ECS-1000/ ECS-1002

Pre-Engineered Automatic Electrical Cabinet Fire Suppression System

ECS-1000/ECS-1002 is a Pre-Engineered Automatic Electrical Cabinet Fire Suppression System kit with all important accessories. The cylinder assembly is filled with 10lbs/4.54kgs of clean agent (FK-5-1-12) and pre-pressurized to 195/240 psi (13.5/16 Bar) ECS-1002 provides a dual valve outlet as against ECS-1000 which has a single valve outlet port.

The Kit consists of the following items:

DESCRIPTION	QUANTITY
Cylinder valve Assy	1
FK-5-1-12	10lbs/4.54kgs
Cylinder Mounting Bracket	1
EOL Adapter with Gauge	1
Rubber Grommets	4
Plastic Loop Clamps	25

DESCRIPTION	DETAILS
Type of System	Direct Low Pressure **FK-5-1-12**
Operating Pressure	195/240psig (13.5/16Bar) at 70°F (21°C)
Storage & Operating Temperature Range	0°F to 130°F (-17.8°C to 54.4°C)

AGENT
PART CODE – FK-5-1-12

With zero ozone depletion potential, extremely low global warming potential and short atmospheric lifetime, UL Listed FK-5-1-12 Fluid is the first chemical halon replacement to offer a viable, long-term, sustainable technology for special hazards fire protection

DESCRIPTION	QUANTITY
Chemical Formula	CF3CF2C(0)CF(CF3)2
OZONE Depletion Potential	0.0
Global Warming Potential	1
Atmospheric Lifetime (Years)	0.014 (5 days)
SNAP	Yes

CYLINDER & VALVE ASSEMBLY

All agent cylinders are steel pressure vessels designed to hold the agent under pressure until the agent is discharged. All containers are suitable for use at storage temperatures between 32°F to 130 °F (0 °C to 54.4 °C).

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DESCRIPTION	PARTICULARS
Cylinder Material	Painted Steel
Operating Pressure	195/240psig (13.5/16Bar)
Cylinder Mounting Bracket	Painted Steel
Valve Material	Nickel Plated Brass
Primary Seals (membrane)	Special Polymer
Screw-in Connections	Brass with NBR seals
Secondary Seals	NBR, Hybrid seal metal nitrile
Top Connection	G 1/8"
Pressure Gauge Connection	1/8" NPT
Working Pressure	195/240psi (13.5/16Bar)
Leakage Rate	0.0001 mbar l/s

The cylinder valve assembly is also available with a dual output valve option. This comes with 2 ball valves with open and close individual ports

END OF LINE ADAPTER WITH PRESSURE GAUGE
PRODUCT CODE – ECS-EOL

DESCRIPTION	PARTICULARS
Gauge Range	0 – 400psi
Connections	1. DLP Valve
	2. End of Line
Material	Nickel plated brass body
	BUNA N Seals
Threads Internal	M10 x 1
Threads External	9/16-18 UNF
Max. Pressure	800psi

Includes: Check Valve, Pressure Gauge and fittings to connect the sensor tubing.

SENSOR TUBING
PRODUCT CODE – ECS-RST / ECS-BST

This UL listed tube is heat sensitive and when exposed to a fire condition opens at the point of exposure to activate and release the agent. The tubing is designed to rupture at its determined temperature 230-248°F (110 -120° C) or 338-356°F (170 -180°C)

PRODUCT CODE	ECS - RST	ECS - BST
Outside Diameter	ø 0.234" / 6mm	ø 0.234" / 6mm
Inside Diameter	ø 0.156" / 4mm	ø 0.156" / 4mm
Colour	Red RAL 3000	Black RAL 9005
Minimum bending radius	4" / 100mm	5.9" / 150mm

PRESSURE SWITCH
Product Code – ECS-008 (O) / ECS-008(C)

For supplemental functionalities when the system actuates such as sounding an alarm, closing ventilator ducts or cutting power supply

PRODUCT CODE	ECS-008 (O) / ECS-008 (C)
Switch Type	SPST
Fixture	1/8" NPT
Proof Pressure	400 psi
Type	Normally Open / Normally Closed
Electrical Rating	120 / 240 VAC – 375 VA

MASTER CONTROL UNIT
Part Code – ECS-MCU-100

Upon receiving notifications from the system pressure switch due to activation, the MCU provide outputs for activation of sounders or to third party devices which may be used for Notification.

Outputs	1. Low pressure (Fault)
	2. System activation (Fire)
Input	Pressure Switch
Notification	12V output for Sounder
Dimension	100x100x50mm (LxWxD)
Battery Backup	9V DC 1Ah
Main Power	230V AC, 1Ah

END OF LINE PLUG
Part Code – ECS-ELP

In case of multiple tube ends for a system, End of Line Plug is used to seal the far end of the sensor tube where End of Line adaptor is not required.

Tube Connection	6mm compression fitting
Length	1.13" / 29mm
Hex Flats	SW 12
Charging Port	No

ACTUATORS

For actuating the system other than activation in case of fire being detected by the sensor tube, we can have either a manual actuator for activating the system or we can have an electric solenoid actuator which can be triggered by a Fire Detection panel or a remote signal generator.

	MANUAL ACTUATOR	SOLENOID ACTUATOR
Part Code	ECS-EOL-MR	ECS-SA
Tube Connection	6mm quick connect fitting	6mm quick connect fitting
Length	4.95" / 106mm	3.9" / 100mm
Hex Flats	SW 12	9W / 24V
Gauge Scale	0 to 400psi	0 to 400psi
Charging Port	Yes	Yes

SENSOR TUBE FITTINGS

	STRAIGHT COUPLING	ELBOW	TEE	TEE FITTING
Part Code	ECS-SC	ECS-E06	ECS-T06	ECS-T06T
Connections	0.25" / 6mm	0.25" / 6mm	0.25" / 6mm	0.25" / 6mm
				G 1/8 male
Length	0.195" / 5mm	0.195" / 5mm	0.195" / 5mm	0.195" / 5mm

RUBBER GROMMET
PRODUCT CODE – ECS–RG6

Fittings to protect sensor tubing from damage and wear while passing through a panel or internal partitions

Material	Nylon
Orifice Diameter	ø 0.25" / 6.3mm
Max. Panel Thickness	0.07" / 1.8mm
Length	0.2" / 5mm

LOOP CLAMPS
PRODUCT CODE – ECS–PLC–36

Used to secure the sensor tube from the walls of the panel or mounting surface

Material	Nylon
Dimensions	0.25" / 6.3mm Hole
Attachment	Screws (not included)

FILLING ADAPTER
PRODUCT CODE – ECS–FA–100

Used to pressurize the **Heat Detection Tube**
KEY FEATURES
•   Includes: quick coupling connector and threaded end-of-line connection

For more information

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PRE-ENGINEERED
AUTOMATIC
ELECTRICAL
CABINET FIRE
SUPPRESSION
SYSTEM**

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