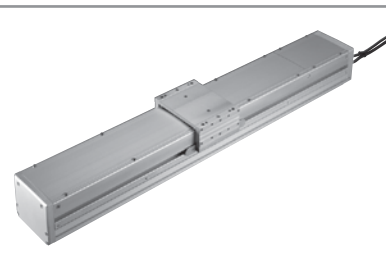


ISWA-M-100 Single-Axis Robot, Medium Splash-Proof Type, Actuator Width 125 mm, 100 W, Straight Shape

ISPWA-M-100 Single-Axis Robot, Medium Splash-Proof Type, Actuator Width 125 mm, 100 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 - 100 - 10 - 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]-100-10- [2]- [3]- [4]	A: Absolute	100	10	100~1000	500	30	—	169.5
ISWA [ISPWA]-M- [1]-100-5- [2]- [3]- [4]	I: Incremental		5		250	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	—	

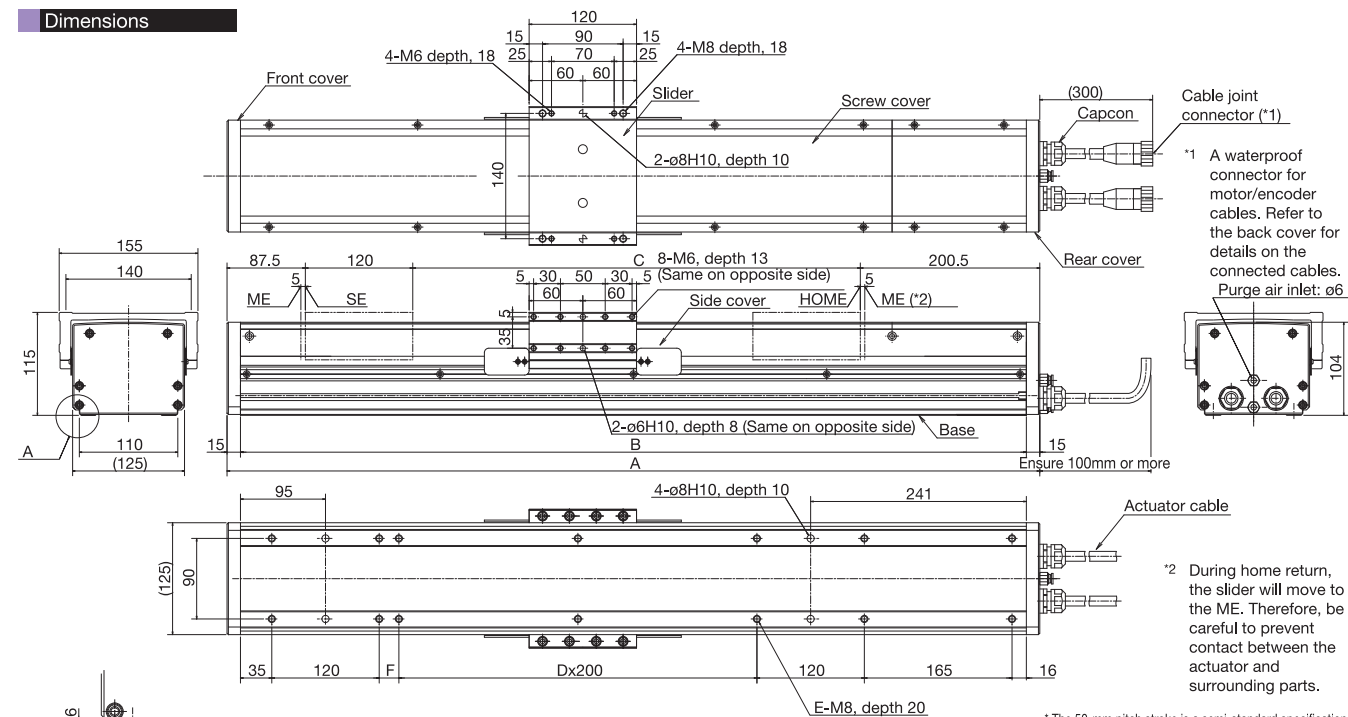
Materials of Key Components

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. Purge air inlet: ø6

*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)	10.9	11.7	12.6	13.4	14.3	15.1	16.0	16.8	17.7	18.5	19.4	20.2	21.1	21.9	22.8	23.6	24.5	25.3	26.2	27.0
Maximum speed (mm/s) * Varies depending on the stroke.	Lead 10												455		365		300		250	
	Lead 5												225		180		150		125	

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.