

# product specification

## quadruple optocoupler: Opto2-01



- Outputs potential-free
- Short circuit proof power supply integrated
- Operating status shown by LED
- Suitable for the tropics - epoxy resin casted
- Simple mounting on rail acc. to DIN 46277
- Extra low safety voltage  
PELV (EN 50178) SELV (EN 60950)
- Conforms to EMC and low voltage directive  $\text{CE}$
- Safety acc. to VDE, EN, UL, CSA

### Application

The optocoupler Opto2-01 is applied for an effective protection of signal lines of e.g. PLC control systems against overvoltages and interferences. This is achieved through the galvanic isolation of the signals at the integrated optocouplers.

These unallowable overvoltages can arise from wiring errors. Also inappropriate measurements in a not de-energized state of the control system can lead to overvoltages at the input terminals of the PLC. A common cable routing of high voltage lines and PLC control lines, with poor or damaged insulation can as well lead to interferences or destroy the input circuitry of the PLC.

Because of the integrated power supply this quadruple optocoupler has very small dimensions, compared to 4 single optocouplers with external power supplies. All necessary interconnections, like the looping through of the voltage supply, are already realized. This reduces the expenditure of wiring.

### Functional principle

The inverted optocoupler is construed as switchable voltage source with galvanic isolated input.

In this quadruple optocoupler 4 switches (S) put out the states of closed and open using transistor switches (TS) at the outputs, which are galvanically isolated from the inputs.

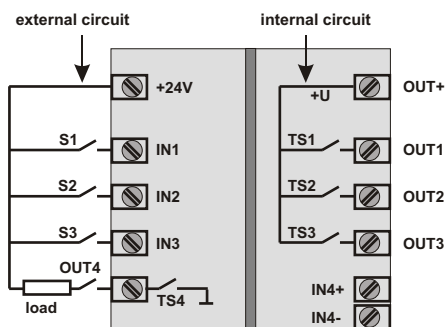
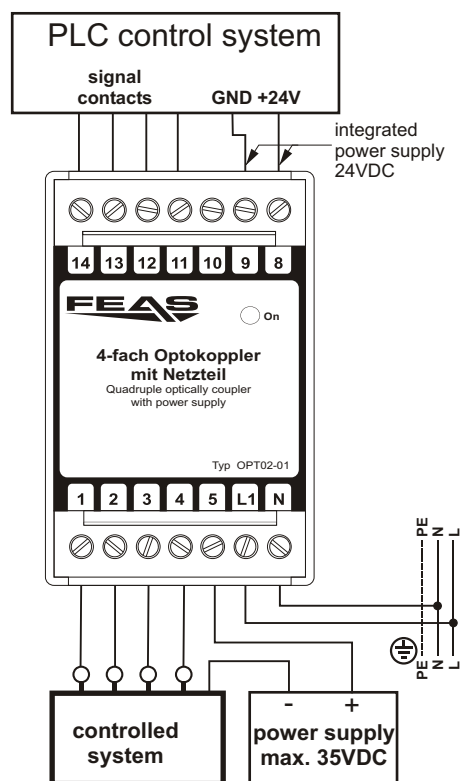
The Opto2-01 has an own internal power supply, whose terminal +24V has to be connected with the 4 switches. The switches are connected with the input terminals IN1 - IN3.

The transistor switches, which are galvanically isolated from the input circuit, need a positive voltage at the OUT+ terminal. This voltage is connected to the outputs OUT1 - OUT3, if the dedicated switch at the input is closed.

The fourth optocoupler is construed as switchable voltage source. With a galvanic isolated input (IN4+, IN4-) a load of up to 10mA, which is connected between OUT4 and the terminal +24V, can be switched. The switching voltage at the input is 24VDC.

### Design

Completely embedded with resin in a plastics housing for mounting on rail.



Please read the data sheets  
and the user manual  
for further information