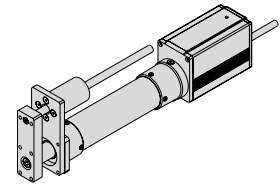


# ERC-RA54GS

ROBO Cylinder, Rod Type, Flange Width 54mm, Pulse Motor, w/ Single Guide



Type Rod (58mm wide), w/ Single Guide Stroke 50 ~ 300mm Load capacity 40kg (horizontal)/18kg (vertical)

Model Specification Items Series - Type - Encoder type - Motor - Lead - Stroke - Cable length - Options  
 (Example) ERC - RA54GS - I - PM - 6 - 300 - S - FT

\* Refer to page 37 for the details of model specification items.

### Model/Specifications

\*With the ERC series, the maximum speed will vary depending on the weight of the load placed on the slider (or rod). Refer to the diagrams on page 25 for the relationship of speed and load capacity.

| Model                      | Encoder type | Motor       | Lead (mm) | Stroke 50mm increments (mm) | Speed (Note 1) (mm/s) | Load capacity (Note 2) |               | Maximum push force (N) |
|----------------------------|--------------|-------------|-----------|-----------------------------|-----------------------|------------------------|---------------|------------------------|
|                            |              |             |           |                             |                       | Horizontal (kg)        | Vertical (kg) |                        |
| ERC-RA54GS-I-PM-12-***-Δ-□ | Incremental  | Pulse motor | 12        | 50 ~ 300                    | 10 ~ 600              | 25~2.5                 | 4.5~0.5       | 78                     |
| ERC-RA54GS-I-PM-6-***-Δ-□  |              |             | 6         |                             | 5 ~ 300               | 40~12                  | 12~2.5        | 157                    |
| ERC-RA54GS-I-PM-3-***-Δ-□  |              |             | 3         |                             | 1 ~ 150               | 40                     | 18~4          | 304                    |

\* In the above model names, \*\*\* the stroke, Δ the cable length, and □ the applicable options.

\* Calculate the load capacity by subtracting the guide weight from the applicable weight found in "Dimensions, weight and Maximum Speed by Stroke" (the table shown below the figures).

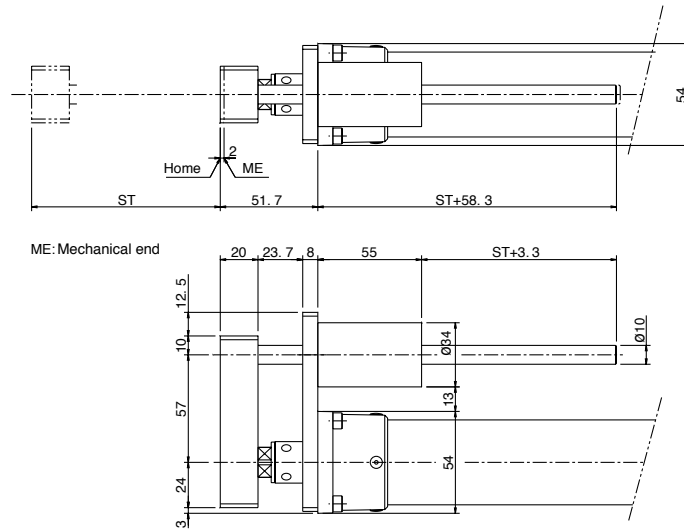
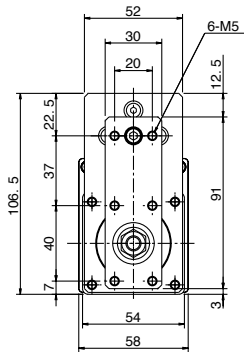
### Options

| Name         | Code | Page  |
|--------------|------|-------|
| Foot bracket | FT   | →P139 |

### Common Specifications

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| Drive system□              | Ball screw ø10mm, rolled C10                                                              |
| Positioning repeatability□ | ±0.05mm□                                                                                  |
| Backlash□                  | 0.1mm or less                                                                             |
| Guide□                     | Single guide (guide rod diameter ø10mm, ball bush type)                                   |
| Rod diameter □             | ø22mm dedicated SUS pipe                                                                  |
| Rod non-rotation accuracy□ | ±0.05°                                                                                    |
| Actuator□ □                | Pipe (ø45 SUS), flange (aluminum die-cast), motor cover (extruded aluminum)               |
| Cable length (Note 3)□     | N: No cable, P: 1m, S: 3m, M: 5m, X□□: Length specification, W□□: Connectors on both ends |

### Dimensions



\*For the actuator dimensions, refer to the dimensions of the ERC-RA54 on page 45.

### Dimensions, Weight and Maximum Speed by Stroke

| Stroke                         | 50      | 100 | 150 | 200 | 250 | 300 |
|--------------------------------|---------|-----|-----|-----|-----|-----|
| Guide weight (kg)              | 0.2     | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 |
| Guide □ + Actuator weight (kg) | 1.8     | 1.9 | 2.1 | 2.3 | 2.4 | 2.6 |
| Maximum Speed (mm/s)           | 600     |     |     |     |     | 500 |
|                                | Lead 12 |     |     |     |     | 500 |
|                                | Lead 6  |     |     |     |     | 250 |
|                                | Lead 3  |     |     |     |     | 125 |

### Applicable Controller Specifications

| Applicable Controller | Maximum number of controlled axes | Compatible encoder type | Program operation | Positioner operation | Pulse-train control | Power supply voltage | Page  |
|-----------------------|-----------------------------------|-------------------------|-------------------|----------------------|---------------------|----------------------|-------|
| Built-in              | 1 axis                            | Incremental             | ×                 | ○                    | ×                   | DC24V                | →P144 |



(Note 1) A longer stroke will result in a lower maximum speed to prevent the ball screw from reaching a dangerous speed. (Refer to the above table for the maximum speed at a given stroke.)  
 (Note 2) The load capacity is based on operation at an acceleration of 0.3 G (or 0.2 G if the lead is 3 mm or in the case of a vertical application). To use the actuator alone, refer to the diagrams of allowable tip load and traveling life on page 132.  
 (Note 3) The maximum cable length is 10 m. Specify the desired length in meters (e.g., X08 = 8 m).

\* Refer to page 23 for other points to note.