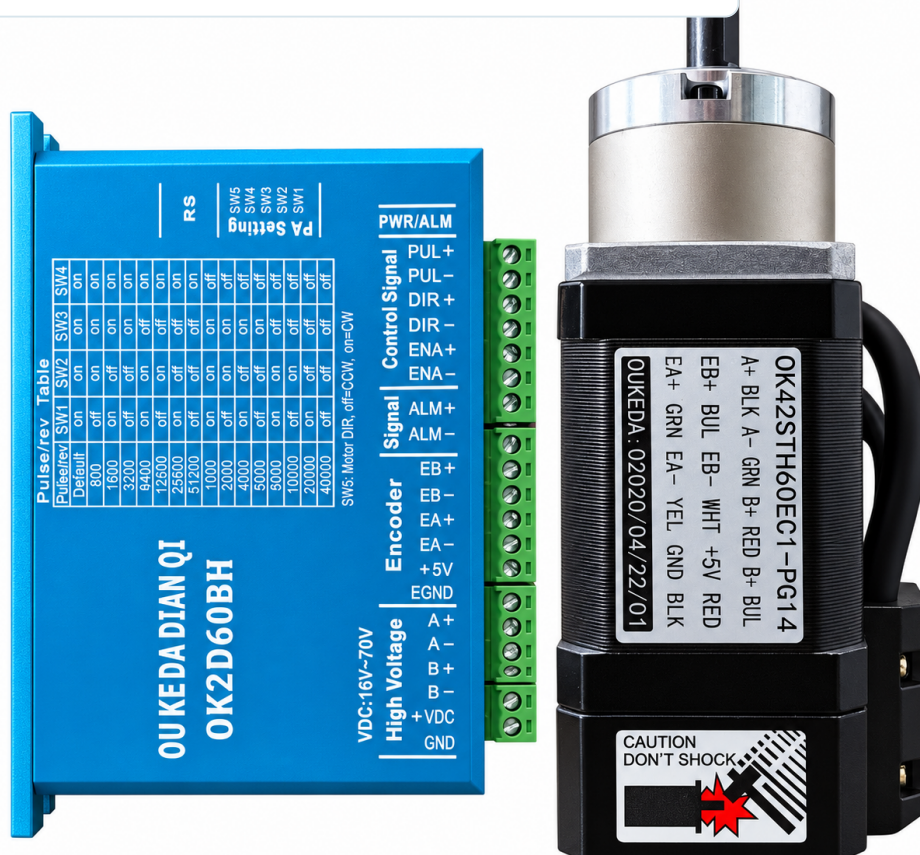


# NEMA 17 CLOSED-LOOP GEARED STEPPER MOTOR

With Encoder and Planetary Gearbox

Product photo: motor and driver shown for reference



MOTOR HOLDING TORQUE

**70Ncm**

RATED CURRENT

**1.8A**

STEP ANGLE

**1.8°**

## OPTIONAL PLANETARY GEARBOX RATIOS

**3.71:1**

**5.18:1**

**13.76:1**

**19.2:1**

**26.8:1**

**51:1**

**71:1**

**100:1**

**139:1**

# TECHNICAL SPECIFICATIONS

Motor model: OK42STH60EC-1000

## ELECTRICAL SPECIFICATIONS

|                        |                |
|------------------------|----------------|
| Motor phase            | 2-Phase        |
| Step angle             | 1.8°±5%        |
| Holding torque (motor) | 70Ncm          |
| Rated current/phase    | 1.8A           |
| Rated voltage          | 3.3VDC         |
| Phase resistance       | 1.85Ω±10%      |
| Phase inductance       | 5.2mH±20%      |
| Insulation resistance  | 100MΩ (500VDC) |
| Insulation class       | Class B        |

## PHYSICAL SPECIFICATIONS

|                       |                  |
|-----------------------|------------------|
| Frame size            | 42×42mm (NEMA17) |
| Motor body length     | 60mm             |
| D-cut length          | 21mm             |
| Motor shaft diameter  | Φ5mm             |
| Motor shaft length    | 24±0.5mm         |
| Mounting hole spacing | 31±0.25mm        |
| Motor cable length    | 1000mm           |
| Encoder cable length  | 1000mm           |
| Motor weight          | Approx.0.4kg     |
| Operating temperature | -10°C to +50°C   |

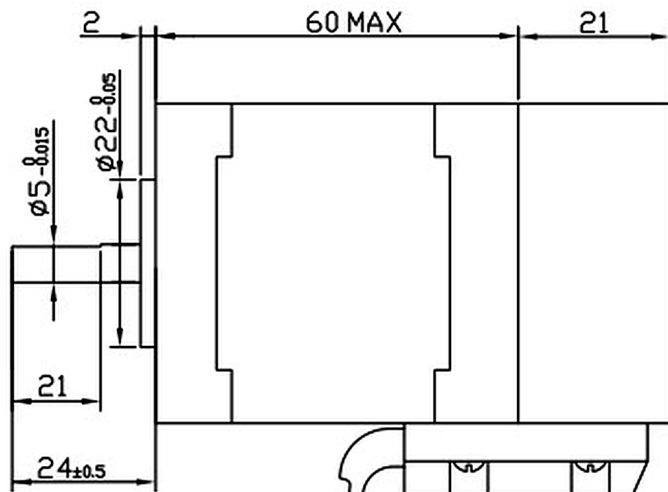
## ENCODER SPECIFICATIONS

Supply: 5VDC | Signals: A+, A-, B+, B- | Cable: 6-Wire

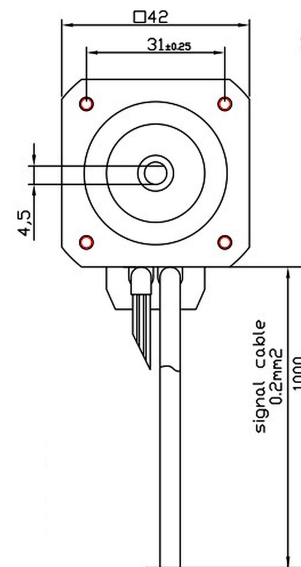
# DIMENSIONS & CONNECTIONS

Technical drawings adapted from the supplied motor dimension sheet

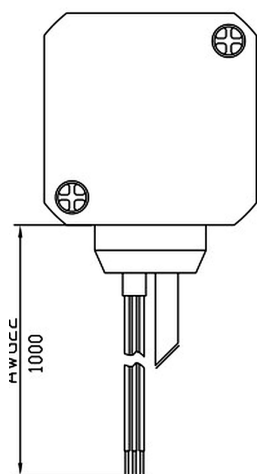
## MOTOR DIMENSION VIEWS



SIDE VIEW / SHAFT DIMENSIONS



FRONT VIEW



REAR VIEW

### MOTOR WIRING

|    |       |
|----|-------|
| A+ | Red   |
| A- | Blue  |
| B+ | Green |
| B- | Black |

### ENCODER WIRING

|        |       |       |    |
|--------|-------|-------|----|
| Red    | +5VDC | Green | A- |
| Black  | GND   | Blue  | B+ |
| Yellow | A+    | White | B- |

### NOTES

- 70Ncm is the motor holding torque; gearbox output torque is not specified.
- 60mm body length and 0.4kg weight refer to the motor, excluding the gearbox.
- Dimension views are from the supplied reference drawing; verify before machining.
- The pictured driver is for presentation only; package contents are not confirmed.