

PCB LAYOUT

Shaft type		D=7		D=5	
Q Shaft	L	15.5	16.9	18	20
	F	6	7	6	10
					11
AB Shaft	L	14		15	16.5
	F	6		5	7

Shaft type		D=5		D=7	
T Shaft	L	11	11.5	12.5	13.5
	F	4	3.5	4.5	6
					6
AB Shaft	L	14		14	16
	F	6		6	5

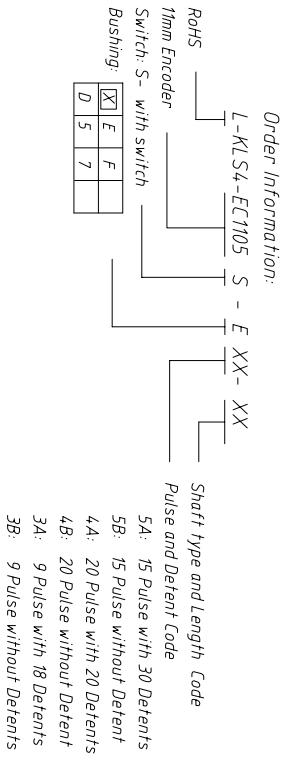
Shaft type		D=5		D=7	
F Shaft	L	12.5	13	13.5	14
	F	4.5	5	5.5	6
					6

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.



GENERAL TOLERANCE	ANGLE TOLERANCE	PROJECTION	Description:
X: ±0.50	X: ±5°	mm	11MM SMD Encoder with Switch
.X: ±0.38	.X: ±3°	A4	
.XX: ±0.25	.XX: ±2°		

Draw by: Date	2017-09-01	KLS P/N:	KLS4-EC1105S-EXX-XX
Check by: Date	2017-09-05		
SCALE		SHEET	OF

KLS ELECTRONIC CO., LTD.