

ISDB-L-400

Single-axis robot/Large, dustproof type/Actuator width: 150mm/400W
Straight shape

ISPDB-L-400

Single-axis robot/Large, dustproof type/Actuator width: 150mm/400W
Straight shape **High precision specification**



Model Specification Items

Series	L	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
ISDB: Standard specification ISPDB: High precision specification			A: Absolute specification I: Incremental specification	400: 400W	40: 40mm 20: 20mm 10: 10mm	100: 100mm 1300: 1300mm (in 50mm increments)	T1: XSEL-J/K T2: SCON SSEL XSEL-P/Q	N: None S: 3m M: 5m X□□: Specified length	Refer to the options table below.

* Refer to P. 10 for the details of items comprising the model number.

Model Number/Specification

Model number	Encoder type	Motor output (W)	Lead (mm)	Stroke in 50mm increments (mm)	Speed (mm/s)	Acceleration (Note 1)				Payload (Note 1)				Rated thrust (N)
						Horizontal (G)		Vertical (G)		Horizontal (kg)		Vertical (kg)		
						Rated	Maximum	Rated	Maximum	Rated acceleration	Maximum acceleration	Rated acceleration	Maximum acceleration	
ISDB[ISPDB]-L-①-400-40-②-③-④-⑤	Absolute/Incremental	400	40	100~1300	1~1800	0.4	1.0	0.4	1.0	40	17	8	5	169.6
ISDB[ISPDB]-L-①-400-20-②-③-④-⑤			20		1~1200	0.4	1.0	0.4	1.0	90	30	20	10	339.1
ISDB[ISPDB]-L-①-400-10-②-③-④-⑤			10		1~600	0.4	0.7	0.4	0.6	120	60	40	30	678.3

* In the above model numbers, ① indicates the encoder type, ② indicates the stroke, ③ indicates the applicable controller, ④ indicates the cable length, and ⑤ indicates the option(s).

Option

Name	Model number	Reference page	Name	Model number	Reference page
Cable exit from the left	A1S	→P11	Home limit switch	L	→P11
Cable exit from the rear left	A1E	→P11	Home limit switch on the opposite side	LL	→P11
Cable exit from the right	A3S	→P11	Master axis specification	LM	→P12
Cable exit from the rear right	A3E	→P11	Master axis specification (sensor on the opposite side)	LLM	→P12
AQ seal (standard feature)	AQ	→P11	Non-motor side specification	NM	→P12
Brake	B	→P11	Guide with ball retention mechanism	RT	→P12
Creep sensor	C	→P11	Slave axis specification	S	→P12
Creep sensor on the opposite side	CL	→P11	High straightness, precision specification	ST	→P13

Common Specifications

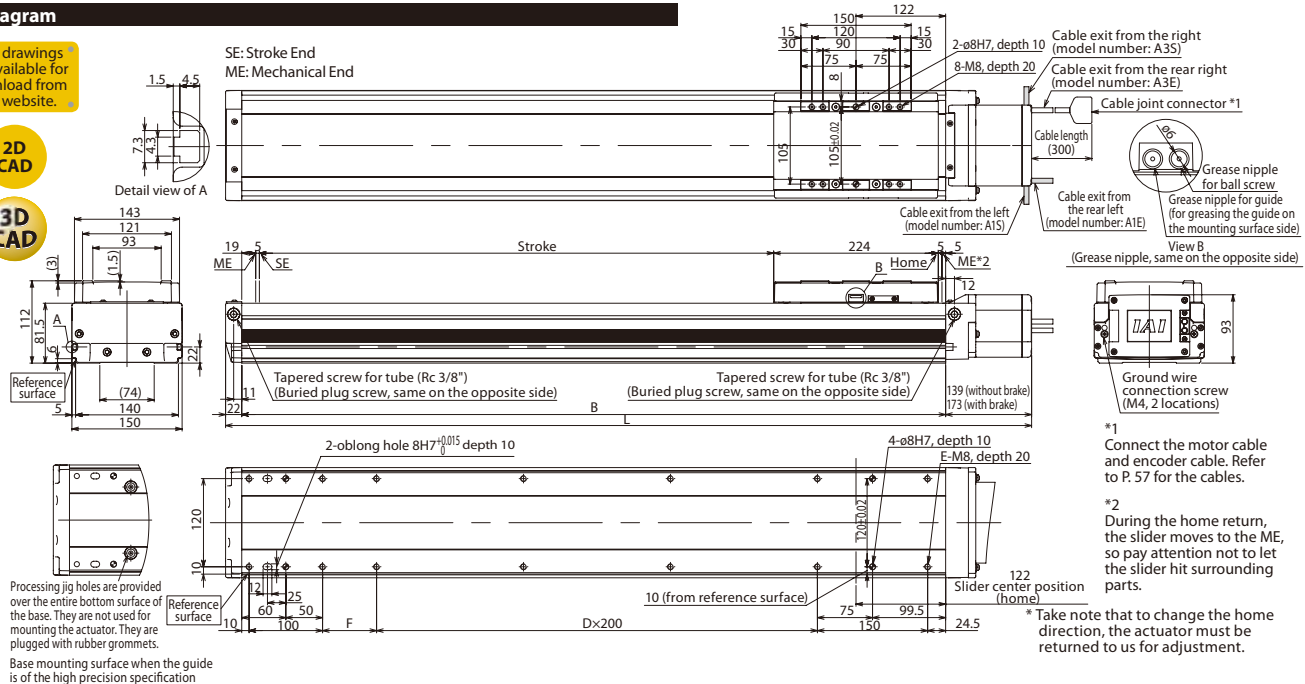
Positioning repeatability (Note 2)	±0.01mm [±0.005mm]
Drive method (Note 3)	Ball screw ø20mm, rolled C10 [equivalent to rolled C5]
Lost Motion (Note 4)	0.05mm [0.02mm] max.
Dynamic allowable load moment (Note 5)	Ma: 104.9N·m Mb: 149.9N·m Mc: 248.9N·m
Overhang load length	Ma direction: 750mm max. Mb, Mc directions: 750mm max.
Dynamic straightness (Note 6)	0.02mm/m max.
Base	Material: Aluminum, with white alumite treatment
Applicable controller	T1: XSEL-J/K T2: XSEL-P/Q, SSEL, SCON
Cable length (Note 7)	N: None, S: 3m, M: 5m, X□□: Specified length
Protection structure	IP30
Ambient operating temperature/humidity	0 to 40°C, 85%RH max. (non-condensing)

Diagram

* CAD drawings are available for download from our website.

2D CAD

3D CAD



Dimensions, Mass and Maximum Speed by Stroke

* If the brake is equipped, the mass increases by 0.5kg. * The maximum speed (mm/s) varies depending on the stroke.

Stroke	L													D													E													F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Mass (kg)	12.2	13.1	14.0	14.8	15.7	16.6	17.4	18.3	19.2	20.0	20.9	21.8	22.7	23.5	24.4	25.3	26.1	27.0	27.9	28.7	29.6	30.5	31.4	32.2	33.1	12.7	13.6	14.5	15.4	16.3	17.2	18.1	19.0	19.9	20.8	21.7	22.6	23.5	24.4	25.3	26.2	27.1	28.0	28.9	29.8	30.7	31.6	32.5	33.4	34.3	35.2	36.1	37.0	37.9	38.8	39.7	40.6	41.5	42.4	43.3	44.2	45.1	46.0	46.9	47.8	48.7	49.6	50.5	51.4	52.3	53.2	54.1	55.0	55.9	56.8	57.7	58.6	59.5	60.4	61.3	62.2	63.1	64.0	64.9	65.8	66.7	67.6	68.5	69.4	70.3	71.2	72.1	73.0	73.9	74.8	75.7	76.6	77.5	78.4	79.3	80.2	81.1	82.0	82.9	83.8	84.7	85.6	86.5	87.4	88.3	89.2	90.1	91.0	91.9	92.8	93.7	94.6	95.5	96.4	97.3	98.2	99.1	100.0	100.9	101.8	102.7	103.6	104.5	105.4	106.3	107.2	108.1	109.0	109.9	110.8	111.7	112.6	113.5	114.4	115.3	116.2	117.1	118.0	118.9	119.8	120.7	121.6	122.5	123.4	124.3	125.2	126.1	127.0	127.9	128.8	129.7	130.6	131.5	132.4	133.3	134.2	135.1	136.0	136.9	137.8	138.7	139.6	140.5	141.4	142.3	143.2	144.1	145.0	145.9	146.8	147.7	148.6	149.5	150.4	151.3	152.2	153.1	154.0	154.9	155.8	156.7	157.6	158.5	159.4	160.3	161.2	162.1	163.0	163.9	164.8	165.7	166.6	167.5	168.4	169.3	170.2	171.1	172.0	172.9	173.8	174.7	175.6	176.5	177.4	178.3	179.2	180.1	181.0	181.9	182.8	183.7	184.6	185.5	186.4	187.3	188.2	189.1	190.0	190.9	191.8	192.7	193.6	194.5	195.4	196.3	197.2	198.1	199.0	199.9	200.8	201.7	202.6	203.5	204.4	205.3	206.2	207.1	208.0	208.9	209.8	210.7	211.6	212.5	213.4	214.3	215.2	216.1	217.0	217.9	218.8	219.7	220.6	221.5	222.4	223.3	224.2	225.1	226.0	226.9	227.8	228.7	229.6	230.5	231.4	232.3	233.2	234.1	235.0	235.9	236.8	237.7	238.6	239.5	240.4	241.3	242.2	243.1	244.0	244.9	245.8	246.7	247.6	248.5	249.4	250.3	251.2	252.1	253.0	253.9	254.8	255.7	256.6	257.5	258.4	259.3	260.2	261.1	262.0	262.9	263.8	264.7	265.6	266.5	267.4	268.3	269.2	270.1	271.0	271.9	272.8	273.7	274.6	275.5	276.4	277.3	278.2	279.1	280.0	280.9	281.8	282.7	283.6	284.5	285.4	286.3	287.2	288.1	289.0	289.9	290.8	291.7	292.6	293.5	294.4	295.3	296.2	297.1	298.0	298.9	299.8	300.7	301.6	302.5	303.4	304.3	305.2	306.1	307.0	307.9	308.8	309.7	310.6	311.5	312.4	313.3	314.2	315.1	316.0	316.9	317.8	318.7	319.6	320.5	321.4	322.3	323.2	324.1	325.0	325.9	326.8	327.7	328.6	329.5	330.4	331.3	332.2	333.1	334.0	334.9	335.8	336.7	337.6	338.5	339.4	340.3	341.2	342.1	343.0	343.9	344.8	345.7	346.6	347.5	348.4	349.3	350.2	351.1	352.0	352.9	353.8	354.7	355.6	356.5	357.4	358.3	359.2	360.1	361.0	361.9	362.8	363.7	364.6	365.5	366.4	367.3	368.2	369.1	370.0	370.9	371.8	372.7	373.6	374.5	375.4	376.3	377.2	378.1	379.0	379.9	380.8	381.7	382.6	383.5	384.4	385.3	386.2	387.1	388.0	388.9	389.8	390.7	391.6	392.5	393.4	394.3	395.2	396.1	397.0	397.9	398.8	399.7	400.6	401.5	402.4	403.3	404.2	405.1	406.0	406.9	407.8	408.7	409.6	410.5	411.4	412.3	413.2	414.1	415.0	415.9	416.8	417.7	418.6	419.5	420.4	421.3	422.2	423.1	424.0	424.9	425.8	426.7	427.6	428.5	429.4	430.3	431.2	432.1	433.0	433.9	434.8	435.7	436.6	437.5	438.4	439.3	440.2	441.1	442.0	442.9	443.8	444.7	445.6	446.5	447.4	448.3	449.2	450.1	451.0	451.9	452.8	453.7	454.6	455.5	456.4	457.3	458.2	459.1	460.0	460.9	461.8	462.7	463.6	464.5	465.4	466.3	467.2	468.1	469.0	469.9	470.8	471.7	472.6	473.5	474.4	475.3	476.2	477.1	478.0	478.9	479.8	480.7	481.6	482.5	483.4	484.3	485.2	486.1	487.0	487.9	488.8	489.7	490.6	491.5	492.4	493.3	494.2	495.1	496.0	496.9	497.8	498.7	499.6	500.5	501.4	502.3	503.2	504.1	505.0	505.9	506.8	507.7	508.6	509.5	510.4	511.3	512.2	513.1	514.0	514.9	515.8	516.7	517.6	518.5	519.4	520.3	521.2	522.1	523.0	523.9	524.8	525.7	526.6	527.5	528.4	529.3	530.2	531.1	532.0	532.9	533.8	534.7	535.6	536.5	537.4	538.3	539.2	540.1	541.0	541.9	542.8	543.7	544.6	545.5	546.4	547.3	548.2	549.1	550.0	550.9	551.8	552.7	553.6	554.5	555.4	556.3	557.2	558.1	559.0	559.