

HIWIN® MIKROSYSTEM

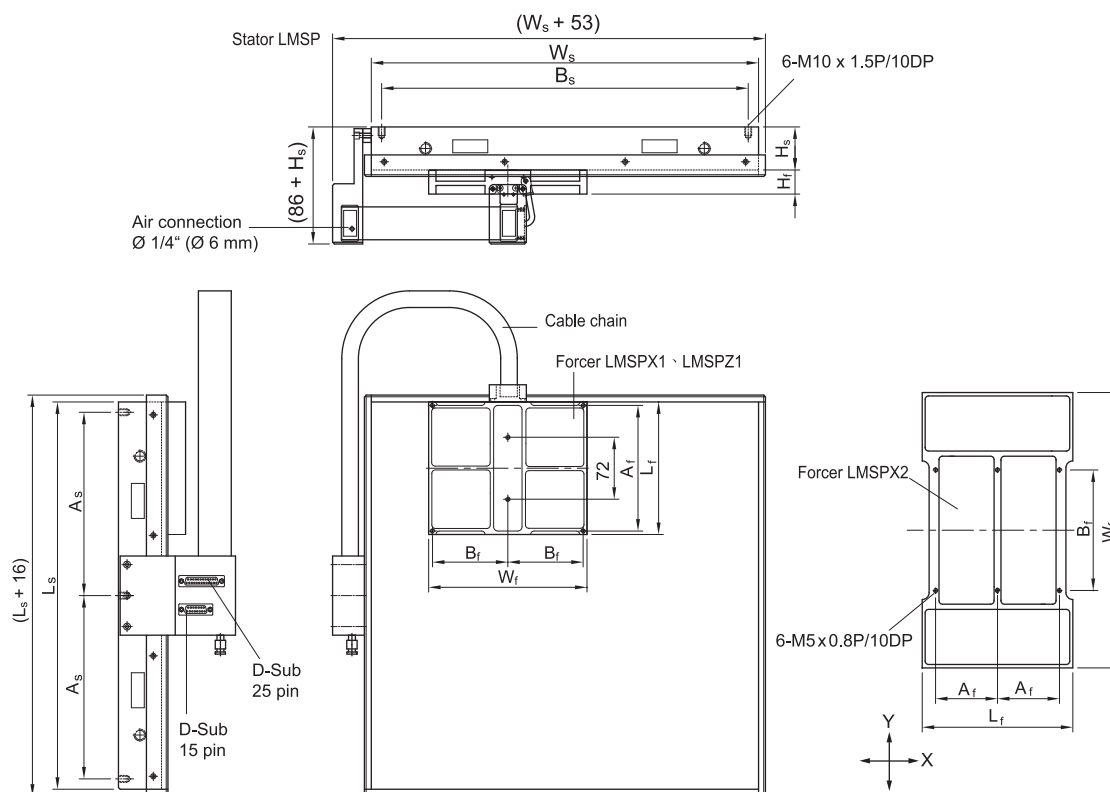


Air bearing **free of wear**
Stator area up to **1000x850 mm**

LMSP Series

Linear Planar Servo Motor

Product specifications

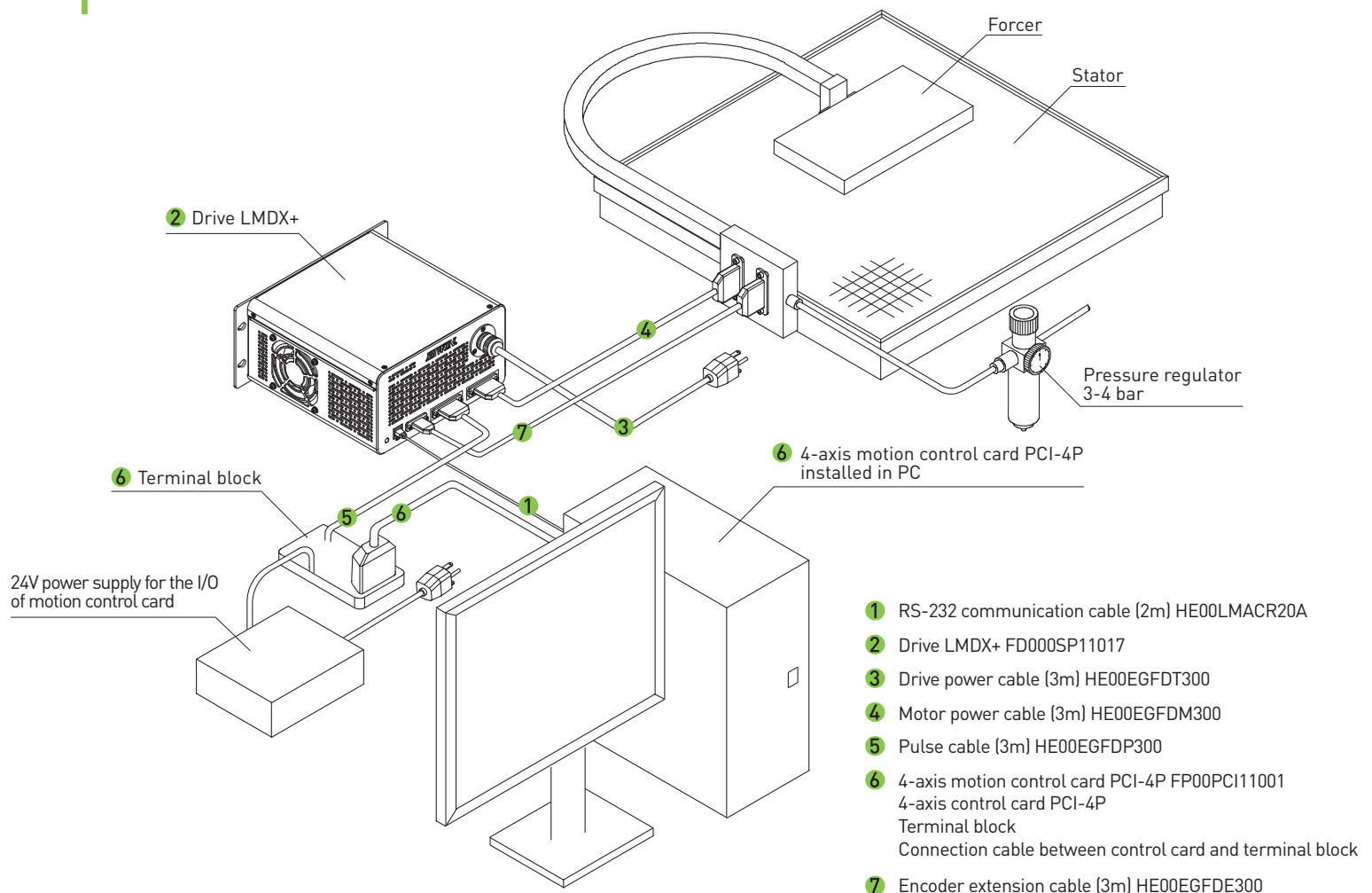


		Symbol	Unit	LMSPX1	LMSPZ1	LMSPX2
Performance	Max.forcer	T_m	N	75	75	140
	Resolution	R_p	mm	0.001	0.001	0.001
	Repeatability(unidirectional)	R_p	mm	0.002	0.001	0.002
	Accuracy(every 300mm)	A_c	mm	± 0.015	± 0.015	± 0.015
	Max. speed(no load)	V	m/s	0.9	0.9	0.8
	Max. load	-	kg	12.2	12.2	24.3
Forcer	Length	L_f	mm	154	154	175
	Width	W_f	mm	184	184	320
	Height	H_f	mm	28	28	30
	Air pressure	P_a	kg/cm ²	3-4	3-4	3-4
	Air flow rate	F_a	l/min	6.4	6.4	11
	Mass	M_f	kg	1.8	1.8	3.7
	Fixing distance	$A_f \times B_f$	mm x mm	146 x 87.5	146 x 87.5	72 x 140

Dimension

		Unit	P1	P2	P3	P4	P5	P6
Stator dimensions	$L_s \times W_s$	mm	350 x 330	450 x 450	600 x 450	600 x 600	1000 x 600	850 x 850
Max. Stroke (One forcer)	LMSPX1/LMSPZ1	mm	190 x 140	290 x 260	440 x 260	440 x 410	840 x 410	690 x 660
	LMSPX2	mm	-	270 x 125	420 x 125	420 x 275	820 x 275	670 x 525
Stator height	H_s	mm	50	50	70	70	100	120
Mass of Stator	-	kg	27	36	52	66	120	250
Fixing Distance	$A_s \times B_s$	mm	165 x 310	213 x 426	288 x 426	288 x 576	(318-324-318)x 280	400 x 400
No. of mounting holes	-	-	6	6	6	6	10	9

Configuration



Model Number

LMSP **1 1 P1**

Series

LMSPX: Hall sensor
LMSPZ: Capacitive sensor

Forcer

1
2

Number of forcers

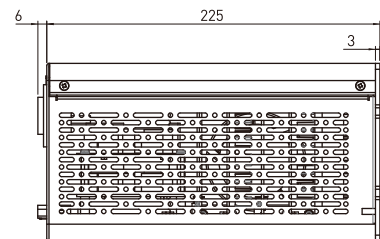
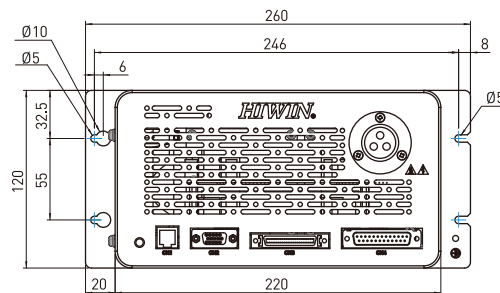
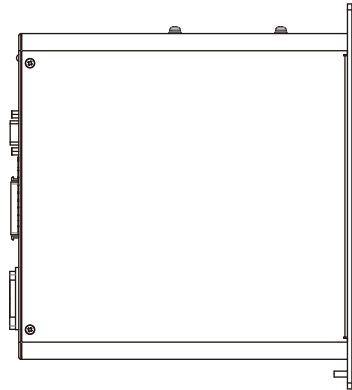
1
2
3
4

Stator

P1 P4
P2 P5
P3 P6

Servo Drive LMDX+

Servo drive LMDX+ is dedicated for planar servo motor LMSP.
Smaller than one eighth of LMDX in size.



		Unit	Description
Power supply	Voltage	V _{AC}	95-264
	Frequency output	Hz	50/60
Output current	-	A	3 (max.)
Interface	Parameter setting:RS-232	-	115200 Baud, 8 data bits, 2 stop bits, odd parity
	Digital I/O signal	-	8 inputs:including HOME and RESET 8 outputs:including IN-POSITION,SVRDY,ALARM,HOMED and HOMING
	Pulse command	Pulse	STEP/DIR, CW/CCW, AqB
Resolution	-	µm/pulse	1(Set by parameter)
Weight	-	kg	5.4
Max. operation temperature	-	°C	40
Storage temperature	-	°C	0~80
Humidity	-	%	0~95

Product Features

Linear Planar Servo Motor

The planar motor LMSP has integrated distance measurement sensors and works with position control (closed loop).

XY table

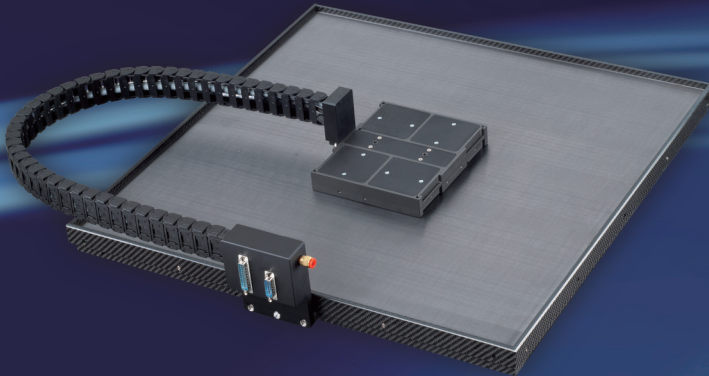
Closed loop thanks to integrated distance measurement

Air bearing free of wear

No externally measurable magnetic fields

The position accuracy is stable because of low heat generation.

Can be mounted upside down



1000x850 mm

Stator area up to

0.001 mm

Resolution

± 0.015 mm

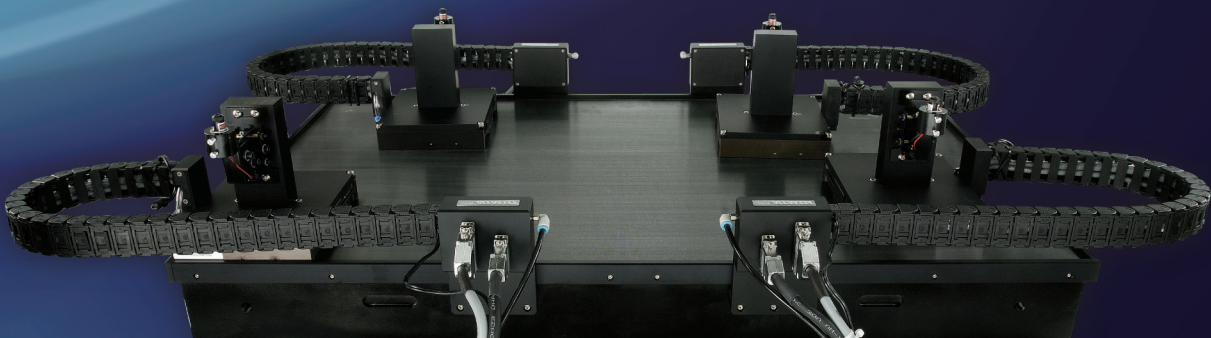
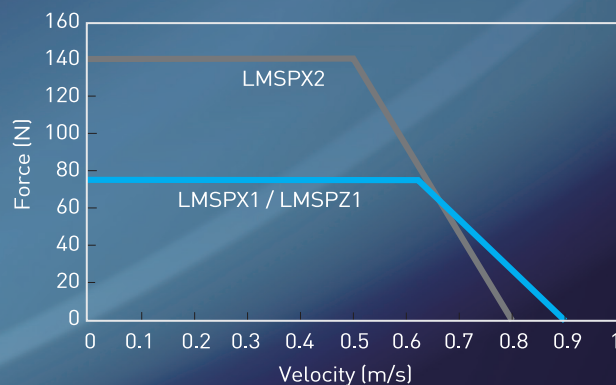
Accuracy
(every 300mm)

0.001 mm

Repeatability
(LMSPZ1)

LMSP series F-V Curve

(DC bus voltage = 300V_{DC})



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