

ISWA-M-200

Single-Axis Robot, Medium Splash-Proof Type,
Actuator Width 125 mm, 200 W, Straight Shape

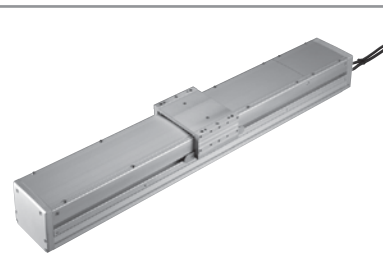
ISPWA-M-200

Single-Axis Robot, Medium Splash-Proof Type,
Actuator Width 125 mm, 200 W, Straight Shape High-precision specification

Type Medium splash-proof Stroke 100~1000mm Load capacity 70 kg (horizontal)

Model specification items Series Type Encoder type Motor output Lead Stroke Controller Cable length Options

(Example) ISWA [ISPWA] - M - A - 200 - 20 - 1000 - T1 - S - RT



Model/Specifications

| Model | Encoder Type | Motor output (W) | Lead (mm) | Stroke (in increments of 50-mm) | Speed (Note 1) (mm/s) | Load capacity (kg) (Note2) | | Rated thrust (N) |
|--|----------------|------------------|-----------|---------------------------------|-----------------------|----------------------------|---------------|------------------|
| | | | | | | Horizontal (kg) | Vertical (kg) | |
| ISWA [ISPWA]-M- [1]-200-[2]- [3]- [4]- [5] | A: Absolute | 200 | 20 | 100~1000 | 1000 | 30 | — | 169.5 |
| ISWA [ISPWA]-M- [1]-200-[2]- [3]- [4]- [5] | I: Incremental | | 10 | | 500 | 70 | — | 340.1 |

[1], [2], [3], [4] and [5] in the model numbers shown above respectively indicate the encoder type, stroke, applicable controller, cable length and applicable options.

Options

| Name | Type | Page | Remarks |
|-------------------------------------|------|------|---------|
| Reverse Home Specification | NM | — | |
| Guide with ball-retaining mechanism | RT | — | |

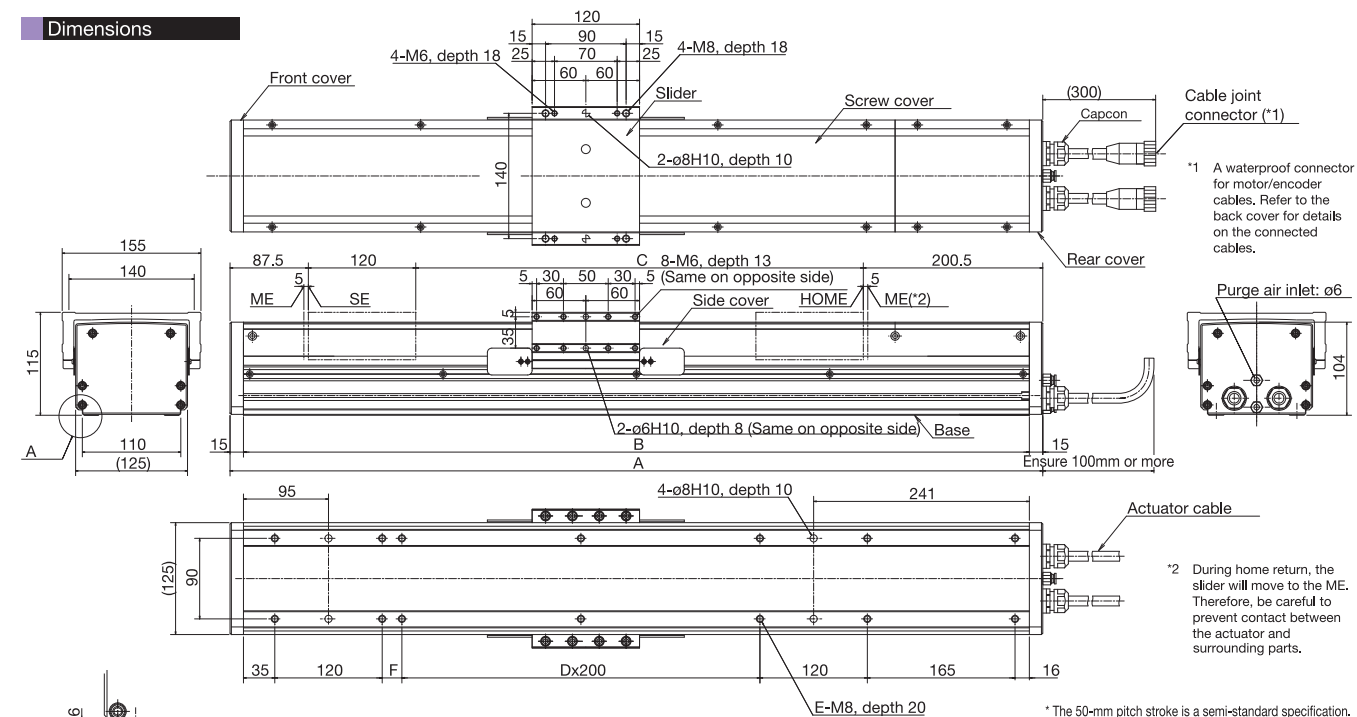
Materials of Key Components

| Name | Materials |
|-------------------------|---|
| Base, slider | Aluminum (A6063S-T5 or equivalent) with white alumite treatment |
| Side cover, screw cover | Aluminum (A6063S-T5 or equivalent) with white alumite treatment |
| Front cover, rear cover | A5052 with white alumite treatment |
| Actuator cable | PVC |
| Capcon | Nylon 66 |

Common Specifications

| | |
|------------------------------------|--|
| Drive System (Note 3) | Ball screw, rolled C10 [rolled C5 or equivalent] |
| Positioning repeatability (Note 3) | ±0.02mm [±0.01mm] |
| Backlash (Note 3) | 0.05 mm or less [0.02 mm or less] |
| Guide | Integrated with the base |
| Allowable load moment | Ma: 34.8 N • m, Mb: 49.5 N • m, Mc: 80.8 N • m |
| Overhang load length | 600 mm or less in Ma, Mb or Mc direction |
| Grease | Food grease (Medallion FM Grease No. 1) |
| Cable length (Note 4) | N: No cable, S: 3 m, M: 5 m, X□□: Specified length |
| Protection class (Note 5) | IP65 |
| Operating temperature/humidity | 0 ~ 40°C, 85%RH or below (non-condensing) |

Dimensions



*1 A waterproof connector for motor/encoder cables. Refer to the back cover for details on the connected cables.

*2 During home return, the slider will move to the ME. Therefore, be careful to prevent contact between the actuator and surrounding parts.

* The 50-mm pitch stroke is a semi-standard specification.

| Stroke | (50) | 100 | (150) | 200 | (250) | 300 | (350) | 400 | (450) | 500 | (550) | 600 | (650) | 700 | (750) | 800 | (850) | 900 | (950) | 1000 |
|---|---------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| A | 458 | 508 | 558 | 608 | 658 | 708 | 758 | 808 | 858 | 908 | 958 | 1008 | 1058 | 1108 | 1158 | 1208 | 1258 | 1308 | 1358 | 1408 |
| B | 428 | 478 | 528 | 578 | 628 | 678 | 728 | 778 | 828 | 878 | 928 | 978 | 1028 | 1078 | 1128 | 1178 | 1228 | 1278 | 1328 | 1378 |
| C | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
| D | — | — | — | — | — | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| E | 10 | 10 | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 14 | 14 | 14 | 14 | 16 | 16 | 16 | 16 | 18 | 18 | 18 |
| F | -28 | 22 | 72 | 122 | 172 | 22 | 72 | 122 | 172 | 22 | 72 | 122 | 172 | 22 | 72 | 122 | 172 | 22 | 72 | 122 |
| Weight (kg) | 11.1 | 11.9 | 12.8 | 13.6 | 14.5 | 15.3 | 16.2 | 17.0 | 17.9 | 18.7 | 19.6 | 20.4 | 21.3 | 22.1 | 23.0 | 23.8 | 24.7 | 25.5 | 26.4 | 27.2 |
| Maximum speed (mm/s) <small>*Varies depending on the stroke.</small> | Lead 20 | | | | | | | | | | | 915 | 735 | 600 | 500 | | | | | |
| | Lead 10 | | | | | | | | | | | 455 | 365 | 300 | 250 | | | | | |

Applicable Controller Specifications

| Applicable controller | Maximum number of controlled axes | Connectable encoder type | Operating method | Power-supply voltage |
|-----------------------|-----------------------------------|--------------------------|------------------------|----------------------|
| X-SEL - P/Q | 6 axes | Absolute/incremental | Programming | 3-Phase AC200V |
| XSEL - J/K | 4 axes | Absolute/incremental | Programming | AC100V AC200V |
| SSEL | 1 axis | Absolute/incremental | Programming | |
| SCON | 1 axis | Absolute/incremental | Positioner/Pulse-train | |



(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) Based on an acceleration of 0.3 G.
 (Note 3) The figures in square brackets apply to the ISPWA series.
 (Note 4) The maximum cable length is 30 m. Specify the desired length in meters (e.g., X08 = 8 m).
 (Note 5) IP65 applies when air purge is performed. Without air purge, the protection class is IP54.
 The ISWA/ISPWA must be installed horizontally. If the actuator is installed on its side or oriented vertically, water may enter the interior.