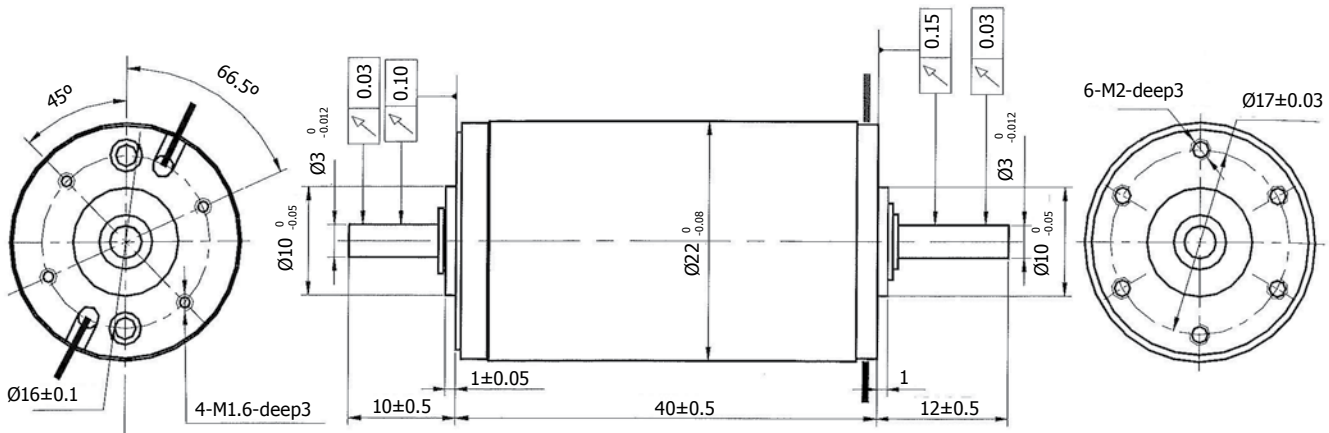


Standard Features:

- High efficiency
- High speed capability
- Less cogging
- Low inertia
- Low mechanical time constant
- Low mass
- Rapid acceleration and deceleration
- Reduced torque ripple or cogging
- Smooth low speed operation
- True linear torque

Custom Features:

- Stainless Steel Case
- Low Backlash Gearheads
- Precious Metal Commutation
- Custom bolt pattern
- Special connectors
- Planetary or Spur Gearing
- Custom speeds and/or torque windings
- Custom front or rear shaft



Electrical Data

Model Number		2240042	2240087	2240122	2240109	2240297	2240481
Watts	W	3.42	6.46	6.17	27.5	4.35	6.05
Voltage	V	6	9	12	24	24	36
NL Speed	rpm	13000	9900	9000	20000	7800	7150
NL Current	A	0.18	0.07	0.1	0.12	0.06	0.02
Nominal Speed	rpm	11100	6300	6000	17950	5300	4400
Nominal Torque	g.cm	30	100	100	150	80	134
Nominal Current	A	0.9	1.25	0.95	1.7	0.35	0.3
Stall Torque	g.cm	220	290	310	1178	290	370
Starting Current	A	5.3	3.25	2.49	10.5	0.95	0.77
Max Efficiency	%	67	72	64	79	60	70
Terminal Resistance	Ohm	1.1	2.77	4.81	2.29	24.5	47
Torque Constant	mNm/A	4.2	8.77	12.22	10.98	29.7	48.1
Speed Constant	V/1Krpm	0.44	0.92	1.28	1.15	3.12	5.5
Max Power at Nominal Voltage	w	7.3	7.3	7.15	60	5.8	6.78

Mechanical Data

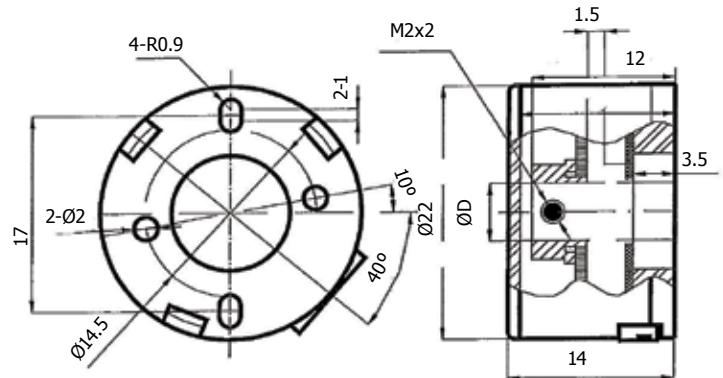
Diameter	mm	22
Length	mm	40±0.5
Shaft Play (Axial)	mm	0~0.2
Ball Bearing Load Max	radial (dynamic)	N
	axial (5mm from flange)	N
	press fit force, max (static)	N
Shaft Play (On Ball Bearing Output), (Radial)	mm	0.025
Operating Temperature Range	°C	-25~+100
Relative Humidity Range	25°C	90%
Rotor Operating Temperature, Max Permissible	°C	150

* Other standard voltages not shown - consult factory * Custom voltages available * Ratings measured with standard heat sink

ACCESSORIES

ECVK22 ENCODER DATA

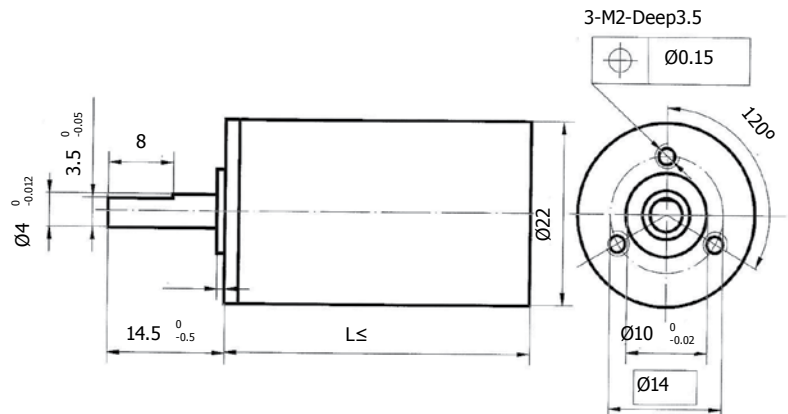
Output wave	Square wave
Output signals	A, B phase
Output current	2-12mA
Response Frequency	0~30KHz
Output phase difference	90°±45°
Supply voltage	up to 7V DC
Current consumption	≤35mA
Number of pulses	100, 120, 200, 250, 256, 300
Working temperature	-40 ~ 85°C
Protection class	IP50
150mm Cable Included	



GAVK22 GEARHEAD DATA

GEARHEAD RATIOS

Stage Ratios	Length (mm)			
1 3.57:1 4.6:1	18.8			
2 12.5:1 16.1:1 21.85:1	22.6			
3 56.35:1 76.48:1 103.79:1	26.4			
4 153.13:1 267.66:1 363.26:1 492.99:1	30.2			
5 936.82:1 2341.71:1	34			



Stage	Length	Continuous Torque	Intermittent Torque	Efficiency	Backlash
	mm	Nm	Nm	%	°
1	18.8	0.5	0.8	90	≤0.8
2	22.6	0.5	0.8	81	≤1.2
3	26.4	0.7	1	73	≤1.5
4	30.2	1	1.5	65	≤1.5
5	34	1	1.5	59	≤1.8

Shaftload, max:(radial)	≤70N
Shaftload, max:(axial)	≤8N
Shaft press fit force, max	≤100N
Shaft play (on bearing output),(radial)	≤0.06mm
Shaft play (on bearing output),(axial)	≤0.1mm
Operating Temperature range	-30 ~ +105°C
Planetary Construction	