

# ISA-WXM-750

Single-Axis Robot: Super-Large X-Axis Type, Actuator Width 198mm, 750W. Straight Shape

# ISPA-WXM-750

Single-Axis Robot: Super-Large X-Axis Type, Actuator Width 198mm, 750W. Straight Shape High-Precision Specification



Model specification items	Series	WXM Type	Encoder type	Motor Output	Lead	Stroke	Applicable controller	Cable length	Options
ISA: Standard Specification ISPA: High-Precision Specification	Standard Specification		A: Absolute I: Incremental	750:750W	50:50mm 25:25mm	100:100mm 1300:1300mm (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

Model	Encoder type	Motor output (W)	Lead (mm)	Stroke(mm) In increments of 100mm	Speed (Note1) (mm/s)	Acceleration (Note 2)				Load capacity (Note 2)				Rated thrust (N)
						Horizontal (G)		Vertical (G)		Horizontal (G)		Vertical (G)		
						Rated	Maximum	Rated	Maximum	Rated acceleration	Maximum acceleration	Rated acceleration	Maximum acceleration	
ISA[ISPA]-WXM-①-750-50-②-③-④-L-⑤	Absolute	750	50	100 ~ 1300	1 ~ 2000	0.3	1.0	0.3	1.0	60	18	14	5	255
ISA[ISPA]-WXM-①-750-25-②-③-④-L-⑤	Incremental		25		1 ~ 1250	0.3	1.0	0.3	0.8	120	36	29	15	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 ø25 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.

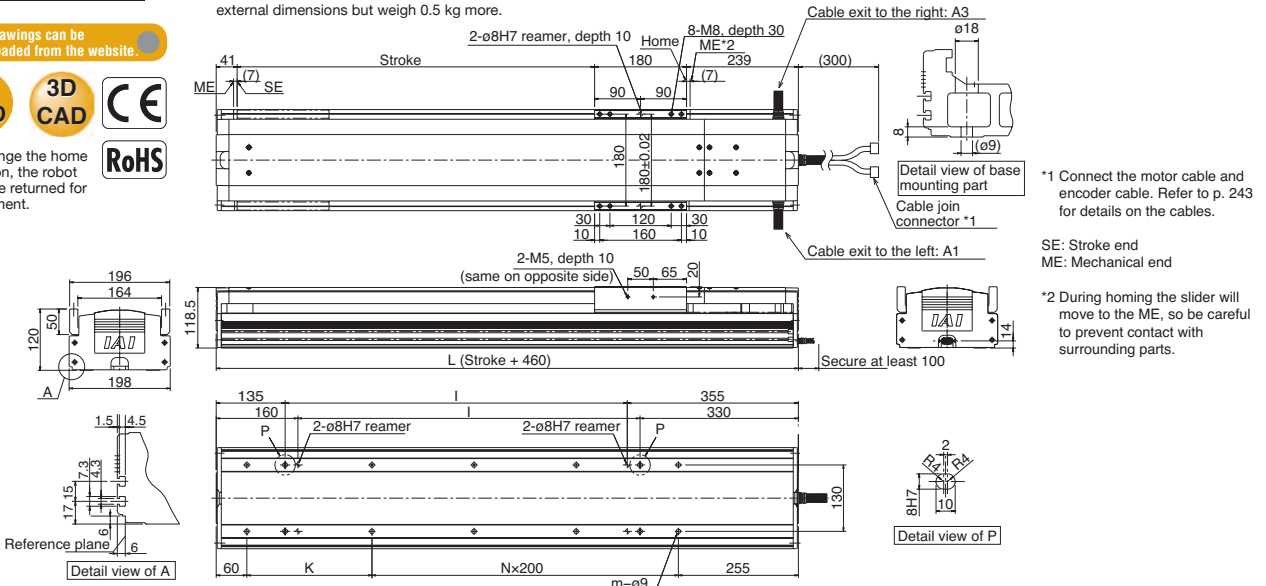
CAD drawings can be downloaded from the website.

2D CAD 3D CAD

CE

RoHS

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



\*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	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300		
L	560	660	760	860	960	1060	1160	1260	1360	1460	1560	1660	1760		
I	70	170	270	370	470	570	670	770	870	970	1070	1170	1270		
K	245	145	245	145	245	145	245	145	245	145	245	145	245		
N	-	1	1	2	2	3	3	4	4	5	5	6	6		
m	4	6	6	8	8	10	10	12	12	14	14	16	16		
Weight (kg)	20.9	22.9	24.9	26.9	28.9	30.8	32.8	34.8	36.8	38.7	40.7	42.7	44.7		
Maximum speed (mm/s)	2000											1840	1570	1360	
* Varies depending on the stroke.	1250											1090	920	785	680

### 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 (Note 8)	4 axes			Single phase AC 200V	
SSEL	2 axes				
SCON	1 axis		Positioner pulse train control		

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

**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) Refer to page 40 for the relationship of acceleration and payload. (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)

(Note 8) If the WXM type is to be used vertically, use a controller other than the XSEL-J type.