

Powered Relay Board Application Summary



Winford Engineering offers several different series of relay boards within the RLY line.
Which option do I choose for my application?

Series	RLY102 (2 ch) RLY104 (4 ch)	RLY202 (2 ch) RLY204 (4 ch)	RLY302 (2 ch) RLY304 (4 ch)	RLY402 (2 ch) RLY404 (4 ch)	RLY501 (1ch)
AC load	YES	YES	YES	YES	YES
DC load	YES	YES	YES	YES	YES
Resistive Load	YES	YES	YES	YES	YES
Low-current loads down to 10uA			YES		
Motor Load	Up to 1/3 HP	Up to 1/3 HP		Up to 1 HP	Up to 1 HP
Capacitive Load Inrush Current Rating	TV-5	TV-5		TV-8	TV-8
Status	Not for new designs (replaced by RLY202 / RLY204)	Active	Active	Active	Active
Link	RLY102 RLY104	RLY202 RLY204	RLY302 RLY304	RLY402 RLY404	RLY501



Powered Relay Board Detailed Summary

RLYx02 = 2 channels RLYx04 = 4 channels	RLY102 RLY104	RLY202 RLY204	RLY302 RLY304	RLY402 RLY404	RLY501
Target Applications	General-purpose applications and small AC motors up to 1/3 HP	General-purpose applications and small AC motors up to 1/3 HP	Low-level signal switching and data acquisition	General-purpose applications and AC motors up to 1 HP	General-purpose applications and AC motors up to 1 HP
Relay Mfr / part no.	Panasonic ALZ12Fxx	Panasonic ALZ12Fxx	Panasonic DS1E-S-DCxxV	Picker PC520-1C-xxST-X	TE Connectivity T9GS1L14-xx
Load Type (for Normally Open contact)	Resistive: AC or DC Motor, 120 VAC: 1/3 HP Motor, 240 VAC: 1/4 HP	Resistive: AC or DC Motor, 120 VAC: 1/3 HP Motor, 240 VAC: 1/4 HP	Resistive: AC or DC	Resistive: AC or DC Motor, 125 VAC: 1 HP Motor, 250 VAC: 1 HP	Resistive: AC or DC Motor, 125 VAC: 1 HP Motor, 250 VAC: 1 HP
Contact Arrangement	1 Form C (SPDT)	1 Form C (SPDT)	1 Form C (SPDT)	1 Form C (SPDT)	1 Form A (SPST)
Coil Voltages Available (DC)	5V, 12V, 24V (DC)	5V, 12V, 24V (DC)	5V, 12V, 24V (DC)	5V, 12V, 24V (DC)	5V, 12V, 24V (DC)
Max Contact Switching Current	15A @ 250VAC 15A @ 25VDC	15A @ 250VAC 15A @ 25VDC	2A @ 62.5VAC 2A @ 30VDC	20A @ 192VAC 10A @ 250VDC	20A @ 250VAC 20A @ 20VDC
Min Contact Current Req'd	100mA	100mA	10uA	100mA	1A
Contact Material	Silver Tin Oxide (AgSnO ₂)	Silver Tin Oxide (AgSnO ₂)	Silver + Gold clad (Ag + Au)	Silver Tin Oxide (AgSnO ₂)	Silver Tin Oxide (AgSnO ₂)
Relay Driver IC	Toshiba ULN2803AP	Toshiba TBD62064APG	Toshiba TBD62064APG	Toshiba TBD62064APG	Logic-Level MOSFET
Input Control Signal Voltage Ranges	Logic High: 2.7V to 25V Logic Low: 0.0V to 0.7V	Logic High: 2.5V to 25V Logic Low: 0.0V to 0.6V	Logic High: 2.5V to 25V Logic Low: 0.0V to 0.6V	Logic High: 2.5V to 25V Logic Low: 0.0V to 0.6V	Logic High: 3.0V to 28V Logic Low: 0.0V to 0.9V
Input Control Signal Current	1.95mA @ 5.0V	0.6mA @ 5.0V	0.6mA @ 5.0V	0.6mA @ 5.0V	0.5mA @ 5.0V
Status	Not for new designs. (Replaced by RLY20x)	Active	Active	Active	Active