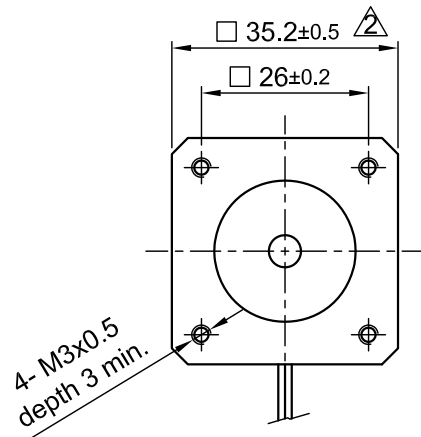
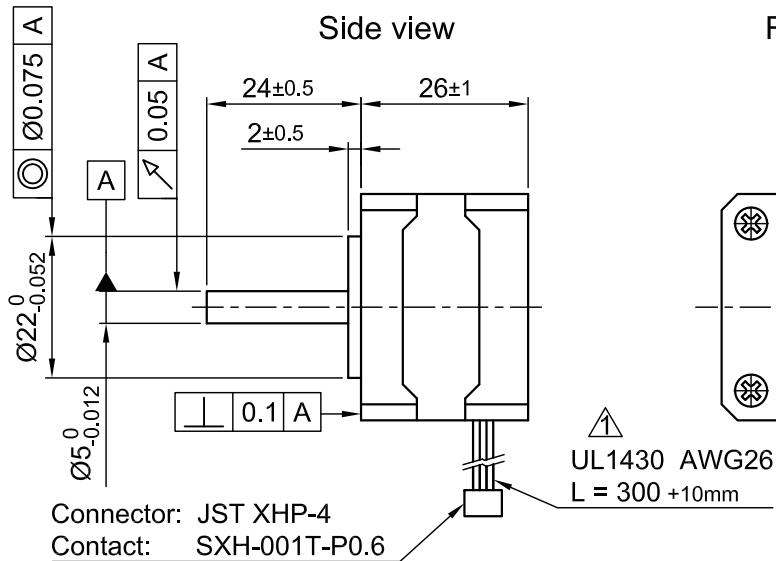


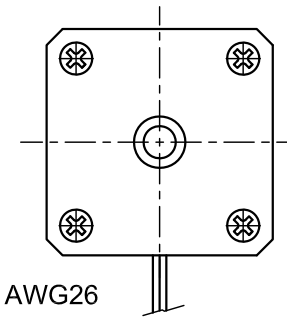
Front view and mounting



Side view



Rear view



| SPECIFICATION  | CONNECTION | BIPOLAR                       |
|--|------------|-------------------------------|
| VOLTAGE (VDC)  |            | 3.2                           |
| AMPS/PHASE   |            | 0.8                           |
| RESISTANCE/PHASE (Ohms)@25°C   |            | 4.0±15%                       |
| INDUCTANCE/PHASE (mH) @1KHz  |            | 2.3±20%                       |
| HOLDING TORQUE (Nm) [lb-in]  |            | 0.051 [0.451]                 |
| DETENT TORQUE (Nm) [lb-in]   |            | 2.55x10 <sup>-3</sup> [0.023] |
| STEP ANGLE (°)   |            | 1.8                           |
| STEP ACCURACY (NON-ACCUM)  |            | ±5%                           |
| ROTOR INERTIA (Kg-m <sup>2</sup> ) [lb-in <sup>2</sup> ]                           |            | 1.0x10 <sup>-6</sup> [0.0034] |
| WEIGHT (Kg) [lb]   |            | 0.15 [0.331]                  |
| 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)  |            |                               |

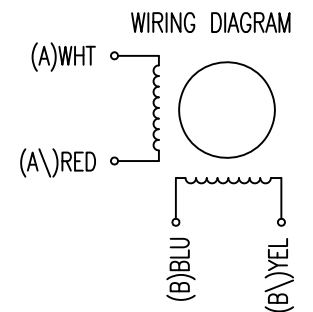
PERMISSIBLE RADIAL+AXIAL FORCE

| AXIAL-FORCE Fa (N)  | Fa=10 |        |    |    |
|---------------------|-------|--------|----|----|
| DISTANCE a (mm)     | 5     | 10     | 15 | 20 |
| RADIAL-FORCE Fr (N) | 58    | 36     | 26 | 20 |
|                     | AXIAL | RADIAL |    |    |
| SHAFT PLAY (mm)     | 0.08  | 0.02   |    |    |
| AT LOAD MAX: (N)    | 4.5   | 4.5    |    |    |

| TYPE OF CONNECTION (EXTERN) | MOTOR   |                   |       |         |
|-----------------------------|---------|-------------------|-------|---------|
|                             | BIPOLAR | CONNECTOR PIN NO. | LEADS | WINDING |
| A —                         | 1       | WHT               | A     |         |
| A\ —                        | 2       | RED               | A\    |         |
| B —                         | 3       | BLU               | B     |         |
| B\ —                        | 4       | YEL               | B\    |         |

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

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



|     |                |          |      |   |                  |               |                       |                    |                 |  |
|-----|----------------|----------|------|---|------------------|---------------|-----------------------|--------------------|-----------------|--|
| 2   | revise drawing | 21.09.16 | A.S. | <br><b>Nanotec</b> <sup>®</sup><br>PLUG & DRIVE |                  |               | APVD                  | S.Ha.              | 08.12.08        | <b>STEPPING MOTOR</b><br>DWG.NO<br>ST3518S0804-A |
| 1   | UL NO.         | 05.03.09 | J.W. |   |                  |               | Surface specification | General tolerances | Work piece edge |  |
| REV | DESCRIPTION    | DATE     | DRN  | DIN ISO 1302                                    | DIN ISO 2768- cH | DIN ISO 13715 | SIGNATURE             |                    | DATE            |  |