

ICSB3-Z3C□HS1H

ICSPB3-Z3C□HS1H

High-Precision Specification

±10µm Standard

±5µm High-Precision

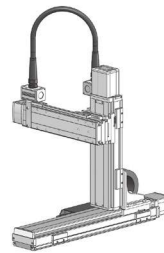
Battery-less Absolute

X-Y-Z 3-axis

XZ+YS (Y Slider Z Upright)

High Speed Type

X: Md (200W)
Z: Md (200W)
Y: Sm (60W)



Model Specification Items

Series	Type	Encoder Type	X-axis Stroke/Option	Z-axis Stroke/Option	Y-axis Stroke/Option	Applicable Controllers	Cable Length	Z-axis - Y-axis Cable Management
ICSB3: Standard 3-axis specification ICSPB3: High precision 3-axis specification	Refer to Model Specification table below	WA: Battery-less Absolute	12: 120mm 107: 1070mm (Every 50mm)	10: 100mm 40: 400mm (Every 50mm)	10: 100mm 40: 400mm (Every 50mm)	T2: SCON SSEL XSEL-P/Q XSEL-RA/SA	3L: 3m 5L: 5m □L: Specified length	Refer to Explanation of Model Designations below

Model Specification

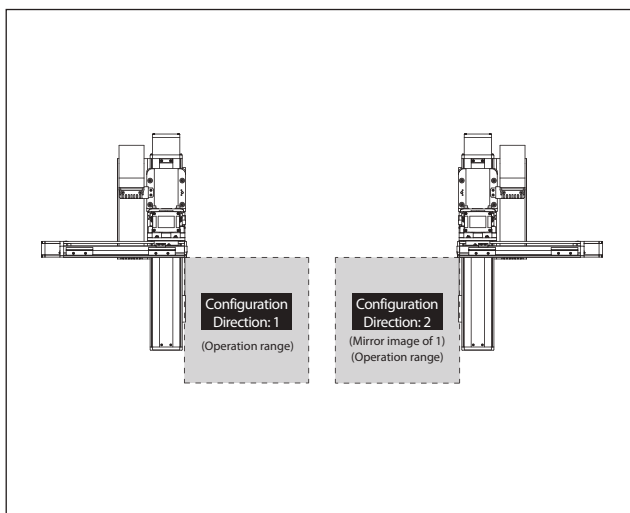
* Items in brackets [] are for the High-Precision Specification.

XY configuration direction *1	Z-axis speed type *2	Model
1	H	ICSB3[ICSPB3]-Z3C1HS1H-[1]-[2]-[3]-[4]-[5]-[6]-[7]BNM-T2-[8]-[9]
2	H	ICSB3[ICSPB3]-Z3C2HS1H-[1]-[2]-[3]-[4]-[5]-[6]-[7]BNM-T2-[8]-[9]

*1 Please refer to the following diagram under XY Configuration Direction. Please refer to the table on the right for details of [1] through [9] in the model names above.

*2 The payload and the max speed may vary depending on the type of Z-axis.

XY Configuration Direction



Axis Configuration

* Items in brackets [] are for the High-Precision Specification.

Name of axis	Model	Reference page
X-axis	ISB[ISPB]-MXL-[1]-200-20-[2]-T2-[10]-[3]	→ Please contact IAI for more details
Z-axis	ISB[ISPB]-MXM-[1]-200-10-[4]-T2-[10]-[5]	→ Please contact IAI for more details
Y-axis	ISB[ISPB]-SXM-[1]-60-16-[6]-T2-[10]-[7]	→ Please contact IAI for more details

* Refer to the symbols within the table Explanation of Model Designations at the upper right for [1] through [7] in the above model names.

Note that the strokes are indicated in mm (millimeters).

* Cable exit direction is specified with [10] in the above model names. Please refer to P.11 for the exit directions.

Explanation of Model Designations

No.	Description	Notation
[1]	Encoder type	WA: Battery-less Absolute
[2]	X-axis stroke (Note 1)	12: 120mm 107: 1070mm
[3]	X-axis option	Refer to Options table below.
[4]	Z-axis stroke (Note 1)	10: 100mm 40: 400mm
[5]	Z-axis option	Refer to Options table below.
[6]	Y-axis stroke (Note 1)	10: 100mm 40: 400mm
[7]	Y-axis option	Refer to Options table below.
[8]	Cable length (Note 2)	3L: 3m 5L: 5m □L: □m
[9]	Z-axis - Y-axis Cable Management	CT-SC: Cable track - Self-standing cable

Options

The option codes should be entered after the stroke for each axis. Make sure to indicate the standard equipped option in the model number. When selecting multiple options, specify them in **alphabetical order**.

Type	Model	Reference page
X-axis cable exit direction	*	See P.11, P.369
AQ seal (standard equipment)	AQ	See P.369
Brake (equipped as standard on Z-axis) *1	B	See P.369
Creep sensor *2	C/CL	See P.369
Home limit switch *2	L/LL	See P.369
Non-motor end specification *3 (standard Y-axis setting)	NM	See P.369
Guide with ball-retaining mechanism (Y/Z-axis only) *4	RT	See P.370

*1 Brake option for X and/or Y axes increases the length of the motor unit(s). Please contact IAI for details.

*2 When selecting the creep sensor and home limit switch, the mounting position differs according to the configuration direction, but the creep sensor is specified in the model name as "C" and the home limit switch as "L" regardless of the mounting position. Please refer to P.11 for more information.

*3 The configuration position in the figure is the home position. The normal setting for Y-axis is non-motor end (NM). To reverse the home position of the Y-axis, remove the non-motor end (NM) designation.

Note that changing the home position after purchase will require the actuator to be returned to IAI for adjustment.

*4 Cannot be selected for High-Precision Specification.

* To set a different X-axis cable exit direction from the normal setting, indicate the cable exit direction symbol.

Please refer to P.11 for the cable exit direction of each axis.

Common Specifications

* Items in brackets [] are for the High-Precision Specification.

Drive system	Ball screw, rolled C10 [equivalent to rolled C5]
Positioning repeatability	±0.01mm [±0.005mm]
Lost motion	0.05mm [0.02mm] or less
Guide	Integrated with base
Base	Material: Aluminum with white alumite treatment
X-axis motor output/lead	200W/20mm
Z-axis motor output/lead	200W/10mm
Y-axis motor output/lead	60W/16mm

Applicable Controllers

Contact IAI. The controller for this system needs to be purchased/prepared separately.

<p>Notes</p>	(Note 1) The strokes in the model names of the Cartesian Robots are specified in cm (centimeters).
	(Note 2) The cable length is the length between the X-axis connector box and the controller. The standard lengths are 3m and 5m, but other lengths can also be specified in meters. The maximum length is 15m.
	(Note 3) The rated acceleration is 0.4G. The payload is based on operation at the rated acceleration. When the acceleration is increased, the payload will be reduced.
	(Note 4) Please note that a longer stroke will result in a lower max speed.

Payload (kg) (Note 3)

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Y-axis stroke	Z-axis stroke	
	100~400	
100	9.5	
150	9.2	
200	8.8	
250	8.5	
300	8.2	
350	7.8	
400	7.6	

Maximum Speed by Stroke (mm/s) (Note 4)

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	120~670	720~770	820~870	920~970	1020~1070
X-axis	1200	860	695	570	460
Z-axis	600				
Y-axis	960				

ICSB3 [ICSPB3]-Z3C□HS1H-CT-SC (Cable track - Self-standing cable specification)

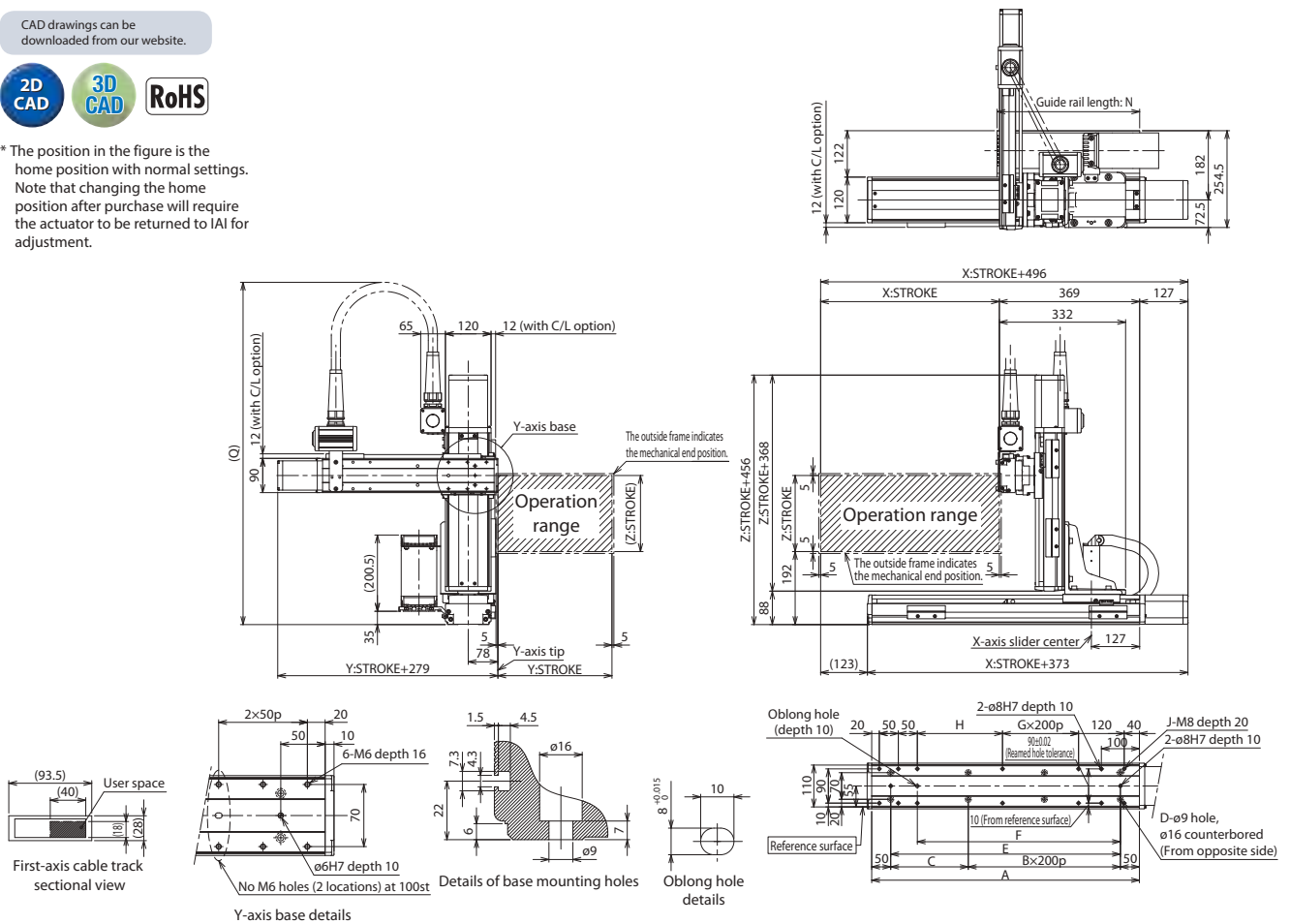
Dimensions

CAD drawings can be downloaded from our website.



* The position in the figure is the home position with normal settings. Note that changing the home position after purchase will require the actuator to be returned to IAI for adjustment.

(Configuration direction: 1)



Q dimension

Z-axis	Y-axis	100	150	200	250	300	350	400
100	900	900	950	950	1000	1000	1000	1000
150	1000	1000	1050	1050	1100	1100	1100	1100
200	1100	1100	1150	1150	1200	1200	1200	1200
250	1200	1200	1250	1250	1300	1300	1300	1300
300	1300	1300	1350	1350	1400	1400	1400	1400
350	1400	1400	1450	1450	1500	1500	1500	1500
400	1500	1500	1550	1550	1600	1600	1600	1600

X-axis stroke	120	170	220	270	320	370	420	470	520	570	620	670	720	770	820	870	920	970	1020	1070
A	354	404	454	504	554	604	654	704	754	804	854	904	954	1004	1054	1104	1154	1204	1254	1304
B	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
C	254	104	154	204	254	104	154	204	254	104	154	204	254	104	154	204	254	104	154	204
D	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
E	254	304	354	404	454	504	554	604	654	704	754	804	854	904	954	1004	1054	1104	1154	1204
F	184	234	284	334	384	434	484	534	584	634	684	734	784	834	884	934	984	1034	1084	1134
G	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4
H	74	124	174	224	274	124	174	224	274	124	174	224	274	124	174	224	274	124	174	224
J	10	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18
N	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675