

Bi-Stable Latching Relay Driver



Features:

- Bi-stable and mono-stable latching relay driver
- 62 V DC max supply
- 6 A coil drive with over current protection
- 100 ms set/reset pulse
- robust and small design IP 66
- extremely low power consumption
- reverse polarity protection
- over-voltage protection
- one-year warranty

General description of the BSLRD:

Bi-stable latching relay driver (BSLRD) is an electronic device that drives bi-stable dual coil latching relays. BSLRD is supplied from the battery or power source. Input signal controls the latching relay coil drive. When the input is connected to power supply ground, set transistor is enabled for 100 ms. Internal protection circuit limits the coil current to 6 A in case of short circuit. If the input signal is disconnected from the supply ground, reset transistor is enabled for period of 100 ms. In case of toggling the input signal within the period of 100 ms, BSLRD does not react. When the set/reset pulse is over, BSLRD goes to sleep to decrease the power consumption.

Table 1: Parameter table.

Parameter	Value	Unit
Power supply Vcc - Vss	6 - 62	V
Input signal voltage	Vss-0.2 to Vcc + 20	-
Maximum set/reset coil driving current	6	A
Set/reset pulse delay	100	ms
Active power supply	1.2	mA
Sleep power supply	35	μA
Input capacitance	3	μF

Table 2: Wiring description.

Cable color	Connection
Red	Vcc
Black	Vss
Orange	Input signal
Green	Set coil negative
Brown	Reset coil negative
Yellow	Set/reset coil positive

System overview:

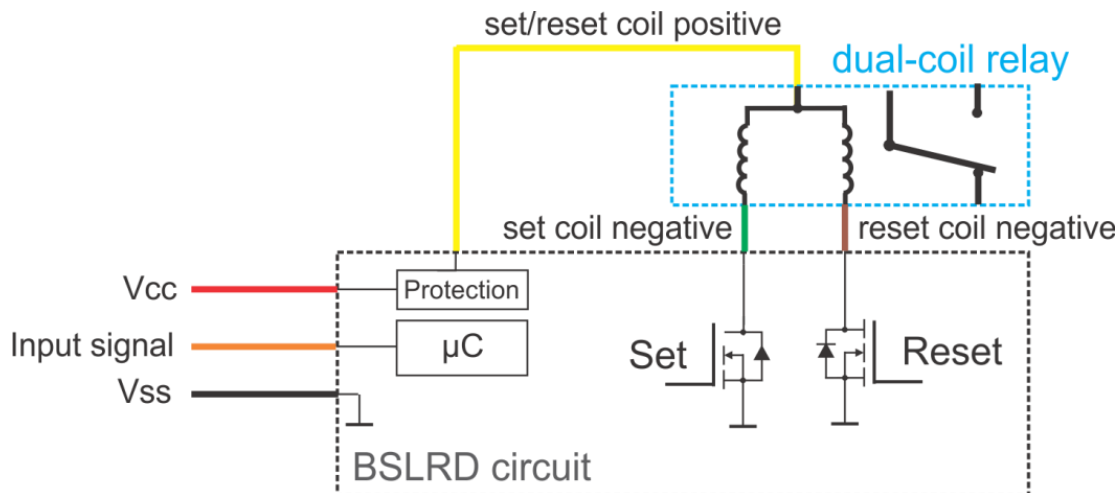


Figure 1: BSLRD schematic overview.

Dimensions drawings:

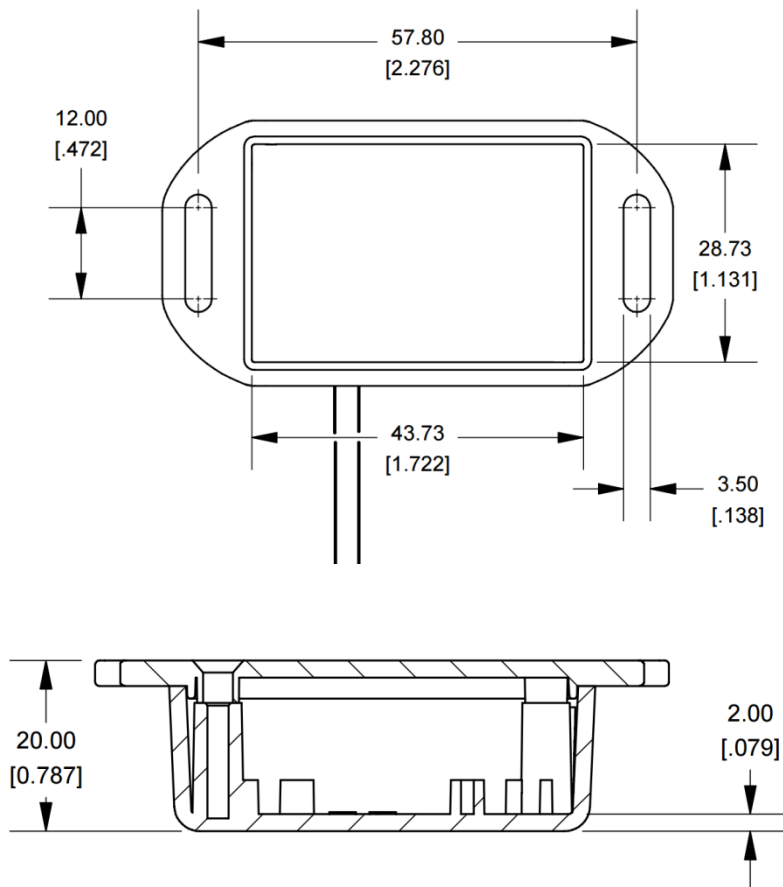


Figure 2: BSLRD enclosure dimensions.

Cable length 160 mm, 6 x 0.5 mm².