PERTRONIC INDUSTRIES LTD

DATASHEET

F220 Extinguishing Agent Release System

Overview

The Pertronic F220 Extinguishing Agent Release System provides automatic control of one or more fire suppression systems.

The system is based on the Pertronic F220 analogue addressable fire alarm control panel, together with the Pertronic Extinguishing Agent Release Controller (ARC). A single F220 panel may be fitted with multiple ARCs. Each ARC provides control, fault supervision, and monitoring for one fire suppression system.

The control panel is fitted with one Pertronic Agent Control Station for each ARC. The Agent Control Station has a keyboard and display panel providing status and fault indication for the associated ARC and the suppression system.

In addition to the control station mounted on the panel, each ARC may communicate with up to nine additional control stations. Two types of control stations are available: The Agent Control Station (ACS), and the Local Control Station (LCS). The ACS has a Time to Discharge count-down timer, status indicator LEDs, local buzzer mute control, Auto Release Disabled button, and a full set of fault indicating LEDs. The LCS is similar to the ACS, however, it does not have the fault indicator LEDs.

The Auto Release Disabled button on any ACS or LCS may be used to prevent extinguishing release at any time, including after the automatic discharge process has been initiated. Each control station also has a lift-flap manual call point (MCP), allowing the agent release process to be triggered manually.

F220 Extinguishing Control Panel
F220-A10U/5A-ARC

The F220 Extinguishing Agent Release System includes indoor and weatherproof audio-visual (AV) signs. AV signs are available with a range of messages and audible alarm signals, and an optional high-visibility count-down timer.

F220 Extinguishing Agent Release Panels are available in a range of cabinet sizes and styles, including weatherproof.

Features

- Fire suppression control system based on Pertronic F220 analogue addressable fire indicator panel
- An F220 Extinguishing Control Panel may be fitted with multiple Agent Release Controllers (ARC)
- Available in a range of cabinet sizes
- Automatic or Manual agent release process
- Automatic release can be disabled or aborted from any control station
- Multiple controllers can be manually triggered from a single device
- Meets the requirements of Australian Standard AS ISO 14520.1:2009

Agent Release Controller Features (per controller)

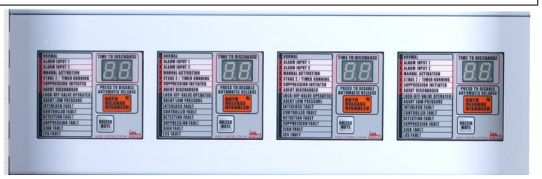
- Automatic delay is configurable, from 5 seconds to 90 seconds
- Manual delay configurable, independent of automatic delay, from 5 seconds to 90 seconds
- Communicates with up to nine external control stations (ACS or LCS)
- RS485 bus for communication with control stations
- Agent release output hold time configurable: 20 seconds, 30 seconds, 60 seconds, or 5 minutes
- Low pressure fault input
- Pressure switch feedback confirms release (optional)

Specification

Operating Voltage	20 Vdc – 30 Vdc	
Current Consumption	Depends on system details. The current consumption of a F220 Extinguishing Release System may be estimated using the Battery Size Calculator on the Pertronic website, www.pertronic.com.au	
Inputs (per ARC)		
Manual Activation, Low Pressure Fault, Lock Off Valve, Pressure Switch	Supervised via 10 kΩ EOL for Open and Short Circuits	
Outputs (per ARC)		
Detonation	24 Vdc (nominal) 2.0 A @ 25 °C 24 Vdc (nominal) 1.5 A @ 45 °C	Supervised
Dual Sign, System Inoperative Sign	24 Vdc (nominal), 1.1 A	Supervised
Activation Stage 1, Activation Stage 2, Agent Released, Agent Release System Fault, Door Interlock	2 A @ 30 Vdc (resistive)	Non-Supervised Relay Contacts, Form C
ACS / LCS Control Station Bus (per ARC)	24 Vdc (nominal), 1.85 A	RS485 Data A + B
Operating Temperature	-5 °C to 45 °C	
Humidity	10 – 95 % RH, non-condensing	

For detailed specifications, please refer to the following Pertronic datasheets:

- » F220 Fire Alarm Control Panel Datasheet
- » Extinguishing Agent Release Controller Datasheet
- » Control Station for Agent Release Controller Datasheet
- » Audio-Visual Signs Datasheet
- » Visual Sign, IP66 Weatherproof, Datasheet



A typical arrangement of Agent Control Stations (ACS) on an F220 Extinguishing Control Panel. This image shows a panel with four Agent Release Controllers (ARC), each connected to an ARC inside the panel.

Cabinet Dimensions

Cabinet Dimensions (see note)	Height (mm)	Width (mm)	Depth(mm)	Protrusion (mm)
10U Cabinet, with window, doc. holder, and one MCP	530	550	185	30 (MCP)
13U Cabinet, with window, doc. holder, and one MCP	645	550	185	30 (MCP)
16U Cabinet, with window, doc. holder, and one MCP	800	550	185	30 (MCP)
28U Slim Cabinet with window and one MCP	1330	575	290	30 (MCP)

Note: Other cabinet sizes and styles (including weatherproof) available to special order. Please refer to the F220 datasheet.

Ordering Information

Product Code	Description	Product Code	Description
F220-A10U/5A-ARC	F220 Extinguishing Agent Release Panel, 10U, 2 Loop, 5A PSU	AGENTRELEASEC	Agent Release Controller
		ACS-FM	Agent Control Station, Flush Mount
F220-A13U/5A-ARC	F220 Extinguishing Agent Relesae Panel, 13U, 2 Loop, 5A PSU	ACS-SM	Agent Control Station, Surface Mount
		LCS-M	Local Control Station, Flush Mount
F220-A13U/11A-ARC	F220 Extinguishing Agent Relesae Panel, 13U, 2 Loop, 11A PSU	LCS-SM	Local Control Station, Surface Mount
		AVS-B	Audio-Visual Sign (excl. fascia)
F220-A16U/5A-ARC	F220 Extinguishing Agent Release Panel, 16U, 2 Loop, 5A PSU	AVS-C	Audio-Visual Sign, c/w Timer (excl. fascia)
F220-A28US/5A-ARC	F220 Extinguishing Agent Release Panel, 28U Slim, 2 Loop, 5A PSU		