



R50 series

2 And 5 Amp Washable Relay For 0.7" (18mm) PC Board Spacing

File E29244

File LR15734

Features

- 1 Form C model rated to 5 amps; 2 Form C to 2 amps.
- Standard 0.1" grid spacing.
- DC coils through 48 volts.
- Immersion cleanable, tape sealed case.

Contact Data @ 25°C

Arrangements: 1 Form C (SPDT) and 2 Form C (DPDT).
Ratings: Code Y: 2A, resistive @ 28VDC; 1A, resistive @ 120VAC.
 Code X: 5A, resistive @ 28VDC; 2.5A, resistive @ 120VAC.
Expected Mechanical Life: 10 million operations.
Expected Electrical Life: Code Y: 100,000 operations.
 Code X: 600,000 operations.
Initial Contact Resistance: 50 milliohms, max.

Initial Dielectric Strength

Between Open Contacts: Contact Code Y: 500V rms, 60 Hz.
 Contact Code X: 1,000V rms, 60 Hz.
Between All Other Conductors: Contact Code Y: 500V rms, 60 Hz.
 Contact Code X: 1,000V rms, 60 Hz.

Initial Insulation Resistance

Between Mutually Insulated Conductors: 10⁹ ohms.

Coil Data @ 25°C

Voltage: 5 through 48VDC.
Max. Power: 2 watts.
Maximum Coil Temperature: 105°C.

Coil Data @ 25°C

Nom. Voltage (VDC)	R50-E2Y1			R50-E2Y2			R50-E2X1		
	Nom. Power (mW)	Max. Voltage (VDC)	Res. ±10% (Ohms)	Nom. Power (mW)	Max. Voltage (VDC)	Res. ±10% (Ohms)	Nom. Power (mW)	Max. Voltage (VDC)	Res. ±10% (Ohms)
5	758	6.25	33	893	6.0	28	962	6.7	25
6	750	7.5	48	900	7.2	40	973	8.7	37
12	750	15.0	192	900	14.5	160	1,152	16.0	125
24	750	30.0	768	900	28.0	640	1,309	30.0	440
48	753	60.0	3,060	904	57.0	2,550	1,194	63.0	1,930

Diode suppression necessary for higher coil voltages.

Operate Data @ 25°C

Must Operate Voltage: 75% of nominal voltage or less.
Must Release Voltage: 5% of nominal voltage or more.
Operate Time (Excluding Bounce)†: Contact Code Y: 6 ms, typ.
 Contact Code X: 10 ms, typ.
Release Time (Excluding Bounce)†: Contact Code Y: 6 ms, typ.
 Contact Code X: 10 ms, typ.

† At or from Nominal Coil Voltage

Environmental Data

Temperature Range: -55°C to +50°C.

Mechanical Data

Termination: Printed circuit terminals.
Enclosure: Tape sealed polyester case.
Weight: R50-E2Y1: 0.3 oz. (8.5g) approximately.
 R50-E2Y2 & R50-E2X1: 0.5 oz. (14g) approximately.

Ordering Information

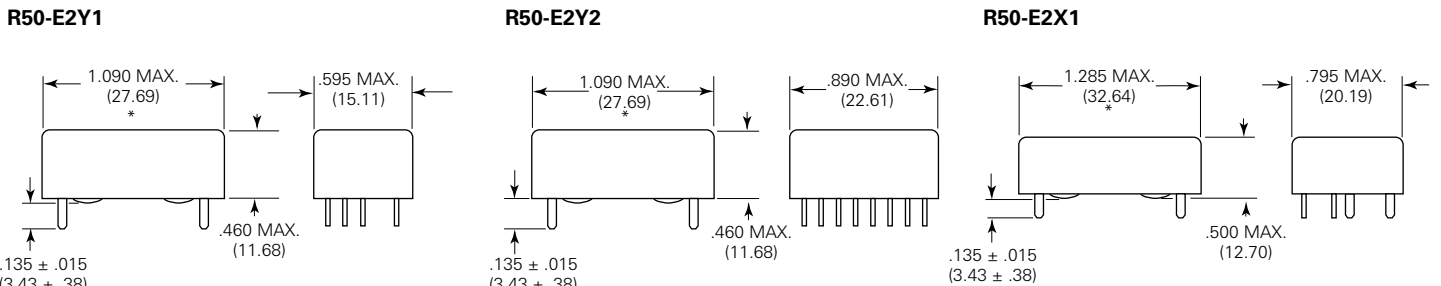
Typical Part Number ▶ **R50 -E2 Y 1 -12**

- Basic Series:**
R50 = Standard, PC board relay.
- Termination:**
E2 = Printed Circuit Terminals.
- Contact Rating:**
Y = 2A @ 28VDC; 1A @ 120VAC.
X = 5A @ 28VDC; 2.5A @ 120VAC.
- Contact Arrangement:**
1 = 1 Form C (SPDT).
2 = 2 Form C (DPDT) *Not available with rating code X.*
- Coil Voltage:**
5 = 5VDC 6 = 6VDC 12 = 12VDC 24 = 24VDC 48 = 48VDC

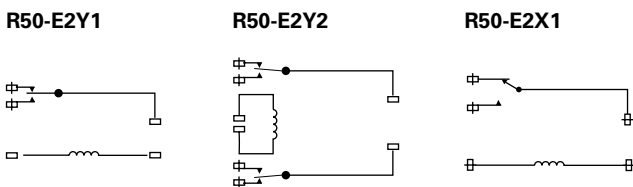
Stock Items - The following items are maintained in stock.

- R50-E2X1-5 R50-E2Y1-5 R50-E2Y1-24 R50-E2Y2-24
- R50-E2X1-12 R50-E2Y1-6 R50-E2Y1-48
- R50-E2X1-24 R50-E2Y1-12 R50-E2Y2-12

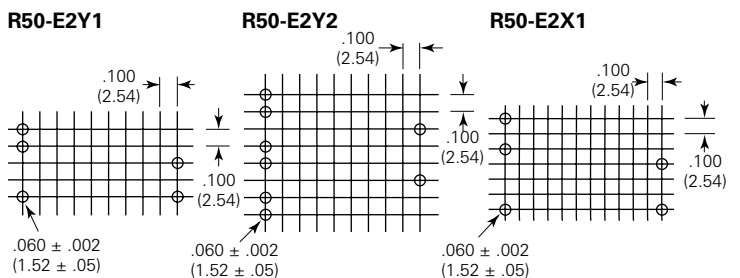
Outline Dimensions



Wiring Diagrams (Bottom Views)



PC Board Layouts (Bottom Views)



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