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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.

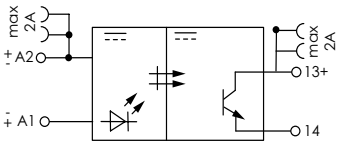
Features

- 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

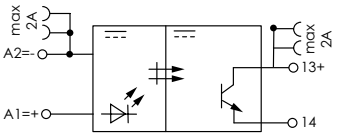
52501 52507 52550

Optocoupler Relays							
Part Number	*Price*	*Input Voltage*	*Configuration*	*Output Type*	*Contact Rating*	*Load Voltage*	*Drawing Link*
52501	$18.50	10-48 VDC	SPST	(1) N.O. MOSFET	2A	5-48 VDC	PDF
52502	$18.50	4-5.5 VDC	SPST	(1) N.O. MOSFET	2A	5-48 VDC	PDF
52507	$18.00	90-250 VAC	SPST	(1) N.O. transistor	0.5A	5-48 VDC	PDF
52510	$25.50	10-53 VDC	SPDT	(1) N.O., (1) N.C. transistor	0.5A	5-48 VDC	PDF
52511	$20.00	15-30 VDC	SPST	(1) N.O. transistor	0.2A	5-48 VDC	PDF
52519	$32.00	10-53 VDC	SPST	(1) N.O. MOSFET	6A	5-48 VDC	PDF
52520	$32.00	10-53 VDC	SPST	(1) N.O. MOSFET	10A	5-48 VDC	PDF
52550	$20.00	10-53 VDC	SPST	(1) N.O. TRIAC	0.5A	24-250 VAC	PDF

Wiring Diagrams



52501



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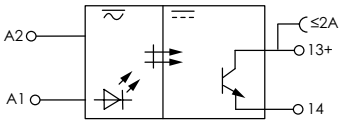
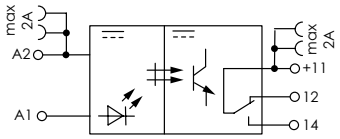
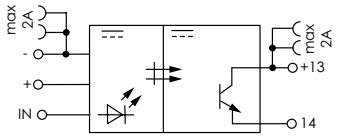


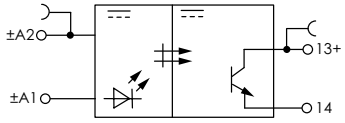
52507



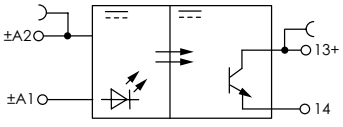
52510



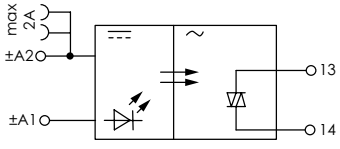
52511



52519



52520



52550

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Optocoupler Relays Specifications

Optocoupler Relays Specifications								
Part Number	**52501**	**52502**	**52507**	**52510**	**52511**	**52519**	**52520**	**52550**
Input Specifications								
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
Output Specifications								
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
General Specifications								
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							

*** To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.**

Interface Relays Accessories		
Part Number	***Price***	***Description***
90963	$8.75	Murrelektronik interface relay jumper, push-in type, 2-pole, gray. Package of 5. For use with MurrElektronik relays with 6.2mm spacing.
90978	$20.50	Murrelektronik interface relay jumper, push-in type, 10-pole, blue. Package of 5. For use with MurrElektronik relays with 6.2mm spacing.
90979	$28.00	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