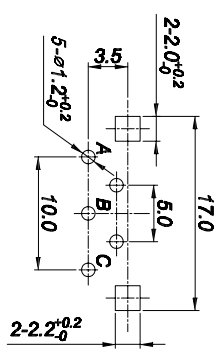
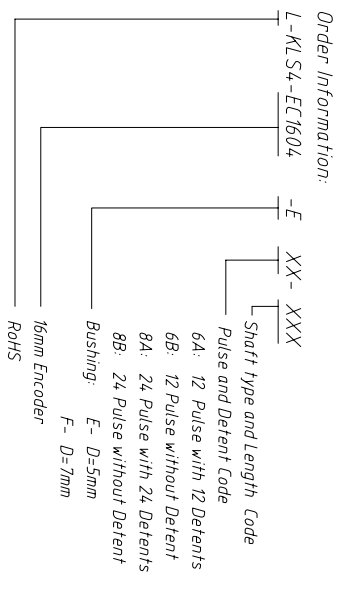
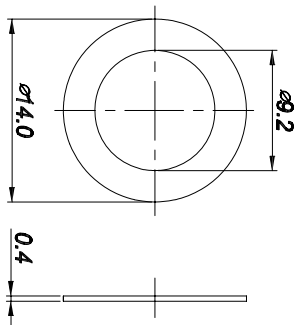
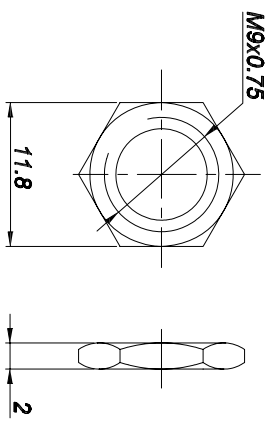


**Electrical Characteristics**  
 Rated Power: DCSV 5mA Max.  
 Output signal: A \ B 2signals  
 Resolution: 12 Pulses 360°  
 24 Pulses 360°  
 Sliding noise: 3mS Max.  
 Contact Resistance: 1 Ω Max.  
 Insulation resistance: 100MΩ Min. at DC 250V  
 Withstand voltage: AC50V / 1 min

**Mechanical**  
 Total rotation angle: 360°  
 Detents Torque: 30~200 gf.cm  
 Number of Detents: 12 detents Step angle:30°±2°  
 24 detents Step angle:15°±2°  
 Rotational Life: 30000±200 cycles per 100gf.cm Min.  
 Temp. Range: -10 ° C ~ + 70 ° C  
 Soldering: 235 ° C 5Sec. Max.



PCB LAYOUT



Shaft type

L	15	18.5	19	20	22.5	25
F	7	11.5	12	12	12	12

F Shaft

L	15	18.5	19	20	22.5	25
F	7	11.5	12	12	12	12

T Shaft

L	15	20	25
F	7	12	12

GENERAL TOLERANCE	ANGLE TOLERANCE	PROJECTION	Description:
X. ±0.50	X. ±5°	mm	16mm Encoder R/A with switch
.X ±0.38	.X ±3°	A4	
.XX ±0.25	.XX ±2°	KLS P/N:	KLS4-EC1604-EXX-XXX

Draw by: Date	2015-09-01	
Check by: Date	2015-09-15	
SCALE	SHEET	OF
KLS ELECTRONIC CO., LTD.		