



With more than a decade of existence, Chemori has become one of the leading global brands in the market of clean agent fire extinguishing equipment and systems. Its success is crafted by the strength and dedication of its people.

Based on a company that is one of the established, viable businesses and manufacturing sites around the world. Specializing today in the provision of Actuation Accessories, Engineered and Pre-Engineered Fire Suppression Systems, Detection Devices and Tubing Systems. Chemori applies numerous and varied technical resources by working together with Underwriter's Laboratories (UL), Factory Mutual Approvals (FM), European Directive (TPED), Environmental Protection Agency (SNAP). Our commitment to continued innovation, good customer service, and technical support increases the success of our valued global network of distributors.

SPECIALIZES IN

SUPPLY, INSTALLATION AND MAINTENANCE





HFC-227ea CLEAN AGENT



DESCRIPTION

Chemori®227 is a trademark of Chemori's Heptafluoropropane. Chemori®227 is an effective fire extinguishing agent that can be used on many types of fires ranging from sensitive electrical equipment to industrial applications using flammable liquids. Chemori®227 is ideal for applications where clean-up of other medium presents a problem, where an electrically non-conductive medium is needed and where people compatibility is an overriding factor. When environmental impact becomes a consideration, Chemori®227 is particularly useful. It has zero ozone-depleting potential, low global warming potential and short atmospheric lifetime. These characteristics make it suitable not only for new installations using Chemori's total flooding system, but also for Halon 1301 replacement applications. Chemori®227 is an odorless, colorless liquefied compressed gas. It is stored as a liquid and dispensed into the hazard as a colorless, electrically non-conductive vapor that is clear and does not obscure physical vision. It leaves no residue and is acceptable for use in occupied spaces at design concentration. Chemori®227 extinguishes a fire by absorbing the heat from the fire, resulting in the decrease in flame temperature below which is necessary to retain the flame. Thus, there is no sufficient heat to maintain the burning process, the fire can then be extinguished. Chemori®227 does not displace oxygen and therefore is safe for use in occupied spaces without fear of oxygen deprivation. Chemori®227 fully complies with the standards of ASTM D6064 and NFPA 2001 and has achieved a minimum purity of 99.95% and less than 10 ppm of moisture. It has less than 1 ppm acidity as HF. The non-volatile residue is less than 0.05g/100ml.







PHYSICAL AND CHEMICA	L CHARACTERISTICS
Chemical Name	Heptafluoropropane (CF ₃ CHFCF ₃)
General	Colorless, Odorless Liquified Gas
Molecular Weight	170.03
Boiling Point	-16.4°C/2.48°F
Freezing Point	-131°C/-203.8°F
Vapor Pressure @ 21°C/70°F	58.8 psia
Critical Temperature	101.7°C/215.1°F
Critical Pressure (psia)	422.3 psia
Vapor Density (AIR=1)	6.04
Water Reactive	No
Specific Gravity (H ₂ O=1)	1.46
Percent Volatile (by volume)	n/a
Evaporation Rate (Butyl acetate=1)	n/a
Viscosity @ 20°C/68°F	n/a
Water Solubility (V/V @ 20°C/68°F)	260mg/L
Ozone Depletion Potential	0
Estimated Atmospheric Lifetime (years)	31-42





FK-5-1-12 CLEAN AGENT



DESCRIPTION

FK-5-1-12 is a widely used extinguishing agent available under various brand names. Chemori®5112, a trademark of Chemori's FK-5-1-12mmy2 (Dodecafluoro-2-methylpentan-3-one), is a clean, environmentally safe agent effective against Class A, B, and C fires. Approved by the U.S. EPA for its safety and effectiveness, Chemori® 5112 serves as a viable alternative to Halon 1301. It has also been recognized by UL Component Recognize, FM Approved, and listed in the U.S. EPA SNAP Program.









CLEA	N AGENT PROPERTIES	
IUPAC Name	1,1,1,2,2,4,5,5,5-Nonafluoro-4-(-trifluoromethyl)-3pentanone	
ASHRAE Designation	FK-5-1-12mmy2	
Synonym	Dodecafluoro-2-methylpentan-3-one	
CAS Registry Number	756-13-8	
Chemical Formula	CF ₃ CF ₂ (O)CF(CF ₃) ₂	
Molecular Weight	316.04	
Freezing Point	-162.4°F (-108°C)	
Boiling Point at 760mmHg	49.2°C / 120.6 °F	
Critical Temperature	335.6°F (168.66°C)	
Critical Density	39.91 lbm/ft3 (639.1 kg/m3)	
Critical Pressure	270.44 psi (1,865 kPa)	
Critical Volume	0,0251 ft3/lbm (494.5 cc/mole)	
Viscosity, Liquid at 77°F (25°C)	1.27 lb/ft-hr (0.524 cP)	
Water Solubility at 70°F (21.1°C)	<0.0001% by weight	
PROF	PERTY REQUIREMENT	
Purity	99.9% (minimum)	
Water Content (by weight)	0.001%	
Non-Volatile Residue (g/100 ml)	0.05	
ENVI	RONMETAL IMPACT	
Ozone Depletion Potential (ODP)	0	
Global Warming Potential (GWP)	≤	
Atmospheric Lifetime (ATL)	0.014years	
US EPA SNAP	Yes	

ADVANTAGES

- CHEMORI®5112 is electrically non-conductive, non-corrosive, and leaves no residue. It employs a unique mechanism to absorb heat energy from combustion, causing the reaction to cease and the fire to extinguish.
- CHEMORI®5112 will completely vaporize, eliminating the need for cleanup after system discharge.
- CHEMORI®5112 contains no chlorine or bromine, it has a Global Warming Potential (GWP) of ≤ 1 and an Ozone Depletion Potential (ODP) of 0.



*CO7 LIQUID AGENT



DESCRIPTION

Introducing ECO7®, an innovative liquid fire suppression agent proudly brought to you by Chemori. This revolutionary formula is entirely fluoride-free and designed to excel in extinguishing fires. Leveraging cutting-edge technology, ECO7® integrates insulation, encapsulation, emulsification, and cooling mechanisms to deliver exceptional fire extinguishing capabilities.

ECO7® UNIQUE CHARACTERISTICS

- Fluorine Free
- Biodegrable
- Non-Toxic
- Safe for Human Skin
- Effective Fire Suppression Solution

ECO7® ADDITIONAL FEATURES

- · Act as Fire Blanket
- · Gentle on Skin
- Plant Regrowth Stimulant
- Oil Dispersant

CLASSES OF FIRE





CLASS B



CLASS B







PRE-ENGINEERED CYLINDER ASSEMBLIES



Direct Action Release (DAR) Arrangement Standard DAR Valve 3LB



Direct Action Release (DAR) Arrangement Stainless Steel DAR Valve 6LB



Secondary Action Release (SAR) Arrangement Standard SAR Valve 12LB



Secondary Action Release (Dual Outlets) (SAR) Arrangement Indirect Low Pressure Valve 18LB

Our pre-engineered stainless steel cylinders are designed to be filled with Water, ECO7 Liquid Agent, HFC-227ea, or FK-5-1-12 Clean Agents, within their specified fill ranges. Available in sizes ranging from 3 lb to 18 lb, these cylinders are manufactured, tested, and stamped in accordance with EN 13322-2 standards.

Chemori's Detection Tubing System operates using two types of pressure mechanisms with distinct valve types:

- · Direct Action Release Valve Automatically releases the clean agent upon the rupture of the detection tubing.
- Secondary Action Release Valve Activated by the rupture of the detection tubing, manual release through the Direct Manual Release Assembly, or the Release Control Unit.

This advanced system ensures reliable and efficient fire suppression across various applications.

CYLINDER	VALVE	CYLINDER	BASE	OVERALL
PART NUMBER	TYPE	SIZE	DIAMETER (MM)	HEIGHT (MM)
LA550003	DAR / SAR	3 LB	113	330
LA550006	DAR / SAR	6 LB	113	410
LA550012	DAR / SAR	12 LB	153	450
LA550018	DAR / SAR	18 LB	153	590

Temperature Range: 32°F (0°C) to 130°F (54.4°C) | Operating Pressure: 195 & 240 psi at 70°F (21.1°C)





DIRECT ACTION RELEASE

DAR SYSTEM





DESCRIPTION

CHEMORI'S Direct Action Release (DAR) - The system automatically activates when the detection tubing, strategically placed within a hazardous enclosure, ruptures at 100°C. This tubing serves as both a fire detector and a discharge nozzle. Upon activation, the clean agent is released from the rupture point directly into the fire, providing instant extinguishment. The system operates independently of any electrical supply and is easy to install due to its portability. It is most suitable for use with clean agents in total flooding local applications.

FEATURES

- · Classification A, B, C, K
- · Self-Actuated
- · Automatic 24-Hour Fire protection
- · Rapid reaction time
- · Electrically Non-Conductive
- System uses Water, FK-5-1-12 & HFC-227ea Clean Agents
- Flexible Design
- Extremely Cost-effective
- DAR System
- Cylinders are made of Stainless Steel material
- Sizes available in 3 lb, 6 lb, 12 lb & 18lb
- Operating Pressure: 195-240PSI

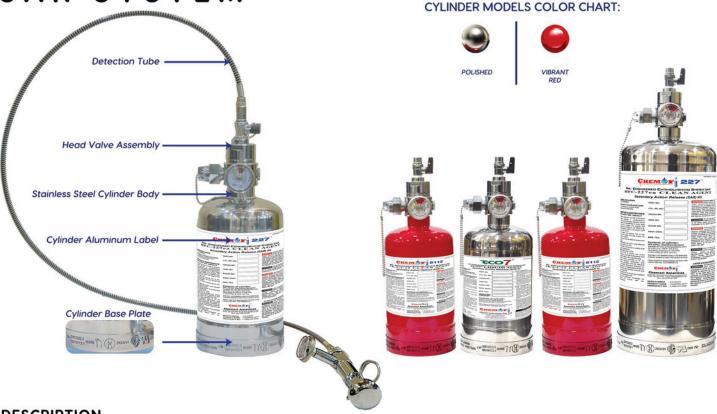
CYLINDER PART NUMBER	HFC-227EA MAX FILL (KG)	FK-5-1-12 MAX FILL (KG)	WATER MAX FILL (L)	CYLINDER OD (MM)	CYLINDER HEIGHT (MM)
LA550003	2	2.5	1.5	110	210
LA550006	3	4	2.0	110	308
LA550012	6	8	4.5	150	337
LA550018	9.5	12	6.5	150	482





SECONDARY ACTION RELEASE

SAR SYSTEM



DESCRIPTION

The Chemori's SAR System provides two activation methods: automatic activation via detection tubing rupture or manual activation through the direct manual release assembly. The detection tubing is strategically placed within the hazardous area for rapid fire detection, while the manual release assembly is situated in a safe and accessible location. Activation by either method triggers a pressure shift that opens the cylinder valve, allowing the clean agent to be released into the fire through strategically positioned discharge nozzles. The system operates independently of any electrical supply, enhancing its reliability. Additionally, it is adaptable to various extinguishing agents, making it suitable for a wide range of applications.

FEATURES

- Classification A, B, C, K
- · Self-Actuated
- Automatic 24-Hour Fire protection
- · Rapid reaction time
- · Electrically Non-Conductive
- System uses Water, ECO7® Liquid agent FK-5-1-12 & HFC-227ea Clean Agents
- Flexible Design
- Extremely Cost-effective
- SAR System
- Cylinders are made of Stainless Steel material
- Sizes available in 3 lb, 6 lb, 12 lb & 18lb
- Operating Pressure: 195-240PSI

CYLINDER PART NUMBER	HFC-227EA MAX FILL (KG)	FK-5-1-12 MAX FILL (KG)	ECO7 [®] MAX FILL (L)	WATER MAX FILL (L)	CYLINDER OD (MM)	CYLINDER HEIGHT (MM)
LA550003	2	2.5	1.5	1.5	110	210
LA550006	3	4	2.0	2.0	110	308
LA550012	6	8	4.5	4.5	150	337
LA550018	9.5	12	6.5	6.5	150	482



CYLINDER VALVES

DIRECT ACTION RELEASE VALVES





DAR VALVE TYPE	VALVE PART NUMBER	MODEL NUMBER	MAX WORKING PRESSURE	TEST PRESSURE	MEDIUM	MARKING
TYPE 1	CR 99002	LA05D1	195 - 240 PSI	540 PSI	HFC-227EA, FK-5-1-12	LION LOGO &
TYPE 2	CR 9900D	LA05D3	173 2401 01	340131	111 0 22727,777 0 7 12	SERIAL NUMBER

SECONDARY ACTION RELEASE VALVES







TYPE 2

	VALVE YPE	VALVE PART NUMBER	MODEL NUMBER	MAX WORKING PRESSURE	TEST PRESSURE	MEDIUM	MARKING
TY	'PE 1	CR 991050	LA05II	195 - 240 PSI	540 PSI	HFC-227EA, FK-5-1-12	LION LOGO &
TY	PE 2	CR 9901050I	LA0513	173 240 1 01	340 31	ECO7®	SERIAL NUMBER



ACCESSORIES FOR

DETECTION TUBING

PRESSURE GAUGE

Pressure gauge accurately report cylinder assembly pressure and ensure a true full charge, recharge or optimal pressure reading.

PART NO.	DESCRIPTION
CR 27-15-18-DC-3	Pressure Gauge 195 PSI, M10-1
CR 27-15-18-A	Pressure Gauge 240 PSI, M10-1





LOW PRESSURE SUPERVISORY SWITCH

The switch is used to monitor the pressure within the Liquid Agent cylinder. The switch contacts will be activated when a pressure leak occurs in the cylinder assembly, sending a signal to the Release Control Panel to indicate loss of pressure and/or leakages. The pressure supervisory switch is wired into a supervised circuit to give a trouble signal upon activation.

SIPHON TUBE

Chemori's high pressure fittings are engineered and test to the highest standards of repeatable quality. The fittings are designed with a dual seal mechanism to ensure leak tight connection during high frequency usage.

PART NO.	DESCRIPTION
CR 10-1	3LB CYLINDER
CR 10-2	6LB CYLINDER
CR 10-3	12LB CYLINDER
CR 10-4	18LB CYLINDER



HIGH PRESSURE FITTINGS

Chemori's high pressure fittings are engineered and test to the highest standards of repeatable quality. The fittings are designed with a dual seal mechanism to ensure leak tight connection during high frequency usage.

TYPE	6MM FITTINGS	DESCRIPTION
Α	CR 60032-A	1/8 BSPP Slip Lock Adapter
В	CR 60035-A	Slip Lock Joint
С	CR 60033-A	Adapter With 90 Elbow. 1/8 BSPP Slip Lock
D	CR 60036-A	Slip Lock Elbow
E	CR 60034-A	T-Joint 1/8 BSPP - 2 x Slip Lock
F	CR 60037-A	Slip Lock T-Joint
G	CR 99025	End-Of-Line Adapter with Slip Lock Adapter





PART NO.	DESCRIPTION
CR 50056	Pressure Relief Disk





FIRE DETECTION TUBE



DESCRIPTION

Chemori Fire Detection Tube is designed to achieve the desired heat detection rating. The Fire Detection Tube, which is pressurized, is placed within an enclosed area with potential fire hazard and is secured in place with brackets provided.

The Direct Action Release System discharges the extinguishing medium directly from the heat ruptured hole in the tube, this will be the closest point to the fire. It will allow the fastest extinguishing time to minimize spread of fire. The Secondary Action Release system discharges the extinguishing medium into the protected area via network of piping thru selected discharge nozzles.



RED	BLACK
CR 99011-R6	CR 99011-B6
6 mm	6 mm
4mm	4mm
65°C	80°C
240 psi	260 psi
100°C	125°C
150 mm	160 mm
1 Layer Special	2 Layer Special
Polyamide with UV Coating	Polyamide with UV Coating
	CR 99011-R6 6 mm 4mm 65°C 240 psi 100°C 150 mm 1 Layer Special Polyamide

TUBE CUTTER

Tube cutter is used for cutting the Fire Detection Tubes. It is durable and gives a clean, precise and accurate cut. It can cut the tubes from 3mm to 14mm in diameter. The blades of this cutter can be replaced.

FEATURES AND BENEFITS

- Small, compact & easy to handle
- · Polyacetal body stainless steel blades
- · Precise design
- · Ruggedness
- · Ideal for cutting drip tubing
- · Simple to use



PROTECTION GUARD

The Protection Guard is designed to wrap around the Pneumatic Fire Detection Tube, safeguarding it from cuts and abrasion in harsh environments with severe wear and tear conditions. Measuring 1.2 meters in length, it features a spring-like connector for easy extension, ensuring continuous protection. Available in 6mm, it enhances the durability and reliability of the detection tube in demanding applications.

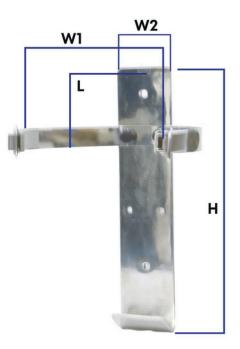




CYLINDER BRACKET



PART NUMBER	CYLINDER SIZE	L (IN)	W (1) (IN)	H (IN)	WIDTH (2) (IN)
CR 991003-S	3LB	5.12"	4.41"	9.13"	1.97"
CR 991006-S	6LB	5.12"	4.41"	9.13"	1.97"
CR 991012-S	12LB	6.30"	5.98"	12.68"	1.97"
CR 991018-S	18LB	6.30"	5.98"	12.68"	1.97″



DESCRIPTION

The cylinder bracket is manufactured from stainless steel material formed to the radius of the cylinder. The cylinder bracket must be secured to a surface that the bracket will withstand a load up to 5 times of the cylinder weight. This precaution is to have the bracket safely support the weight of the cylinder combine with the reaction force of Agent when discharge.





PRESSURE VALVE

DESCRIPTION

Chemori's Indirect Low Pressure Valve is specially designed for flexible tubing detection fire suppression systems wherein flexible detection tube is routed throughout the protected zone. It is part of Pre-Engineered Automatic Fire Detection System that operates when the fire detection tubing bursts to activate the system discharge.





CR 991050-X1

GENERAL INFORMATION		
Inlet Thread:	1" - 12 UNF or M30x1.5	
Dip Tube Thread:	3/4" - 16 UNF	
Outlet Threads:	3/8" NPT	
Safety Device:	Pressure Relief Disc	
Valve Test Pressure	28 bar (406 psi)	
Operating Pressure:	15-23 bar (Filling Pressure at 20°C)	
Pressure Gauge Thread:	MIOxI	
Tube Connection:	For detection tubes Ø 6mm	
Main Valve Material / Surfaces:	High-Corrosion Resistant Coating	
Sealing Materials:	EPDM	



SAR ACCESORIES

DIRECT MANUAL RELEASE ASSEMBLY

ACTUATION UNITS

Our actuation units are available in two options:

DIRECT MANUAL RELEASE ASSEMBLY

The Direct Manual Release Assembly is connected from the Pneumatic Fire Detection Tube. The Direct Manual Release Assembly can also replace an End-Of-Line Adapter. By adding a High Pressure "T" Fitting, it can be connected to any point along the Fire Detection Tube.





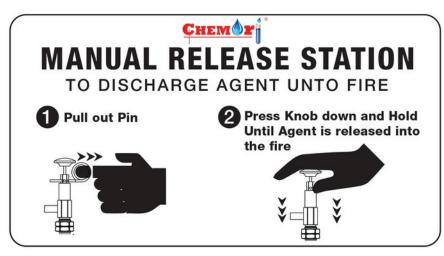
CR 62033

RELEASE CONTROL UNIT

This button is used to manually activate the release of clean agent in case of fire. The built in pressure gauge lets the user to visually confirm the system pressure, this is an advantage in doing maintenance check or servicing. This unit can be easily installed unto surfaces of vehicle dashboard or at the control cabinet of Kitchen Hood Fire Extinguishing System.

A disc is required to be replaced after each activation.







DISTRIBUTION NOZZLES







CR99017

FOAM NOZZLE

The ECO7® Foam Nozzle in our Detection Tubing System exemplifies our dedication to efficient and eco-friendly fire suppression. Expertly crafted, this nozzle features three powerful discharge holes, strategically placed for optimal coverage. Its innovative design ensures the effective release of the ECO7® Liquid agent, enabling a swift and precise response to potential fire hazards.

The ECO7® Foam Nozzle embodies our commitment to superior fire protection. The three discharge holes work together to rapidly disperse the ECO7® Liquid Agent, thoroughly covering the designated area. This advanced design not only enhances the performance of our fire suppression system but also reduces environmental impact, aligning with our commitment to sustainable and responsible practices.



CLEAN AGENT DISCHARGE NOZZLE

The Discharge Nozzle in a Detection Tubing System is primarily designed to efficiently distribute HFC-227ea and FK-5-1-12 Clean Agents in a predetermined pattern and concentration. These nozzles are carefully engineered to release the Clean Agents within 10 seconds or less, while strictly adhering to design specifications. Our advanced system features 1/2" Stainless Steel nozzles with either 180-degree sidewall or 360-degree central holes, ensuring precise and comprehensive coverage for effective fire suppression. This innovative design underscores our commitment to providing swift and targeted responses in critical situations, enhancing the reliability and efficiency of our fire protection solutions.





CR 99078

TYPE C NOZZLE

The Type C nozzle, with its distinctive crayon shape, is a vital component of the detection tubing system. It is engineered to provide focused and precise despersal of extinguishing agents. This design ensures targeted application, optimizing the effectiveness of the fire suppression response in critical areas.



DISCHARGE PIPE NOZZLE FOR ECO7®

DESCRIPTION

The Discharge Pipe Nozzle is designed specifically for ECO7® Liquid Agent, creating a fine mist that blankets the fire, cutting off its oxygen supply while delivering superior cooling to prevent re-ignition. It ensures uniform distribution of the agent in a pre-determined pattern and concentration, completing the discharge within 10 seconds when installed according to the Installation Instruction Manual. Discharge Pipe Nozzles are ideal for applications where the distance to the target is limited, ensuring efficient and effective fire suppression.



PART NUMBER	SPRAY ANGLE	SPRAY PATTERN
CR 99715	15 Degree	Hollow Cone
CR 99730	30 Degree	Hollow Cone

FEATURES

- · Spray out the smallest droplets
- · Clog-resistant performance
- · High discharge velocity
- · High energy efficiency
- · Durable

WHAT IS HOLLOW CONE SPRAYS?

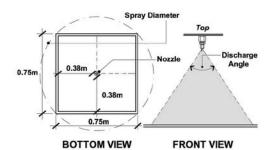
Hollow Cone Sprays are formed by injecting a stream of fluid tangentially into a swirling chamber. The swirling action allows a consistent film of liquid to discharge from the nozzle forming a ring of fluid. Hollow cone spray nozzles produce smaller droplets and a tighter spectrum of droplets than full cone or flat spray nozzles. This means the droplets are relatively uniform in size throughout the spray. Hollow cone spray nozzles have a large free passage, so the risk of clogging is minimal.



MIST NOZZLE FOR WATER MIST

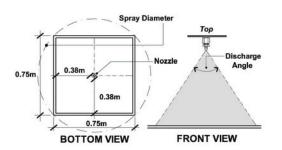


DISCHARGE DIAGRAM:





DISCHARGE DIAGRAM:



DIRECTIONAL MIST NOZZLE

The Directional Mist Nozzle creates a wispy, light mist in a horizontal discharge angle of 80°. The mist blankets the fire not producing the flame to breathe whilst simultaneously providing significantly higher cooling rates to extinguish the chances of the fire re-flash.

Chemori Directional Mist Nozzle is recommended to use for the total area covarage systems

Part No.	Thread Size	Flow Rate	Orifice Diameter	Discharge Angle
CR 990002-IF	1/4" NPT	2.75 LPM	1.0 mm	800+ - 10°

PROTECTION COVERAGE AREA

For All Application	Total Area	Height of Nozzle Installation
0.10m x 0.10m	0.01 sq.m	0.10 meters
0.20m x 0.20m	0.04 sq.m	0.20 meters
0.30m x 0.30m	0.09 sq.m	0.30 meters
0.40m x 0.40m	0.16 sq.m	0.40 meters
0.50m x 0.50m	0.25 sq.m	0.50 meters
0.60m x 0.60m	0.36 sq.m	0.60 meters
0.70m x 0.70m	0.49 sq.m	0.70 meters
0.75m x 0.75m	0.56 sq.m	0.80 meters

WIDE MIST NOZZLE

The Wide Mist Nozzle produces a uniform, low velocity mist at high discharge angle of 120°. Its X-style vane allows high free passage without heavy spots, and its spray angle is consistent over the full capacity range.

Chemori Wide Mist Nozzle is recommended for the application in which the distance to the target is limited.

Part No.	Thread Size	Flow Rate	Orifice Diameter	Discharge Angle
CR 990001-X	V 1/8" NPT	1.75 LPM	1.0	1200+ - 10°
CR 990001-14	1/4" NPT	1.75 LPM	1.0	1200+ - 10°

PROTECTION COVERAGE AREA

For All Application	Total Area	Height of Nozzle Installation
0.10m x 0.10m	0.01 sq.m	0.10 meters
0.30m x 0.30m	0.09 sq.m	0.20 meters
0.50m x 0.50m	0.25 sq.m	0.30 meters
0.70m x 0.70m	0.49 sq.m	0.40 meters
0.75m x 0.75m	0.56 sq.m	0.50 meters



SYSTEM CONTROL UNIT & BUZZER



CR 89801

SYSTEM CONTROL UNIT

The System Control Unit serves to control the alarm of the unit if you want to disable or silence the alarm. It provides a fault indicator LED to be illuminated when a fault is detected in the system.

SPECIFICATIO	NS
Operation Voltage	DC 12V 1A
Operating Temperature	0°C - 55°C
Weight	125g ± 5%
Dimension	Zinc Alloy



CR 60016

BUZZER

The Buzzer indicates emergency suitable for sheltered outdoor and indoor areas. There is also an option to control siren and flashing light separately.

SPECIFICATIONS			
Operation Voltage	24 V DC (10-14V)		
Siren	70mA		
Strobe	120mA		
LED Strobe	20mA		

SPECIFICATIONS

- Rain Proof
- Four Bulbs
- Eight LED
- UV Proof Polycarbonate Housing
- Reverse Polarity Protection
- Low Power Consumption

NOTE: Back Box for both device is available with part number: CR 89802.

