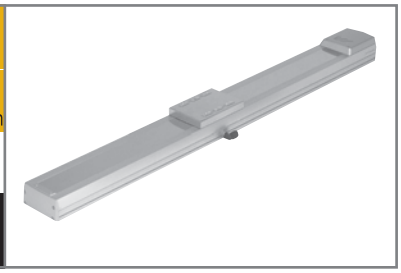
ISDACR-LX-200

Single-Axis Robot: Large Cleanroom Mid-support Type
Actuator Width 155mm, 200W, Straight Shape

ISPDACR-LX-200

Single-Axis Robot: Large Cleanroom Mid-support Type
Actuator Width 155mm,200W, Straight Shape, High-Precision Specification



Type: Large (155 mm wide) Mid-support Type
Stroke: 1000~2500mm
Load capacity: 40kg (horizontal)

■Model specification items: Series — Type — Encoder type — Motor output — Lead — Stroke — Applicable controller — Cable length — Options

(Example) ISDACR – LX – A – 200 – 20 –2500– T1 – S – B

* Refer to page 1 for the details of model specification items.

Model/Specifications

Model	Encoder Type	Motor output (W)	Lead (mm)	Stroke 100mm increments (mm)	Speed (mm/s) (Note 1)	Load capacity (Note2) Horizontal (kg) Rated acceleration	Load capacity (Note2) Horizontal (kg) Maximum acceleration	Load capacity (Note2) Vertical (kg) Rated acceleration	Load capacity (Note2) Vertical (kg) Maximum acceleration	Rated thrust (N)	Positioning repeatability (mm) (Note 3)	Suction rate (Nℓ/min)
ISDACR [ISPDACR]-LX- [1] -200-20- [2] - [3] - [4] - [5]	Absolute Incremental	200	20	1000 ~ 2500	1 ~ 1000	40	Horizontal only			169.5	±0.02 [±0.01]	90

*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	Remarks
AQ seal	AQ	›P18	
Brake	B	›P18	
Reversed home specification	NM	›P18	
Guide with ball-retaining mechanism	RT	›P18	
Suction duct joint on opposite side	VR	›P18	

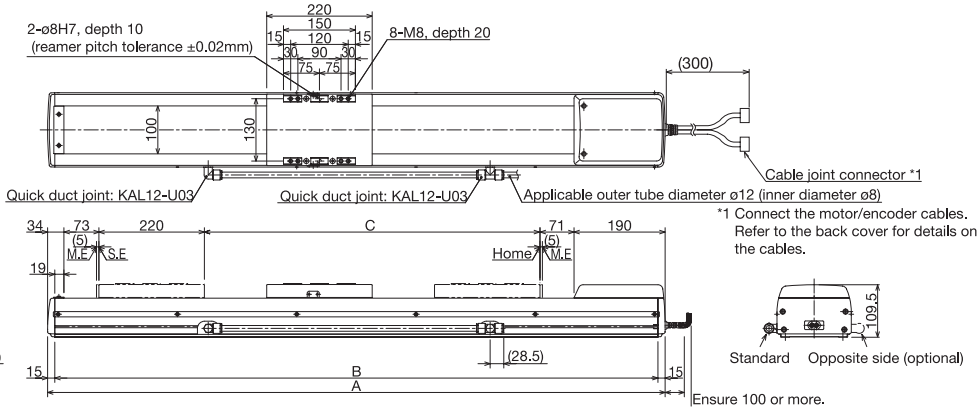
Common Specifications

Drive system (Note 4)	Ball screw ø20mm, rolled C10 [equivalent to rolled 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: 104.9N • m, Mb: 149.9N • m, Mc: 248.9N • m
Overhang load length	Ma/Mb/Mc directions: 750mm or less
Base	Material: Aluminum with white alumite treatment
Applicable controller	T1: XSEL-J/K, E-Con, P-Driver; T2: XSEL-P/Q
Cable length (Note 6)	S: 3m, M: 5m, X□□: Length specification
Cleanliness level	Conforming to Class 10 (0.1µm)
Suction duct joint	Quick duct joint with applicable outer tube diameter of ø12

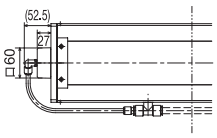
Dimensions

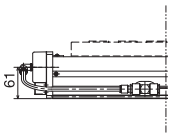
* Note that changing the home direction will require the actuator to be returned to IAI for adjustment.

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



Brake type (optional)





* Actuators with the brake are heavier by 1.1 kg than their non-brake counterparts.

Stroke	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
A	1588	1688	1788	1888	1988	2088	2188	2288	2388	2488	2588	2688	2788	2888	2988	3088
B	1558	1658	1758	1858	1958	2058	2158	2258	2358	2458	2558	2658	2758	2858	2958	3058
C	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
D	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12
E	20	22	22	24	24	26	26	28	28	30	30	32	32	34	34	36
F	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5
G	390	420	440	470	490	520	530	570	590	620	640	670	690	720	730	770
H	390	450	440	500	490	550	540	590	590	650	640	700	690	750	740	790
Weight (kg)	31.7	33.3	34.9	36.5	38.1	39.8	41.4	43.0	44.6	46.2	47.8	49.4	51.0	52.6	54.2	55.8
Maximum speed (mm/s) * Varies depending on the stroke. Lead 20	1000					950	830	740	650	590	540	490	440	410	370	340

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	3-phase 200VAC	›Back cover
X-SEL-J/K	4 axes			Single-phase 100/200VAC	
E-Con	1 axis	Absolute /incremental	Positioner	AC100/ AC200V	›Back cover
P-Driver	1 axis	Incremental	Pulse train	AC100/ AC200V	›Back cover

Caution

(Note 1) When the stroke increases, the maximum speed drops in order to prevent the ball screw from reaching a dangerous speed. (Refer to the above table for the maximum speed at each stroke.)
(Note 2) Refer to page 18 for the relationship of acceleration and load capacity.
(Notes 3, 4, 5) The figures in [ ] apply to the ISPDACR Series.
(Note 6) The maximum cable length is 30 m. Specify a desired length in meters. (Example: X08 = 8 m)