

Bravo A/C Relay User Guide

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Bravo A/C Relay overview

The Bravo A/C Relay enables you to control power to an accessory located on the Bravo Platform using VWorks software. The Bravo A/C Relay is connected to the power source and the accessory is connected to the Bravo A/C Relay. VWorks software control is enabled through a serial connection between the controlling computer and the Bravo A/C Relay. The following figure shows a front view of the Bravo A/C Relay.

Safety information

Safety standards

The Bravo A/C Relay complies with the following international and European standards:

- IEC 61326:2005/EN 61326:2006 (EMC)
- IEC 61010-1:2001/EN 61010-1:2001 (Safety)

General safety

Under normal operating conditions, you are protected from hazardous voltage. However, you must be aware of the potential hazards and how to avoid exposure to them.

Agilent Technologies products must only be used in the manner described in the user guides. Any other use can damage the product or injure you. Agilent Technologies is not responsible for damages caused, in whole or part, by unauthorized modifications, or by procedures that are not explicitly described in the product user guides. Any modifications or changes to products not expressly described in Agilent Technologies user guides are not covered under the warranty.



WARNING Do not try to gain access to the interior of the Bravo A/C Relay. Do not remove panels for any reason. Exposure to the interior electronics of a device can cause severe injury



WARNING Do not use frayed or worn power cords.

Site requirements

Locate the Bravo A/C Relay near a power source and away from direct heat and moisture, as these conditions could cause the Bravo A/C Relay to malfunction.

The dimensions and site requirements are as follows.

Specification	Value
Model number	20192-001
Dimension	230 mm x 200 mm x 66 mm
Electrical	100–240~, 50/60 Hz
Fuse (time delay)	8 A (internal to device)
Environmental	
Ambient temperature	5–40 °C
Humidity condition	10–90% RH, non-condensing
Elevation	1–2000 m

Bravo A/C Relay inputs and outputs

Figure Bravo A/C Relay front view

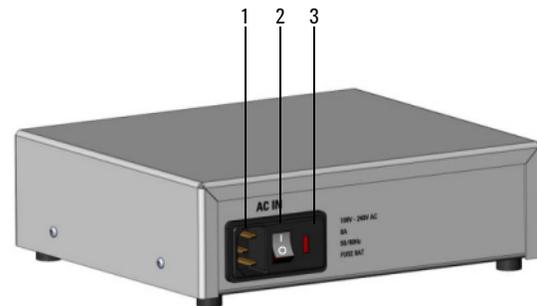
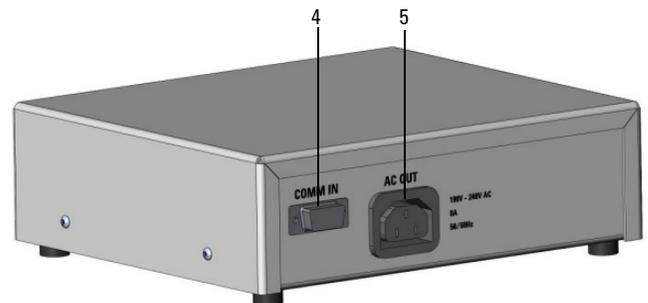


Figure Bravo A/C Relay rear view



Item	Feature	Description
1	AC IN port	Connects the Bravo A/C Relay power cable.
2	Power switch	Turns on or off the power.
3	Fuse	Location of the Bravo A/C Relay fuse.
4	COMM IN port	Connects the communication cable from the Bravo A/C Relay to the controlling computer to enable communication.
5	AC OUT port	Connects the power cable from the Bravo A/C Relay to the accessory.

Connecting the Bravo A/C Relay



WARNING Ensure that the power cords are in good condition and are not frayed. Use of frayed or damaged power cords can cause injury. Use of incorrect power cords can cause damage to the Bravo A/C Relay.



WARNING Ensure that the Bravo A/C Relay is turned off before connecting the cables.

To connect the power and communication cables:

- 1 Position the Bravo A/C Relay within six feet of the controlling computer and accessory.
- 2 Using the provided power cable, plug one end of the cable into the AC IN port on the front of the Bravo A/C Relay, and plug the other end into an appropriately grounded electrical receptacle.
- 3 Using a power cord that meets the power rating for the Bravo A/C Relay, plug one end into the AC OUT port of the Bravo A/C Relay and the other end into the power port of the accessory.
- 4 Plug the communications cable into the Bravo A/C Relay COMM IN port and plug the other end of the cable into the serial port on the controlling computer.
- 5 Turn on the Bravo A/C Relay power by pressing the power switch.

Fuse replacement

CAUTION A blown fuse can indicate more serious problems. If the new fuse blows after replacement, contact Automation Solutions Technical Support.

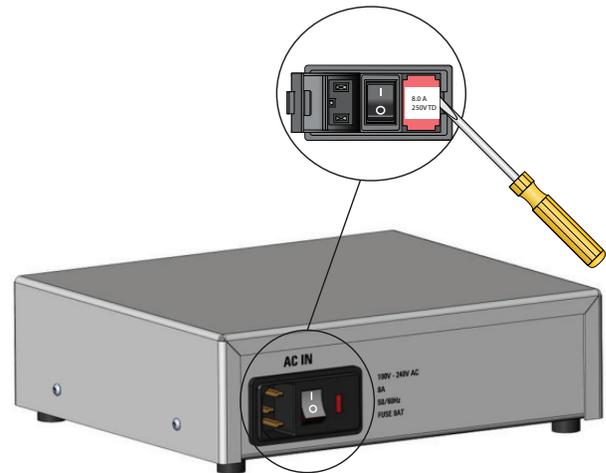
CAUTION Using an incorrect fuse can damage the Bravo A/C Relay.

Use only the specified fuse type: 8 A 250V TD FE UL-REC CSA, time delay. You can order fuses from Agilent Technologies.

To replace the fuse in the power switch:

- 1 Turn off the power to the Bravo A/C Relay and unplug the power cable from the AC IN port.
- 2 At the power switch enclosure, insert a small flat-head screwdriver (2.5 mm) in the notch to dislodge the red fuse cartridge. Slide the fuse cartridge all the way out of the enclosure.

Figure Opened fuse enclosure



- 3 Replace the fuse.
- 4 Slide the fuse cartridge back into the fuse enclosure.
- 5 Press the enclosure cover securely into the closed position.
- 6 Plug in the power cable at the AC IN port, and then turn the Bravo A/C Relay power on.

Accessing product user documentation

Automation Solutions product user documentation is available in the following formats:

- Online help available within the software
- PDF files on the software CD
- Printed books

You can also search the online help or download the latest version of any PDF file from the Agilent Technologies website at:

<http://www.agilent.com/lifesciences/automation>

Contacting Agilent Technologies

- Technical Support: 1.800.979.4811 or +1.408.345.8011
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