

LinMot®

Linear Motor Series P10-70



Peak force up to 2'500N



Velocity up to 5m/s



Acceleration up to 100g



Free positioning



Long life: Linear direct drive

The linear motor technology for industrial applications

Electromagnetic direct drive

With the Linear Motor Family P10-70 LinMot extends the product range with bigger and more powerful actuators for 3x400VAC for forces up to 2'500N. Five different motor sizes from 500N to 2'500N will cover a wide range of high power applications with heavy loads. The motors are controlled by the new Series E1400 Servo Controllers with Field bus and industrial Ethernet Interfaces. The E1400 Controllers are directly supplied from the AC mains with a 3x340...480VAC input range.

LinMot industrial linear motors are design elements that offer significant advantages over typical elements such as pneumatic cylinders, servomotors with spindles and belts, or mechanical solutions such as cam, discs or crank designs. LinMot industrial linear motors are new design elements that enable innovative solutions for new functional units, modules, or entire machines that were previously impractical using traditional elements. The high level of integration (bearings and position sensors are integrated in the motor) and the ability to integrate LinMot systems into a wide range of control systems shorten the design-in time.



Range of ironcore tubular linear motors

Since the form factor of LinMot linear motors is similar to that of pneumatic cylinders, they are often used as replacements for pneumatic cylinders. This is especially the case when more than two positions are required, if the positions need to be changed via software, or if the dynamics or lifespan of the pneumatic cylinder is not sufficient.

The new LinMot Linear Motors size P10-70 will open the LinMot technology for new applications with higher forces and higher loads

Servo Controllers

LinMot announces the launch of the series E1400 Servo Controller with 3x340...480VAC supply and industrial ETHERNET interfaces. The new controllers are available with the five most common ETHERNET protocols, ProfiNet, EtherNet IP, Powerlink, EtherCAT, Sercos III and Profibus DP to provide maximum flexibility for integration with system controllers. The series E1400 controllers are designed to control LinMot linear motors Series P10-70 as well as rotary servomotors. The controllers flexible power stage with direct three phase supply 3x340...480VAC from the AC mains is available with up to 28A phase current.

Together, the series E1200, E1100 and the new series E1400 controllers cover the entire range of industrial field busses for communication with the most common machine controllers. This allows machine and system builders to integrate LinMot linear motors into any controls concept. LinMot servo controllers communicate easily with PLC and IPC controllers from Siemens, Allen-Bradley/Rockwell, Schneider/Elau, Beckhoff, Omron and many others.



Servo Controllers Series E1400



Ordering information

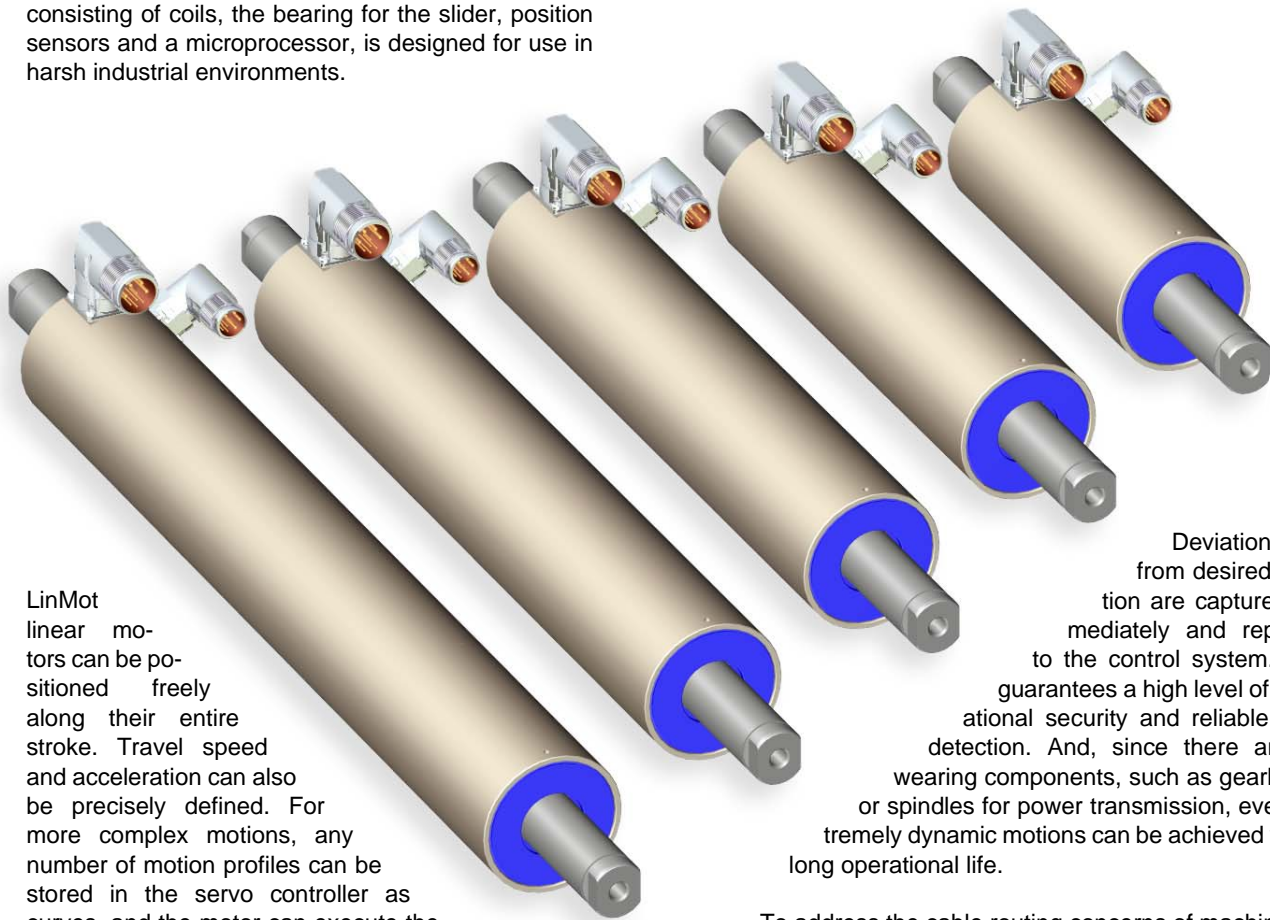
Item	Description	Part Number
Servo Controller Series E1400		
E1400-GP-QN	General Purpose Controller (3x400V/28A)	0150-1779
E1400-DP-QN	Profibus DP Controller (3x400V/28A)	0150-1786
E1400-EC-QN	EtherCAT Controller (3x400V/28A)	0150-1784
E1400-IP-QN	Ethernet/IP DP Controller (3x400V/28A)	0150-1782
E1400-PL-QN	POWERLINK Controller (3x400V/28A)	0150-1791
E1400-PN-QN	ProfiNet Controller (3x400V/28A)	0150-1783
E1400-SC-QN	Sercos III Controller (3x400V/28A)	0150-1785
E1450-SE-QN	Sercos over EtherCAT Controller (3x400V/28A)	0150-1899
EV01-E1400	Ventilatorkit for Servo Controllers Series E1400	0150-5055

Ironcore tubular linear motor

LinMot linear motors employ a direct electromagnetic principle. Electromagnetic force provides direct linear movement without the use of cams, gears, belts, or other mechanical devices. The motor consists of only two parts: the slider and the stator. The slider is a precision assembly that consists of a stainless steel tube, which is filled with neodymium magnets, that has threaded attachment holes on each end. The stator, consisting of coils, the bearing for the slider, position sensors and a microprocessor, is designed for use in harsh industrial environments.

such as gearboxes or gear racks, linear motors can be positioned as precisely as desired, consistent with the resolution of the measurement system.

The internal position sensors measure and monitor the current position of the linear motor, both at rest and in motion.



LinMot linear motors can be positioned freely along their entire stroke. Travel speed and acceleration can also be precisely defined. For more complex motions, any number of motion profiles can be stored in the servo controller as curves, and the motor can execute the motion at the desired speed. The motion of the linear motor can also be synchronized with another rotary or linear motion.

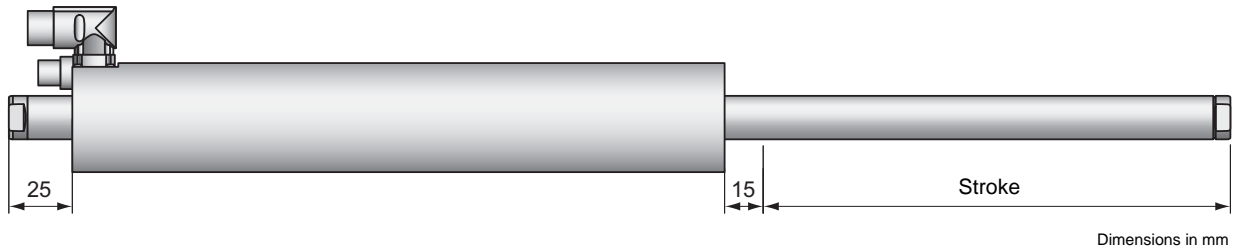
Extremely dynamic motions can be achieved with industrial linear motors. Velocities over 5m/s and accelerations of well over 100g provide very short positioning times and high cycle rates. With the elimination of components afflicted by mechanical play,

Deviations from desired position are captured immediately and reported to the control system. This guarantees a high level of operational security and reliable error detection. And, since there are no wearing components, such as gearboxes or spindles for power transmission, even extremely dynamic motions can be achieved with a long operational life.

To address the cable routing concerns of machine designers, LinMot provides motors with two rotatable IP67 connectors for signal and power mounted right on the motor.

The 3x400VAC motors are available in 5 different sizes with peak forces of from 500 to 2'500 N and strokes up to 1770 mm. In addition, the modular design of LinMot motors allows custom designs even in moderate quantities.

Strokes



Stator	PS01-70x80	PS01-70x160	PS01-70x240	PS01-70x320	PS01-70x400
Peak Force	500N	1000N	1500N	2000N	2500
Cont. Force	70/115*N	140/230*N	210/340*N	280/450*N	350/560*N

Slider	Stroke in mm				
PL10-28x290/240	70				
PL10-28x390/340	170	90	10		
PL10-28x490/440	270	190	110	30	
PL10-28x590/540	370	290	210	130	50
PL10-28x690/640	470	390	310	230	150
PL10-28x790/740	570	490	410	330	250
PL10-28x890/840	670	590	510	430	350
PL10-28x990/940	770	690	610	530	450
PL10-28x1190/1140	970	890	810	730	650
PL10-28x1390/1340	1170	1090	1010	930	850
PL10-28x1590/1540	1370	1290	1210	1130	1050
PL10-28x1790/1740	1570	1490	1410	1330	1250
PL10-28x1990/1940	1770	1690	1610	1530	1450

*without/with fan

Ordering information

Item	Description	Part Number
Stator Series PS01-70		
PS01-70x80	Stator 3x400VAC, LinMot Encoder	0150-1291
PS01-70x160	Stator 3x400VAC, LinMot Encoder	0150-1292
PS01-70x240	Stator 3x400VAC, LinMot Encoder	0150-1293
PS01-70x320	Stator 3x400VAC, LinMot Encoder	0150-1284
PS01-70x400	Stator 3x400VAC, LinMot Encoder	0150-1294
Slider Series PL10-28		
PL10-28x290/240	Slider for P10-70 "standard"	0150-2193
PL10-28x390/340	Slider for P10-70 "standard"	0150-2194
PL10-28x490/440	Slider for P10-70 "standard"	0150-2195
PL10-28x590/540	Slider for P10-70 "standard"	0150-2196
PL10-28x690/640	Slider for P10-70 "standard"	0150-2197
PL10-28x790/740	Slider for P10-70 "standard"	0150-2198
PL10-28x890/840	Slider for P10-70 "standard"	0150-2199
PL10-28x990/940	Slider for P10-70 "standard"	0150-2203
PL10-28x1190/1140	Slider for P10-70 "standard"	0150-2204
PL10-28x1390/1340	Slider for P10-70 "standard"	0150-2205
PL10-28x1590/1540	Slider for P10-70 "standard"	0150-2206
PL10-28x1790/1740	Slider for P10-70 "standard"	0150-2207
PL10-28x1990/1940	Slider for P10-70 "standard"	0150-2208

Flanges and ventilator



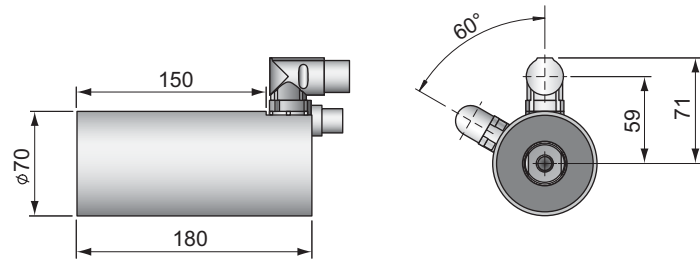
Item	Description	Part Number
Flanges PF10-70		
PF10-70x80	Flange for PS01-70x80	0150-2272
PF10-70x160	Flange for PS01-70x160	0150-2273
PF10-70x240	Flange for PS01-70x240	0150-2274
PF10-70x320	Flange for PS01-70x320	0150-2275
PF10-70x400	Flange for PS01-70x400	0150-2276
Ventilator		
EV01-E1400	Ventilatorkit for Servo Controller E1400	0150-5055

Cable

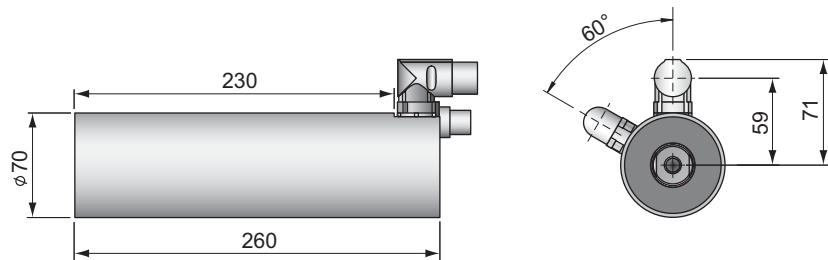


Item	Description	Part Number
Sensor Cable KSS05		
KSS05-02/08-D15/J17-3	High Flex cable Sensor D15/J17, 3m	0150-2263
KSS05-02/08-D15/J17-5	High Flex cable Sensor D15/J17, 5m	0150-2262
KSS05-02/08-D15/J17-8	High Flex cable Sensor D15/J17, 8m	0150-2264
KSS05-02/08-D15/J17-12	High Flex cable Sensor D15/J17, 12m	0150-2265
KSS05-02/08-D15/J17-L	Special cable KSS05-02/08-D15/J17	0150-3389
Power Cable KPS15		
KPS15-04-L/Q8-3	High Flex cable Power L/Q8, 3m	0150-2266
KPS15-04-L/Q8-5	High Flex cable Power L/Q8, 5m	0150-2261
KPS15-04-L/Q8-8	High Flex cable Power L/Q8, 8m	0150-2267
KPS15-04-L/Q8-12	High Flex cable Power L/Q8, 12m	0150-2268
KPS15-04-L/Q8-L	Special cable KPS15-04-L/Q8	0150-3388

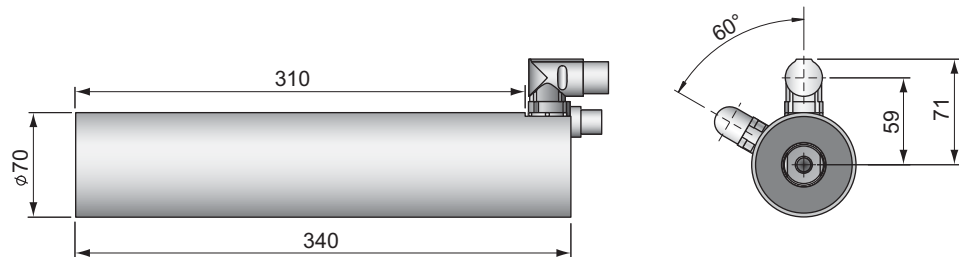
PS01-70x80



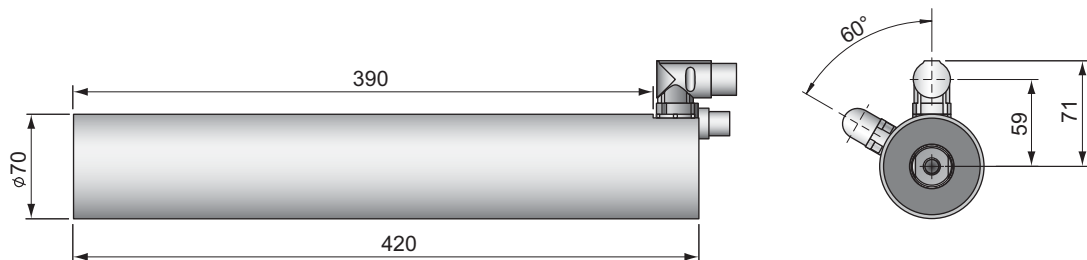
PS01-70x160



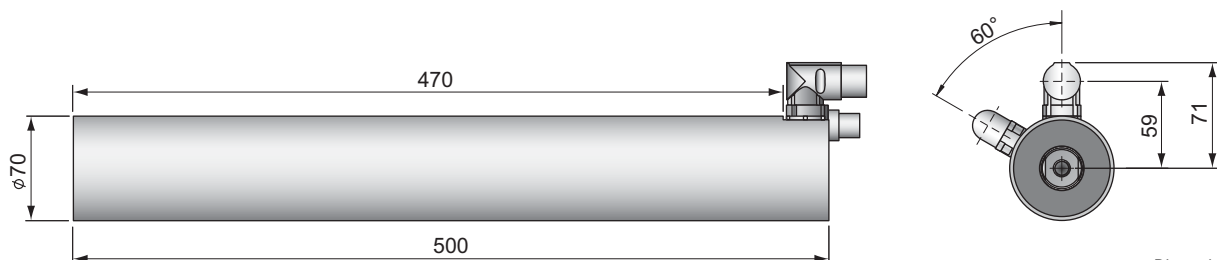
PS01-70x240



PS01-70x320



PS01-70x400



Dimensions in mm

Smart solutions are driven by

LinMot®

Brochure brought to you by:



LinMot®

All for linear motion from a single source

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