

# Optocoupler Relays

## Overview

Murrelektronik optocouplers and semiconductors are used to combine different signal levels or to isolate one signal from another. They are similar to a relay interface because they provide an optoelectronic signal transfer between input and output.

Optocouplers and semiconductors have a long life span because they don't have any mechanical components that could wear out. They are suitable for applications with high switching frequencies, even over a long time.

## Features

- Silent operation
- No contact bounce
- Galvanic separation between input and output
- High resistance to shock and vibration
- High switching currents
- Low input power
- Shortest possible switching times
- High switching frequencies
- Resistant to EMC interference



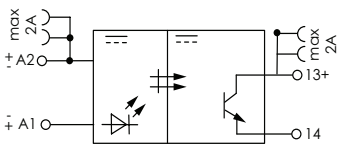
52501

52507

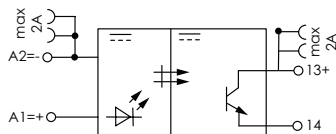
52550

Optocoupler Relays							
Part Number	Price	Input Voltage	Configuration	Output Type	Contact Rating	Load Voltage	Drawing Link
<a href="#">52501</a>	\$16.50	10-48 VDC	SPST	N.O. MOSFET	2A	5-48 VDC	<a href="#">PDF</a>
<a href="#">52502</a>	\$16.50	4-5.5 VDC	SPST	N.O. MOSFET	2A	5-48 VDC	<a href="#">PDF</a>
<a href="#">52507</a>	\$15.75	90-250 VAC	SPST	N.O. transistor	0.5A	5-48 VDC	<a href="#">PDF</a>
<a href="#">52510</a>	\$22.50	10-53 VDC	SPDT	N.O. transistor	0.5A	5-48 VDC	<a href="#">PDF</a>
<a href="#">52511</a>	\$18.00	15-30 VDC	SPST	N.O. transistor	0.2A	5-48 VDC	<a href="#">PDF</a>
<a href="#">52519</a>	\$28.50	10-53 VDC	SPST	N.O. MOSFET	6A	5-48 VDC	<a href="#">PDF</a>
<a href="#">52520</a>	\$28.50	10-53 VDC	SPST	N.O. MOSFET	10A	5-48 VDC	<a href="#">PDF</a>
<a href="#">52550</a>	\$18.00	10-53 VDC	SPST	N.O. TRIAC	0.5A	24-250 VAC	<a href="#">PDF</a>

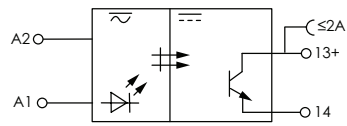
## Wiring Diagrams



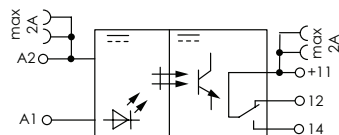
52501



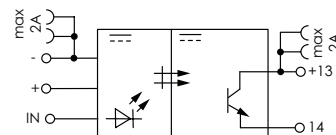
52502



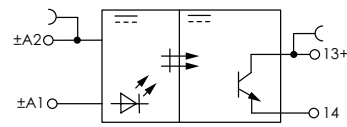
52507



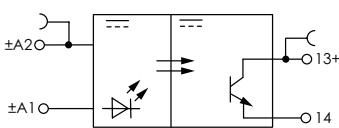
52510



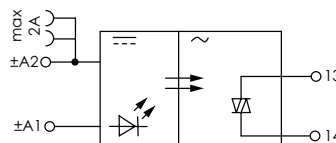
52511



52519



52520



52550

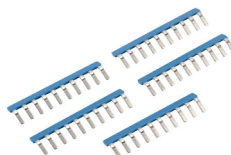
# Optocoupler Relays Specifications

Optocoupler Relays Specifications								
Part Number	52501	52502	52507	52510	52511	52519	52520	52550
<b>Input Specifications</b>								
Input Voltage Range	10–48 VDC	4–5.5 VDC	90–250 VAC 50/60 Hz	11–53 VDC	15–30 VDC	10–53 VDC	10–53 VDC	10–53 VDC
Typical Input Current	7mA	7mA	7.5 mA	6.5 mA	16mA	10mA	10mA	6.5mA
Polarity	Any	A1 = +; A2 = –	Any	Any	A1 = +; A2 = –	Any	Any	Any
<b>Output Specifications</b>								
Load Voltage Range	5–48 VDC	5–48 VDC	5–48 VDC	5–48 VDC	5–48 VDC	5–48 VDC	5–48 VDC	24–250VAC
Rated Load Current	1mA – 2A	1mA – 2A	0.1 mA – 0.5 A	0.1 mA – 0.5 A	0.1 mA – 0.2A	1mA – 6A	1mA–10A	1.5mA – 0.5 A
Max Switching Frequency	10Hz	10Hz	10Hz	10Hz	20KHz	1Hz	1Hz	20Hz
Power-Up Delay Max (Excluding Bounce Time)	1ms	1ms	55ms	0.04 ms	0.010 ms	2ms	2ms	10ms
Power-Down Delay Max (Excluding Bounce Time)	5ms	5ms	15ms	0.15 ms	0.018 ms	5ms	5ms	10ms
Switching Type	SPST	SPST	SPST	SPDT	SPST	SPST	SPST	SPST
Overvoltage Protection	48V	48V	68V	68V	68V	48V	48V	RC+VDR 320V
Isolation Voltage	2.5 kV	2.5 kV	3.75 kV	3.75 kV	3.75 kV	2.75 kV	2.75 kV	2.5 kV
<b>General Specifications</b>								
Connection	Screw terminal (M3)							
Tightening Torque	0.2 N·m (+0.1)							
Ambient Temperature	-20 to +60°C [-4 to +140°F]							
Storage Temperature	-40 to +80°C [-40 to +176°F]							
Protection Rating	IP20							
Mounting	35mm Din Rail							
Power Indicator	Yellow							
Wire Size Max	14AWG (stranded) / 12AWG (solid)							
Mechanical & Electrical Life Time	20,000,000 switching cycles/load dependent							
Weight (g [oz])	32.0 [1.12]	32.0 [1.12]	32.0 [1.12]	32.0 [1.12]	32.0 [1.12]	30.0 [1.05]	30.0 [1.05]	32.0 [1.12]
Agency Approvals and Standards	CSA 1252427, cURus E140415, CE							

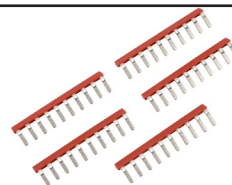
Interface Relays Accessories		
Part Number	Price	Description
<b>90963</b>	\$7.50	Murrelektronik interface relay jumper, push-in type, 2-pole, gray. Package of 5. For use with MurrElektronik relays with 6.2mm spacing.
<b>90978</b>	\$17.25	Murrelektronik interface relay jumper, push-in type, 10-pole, blue. Package of 5. For use with MurrElektronik relays with 6.2mm spacing.
<b>90979</b>	\$24.00	Murrelektronik interface relay jumper, push-in type, 10-pole, red. Package of 5. For use with MurrElektronik relays with 6.2mm spacing.



90963



90978



90979