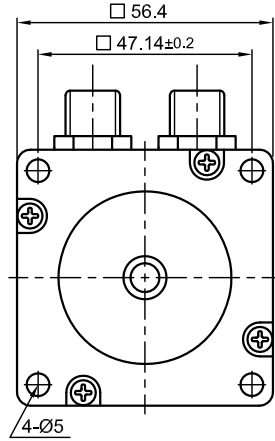
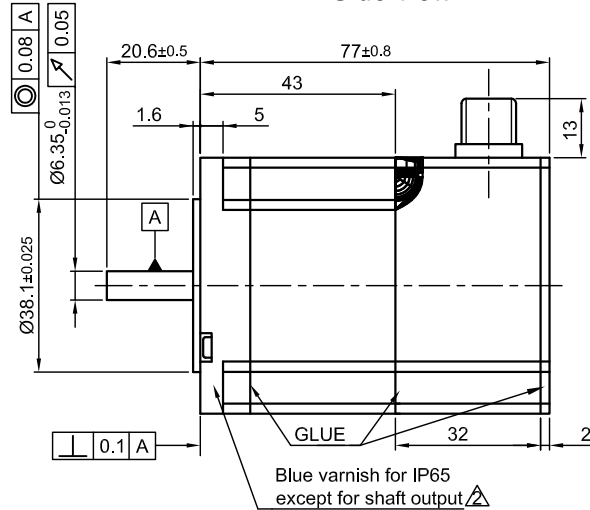


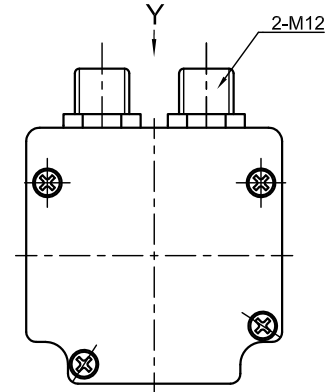
Front view and mounting



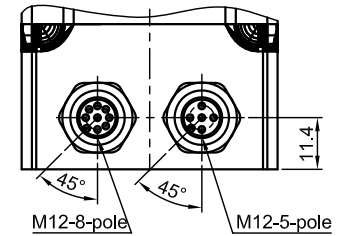
Side view



Rear view



Y view

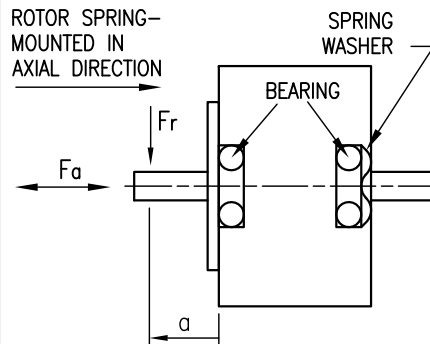


| SPECIFICATION | CONNECTION | BIPOLAR PARALLEL |
|--|------------|------------------------------|
| VOLTAGE (VDC) | | 2.4 |
| AMPS/PHASE | | 2.82 |
| RESISTANCE/PHASE (Ohms)@25°C | | 0.85±10% |
| INDUCTANCE/PHASE (mH) @1KHz | | 3.6±20% |
| HOLDING TORQUE (Nm) [lb-in] | | 1.05 [9.29] |
| DETENT TORQUE (Nm) [lb-in] | | 0.04 [0.354] |
| STEP ANGLE (°) ± ACCURACY | | 1.8±5% (NON-ACCUM) |
| BACK-EMF (V) (300 U/min) | | 19.5 |
| ROTOR INERTIA (Kg-m ²) [lb-in ²] | | 3.0x10 ⁻⁵ [0.102] |
| WEIGHT (Kg) [lb] | | 0.85 [1.88] |

FULL STEP 2 PHASE-Ex.,
WHEN FACING MOUNTING END (X)

| STEP | A | B | A\ | B\ | CCW | CW |
|------|---|---|----|----|-----|----|
| 1 | + | + | - | - | ↑ | ↓ |
| 2 | - | + | + | - | ↓ | ↑ |
| 3 | - | - | + | + | ↑ | ↓ |
| 4 | + | - | - | + | ↓ | ↑ |

PERMISSIBLE RADIAL+AXIAL FORCE



| M12-5 pole Motor | |
|------------------|------------|
| PIN. NO. | ASSIGNMENT |
| 1 | A\ |
| 2 | A |
| 3 | B |
| 4 | B\ |
| 5 | HOUSING |

| M12-8 pole Encoder | |
|--------------------|---------------|
| PIN. NO. | ASSIGNMENT |
| 1 | A |
| 2 | A\ |
| 3 | B |
| 4 | B\ |
| 5 | GND |
| 6 | I |
| 7 | I\ |
| 8 | Vcc (5V) |
| HOUSING | GND/SHIELDING |

| TEMPERATURE RISE: MAX.80°C (MOTOR STANDSTILL; FOR 2 PHASE ENERGIZED) | AXIAL-FORCE Fa (N) | Fa=15 | | | |
|--|---------------------|-------|-------|--------|----|
| AMBIENT TEMPERATURE -10~ 50°C [14°F ~ 122°F] | DISTANCE a (mm) | 5 | 10 | 15 | 20 |
| INSULATION RESISTANCE 100 MOhm (UNDER NORMAL TEMPERATURE AND HUMIDITY) | RADIAL-FORCE Fr (N) | 130 | 90 | 70 | 52 |
| INSULATION CLASS B 130° [266°F] | | | AXIAL | RADIAL | |
| DIELECTRIC STRENGTH 500VAC FOR 1 MIN. (BETWEEN THE MOTOR COILS AND THE MOTOR CASE) | SHAFT PLAY (mm) | | 0.08 | 0.02 | |
| AMBIENT HUMIDITY MAX. 85% (NO CONDENSATION) | AT LOAD MAX: (N) | | 4.5 | 4.5 | |

CABLE MOTOR:
ZK-M12-5-2m(5m)
STRAIGHT OR 90° ANGELED

CABLE ENCODER:
ZK-M12-8-2m(5m)
STRAIGHT OR 90° ANGELED

| | | | | | | | | | |
|-----|--------------------------|----------|------|------------------------------------|------------|-----------|--------------|----------|---|
| 2 | RESTRICTION SUPPLEMENTED | 17.02.10 | J.W. | Nanotec PLUG & DRIVE | SCALE FREE | APVD | <i>S.Ha.</i> | 09.11.09 | STEPPER MOTOR IN PROTECTION DWG.NO AS5918M2804-E |
| 1 | ENCODER TYPE DELETE | 15.12.09 | J.W. | | X ±0.5 | CHKD | | | |
| REV | DESCRIPTION | DATE | APVD | AS5918M2804-E | 1PL ±0.2 | DRN | <i>J.W.</i> | 09.11.09 | |
| | | | | | 2PL ±0.1 | SIGNATURE | | DATE | |
| | | | | | ANGLE ±30' | | | | |