

R10 Series Relay

- 1 through 8 form C (CO) contact arrangement
- Broad range of coil options provides sensitivity ranging from 25 to 750mW
- Various contacts switch from dry circuit to 7.5 amps
- Many mounting and termination options

Typical applications

Coin changers, audio equipment, elevators, traffic controls, ultrasonic test equipment, parking toll readers.



Approvals

UL E29244; CSA LR15734

Technical data of approved types on request.

Contact Data

Contact arrangement	1, 2, 3, 4, 6 and 8 form C (CO)
Rated voltage	120VAC
Rated current	7.5A
Contact material	Ag, AgCdO, Au overlay Ag, AuPtAg
Contact style	Single or bifurcated crossbar
Min. recommended contact load	
W type, AgCdO, single contact	300mA, 12VDC
X type, AgCdO, single contact	300mA, 12VDC
M type, AgCdO, bifurcated contact	300mA, 12VDC
Y type, Ag, single contact	100mA, 12VDC
Z type, Ag, bifurcated crossbar	1mA, 12VDC
P type, Au overlay Ag, bifurcated crossbar	dry circuit
L type, AuPtAg, bifurcated crossbar	dry circuit
Initial contact resistance	
All AgCdO contact types	100mΩ
All other contact materials and types	50mΩ
Frequency of operation	360 ops./hr

Contact ratings

Type	Load	Cycles
UL 508		
W type, AgCdO, single contact		
	7.5A, 120VAC, resistive	
	7.5A, 28VDC, resistive	
	1/8HP, 120VAC, same polarity	
	1/6HP, 240VAC, same polarity	
X type, AgCdO, single contact		
	2A, 30VDC, resistive	100x10 ³
	5A, 120VAC, resistive	6x10 ³
	5A, 30VDC, resistive	100x10 ³
	1/20HP, 120VAC, same polarity	
	1/10HP, 240VAC, same polarity	
M type, AgCdO, bifurcated contact		
	5A, 120VAC, resistive	6x10 ³
	5A, 28VDC, resistive	6x10 ³
Y type, Ag, single contact		
	2A, 120VAC	6x10 ³
	2A, 28VDC	6x10 ³
	250VA, 250VAC	30x10 ³
	125VA, 125VAC	100x10 ³
Z type, Ag, bifurcated crossbar contact		
	3A, 120VAC	6x10 ³
	3A, 28VDC	6x10 ³
	2A, 30VDC	100x10 ³

Contact ratings (continued)

Type	Load	Cycles
UL 508		
P type, Au overlay Ag, bifurcated crossbar contact		
	2A, 120VAC, resistive	100x10 ³
	3 A, 120 VAC, resistive	6x10 ³
	3 A, 30 VDC, resistive	100x10 ³
L type, AuPtAg, bifurcated crossbar contact		
	500mA, 28VDC, resistive	6x10 ³
Mechanical endurance	10x10 ⁶ ops., except W type is 1x10 ⁶ ops.	

Coil Data

Coil voltage range	3 to 115VDC 4.5mA to 20mA 6 to 115VAC
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Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Coil resistance Ω±10%	Rated coil power mW
V - standard DC voltage adjustment				
1, 2 and 4 pole				
V10	3	2.25	10	900
V28	5	3.75	28	900
V52	6	4.5	52	900
V185	12	9	185	900
V700	24	18	700	900
V2.5K	48	36	2500	900
V5.8K	72	54	5800	900
V15.0K	115	86	15000	900
6 pole				
V6	3	2.25	6	1,500
V16	5	3.75	16	1,600
V25	6	4.5	25	1,500
V90	12	9	90	1,600
V430	24	18	430	1,400
V1.5K	48	36	1500	1,600
V3.5K	72	54	3500	1,500
V9.0K	115	86	9000	1,500
8 pole				
V5	3	2.25	5	1,800
V14	5	3.75	14	1,800
V20	6	4.5	20	1,800
V72	12	9	72	2,000
V350	24	18	350	1,700
V1.25K	48	36	1250	1,900
V2.8K	72	54	2800	1,900
V8.0K	115	86	8000	1,700

All figures are given for coil without preenergization, at ambient temperature +23°C.

R10 Series Relay (Continued)

Coil versions, DC coil (continued)

Coil code	Rated voltage VDC	Operate voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power mW
Q - special DC voltage adjustment				
1 and 2 pole				
Q52	5	3.1	52	500
Q110	6	4.5	110	350
Q450	12	9.2	450	350
Q1.8K	24	17.4	1,800	350
Q7.5K	48	36.2	7500	310
Q15.0K	72	49.5	15000	350
Q30.0K	115	67.5	30000	450
3 and 4 pole				
Q32	5	3.8	32	800
Q52	6	4.2	52	700
Q185	12	8.4	185	800
Q1.0K	24	17.2	1000	600
Q3.2K	48	31.1	3200	750
Q7.5K	72	49.3	7500	700
Q15.0K	115	67.5	15000	900
S - sensitive DC voltage adjustment				
1 and 2 pole				
S50	3	2.25	50	180
S140	5	3.75	140	180
S200	6	4.5	200	180
S800	12	9	800	180
S3.2K	24	18	3200	180
S13.0K	48	36	13000	180
S28.0K	72	54	28000	190
S50.0K	115	86	50000	270
3 and 4 pole				
S30	3	2.25	30	300
S80	5	3.75	80	350
S110	6	4.5	110	350
S450	12	9	450	350
S1.8K	24	18	1800	350
S7.5K	48	36	7500	300
S16.0K	72	54	16000	350
S40.0K	115	86	40000	350
6 pole				
S20	3	2.25	20	500
S56	5	3.75	56	500
S80	6	4.5	80	500
S320	12	9	320	500
S1.2K	24	18	1200	500
S5.2K	48	36	5200	500
S13.0K	72	54	13000	400
S30.0K	115	86	30000	500
8 pole				
S12	3	2.25	12	750
S35	5	3.75	35	750
S52	6	4.5	52	700
S200	12	9	200	750
S800	24	18	800	750
S3.2K	48	36	3200	750
S7.5K	72	54	7500	700
S16.0K	115	86	16000	850
SS - ultra sensitive DC voltage adjustment				
1 pole				
SS220	3	2.25	220	45
SS700	5	3.75	700	40
SS1.0K	6	4.5	1000	40
SS4.0K	12	9	4000	40
SS9.0K	18	13.5	9000	40
SS15.0K	24	18	15000	40
SS30.0K	36	27	30000	45

Coil versions, DC coil (continued)

Coil code	Rated voltage VDC	Operate voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power mW
S - sensitive DC voltage adjustment (continued)				
2 pole				
SS110	3	2.25	110	85
SS350	5	3.75	350	75
SS500	6	4.5	500	75
SS2.0K	12	9	2000	75
SS4.5K	18	13.5	4500	75
SS7.5K	24	18	7500	80
SS15.0K	36	27	15000	85
SS30.0K	48	36	30000	80
3 and 4 pole				
SS52	3	2.25	52	175
SS175	5	3.75	175	150
SS250	6	4.5	250	150
SS1.0K	12	9	1000	150
SS2.2K	18	13.5	2200	150
SS3.7K	24	18	3700	150
SS7.5K	36	27	7500	175
SS15.0K	48	36	15000	150
Coil code Maximum coil current mADC Operate current mADC Coil resistance $\Omega \pm 10\%$ Pick-up coil power mW				
J - sensitive DC current adjustment				
2 pole				
J1.0K	45	8.5	1000	75
J2.5K	28	5.8	2500	85
J5.0K	20	4.1	5000	85
J10.0K	14	3.1	10000	100
J15.0K	11.5	2.6	15000	100
J30.0K	8.3	1.7	30000	85
3 and 4 poles				
J1.0K	45	13	1000	175
J2.5K	28	8.4	2500	175
J5.0K	20	6.2	5000	200
J10.0K	14	4.5	10000	200
J15.0K	11.5	3.5	15000	200
J30.0K	8.3	2.5	30000	200
6 pole				
J1.0K	45	16	1000	250
J2.5K	28	10	2500	250
J5.0K	20	7.2	5000	250
J10.0K	14	5	10000	250
J15.0K	11.5	4.2	15000	270
J30.0K	8.3	2.9	30000	250
8 pole				
J1.0K	45	20	1000	250
J2.5K	28	13	2500	250
J5.0K	20	9	5000	250
J10.0K	14	6.4	10000	250
J15.0K	11.5	5.3	15000	270
J30.0K	8.3	3.7	30000	250
J - sensitive DC current adjustment - R10S types only				
1 pole				
J500 ¹⁾	–	4.5	500	10
J1.0K ¹⁾	–	3.2	1000	10
J2.5K	–	2	2500	10
J5.0K ²⁾	–	1.4	5000	10
J10.0K	–	1	10000	10
J16.0K	–	0.8	16000	10
J30.0K ³⁾	–	0.6	30000	11