



**PCB LAYOUT**

RoHS  
12mm Encoder  
Switch: S- with switch

**Order Information:**

L-KLS4-EK1207 S - B XX- XXX

Shaft type and Length Code

Pulse and Detent Code

- 6A: 12 Pulse with 12 Detents
- 6B: 12 Pulse without Detent
- 8A: 24 Pulse with 24 Detents
- 8B: 24 Pulse without Detent

**Electrical Characteristics**  
 Rated Power: DC5V 5mA Max.  
 Output signal: A \ B 2signals  
 Resolution: 12 Pulses 360° / 24 Pulses 360°  
 Phase difference: 0.08T Min.  
 Sliding noise: 3mS Max.  
 Contact Resistance: 1Ω Max.  
 Insulation resistance: 100MΩ Min. at DC 250V  
 Withstand voltage: AC300V / 1 min

**Mechanical**  
 Total rotation angle: 360°  
 Rotational Torque: 1kgf.cm Max  
 Click Torque: 20 ~150 gf.cm  
 Push-pull Strength of Shaft: 8.0kgf Min.  
 Number of Detents: 12 detents Step angle:30°±2°  
 24 detents Step angle:15°±2°  
 Without detents  
 Rotational Life: 30000±200 cycles per 100gf.cm Min.  
 Temp. Range: -30 ° C ~ + 85 ° C  
 Soldering: 250 ° C 5Sec. Max.

Shaft type

L	17.5	20	22.5	25	30	
F Shaft	F	5	7	7	12	10

T Shaft

L	15	17.5	20	22.5	25	30	
F	F	2.5	5	7	7	12	12

GENERAL TOLERANCE	ANGLE TOLERANCE	PROJECTION	Description:
X. ±0.50	X. ±5°	mm	12MM SMD Encoder
.X ±0.38	.X ±3°	A4	Plastic shaft with Switch
.XX ±0.25	.XX ±2°	KLS P/N:	KLS4-EK1207S-BXX-XXX

Draw by: Date	2015-09-01
Check by: Date	2015-09-15
SCALE	SHEET OF

**KLS ELECTRONIC CO., LTD.**