

# OPTICAL ISOLATOR ELECTRONIC MODULE



This is a versatile interface between an incremental encoder and receiving electronics. It accepts single ended or differential inputs and provides single ended or differential outputs in either an open collector or line driver configuration. It accommodates all standard operating voltages from 5 to 28 VDC. Up to eight Optical Isolator Modules can be daisy-chained to provide multiple, simultaneous outputs to controllers or PLC's. This Optical Isolator can help clean up noisy signals by converting to a different line driver output. It has a 1 MHz throughput capability and can be used wherever a fast, optically isolated interface is required.

## ELECTRICAL SPECIFICATIONS

### POWER:

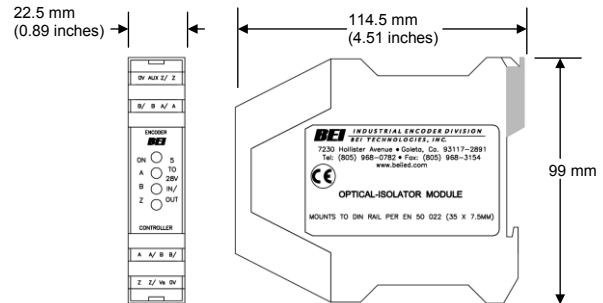
The optical isolator can accommodate standard operating voltages from 5 to 28 VDC. It should never be connected directly to AC power mains. The module draws approximately 75 mA and a green LED indicates the unit is powered. The optical isolator module does not provide power to the encoder. Any encoders used in conjunction with this module must be connected to their own power.

### SIGNAL:

Specifying an optical isolator module requires knowledge of three system parameters: the DC supply voltage available in the system; the encoder output type (logic levels and driver type); and the input signal specifications of the receiving electronics.

## MECHANICAL SPECIFICATIONS

Package dimensions are 114.4 mm high by 99 mm wide by 22.5 mm thick. The package mounts to a DIN rail type EN 50 022 (35mm X 7.5mm). A length of DIN rail is supplied with each module. The module simply snaps directly to the DIN rail and is ready to use.



<b>Output Code Format From Encoder</b>	Dual Channel in quadrature plus index and complements. Data lines are designated A, B, Z, A/, B/, Z/ at the module
<b>Output Signal Type From Encoder</b>	Differential line driver (Use Connection Instructions #1) Single ended line driver (Use Connection Instructions #2) Single ended open collector with pull-up resistors internal to encoder (Use Connection Instructions #3) Single ended, open collector (Use Connection Instructions #3)
<b>Output Signal Voltage Level From Encoder</b>	5 VDC (TTL, RS422 compatible, line driver) 12-15 VDC 24VDC
<b>Frequency Response of Optical Isolator</b>	1 MHz, maximum
<b>Power Requirements For Optical Isolator</b>	5-28 VDC $\pm 5\%$ , 75mA plus load current
<b>Optical Isolator Output Options</b>	28V/V Line Driver, 100mA source/sink, $V_{out} = V_{in}$ 28V/5 Line Driver, 100mA source/sink, $V_{out} = 5V$ (Derate output current to 50mA with supply voltage > 12VDC) 28V/OC NPN Open Collector, 80mA sink
<b>Protection Level</b>	Supply lines protected against over voltage to 60 volts and reverse voltage
<b>Tristate Outputs</b>	Available as -S Special Feature