UNIQUE FIRE INDUSTRY

PRODUCT CATALOGUE



ADDRESS

No. 9, Jalan Anggerik Mokara 31/55, Kota Kemuning, Seksyen 31, 40460, Shah Alam, Selangor, Malaysia

CONTACT

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INTRODUCTION

Unique Fire Industry is an ISO certified, multiple award-winning fire equipment company that has a passion to see that every home and workplace is adequately protected against fire hazards. Our experience in the fire-fighting industry since 1975 gives us an edge when it comes to advising what fire suppression systems and equipment work best for your property.



ABOUT US

MISSION

OUR CUSTOMER

We commit to market a range of quality fire protection products, solutions and services to meet the diverse needs of our customers.

OUR PEOPLE

We learn and grow together with our employees through understanding, educating and communication to foster an enjoyable working environment...

VISION

OUR CUSTOMER

To protect lives and properties as a preferred brand that is recognized by the public.

OUR PEOPLE

To generate leaders that believe employees are the most important asset to the company.

1997

Unique Fire owes its humble beginnings to the energy and drive of one man, Mr Liew Sen Hoi, the founder and Managing Director of the Group. The company was incorporated in **1997** and began as a distributor of fire protection equipment.

2008

Our second factory was built in Kota Kemuning, Shah Alam. This factory assembled Unique Fire's complete line of dry chemical portable fire extinguishers, in strict adherence to high quality assurance levels so as to meet our customers' demands.

2013

We took a quantum leap forward with the completion of our current office, factory and warehouse in Kota Kemuning, Shah Alam. This premise provided us with the space to expand our product range and continue growing our business.

NOW.

As of 2022, we are proudly listed on the ACE Market of Bursa Malaysia.

CARBON DIOXIDE FIRE

EXTINGUISHING SYSTEM

Carbon dioxide (CO2) is a well-known extinguishing system for electrical equipment. The system consists of liquefied CO2 stored in pressurised cylinder, discharge valves, piping and electrical devices that automatically detect smoke or heat and quickly discharge the CO2 in the cylinders to extinguish the fire.





A. Liquefied Carbon Dioxide (CO2)

CO2 is an odourless, colourless, and incombustible gas present in the atmosphere. Not only is this gas non-corrosive in nature, it is also non-conductive and will not cause any form of electrical damage.

CO2 extinguishes fire mainly by reducing the concentration of oxygen and /or the gaseous phase of fuel in the air, to the point where combustion stops.



This makes it ideal for use in the protection of: -

- *Gaseous and liquid flammable materials
- *Electrical Hazards
- *Engines using gasoline and other flammable fuels
- *Ordinary combustibles
- Hazardous solids

However, CO2 will not extinguish fires when the following materials are actively involved in the combustion process:

- *Chemicals containing their own supply of oxygen
- *Reactive metals
- Metal hydrides

B. CO₂ Cylinder Modules

Our CO₂ cylinders can be connected to a manifold via a non-return valve. This enables the removal of cylinders individually, without compromising on the general protection of the system.

The cylinders can generally be grouped in rows, in any combinations desired. However, a single or double row arrangement would be recommended for economical space utilisation.

The cylinders are tested to 225 bars and conform to DOT-3AA & BS 5045 PART 1 , NFPA 12.

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UNIQUE FIRE INDUSTRY SDN BHD Co. No. 418731-U

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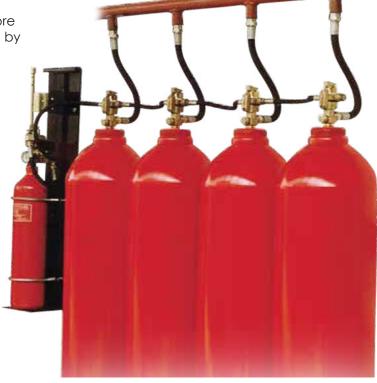
C. Solenoid Operated Pilot Cylinder

The pilot cylinder provides nitrogen gas at the pressure of 550 psi, and based on the pressure calculation it can operate the pneumatic actuation of up to 210 units of cylinder within a system.

The solenoid valve opens upon the supply of 24VDC, allowing gas to flow from the cylinder onto the manual / pneumatic actuator fitted to the pilot valve. The pilot valve then opens, releasing gas onto the C02 pneumatic valve. The pilot cylinder may also be operated manually, either locally at the pilot cylinder or remotely by pull cable and pull box.

NOTE:

- 1. The pilot cylinder would have to be recharged should the pressure falls below 400 psi, or the required pressure.
- 2.The solenoid pilot cylinder would have to be installed away from the 45kg CO₂ cylinder(s).
- 3. Assume that there are no leaks on the actuation line.
- 4. The time to actuate all cylinders may take more than 10 seconds which may not be acceptable by AHJ.



D. Release Unit

The release and subsequent discharge of the CO₂ gas can be affected either manually and / or automatically.

Manual Actuation

The manual release actuation is effected by just pulling the release handle at the cylinder valve.

Automatic Actuation

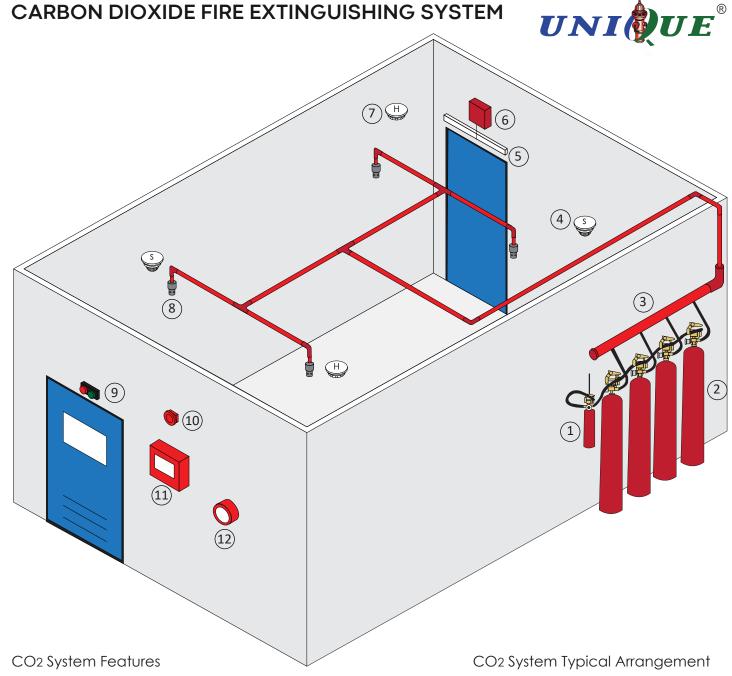
Detectors responding to a fire condition transmit a signal to the suppression panel, which then activates the release mechanism.

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- · Leaves no residue after discharge
- Eco-friendly agent
- Non-damaging to property
- Effective on a wide range of flammable and combustible materials.

System Applications

- Electrical Room
- Generator Room
- Switch Room

- 1. Electric Solenoid Pilot Cylinder (550 psi)
- 2. 68L Carbon Dioxide Cyclinder
- 3. Manifold
- 4. Smoke Detector
- 5. Smoke Curtain
- 6. 24V DC Tripping Device
- 7. Heat Detector
- 8. CO₂ Discharge Nozzle
- 9. Twin Flasing Light
- 10. Fire Alarm Bell
- 11. CO₂ Control Panel
- 12. Manual Pull Station

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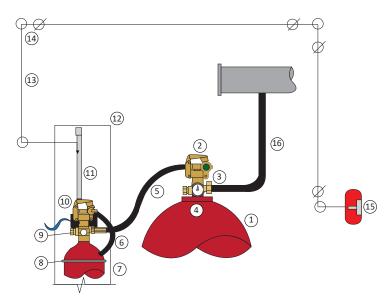
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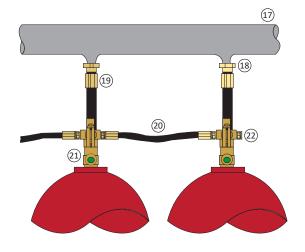
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Pilot Cylinder Arrangement



Cylinder Arrangement

Pilot & Cylinder Arrangement

- 1. 68L CO₂ Cylinder c/w 45kg CO₂ gas
- 2. Ø20mm Pneumatic Operated Cylinder Valve
- 3. Ø20mm Outlet Valve
- 4. Pressure Gauge
- 5. Ø6mm x 600mm (L) Flexible Hose
- 6. Ø6mm x 300mm (L) Flexible Hose
- 7. Pilot Cylinder
- 8. Ø6mm Galvanised U-Bolt
- 9. Ø6mm Plug
- 10. Solenoid Valve

- 11. Manual Pull Handle
- 12. Pilot Cylinder Mounting Bracket
- 13. Ø1.5mm Galvanized Steel Cable in G.I Conduit
- 14. Corner Pulley
- 15. Manual Pull Handle
- 16. Ø15mm x 430mm (L) Discharge Hose
- 17. Cylinder Manifold
- 18. Ø20mm NPT Manifold Socket
- 19. Ø20mm Non Return Valve
- 20. Ø6mm x 345mm (L) Connecting Hose
- 21. Ø11mm x 7mm x 0.5mm Copper Washer
- 22. Vent Plug

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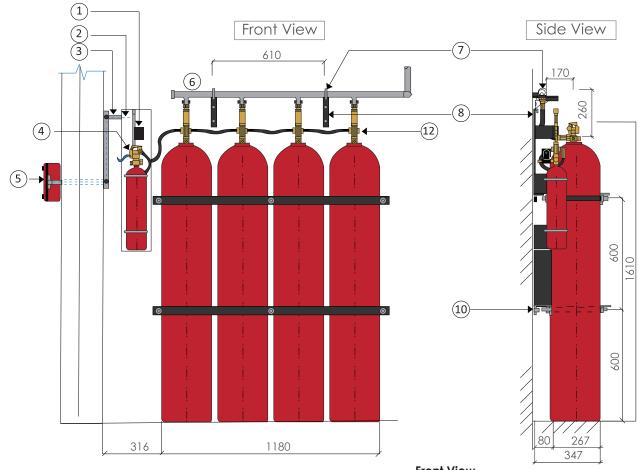
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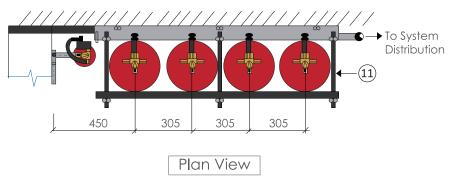
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General Arrangement CO2 Cylinders





Front View

- 1.Limit Switch
- 2.Ø1.5mm Stainless Steel Wire
- 3.Ø19mm Conduit to Manual Pull Box
- 4.Solenoid Valve
- 5.Manual Pull Handle
- 6.Ø40mm Schedule 40 Manifold
- 7.Ø10mm U-Bolt
- 8.50mm x 50mm x 5mm (thk) Angle Iron with
- Ø10mm Bolt + Washer
- 9.50mm x 50mm x 5mm (thk) Angle Iron with
- Ø10mm Nut Washer
- 12. Vent Plua

Side View

10.80mm x 40mm x 5mm (thk) U-Channel with Ø10mm Bolt + Washer

Plan View

11.Ø10mm Tie Rod

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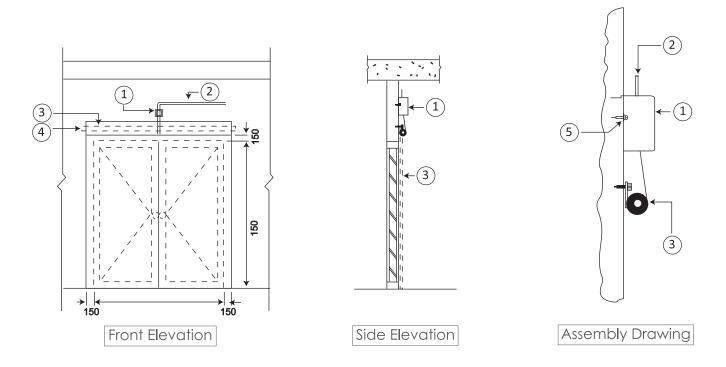
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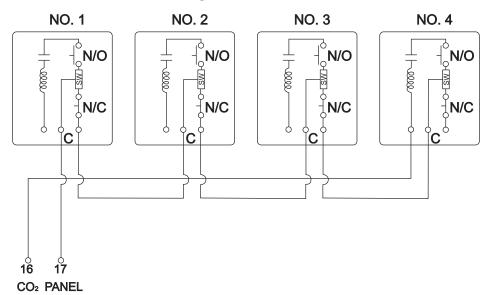


Smoke Curtain Mounting Detail



- 1.24V DC Solenoid Tripping Device
- 2.Electrical Conduit
- 3. Fibre Glass Curtain
- 4.Iron Bar
- 5.Ø6mm Bolt & Drop-in Anchor with washer

Details of Multiple Solenoid Tripping Device Connection



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TECHNICAL DATA			
Part No.	CYL-N		
Water Capacity	68L		
CO ₂ Gas Capacity	45kg		
Working Pressure	150 bar		
Test Pressure	225 bar		
Empty Weight	Approx. 68kg		
Material	Mn Steel		
Manufactured	GB5099-1-2017		

Solenoid 24V DC Pilot Cylinder



TECHNICAL DATA				
Part No.	PC-S, PC-T			
Gas	Nitrogen			
Stored Pressure	38 bar (550 psi)			
Power	24 V DC			
Dimension	180mm (W) x 755mm (H)			

Cylinder Valve



TECHNICAL DATA				
Part No.	45KG-NV			
Material	Forged Brass CuZn 3963			
Type Mode	UP-05			
Working Pressure	150bar			
Туре	Manual/Pneumatic			
Weight of Valve	700g			
Standard	DIN 477			

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Connecting Hose





TECHNICAL DATA	
Part No.	HH-CH-13
Size	6mm (1/4")
Length	330mm (13")
Туре	High Pressure Hose
Material	Steel Braided Rubber Hose
Test Pressure	540 bar
Proof Pressure	450 bar
Maximum Working Pressure	225 bar
Burst Pressure	> 900 bar
Thread	BSPT

Discharge Hose



TECHNICAL DATA	
Part No.	HH-DH-17
Size	13mm (1/2")
Length	432mm (17")
Туре	High Pressure Hose
Material	Steel Braided Rubber Hose
Test Pressure	385 bar
Maximum Working Pressure	160 bar
Burst Pressure	> 640 bar
Thread	BSPT

Discharge Nozzle



TECHNICAL DATA					
Part No.	DN-UH15 DN-UH20 DN-UH25				
Size	15mm 20mm 25mm				
Material	Brass				
Finishing	Chrome				
Discharge Pattern	Uni-bilateral				
Discharge	With Orifice				
Туре	Pendent				

Pyrocharge with Fitting



TECHNICAL DATA				
Part No.	45KG-PC			
Material	Stainless Steel Body			
Finishing	Natural			
Voltage	24V			

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TECHNICAL DATA			
Part No.	HHF-VP-3/8		
Size	10mm(3/8")		
Material	Brass		
Finishing	Galvanised		

Tee



TECHNICAL DATA				
Part No.	HHF-TEE-1/2"			
Size	13mm (1/2") x 13mm(1/2") x 6mm(1/4")			
Material	Steel			
Finishing	Galvanised			
Thread	BSPT			

Plug



TECHNICAL DATA				
Part No.	HHF-PG-3/8			
Size	10mm(3/8")			
Material	Steel			
Finishing	Galvanised			
Thread	BSPT			

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Auto Gas Releasing Control Panel











PE-GRP 200/400 Series

Per Bell

Program Auto Gas Releasing Control Panel GRP 200/400 Series manufactured in accordance to MS 1745-2: 2004 and conformed to local CIFS requirement. PE-CRP 200/400 series is a microprocessor programmable user-friendly control panel with a digital ammeter, voltmeter and a countdown timer displayed on the front panel. Count down timer is pre-set for 30 seconds upon two (2) activated zone. Timer can be programmed to required specification. The built-in power pack with an intelligent charger allows to charge up a set of completely flat 24 volts battery and automatically cuts off charging once battery is fully charged.

The controls and indications are housed in a compact enclosure finished with signal red polyester epoxy powder paint. Indoor and outdoor type of enclosure are available.

STANDARD FEATURES

- •Power Source Indicators
- Power Failure Indicators
- •Zone Fire. Fault and Isolate Indicators
- •Bell Isolate Switch and Indicator
- •Gas Isolate Switch and Indicator
- Fault Buzzer Mute Switch
- •Master Reset Switch
- •Test Lamp Switch
- •Test Battery Switch
- •Earth Fault Supervisory
- Built-in Delay Discharge Timer
 (Programmable)

NEW FEATURES

- •GAS Abort Function (Optional)
- Digital Voltmeter and Ammeter
- •Intelligent Battery Charger
- Digital Countdown Timer
- •Common Fault Contact
- •Low Pressure Indicator

				Size (mm) (W x D x H)	
No. of Zones	Model no.	Part no.		Indoor	Outdoor
2	PE-GRP 200i / PE-GRP 200s	FAP-02ZCP-1	·N	430 x 370 x 170	430 x 380 x 170
4	PE-GRP 400i / PE-GRP 400s	FAP-04ZCP-1	·N	550 x 390 x 170	550 x 400 x 170
TECHNICAL DATA					
Power Supply Input		2	240V AC	C 50Hz/60Hz	
Operating System		2	24V DC		
Operating Battery		1	8-27.6	/ DC	
Battery Cut Off		1	8V		
Intelligent Charger (\$1)		0	0.67A - 1.3A @ 30%		
Intelligent Charger (S5)			1.2A -1.8A @ 100%		
End of Line			8K2 Ohms		
Auxiliary Output			24V, 2 Amp		
Alarm Signal			N/O Contact		
Gas Discharged Signal			N/0 Cc	ontact	
STANDBY MODE					
Master		7.	75mA		
Per zone (with Detector	-	5	5mA		
Flashing Lights (Green LED)			75mA		
ALARM MODE					
Master		1.	140mA		
Per Trigger Zone		71	70mA		
Output Devices		2	200mA		
Flashing Lights (Red LED)		7.	75mA		

30mA

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TECHNICAL DATA					
Model No.	AH-0711				
Part No.	FAE-P0711				
Description	2 Wire				
Alarm Current @ 24V DC 470 Ω	40mA				
Operating Temperature Range	-10°C to 55°C	-10°C to 55°C			
Operating Humidity Range	10% to 93% Relative Humidity				
Voltage Range	12V-30V DC				
Standby Current @ 24V DC 470 Ω	25 - 75 μΑ				
Sensitivity Setting	15% obs/m				
Material	Plastic	Plastic			
Size	Ø102mm x 50mm (H)	Ø102mm x 50mm (H)			
Weight	130g	130g			
Colour	White				
EFFECTIVE ALERT AREA					
Building Height	Under 4m 4m to 20m				
Area Covered	150m ² 75m ²				

^{*}Applicable for Unique 227 Fire Suppression System and Carbon Dioxide Fire Extinguishing System

UNIQUE AH-0333 Heat Detector



TECHNICAL DATA				
Model No.	AH-0333	AH-0333		
Part No.	FAE-H0333	FAE-H0333		
Description	2 Wire	2 Wire		
Alarm Current @ 24V DC 470 Ω	40mA	40mA		
Operating Temperature Range	0°C to 55°C	0°C to 55°C		
Operating Humidity Range	10% to 93% Relative Humi	10% to 93% Relative Humidity		
Voltage Range	12V-30V DC	12V-30V DC		
Sensitivity Setting	Rise rapidly in 30°C / per 3	Rise rapidly in 30°C / per 30sec.		
Material	Plastic	Plastic		
Size	Ø111mm x 45mm (H)	Ø111mm x 45mm (H)		
Weight	130g	130g		
Colour	White	White		
EFFECTIVE ALERT AREA				
Construction/ Height	Under 4m	4m~ 8m		
Fire-proof Building	90m ²	45m ²		
Ordinary Building	50m ² 30m ²			

^{*}Applicable for Unique 227 Fire Suppression System and Carbon Dioxide Fire Extinguishing System

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TECHNICAL DATA	
Model No.	UNI-104 WP/L
Part No.	FAE-FLO-LED
Lens	High efficient prismatic polycarbonate lens optimized for omnidirectional viewing.
Luminary	Filament Bulb/Ultra Bright LED
Size	210mm(W) x 77mm(D) x 108mm(H)
Material (Casing & Hood)	Mild Steel
Finishing	Black casing with green and red lens

^{*}Applicable for Unique 227 Fire Suppression System and Carbon Dioxide Fire Extinguishing System

UNIQUE Fire Alarm Bell



TECHNICAL DATA	
Model No.	UNI-102
Part No.	FAE-6AB
Supply Voltage	110/ 240V (AC)
Jopphy Vollage	12/24V (DC)
Sound Output	92 - 105 dB
Current Consumption	0.05 A
Size	150mm(6")
Finishing	Red

DECIBEL SPECIFICATION				
AC Type		Decibel Rating @ 1m (3ft)		
Voltage	Amps	100mm(4")	150mm (6")	200mm (8'')
110	0.015	92dB	95dB	97dB
240	0.033	98dB	105dB	106dB
DC Type		Dec	ibel Rating @ 1m (3ft)
12	0.08	95dB	99dB	100dB
24	0.05	96dB	103dB	105dB

^{*}Applicable for Unique 227 Fire Suppression System and Carbon Dioxide Fire Extinguishing System

UNIQUE Sealed Lead Acid Battery



TECHNICAL DA	TA						
Model	Part No.	Nominal Voltage (V)	Capacity (AH)	Length (mm)	Width (mm)	Height (mm)	Approx. Weight (kg)
12V 7AH	BAT-007AH	12	7	151	65	100	2.05
12V 10AH	BAT-010AH	12	10	151	98	100	3.20
12V 12AH	BAT-012AH	12	12	151	98	100	3.45
12V 18AH	BAT-018AH	12	18	180	76	166	5.10
12V 26AH	BAT-026AH	12	26	176	166	127	7.80
12V 40AH	BAT-040AH	12	40	197	165	170	12.20
12V 65AH	BAT-065AH	12	65	355	167	193	20.20
12V 100AH	BAT-100AH	12	100	330	170	240	29.50
12V 120AH	BAT-120AH	12	120	405	174	233	35.6

^{*}Note: 120AH Battery is not UL Listed.

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TECHNICAL DATA	
Part No.	TD
Size	180mm(W) x 90mm(D) x 205mm(H)
Working Current	0.4A
Material	Mild Steel
Finishing	Epoxy Powder Coating

Smoke Curtain



TECHNICAL DATA		
Part No.	FC	
Material	Woven Fibreglass Fabric	
Colour	White	
Coating Finish	Loomstate	
Operating Temperature	Basic Fabric 600°C	
Standard	BS 476: Part 7	

Manual Pull Box



TECHNICAL DATA	
Part No.	MPB
Size	Ø200mm x 65mm(H)
Material	Aluminium Alloy (Body)
	Aluminium Alloy (Handle)
Finishing	Epoxy Powder Coating

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