

# RS3

## RS-Series SCARA Robots

### High Performance SCARA Plus

- Arm Length 350 mm
- New, Unique Workspace Design
- Industry Leading Work Envelope Usage



### Specifications

|   |                       | RS3-351                               |
|---|-----------------------|---------------------------------------|
| <b>Mounting type</b>                                    |                       | <b>Ceiling</b>                        |
| <b>Arm length</b>                                       | <b>Arm #1, #2</b>     | 350 mm                                |
| <b>Max. operating speed</b>                             | <b>Joints #1, #2</b>  | 6237 mm/s                             |
|   | <b>Joint #3</b>       | 1100 mm/s                             |
|   | <b>Joint #4</b>       | 2600 deg/s                            |
| <b>Weight (cables not included)</b>                     |                       | 17 kg                                 |
| <b>Repeatability</b>                                    | <b>Joints #1, #2</b>  | ±0.01 mm                              |
|   | <b>Joint #3</b>       | ±0.01 mm                              |
|   | <b>Joint #4</b>       | ±0.01 deg                             |
| <b>Max. motion range</b>                                | <b>Joint #1</b>       | ±225 deg                              |
|   | <b>Joint #2</b>       | ±225 deg                              |
|   | <b>Joint #3 Std</b>   | 130 mm                                |
|   | <b>Joint #3 Clean</b> | 100 mm                                |
|   | <b>Joint #4</b>       | ±720 deg                              |
| <b>Payload</b>  | <b>Rated</b>          | 1 kg                                  |
|   | <b>Maximum</b>        | 3 kg                                  |
| <b>Standard cycle time<sup>1</sup></b>                  |                       | 0.34 sec                              |
| <b>Joint #4 allowable moment of inertia<sup>2</sup></b> | <b>Rated</b>          | 0.005 kg•m <sup>2</sup>               |
|   | <b>Maximum</b>        | 0.05 kg•m <sup>2</sup>                |
| <b>Motor power consumption</b>                          | <b>Joint #1</b>       | 400 W                                 |
|   | <b>Joint #2</b>       | 200 W                                 |
|   | <b>Joint #3</b>       | 150 W                                 |
|   | <b>Joint #4</b>       | 100 W                                 |
| <b>Joint #3 downward force</b>                          |                       | 150 N                                 |
| <b>Electric lines</b>                                   |                       | 15Pin (D-Sub)                         |
| <b>Pneumatic lines</b>                                  |                       | Ø4mm×1, Ø6mm×2                        |
| <b>Installation environment</b>                         |                       | Standard/Cleanroom <sup>3</sup> & ESD |
| <b>Available controllers</b>                            |                       | RC180, RC620+, RC700A                 |
| <b>Safety standards</b>                                 |                       | CE, ANSI/RIA15.06-2012, UL 1740       |

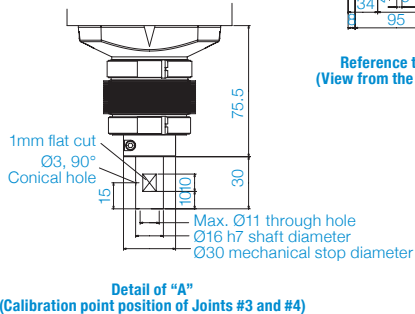
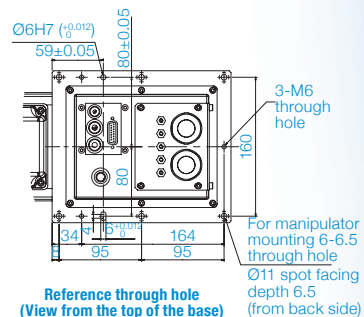
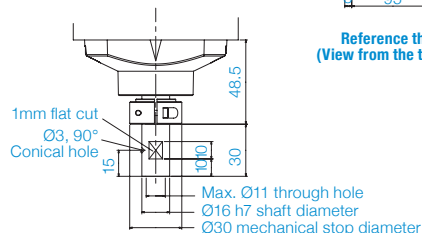
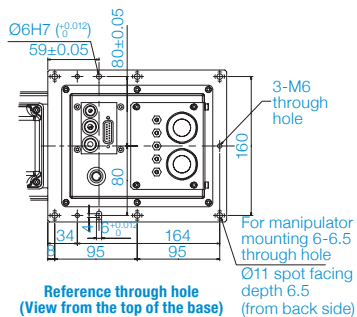
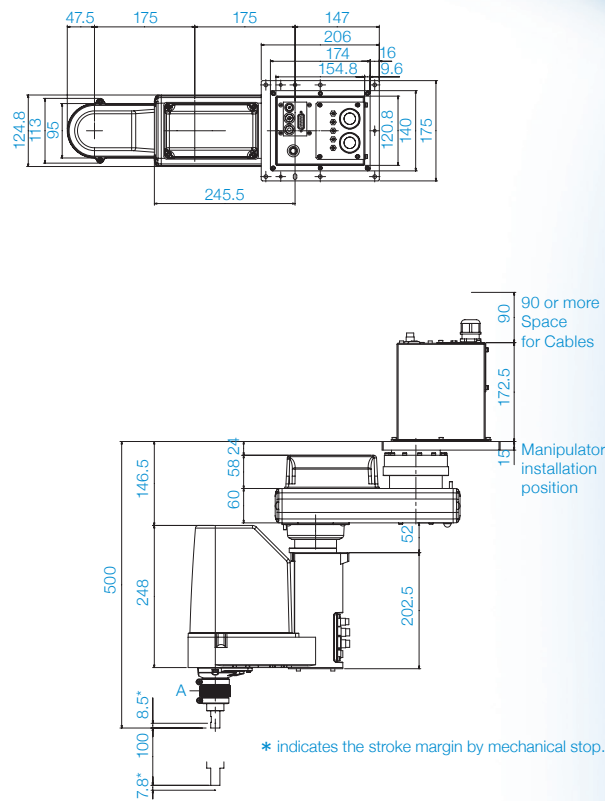
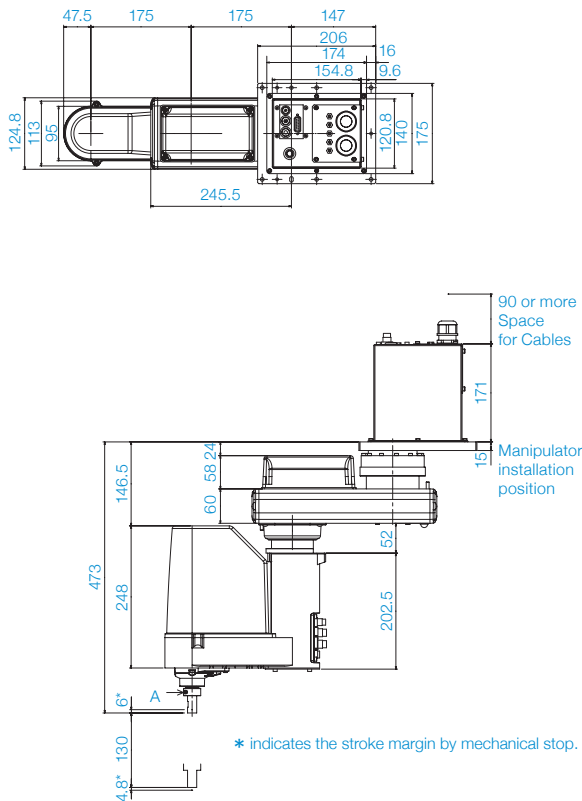
<sup>1</sup> Cycle time based on round-trip arch motion (300mm horizontal, 25mm vertical) with 1kg payload (path coordinates optimized for maximum speed).

<sup>2</sup> When payload center of gravity is aligned with Joint #4; if not aligned with Joint #4, set parameters using INERTIA command.

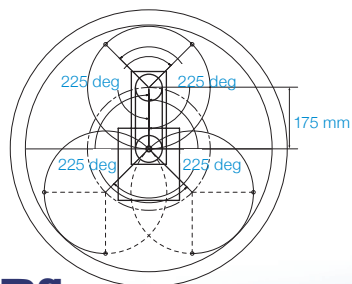
<sup>3</sup> Complies with ISO Class 3 (ISO14644-1) and older Class 10 (less than 100.1 µm particles per 28,317cm<sup>3</sup>:1cft) cleanroom standards.

Standard-model

Cleanroom-model



Motion Range (Ceiling Mounting)



| Model                       | RS3-351   |
|-----------------------------|-----------|
| Arm #1 Length (mm)          | 175       |
| Arm #2 Length (mm)          | 175       |
| Joint #1 Motion range (deg) | $\pm 225$ |
| Joint #2 Motion range (deg) | $\pm 225$ |