Contact Ratings

The LSR Latching Switch Relay has been tested to many different circuit conditions. The interrupting ratings are based on 10,000 operations of life, using suddenly applied and removed rated voltage, with no extensive burning of contacts. Inductive ratings are based on tests using standard inductance $^L = 0.04$ for DC and $\cos \theta = 0.4$ for AC. The Interrupting Rating column headed "double contacts" means two contacts in series. Short-time and continuous ratings are based on temperature rise in contact members and supporting parts not exceeding 50°C above ambient.

Contact Ratings for Series 24 LSR Latching Switch Relay

| CONTACT CIRCUIT VOLTS | INTERRUPTIVE RATING (AMPS) | | | | SHORT TIME RATING* (AMPS) | CONTINUOUS RATING (AMPS) |
| | RESISTIVE | | INDUCTIVE | | | |
	SINGLE CONTACT	DOUBLE CONTACT	SINGLE CONTACT	DOUBLE CONTACT		
125VDC	5	10	2	5	60	30
250VDC	3	5	1	2	60	30
120VAC	20	30	20	30	60	30
240VAC	15	20	15	20	60	30
480VAC	7.5	15	10	10	60	30
600VAC	7.5	7.5	10	10	60	30

Contact Ratings for Series 31 LSR Latching Switch Relay

| CONTACT CIRCUIT VOLTS | INTERRUPTIVE RATING (AMPS) | | SHORT TIME RATING* (AMPS) | CONTINUOUS RATING (AMPS) |
	RESISTIVE SINGLE CONTACT	INDUCTIVE SINGLE CONTACT		
12VDC	5	5	25	15A
24VDC	5	5	25	15A
48VDC	1	1	25	15A
125VDC	1	1	25	15A
120VAC	10	10	25	15A
240VAC	5	5	25	15A
600VAC	3	1	25	15A

 * Short time current is for one minute

Contact Charts

The contact deck arrangements show construction of the relay and are shown as information for the user. Traditional contact charts are more appropriate, as shown to the right.

Coil Voltage Data

COIL	NOMINAL VOLTAGE	VOLTAGE RANGE
C	48VDC	38-56VDC
D	125VDC	100-140VDC
F	250VDC	200-280VDC

Coil Burden Data

| COIL | COIL CIRCUIT VOLTS | SERIES 24 | | SERIES 31 | |
		COIL CIRCUIT DC OHMS @ 20° C	BURDEN (AMPS) @ RATED VOLTAGE	COIL CIRCUIT DC OHMS @ 20° C	BURDEN (AMPS) @ RATED VOLTAGE
C	48VDC	4.83	9.9	4.91	9.7
D	125VDC	18.96	6.6	30.48	4.1
F	250VDC	81.14	3.1	109.0	2.3

Options
Low-Level Control
(Recommended For Use with All Microprocessor-Based Devices)

The low level command contacts (S1 and S2) close on an interposing relay coil (k1) and the rotary solenoid coil (LSR) is controlled by the relay contact (K1). S1 and S2 can be LSR contacts rated less than 1ampere. The circuit is interrupted by the internal LSR contacts, so S1 and S2 need to "make" the low level circuit only.

To command the LSR to position 2, S1 is closed momentarily (100 milliseconds minimum). This completes a circuit to the rotary solenoid LSR and the device indexes to position 2 and latches. When this occurs, LSR/1 contact opens, interrupting the LSR solenoid circuit. The LSR solenoid resets itself and awaits the next command.

Latching Switch Relay Low Level Control Circuit using interposing relay (shown in position 1)

Direct Control Method

The command contacts (S1 and S2) close directly on the full LSR rotary solenoid coil current, so the burden data of this solenoid should be considered in the choice of these control contacts. The internal LSR contacts interrupt the solenoid current however, so S1 and S2 need to "make" the circuit only.

Latching Switch Relay Direct Control Circuit (shown in position 1)