



***compac***

***INTEGRATED REFUELLING SOLUTIONS***

GPIO Input switch mode

Version 1.0

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## **Overview**

The “Nozzle” input is to act as a control allow or not allow the dispenser to be started. It is as if there is a switch in series with the real nozzle switch. with means that both nozzles need to be made for the dispenser to start

## **GPIO K Factor settings**

The GPIO settings in the K factor board is where you set the GPIO specific settings. The below figure shows details of all the options available for each setting.



- Duty Cycle Setting**
- 0 - 50%
  - 1 - 10%
  - 2 - 20%
  - 3 - 30%
  - 4 - 40%
  - 5 - 50%
  - 6 - 60%
  - 7 - 70%
  - 8 - 80%
  - 9 - 90%

- Inputs Setting**
- 0 - 0 Off
  - 1 - 1 Channel Encoder
  - 2 - 2 Channel Encoder
  - 3 - 3 Channel Encoder
  - 4 - **Switch Input**

- Output Settings**
- 0 - 0 off
  - 1 - Volume (Litres/Kg's)
  - 2 - Amount (Dollars)

- Inputs Setting**
- 0 - 1KHz
  - 1 - 100Hz
  - 2 - 200Hz
  - 3 - 300Hz
  - 4 - 400Hz
  - 5 - 500Hz
  - 6 - 600Hz
  - 7 - 700Hz
  - 8 - 800Hz
  - 9 - 900Hz
  - A - 1KHz
  - b - 1.1KHz
  - c - 1.2KHz
  - d - 1.3KHz
  - e - 1.4KHz
  - d - 1.4KHz

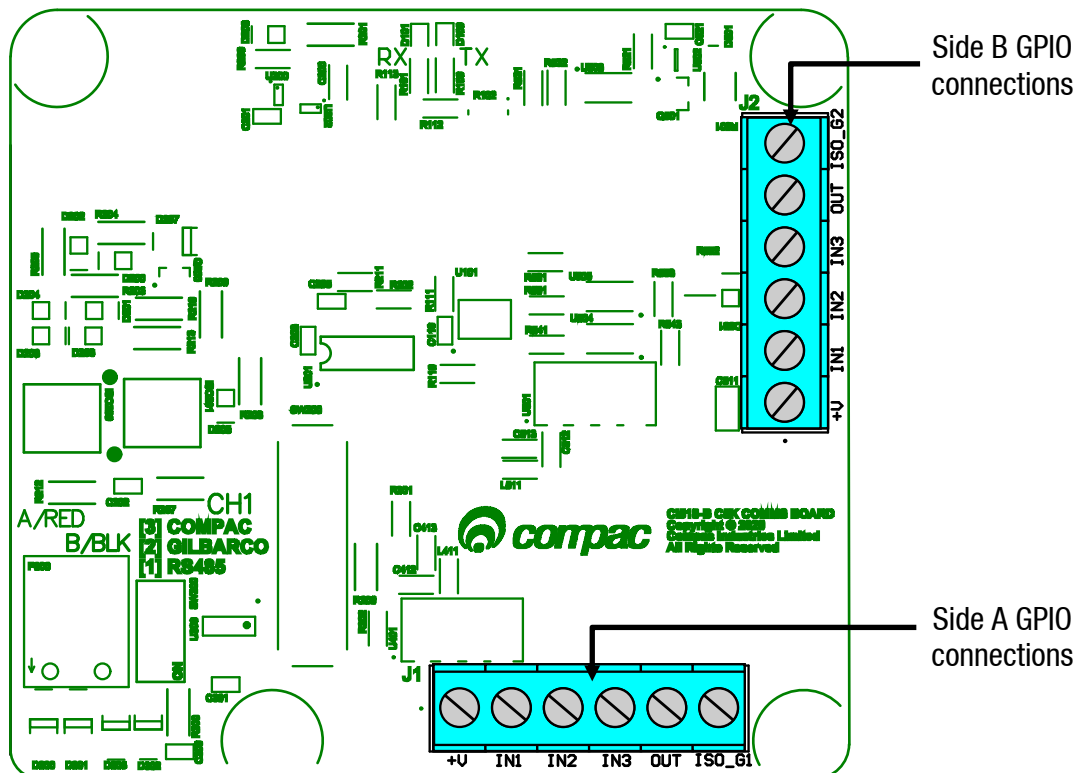
## Input Switch Setting

The setting on the K Factor board to enable the “nozzle Switch“ is GPIO XXX4. When the switch input is enabled the dispenser will not start a transaction until the GPIO nozzle input is high and the nozzle input on the k factor board is high (lifted) as well.

Note that if the nozzle is lifted on the K-factor board and the GPIO Nozzle input is low (not shorted) the Diag LED on the K factor board won't flash. In saying that if you want to troubleshoot the nozzle without the GPIO nozzle input you can disable the switch input by setting the GPIO setting to GPIO XXX0

## Input switch Wiring

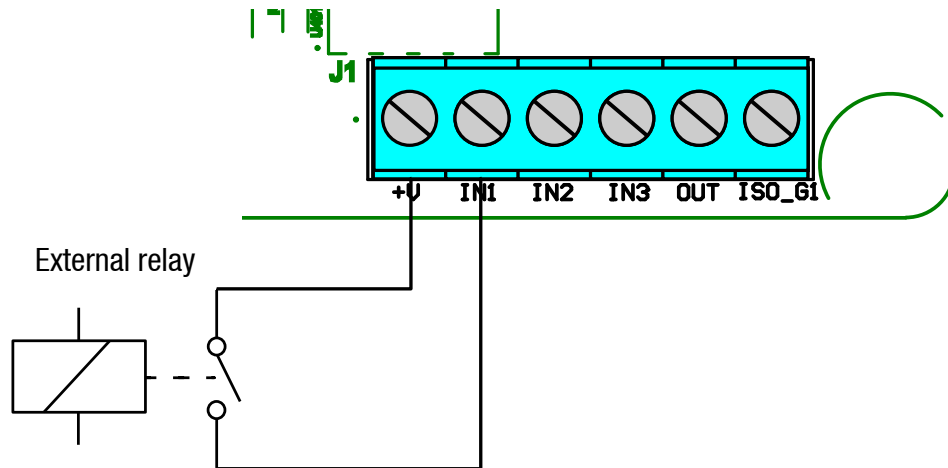
The GPIO nozzle input is wired in to the GPIO board in the flameproof box. The below figure shows the GPIO board and the location of the connectors.



There are different ways to connect the GPIO Nozzle input to an external device and the specific way will depend on the application

## Relay switch wiring

In this application an external relay is used to enable the GPIO nozzle input. 5 volts from the +V is fed into the relay and the output of the relay feeds back into the GPIO board via the IN1 terminal as shown below. This means that when the relay is energized the GPIO is pulled high enabling the nozzle. Use a relay means you can use any voltage AC or DC you just have to source the correct relay for your application



## External DC Voltage

In this application an external DC voltage is applied to enable the GPIO nozzle input. This DC voltage can be between 3 to 50 volts DC. The ISO\_G1 is connected to the Ground connection of the DC voltage source and the Positive side is connected to IN1.

Note that in the figure below the DC voltage source can be from a control system i.e. PLC

