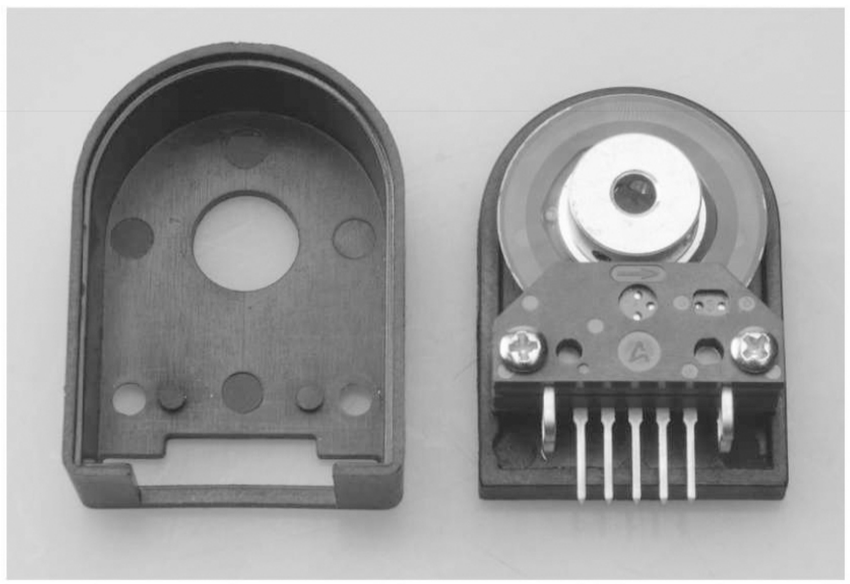


◆ Feature

HKT30-301 is a 2 or 3-channel low cost optical hollow shaft encoder which can be fixed easily on shafts of motors. HKT30-301 has 2 or 3 square-wave outputs which are 90-degree phase shifted for counting and direction information and one optional index channel.

◆ Specifications

Electrical Specifications

Output Wave	Square Wave
Current Consumption	≤60mA
Output Current	0~5mA
Response Frequency	0~100KHz
Output Phase Difference	90° ± 45°
Signal Level	$V_H \geq 85\% V_{CC}$, $V_L \leq 0.3V$

Mechanical Specifications

Rotor Inertia Of Code-wheel	$6.0 \times 10^{-8} Kgm^2$
Shock Resistance	$980 m/s^2$, 6ms, 2 times each on XYZ
Vibration Proof	$50 m/s^2$, 10~200Hz, 2 hours each on XYZ
Working Life	MTBF≥50000h (+25℃, 2000rpm)
Weight	10g

Environmental Specifications

Working Humidity	30~85% (no condensation)
Working Temperature	-25℃~85℃
Storage Temperature	-40℃~85℃
Weld Temperature	≤260℃

◆ Connection Table

Voltage Output	0V	Z	A	Vcc	B			
Flat Cable (from the colored end)	1	2	3	4	5			
Shield Cable (core color)	Black	Yellow	Green	Red	White			
Line Driver Output	0V	Vcc	A	A/	B/	B	Z	Z/
Flat Cable (from the colored end)	1	2	3	4	5	6	7	8
Shield Cable (core color)	Black	Red	Green	Brown	Grey	White	Yellow	Orange

◆ Ordering Information

HKT30 XX – XXX XX – XXX XX – 5 X

Series

HKT30 Series	

Bore Size

Φ4mm	04
Φ5mm	05
Φ6mm	06
Φ6.35mm(1/4")	06.35
Φ8mm	08

plasticcode-wheel+ W module	301
metal code-wheel + W module	201
plasticcode-wheel+ W module+ ear-like Mountingboard	308
metal code-wheel + W module+ ear-like Mountingboard	208

Connector

Pin-Connection	C
Plug(on PCB)+Flat Cable	C1
Shield Cable	G

Output Circuit

E	Voltage
L	Line Driver

Supply Voltage

5	5V DC

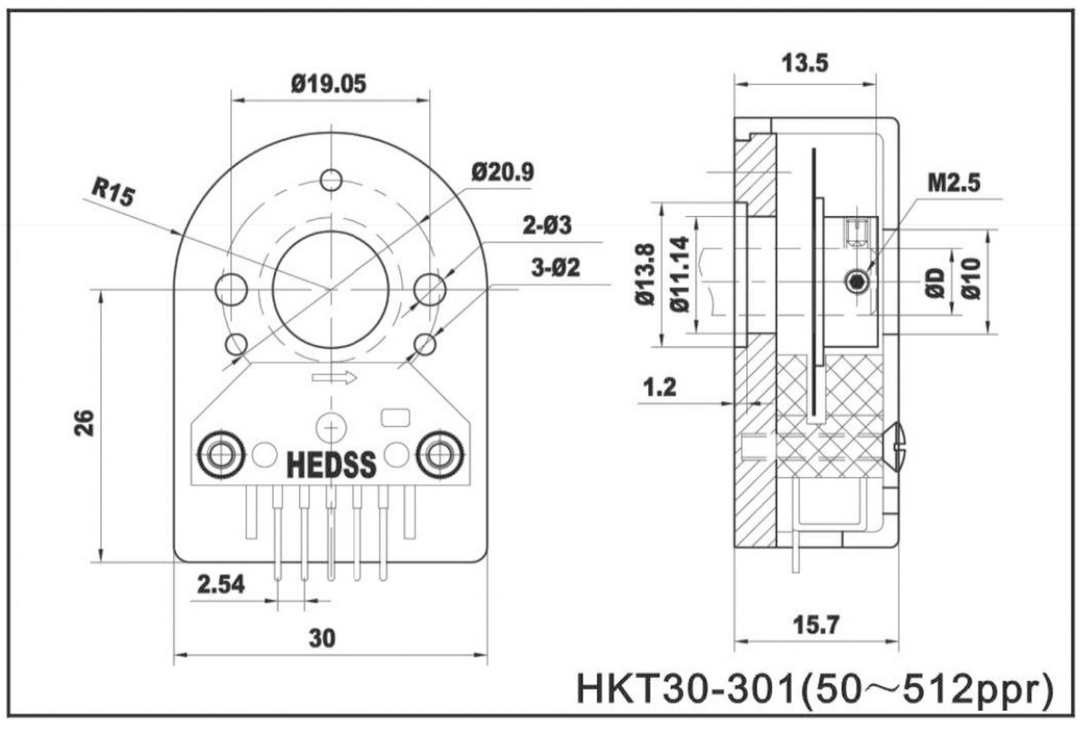
Outputs

B	2-Channel outputs
BZ3	3-Channel outputs

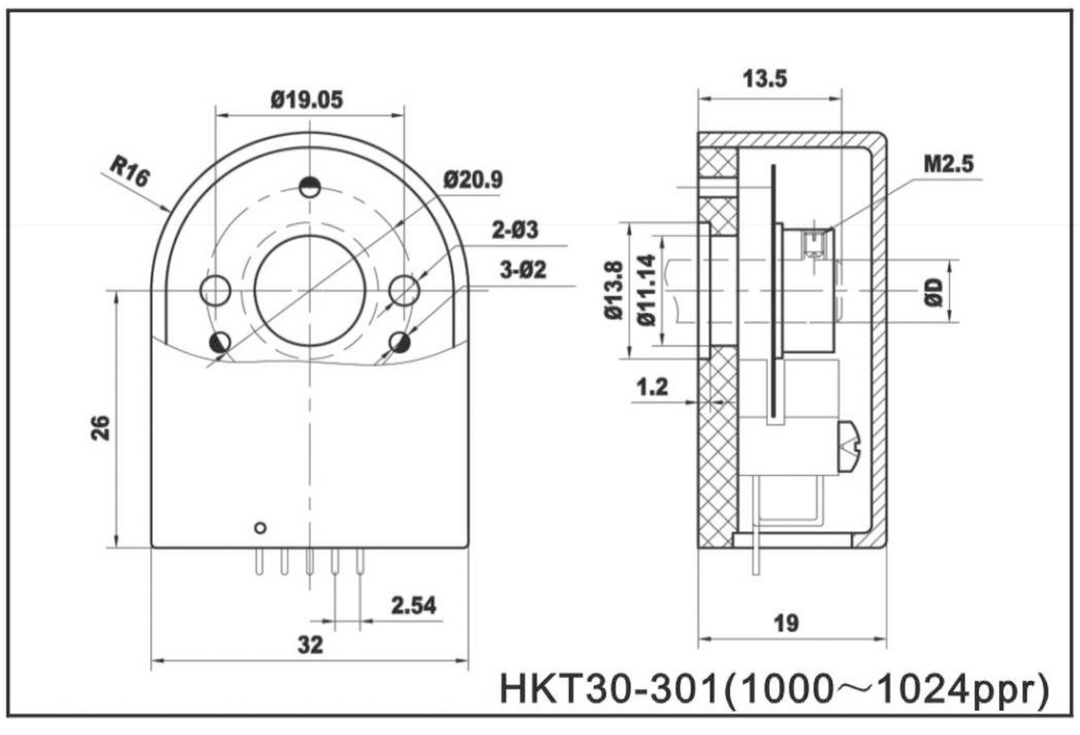
Resolution Number

50, 100, 120, 200, 256, 360, 400, 500, 512, 1000, 1024

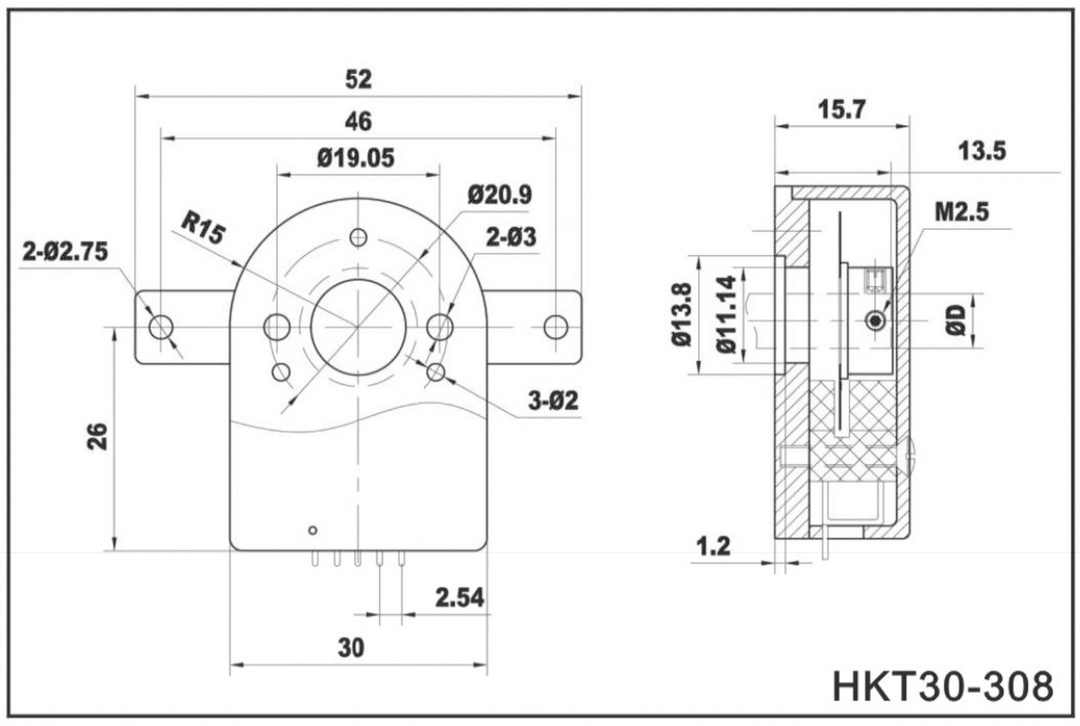
◆ Dimension Diagram



HKT30-301(50～512ppr)



HKT30-301(1000～1024ppr)



HKT30-308