

## RJ Series — General Purpose Relays

RJ relays, the newest addition to our relay family, were designed with the same attention-to-detail IDEC is known for. One feature that exemplifies this is an optional LED. It uses a unique light guide to give you a brighter and more noticeable status indicator from multiple directions.

Key features of the RJ series include:

- Compact size: 12.7 x 27 x 28.8 mm
- Contact rating: 8A (DPDT), 12A (SPDT)
- Operational life:  
200K cycles at full resistive load  
50 million cycles, no load
- Optional, green, non-polarized LED
- RoHS compliant



			RJ1S	RJ2S
Specifications	No. of poles		1	2
	Contact Configuration		SPDT	DPDT
	Contact Rating		12A	8A
	Contact Material		Silver-Nickel alloy	
	Contact Resistance		50 milliohms max	
	Operating Time		15 ms max	
	Release Time		10 ms max	
	Dielectric Strength	Between contact and coil	5,000VAC, 1 minute	
		Between contacts	1,000VAC, 1 minute	
	Vibration Resistance	Damage limits	10-55Hz, amplitude 0.75mm	
		Operating extremes	10-55Hz, amplitude 0.75mm	
	Shock Resistance	Damage limits	100m/s <sup>2</sup> min (10G)	
		Operating extremes	1,000m/s <sup>2</sup> min (100G)	
	Mechanical Life	AC	30,000,000 operations	
		DC	50,000,000 operations	
	Electrical Life @ Full Rated Load	AC	200,000 operations	
		DC	100,000 operations	
Operating Temperature		-40 to 70° C		
Operating Humidity		5 to 85% RH		
Dimensions (H x W x D mm)		12.7 x 27 x 28.8		
Weight (Approx.)		19g		



UL Recognized  
File No. E555996, Vol 1, sec. 11



CSA Certified  
® File No. LR35144



### Ordering Information

Consult factory for other voltages.

Basic Part No.

Coil Voltage:

RJ  S - C  -

# of Contacts

1 = SPDT

2 = DPDT

Option

(Blank) = Standard

L = LED

Coil Voltage Code

D12 = 12V DC

D24 = 24V DC



D100 = 100-110V DC

A24 = 24V AC

A120 = 120V AC

A240 = 240V AC

Part Numbers

Type	Contacts	Coil Voltage	Standard	with Indicator Light
	SPDT	12V DC	RJ1S-C-D12	RJ1S-CL-D12
		24V DC	RJ1S-C-D24	RJ1S-CL-D24
		100-110V DC	RJ1S-C-D100	RJ1S-CL-D100
		24V AC	RJ1S-C-A24	RJ1S-CL-A24
		120V AC	RJ1S-C-A120	RJ1S-CL-A120
		240V AC	RJ1S-C-A240	RJ1S-CL-A240
	DPDT	12V DC	RJ2S-C-D12	RJ2S-CL-D12
		24V DC	RJ2S-C-D24	RJ2S-CL-D24
		100-110V DC	RJ2S-C-D100	RJ2S-CL-D100
		24V AC	RJ2S-C-A24	RJ2S-CL-A24
		120V AC	RJ2S-C-A120	RJ2S-CL-A120
		240V AC	RJ2S-C-A240	RJ2S-CL-A240

Relays  
E

Socket Part Numbers (DIN Rail or Panel Mount):

Part Numbers	Description
SJ1S-05B	SPDT Standard Screw Terminal
SJ1S-07L	SPDT Finger-safe Screw Terminal
SJ2S-05B	DPDT Standard Screw Terminal
SJ2S-07L	DPDT Finger-safe Screw Terminal
SJ9Z-C	Replacement Locking Lever



Ratings

Coil Ratings at 20°C (relays with LED indicator)

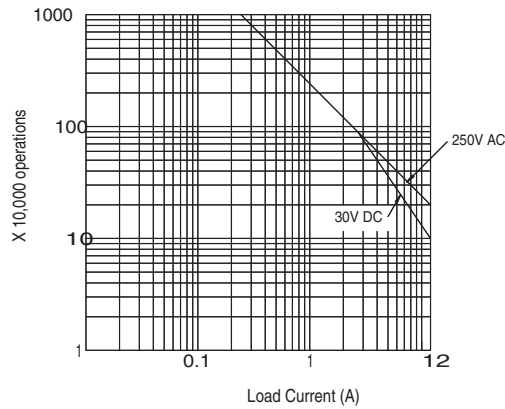
Coil Sensitivity	Nominal Voltage	Nominal Current	Coil Resistance	Power Consumption	Pull-in Voltage	Drop-Out Voltage	Max Allowable Voltage
DC Coil	12V	48mA	271Ω	0.53W	70% Max	10% Min	170%
	24V	25.7mA	1,080Ω				
	100-110V	5.2-5.7mA	18,870Ω				160%
AC Coil (60Hz)	24V	41.1mA	243Ω	0.9VA	80% Max	30% Min	140%
	120V	8.1mA	5270Ω				
	240V	4.1mA	21,530Ω				

Contact Ratings

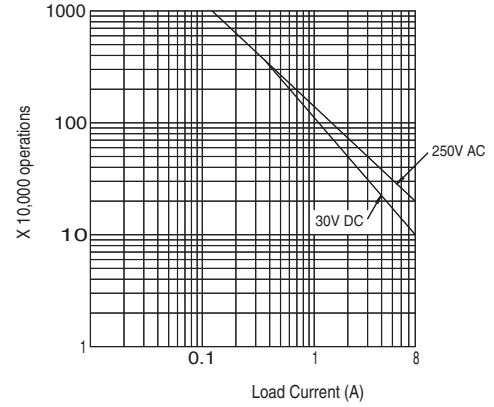
		Contact	RJ1S	RJ2S
Contact Load Ratings	Resistive Load (Max)	NO Contact	12A @ 250VAC/30VDC	8A @ 250VAC/30VDC
		NC Contact	12A @ 250VAC; 6A @ 30VDC	8A @ 250VAC; 4A @ 30VDC
	Inductive Load (Max)	NO Contact	7.5A @ 250VAC; 6A @ 30VDC	4A @ 250VAC; 4A @ 30VDC
		NC Contact	7.5A @ 250VAC; 3A @ 30VDC	4A @250VAC; 2A @ 30VDC
	Min Applicable Load (reference value)		100mA @ 5VDC	10mA @ 5VDC
Contacts Max Power Allowed	Resistive Load (Max)	NO Contact	AC: 3,000VA; DC: 360W	AC: 2,000VA; DC: 240W
		NC Contact	AC: 3,000VA; DC: 180W	AC: 2,000VA; DC: 120W
	Inductive Load (Max)	NO Contact	AC: 1,875VA; DC: 180W	AC: 1,000VA; DC: 120W
		NC Contact	AC: 1,875VA; DC: 90W	AC: 1,000VA; DC: 60W

## Electrical Life Curves

**RJ1S  
(Resistive Load)**

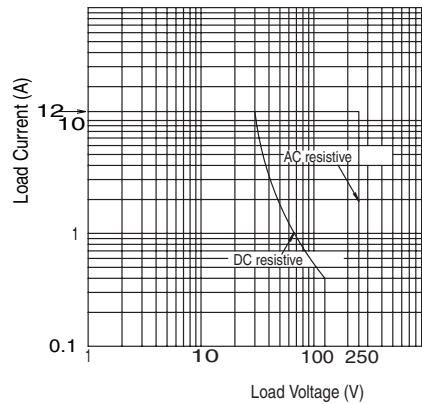


**RJ2S  
(Resistive Load)**

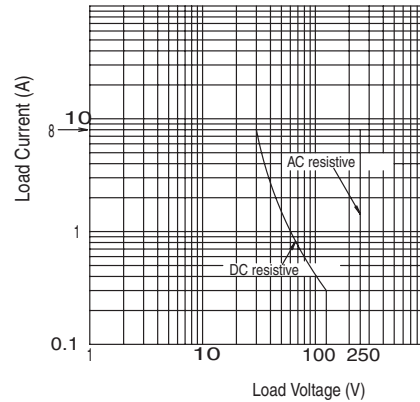


## Maximum Switching Capacity

**RJ1S**

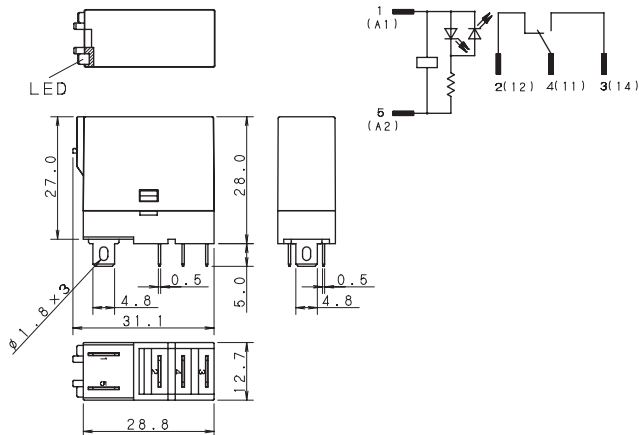


**RJ2S**

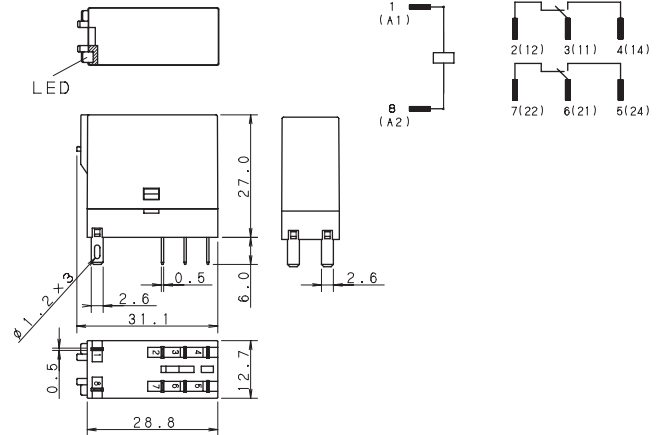


## Dimensions

**RJ1S**



**RJ2S**



Dimensions are in mm.