



**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 <sup>9</sup>	Ω

(See detailed specifications for more information.)

**SPECIFICATIONS**

All characteristics at 20°C.

PARAMETER	CONDITIONS	SYMBOL	LQ			LM			LX			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
<b>Contact Ratings</b>												
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 <sup>6</sup> Ops
	2A, 24 VDC	-	-	10	-	-	10	-	-	10	-	x10 <sup>4</sup> Ops
	0.5A, 125 VAC	-	-	20	-	-	20	-	-	20	-	x10 <sup>4</sup> Ops
	0.5A, 24 VDC	-	-	2	-	-	2	-	-	2	-	x10 <sup>6</sup> Ops
Static Contact Resistance		CR	-	-	50	-	-	100	-	-	100	mΩ
Contact Material		-	-	Au	-	-	Au	-	-	Au	-	-
		-	-	Ag Alloy	-	-	AgPd	-	-	AgPd	-	-
<b>Relay Specifications</b>												
Insulation Resistance	Between all isolated pins at 100V, 25°C, 40% RH	IR	10 <sup>9</sup>	-	-	10 <sup>9</sup>	-	-	10 <sup>9</sup>	-	-	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
<b>Environmental Ratings</b>												
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

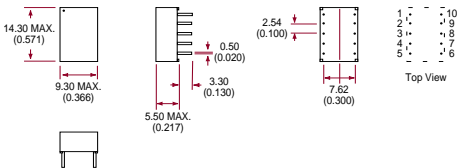
### COIL SPECIFICATIONS

Units	Coil Voltage			Coil Resistance			Operate Voltage			Release Voltage		
	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)

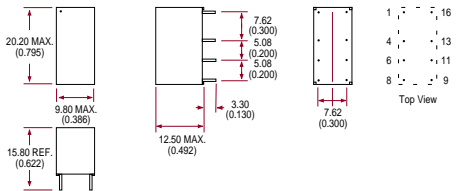
LQ 2-Form-C



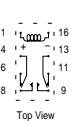
LQ 2C Pin-out



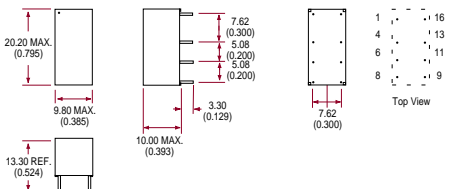
LM 2-Form-C



LM 2C Pin-out



LX 2-Form-C



LX 2C Pin-out



### ORDERING INFORMATION

A complete part number is represented by the digits below.

