

R series: Resin nut ball screws

Features

● Introducing compact nut dimensions

- Having redesigned the structure of the ball recirculation component found in conventional end deflector type ball screw nuts, KURODA has achieved greater size reduction.
- By fitting the compact ball recirculation component in the ends of the nut and implementing an internal recirculation structure, the overall length and body diameter of the nut have been made more compact.

● Utilizing materials with excellent chemical and corrosion resistance

- Ball screw shafts and balls made of stainless steel with excellent corrosion resistance are now the standard offering.
- Resin with excellent chemical resistance has been chosen as the material for the R series ball screw nuts.

● Lightweight resin ball screws with longer service life have been developed

- With the introduction of resin components, the R series ball screws can contribute to the lightweight requirements of tabletop applications.

□ Summary of the specifications

| | |
|----------------------|-----------------------|
| Screw shaft diameter | ø8 mm |
| Lead | 2 mm |
| Accuracy grade | C7 grade |
| Nut combination type | Single nut |
| Shaft end type | Unfinished shaft ends |
| Product line | Standard product |

□ Options available

| Series | Additional shaft-end machining | Surface treatment (Anticorrosive black coating) | Change of grease type | Change of nut direction |
|-----------|--------------------------------|---|-----------------------|-------------------------|
| RW series | ○ | --- | ○ | ○ |

□ Model numbers of RW series

| Example model number | Series | Shaft diameter | Lead | Number of circuits | Combination | Flange type | Ball recirculation system | Wiper material | Thread direction | Overall screw shaft length | Shaft end type | Thread length | Accuracy grade | Axial clearance |
|----------------------|--------|----------------|------|--------------------|-------------|-------------|---------------------------|----------------|------------------|--|----------------|--|----------------|-----------------|
| | RW | 08 | 02 | P | S | - | B | P | N | R | 0400 | X | 0300 | C7 |
| RW | 08 | 02 | P | S | - | B | P | N | R | To be shown with a 4-digit number in metric units (mm) | A, X | To be shown with a 4-digit number in metric units (mm) | C7 | M |

• For more details, refer to the specifications and data for each size.

□ Materials

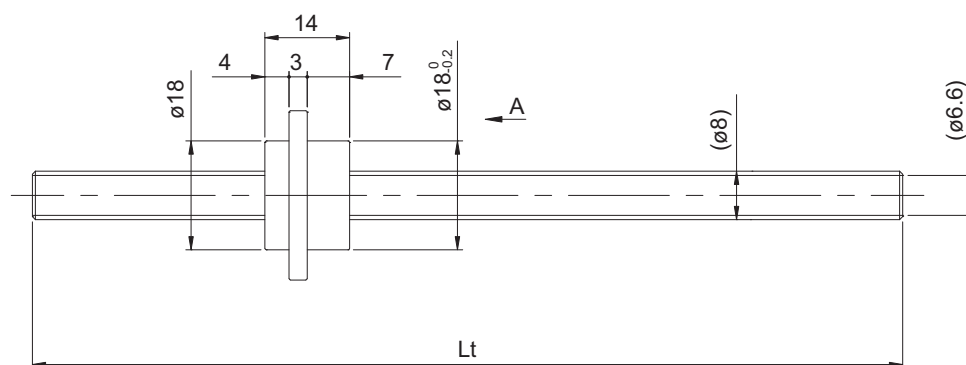
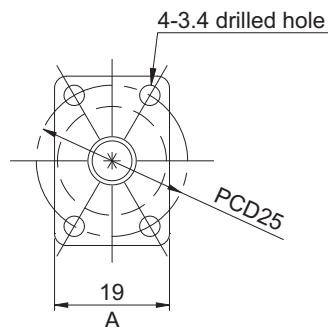
R series ball screw shafts use SUS304, the balls use SUS440C; both of which are grades of stainless steel with excellent corrosion resistance. The ball screw nuts use PPS super engineering plastic with excellent resistance to form-deterioration and chemical agents.

| Part name | Material | Heat treatment |
|-------------|----------------------------------|----------------|
| Screw shaft | Stainless steel SUS304 | --- |
| Nut | Super engineering plastic PPS | --- |
| Ball | Stainless steel SUS440C | Hardening |

RW series (Accuracy grade C7)

● Ball screw specifications

| | |
|---|----------------------------------|
| Shaft diameter (mm) - Lead (mm) | 8 - 2 |
| Number of circuits / Thread direction | 3.7 turns 1 circuit / Right-hand |
| Ball diameter (mm) | 1.5875 |
| Root diameter (mm) | 7.1 |
| Series | RW |
| Permissible axial load (N) | 40 |
| Permissible rotational speed (min ⁻¹) | 3000 |
| Accuracy grade / Axial clearance symbol | C7 / M |
| Axial clearance (mm) | 0.030 or less |
| Preload torque (N·cm) | ---- |
| Spacer ball | None |
| Recirculation system | End deflector method |
| Wiper | None |
| Lubricant | Alvania Grease S2 |



| Model No. (Unfinished shaft ends) | Screw shaft length Lt | Maximum stroke (L1 - nut length) | Lead accuracy Cumulative lead error | Mass (kg) |
|--------------------------------------|--------------------------|-------------------------------------|--|--------------|
| RW0802PS-BPNR-0200A | 400 | 386 | 0.05/300 | 0.08 |
| RW0802PS-BPNR-0400A | | | | 0.14 |

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.

Screw shaft diameter ø8, Lead 2

● Shaft end finish type

Standard rolled ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Unfinished shaft ends (See left figure) → Finished shaft ends

RW0802PS-BPNR-0400A → RW0802PS-BPNR-0400X0354-C7M

↳ Thread length
↳ Overall screw shaft length

| Supported end | Fixed end |
|---------------------------------------|-----------------------------------|
| | |
| Applicable supported end support unit | Applicable fixed end support unit |
| BUK-6S (Square type) | BUK-6 (Square type) |
| BUM-6S (Round type) | BUM-8, BUM-6F (Round type) |