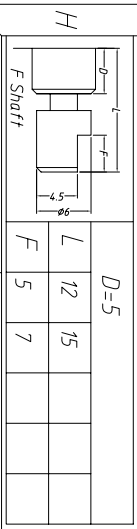
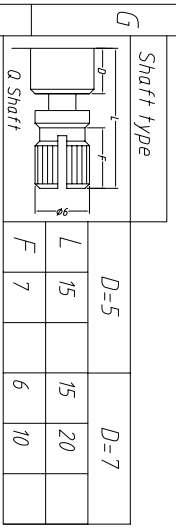
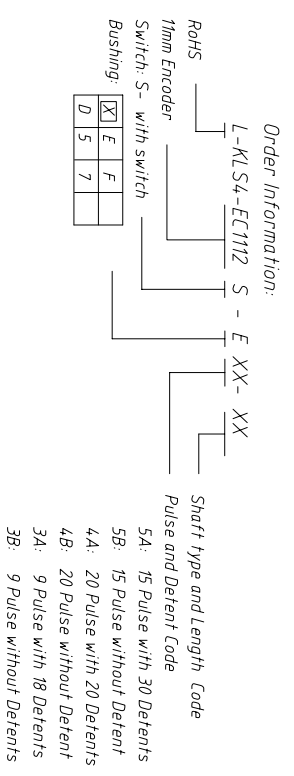


PCB LAYOUT

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.



GENERAL TOLERANCE	ANGLE TOLERANCE	PROJECTION	Description:
X: ±0.50	X: ±5°	UNIT/mm	11MM R/A Encoder with Switch
.X: ±0.38	X: ±3°	SHEET SIZE/A4	
.XX: ±0.25	.XX: ±2°	KLS P/N	KLS4-EC1112S-EXX-XX

Draw by: Date	2017-09-01
Check by: Date	2017-09-05
SCALE	SHEET OF

KLS ELECTRONIC CO., LTD.