

## BS-02/D Bistable Relay

### 1. Introduction

The BS-02/D is a bistable relay featuring up to 6 reversible contacts, which switch simultaneously on an external command.

The type of command which triggers a state change is model-dependent. The relay's state (normal or inverted) is indicated with two LEDs. A green LED indicates that the relay is in its normal state, while a red LED indicates it is in its reverse state.

The BS-02/D's contacts maintain their state even if the device loses power. The state is also preserved when power is reapplied.

### 2. Operation

The BS-02/D can be specified to accept commands in one or two inputs.

If the BS-02/D is specified with a single input, its contacts change state when a command is applied to the SET input. In this configuration, the RESET input is ignored.

If the BS-02/D is specified with two inputs, its contacts switch to the inverted state when a command is applied to the SET input, and maintain the inverted state until a command is applied to the RESET input.

Alternatively, the relay can be specified to change state when power is lost or when power is restored. In this case, RESET is the only user-actuated input.

For the options described above, the BS-02/D can be specified to accept the following command types:

- closing dry (voltage-free) contact;
- opening dry (voltage-free) contact;
- DC voltage application (e.g.:  $0 \rightarrow 125\text{Vdc}$ );
- DC voltage removal (e.g.:  $125 \rightarrow 0\text{Vdc}$ );
- AC voltage application (e.g.:  $0\text{V} \rightarrow 220\text{V}$ , 60 Hz);
- AC voltage removal (e.g.:  $220\text{V} \rightarrow 0\text{V}$ , 60 Hz).

A physical RESET button is also optional.

### 3. Technical characteristics

Supply voltage		80 – 265 V <sub>cc</sub> /V <sub>ca</sub>		
Power consumption		Less than 0.5W		
Contact isolation		2 kV, 50/60 Hz, 1 min.		
Operating temperature		-40 to 85 °C		
Relative humidity		10 - 90%		
Contacts	Nominal current	8 A		
	Maximum peak current	15 A		
	Nominal voltage	250 V		
	Maximum commutable voltage	400 V		
	Nominal load on AC1*	2000 VA		
	Nominal load on AC15* (230 V <sub>ca</sub> )	400 VA		
	Single-phase engine power (230 V <sub>ca</sub> )	0.3 kW		
	Minimum commutable load	300 mW, 5V and 5 mA		
	DC1* contact opening capacity	30V - 8A	110V - 0.3 A	220V - 0.12A

**\*Conforming to IEC 158-1:** DC1 – slightly inductive DC loads.  
AC1 – slightly inductive AC loads.  
AC15 – electromagnetic AC loads.

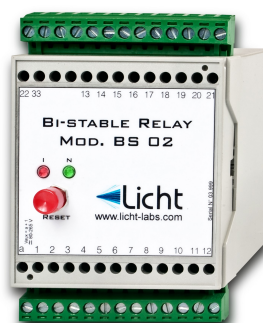
### 4. Product photographs



1 to 3 reversible contacts



4 reversible contacts



5 or 6 reversible contacts

### 3. Relay code

The table below summarizes all available options for a BS-02/D relay, which define its product code.

Command types	A .....DC voltage application B .....DC voltage removal C .....closing dry contact D .....opening dry contact E .....AC voltage application (50/60 Hz) F .....AC voltage removal (50/60 Hz)
Number of contacts	A .....01 contact B .....02 contacts C .....03 contacts D .....04 contacts E .....05 contacts F .....06 contacts
Activation configuration	A .....SET input B .....SET + RESET inputs C .....device power off + RESET input D .....device power on + RESET input
Physical reset button	A .....Yes B .....No
Threshold voltage	/N .....N Volts

Example: **BS-02/D BDAB/50**

- DC voltage removal (B)
- 4 reversible contacts (D)
- SET input (A)
- With physical reset button (B)
- Voltage threshold step of 50V (/50)