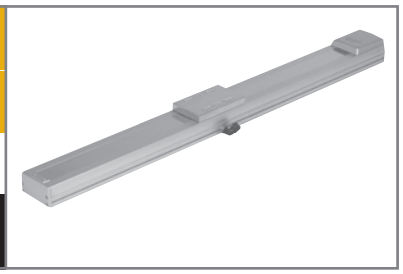
ISDACR-MX-200

Single-Axis Robot: Medium Cleanroom Mid-support Type
Actuator Width 125mm, 200W, Straight Shape

ISPDACR-MX-200

Single-Axis Robot Medium Cleanroom Mid-support Type
Actuator Width 125mm,200W, Straight Shape, High-Precision Specification

Type	Stroke	Load capacity
Medium (125 mm wide) Mid-support Type	800~2000mm	40kg (horizontal)



■Model specification items

Series	Type	Encoder type	Motor output	Lead	Stroke	Applicable controller	Cable length	Options
(Example) ISDACR – MX –	A –	200 –	20 –	2000–	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	Horizontal (kg) Maximum acceleration	Vertical (kg) Rated acceleration	Vertical (kg) Maximum acceleration	Rated thrust (N)	Positioning repeatability (mm) (Note 3)	Suction rate (Nℓ/min)
ISDACR [ISPDACR]-MX- [1] -200-20- [2] - [3] - [4] - [5]	Absolute Incremental	200	20	800 ~ 2000	1 ~ 1000	40		Horizontal only		169.5	±0.02 [±0.01]	70

*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	

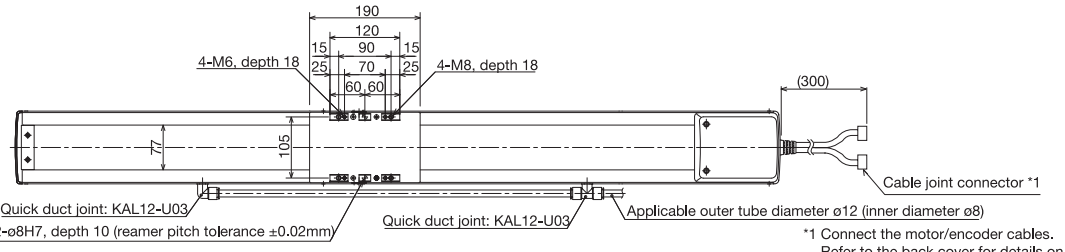
Common Specifications

Drive system (Note 4)	Ball screw ø16mm, 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: 69.6N • m, Mb: 99.0N • m, Mc: 161.7N • m
Overhang load length	Ma/Mb/Mc directions: 450mm 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

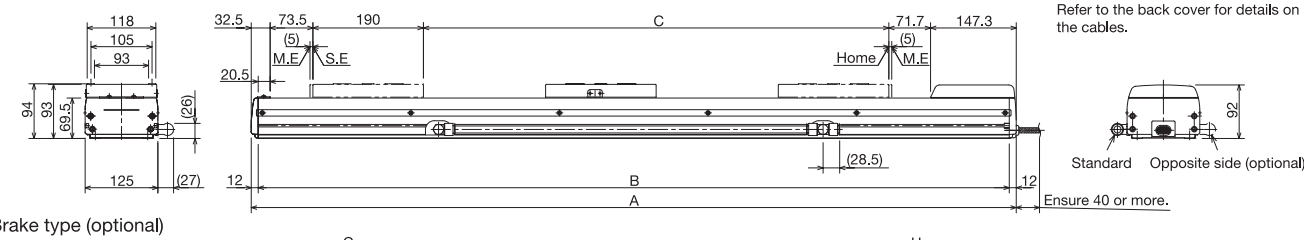
Dimensions

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

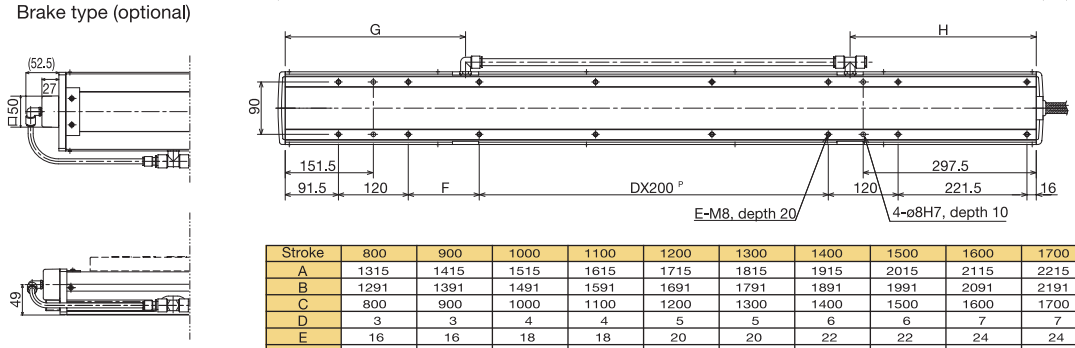
* Due to their structure, the mid-support type cannot be positioned horizontally on their side, or in vertical direction.



*1 Connect the motor/encoder cables. Refer to the back cover for details on the cables.



Brake type (optional)



* Actuators with the brake are heavier by 0.7 kg than their non-brake counterparts.

Stroke	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
A	1315	1415	1515	1615	1715	1815	1915	2015	2115	2215	2315	2415	2515
B	1291	1391	1491	1591	1691	1791	1891	1991	2091	2191	2291	2391	2491
C	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
D	3	3	4	4	5	5	6	6	7	7	8	8	9
E	16	16	18	18	20	20	22	22	24	24	26	26	28
F	122	222	122	222	122	222	122	222	122	222	122	222	122
G	310	350	370	400	420	450	470	500	510	550	570	600	620
H	320	380	380	430	420	480	470	530	520	580	580	630	620
Weight (kg)	19.3	20.4	21.6	22.7	23.8	25.0	26.1	27.3	28.4	29.5	30.7	31.8	32.9
Maximum speed (mm/s) * Varies depending on the stroke. Lead 20	1000						950	800	700	600	550	500	450

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)