

ISA-WXM-600

Single-Axis Robot: Super-Large X-Axis Mid-support Mechanism Type, Actuator Width 198mm, 600W. Straight Shape

ISPA-WXM-600

Single-Axis Robot: Super-Large X-Axis Mid-support Mechanism Type, Actuator Width 198mm, 600W. Straight Shape High-Precision Specification



Model specification items	Series	Type	Encoder type	Motor Output	Lead	Stroke	Applicable controller	Cable length	Options
ISA: Standard Specification ISPA: High-Precision Specification	WXM		A: Absolute I: Incremental	600: 600W	40: 40mm 20: 20mm	900: 900mm 2500: 2500mm (every 100mm)	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N: None S: 3 m M: 5 m X□□: Length specification	Refer to the option list below.

* Refer to page 11 for the details of model specification items.

Models/Specifications

* 1.0G=9800mm/sec²

Model	Encoder type	Motor output (W)	Lead (mm)	Stroke (mm) In increments of 100mm	Speed (Note 1) (mm/s)	Acceleration (Note 2)		Load capacity (Note 2)		Rated thrust (N)	
						Horizontal (G)		Vertical (G)			
						Rated	Maximum	Rated	Maximum		
ISA[ISA]-WXM-①-600-40-②-③-④-L-⑤	Absolute	600	40	900 ~ 2500	1 ~ 2400	0.3	Used only horizontally		60	Used only horizontally	255
ISA[ISA]-WXM-①-600-20-②-③-④-L-⑤	Incremental		20		1 ~ 1200	0.3			120		510

* In the above model names, ① indicates the encoder type, ② stroke, ③ applicable controller, ④ cable length and ⑤ options.

Options

Name	Code	Page	Name	Code	Page
AQ seal	AQ	→P13	Master-axis designation	LM	→P14
Brake	B	→P13	Reverse homing specification	NM	→P14
Creep sensor	C	→P13	Slave-axis designation	S	→P14
Home limit switch	L	→P14	Optional cable exit direction	A1/A3	Refer to the figure below

* With the WXM type, the home limit switch (L) is a standard equipment.

Common Specifications

Positioning repeatability (Note 3)	± 0.02 mm [± 0.01 mm]
Drive system (Note 4)	Ball screw ø20 mm, rolled C10 [equivalent to C5]
Lost motion (Note 5)	0.05 mm or less [0.02 mm or less]
Allowable static moment	Refer to page 242
Allowable dynamic moment (Note 6)	Ma: 139.2 N · m Mb: 199.9 N · m Mc: 391 N · m
Overhang load length	Ma direction: 900 mm or less, Mb/Mc directions: 900 mm or less
Base	Material: Aluminum with white alumite treatment
Applicable controller	T1: XSEL-J/K T2: XSEL-P/Q, SSEL, SCON
Cable length (Note 7)	N: No cable, S: 3 m, M: 5 m, X□□: Length specification
Ambient operating temperature · humidity	0 to 40°C, 85% RH or less (Non-condensing)

Dimensions

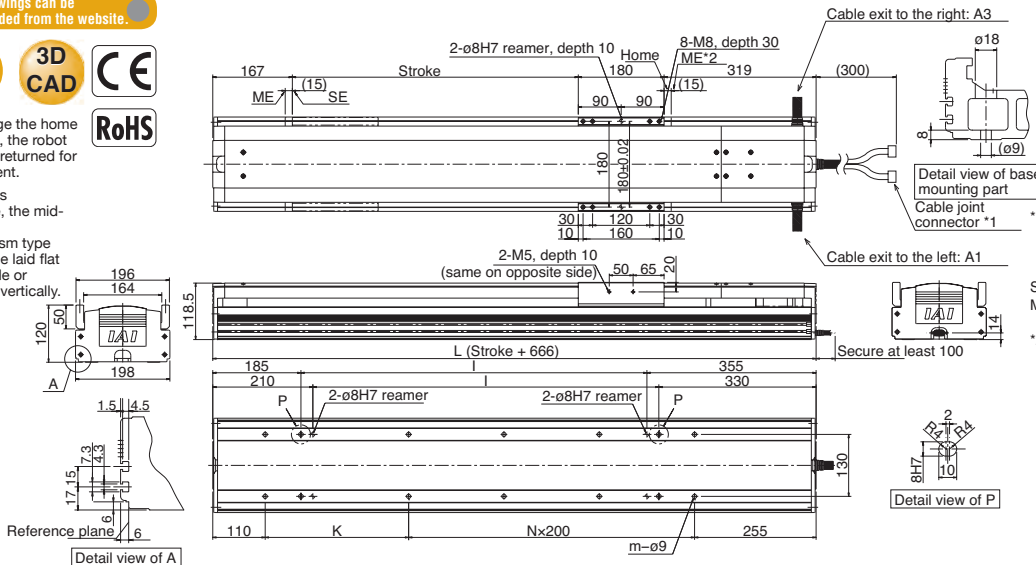
* Models with the brake have the same external dimensions but weigh 0.5 kg more.

CAD drawings can be downloaded from the website.



* To change the home direction, the robot must be returned for adjustment.

* Due to its structure, the mid-support mechanism type cannot be laid flat on its side or oriented vertically.



*1 Connect the motor cable and encoder cable. Refer to p. 243 for details on the cables.

SE: Stroke end
ME: Mechanical end

*2 During homing the slider will move to the ME, so be careful to prevent contact with surrounding parts.

Dimensions, Weight and Maximum Speed by Stroke

Stroke	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	
L	1566	1666	1766	1866	1966	2066	2166	2266	2366	2466	2566	2666	2766	2866	2966	3066	3166	
I	1026	1126	1226	1326	1426	1526	1626	1726	1826	1926	2026	2126	2226	2326	2426	2526	2626	
K	201	301	201	301	201	301	201	301	201	301	201	301	201	301	201	301	201	
N	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	
m	14	14	16	16	18	18	20	20	22	22	24	24	26	26	28	28	30	
Weight (kg)	38.6	40.6	42.6	44.6	46.6	48.5	50.5	52.5	54.5	56.5	58.4	60.4	62.4	64.4	66.3	68.3	70.3	
Maximum speed (mm/s)	2400			2200			1965			1725			1530			1365		
* Varies depending on the stroke.	Lead 40			Lead 20			1100			980			860			765		

Applicable Controller Specifications

Applicable controller	Maximum number of controlled axes	Compatible encoder type	Operating method	Supply voltage	Page
X-SEL-P/Q	6 axes	Absolute/Incremental	Program	Single phase/ Three-phase 200VAC	
X-SEL-K	4 axes			Single phase AC 100/200V	
X-SEL-J	4 axes			Single phase AC 200V	
SSEL	2 axes				
SCON	1 axis		Positioner pulse train control		

Caution

(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 maximum acceleration is 0.3 G.

(Note 3,4,5) The figures in brackets apply to the ISPA Series. Other specification values apply to both the ISA and ISPA Series.

(Note 6) Traveling life of 10,000 km is assumed.

(Note 7) The maximum cable length is 30 m. Specify the desired length in meters (e.g. X08 = 8 m)

* The WXM type comes with the home limit switch as a standard equipment, so use a controller of limit switch specification for this type.