

PERTRONIC INDUSTRIES LTD

DATASHEET

Sprinkler Fire Brigade Alarm SGDFBA



Overview

The Pertronic Sprinkler Fire Brigade Alarm SGDFBA monitors one or more sprinkler-activated switches. In the event of a sprinkler system activation, the Sprinkler Fire Brigade Alarm generates a fire alarm signal and triggers an evacuation.

To call the fire brigade, the SGDFBA sends a fire alarm signal to an ASE, CTU, or NAD transmitter via an RS-485 link using the LTX/SGD protocol.

To trigger an evacuation, the SGDFBA activates its SPR MON output, which signals a sprinkler activation to the fire panel.

The SGDFBA may be powered by the transmitter. Alternatively, it may be powered from an external 12 V dc or 24 V dc power supply.

This product is available in three variants:

- Type X: One pressure switch input with simple Fire and Defect pressure adjustments
- Type Y: Two pressure switch inputs, each with simple Fire pressure adjustments
- Residential: Inputs from direct wired switches. There are no pressure switches

Internal software provides accurate detection of Fire and Defect conditions, while rejecting brief pressure surges due to nuisance conditions such as water supply maintenance work. This includes a mechanism to address sprinkler system chugging, where cyclic water flow and pressure variations may occur after sprinkler head operation.

An optional Display Relay Board provides clean contact outputs for Fire and/or Defect.

The Pertronic SGDFBA is approved and listed on the Aon Register of Sprinkler Equipment.

Features

- Automatic latching of the Fire signal
- Powered by either the monitoring transmitter or a local power supply
- Interfaces with the transmitter via RS-485 using LTX/SGD protocol (standard or multi-drop)
- Transient surge rejection algorithm
- Anti-chugging pulse counter
- Sprinkler operated local buzzer (piezo sounder) output
- Front panel LED indicators for Fire, Defect, and Normal
- External BCO (Bell Cut Off)
- Internal BCO
- External Defect input
- Anti-Interference input
- Test and Isolate switches
- Latching Defect indication
- Door Closed alarm



**Pertronic Sprinkler Fire Brigade Alarm
Type X SGDFBA-XP**



**Pertronic Sprinkler Fire Brigade Alarm
Type Y SGDFBA-YP**



**Pertronic Residential Sprinkler Fire
Brigade Alarm**

Specification

Supply Voltage	Isolated Power In (K9)	9 V dc to 30 V dc	
	RS-485 Tx In (K3)	9 V dc to 15 V dc	
Current		Less than 7 mA excluding ancillary loads	
		Up to 35 mA including ancillary loads	
Transmitter Interface		RS-485, LTX/SGD protocol, standard or multi-drop	
SPR MON Contacts		Fire panel signal, 1.0 A 30 V dc	With configurable defect supervision to suit NZS 4512:2010 or NZS 4512:1997 fire panels
		Form C, 1.0 A 30 V dc	
Local Buzzer Output		12 V dc, up to 15 mA	for a piezo sounder
Fire, Defect Contacts		Form C, 1.0 A 30 V dc	Display Relay Board
Dimensions		194 mm x 267 mm x 92 mm	H x W x D
Weight	SGDFBA-RES	1.8 kg	
	SGDFBA-XP	2.2 kg	
	SGDFBA-YP	2.6 kg	
Material		1.2 mm mild steel powder coated	
Colour		Red	
Operating Temperature		0 to +40 °C	
Humidity		10 to 95% RH non-condensing	

Ordering Information

Product Code	Description
SGDFBA-RES	SGDFBA Residential Sprinkler Fire Brigade Alarm
SGDFBA-XP	SGDFBA Type X (Potter Pressure Switch)
SGDFBA-YP	SGDFBA Type Y (Potter Pressure Switches)
SGDDRLY	SGD DBA Display Relay Board 12/24V
SGDCE	SGD Ext Cable, 0.5mm 1PR+1.13 2C Jell Filled
SGDCI	Mimic Cable, Internal, 0.8mm/0.8mm
SGDCIFR	SGD Cable, Internal, Fire Rated

The information in this document must not be treated as partial or complete instructions for the design, construction, installation, commissioning, or maintenance of fire detection, fire alarm, or building evacuation systems. Fire and evacuation systems must be designed and installed by properly qualified persons, in accordance with all regulatory requirements.

Unless explicitly stated otherwise, this document provides typical specifications and nominal dimensions. Actual product performance and dimensions may vary.

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