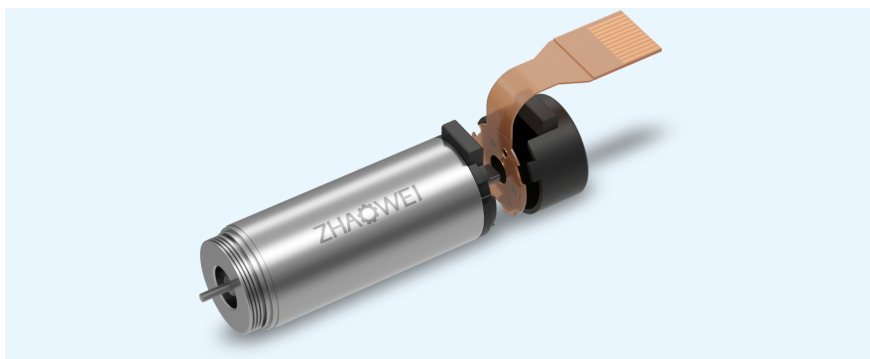


MC1028-01

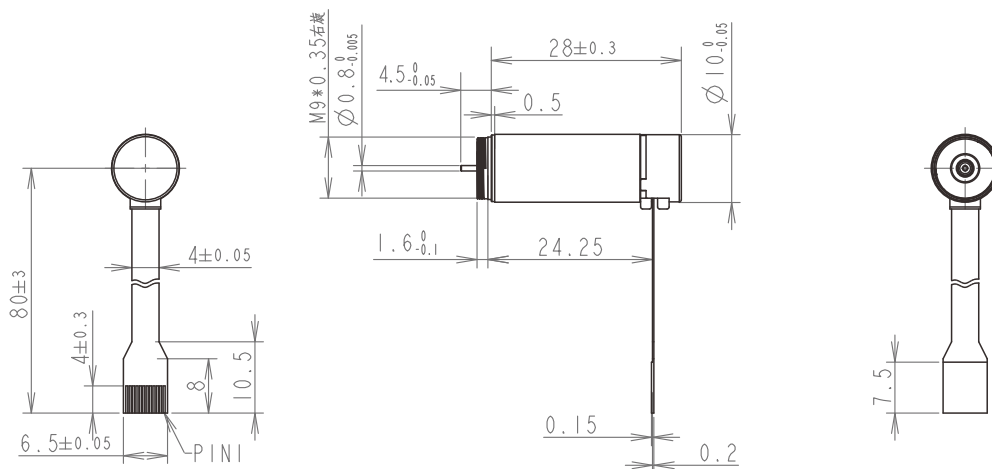
Φ10mm Brushless coreless motor

Main parameters

- Two-magnetic pole
- 8.7W
- 26500rpm
- 1.5mNm



Technical illustration



Motor data (Rated value)

Rated voltage	V	12
Air -load speed	rpm	33000±10%
No-load current	A	80±50%
Rated speed	rpm	26500±10%
The rated torque	mNm	1.5
Rated current	A	0.7±50%
Blocking torque	mNm	9±7%
Blocking current	A	2.75±20%
Maximum efficiency	%	71±7%

Motor constants (Rated value)

Phase terminal resistance	Ω	4.75±10%
Phase terminal inductance	mH	0.026±10%
Torque constant	mNm/A	3.37±20%
Speed constant	rpm/V	3747±20%
Speed/torque gradient	rpm/mNm	3667±20%
Mechanical time constant	ms	3.56±20%
Rotor inertia	gcm ²	0.092±20%

Thermal parameter

Case-Environmental thermal resistance	K/W	42.6
Wind-Case thermal resistance	K/W	7.2
Winding time constant	s	4.2
Motor heat time constant	s	156
Environmental temperature	°C	-20~+100
Maximum winding temperature	°C	125

Mechanical parameter (Pearl bearing)

Maximum speed (rpm)	40 000
Axial gap under axial load (mm)	< 0.15 N 0 > 0.15 N 0.06 (max)
Radial gap	preloaded
Maximum axial dynamic load (N)	2
Maximum allowable installation power (N)	10
Maximum radial load (2mm from Flange) (N)	5

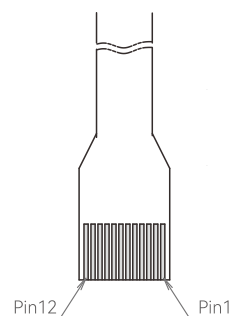
Note: Can be customized according to customer requirements

Pin model

Molex 52745-1297

Note: Can be customized according to customer requirements

Pin definition



- pin 1 motor winding 3
- pin 2 motor winding 2
- pin 3 motor winding 1
- pin 4 grounded
- pin 5 VHall (3.3-24 VDC)
- pin 6 Hall sensor 3
- pin 7 Hall sensor 2
- pin 8 Hall sensor 1
- pin 9 invalid
- pin 10 invalid
- pin 11 invalid
- pin 12 invalid