

ABC Series products

ABC FR3

General information

At AB Controls we strive to bring you the quality sensors that are just right for your applications, from the Senva range of current, temperature, air pressure, humidity, carbon monoxide(car parks) and carbon dioxide (air quality) sensors to our range of liquid pressure sensors and switches. We also design and manufacture control systems to operate with our sensors to client specifications.

Our FR and CS range of special application sensors are designed to solve specific installations issues found in today's modern buildings. These products are especially designed with the installation team in mind - with each product being made for ease of installation and commissioning. At AB Controls we recognise the labour costs involved with installation and work hard with our product design to keep these down to an absolute minimum. All FR and CS series products can be customised by you on site or by us at the design stage for your specific application. Please call us or your local stockist any time to discuss your site specific requirements.

Please note that all ABC products are to be installed by qualified electricians only.

➔ Dealer information

AB Controls products are available from our network of distributors in each state. Please call us for your local stockist and for product choice and installation advice.

The information presented in this document is true and correct at the date it was published. Changes may have been made in the products or Australian standards requirements since then.

Current monitor and timer

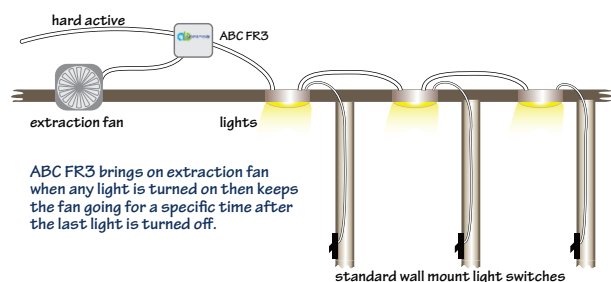
The ABC FR3, an Australian designed and made product, is a very versatile current sensor, delay off timer (10 minutes maximum adjustable) and 5 Amp (inductive) power relay in one small unit. It is designed to monitor the current (amps) used on a 240V AC circuit and operate the internal 5 Amp (ind) power relay when the monitored circuit draws current.

When current in the circuit is detected, the ABC FR3 unit will activate an on-board relay to provide power to the attached appliance. When the current is turned off a built-in, adjustable run-on timer will keep the output relay energized for up to 10 minutes. The output relay can be used to control up to 5 Amps (ind) at 240VAC

This versatile unit was originally designed to operate an extraction fan for commercial toilets but has found many other uses in modern apartment blocks where it has been used to operate a range hood make up air or booster fan and control the bath/toilet/laundry extraction fan. One unit can monitor several light and power circuits to control a multiple use fan. It has also been used to operate a drive open/drive closed damper for air flow.

The ABC FR3 can use both its supplied internal current sensor and an additional remote mounted sensor or override switch. For example the internal sensor can monitor several light circuits at the same time while a remote switch can act as a fan override.

The ABC FR3 unit can be used to operate a toilet fan extracting air from a group of toilets. The fan will operate when any light switch is turned on and can be set to stop 10 min after the last light has turned off. The ABC FR3 will take power from the lighting circuit to operate the fan.

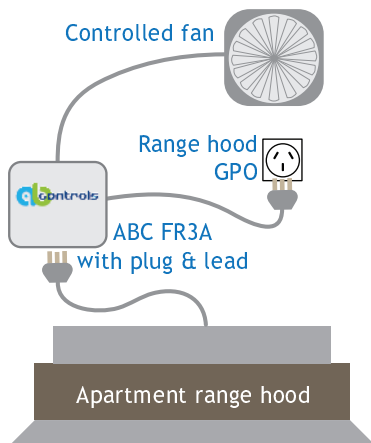


ABC FR3 options

Other versions are available on request to suit your needs. Call us to discuss your requirements and we can recommend the best alternative for the situation or, in some instances, create a new one.

Some of the most popular alternative versions have been:

- ABC FR3A with plug and socket lead attached to allow for faster, easier installation. This model has been a favourite for plug in extraction systems such as a range hood



- ABC FR3AV - as above but with an adjustable current sensor, useful where systems with electronic controls draw heavy standby current.
- ABC FR3N - delay-off timer. The ABC FR3N looks identical to the other FR series products but without the current sensor. This delay-off timer has found varied uses as a remote mounted timer with a no volt trigger input. Like its cousins, it is designed to operate a single phase fan and is often used to control fresh air fans connected to a split or package air conditioning unit but has also been used to turn off air conditioning systems whenever a door is left open.

The ABC FR3 series products can be installed in a variety of ways, one unit can monitor several circuits at once to

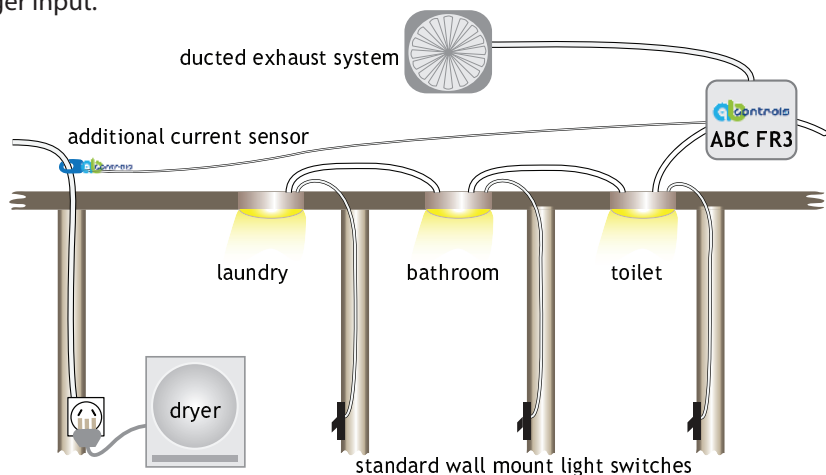
ABC FR3 Specifications

- Operation voltage 220 to 240 VACMax
- Total Load current 10 Amps Max
- Relay switching current
10 Amps (res) 5 Amp (ind)-AC3
- Timer range ABC FR3 0 to 10 min adjustable



control a fan and even have a remote over ride run switch attached.

- In the example pictured below, one ABC FR3 is used to monitor lights in the toilet, bath room and laundry and also monitor the power circuit of the clothes dryer by using a remote current sensor in a standard electrical Jbox.



ABC-CS1 Series



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Current monitoring relay

This new range of compact current sensors have many varied uses. They will monitor a 240vac load and switch a second load when current is detected. Because it doesn't need the timing facility of the FR3 series, its small size makes it easier to install than ever before.

The ABC CS1 can be purchased as a standalone PCB, small enough to mount in a standard electrical Jbox or in a pre-wired enclosure as shown.

ABC CS1 options

Other versions are available to suit your needs. Call us to discuss your requirements and we can recommend the best alternative for your situation.

Some alternative installation ideas are:

- ➔ use the **ABC CS1A** or **ABC CS1B** to monitor a range hood fan and start a makeup air booster fan whenever the range hood operates. No need to make any changes to the range hood internal wiring the ABC CS1 simply checks the current used in the range hood power supply and runs the booster fan when the range hood is used (Figure 1).

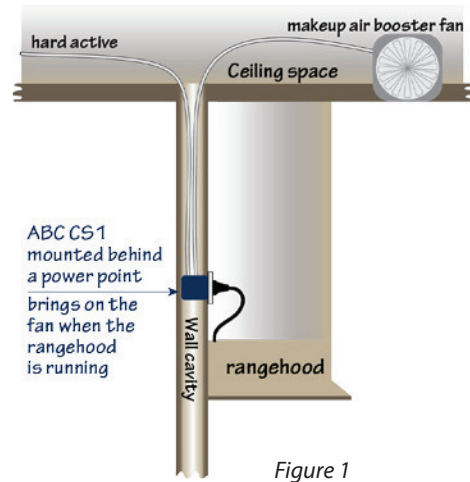


Figure 1

- ➔ use the **ABC CS1A-R** to monitor the current in an air conditioner indoor unit to turn on a fresh air fan, no need to buy expensive add on boards for your split systems. Suggested wiring methods supplied on request (Figure 2).

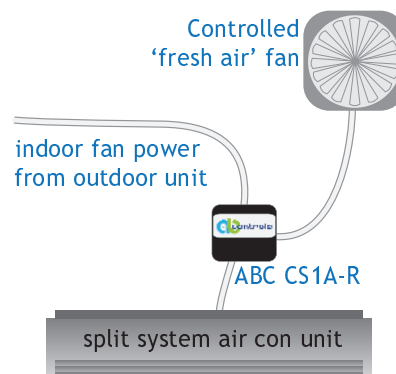
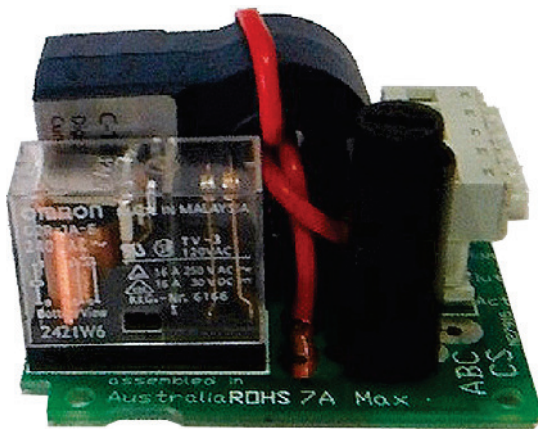


Figure 2

Many other applications are possible. For instance, by connecting it to computer accessories it can be used to turn them off automatically when the PC is turned off. This would be a great energy saver and make the most of the programming already inherent within the computer. With a little thought and imagination the ABC CS1 can be a great energy saving tool for many installations.



shown actual size

Specifications.

- ➔ Total CS1 loading 10 Amps Max
- ➔ monitored load from 0.2 amps to 10 amps Max
- ➔ controlled load (relay) 5 amps Max (AC3).
- ➔ Relay fuse 5 Amp slow blow
- ➔ designed voltage 210 to 250 Vac

SEN C1200HV

- ➔ current sensor only with output switching contacts rated at 240VAC 0.1 amp

ABC CS1A

- ➔ circuit board only, can be mounted in a standard electrical junction box

ABC CS1A-R

- ➔ As above but designed for the sensor to be mounted remote to the PCB.

ABC CS1B

- ➔ supplied in an enclosure with connection cable attached, as per photo.

Please contact AB Controls for installation drawings to suit your specific needs.