



PCB LAYOUT

Electrical Characteristics

Rated Power: DC5V 5mA Max.  
 Output signal: A \ B 2signals  
 Resolution: 15 Pulses 360°  
 20 Pulses 360°  
 9 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 / 1min

Mechanical

Total rotation angle: 360°  
 Rotational Torque: 20~200 gf.cm Max  
 Click Torque: 20~150 gf.cm  
 Push-pull Strength of Shaft: 8.0kgf Min.  
 Number of Detents: 30 detents Step angle:12°±2°  
 20 detents Step angle:18°±2°  
 18 detents Step angle:20°±2°  
 Without detents  
 Rotational Life: 30000±200 cycles per 100gf.cm Min.  
 Temp. Range: -30 °C ~ +80 °C  
 Soldering: 250 °C 3Sec. Max.

Order Information:

L-KLS4-EC1121 S - E XX- XX

RoHS  11mm Encoder  Switch: S- with switch  Bushing: 

<input checked="" type="checkbox"/>	E	F
D	5	7

 Shaft type and Length Code  
 Pulse and Detent Code  
 5A: 15 Pulse with 30 Detents  
 5B: 15 Pulse without Detent  
 4A: 20 Pulse with 20 Detents  
 4B: 20 Pulse without Detent  
 3A: 9 Pulse with 18 Detents  
 3B: 9 Pulse without Detents

Shaft type

		D=7				
L	15.5	16.9	18	20	20.5	
F	6	7	6	10	11	

		D=5			D=7	
L	14			15	16.5	20
F	6			5	7	10

		D=5					D=7			
L	11	11.5	12.5	13.5	14	16	13.7	16	17	18.5
F	4	3.5	4.5	6	6	5	4	5	5	5.5

		D=5					D=7							
L	12.5	13	13.5	14	15	15.5	14.5	15	16	17	18	19	20	22
F	4.5	5	5.5	6	6	7	4.5	5	6	6.5	7	7	10	12

GENERAL TOLERANCE	ANGLE TOLERANCE	PROJECTION		Description:
X. ±0.50	X. ±5°	UNITS	mm	11MM Encoder with Switch
.X ±0.38	.X ±3°	SHEET SIZE	A4	
.XX ±0.25	.XX ±2°	KLS P/N:		KLS4-EC1121S-EXX-XX
Draw by: Date	2017-09-01	KLS ELECTRONIC CO., LTD.		
Check by: Date	2017-09-05			
SCALE	SHEET	OF		