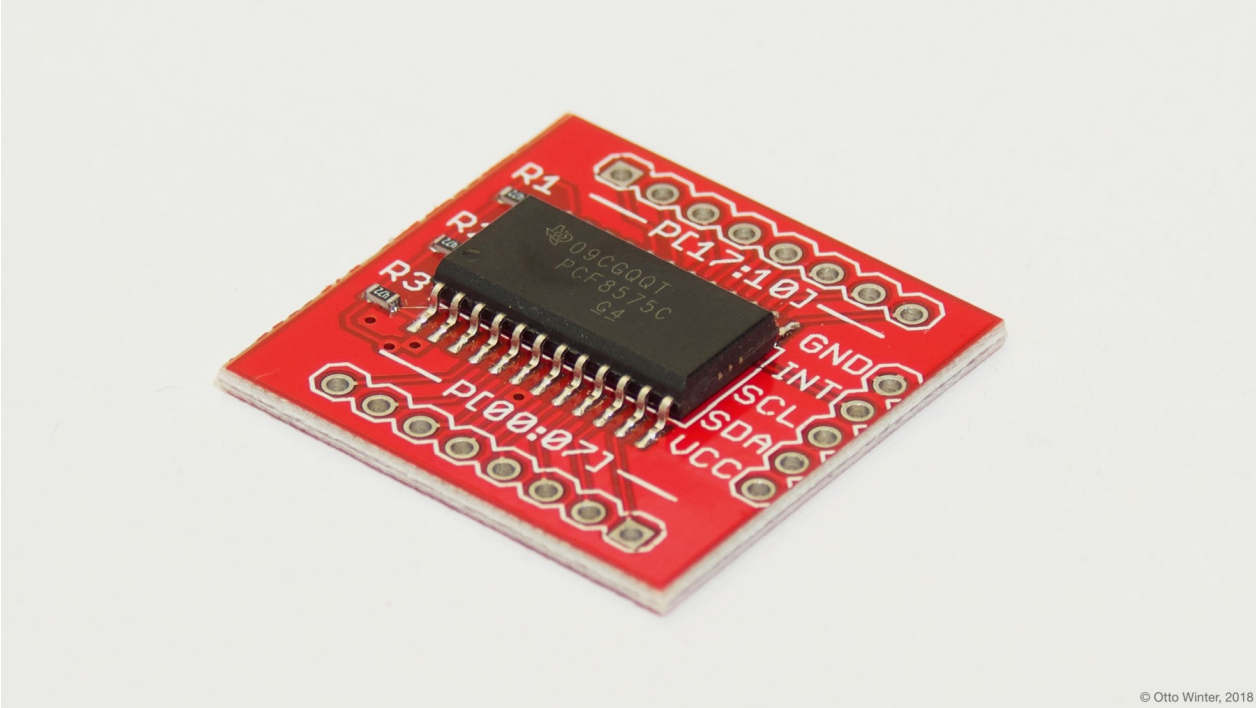
# PCF8574 I/O Expander

The PCF8574 component allows you to use PCF8574 or PCF8575 I/O expanders (datasheet, SparkFun) in ESPHome. It uses I²C Bus for communication.

Once configured, you can use any of the 8 pins (PCF8574) or 16 pins (PCF8575) as pins for your projects. Within ESPHome they emulate a real internal GPIO pin and can therefore be used with many of ESPHome's components such as the GPIO binary sensor or GPIO switch.

Any option accepting a Pin Schema can theoretically be used, but some more complicated components that do communication through this I/O expander will not work.




PCF8574 I/O Expander.

```yaml
# Example configuration entry
pcf8574:
  - id: 'pcf8574_hub'
    address: 0x21
    pcf8575: false

# Individual outputs
switch:
  - platform: gpio
    name: "PCF8574 Pin #0"
    pin:
      pcf8574: pcf8574_hub
      # Use pin number 0
      number: 0
```

```yaml
        # One of INPUT or OUTPUT
        mode:
          output: true
        inverted: false
```

# Configuration variables:

- **id** (**Required**, ID): The id to use for this PCF8574 component.
- **address** (*Optional*, int): The I²C address of the driver. Defaults to `0x21`.
- **pcf8575** (*Optional*, boolean): Whether this is a 16-pin PCF8575. Defaults to `false`.

> **Note**
>
> If you use PCF8575, pin numbers are from 0 to 15, not 0 to 7 and 10 to 17 as datasheet states!

# Pin configuration variables:

- **pcf8574** (**Required**, ID): The id of the PCF8574 component of the pin.
- **number** (**Required**, int): The pin number.
- **inverted** (*Optional*, boolean): If all read and written values should be treated as inverted. Defaults to `false`.
- **mode** (*Optional*, string): A pin mode to set for the pin at. One of `INPUT` or `OUTPUT`.

## See Also

- I²C Bus
- GPIO Switch
- GPIO Binary Sensor
- PCF8574 Arduino Library by Fabien Batteix
- API Reference
- Edit this page on GitHub