



Fire Products & Solutions

Fire Alarm Controller FAC20

Description

Smoke Alarms are designed to detect smoke particles in the air and may cause false alarms. However, other airborne particles, i.e. steam, cooking fumes, dust, etc. can also cause smoke Alarms to generate false alarms. With interconnected smoke/heat/CO Alarms, when one Alarm senses Smoke / Heat / CO, all Alarms will sound. The FAC20 is a three button Alarm Controller intended to provide the occupant with a full control over a hardwired interconnected Alarm system.

Functions of Fire Alarm Controller buttons:

- **Locate:** silences all Alarms in a hardwired interconnected residential alarm system except the Alarm sensing smoke, heat or CO.
- **Silence:** following the identification of the alarm source, pressing the "Silence" button will silence only the active Alarm(s) in the system for 10 minutes same as the HUSH feature in the Smoke Alarm. New alarm from non-active Alarms will activate all Alarms including the one in silence mode.
- **Test:** activates the sounders of all hardwired interconnected Alarms.

The FAC20 also provides an isolated supervised clean-contact input to trigger the sounders in all interconnected Alarms from external N/O contact e.g. sprinkler flow switch input, panic input, etc. wiring supervision is only for open circuit whilst short circuit will activate all the interconnected Alarms.

The FAC20 is not a battery backed device. It is not functional without mains voltage supply.

Up to 2 x FAC20 can be connected in the same interconnected Alarm circuit, provided all the Alarms are of EIB3000 series. For EIB140RC series and EIB160e series, only one controller can be used for each interconnected circuit.

Features

- Remote test, locate and silence hardwired interconnected Smoke / Heat / CO Alarms
- Requires only 3 wires: Active, Neutral and interconnect. Use standard easi fit base.
- Flush or surface mount
- Supervised clean opto-isolated input contact to externally drive the interconnected alarms
- Connected in a centralised location to any Alarm in the system, not required to be the first device in a circuit
- Provided with PCB components cover, only plug-in terminals are accessible
- Conforms to AS/NZS 62368.1:2018

			Title		Technical Datasheet		 <small>Fire Products & Solutions</small>		
			Fire Alarm Controller FAC20		Created	Checked	TDS No.	Rev	
			Page 1 of 3		B.C.	A.S.	TDS073	1	
Date	Rev	Description				14/3/2022	14/3/2022		
14/3/2022	1	First Issue							

Compatible Devices

The FAC20 can be used with Brooks 230Vac hardwired interconnectable range of smoke / heat / CO alarms:

EIB3000 Series EIB3016, EIB3024, EIB3014, EIB3028, EIB3018

EIB140RC Series EIB146RC, EIB144RC, EIB141RC

EIB160e Series EIB166e, EIB161e

Specifications

The specifications of FAC20 are shown in the table below:

Power Supply	230V AC, 50Hz, 20mA
Operating Temperature	-10 to +40 degree C
Dimensions	117.5H x 75W x 30D mm
Interconnection	Up to 12 interconnected Smoke/Heat/CO Alarms including FAC20
Wiring	Only 3 wires required: active, neutral and interconnect. No requirements to isolate neutral and battery negative i.e. no EIBPLATE required
Trigger Input	4.7k ohm end of line resistor Up to 100-meter 1.5 mm ² cable Short circuit activates the sounders of all Alarms Open circuit generates a fault indication
Fault Indication	External trigger Input wiring Open Circuit and Memory Fault
Mounting	Flush or Wall mounted, Wall box, GPO box
Approvals	AS/NZS 62368.1:2018

Mounting FAC20

Select a suitable location in the dwelling to mount the controller. Ensure FAC20 is mounted at an accessible point on the wall, approximately 1.4 metre from the floor level.

Consider an alternative location if the controller required to be operated by a disabled person.

To mount the controller, remove the front cover and use the two mounting holes and screws to secure the wall plate into the wall box or the gyprock wall, then reinstall the front cover

Wiring and Termination

FAC20 is connected to a mains power residential Alarm system as shown in Figure 1 below. To wire FAC20, the following procedures must be followed:

- Turn off the mains power to all the Alarms in the system before commencing any wiring work.
- Select the nearest Alarm to FAC20 and run active (L), neutral (N) and interconnect (I) to FAC20.
- Remove one of the plugs in FAC20 and terminate the incoming three wires L, N & I into the plug. Second plug is normally used to connect FAC20 to the outgoing wiring (if required) to the other Alarms in the circuit.
- If the external trigger is required to activate the sounders of the Alarms e.g. sprinkler system, Panic input, etc, connect the external N/O contact to the "Trigger Input" terminal on FAC20. Ensure to connect the end of line resistor 4.7K across the contact of the external device to supervise the wiring.
- Connect all the plugs to the sockets in FAC20.
- Mount the controller on the wall and turn on the mains power

			Title		Technical Datasheet			
			Fire Alarm Controller FAC20					
			Page 2 of 3		Created	Checked	TDS No.	Rev
					B.C.	A.S.	TDS073	1
14/3/2022	1	First Issue			14/3/2022	14/3/2022		
Date	Rev	Description						

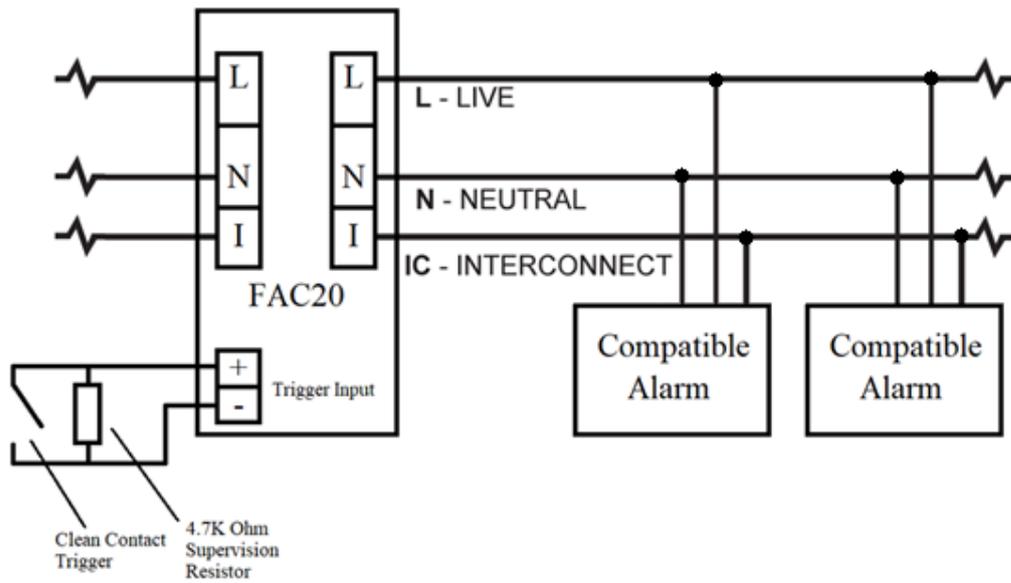


Figure 1 FAC20 Connection Diagram

Operation

Alarm Locate

When one Alarm activates, all the Alarms in the system will sound and the “LOCATE” red LED will be flashing to prompt the occupant to locate the source of the alarm.

Press the “LOCATE” button to silence all alarms except the alarm(s) initiating the fire signal. The flashing LED changes to steady and the “SILENCE” button starts flashing.

Notes:

- To cancel the locate function, press and hold the “LOCATE” button for approximately 3 seconds.
- The locate function will be automatically reset after 3 minutes if no action is taken.

Alarm Silence

If the alarm is a nuisance alarm, press the flashing “SILENCE” button to silence the active Alarm, the flashing red LED changes to steady and the “LOCATE” LED distinguishes. The FAC20 will silence the active alarm for 10 minutes then auto resets if no alarms are still active. Any new alarm from different unit will re-activate all Alarms including the Alarm that is in silence mode.

Alarm Test

Press the “TEST” button, all interconnected alarms will sound and the red TEST LED illuminates steady. To terminate the test, press and hold the TEST button for approximately 3 seconds.

Fault Indications

FAC20 may indicate fault for two reasons:

1. If the external input is open circuit, the “TEST” LED illuminates steady yellow.
2. If FAC20 detects a firmware corruption, the “SILENCE” LED illuminates steady yellow.

For more details, refer to the instructions manual.

(Due to the continual development Brooks Australia reserves the rights to change the product specifications)

			Title		Technical Datasheet			
			Fire Alarm Controller FAC20		Created	Checked	TDS No.	Rev
14/3/2022	1	First Issue	Page 3 of 3		B.C.	A.S.	TDS073	1
Date	Rev	Description			14/3/2022	14/3/2022		