

ISDACR-WX-750

Single-Axis Robot: Super Large Cleanroom Mid-Support Type, Actuator Width 198mm, 750W, Straight Shape

ISPDACR-WX-750

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



Type	Super large (198-mm wide)	Stroke	900~2500mm	Load capacity	120kg (horizontal)
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Model specification items: Series - Type - Encoder type - Motor output - Lead - Stroke - Applicable controller - Cable length - Options

(Example) ISDACR - WX - A - 750 - 50 - 2500 - T1 - S - B

* Refer to page 3 for the details of model specification items.

Models/Specifications

* 1.0G=9800mm/sec² * Use the mid-support type at the rated acceleration or below.

Model	Encoder Type	Motor output (W)	Lead (mm)	Stroke 100mm increments (mm)	Speed (Note 1) (mm/s)	Acceleration (Note 2)				Load capacity (Note 2)		Rated thrust (N)	Suction rate (Nℓ/min)
						Horizontal (G)		Vertical (G)		Horizontal (kg)	Vertical (kg)		
						Rated	Maximum	Rated	Maximum	Rated Maximum acceleration	Rated Maximum acceleration		
ISDACR [ISPDACR]-WX-[1]-750-50-[2]-[3]-[4]-L-[5]	Absolute	750	50	900 ~ 2500	1 ~ 2000	0.3	Horizontal Use Only	Horizontal Use Only	60	Horizontal Use Only	255	120	
ISDACR [ISPDACR]-WX-[1]-750-25-[2]-[3]-[4]-L-[5]	Incremental		25										1 ~ 1250

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

Options

Name	Code	Page	Name	Code	Page
AQ seal	AQ	P13	Master-axis designation	LM	P13
Brake	B	P13	Reversed home specification	NM	P13
Creep sensor	C	P13	Slave-axis designation	S	P13
Home limit switch	L	P13	Suction duct joint on opposite side	VR	P13

* The WX type comes standard with home limit switch (code: L).

Common Specifications

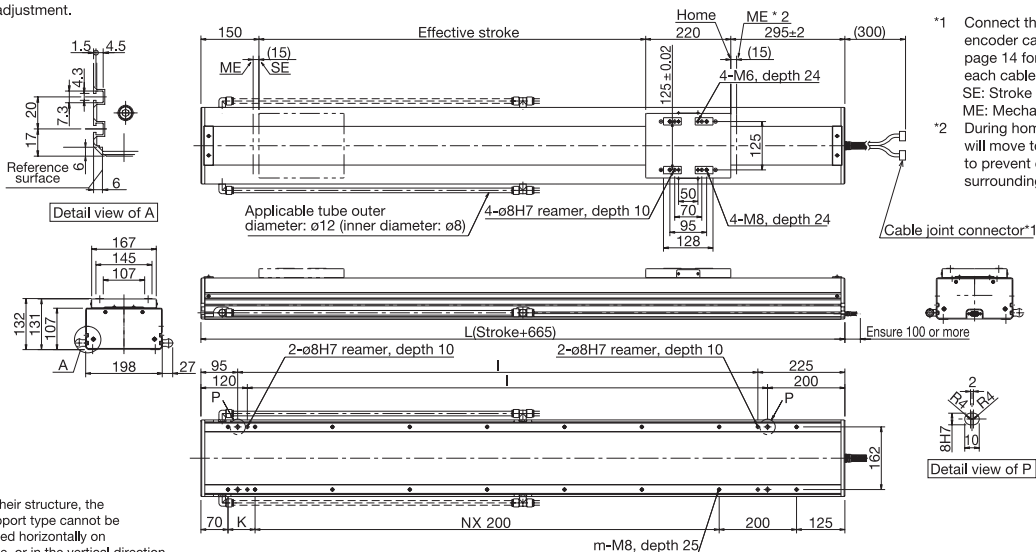
* The specifications of the ISPDACR are shown in [].

Positioning repeatability (Note 3)	±0.02mm [±0.01mm]
Drive system (Note 4)	Ball screw ø25mm, equivalent to rolled C10 [equivalent to C5]
Backlash (Note 5)	0.05mm or less [0.02mm or less]
Guide	Integrated with base
Grease	Low dust-raising grease (for both ball screw and guide)
Allowable load moment	Ma: 112.7N • m, Mb: 161.7N • m, Mc: 356.7N • m
Overhand load moment (Note 6)	Ma/Mb/Mc directions: 800mm or less
Base	Material: Aluminum with white alumite treatment
Applicable controller	T1: XSEL-J/K T2: XSEL-P/Q, SSEL, SCON
Cable length	N: No cable, S: 3m, M: 5m, X[] []: Length specification
Cleanliness class	Conforming to class 10 (0.1µm)
Suction duct joint	Quick duct joint with applicable tube outer diameter of ø12

Dimensions

* Those equipped with an optional brake have the same external dimensions.

* To change the home direction, the actuator must be returned to |A| for adjustment.



- *1 Connect the motor cable and encoder cable here. Refer to page 14 for the details of each cable.
- *2 Stroke end ME: Mechanical end. During home return, the slider will move to the ME, so be careful to prevent contact with surrounding parts.

* Due to their structure, the mid-support type cannot be positioned horizontally on their side, or in the vertical direction.

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	1565	1665	1765	1865	1965	2065	2165	2265	2365	2465	2565	2665	2765	2865	2965	3065	3165			
I	1245	1345	1445	1545	1645	1745	1845	1945	2045	2145	2245	2345	2445	2545	2645	2745	2845			
K	170	70	170	70	170	70	170	70	170	70	170	70	170	70	170	70	170			
N	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13			
m	16	18	18	20	20	22	22	24	24	26	26	28	28	30	30	32	32			
Weight (kg)	44.5	46.5	48.6	50.6	52.6	54.7	56.7	58.8	60.8	62.8	64.9	66.9	68.9	71.0	73.0	75.0	77.1			
Maximum speed (mm/s) * Varies depending on the stroke.	Lead 50	2000										1930	1740	1580	1440	1320	1210	1115	1035	
	Lead 25	1250										1200	1075	965	870	790	720	660	605	555

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	Three-Phase AC200V	P14
X-SEL-K	4 axes			AC100/200V	P14
X-SEL-J (Note 8)	4 axes				P14
SSEL	2 axes			AC200V	P14
SCON	1 axis			Positioner Pulse train	P14

* The WX type comes standard with home limit switch, so use it with a controller of the limit switch specification.

Caution

(Note 1) When the stroke increases, the maximum speed drops in order to prevent the ball screw from reaching a critical speed. (Refer to the above table for the maximum speed at each stroke.)

(Note 2) Refer to page 4 for the relationship of acceleration and load capacity.

(Note 3, 4, 5) Specs within the [] are for the ISPA series.

(Note 6) For 10,000km actuator life.

(Note 7) The maximum cable length is 30 m. Specify a desired length in meters. (Example: X08 = 8 m)

(Note 8) When using the WXm type actuator for vertical applications, please use the XSEL-J type controller.