

DESCRIPTION

The LM, LX, and LQ series provide reliable low-power switching for telecom and general purpose loads. The bifurcated contacts are a silver alloy with a gold cap so that loads from microamps to 2 Amps can be switched. Due to the highly efficient magnetic structure, a low coil power of 140 to 300 mW is needed to drive these relays. These relays also have UL and CSA listing at 2 Amps and meet FCC part 68 surge strength of 1500 Volts.

FEATURES

- Low coil power
- Wide switching range
- DPDT bifurcated contacts
- 2 Amp UL/CSA rating
- Sealed construction
- FCC Part 68 Compatible (1500V)

APPLICATIONS

- Telecom
- Security
- Signaling

AGENCY APPROVALS

- UL/CSA Recognized Approved

RATINGS (@ 25° C)

Parameter	Min	Typ	Max	Unit
Switching Voltage			220	Volts
Switching Current			2	Amps
Carry Current			2	Amps
Contact Rating			125	VA
Insulation Resistance			10^9	Ω

(See detailed specifications for more information.)

SPECIFICATIONS

All characteristics at 20°C.

PARAMETER	CONDITIONS	SYMBOL	LQ 2-Form-C 10 Pin DIP MIN	LQ TYP	LQ MAX	LM 2-Form-C 16 Pin DIP MIN	LM TYP	LM MAX	LX 2-Form-C 16 Pin DIP MIN	LX TYP	LX MAX	UNITS
Contact Ratings												
Switching Voltage	Max DC/PeakAC Resistive	V_L	-	-	220	-	-	150	-	-	220	Volts
	Max AC/RMS Resistive	V_L	-	-	250	-	-	125	-	-	250	Volts
Switching Current	Max DC	I_L	-	-	2	-	-	2	-	-	2	Amps
Carry Current	Max DC	I_C	-	-	2	-	-	2	-	-	2	Amps
Contact Rating	Max DC/PeakAC Resistive	-	-	-	30/62.5	-	-	30/60	-	60/125	-	w/VA
Life Expectancy	Mechanical	-	-	100	-	-	20	-	-	20	-	$x10^6$ Ops
	2A, 24 VDC	-	-	10	-	-	10	-	-	10	-	$x10^4$ Ops
	0.5A, 125 VAC	-	-	20	-	-	20	-	-	20	-	$x10^4$ Ops
	0.5A, 24 VDC	-	-	2	-	-	2	-	-	2	-	$x10^6$ Ops
Static Contact Resistance		CR	-		50		-	100	-	-	100	mΩ
Contact Material		-	-	Au	-	-	Au	-	Au	-	-	-
		-	-	Ag Alloy	-	-	AgPd	-	AgPd	-	-	-
Relay Specifications												
Insulation Resistance	Between all isolated pins at 100V, 25°C, 40% RH	IR	10^9	-	-	10^9	-	-	10^9	-	-	Ω
Capacitance	Across Open Contacts	-	-	0.5	-	-	0.9	-	-	1.5	-	pF
	Open Contact to Coil	-	-	1.0	-	-	1.9	-	-	1.7	-	pF
Dielectric Strength	Across Open Contacts	-	1000	-	-	500	-	-	1000	-	-	VAC
	Coil to Contacts	-	1000	-	-	1000	-	-	1500	-	-	VAC
	Adjacent Poles	-	1000	-	-	1000	-	-	1500	-	-	VAC
Operate Time, including bounce	At Nominal Coil Voltage 10Hz Square Wave	T_{OP}	-	-	6	-	-	10	-	-	7	ms
Release Time	Zener-Diode Suppression	T_{REL}	-	-	3	-	-	3	-	-	4	ms
Environmental Ratings												
Storage Temperature		T_A	-40	-	+85	-30	-	+80	-40	-	+80	°C
Operating Temperature		T_O	-40	-	+85	-30	-	+80	-40	-	+80	°C
Soldering Temperature	Applied to pins, 5 sec. max.	-	-	-	+260	-	-	+260	-	-	+260	°C
Vibration Resistance	10Hz - 55Hz	G	-	-	20	-	-	10	-	-	30	G
Shock Resistance	11±1ms, $^1/_2$ Sine Wave	S	-	-	50	-	-	50	-	-	50	G
Weight		-	-	1.2	-	-	5	-	-	3.7	-	grams

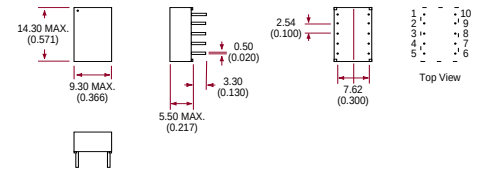
COIL SPECIFICATIONS

	Coil Voltage			Coil Resistance			Operate Voltage			Release Voltage		
Units	Volts			Ω			Volts			Volts		
Conditions				±10%, (25°C)			Must operate by (25°C)			Must release by (25°C)		
Part #	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**
LQ52A00		3		57.87	64.3	70.73			2.1	0.3		
LQ52B00		5		160.2	178	195.8			3.5	0.5		
LQ52C00		6		231.3	257	282.7			4.2	0.6		
LQ52D00		12		925.2	1028	1130.8			8.4	1.2		
LQ52E00		24		2592	2880	3168			16.8	2.4		
LQ52F00		48		6912	7680	8448			33.6	4.8		
LM44B00		5		150.3	167	183.7			3.6	0.25		
LM44D00		12		864	960	1056			8.5	0.6		
LM44E00		24		2592	2880	3168			16.8	1.2		
LM44F00		48		6912	7680	8448			32.6	2.4		
LX200B00		5		112.5	125	137.5			3.4	0.5		
LX200D00		12		648	720	792			8.1	1.2		
LX200E00		24		2592	2880	3168			16.1	2.4		
LX200F00		48		10368	11520	12672			32.2	4.8		

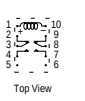
MECHANICAL DIMENSIONS

DIMENSIONS
mm
(inches)

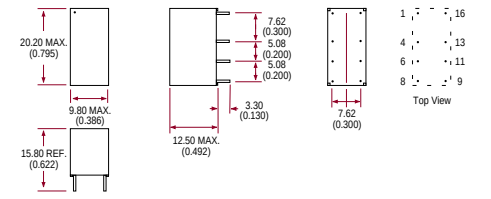
LQ 2-Form-C



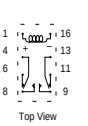
LQ 2C Pinout



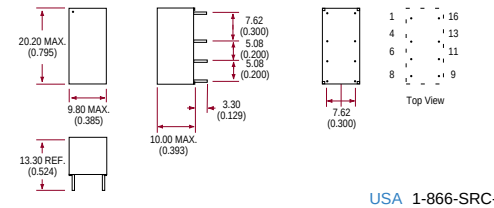
LM 2-Form-C



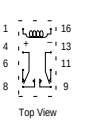
LM 2C Pinout



LX 2-Form-C



LX 2C Pinout



ORDERING INFORMATION

A complete part number is represented by the digits below.

LQ XX X XX

- Series
- Type
  - *52 = Standard single side stable*
  - *53 = Single coil latch*
  - *54 = Dual coil latch*
- Options
  - *00 = Standard*
- Coil Voltage
  - *A = 3V*
  - *B = 5V*
  - *C = 6V*
  - *D = 12V*
  - *E = 24V*
  - *F = 48V*

LM44 X XX

- Series
- Options
  - *00 = Standard*
- Coil Voltage
  - *B = 5V*
  - *D = 12V*
  - *E = 24V*
  - *F = 48V*

LX2 XX X XX

- Series
- Type
  - *00 = Standard single side stable*
  - *L0 = Dual coil latch*
- Options
  - *00 = Standard*
- Coil Voltage
  - *B = 5V*
  - *D = 12V*
  - *E = 24V*
  - *F = 48V*