ISA-LZM-200
Single-Axis Robot: Large Vertical-Axis Long Slider Type, Actuator Width 150mm, 200W, Straight Shape

ISPA-LZM-200
Single-Axis Robot: Large Vertical-Axis Long Slider Type, Actuator Width 150mm, 200W, Straight Shape

High-Precision Specification

| Type | Large vertical-axis (150-mm wide) long slider type | Stroke | 100 ~ 1200mm | Vertical application only (with standard brake) | 19kg |

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

ISA[ISPA] – LZM – I – 200 – 10 – 1200 – T1 – S – B – L

* 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 50mm (Note 1)	Speed (Note 2) (mm/s)	Acceleration (Note 3)				Load capacity (Note 3)				Rated thrust (N)
						Horizontal (G)		Vertical (G)		Horizontal (kg)		Vertical (kg)		
						Rated	Maximum	Rated	Maximum	Rated acceleration	Maximum acceleration	Rated acceleration	Maximum acceleration	
ISA [ISPA] -LZM-A-200-10-✱✱✱-T1-△-B-□	Absolute	200	10	100 ~ 1200	1 ~ 500	Vertical application only		0.3	0.5	Vertical application only		19	14	340.1
ISA [ISPA] -LZM-I-200-10-✱✱✱-T1-△-B-□	Incremental		10		1 ~ 500			0.3	0.5			19	14	340.1

* In the above model names, ✱✱✱ indicates the stroke, △ the cable length and □ the applicable options.

$*1.0G = 9800mm/sec^2$

Options

| Name	Code	Page	Name	Code	Page
AQ seal	AQ	P13	Master-axis designation	LM	P14
Brake	B	P13	Master-axis designation (sensor on opposite side)	LLM	P14
Creep sensor	C	P13	Reverse homing specification	NM	P14
Creep sensor on opposite side	CL	P13	Guide with ball-retaining mechanism	RT	P14
Home limit switch	L	P14	Slave-axis designation	S	P14
Home limit switch on opposite side	LL	P14			

* The MZM type comes standard with a brake (B).

Common Specifications
* Refer to page 10 for the details of common specification items.

Positioning repeatability (Note 4)	±0.02mm [±0.01mm]
Drive system (Note 5)	Ball screw ø16mm, rolled C10 [equivalent to rolled C5]
Lost motion (Note 6)	0.05mm or less [0.02mm or less]
Guide	integrated with base
Allowable static moment	Refer to page 242
Allowable dynamic moment	Ma: 104.9N•m Mb: 149.9N•m Mc: 124.5N•m
Brake	Comes standard with a dry, single-plate, non-excitation type electromagnetic brake
Base	Material: Aluminum, with white alumite treatment
Cable length (Note 7)	N: None, S: 3m, M: 5m, X□□: Specified length
Ambient operating temperature/humidity	0 to 40°C, 85%RH max. (non-condensing)

Dimensions

* Note that changing the home direction will require the actuator to be returned to IAI for adjustment.
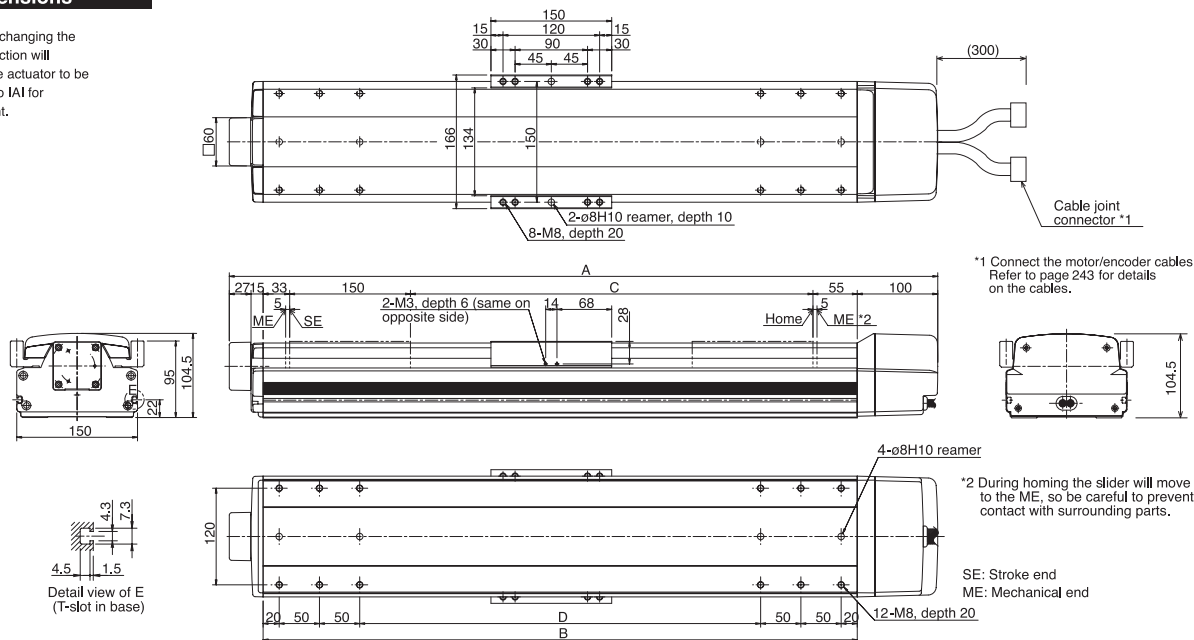
*1 Connect the motor/encoder cables. Refer to page 243 for details on the cables.

*2 During homing the slider will move to the ME, so be careful to prevent contact with surrounding parts.

SE: Stroke end
ME: Mechanical end

Detail view of E (T-slot in base)

■ Dimensions, Weight and Maximum Speed by Stroke

Stroke	100	(150)	200	(250)	300	(350)	400	(450)	500	(550)	600	700	800	900	1000	1100	1200
A	480	530	580	630	680	730	780	830	880	930	980						
B	338	388	438	488	538	588	638	688	738	788	838	Use the base of the LXM type for 700 and longer strokes.					
C	100	150	200	250	300	350	400	450	500	550	600	Refer to the drawing on page 25 for the mounting dimensions.					
D	98	148	198	248	298	348	398	448	498	548	598						
Weight (kg)	12.4	13.2	13.9	14.7	15.5	16.3	17.1	17.9	18.7	19.5	20.2	21.8	23.4	24.9	26.5	28.1	29.6
Maximum speed (mm/s)	500											500	470	385	320	270	235

Applicable Controller Specifications

Applicable controller	Maximum number of controlled axes	Compatible encoder type	Program operation	Positioner operation	Pulse-train control	Supply voltage	Page
X-SEL	4 axes	Absolute/incremental	○	△	×	AC100/200V	
E-Con	1 axis	Absolute/incremental	×	○	×	AC100/200V	
P-Driver	1 axis	Incremental	×	×	○	AC100/200V	

* The LZM type comes standard with a brake, so use a controller of brake specification.

⚠ Caution

(Note 1) The strokes that are set in increments of 50 mm are semi-standard settings.
(Note 2) 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 3) Refer to page 40 for the relationship of acceleration and load capacity.
(Notes 4, 5, 6) The figures in brackets apply to the ISPA Series.
Other specification values apply to both the ISA and ISPA Series.
(Note 7) The maximum cable length is 30 m. Specify the desired length in meters (e.g., X08 = 8 m).

* Refer to page 9 for other points to note.