pendent	Response:G5
Factor K: 115 Finishing: Brass	UNI EN 12259-1
Homologation: 2011/305	/ EU (CPR)



CODE	TEMPERATURE	PRICE
2198	57°C = 135°F	
2198-1	68°C = 155°F	
2198-2	79 ° C = 175 ° F	
2198-3	93 ° C = 200 ° F	
2198-4	141 ° C = 286 ° F	
2198-5	182 ° C = 360 ° F	

SPRINKLER UPRIGHT 1/2" SU K factor 80 - 2011/305/UE (CPR)

UNI EN 12259-1 with paraboloidal water distribution, suitable for giving the expected delivery when the jet is directed upwards against the deflector washer. The "SU" sprinkler code and the operating temperature of the glass bulb are indicated on the deflecting washer.

Sprinkler Upright Standard Response

Standard specifications Version: Upright Factor K: 80

fitting: 1/2 " Response:G5

Finishing: Brass Homologation: 2011/305 / EU (CPR) - UNI EN 12259-1

Sprinkler Upright Quick Response

SPRINKLER UPRIGHT 1/2" SU K factor 80 - 2011/305/UE (CPR)

Standard specifications Version: Upright Factor K: 80

fitting: 1/2 " Response: F3



Sprinkler Upright Standard Response

SPRINKLER UPRIGHT 3/4 "SU k factor 115 - 2011/305 / EU (CPR)

UNI EN 12259-1 with paraboloidal water distribution, suitable for giving the expected delivery when the jet is directed upwards against the deflector washer. The "SU" sprinkler code and the operating temperature of the glass bulb are indicated on the deflecting washer.

Standard specificationsResponse 3/4"Version: UprightResponse:G5Factor K: 115Finishing: BrassHomologation: 2011/305 / EU (CPR) - UNI EN 12259-1



CODE	TEMPERATURE	PRICE
2201	57°C = 135°F	
2201-1	68°C = 155°F	
2201-2	79 ° C = 175 ° F	
2201-3	93 ° C = 200 ° F	
2201-4	141 ° C = 286 ° F	
2201-5	182 ° C = 360 ° F	

SPRINKLER ORIZZONTAL SIDEWALL EXTENDED 1/2 "

Srinkler Horizontal Sidewall Extendend Coverage, with 3 mm bulb and 15 mm orifice. LPC / Vds approved. Chrome or White RAL 9010 finishing.

CO	DE	VERSION	FINISHING	K FACTOR	FITTING	TEMPERATURE	PRICE
22	26	Orizontal	Chrome	80	1/2″	57°C = 135°F	
222	26-1	Orizontal	Chrome	80	1/2"	68°C = 155°F	
222	26-2	Orizontal	Chrome	80	1/2"	79 °C=175 °F	
222	26-3	Orizontal	Chrome	80	1/2″	93 ° C = 200 ° F	
222	6-4	Orizontal	White	80	1/2″	57°C = 135°F	
222	6-5	Orizontal	White	80	1/2"	68°C = 155°F	
222	26-6	Orizontal	White	80	1/2"	79 °C=175 °F	
222	26-7	Orizontal	White	80	1/2"	93 ° C = 200 ° F	



CODE	TEMPERATURE	PRICE
2199	57°C = 135°F	
2199-1	68°C = 155°F	
2199-2	79 ° C = 175 ° F	
2199-3	93 ° C = 200 ° F	
2199-4	141 ° C = 286 ° F	
2199-5	182 ° C = 360 ° F	

CODE	TEMPERATURE	PRICE
2200	57°C = 135°F	
2200-1	68°C = 155°F	
2200-2	79 ° C = 175 ° F	
2200-3	93 ° C = 200 ° F	
2200-4	141 ° C = 286 ° F	
2200-5	182 ° C = 360 ° F	

SPRINKLER CONCEALED (HIDDEN) 1/2 "

SPRINKLER Concealed, with a quick response 3 mm bulb. UL approved. Chrome or White RAL 9010 finishing. Plate activation temperatures:

- for bulb 68 °

- for bulb 93 °

CODE	FINISHING	K FACTOR	FITTING	TEMPERATURE	PRICE
2227	Chrome	80	1/2"	68°C = 155°F	
2227-1	Chrome	80	1/2"	79 °C=175 °F	
2227-2	White	80	1/2"	68°C = 155°F	
2227-3	White	80	1/2"	79 °C=175 °F	



SPRINKLER ESFR K14 3/4 "

SPRINKLER Concealed, with a quick response 3 mm bulb. UL approved. Chrome or White RAL 9010 finishing. Plate activation temperatures:

- for bulb 68 °

- for bulb 93 °

CODE	VERSION	K FACTOR	FITTING	TEMPERATURE	PRICE
2228	Orizontal	14	3/4"	68°C = 155°F	
2228-1	Orizontal	14	3/4"	93 ° C = 200 ° F	



WATER BLADE NOZZLES

Water blade nozzles create a horizontal or vertical jet like a fire wall. The flow varies according to the outlet hole.

-	CODE	K-Factor	FITTINGS	ORIENTATION	PRICE
	2203	20	1/2"	150	
	2203-1	40	3/4"	150	
	2203-2	110	1″	150	

SPRAY NOZZLES

The spray nozzles create a jet of fractional or nebulized water. They are used in deluge systems to protect from serious risks. They are built with different diameters, flow rates and jet angles. These nozzles are equipped with an internal swirl capable of providing a rotational component to the fluid vein during the process.

CODE	K-Factor	FITTINGS	ORIENTATION	PRICE
2204	9	1/2"	60°	
2204-1	18	3/4"	60°	
2204-2	45	1″	60°	
2204-3	9	1/2"	90°	
2204-4	18	3/4"	90°	
2204-5	45	1″	90°	
2204-6	9	1/2"	± 120°	
2204-7	18	3/4"	± 120°	
2204-8	45	1″	± 120°	

This type of nozzles produce a full cone spray with a uniform distribution. The flow varies according to the outlet hole. Ask for technical bulletins.



SPRINKLER SYSTEMS



WET SYSTEM

We are pleased to introduce on the European market the first alarm valve complete with trim entirely produced in Italy, having obtained the CE 1922 certification in accordance with the UNI EN 12259-2. The wet valves CE 1922 certified in accordance with the UNI EN 12259-2 standard are used in extinguishing systems with water upstream and downstream of the station. They have two main purposes: the first is to allow the passage of water in the event of one or more sprinklers breaking, the second is the activation of a sound alarm that does not depend on electrical sources. With the use of pressure switches, additional alarm systems can be used. A feature of wet valves is the extreme simplicity of access to the clapper for inspection and commissioning. When the system is inactive, the water in the distribution pipes keeps the plate of the alarm valve in closed position. As a consequence of water spillage from one or more sprinklers there is a decrease of pressure in the pipes. Therefore,

the feedwater pressure becomes prevalent and determines the automatic opening of the plate as much as necessary, in order to feed the nozzles, 11.

When the fluid flows, the valve signals the opening of the sprinklers, operating a hydraulic alarm bell.

The retard chamber

eliminates the possibility of false alarms due to normal pressure variations in hydraulic systems. The purpose is to protect the building, people and what is inside from fire. It can

cover up to 12,000 square meters of surface in a single fire compartment and can be powered both by a water pumping system and by the water system of the aqueduct. The system must be designed by qualified technicians in collaboration with the competent authorities for a correct risk description. In order to allow technicians to inspect the system once assembled, and to obtain the certification of verification and inspection of the system by supervisors, we decided to offer a trim set-up / wet valve with variable pressure, test valves and valves that silence the alarm. ALARM SILENCE

SPRINKLER SYSTEMS

DRY SYSTEM

The dry system is installed in all areas subject to the risk of frost or areas such as loading platforms or non-heated parking areas.

The operating principle is similar to that of wet systems, with the difference that downstream of the alarm valve, in the distribution system located in the protected area, the pipes are not filled with water but with compressed air or nitrogen.

The discharge of a sprinkler generates a pressure drop which activates the opening of the alarm valve thus allowing water to reach the dispenser and act on the fire.

on the fire. All components are built to allow a quick opening ensuring effective action on the fire since

the first moments; components like the accelerator guarantee even better results in operation times. Although more complicated than wet systems, construction quality guarantees constant performances over the years without any expensive maintenance.



System Configuration:

- Dry alarm valve.
- Complete test and alarm trim with acces-
- sories and pressure gauges.
- Accelerator with Trim.
- Pressure maintenance set.
- Water pressure warning switch.
- Air pressure warning switch.
- Alarm hydraulic bell.

- Pre-assembling of units in the workshop included



DELUGE SYSTEM

160

The deluge system is designed for safe and fast intervention in order to provide a total soaking of protected areas.

The deluge system is normally used both for flood systems to protect areas such as airport hangars, and for systems to protect localized areas and surfaces such as cooling tanks and water blades.

The deluge system is also compatible for use in low, medium and high expansion foam systems.

The wide range of activation systems ranging from manual, to electrical combined with pulsants or smoke detectors, to pneumatic through wet or dry pilot lines run by manual systems make is ideal for any type of installation.



System Configuration:

- Deluge alarm valve.
- Basic trim.
- Electrical activation trim 24 Vcc.
- Manual emergency activation.
- Hydraulic Alarm Bell
- Water pressure warning switch PS 10-1.

SPRINKLER SYSTEMS

PRE-ACTION SYSTEM

The preaction system is specifically designed for applications where it is crucial to avoid an accidental operation of the system or to replace extensive dry sprinklers to speed up their operation.

The perfect application of preaction systems is in data processing centers (DPC), control rooms, libraries, archives of precious documents and cold storage.

In some cases, preaction systems combined with carbon dioxide extinguishing systems in subfloors can replace the traditional gas shut-off systems.

Systems that use a single interlock require a detection system before water arrives at the distribution pipes and sprinklers.

This system protects against soakings due to accidental breakage.

The passage of water into the protected area is allowed only with the alarm of the detection system. In dual interlock systems, before water enters the distribution system, the detection consent is

necessary as well as the sprinkler discharge. This last protection guarantees even more protection from damage due to accidental discharges.

Accidental

System Configuration:

- Preaction alarm valve.

- Complete test and alarm trim with accessories and pressure gauges.

- Pressure maintenance set.
- Water pressure warning switch.
- Air pressure warning switch.
- Alarm hydraulic bell.





FOAMING AGENTS APPROVED IN ACCORDANCE WITH UNI EN 1568: 2008 - PART. 1, 2, 3, 4 - NO-Fire-fighting foaming agents fall into two main categories:

- PROTEINICS AND PROTEIN FLUOROUS DERIVATIVES - SYNTHETICS AND PROTEIN FLUOR DERIVATIVES

These are divided into categories summarised as follows:

The standard is divided into four chapters:

UNI EN 1568-1:specifications for medium-expansion concentrated foaming agents for applying to the surface of liquids that are immiscible with water.

UNI EN 1568-2: specifications for high-expansion concentrated foaming agents for applying to the surface of liquids that are immiscible with water.

UNI EN 1568-3:specifications for low-expansion concentrated foaming agents for applying to the surface of liquids that are immiscible with water.

UNI EN 1568-4:specification for low-expansion concentrated foaming agents for applying to the surface of liquids that are miscible with water.

CHAPTER 1

Refers to medium-expansion foaming agents for hydrocarbons (e.g. Synthetic HIEX used with medium-expansion generators, that is, with a ratio of <1:20-200). The fire test, conducted on heptane, requires that the foaming agent has the following performances:

The EXTINCTION: within 120 seconds. RESISTANCE TO RE-IGNITION 1%: not less than 30 seconds.

CHAPTER 2

Refers to high-expansion foaming agents for hydrocarbons (e.g. Synthetic HIEX used with high-expansion generators, that is, with a ratio of > 1:200). The fire test, carried out on eptane, provides that the foaming agent has the following performances: **EXTINCTION:** within 150 seconds.

CHAPTER 3

Refers to low-expansion foaming agents(e.g. AFFF or AR-AFFF used with nozzles for low expansion i.e. with a ratio of <1:20) used on hydrocarbons. This is the most complex section of the legislation. The test fire, conducted on heptane, classifies the

Extinction class of settlement	Level of resistance to re-ignition	Indirect jet	application	Direct jet a	pplication
		Extinction not exceeding minu- tes	Re-ignition not exceeding minu- tes	Extinction not exce- eding minutes	Re-ignition not exceeding minutes
	А	Not applicable		3	10
	В		15	3	
l	С		10	3	Not applicable
	D		5	3	
	А	Not applicable		4	10
	В		15	4	
11	С		10	4	Not applicable
	D		5	4	

CHAPTER 4

Refers to low-expansion foam (e.g. AFFF or AR-AFFF used with nozzles for low expansion i.e. with a ratio of <1:20) used on polar solvents. The fire test, carried out only on acetone in the 2000 version of the legislation, now also includes the fire test on isobutyl alcohol.

Extinction class of settlement	Level of resistance to re-i- gnition When starting again	Extinction not Extinction not exceeding minutes	Re-ignition not exceeding minutes Extinction not exceeding mi- nutes		
	А	3	15		
	В	3	10		
	С	3	5		

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VERTICAL PRE-MIXER WITH INTERNAL LIQUID DISPLACEMENT							
Code	Dimensions A D E		Va- cuum weight vacuum	Capacity	Price		
2818	500	291	450	226	100		
2818-1	500	291	450	267	200		

It works as a pre-mixing system

MIXER							
Mixer Ø	Maximum flow rate L / 1	D. nozzle h20 mm	Delta P				
3 '	2000	ø 55	0.93 BAR				
4'	3200	ø 71	0.94 BAR				
6 '	8500	ø 111	0.97 BAR				

	HORIZ	IZONTAL PRE-MIXER WITH INTERNAL LIQUID DISPLACEMENT WITH INTERNAL LIQUID DISPLACEMENT					
	Code	A	Dimension D	ns E	Va- cuum weight vacuum	Capacity	Price
	2819	800	624	650	413	500	
	2819-1	800	624	650	440	600	
	2819-2	800	624	650	497	800	
	2819-3	1000	790	750	519	1000	
	2819-4	1000	790	750	625	1500	
	2819-5	1100	864	800	845	2000	
	2819-6	1170	914	800	915	2500	
	2819-7	1270	984	860	1137	3000	
	2819-8	1360	1048	900	1234	3500	
J. Jr_	2819-9	1450	1112	950	1307	4000	
	2819-10	1450	1112	950	1396	4500	
	2819-11	1600	1245	1050	1455	5000	
	2819-12	1600	1245	1050	1539	5500	
	2819-13	1750	1351	1150	1589	6,000	
	2819-14	1750	1351	1150	1642	6500	
	2819-15	1750	1351	1150	1741	7000	
	2819-16	1750	1351	1150	1824	7500	
	2819-17	1960	1534	1200	2124	8000	

FOAM FIRE-FIGHTING SYSTEM



WATER NOZZLE FOR MONITORS						
	Code	A	В	С	Flow rate from 5 to 8 BAR	Price
	2824	1000	166	3″	800-1200	
	2824-1	1000	166	3″	1200-1500	
	2824-2	1000	166	3″	1500-2000	
	2824-3	1000	166	3″	2000-2300	
	2824-4	1000	166	3″	2400-3500	

FOAM NOZZLE FOR MONITORS					
	Code	Weight: kg	Flow Rate	Material	Price
	2825	5	1500-2000	AISI 304	



For use with syn At the time, the world market price wa	thetic foar s rising. Us	ning agent for sed to flood la	r high ex arge area	xpansion. as such as tunnels, hangars	, and	
par						
	Code	Flow Rate	Wei- ght	Expansion ratio	Price	
	2820	200 L / min	57	1 ÷ 500		
	High	High expansion foam generator. It is used for saturating volumes of large indoor spaces.				

MEDIUM-EXPANSION FOAM SPRAY NOZZLE YIELD 1:8

Low expansion foam spray nozzle used in non-pure water sprinkler systems

Code	K-Factor	ø gas - BSP	Weight	Price
2821-4	28	3/4"	0.5 kg	
2821-5	45	1″	0.55 kg	

FOAM CHAMBER									
	The foan	n chambe	r is used in pe	ermanent sy	vstems	with l	ow exp	pansior	ı foam
		Code	Operating pression of exercise	Flow Rate	A mm	D mm	And mm	Wei- ght	Price
	For protecting tanks	2822	5 BAR	200-450	250	425	210	19	
14		2822-1		200-450	250	425	210	21	
		2822-2		500-1260	250	425	210	24	
11		2822-3		1260- 2600	400	620	300	40	
1 - B		2822-4		1260- 2600	400	620	300	45	

POWDER SYSTEM 250 KG



SKID-MOUNTED MODULES READY FOR INTEGRA-TION INSTALLATION

Dry powder extinguishing systems use sodium bicarbonate as the main extinguishing agent and are intended for the industrial sector, in particular the processing of petrochemical derivatives. In fact, their technical characteristics make them suitable for extinguishing Class C fires; the systems are designed and manufactured according to customer specifications and dimensions vary depending on the amount of extinguishing agent to be stored.

designed and manufactured according to the specifications requested by the customer and the size varies depending on the amount of extinguishing agent to be stored.
The system is activated with high pressure cylinders, loaded with nitrogen, remotely controlled with electric or pneumatic activators, as well as with a manual and local control system.

The tank is gradually pressurised with nitrogen

Code	Capacity	Price
2826	100 kg	
2826-1	250 kg	
2826-2	500 Kg	

FIXED ELECTRICALLY CONTROLLED POWDER SKID						
Powder tank characteristics						
Capacity	250 kg					
Material	P 355					
Operating pressure	14 bar					
Safety valve	ISPESL					
Tank Painting tank	Tank externally N.1 inorganic zinc based coating 60 microns N.1 final coat epoxyvinyl 75 micron					

PRESSURISATION AND CONTROL UNIT						
Components						
1 nitrogen cylinder 50 LTS - BAR 200 each with:						
1 electric valve with solenoid IP55 solenoid IP55	1 ring and cap propeller nut					
1 Gooseneck	1 Check valve					
1 Pressure reduc	ctor					
1 Electro / manual diffuser powder discharge valve powder delivery						
*System supplied pre-assembled on a painted iron base painted iron bearings						

POWDER SYSTEM 500 KG



SYSTEMS FOR LOCALIZED EXTINGUISHING

DIRECT DISCHARGE SYSTEM LOW PRESSURE

CE

This is the simplest system, designed to guarantee the safety in a indoor area with limited dimensions. The flame generated by a possible failure burns the pressure pipe connected to the cylinder causing it to break. The characteristics of the pipe are such that the break has dimensional characteristics similar to those of a nozzle, and from this break the extinguishing agent contained in the cylinder and in the pipe escapes in a very short time and extinguishes the flame, limiting the damage only to the source of fire ignition.

The system therefore guarantees an excellent protection of the equipment located in the adjacent space, since at the time of pipe breaking, the extinguishing agent will be conveyed directly onto the flame, optimizing the extinguishing action of the fire.

LOW PRESSURE SYSTEM

LOW PRESSURE SYSTEM WITH PRESSURE SWITCH



GAS HFC 227EA						
Code	Maxi- mum protected volume Protected [M ^ 3]	Load	Price			
2827	1 1 5	1 kg				
2827-1 *	1.15	1 kg				
2827-2	2 20	€2 / kg				
2827-3 *	2.30	€2 / kg				
2827-10		4 kg				
2827- 11 *	4.60	4 kg				
2827-4	6.00	6kg				
2827-5 *	0.90	6kg				
2827-6	10.25	9 kg				
2827-7 *	10.33	9 kg				

Maxi-Code Load Price protected volume Protected [M ^ 3] 2842 1 kg 1.70 2842-1 * 1 kg 2842-2 €2 / kg 3.40 2842-3 * €2 / kg 2842-4 6kg 6.80 2842-5 * 6kg 2842-6 9 kg $10 \le \times \le$ 20 2842-7 * 9 kg 12 kg 2842-8 15.30 2842-9 * 12 kg

NOVEC 1230

The system is supplied without installation and commissioning kit. * Valve with integrated pressure switch

SYSTEMS FOR LOCALIZED EXTINGUISHING



End line cap Ø 6	1		End line cap Ø 0	1
		Code 2837-3	(6-9-12 Kg. Powder / HFC 227ea - 5 Kg Co2 with end-of-line pressu- re reading)	Price
COMPONENTS	QUANTITY		COMPONENTS	
Heat-sensitive adhesive tube clamp	20	Heat-sensitive adhesive tube clamp		40
Heat-sensitive hose - Ø 6	5	Heat-sensitive hose - Ø 6		5
Pass-through wall fitting with $ otin 6 $ 6 pressure	1	Pass-thr	1	

INDIRECT DISCHARGE SYSTEM CO² - HIGH PRESSURE



HIGH PRESSURE SYSTEM

	CARBON DIOXIDE - CO2						
Code	Maximum protected volume [M ^ 3]	Load	Price				
2834	1.2/1.7 *	2 Kg					
2834-2	3.3/4.3 *	5 Kg					
2834-3	5.6/7.8 *	9 Kg.					
2834-4	11.2/15.6 *	18 kg					
2834-5	16.2/22.6 *	26 [kg]					
2834-6	27.4/38.4 *	44 Kg					

()

INDIRECT DISCHARGE SYSTEM - LOW PRESSURE

It is a very effective automatic extinguishing system. The flame burns the under pressure FALCON TUBE connected to the cylinder, causing it to break and consequently the loss of pressure of the gas inside the pipe, which will activate the opening of the valve. The extinguishing agent contained in the cylinder can then pass through a steel pipe and will convey on the flame through nozzles, extinguishing the fire. The system therefore guarantees a perfect protection of the equipment and the surrounding environment, preventing the extending of the fire to other areas.



	NOVEC	1230		GAS HFC 227EA				
Code	Maximum protected volume Protected [M ^ 3]	Load	Price	Code	Maximum protected volume Protected [M ^ 3]	Load	Price	
2843	1.70	1 kg		2831	1.15	1 kg		
2843-1	3.40	€2 / kg		2831-1	2.30	€2 / kg		
2843-2	6.80	4 kg		2831-5	4.60	4 kg		
2843-3	$10 \le \times \le$	6kg		2831-2	6.90	6kg		
	20			2831-3	10.35	9 kg		
2843-4	15.30	9 kg				2 16		
		0		2831-4	13.80	12 kg		

ABC POWDER				POWDER D			
Code	Maximum protected volume Protected [M ^ 3]	Load	Price	Code	Maximum protected volume Protected [M ^ 3]	Load	Price
2832	1.70	1 kg		2833	0.50	0.5 kg	
2832-1	3.40	€2 /		2833-1	0.90	0.9 kg	
2022 5	6.00	kg 4 kg		2833-5	1.7	1.7 kg	
2832-5	6.80	4 Kg		2833-2	2.5	2.5 kg	
2832-2	10 ≤ × ≤ 20	6kg		2833-3	4	4 kg	
2832-3	15.30	9 kg		2833-4	4.5	4.5	
	÷	-				kg.	

LOW PRESSURE SYSTEM

The system is supplied without installation and commissioning kit.

INSTALLATION KIT FOR INDIRECT DISCHARGE SYSTEMS

Installation kit for indirect discharge systems with: Clamps for heat-sensitive pipe, discharge pipe, discharge nozzles.



CO² HIGH PRESSURE

REFERENCE REGULATIONS

The system design can be performed according to various international standards with the aid of software for calculating discharge times and holes in the nozzle passage sections. The reference standards for the design of the system are:

- NFPA 12 Standard on Carbon Dioxide Extinguishing Systems

- APSAD R13 Règle d'installation Extinction automatique à gaz
- ISO 6183 Fire protection equipment Carbon dioxide extinguishing systems for use on premises Design and installation
- CEA4007 CO2 systems Planning and Installation VdS 2093en CO2 Fire Extinguishing Systems

TECHNICAL DATA							
Code	Model						
Chemical name	Carbon Dioxide (CO2)						
Chemical formula	Co2						
Density at 0 ° C and 0.101 MPa	1.98 kg / m3						
Density relative to air	1.5						
Critical temperature	31°C						
Vapor pressure at -18 ° C and 21 ° C	20.7 and 58.6 BAR						
Cylinder capacity	67.5 liters						
External cylinder diameter	267 mm						
Cylinder height	1600 mm						
complete Cylinder weight	130 kg						
Maximum degree of admission	0.75 kg / liter						
Design concentration for fires with embers formation NFPA12 (% by volume)							
Dry electric risks	50% to be kept for at least 20 minutes						
Paper archives	65% to be kept for at least 20 minutes						
Design concetration for liquid and gaseous fuels NFA12 (% by volume)							
Methane, diesel, petrol	34%						
Ethyl alcohol	43%						
Hydrogen	75%						

CERTIFICATIONS

The extinguishing systems comply with the requirements of the European Pressure Equipment Directive (PED2014 / 68 / EU). In addition to the PED, the components are also compliant with the Construction Products Directive (CPD 89/106 / CE) and the EN12094 series regulations.

