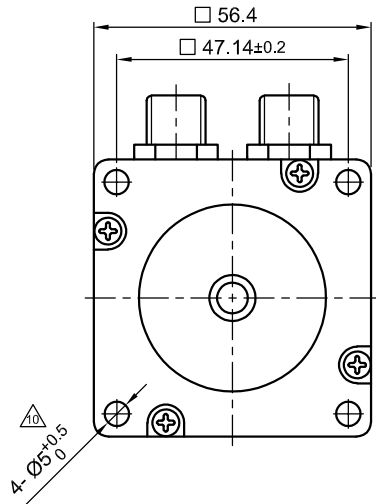
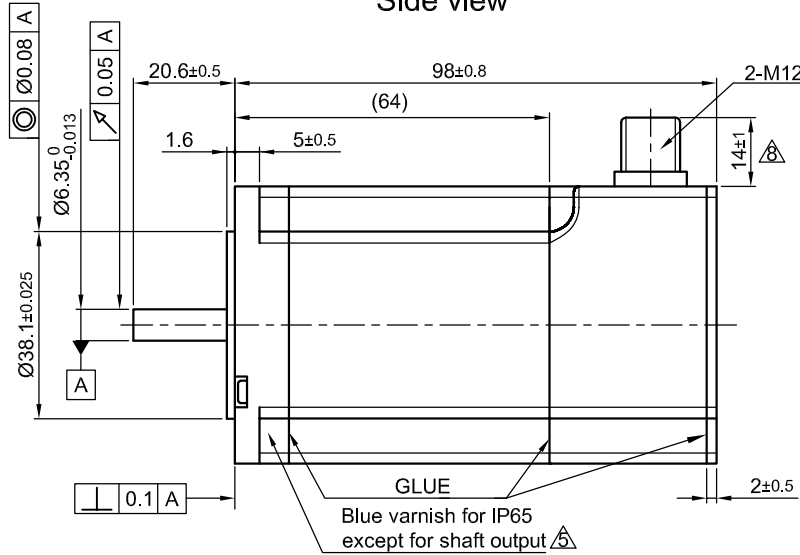


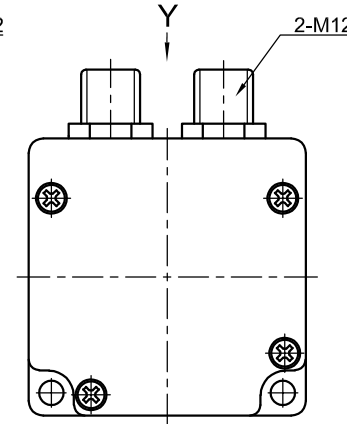
Front view and mounting



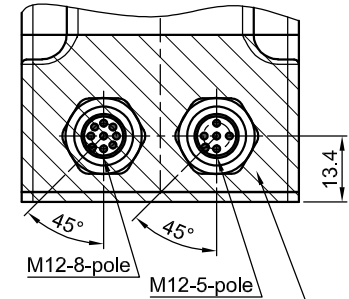
Side view



Rear view



Y view



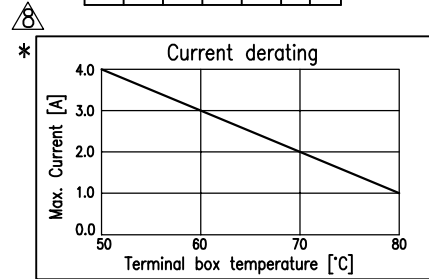
* Temperature on marked area must not exceed 80°C. From 50°C to 80°C follow derating curve.

| SPECIFICATION | CONNECTION | BIPOLAR PARALLEL |
|--|------------|------------------------------|
| VOLTAGE (VDC) | | 2.4 |
| AMPS/PHASE | | 4.2 * |
| RESISTANCE/PHASE (Ohms)@25°C | | 0.58±15% |
| INDUCTANCE/PHASE (mH) @1KHz | | 1.9±20% |
| HOLDING TORQUE (Nm) [lb-in] | | 1.87 [16.55] |
| STEP ANGLE (°) | | 1.8±5% |
| STEP ACCURACY (NON-ACCUM) | | ±5% |
| ROTOR INERTIA (Kg-m ²) [lb-in ²] | | 4.8x10 ⁻⁵ [0.164] |
| WEIGHT (Kg) [lb] | | 1.14 [2.51] |

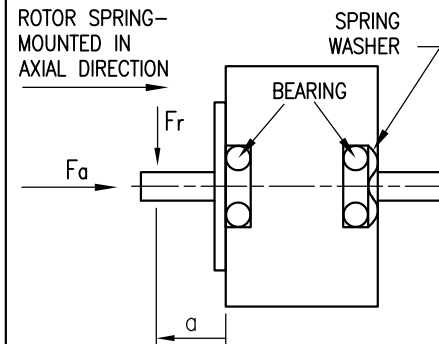
FULL STEP 2 PHASE-Ex., WHEN FACING MOUNTING END (X)

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

CW



PERMISSIBLE RADIAL+AXIAL FORCE



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

| |
|--|
| TEMPERATURE RISE: MAX.80°C (MOTOR STANDSTILL; FOR 2 PHASE ENERGIZED) * |
| AMBIENT TEMPERATURE -10~ 50°C [14°F ~ 122°F] * |
| INSULATION RESISTANCE 100 Mohm (UNDER NORMAL TEMPERATURE AND HUMIDITY) |
| INSULATION CLASS B 130' [266°F] |
| DIELECTRIC STRENGTH 500VAC FOR 1 MIN. (BETWEEN THE MOTOR COILS AND THE MOTOR CASE) |
| AMBIENT HUMIDITY MAX. 85% (NO CONDENSATION) |

| | |
|---------------------|--------------------|
| AXIAL-FORCE Fa (N) | Fr=15 |
| DISTANCE a (mm) | 5 10 15 20 |
| RADIAL-FORCE Fr (N) | 130 90 70 52 |
| | AXIAL RADIAL |
| SHAFT PLAY (mm) | 0.08 0.02 |
| AT LOAD MAX: (N) | 4.5 4.5 |

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

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

| | | | | | | | | | |
|-----|--|----------|------|---------------------------------------|--|----------------------------------|-----------|------------------------------------|-------------------------|
| 10 | updt. resist./volt./tol.; del. det. torq | 13.07.17 | A.S. | Nanotec PLUG & DRIVE | APVD | S.Ha. | 12.12.08 | STEPPER MOTOR IN PROTECTION | |
| 9 | change holding torque | 17.08.16 | A.S. | | CHKD | | | | |
| 8 | warning notice/ rework draw | 31.03.16 | A.S. | | DRN | J.W. | 12.12.08 | | |
| REV | DESCRIPTION | DATE | DRN | Surface specification DIN ISO 1302 | General tolerances DIN ISO 2768- ch | Work piece edge DIN ISO 13715 | SIGNATURE | DATE | DWG.NO AS5918L4204-E |