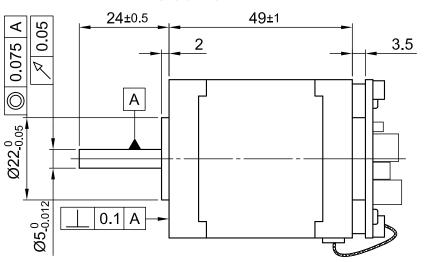
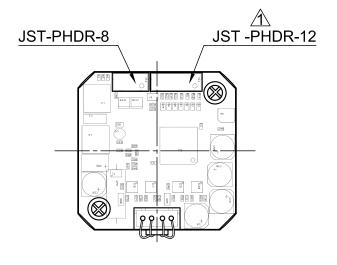


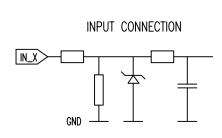
## Side view



## Rear view



| CONNECTION SPECIFICATION    | BIPOLAR                        |
|-----------------------------|--------------------------------|
| SUPPLY VOLTAGE (VDC)        | 12 TO 24                       |
| RATED CURRENT MOTOR (A)     | 1.8                            |
| PEAK ALLOWED CURRENT (A)    | 2.34 MAX.                      |
| HOLDING TORQUE (Nm) [lb-in] | 0.5 [4.425]                    |
| DETENT TORQUE (Nm) [lb-in]  | 1.37x10 <sup>-2</sup> [0.1212] |
| STEP ANGLE (*) ± ACCURACY   | *1.8 TO MICROSTEP              |
| WEIGHT (Kg) [Ib]            | 0.39 [0.86]                    |



| JST-PHDR-8 |             |  |  |  |
|------------|-------------|--|--|--|
| PIN No.    | Function    |  |  |  |
| 1          | GND         |  |  |  |
| 2          | GND         |  |  |  |
| 3          | Rx-         |  |  |  |
| 4          | Rx+         |  |  |  |
| 5          | Tx-         |  |  |  |
| 6          | Tx+         |  |  |  |
| 7          | GND         |  |  |  |
| 8          | UB 12-24 VD |  |  |  |
|            |             |  |  |  |

| JST-PHDR-12/↑ |           |  |
|---------------|-----------|--|
| PIN No.       | Function  |  |
| 1             | GND       |  |
| 2             | Input 1   |  |
| 3             | Input 2   |  |
| 4             | Input 3   |  |
| 5             | Input 4   |  |
| 6             | Input 5   |  |
| 7             | Input 6   |  |
| 8             | Analog In |  |
| 9             | Output 1  |  |
| 10            | Output 2  |  |
| 11            | Output 3  |  |
| 12            | GND       |  |
|               |           |  |

## \*ADJUSTABLE WITH NANOPRO.

| OVERTEMPERATURE PROTECTION(ELECTRONICS): 80°                                       | AXIAL-FORCE Fa (N)  |            | Fa=7 |      |     |
|--|---------------------|------------|------|------|-----|
| AMBIENT TEMPERATURE 0 ∼ 40°C   | DISTANCE a (mm)     | 5          | 10   | 15   | 20  |
| INSULATION RESISTANCE 100 MOhm (UNDER NORMAL TEMPERATURE AND HUMIDITY)             | RADIAL-FORCE Fr (N) | 58         | 36   | 26   | 20  |
| INSULATION CLASS B 130° [266°F]  |                     | AXI        | AL   | RAD  | IAL |
| DIELECTRIC STRENGTH 500VAC FOR 1 MIN. (BETWEEN THE MOTOR COILS AND THE MOTOR CASE) | SHAFT PLAY (mm)     | m) 0.08 0. |      | 0.02 | 2   |
| AMBIENT HUMIDITY MAX. 85% (NO CONDENSATION)  | AT LOAD MAX: (N)    | ) 4.5 4.5  |      | ·    |     |

| FULL | STEP  | 2 PI | HASE—E | Ξx.,   |       |
|------|-------|------|--------|--------|-------|
| WHEN | FACIN | IG M | OUNTIN | IG ENE | ) (X) |

| STEP A B A\ B\ CO           |   |
|-----------------------------|---|
| SIEF A   D   A\   B\     CC | W |
| 1 + +                       | ١ |
| 2 - + + -                   |   |
| 3 + + +                     |   |
| 4 + + CW                    |   |

| (A)DDN  | WIRING DIAG | RAM        |
|---------|-------------|------------|
| (A)BRN  |             |            |
| (A\)ORG |             | )          |
|         | L           | $\tilde{}$ |
|         | B)RED       | )/YEL      |
|         | _           | ш          |

| 1   | TYPE OF CONNECTOR+WEIGHT | 16.01.11 | J.W. |
|-----|--------------------------|----------|------|
| REV | DESCRIPTION              | DATE     | APVD |

| <b>Nanotec</b> |
|----------------|
| PLUG & DRIVE   |

| SCALE      | FREE         | APVD | S.H.  | 06.09.10 |
|------------|--------------|------|-------|----------|
| Х          | ±0.5         | CHKD |       |          |
| 1PL<br>2Pl | ±0.2<br>±0.1 | DRN  | GYQ   | 06.09.10 |
| ANGLE      | ±30'         | SIGN | ATURE | DATE     |

| STE    | PPING MOTOR      |  |
|--------|------------------|--|
| OWG.NO | PD2-04118L1804-2 |  |