SPDT Relay Port
Bank 3 (Port B)
Address A0=1
Relay 5-8

SPDT Relay Port
Bank 2 (Port B)
Address A0=0

Relay 5-8

Relay 1-4

Address Jumper

COM
NC   NO

Relay Status LEDs

Particle Electron Port

GND
GPB0
GND
GPB1
GPB2
GND
GPB3
GPB4
GND
GPB5
GND
GPB6
GND
GPB7

I/O Connectors
Port B
Address A0=1

GND
+5V 400ma
SDA
SCL

I²C Output to Next Device

2.1mm Power Jack
12V DC (Center Positive)

Address A0=1   Address A0=0

12V DC Power Connector

SPDT Relay Port
Bank 3 (Port A)
Address A0=1
Relay 1-4

Power LED

Relay 5-8

SPDT Relay Port
Bank 1 (Port A)
Address A0=0

Relay 1-4

500ma 5VDC Switcher Power Supply

Basic Relay Function:

Relay On

NC
↓
↑
NO   COM

Relay Off

NC
↓
↑
NO   COM

UR Relay Rating:

12A@125VAC
12A@30VDC

Relay Warranty Rating:

10A@125VAC
10A@24VDC

NOTE:
This device uses two MCP23017 I/O Expanders to control relays.
Address line A0 is permanently set low on the first MCP23017. Address
line A0 is permanently set high on the second MCP23017. This
configuration prevents on-board I²C addressing conflicts. When chaining
multiple boards on a single I²C port, address jumpers A1 and A2 must be
configured to unique settings for each controller.

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