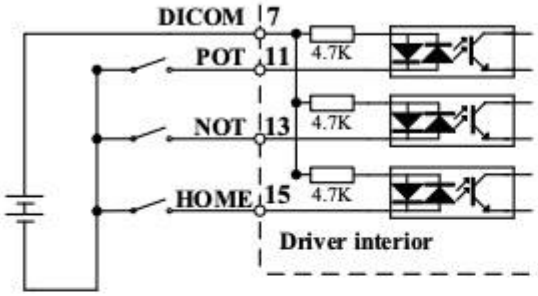
# Input / Output Circuits

## Common Input circuit

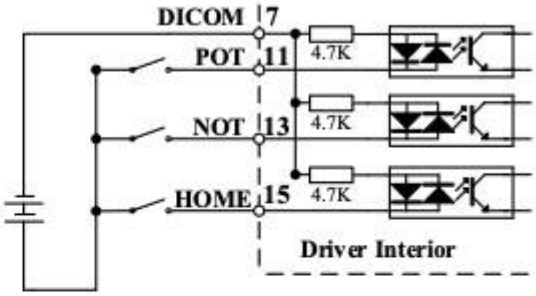
The internal circuit of common input is a bidirectional optocoupler which supports common anode and common cathode configurations. There are 2 types of outputs from master device: Relay output and Open Collector output as shown below.

① Output from master device: Relay

Common anode:

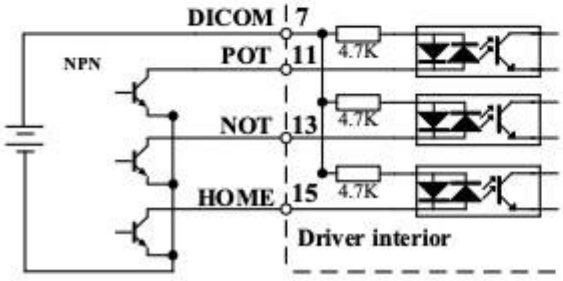



Common cathode:

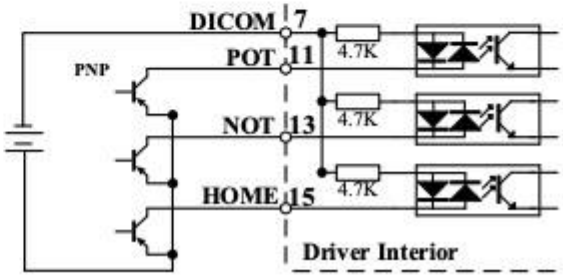



② Output from master device: Open Collector

NPN configuration:



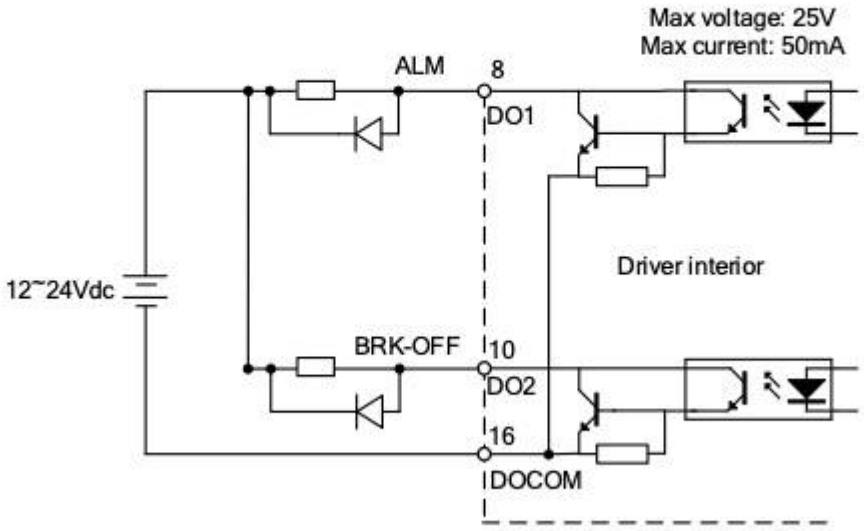

PNP configuration:




## Common output circuit

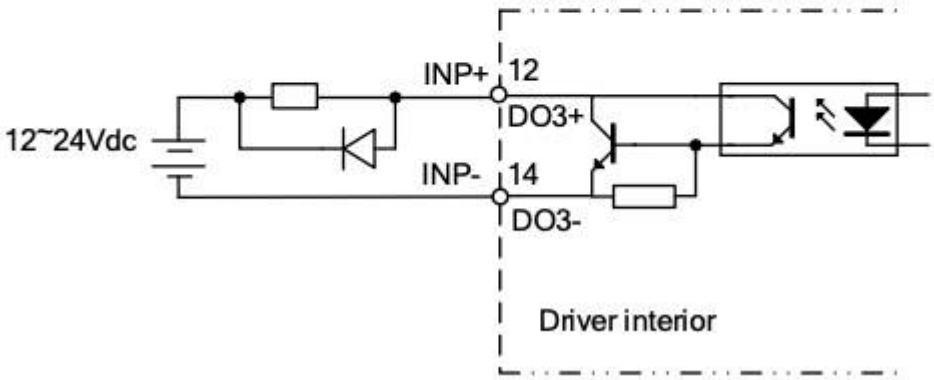
There are 3 common outputs: DO1 and DO2 are single-ended, sharing a common power supply ground terminal; DO3+/DO3- is double-ended, having an isolated 24v power supply.

### Single-ended DO1 & DO2




**Please install flyback diodes (as shown in diagram above) if the output is through a relay or other inductive load to prevent damage to DO ports.**

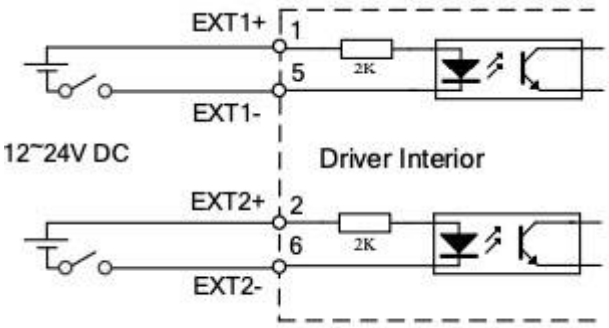
### Double-ended DO3+ & DO3-




| Item |
|---|
| Power supply is provided by user. Please be aware that reversed power supply polarity might cause damage to the driver. |
| When it is an open collector output, max current: 50mA, max supplying voltage: 25V. Please ensure the switching power supply fulfills the conditions. |
| if the load is an inductive load such as a relay, please connect a flyback diode in parallel in reverse. A wrong installation of the flyback diode might cause damage to the driver. |

# Probe input circuit

The internal circuit of probe input is an unidirectional optocoupler. Please be aware of the polarity of the terminal when connecting the cables.




# Digital input signal function configuration

| CN1 Pin | Signal | Parameter | Default function | Factory default | | |
|---|---|---|---|---|---|---|
| | | | | Set Value | Polarity | Status |
| 9 | DI1 | Pr4.00 | User defined function | 0x0 | NO | OFF |
| 11 | DI2 | Pr4.01 | Positive limit switch (POT) | 0x1 | NO | OFF |
| 13 | DI3 | Pr4.02 | Negative limit switch (NOT) | 0x2 | NO | OFF |
| 15 | DI4 | Pr4.03 | Home switch (HOME) | 0x16 | NO | OFF |

***NO: Normally Open*

When limit switch or emergency stop is used, POT, NOT and E-STOP signal will be normally close (NC) by default. Please make sure there is no safety concern if these signals need to be set to normally open (NO).

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