

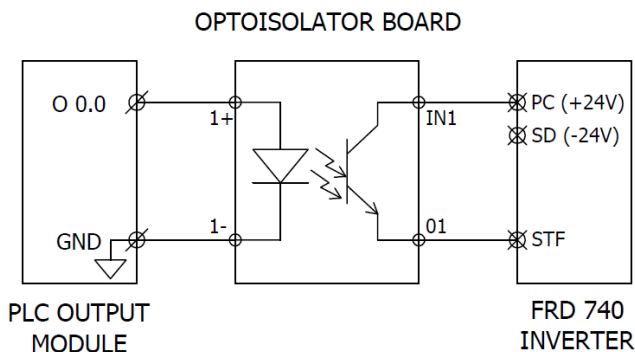
Optoisolator Board Technical Information

Function of optoisolator: An opto-isolator, also called an optocoupler, photocoupler, or optical isolator, is a component that transfers electrical signals between two isolated circuits by using light.

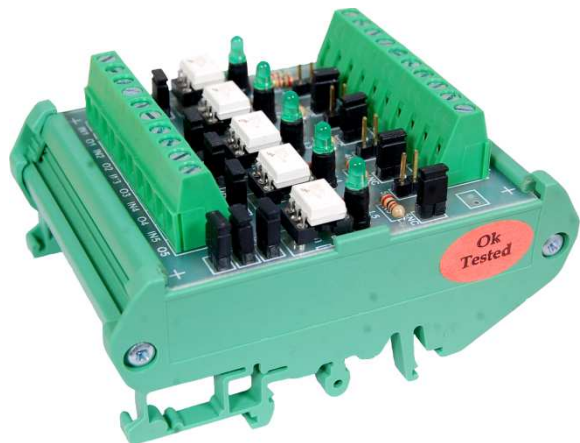
Features

- DIN rail mountable
- Four/Five/Six/Eight optoisolators on single board
- LED indication for input signal
- Positive supply common/negative supply common selection by jumpers
- 2/3/4 Outputs can be grouped to same supply by jumpers

Application Diagram:



Product Picture



Technical specifications:

Input signal voltage: 20 VDC-28VDC, Typical voltage is 24VDC

Max. input current: 25 mA @ 24VDC

Max. output voltage: 65 VDC

Min. output voltage: 2.0 VDC

Max. load per output point: 50 mA

Continuous power dissipation at (or below) 25°C free-air temperature: 200mW

Input to output electrical isolation: 3.55 KV

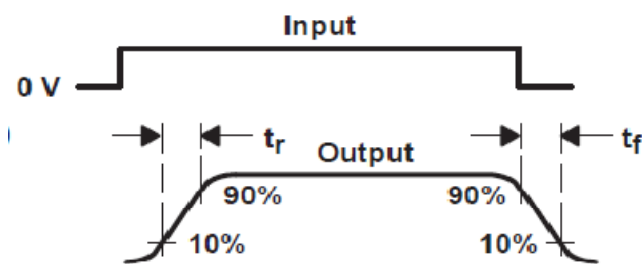
Max. Voltage drop in output voltage: 0.5 V @ 5mA load

Resistance, input to output: 100 GΩ

Switch ON delay: 5μS

Switch OFF delay: 5μS

Typical Switching Characteristic of optoisolator Circuit



High-Speed Switching:

$t_r = 5 \mu s$, $t_f = 5 \mu s$ Typical

Applications:

- For connecting inverters/Servo drives to PLC output modules.
- As an encoder signal booster.
- For isolating field inputs from PLC input module.
- To connect incremental encoder (With Incompatible signal level) to control system.
- In all applications where we need very fast and require isolation between driver and driven circuits.
- For connecting one signal level (5-230 VDC) to another signal level (2-65 VDC) with isolation.
- To make field inputs noise free.

Optoisolator Vs Relay Comparison:

Sr.No	Optoisolator	Relay Board
1	Switching time $5 \mu s$	Switch ON time 10ms & Switch OFF time 5ms
2	No limitation on number of operations at 50mA load	300,000 operations is limit at 2A/24 VDC load
3	Space 65x87(mm) for 5 points	Space 100x87(mm) for 4 points
4	Max. load 50mA per point	Max. load 2A per point

- Available in 4points/5 points/6 points/8 points variants.
- Opto. boards with input signal other than 24VDC can be supplied on demand.
- High speed switching $2 \mu s$ possible on demand.

Standard/Approvals

- CE Certified
- PCB :IEC61373
- Terminals:UL/CE
- Optoisolator:UL
- Profile & end plates : CE