

# LINEAR MOTORS STAINLESS STEEL



**Stainless steel motors from LinMot meet the highest level of hygiene.**

## Product Description

Developed for a challenging environment, these compact linear motors are designed entirely of EN 1.4404/AISI 316L stainless steel. The motor is designed with hygiene as its primary goal. In order to avoid buildup of contaminants, the motor is designed without unnecessary edges, corners, holes, and threads. In addition, all joints are welded, so no seals are required.

The stainless steel family of motors consists of three sizes and has a range of strokes up to 980 mm. These drives can be used in machines and systems for processing food products or in pharmaceutical industry operations. They are capable of handling extremely rough or corrosive environments without a problem and can be cleaned with any typical industrial cleaning products.



### Special Wash-Down Bearings

For optimal cleaning of the linear motors, LinMot offers stainless steel motors with specially developed wash-down bearings. They are conceived so that any contaminants can be cleaned off under high pressure without leaving any residue. The material used, just like the bearing material indicated above, has been specially certified for food product processing.

### External Guide Bearings

The linear motors are equipped with external sliding bearings that guide the slider precisely over the entire stroke length. This means that the motion inside the stator occurs with no contact whatsoever. The bearing material is specially designed for use with food products and medical applications and is certified to FDA standards.

### IP69K PROTECTION RATING

The windings in the LinMot motor are completely encapsulated in epoxy resin, which protects both the copper filling and the stator package against condensation and corrosion.

Thanks to this complete encapsulation, the motors are also protected against penetration by dust and water (allowing high-pressure and steam-jet cleaning). This leak tightness means that they meet protection class IP69K according to DIN EN 60529.

### INTEGRATED WATER COOLING

The Stainless steel linear motors can optionally be supplied with integrated water cooling. The stator is enclosed by the cooling system along its entire length. The heat losses generated in the motor are dissipated through the liquid cooling system. This increases the rated power of the motor several times over in comparison with the self-cooled version. The lower surface temperature of the motor also greatly reduces microbe growth.

### HIGH AND CONTROLLED DYNAMICS

Max. acceleration values over 400 m/s<sup>2</sup> and travel speeds over 3 m/s allow cyclical motion sequences of several Hertz.

For handling applications with sensitive products, such as transporting wafers in semiconductor production, very gentle, smooth motions with suitable accelerations can be obtained.

**FREELY POSITIONABLE**

LinMot linear motors can be freely positioned. With absolute or relative movement commands, they can move to any desired position in the stroke range. Since the LinMot linear drive is a closed-loop system, not only the end positions are monitored, but also deviations in position during travel. This allows, among other things, precise specification of travel speeds, acceleration and braking ramps, and travel through curved paths.

**PROCESS STABILITY**

For temperature monitoring all linear motions are equipped with sensors that transfer the data to the drive. The data can be analyzed in the superordinate control so that the motor, depending on the processing (for example, foods such as fish) can be kept in a constant temperature range.

Since not only the temperature, but also speed and acceleration are controlled and monitored, motions that are programmed once are carried out the same way over the entire life of the machine.

**SYNCHRONIZATION**

For synchronous machines, the linear motor can be synchronized to the main shaft. By replacing mechanical cam discs with LinMot linear motors, for example, great variations can be achieved, with format changeovers at the push of a button.

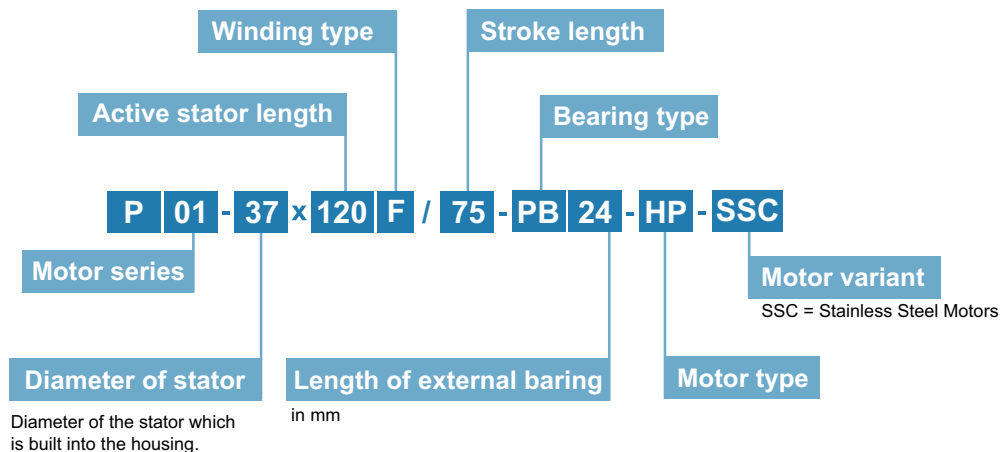
**OVERLOAD PROTECTION**

There are no mechanical components for force transfer that could be damaged in a crash or stall condition in a linear motor. Complex, expensive designs to protect gearboxes, gears, and shafts are thus eliminated. If the linear motor stalls, it acts like a pneumatic cylinder and tries to reach the target position with maximum force. The following error monitor in the drive can, however, immediately recognize a stall condition. Temperature sensors integrated in the stator prevent the drive from overloading in any case.

**LONG LIFESPAN**

Since the linear motion is generated purely magnetically, and no mechanical force transmission takes place, even extremely dynamic applications can be implemented with a long lifespan.

**Type Code**



For explanations of the terms, please refer to the section "Glossary"



# LINEAR MOTORS P01-37x120F-HP-SSC



- ✓ Stainless steel housing EN 1.4404 / AISI / SAE 316L
- ✓ Hygienic design
- ✓ Welded connections
- ✓ Completely encapsulated
- ✓ IP Code IP69K
- ✓ Optional integrated water cooling
- ✓ For use in the food or in the pharmaceutical sector

## LINEAR MOTORS P01-37x120F-HP-SSC

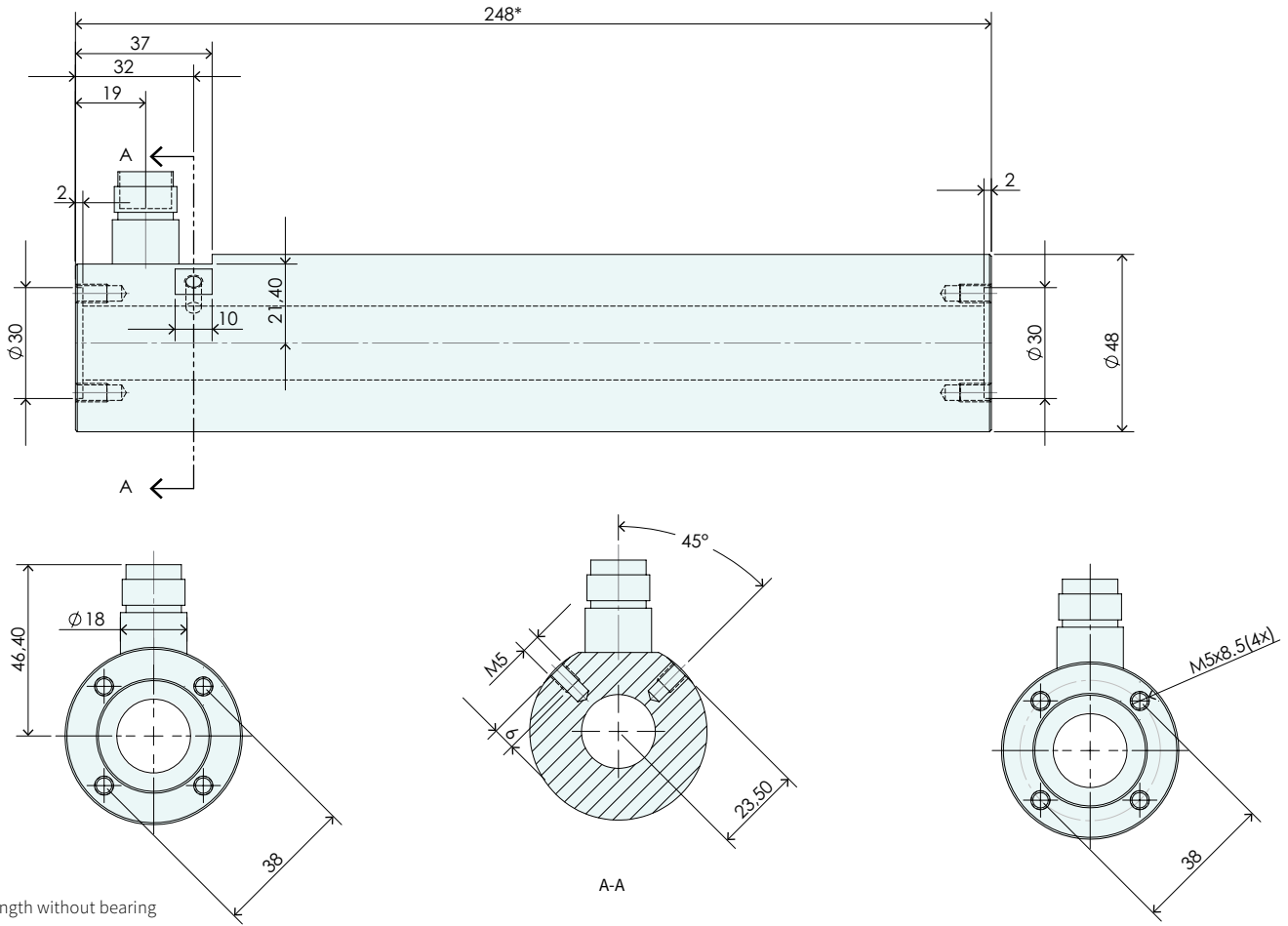
<b>Technical Data</b>	<b>625</b>
<b>Motor Specifications</b>	
P01-37x120F/75-HP-PB24-SSC	<b>628</b>
P01-37x120F/180-HP-PB24-SSC	<b>629</b>
P01-37x120F/280-HP-PB24-SSC	<b>630</b>
P01-37x120F/380-HP-PB24-SSC	<b>631</b>
P01-37x120F/480-HP-PB24-SSC	<b>632</b>
P01-37x120F/580-HP-PB24-SSC	<b>633</b>
P01-37x120F/680-HP-PB24-SSC	<b>634</b>
<b>Linear Guides</b>	<b>635</b>
<b>Accessories</b>	<b>636</b>



### MOTOR FAMILY P01-37x120F-HP-SSC

Technical Data				
<b>Stroke</b>				
Max. Stroke	mm	(in)	680	(26.8)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	210	(47.1)
Max. Force @ 72VDC	N	(lbf)	210	(47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	23 / - / 63	(5.3 / - / 14)
Max. Border Force relative	%		≤ 100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	14	(3.14)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	3.2	(119.9)
Max. Velocity @ 72VDC	m/s	(in/s)	4.6	(189.9)
<b>Position Detection</b>				
Position Resolution	mm	(in)	0.005	(0.0002)
Repeatability	mm	(in)	±0.05	(±0.002)
Position Resolution with ES	mm	(in)	0.001	(0.00004)
Repeatability with ES	mm	(in)	±0.01	(±0.0004)
Linearity with ES	mm	(in)	±0.01	(±0.0004)
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		14.9	
Max. Current @ 72VDC	A <sub>pk</sub>		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		1.7 / - / 4.5	
Terminal Resistance 25 °C / 120 °C	Ohm		2.4 / 3.5	
Terminal Inductivity	mH		1.6	
Magnetic Period	mm	(in)	40	(1.57)
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		8.3 / - / 1.1	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		3300 / - / 450	
<b>Mechanical Data</b>				
Stator Diameter	mm	(in)	48	(1.9)
Stator Length [Connector type / Cable type]	mm	(in)	296	(12)
Stator Mass	g	(lb)	2250	(4.95)
Slider Diameter	mm	(in)	19	(0.75)
Slider Length	mm	(in)	240 - 1000	(9.4 - 39)
Slider Mass	g	(lb)	415 - 1800	(0.91 - 3.96)
IP Code			IP 69k	

**STATOR**

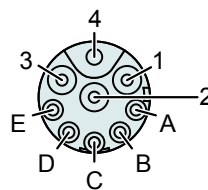


Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>

**CONNECTOR**

Motor Connector Wiring	PS01-37x120F-HP-SSC-R PS01-37x120F-HP-SSC-R-FC	Wire Color Motor Cable
	R-Connector	
Ph 1+	1	red
Ph 1-	2	pink
Ph 2+	3	blue
Ph 2-	4	grey
+5VDC	A	white
GND	B	inner Shield
Sinus	C	yellow
Cosinus	D	green
Temp.	E	black
Shield	Case	outer Shield

**R-Connector**



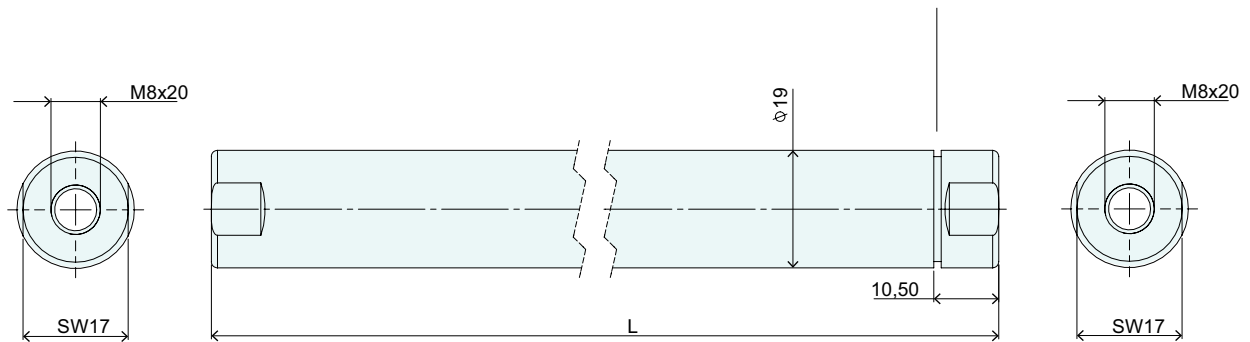
View: Motor connector, plug side



**SLIDER**

**Slider High Clearance**

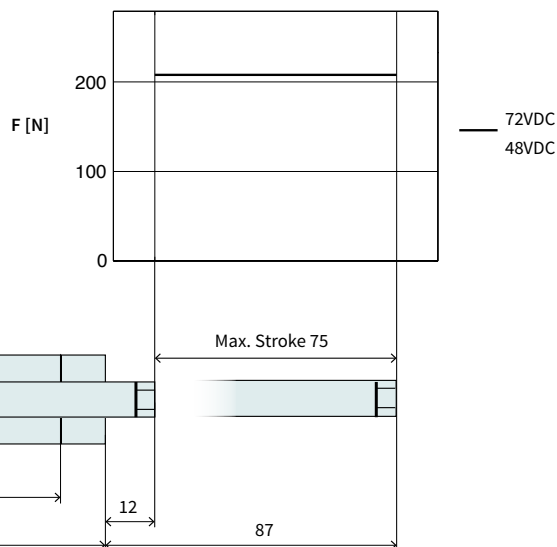
Number of grooves determines the slider type (see chapter 2 / slider) and marks the front end.



Slider High Clearance			
Item	Description	Max. Stroke [mm]	Item-No.
PL01-19x395/320	Slider 'High Clearance'	75	<a href="#">0150-1452</a>
PL01-19x500/420	Slider 'High Clearance'	180	<a href="#">0150-1455</a>
PL01-19x600/520	Slider 'High Clearance'	280	<a href="#">0150-1456</a>
PL01-19x700/620	Slider 'High Clearance'	380	<a href="#">0150-1457</a>
PL01-19x800/720	Slider 'High Clearance'	480	<a href="#">0150-1458</a>
PL01-19x900/820	Slider 'High Clearance'	580	<a href="#">0150-1459</a>
PL01-19x1000/920	Slider 'High Clearance'	680	<a href="#">0150-1460</a>

**P01-37x120F/75-PB24-HP-SSC**

**Max. Stroke:** 75 mm  
**Peak Force:** 210 N



Dimensions in mm

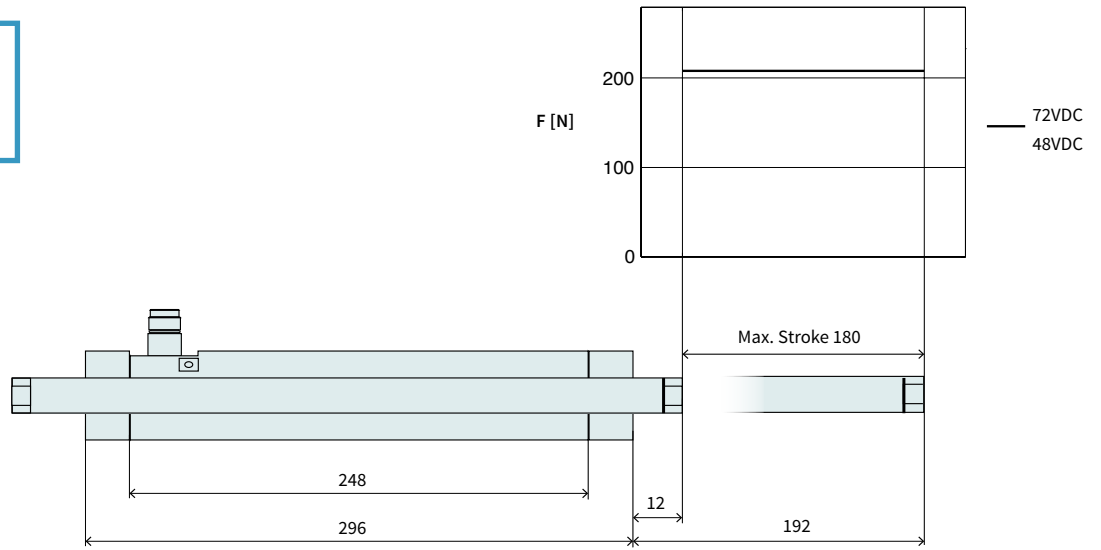
Technical Data P01-37x120F/75-HP-PB24-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)		75 (2.95)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)		210 (47.1)
Max. Force @ 72VDC	N (lbf)		210 (47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		23 / - / 63 (5.3 / - / 14)
Max. Border Force relative	%		100
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		14 (3.14)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)		3.2 (119.9)
Max. Velocity @ 72VDC	m/s (in/s)		4.6 (189.9)
<b>Position Detection</b>			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.75
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>		14.9
Max. Current @ 72VDC	A <sub>pk</sub>		14.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		1.7 / - / 4.5
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		8.3 / - / 1.1
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		3300 / - / 450
<b>Mechanical Data</b>			
Slider Length	mm (in)		395 (16)
Slider Mass	g (lb)		748 (1.65)



Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
<b>PL01-19x395/320</b>	Slider 'High Clearance'	<a href="#">0150-1452</a>

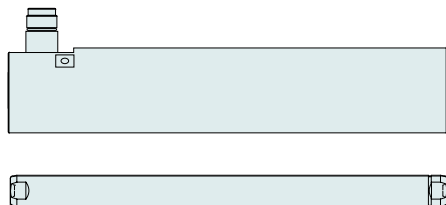
**P01-37x120F/180-PB24-HP-SSC**

**Max. Stroke:** 180 mm  
**Peak Force:** 210 N



Dimensions in mm

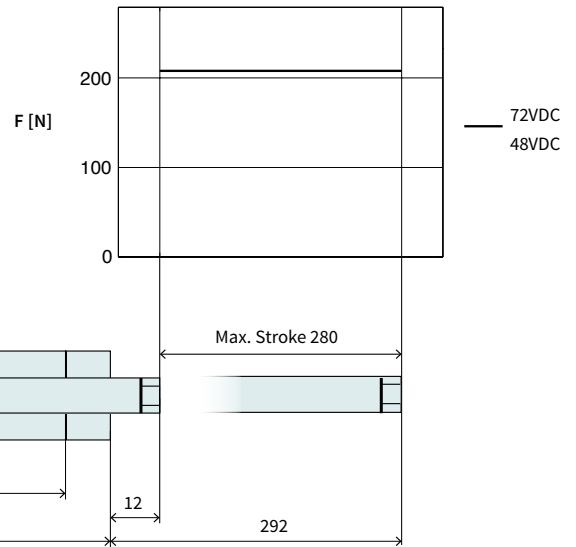
Technical Data P01-37x120F/180-HP-PB24-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	180	(7.08)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	210	(47.1)
Max. Force @ 72VDC	N	(lbf)	210	(47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	23 / - / 63	(5.3 / - / 14)
Max. Border Force relative			100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	14	(3.14)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	3.2	(119.9)
Max. Velocity @ 72VDC	m/s	(in/s)	4.6	(189.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity			± 0.4	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		14.9	
Max. Current @ 72VDC	A <sub>pk</sub>		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		1.7 / - / 4.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		8.3 / - / 1.1	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		3300 / - / 450	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	500	(20)
Slider Mass	g	(lb)	960	(2.11)



Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
<b>PL01-19x500/420</b>	Slider 'High Clearance'	<a href="#">0150-1455</a>

**P01-37x120F/280-PB24-HP-SSC**

**Max. Stroke:** 280 mm  
**Peak Force:** 210 N



Dimensions in mm

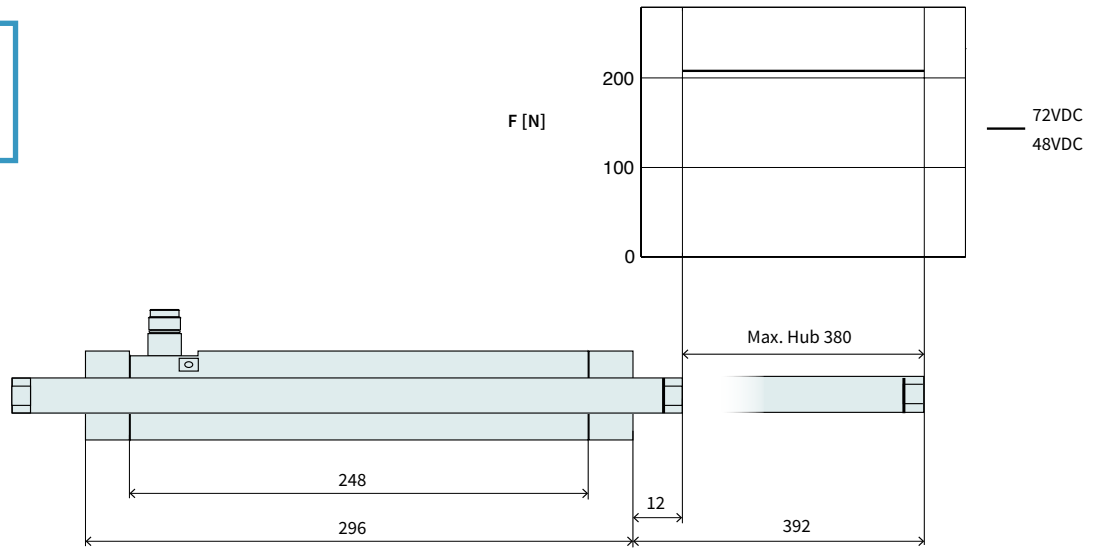
Technical Data P01-37x120F/280-HP-PB24-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	280	(10.99)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	210	(47.1)
Max. Force @ 72VDC	N (lbf)	210	(47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	23 / - / 63	(5.3 / - / 14)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	14	(3.14)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	3.2	(119.9)
Max. Velocity @ 72VDC	m/s (in/s)	4.6	(189.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.3	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	14.9	
Max. Current @ 72VDC	A <sub>pk</sub>	14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	1.7 / - / 4.5	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	8.3 / - / 1.1	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	3300 / - / 450	
<b>Mechanical Data</b>			
Slider Length	mm (in)	600	(24)
Slider Mass	g (lb)	1171	(2.58)



Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
<b>PL01-19x600/520</b>	Slider 'High Clearance'	<a href="#">0150-1456</a>

**P01-37x120F/380-PB24-HP-SSC**

**Max. Stroke:** 380 mm  
**Peak Force:** 210 N



Dimensions in mm

Technical Data P01-37x120F/380-HP-PB24-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	380	(14.99)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	210	(47.1)
Max. Force @ 72VDC	N	(lbf)	210	(47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	23 / - / 63	(5.3 / - / 14)
Max. Border Force relative			100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	14	(3.14)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	3.2	(119.9)
Max. Velocity @ 72VDC	m/s	(in/s)	4.6	(189.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity			± 0.25	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		14.9	
Max. Current @ 72VDC	A <sub>pk</sub>		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		1.7 / - / 4.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		8.3 / - / 1.1	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		3300 / - / 450	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	700	(28)
Slider Mass	g	(lb)	1380	(3.04)

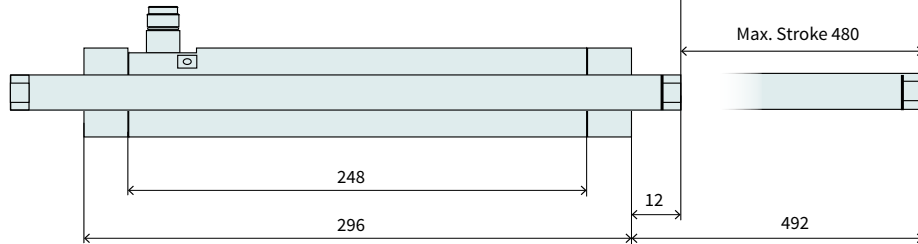
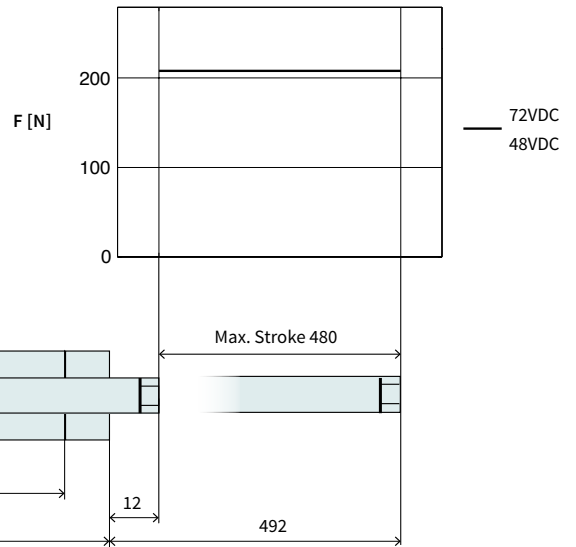


Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>

<b>PL01-19x700/620</b>	Slider 'High Clearance'	<a href="#">0150-1457</a>
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**P01-37x120F/480-PB24-HP-SSC**

**Max. Stroke:** 480 mm  
**Peak Force:** 210 N



Dimensions in mm

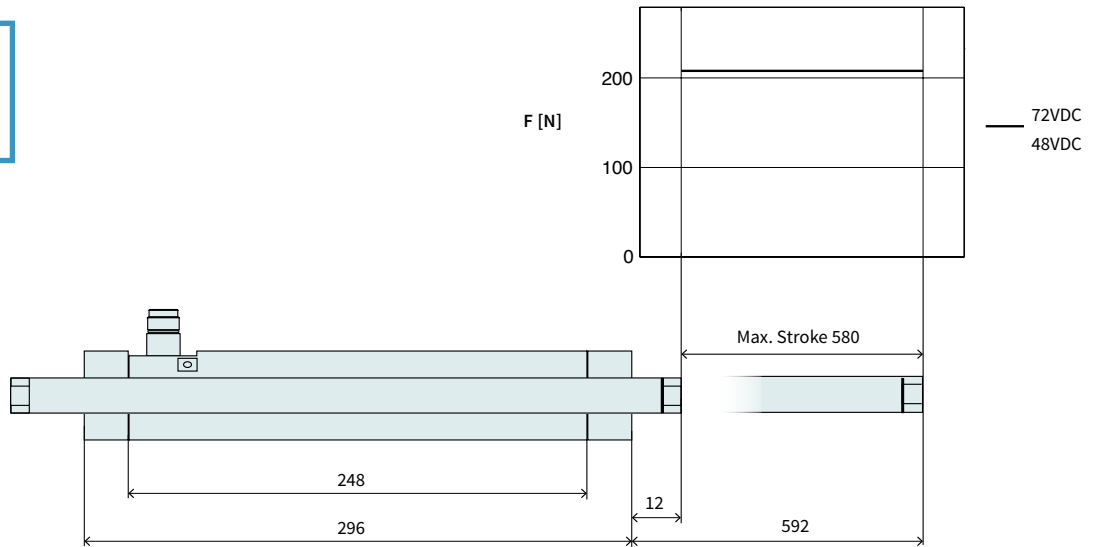
Technical Data P01-37x120F/480-HP-PB24-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	480	(18.89)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	210	(47.1)
Max. Force @ 72VDC	N (lbf)	210	(47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	23 / - / 63	(5.3 / - / 14)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	14	(3.14)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	3.2	(119.9)
Max. Velocity @ 72VDC	m/s (in/s)	4.6	(189.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.2	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	14.9	
Max. Current @ 72VDC	A <sub>pk</sub>	14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	1.7 / - / 4.5	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	8.3 / - / 1.1	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	3300 / - / 450	
<b>Mechanical Data</b>			
Slider Length	mm (in)	800	(31)
Slider Mass	g (lb)	1590	(3.5)



Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
<b>PL01-19x800/720</b>	Slider 'High Clearance'	<a href="#">0150-1458</a>

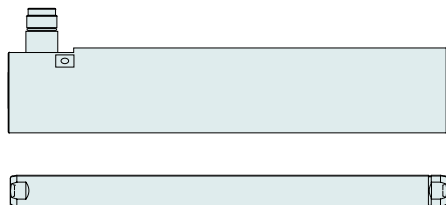
**P01-37x120F/580-PB24-HP-SSC**

**Max. Stroke:** 580 mm  
**Peak Force:** 210 N



Dimensions in mm

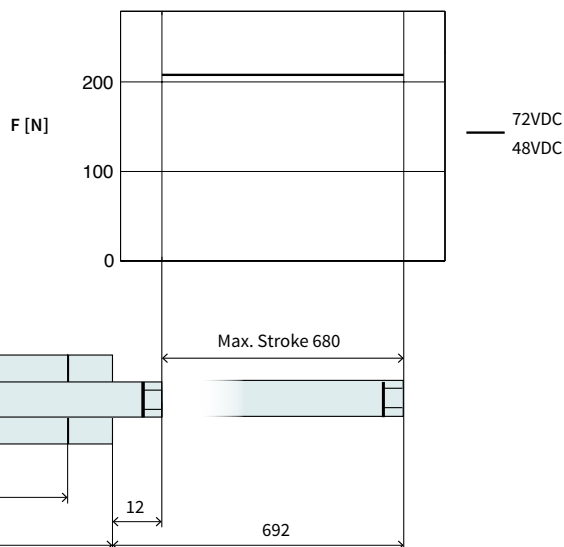
Technical Data P01-37x120F/580-HP-PB24-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	580	(22.8)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	210	(47.1)
Max. Force @ 72VDC	N	(lbf)	210	(47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	23 / - / 63	(5.3 / - / 14)
Max. Border Force relative	%		100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	14	(3.14)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	3.2	(119.9)
Max. Velocity @ 72VDC	m/s	(in/s)	4.6	(189.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.2	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		14.9	
Max. Current @ 72VDC	A <sub>pk</sub>		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		1.7 / - / 4.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		8.3 / - / 1.1	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		3300 / - / 450	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	900	(35)
Slider Mass	g	(lb)	1590	(3.5)



Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
<b>PL01-19x900/820</b>	Slider 'High Clearance'	<a href="#">0150-1459</a>

**P01-37x120F/680-PB24-HP-SSC**

**Max. Stroke:** 680 mm  
**Peak Force:** 210 N



Dimensions in mm

Technical Data P01-37x120F/680-HP-PB24-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	680	(26.8)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	210	(47.1)
Max. Force @ 72VDC	N (lbf)	210	(47.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	23 / - / 63	(5.3 / - / 14)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	14	(3.14)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	3.2	(119.9)
Max. Velocity @ 72VDC	m/s (in/s)	4.6	(189.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.15	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	14.9	
Max. Current @ 72VDC	A <sub>pk</sub>	14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	1.7 / - / 4.5	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	8.3 / - / 1.1	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	3300 / - / 450	
<b>Mechanical Data</b>			
Slider Length	mm (in)	1000	(39)
Slider Mass	g (lb)	1800	(3.96)



Item	Description	Item-No.
<b>PS01-37x120F-HP-SSC-R</b>	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
<b>PS01-37x120F-HP-SSC-R-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
<b>PL01-19x1000/920</b>	Slider 'High Clearance'	<a href="#">0150-1460</a>



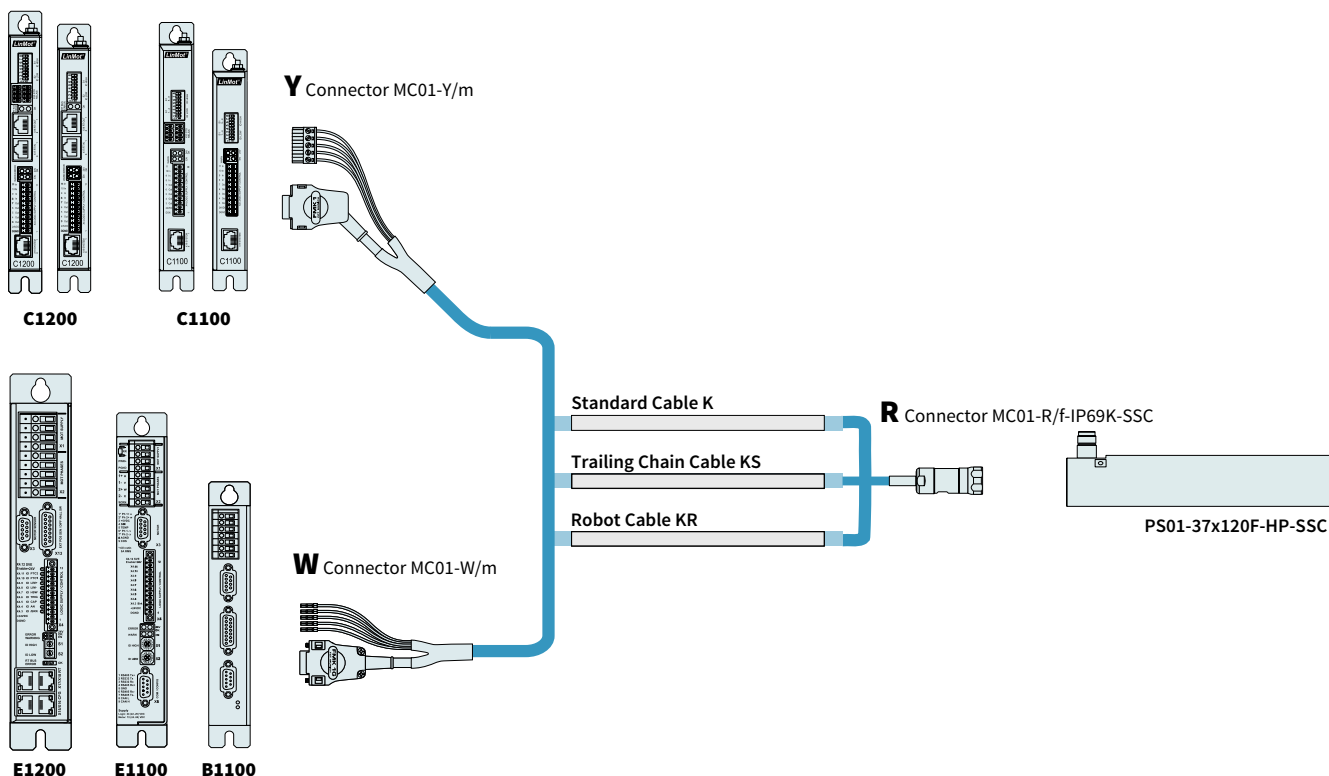
**Linear Guides H01-SSC**



HM01-37x120/85-SSC		Linear module SSC 37x120 with 85 mm Stroke		
→	H-Guide	H01-37x304/85-SSC	H-Guide for PS01-37x120F-HP-SSC, Stroke max.85 mm	<a href="#">0150-5271</a>
	Stator	PS01-37x120F-HP-SSC-R	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
		PS01-37x120F-HP-SSC-R-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
Slider	PL01-19x395/320	Slider 'High Clearance'	<a href="#">0150-1452</a>	
HM01-37x120/190-SSC		Linear module SSC 37x120 with 190 mm Stroke		
→	H-Guide	H01-37x304/190-SSC	H-Guide for PS01-37x120F-HP-SSC, Stroke max.190 mm	<a href="#">0150-5272</a>
	Stator	PS01-37x120F-HP-SSC-R	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
		PS01-37x120F-HP-SSC-R-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
Slider	PL01-19x500/420	Slider 'High Clearance'	<a href="#">0150-1455</a>	
HM01-37x120/290-SSC		Linear module SSC 37x120 with 290 mm Stroke		
→	H-Guide	H01-37x304/290-SSC	H-Guide for PS01-37x120F-HP-SSC, Stroke max.290 mm	<a href="#">0150-5273</a>
	Stator	PS01-37x120F-HP-SSC-R	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
		PS01-37x120F-HP-SSC-R-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
Slider	PL01-19x600/520	Slider 'High Clearance'	<a href="#">0150-1456</a>	
HM01-37x120/390-SSC		Linear module SSC 37x120 with 390 mm Stroke		
→	H-Guide	H01-37x304/390-SSC	H-Guide for PS01-37x120F-HP-SSC, Stroke max.390 mm	<a href="#">0150-5274</a>
	Stator	PS01-37x120F-HP-SSC-R	Stator Stainless Steel IP69K	<a href="#">0150-1282</a>
		PS01-37x120F-HP-SSC-R-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1283</a>
Slider	PL01-19x700/620	Slider 'High Clearance'	<a href="#">0150-1457</a>	

FIND MORE PRODUCT DETAILS IN THE CHAPTER "LINEAR GUIDES".

Motor Cable



ORDERING INFORMATION

TRAILING CHAIN CABLE

Item	Description	Item-No.
<b>KS05-W/R-SSC-2</b>	Trailing Chain Cable W/R-SSC, 2 m	<a href="#">0150-2683</a>
<b>KS05-W/R-SSC-4</b>	Trailing Chain Cable W/R-SSC, 4 m	<a href="#">0150-2684</a>
<b>KS05-W/R-SSC-6</b>	Trailing Chain Cable W/R-SSC, 6 m	<a href="#">0150-2685</a>
<b>KS05-W/R-SSC-8</b>	Trailing Chain Cable W/R-SSC, 8 m	<a href="#">0150-2686</a>
<b>KS05-W/R-SSC-</b>	Trailing Chain Cable W/R-SSC, Custom length	<a href="#">0150-3583</a>

<b>KS05-Y/R-SSC-2</b>	Trailing Chain Cable Y/R-SSC, 2 m	<a href="#">0150-2687</a>
<b>KS05-Y/R-SSC-4</b>	Trailing Chain Cable Y/R-SSC, 4 m	<a href="#">0150-2688</a>
<b>KS05-Y/R-SSC-6</b>	Trailing Chain Cable Y/R-SSC, 6 m	<a href="#">0150-2689</a>
<b>KS05-Y/R-SSC-8</b>	Trailing Chain Cable Y/R-SSC, 8 m	<a href="#">0150-2690</a>
<b>KS05-Y-Fe/R-SSC-</b>	Trailing Chain Cable Y-Fe/R-SSC, Custom length	<a href="#">0150-3646</a>

ROBOT CABLE

Item	Description	Item-No.
<b>KR05-W/R-SSC-</b>	Robot Cable KR05-W/R-SSC-, Custom length	<a href="#">0150-3587</a>

CONNECTOR & CABLE (INDIVIDUAL)

Item	Description	Item-No.
<b>MC01-W/m</b>	Motor Connector W/m	<a href="#">0150-3140</a>
<b>MC01-Y-Fe/m</b>	Motor Connector Y-Fe/m	<a href="#">0150-3289</a>
<b>MC01-R/f-IP69K-SSC</b>	Motor Connector R/f, IP69k, SSC	<a href="#">0150-3347</a>
<b>K05-04/05</b>	Motor Cable per m	<a href="#">0150-1920</a>
<b>KS05-04/05</b>	Trailing Chain Cable per m	<a href="#">0150-1938</a>
<b>KR05-04/05</b>	Robot Cable per m	<a href="#">0150-1846</a>

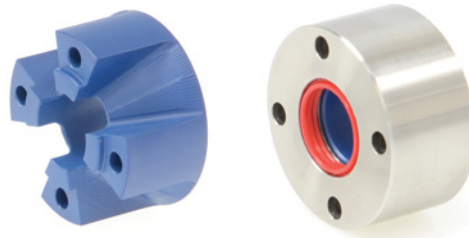
**SLIDER MOUNTING**



Item	Description	Item-No.
<b>PLF01-20-SS</b>	Fixed Bearing Set for 19/20 mm sliders, stainless steel	<a href="#">0150-3296</a>
<b>PLL01-19</b>	Floating support for PL01-19 sliders, Material 1.4305 / AISI 303	<a href="#">0150-3335</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

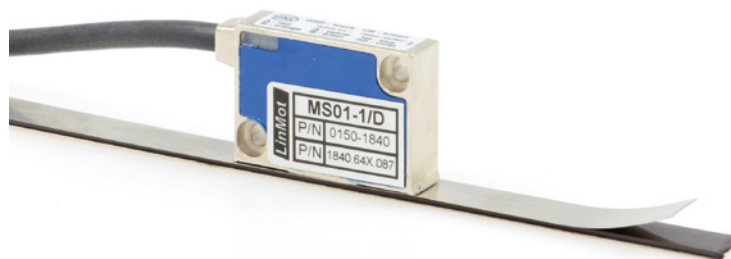
**BEARING KITS**



Item	Description	Item-No.
<b>PB02-37x24-P-WD</b>	Bearing for PS01-37x...-SSC (Plastic)	<a href="#">0150-3299</a>
<b>PB01-37x24-P-SSC</b>	Bearing for PS01-37x...-SSC, stainless steel	<a href="#">0150-3290</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**EXTERNAL POSITION SENSORS**



Item	Description	Item-No.
<b>MS01-1/D</b>	Linear Encoder 1µm, A/B (for incremental strip)	<a href="#">0150-1840</a>
<b>MB01-1000</b>	Magnetic incremental strip for MS01-1/D, per cm	<a href="#">0150-1963</a>
<b>KS025-D/D-Encoder</b>	Special cable KS025-D15/D-Encoder-	<a href="#">0150-3166</a>
<b>KS025-D/D15-Encoder</b>	Special cable KS025-D15/D-Encoder-	<a href="#">0150-3168</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



Item	Description	Item-No.
<b>MS01-1/D-SSI</b>	Linear Encoder 1µm, A/B (for absolute strip)	<a href="#">0150-2095</a>
<b>MB01-1000-ABS</b>	Magnetic absolute strip for MS01-1/D-SSI (per cm)	<a href="#">0150-2096</a>
<b>EC01-ABS/ENC-12-S</b>	MS01-1/D-SSI Encoder connector straight	<a href="#">0150-3616</a>
<b>KSS01-12-D15/ABS-ENC</b>	For MS01-1/D-SSI on C1100/C1200/C1400/E1200/E1400 Drives	<a href="#">0150-3652</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

# LINEAR MOTORS P01-48x240F-SSC



- ✓ Stainless steel housing EN 1.4404 / AISI / SAE 316L
- ✓ Hygienic design
- ✓ Welded connections, no gaskets
- ✓ Completely encapsulated (IP69K)
- ✓ Protection class IP69K
- ✓ Optional integrated water cooling
- ✓ For use in the food or in the pharmaceutical sector

## LINEAR MOTORS P01-48x240F-SSC

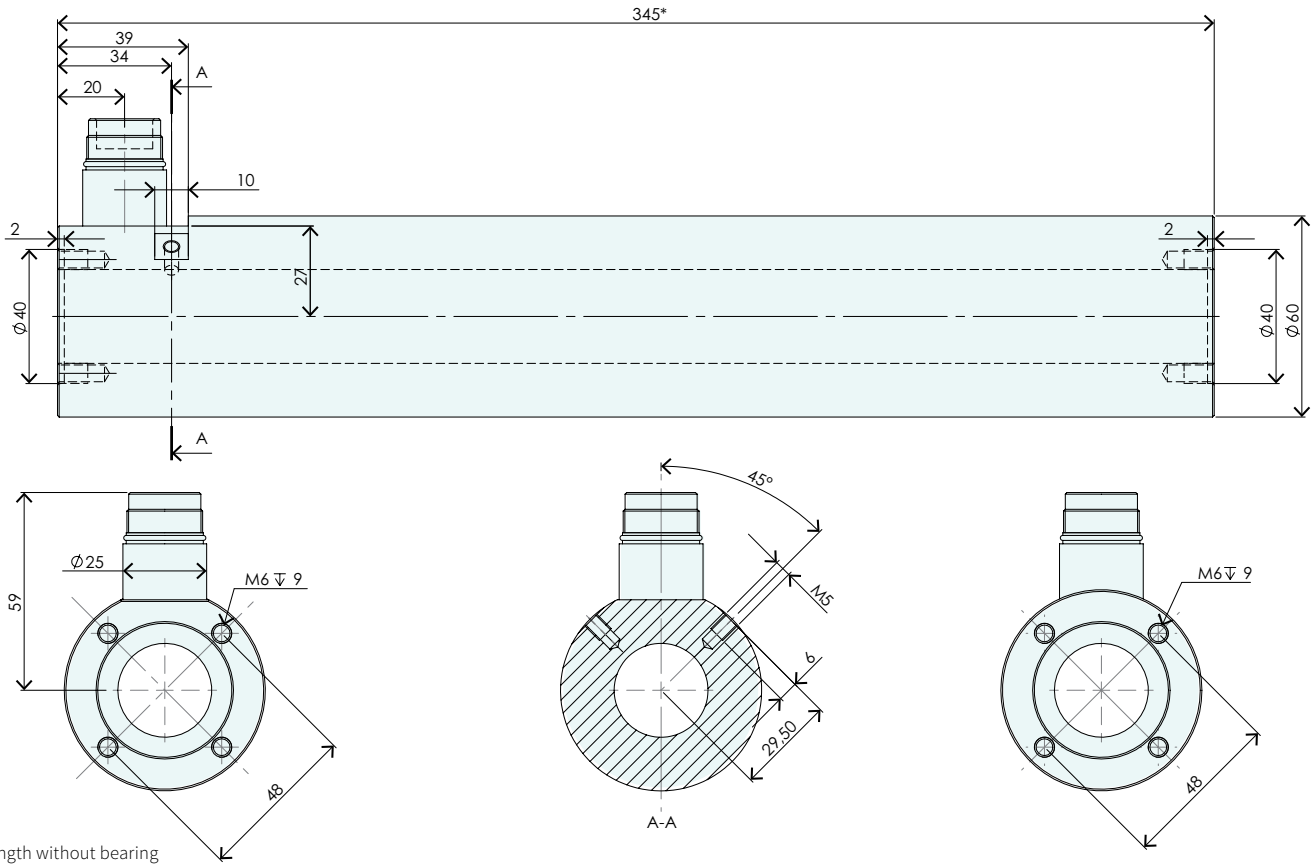
<b>Technical Data</b>	<b>641</b>
<b>Motor Specifications</b>	
P01-48x240F/80-PB25-SSC	<b>644</b>
P01-48x240F/200-PB25-SSC	<b>645</b>
P01-48x240F/290-PB25-SSC	<b>646</b>
P01-48x240F/380-PB25-SSC	<b>647</b>
P01-48x240F/500-PB25-SSC	<b>648</b>
P01-48x240F/590-PB25-SSC	<b>649</b>
P01-48x240F/800-PB25-SSC	<b>650</b>
P01-48x240F/980-PB25-SSC	<b>651</b>
<b>Linear Guides</b>	<b>652</b>
<b>Accessories</b>	<b>653</b>



### MOTOR FAMILY P01-48x240F-SSC

Technical Data				
<b>Stroke</b>				
Max. Stroke	mm	(in)	980	(38.6)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	496	(111)
Max. Force @ 72VDC	N	(lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative	%		≤ 100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.4	(139.9)
<b>Position Detection</b>				
Position Resolution	mm	(in)	0.007	(0.0003)
Repeatability	mm	(in)	±0.05	(±0.002)
Position Resolution with ES	mm	(in)	0.001	(0.00004)
Repeatability with ES	mm	(in)	±0.01	(±0.0004)
Linearity with ES	mm	(in)	±0.01	(±0.0004)
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		25.9	
Max. Current @ 72VDC	A <sub>pk</sub>		25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		4.4 / - / 12	
Terminal Resistance 25 °C / 120 °C	Ohm		0.97 / 1.3	
Terminal Inductivity	mH		1.1	
Magnetic Period	mm	(in)	60	(2.35)
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		2100 / - / 260	
<b>Mechanical Data</b>				
Stator Diameter	mm	(in)	60	(2.4)
Stator Length [Connector type / Cable type]	mm	(in)	395	(16)
Stator Mass	g	(lb)	4270	(9.4)
Slider Diameter	mm	(in)	27	(1.1)
Slider Length	mm	(in)	350 - 1400	(14 - 55)
Slider Mass	g	(lb)	1360 - 5910	(3 - 13)
IP Code			IP 69k	

**STATOR**



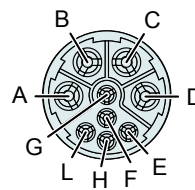
\* Length without bearing

Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1267</a>
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1268</a>

**CONNECTOR**

Motor Connector Wiring	PS01-48x240F-SSC-C PS01-48x240F-SSC-C-FC	Wire Color Motor Cable
	C-Connector	
Ph 1+	A	red
Ph 1-	B	pink
Ph 2+	C	blue
Ph 2-	D	grey
+5VDC	E	white
GND	F	inner Shield
Sinus	G	yellow
Cosinus	H	green
Temp.	L	black
Shield	Case	outer Shield

**C-Connector**



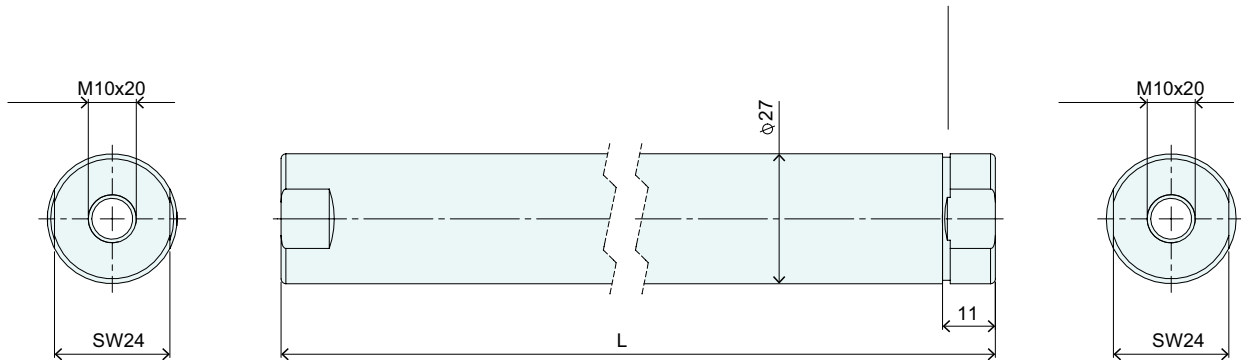
View: Motor connector, plug side



**SLIDER**

**Slider High Clearance**

Number of grooves determines the slider type (see chapter 2 / slider) and marks the front end.

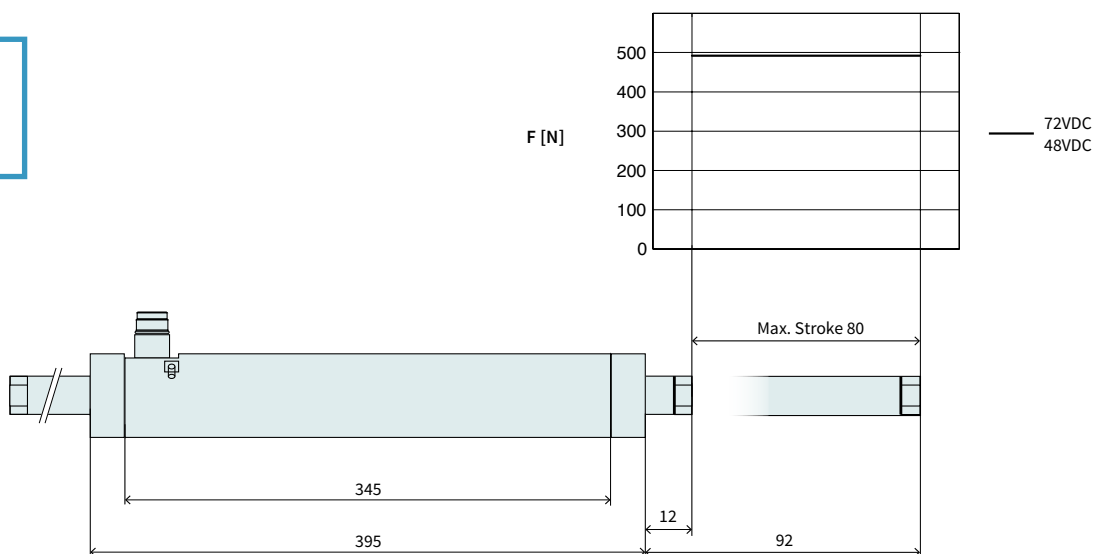


5

Slider High Clearance			
Item	Description	Max. Stroke [mm]	Item-No.
PL01-27x500/420	Slider 'High Clearance'	80	<a href="#">0150-1469</a>
PL01-27x620/540	Slider 'High Clearance'	200	<a href="#">0150-1470</a>
PL01-27x710/630	Slider 'High Clearance'	290	<a href="#">0150-1471</a>
PL01-27x800/720	Slider 'High Clearance'	380	<a href="#">0150-1472</a>
PL01-27x920/840	Slider 'High Clearance'	500	<a href="#">0150-1447</a>
PL01-27x1010/930	Slider 'High Clearance'	590	<a href="#">0150-1473</a>
PL01-27x1220/1140	Slider 'High Clearance'	800	<a href="#">0150-1587</a>
PL01-27x1400/1320	Slider 'High Clearance'	980	<a href="#">0150-1588</a>

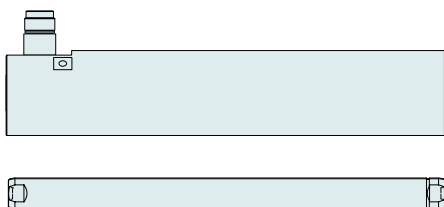
**P01-48x240F/80-PB25-SSC**

**Max. Stroke:** 80 mm  
**Peak Force:** 496 N



Dimensions in mm

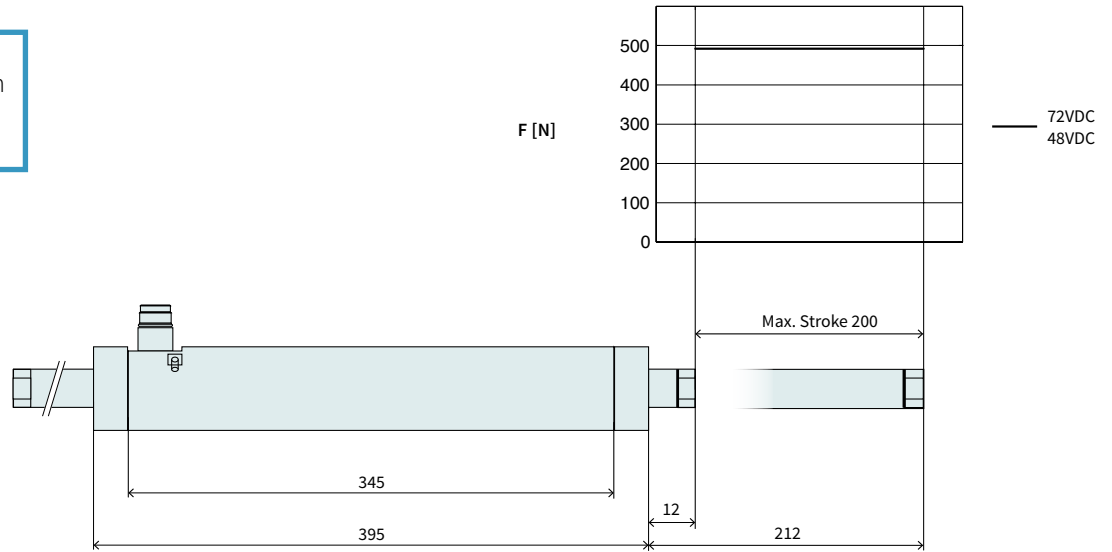
Technical Data P01-48x240F/80-PB25-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	80	(3.14)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	496	(111)
Max. Force @ 72VDC	N (lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s (in/s)	3.4	(139.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 1.05	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.4 / - / 12	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	2100 / - / 260	
<b>Mechanical Data</b>			
Slider Length	mm (in)	500	(20)
Slider Mass	g (lb)	2010	(4.42)



Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x500/420</b>	Slider 'High Clearance'	0150-1469

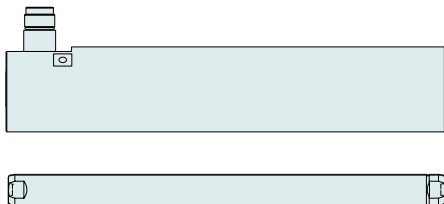
**P01-48x240F/200-PB25-SSC**

**Max. Stroke:** 200 mm  
**Peak Force:** 496 N



Dimensions in mm

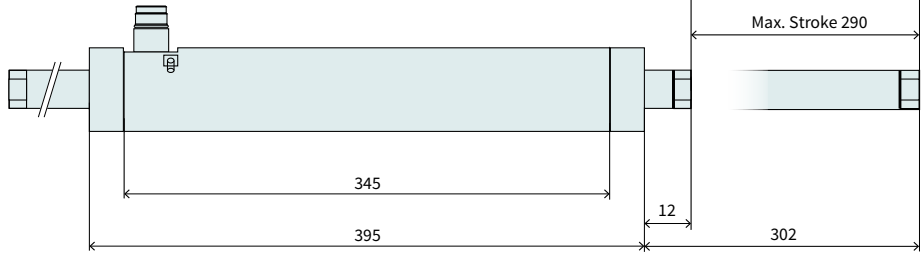
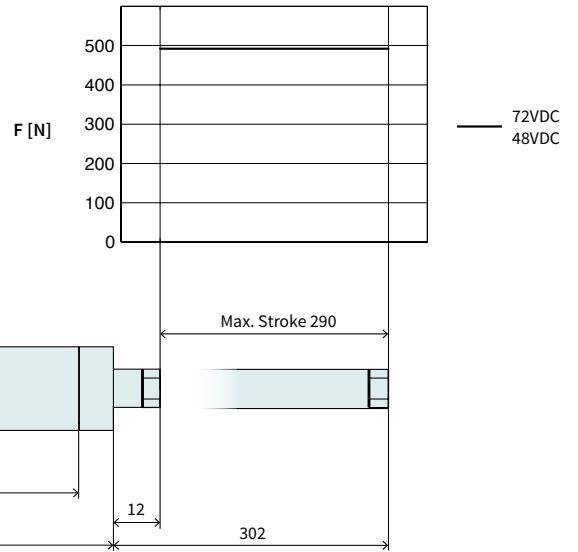
Technical Data P01-48x240F/200-PB25-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	200	(7.86)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	496	(111)
Max. Force @ 72VDC	N	(lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative	%		100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.4	(139.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.5	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		25.9	
Max. Current @ 72VDC	A <sub>pk</sub>		25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		4.4 / - / 12	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		2100 / - / 260	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	620	(24)
Slider Mass	g	(lb)	2530	(5.57)



Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x620/540</b>	Slider 'High Clearance'	0150-1470

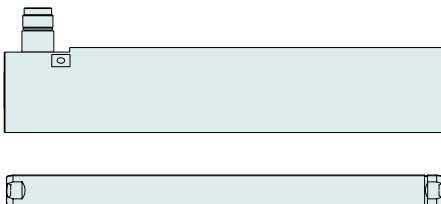
**P01-48x240F/290-PB25-SSC**

**Max. Stroke:** 290 mm  
**Peak Force:** 496 N



Dimensions in mm

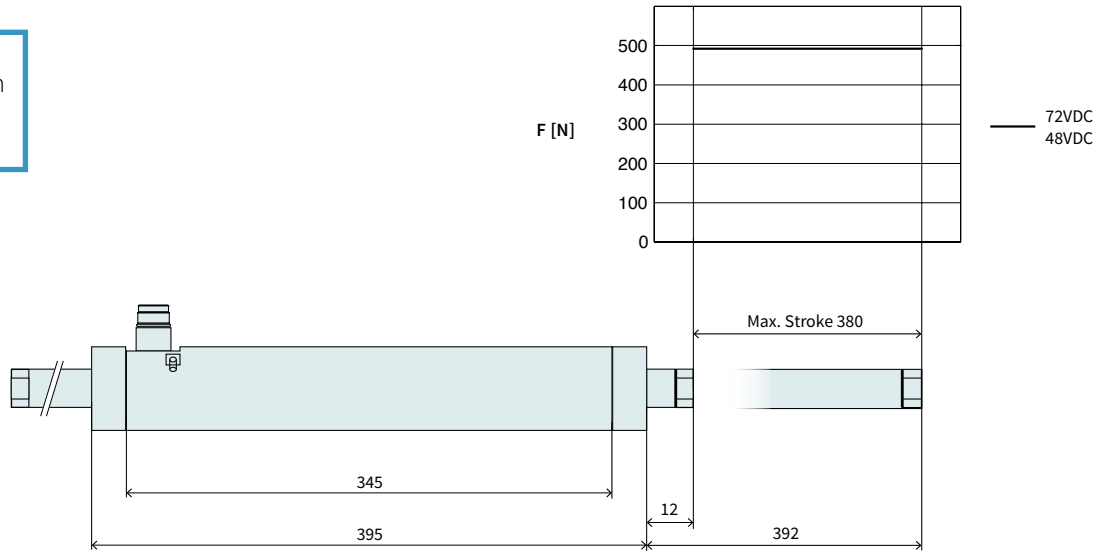
Technical Data P01-48x240F/290-PB25-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	290	(11.4)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	496	(111)
Max. Force @ 72VDC	N (lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s (in/s)	3.4	(139.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.35	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.4 / - / 12	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	2100 / - / 260	
<b>Mechanical Data</b>			
Slider Length	mm (in)	710	(28)
Slider Mass	g (lb)	2920	(6.42)



Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x710/630</b>	Slider 'High Clearance'	0150-1471

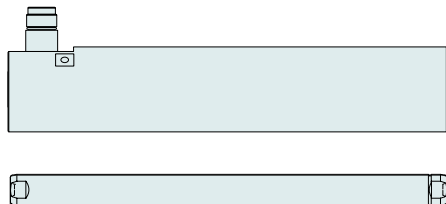
**P01-48x240F/380-PB25-SSC**

**Max. Stroke:** 380 mm  
**Peak Force:** 496 N



Dimensions in mm

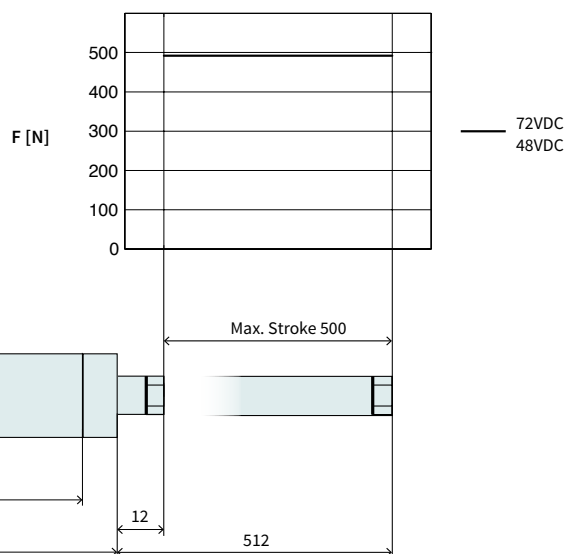
Technical Data P01-48x240F/380-PB25-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	380	(14.99)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	496	(111)
Max. Force @ 72VDC	N	(lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative			%	
			100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.4	(139.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity			%	
			± 0.3	
<b>Electrical Data</b>				
Max. Current @ 48VDC			A <sub>pk</sub>	
			25.9	
Max. Current @ 72VDC			A <sub>pk</sub>	
			25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]			A <sub>pk</sub>	
			4.4 / - / 12	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)			°C	
			90	
Thermal Resistance [Passive cooling / Fan / Fluid]			°K/W	
			2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]			s	
			2100 / - / 260	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	800	(31)
Slider Mass	g	(lb)	3310	(7.28)



Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x800/720</b>	Slider 'High Clearance'	0150-1472

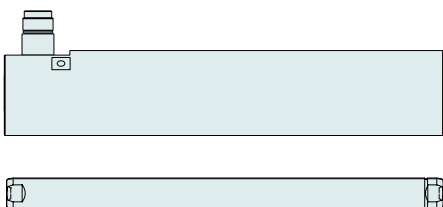
**P01-48x240F/500-PB25-SSC**

**Max. Stroke:** 500 mm  
**Peak Force:** 496 N



Dimensions in mm

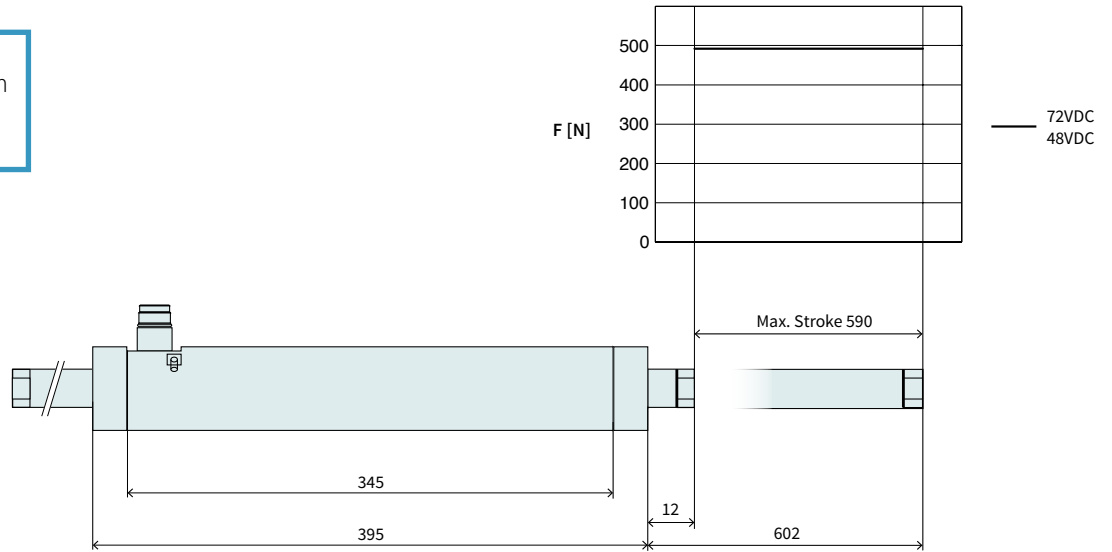
Technical Data P01-48x240F/500-PB25-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	500	(19.69)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	496	(111)
Max. Force @ 72VDC	N (lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s (in/s)	3.4	(139.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.25	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.4 / - / 12	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	2100 / - / 260	
<b>Mechanical Data</b>			
Slider Length	mm (in)	920	(36)
Slider Mass	g (lb)	3830	(8.43)



Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x920/840</b>	Slider 'High Clearance'	0150-1447

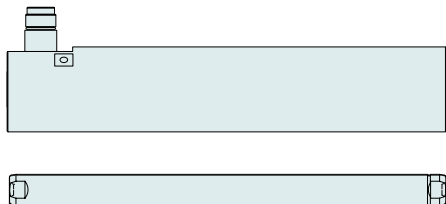
**P01-48x240F/590-PB25-SSC**

**Max. Stroke:** 590 mm  
**Peak Force:** 496 N



Dimensions in mm

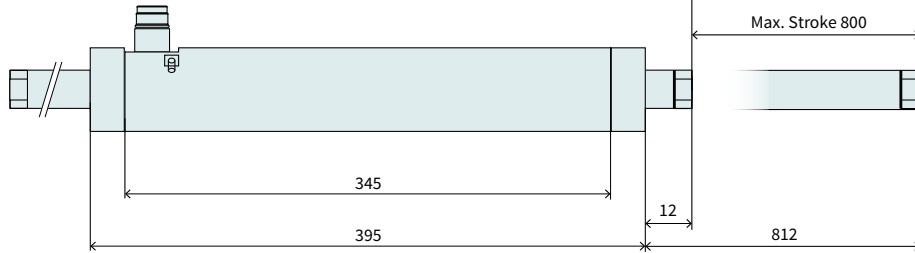
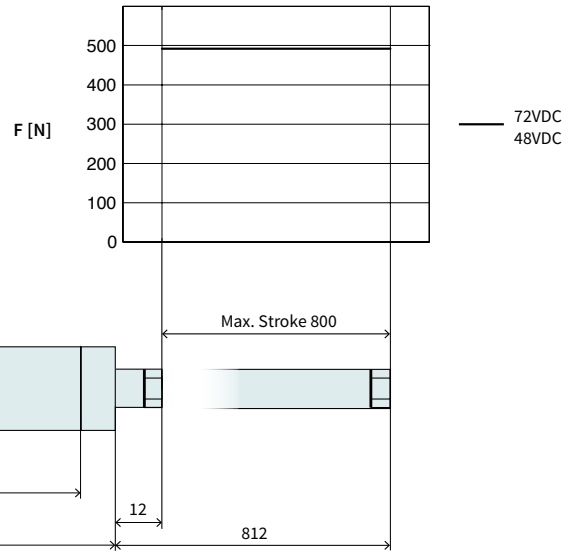
Technical Data P01-48x240F/590-PB25-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	590	(23.19)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	496	(111)
Max. Force @ 72VDC	N	(lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative			%	
			100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.4	(139.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity			%	
			± 0.25	
<b>Electrical Data</b>				
Max. Current @ 48VDC			A <sub>pk</sub>	
			25.9	
Max. Current @ 72VDC			A <sub>pk</sub>	
			25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]			A <sub>pk</sub>	
			4.4 / - / 12	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)			°C	
			90	
Thermal Resistance [Passive cooling / Fan / Fluid]			°K/W	
			2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]			s	
			2100 / - / 260	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	1010	(40)
Slider Mass	g	(lb)	4220	(9.28)



Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x1010/930</b>	Slider 'High Clearance'	0150-1473

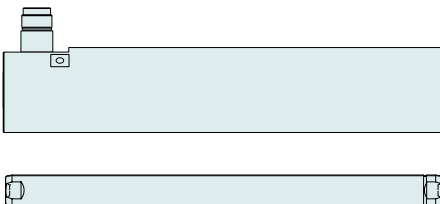
**P01-48x240F/800-PB25-SSC**

**Max. Stroke:** 800 mm  
**Peak Force:** 496 N



Dimensions in mm

Technical Data P01-48x240F/800-PB25-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	800	(31.49)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	496	(111)
Max. Force @ 72VDC	N (lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s (in/s)	3.4	(139.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.2	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.4 / - / 12	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	2100 / - / 260	
<b>Mechanical Data</b>			
Slider Length	mm (in)	1220	(48)
Slider Mass	g (lb)	5130	(11.29)

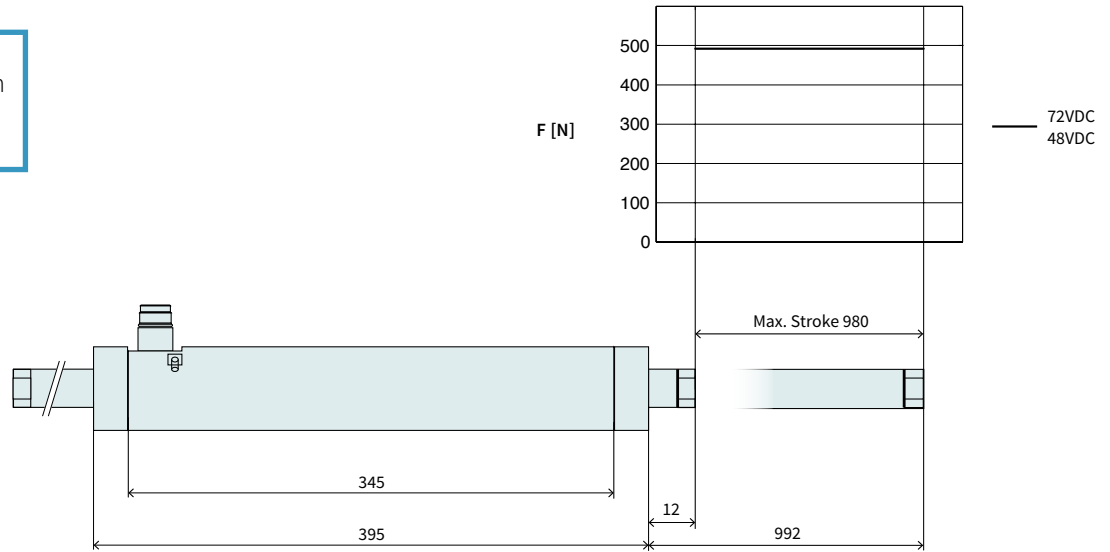


Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x1220/1140</b>	Slider 'High Clearance'	0150-1587



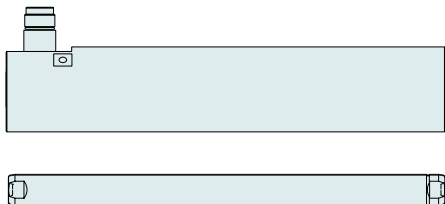
**P01-48x240F/980-PB25-SSC**

**Max. Stroke:** 980 mm  
**Peak Force:** 496 N



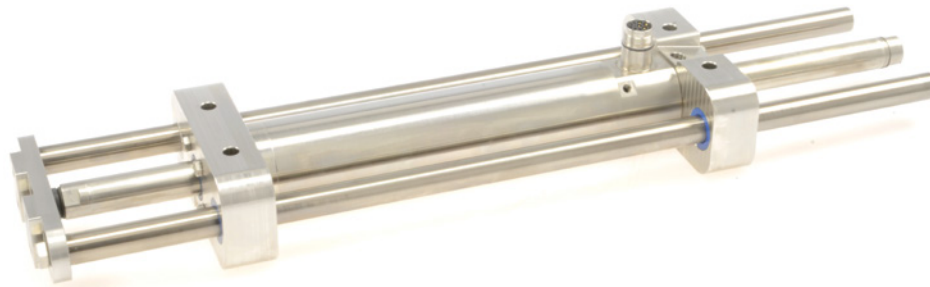
Dimensions in mm

Technical Data P01-48x240F/980-PB25-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	980	(38.6)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	496	(111)
Max. Force @ 72VDC	N	(lbf)	496	(111)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / - / 240	(19 / - / 53)
Max. Border Force relative			%	
			100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	19.1	(4.29)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	2.2	(90.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.4	(139.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity			%	
			± 0.2	
<b>Electrical Data</b>				
Max. Current @ 48VDC			A <sub>pk</sub>	
			25.9	
Max. Current @ 72VDC			A <sub>pk</sub>	
			25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]			A <sub>pk</sub>	
			4.4 / - / 12	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)			°C	
			90	
Thermal Resistance [Passive cooling / Fan / Fluid]			°K/W	
			2 / - / 0.26	
Thermal Time Constant [Passive cooling / Fan / Fluid]			s	
			2100 / - / 260	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	1400	(55)
Slider Mass	g	(lb)	5910	(13)



Item	Description	Item-No.
<b>PS01-48x240F-SSC-C</b>	Stator Stainless Steel IP69K	0150-1267
<b>PS01-48x240F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	0150-1268
<b>PL01-27x1400/1320</b>	Slider 'High Clearance'	0150-1588

**Linear Guides H01-SSC**

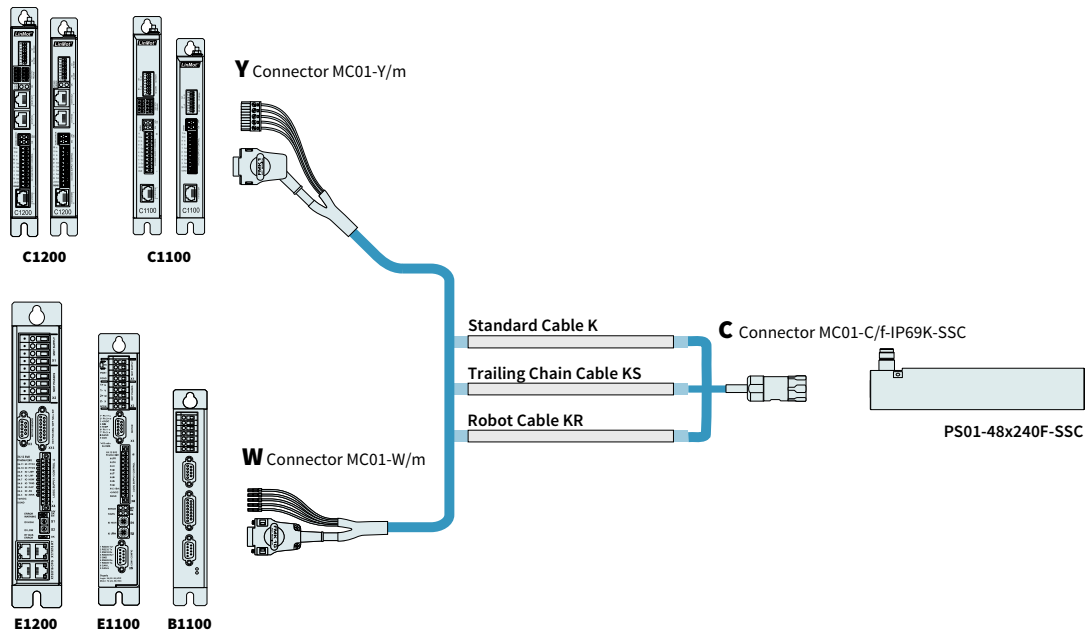


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HM01-48x240/210-SSC		Linear module SSC 48x240 with 210 mm Stroke		
→	H-Guide	H01-48x401/210-SSC	H-Guide for PS01-48x240F-HP-SSC, Stroke max.210 mm	<a href="#">0150-5280</a>
	Stator	PS01-48x240F-SSC-C	Stator Stainless Steel IP69K	<a href="#">0150-1267</a>
		PS01-48x240F-SSC-C-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1268</a>
Slider	PL01-27x620/540	Slider 'High Clearance'	<a href="#">0150-1470</a>	
HM01-48x240/300-SSC		Linear module SSC 48x240 with 300 mm Stroke		
→	H-Guide	H01-48x401/300-SSC	H-Guide for PS01-48x240F-HP-SSC, Stroke max.300 mm	<a href="#">0150-5281</a>
	Stator	PS01-48x240F-SSC-C	Stator Stainless Steel IP69K	<a href="#">0150-1267</a>
		PS01-48x240F-SSC-C-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1268</a>
Slider	PL01-27x710/630	Slider 'High Clearance'	<a href="#">0150-1471</a>	
HM01-48x240/390-SSC		Linear module SSC 48x240 with 390 mm Stroke		
→	H-Guide	H01-48x401/390-SSC	H-Guide for PS01-48x240F-HP-SSC, Stroke max.390 mm	<a href="#">0150-5282</a>
	Stator	PS01-48x240F-SSC-C	Stator Stainless Steel IP69K	<a href="#">0150-1267</a>
		PS01-48x240F-SSC-C-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1268</a>
Slider	PL01-27x800/720	Slider 'High Clearance'	<a href="#">0150-1472</a>	
HM01-48x240/510-SSC		Linear module SSC 48x240 with 510 mm Stroke		
→	H-Guide	H01-48x401/510-SSC	H-Guide for PS01-48x240F-HP-SSC, Stroke max.510 mm	<a href="#">0150-5283</a>
	Stator	PS01-48x240F-SSC-C	Stator Stainless Steel IP69K	<a href="#">0150-1267</a>
		PS01-48x240F-SSC-C-FC	Stator stainless steel IP69K, FC	<a href="#">0150-1268</a>
Slider	PL01-27x920/840	Slider 'High Clearance'	<a href="#">0150-1447</a>	

FIND MORE PRODUCT DETAILS IN THE CHAPTER "LINEAR GUIDES".

**Motor Cable**



**ORDERING INFORMATION**

STANDARD CABLE		
Item	Description	Item-No.
<b>K15-W/C-SSC</b>	Motor Cable W/C-SSC, Custom length	<a href="#">0150-3539</a>
<b>K15-Y-Fe/C-SSC-</b>	Motor Cable Y-Fe/C-SSC, Custom length	<a href="#">0150-3630</a>

TRAILING CHAIN CABLE		
Item	Description	Item-No.
<b>KS10-W/C-SSC-2</b>	Trailing Chain Cable W/C-SSC, 2 m	<a href="#">0150-2675</a>
<b>KS10-W/C-SSC-4</b>	Trailing Chain Cable W/C-SSC, 4 m	<a href="#">0150-2676</a>
<b>KS10-W/C-SSC-6</b>	Trailing Chain Cable W/C-SSC, 6 m	<a href="#">0150-2677</a>
<b>KS10-W/C-SSC-8</b>	Trailing Chain Cable W/C-SSC, 8 m	<a href="#">0150-2678</a>
<b>KS10-W/C-SSC-</b>	Trailing Chain Cable W/C-SSC, Custom length	<a href="#">0150-3358</a>
<b>KS10-Y/C-SSC-2</b>	Trailing Chain Cable Y/C-SSC, 2 m	<a href="#">0150-2679</a>
<b>KS10-Y/C-SSC-4</b>	Trailing Chain Cable Y/C-SSC, 4 m	<a href="#">0150-2680</a>
<b>KS10-Y/C-SSC-6</b>	Trailing Chain Cable Y/C-SSC, 6 m	<a href="#">0150-2681</a>
<b>KS10-Y/C-SSC-8</b>	Trailing Chain Cable Y/C-SSC, 8 m	<a href="#">0150-2682</a>
<b>KS10-Y-Fe/C-SSC-</b>	Trailing Chain Cable Y/C-SSC, Custom length	<a href="#">0150-3574</a>

ROBOT CABLE		
Item	Description	Item-No.
<b>KR10-W/C-SSC-</b>	Robot Cable KR05-W/C-SSC-, Custom length	<a href="#">0150-3536</a>

CONNECTOR & CABLE (INDIVIDUAL)		
Item	Description	Item-No.
<b>MC01-W/m</b>	Motor Connector W/m	<a href="#">0150-3140</a>
<b>MC01-Y-Fe/m</b>	Motor Connector Y-Fe/m	<a href="#">0150-3289</a>
<b>MC01-C/f-IP69K-SSC</b>	Motor Connector C/f, IP69K, SSC	<a href="#">0150-3306</a>
<b>K15-04/05</b>	Motor Cable per m	<a href="#">0150-1978</a>
<b>KS10-04/05</b>	Trailing Chain Cable per m	<a href="#">0150-1977</a>
<b>KR10-04/05</b>	Robot Cable per m	<a href="#">0150-1830</a>

**SLIDER MOUNTING**

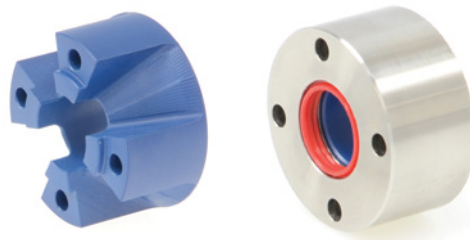


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Item	Description	Item-No.
<b>PLF01-28-SS</b>	Fixed Bearing Set for 27 mm and 28 mm Slider, Stainless steel	<a href="#">0150-3297</a>
<b>PLL01-27</b>	Floating support for PL01-27 sliders	<a href="#">0150-3294</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

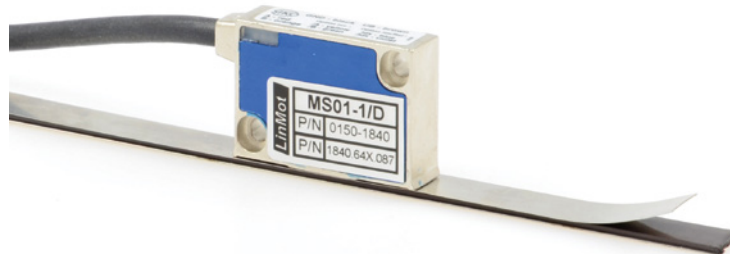
**BEARING KITS**



Item	Description	Item-No.
<b>PB02-48x25-P-WD</b>	Bearing for PS01-48x...-SSC (Plastic)	<a href="#">0150-3271</a>
<b>PB01-48x25-P-SSC</b>	Bearing for PS01-48x...-SSC, stainless steel	<a href="#">0150-3281</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**EXTERNAL POSITION SENSORS**



Item	Description	Item-No.
<b>MS01-1/D</b>	Linear Encoder 1µm, A/B (for incremental strip)	<a href="#">0150-1840</a>
<b>MB01-1000</b>	Magnetic incremental strip for MS01-1/D, per cm	<a href="#">0150-1963</a>
<b>KS025-D/D-Encoder</b>	Special cable KS025-D/D-Encoder- (Length in m)	<a href="#">0150-3166</a>
<b>KS025-D/D15-Encoder</b>	Special cable KS025-D15/D-Encoder- (Length in m)	<a href="#">0150-3168</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



Item	Description	Item-No.
<b>MS01-1/D-SSI</b>	Linear Encoder 1µm, A/B (for absolute strip)	<a href="#">0150-2095</a>
<b>MB01-1000-ABS</b>	Magnetic absolute strip for MS01-1/D-SSI (per cm)	<a href="#">0150-2096</a>
<b>EC01-ABS/ENC-12-S</b>	MS01-1/D-SSI Encoder connector straight	<a href="#">0150-3616</a>
<b>KSS01-12-D15/ABS-ENC</b>	For MS01-1/D-SSI on C1100/C1200/C1400/E1200/E1400 Drives	<a href="#">0150-3652</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



# LINEAR MOTORS P01-48x360F-SSC



- ✓ Stainless steel housing EN 1.4404 / AISI / SAE 316L
- ✓ Hygienic design
- ✓ Welded connections, no gaskets
- ✓ Completely encapsulated
- ✓ Protection class IP69K
- ✓ Optional integrated water cooling
- ✓ For use in the food or in the pharmaceutical sector

## LINEAR MOTORS P01-48x360F-SSC

<b>Technical Data</b>	<b>659</b>
<b>Motor Specifications</b>	
P01-48x360F/80-PB25-SSC	<b>662</b>
P01-48x360F/170-PB25-SSC	<b>663</b>
P01-48x360F/260-PB25-SSC	<b>664</b>
P01-48x360F/380-PB25-SSC	<b>665</b>
P01-48x360F/470-PB25-SSC	<b>666</b>
P01-48x360F/680-PB25-SSC	<b>667</b>
P01-48x360F/860-PB25-SSC	<b>668</b>
<b>Accessories</b>	<b>669</b>

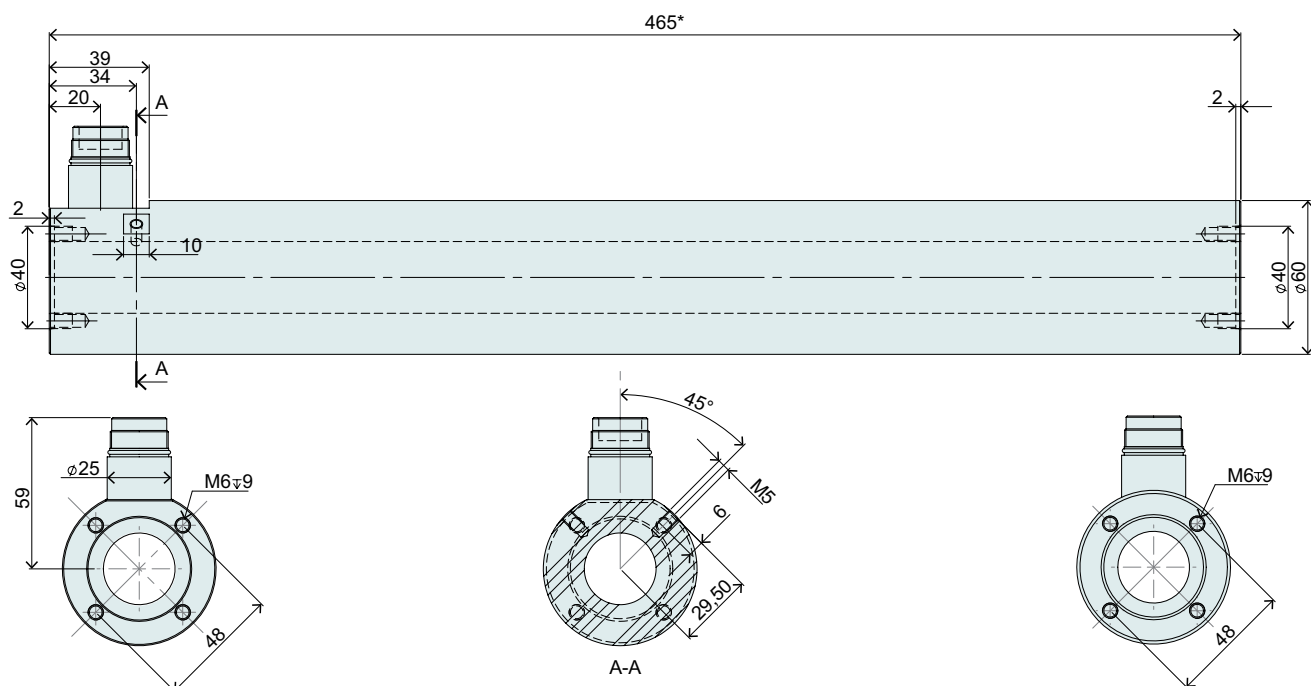




### MOTOR FAMILY P01-48x360F-SSC

Technical Data				
<b>Stroke</b>				
Max. Stroke	mm	(in)	860	(33.9)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	721	(162)
Max. Force @ 72VDC	N	(lbf)	721	(162)
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N	(lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%		≤ 100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	27.7	(6.24)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s	(in/s)	2.3	(93.9)
<b>Position Detection</b>				
Position Resolution	mm	(in)	0.007	(0.0003)
Repeatability	mm	(in)	±0.05	(±0.002)
Position Resolution with ES	mm	(in)	0.001	(0.00004)
Repeatability with ES	mm	(in)	±0.01	(±0.0004)
Linearity with ES	mm	(in)	±0.01	(±0.0004)
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		25.9	
Max. Current @ 72VDC	A <sub>pk</sub>		25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		4.6 / - / 13	
Terminal Resistance 25 °C / 120 °C	Ohm		1.4 / 1.9	
Terminal Inductivity	mH		1.6	
Magnetic Period	mm	(in)	60	(2.35)
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1900 / - / 240	
<b>Mechanical Data</b>				
Stator Diameter	mm	(in)	60	(2.4)
Stator Length [Connector type / Cable type]	mm	(in)	515	(20)
Stator Mass	g	(lb)	5560	(12.23)
Slider Diameter	mm	(in)	27	(1.1)
Slider Length	mm	(in)	500 - 1400	(20 - 55)
Slider Mass	g	(lb)	2010 - 5910	(4.42 - 13)
IP Code			IP 69k	

**STATOR**



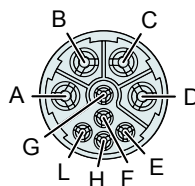
\* Length without bearing

Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>

**CONNECTOR**

Motor Connector Wiring	PS01-48x360F-SSC-C PS01-48x360F-SSC-C-FC	Wire Color Motor Cable
	C-Connector	
Ph 1+	A	red
Ph 1-	B	pink
Ph 2+	C	blue
Ph 2-	D	grey
+5VDC	E	white
GND	F	inner Shield
Sinus	G	yellow
Cosinus	H	green
Temp.	L	black
Shield	Case	outer Shield

**C-Connector**

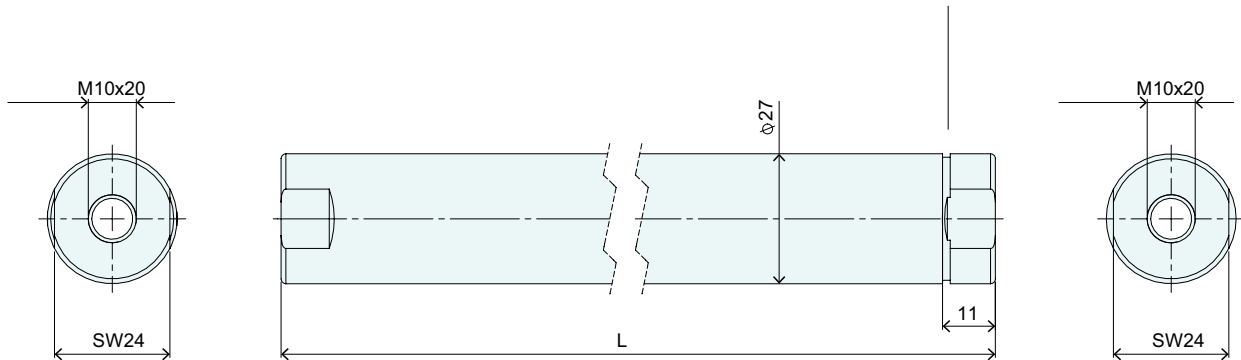


View: Motor connector, plug side

**SLIDER**

**Slider High Clearance**

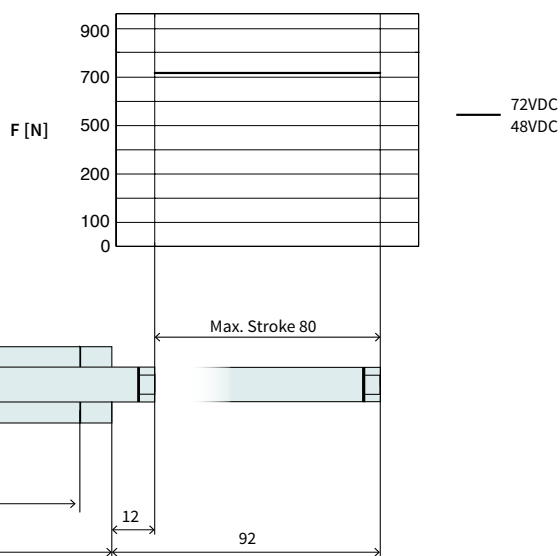
Number of grooves determines the slider type (see chapter 2 / slider) and marks the front end.



Slider High Clearance			
Item	Description	Max. Stroke [mm]	Item-No.
PL01-27x620/540	Slider 'High Clearance'	80	<a href="#">0150-1470</a>
PL01-27x710/630	Slider 'High Clearance'	170	<a href="#">0150-1471</a>
PL01-27x800/720	Slider 'High Clearance'	260	<a href="#">0150-1472</a>
PL01-27x920/840	Slider 'High Clearance'	380	<a href="#">0150-1447</a>
PL01-27x1010/930	Slider 'High Clearance'	470	<a href="#">0150-1473</a>
PL01-27x1220/1140	Slider 'High Clearance'	680	<a href="#">0150-1587</a>
PL01-27x1400/1320	Slider 'High Clearance'	860	<a href="#">0150-1588</a>

**P01-48x360F/80-PB25-SSC**

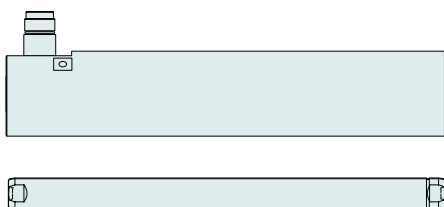
**Max. Stroke:** 80 mm  
**Peak Force:** 721 N



Dimensions in mm

Technical Data P01-48x360F/80-PB25-SSC

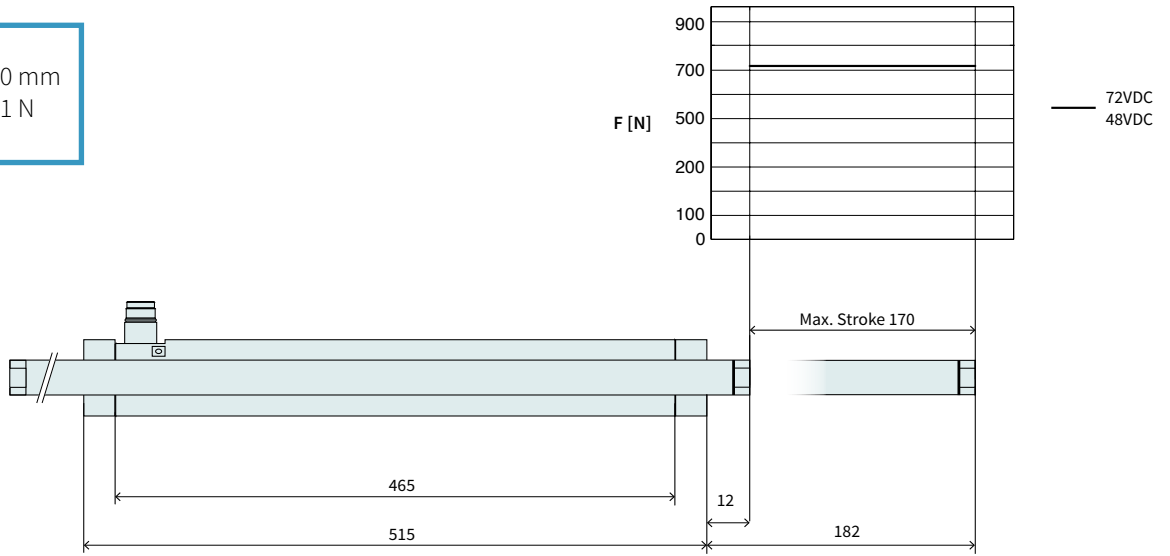
Technical Data P01-48x360F/80-PB25-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	80	(3.14)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	721	(162)
Max. Force @ 72VDC	N (lbf)	721	(162)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	27.7	(6.24)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s (in/s)	2.3	(93.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 1.05	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.6 / - / 13	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1900 / - / 240	
<b>Mechanical Data</b>			
Slider Length	mm (in)	620	(24)
Slider Mass	g (lb)	2530	(5.57)



Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>
<b>PL01-27x620/540</b>	Slider 'High Clearance'	<a href="#">0150-1470</a>

**P01-48x360F/170-PB25-SSC**

**Max. Stroke:** 170 mm  
**Peak Force:** 721 N



Dimensions in mm

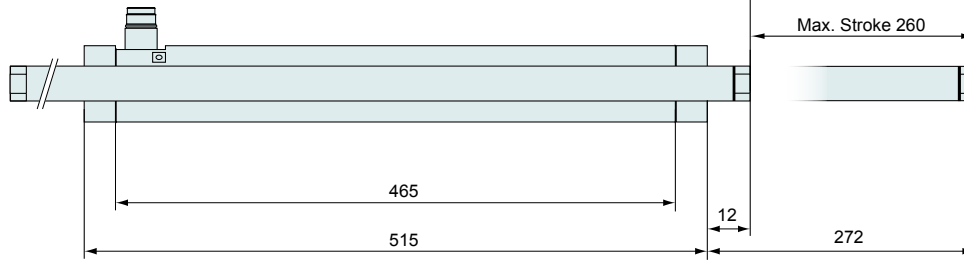
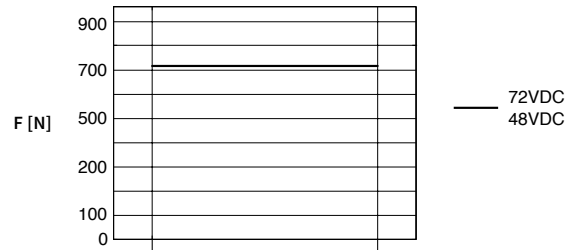
Technical Data P01-48x360F/170-PB25-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	170	(6.69)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	721	(162)
Max. Force @ 72VDC	N	(lbf)	721	(162)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%		100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	27.7	(6.24)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s	(in/s)	2.3	(93.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.55	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		25.9	
Max. Current @ 72VDC	A <sub>pk</sub>		25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		4.6 / - / 13	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1900 / - / 240	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	710	(28)
Slider Mass	g	(lb)	2920	(6.42)



Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>
<b>PL01-27x710/630</b>	Slider 'High Clearance'	<a href="#">0150-1471</a>

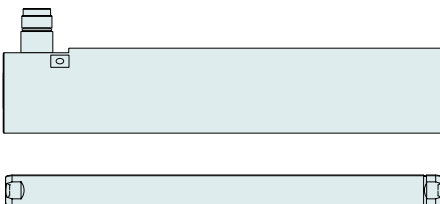
**P01-48x360F/260-PB25-SSC**

**Max. Stroke:** 260 mm  
**Peak Force:** 721 N



Dimensions in mm

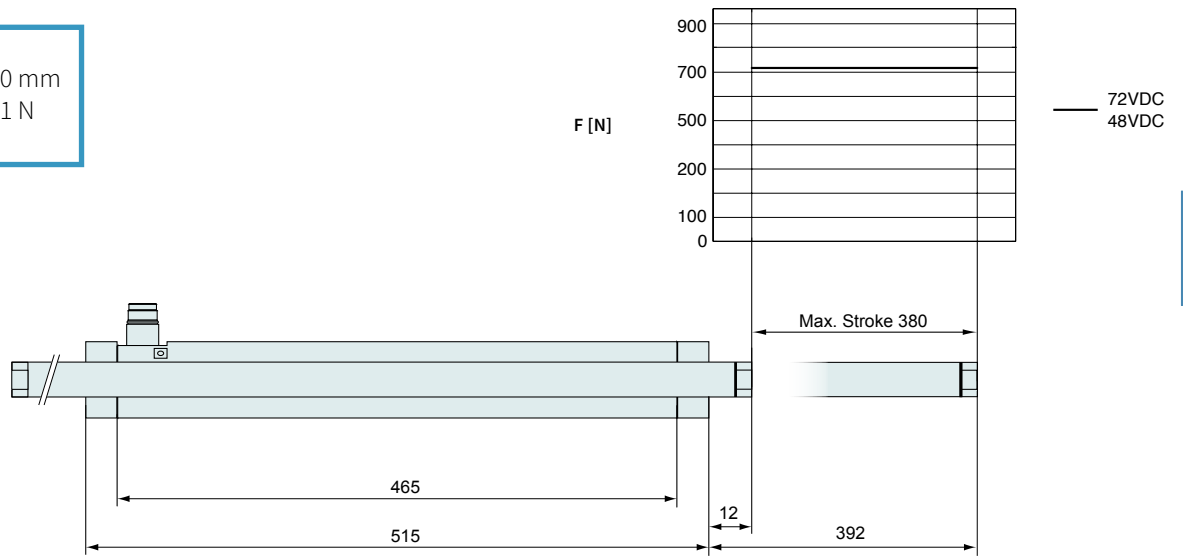
Technical Data P01-48x360F/260-PB25-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	260	(10.19)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	721	(162)
Max. Force @ 72VDC	N (lbf)	721	(162)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	27.7	(6.24)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s (in/s)	2.3	(93.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.4	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.6 / - / 13	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1900 / - / 240	
<b>Mechanical Data</b>			
Slider Length	mm (in)	800	(31)
Slider Mass	g (lb)	3310	(7.28)



Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>
<b>PL01-27x800/720</b>	Slider 'High Clearance'	<a href="#">0150-1472</a>

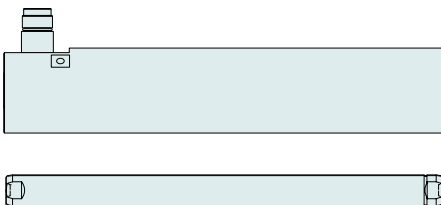
**P01-48x360F/380-PB25-SSC**

**Max. Stroke:** 380 mm  
**Peak Force:** 721 N



Dimensions in mm

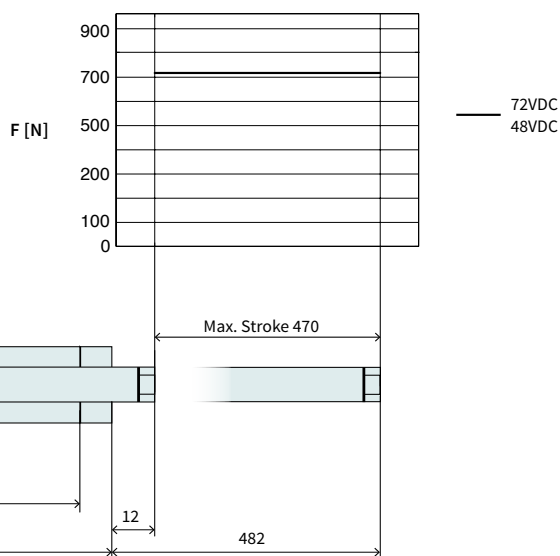
Technical Data P01-48x360F/380-PB25-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	380	(14.99)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	721	(162)
Max. Force @ 72VDC	N	(lbf)	721	(162)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%		100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	27.7	(6.24)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s	(in/s)	2.3	(93.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.3	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		25.9	
Max. Current @ 72VDC	A <sub>pk</sub>		25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		4.6 / - / 13	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1900 / - / 240	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	920	(36)
Slider Mass	g	(lb)	3830	(8.43)



Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>
<b>PL01-27x920/840</b>	Slider 'High Clearance'	<a href="#">0150-1447</a>

**P01-48x360F/470-PB25-SSC**

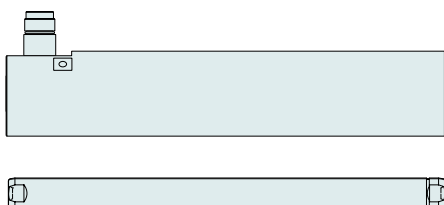
**Max. Stroke:** 470 mm  
**Peak Force:** 721 N



Dimensions in mm

**Technische Daten P01-48x360F/470-PB25-SSC**

Stroke			
Max. Stroke	mm (in)	470	(18.49)
Force			
Max. Force @ 48VDC	N (lbf)	721	(162)
Max. Force @ 72VDC	N (lbf)	721	(162)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	27.7	(6.24)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s (in/s)	2.3	(93.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.25	
Electrical Data			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.6 / - / 13	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1900 / - / 240	
Mechanical Data			
Slider Length	mm (in)	1010	(40)
Slider Mass	g (lb)	4220	(9.28)

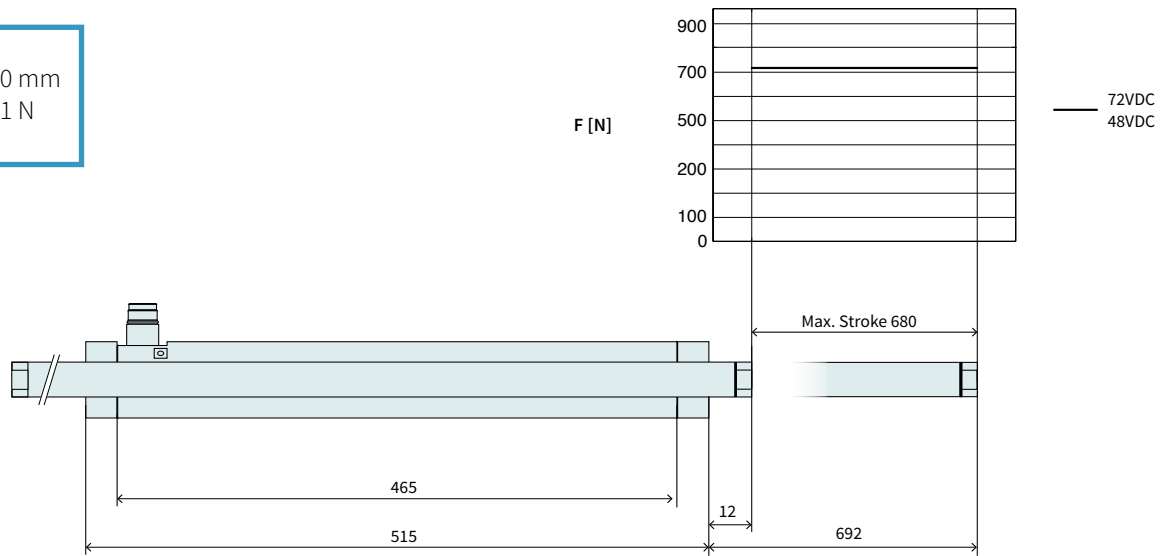


Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>
<b>PL01-27x1010/930</b>	Slider 'High Clearance'	<a href="#">0150-1473</a>



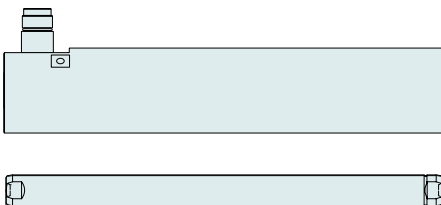
**P01-48x360F/680-PB25-SSC**

**Max. Stroke:** 680 mm  
**Peak Force:** 721 N



Dimensions in mm

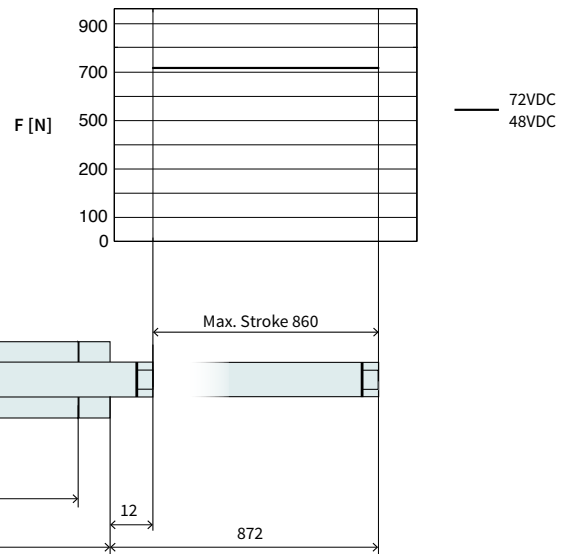
Technical Data P01-48x360F/680-PB25-SSC				
<b>Stroke</b>				
Max. Stroke	mm	(in)	680	(26.8)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	721	(162)
Max. Force @ 72VDC	N	(lbf)	721	(162)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%		100	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	27.7	(6.24)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s	(in/s)	2.3	(93.9)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.2	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		25.9	
Max. Current @ 72VDC	A <sub>pk</sub>		25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		4.6 / - / 13	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1900 / - / 240	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	1220	(48)
Slider Mass	g	(lb)	5130	(11.29)



Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>
<b>PL01-27x1220/1140</b>	Slider 'High Clearance'	<a href="#">0150-1587</a>

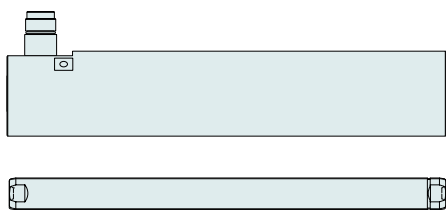
**P01-48x360F/860-PB25-SSC**

**Max. Stroke:** 860 mm  
**Peak Force:** 721 N



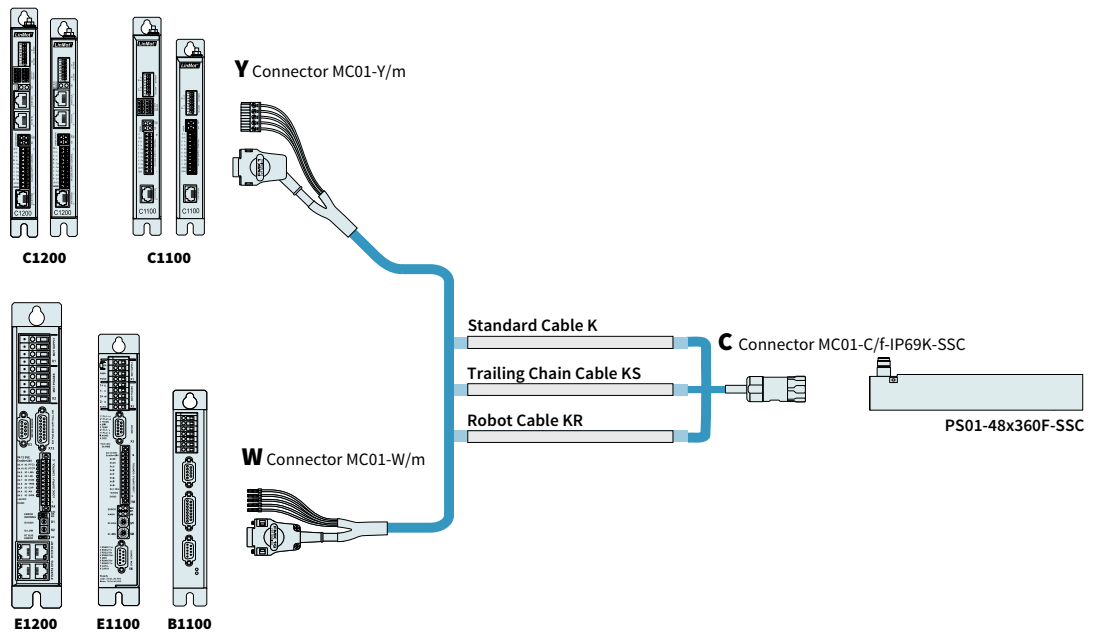
Dimensions in mm

Technical Data P01-48x360F/860-PB25-SSC			
<b>Stroke</b>			
Max. Stroke	mm (in)	860	(33.89)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	721	(162)
Max. Force @ 72VDC	N (lbf)	721	(162)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	130 / - / 350	(29 / - / 80)
Max. Border Force relative	%	100	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	27.7	(6.24)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	1.6	(62.9)
Max. Velocity @ 72VDC	m/s (in/s)	2.3	(93.9)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.2	
<b>Electrical Data</b>			
Max. Current @ 48VDC	A <sub>pk</sub>	25.9	
Max. Current @ 72VDC	A <sub>pk</sub>	25.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	4.6 / - / 13	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.3 / - / 0.17	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1900 / - / 240	
<b>Mechanical Data</b>			
Slider Length	mm (in)	1400	(55)
Slider Mass	g (lb)	5910	(13)



Item	Description	Item-No.
<b>PS01-48x360F-SSC-C</b>	Stator Stainless Steel IP69K	<a href="#">0150-1270</a>
<b>PS01-48x360F-SSC-C-FC</b>	Stator stainless steel IP69K, FC	<a href="#">0150-1271</a>
<b>PL01-27x1400/1320</b>	Slider 'High Clearance'	<a href="#">0150-1588</a>

**Motor Cable**



**ORDERING INFORMATION**

STANDARD CABLE		
Item	Description	Item-No.
<b>K15-W/C-SSC</b>	Motor Cable W/C-SSC, Custom length	<a href="#">0150-3539</a>
<b>K15-Y-Fe/C-SSC-</b>	Motor Cable Y-Fe/C-SSC, Custom length	<a href="#">0150-3630</a>

TRAILING CHAIN CABLE		
Item	Description	Item-No.
<b>KS10-W/C-SSC-2</b>	Trailing Chain Cable W/C-SSC, 2 m	<a href="#">0150-2675</a>
<b>KS10-W/C-SSC-4</b>	Trailing Chain Cable W/C-SSC, 4 m	<a href="#">0150-2676</a>
<b>KS10-W/C-SSC-6</b>	Trailing Chain Cable W/C-SSC, 6 m	<a href="#">0150-2677</a>
<b>KS10-W/C-SSC-8</b>	Trailing Chain Cable W/C-SSC, 8 m	<a href="#">0150-2678</a>
<b>KS10-W/C-SSC-</b>	Trailing Chain Cable W/C-SSC, Custom length	<a href="#">0150-3358</a>
<b>KS10-Y/C-SSC-2</b>	Trailing Chain Cable Y/C-SSC, 2 m	<a href="#">0150-2679</a>
<b>KS10-Y/C-SSC-4</b>	Trailing Chain Cable Y/C-SSC, 4 m	<a href="#">0150-2680</a>
<b>KS10-Y/C-SSC-6</b>	Trailing Chain Cable Y/C-SSC, 6 m	<a href="#">0150-2681</a>
<b>KS10-Y/C-SSC-8</b>	Trailing Chain Cable Y/C-SSC, 8 m	<a href="#">0150-2682</a>
<b>KS10-Y-Fe/C-SSC-</b>	Trailing Chain Cable Y/C-SSC, Custom length	<a href="#">0150-3574</a>

ROBOT CABLE		
Item	Description	Item-No.
<b>KR10-W/C-SSC-</b>	Robot Cable KR05-W/C-SSC-, Custom length	<a href="#">0150-3536</a>

CONNECTOR & CABLE (INDIVIDUAL)		
Item	Description	Item-No.
<b>MC01-W/m</b>	Motor Connector W/m	<a href="#">0150-3140</a>
<b>MC01-Y-Fe/m</b>	Motor Connector Y-Fe/m	<a href="#">0150-3289</a>
<b>MC01-C/f-IP69K-SSC</b>	Motor Connector C/f, IP69K, SSC	<a href="#">0150-3306</a>
<b>K15-04/05</b>	Motor Cable per m	<a href="#">0150-1978</a>
<b>KS10-04/05</b>	Trailing Chain Cable per m	<a href="#">0150-1977</a>
<b>KR10-04/05</b>	Robot Cable per m	<a href="#">0150-1830</a>

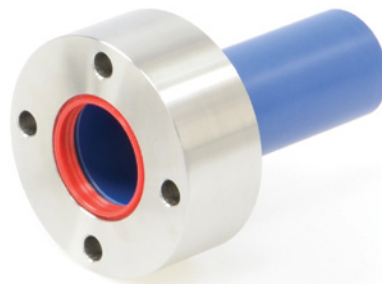
**SLIDER MOUNTING**



Item	Description	Item-No.
<b>PLF01-28-SS</b>	Fixed Bearing Set for 27 mm and 28 mm Slider, Stainless steel	<a href="#">0150-3297</a>
<b>PLL01-27</b>	Floating support for PL01-27 sliders	<a href="#">0150-3294</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

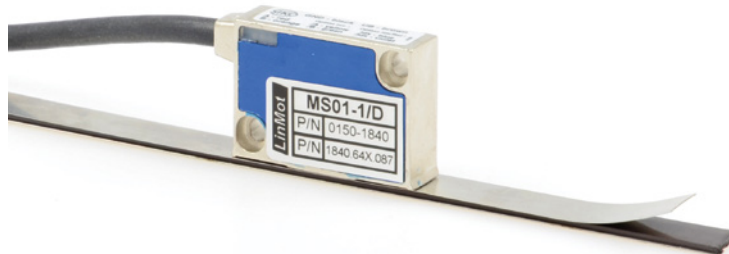
**BEARING KITS**



Item	Description	Item-No.
<b>PB01-48x25-80-P-SSC</b>	Bearing for PS01-48x360-SSC, (stainless steel)	<a href="#">0150-3413</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**EXTERNAL POSITION SENSORS**



Item	Description	Item-No.
<b>MS01-1/D</b>	Linear Encoder 1µm, A/B (for incremental strip)	<a href="#">0150-1840</a>
<b>MB01-1000</b>	Magnetic incremental strip for MS01-1/D, per cm	<a href="#">0150-1963</a>
<b>KS025-D/D-Encoder</b>	Special cable KS025-D/D-Encoder- (Length in m)	<a href="#">0150-3166</a>
<b>KS025-D/D15-Encoder</b>	Special cable KS025-D15/D-Encoder- (Length in m)	<a href="#">0150-3168</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



Item	Description	Item-No.
<b>MS01-1/D-SSI</b>	Linear Encoder 1µm, A/B (for absolute strip)	<a href="#">0150-2095</a>
<b>MB01-1000-ABS</b>	Magnetic absolute strip for MS01-1/D-SSI (per cm)	<a href="#">0150-2096</a>
<b>EC01-ABS/ENC-12-S</b>	MS01-1/D-SSI Encoder connector straight	<a href="#">0150-3616</a>
<b>KSS01-12-D15/ABS-ENC</b>	For MS01-1/D-SSI on C1100/C1200/C1400/E1200/E1400 Drives	<a href="#">0150-3652</a>

**FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".**



# LINEAR MOTORS ATEX



Linear motors with ATEX  
and IECEx certification.

## Product Description

Wherever explosive gases or vapors are mixed with air, or flammable dust can occur, drives with enhanced protective mechanisms are required.

For this purpose, LinMot series P01–48 linear motors have been developed and certified as EX protected motors in accordance with directive 94/9/EC. Device classifications 2G and 2D mean that the devices can be used in an explosive atmosphere consisting of gases, vapors, mist, or dust in zones 1/21 and 2/22.

The drives are thus optimally designed for use in printing machines, painting lines, plastic-processing machines, or in the chemical or pharmaceutical field.

The ATEX family of motors consists of two sizes for which a wide range of slider lengths is available. The stroke length ranges up to 980 mm, along which a peak force of 720 N can be achieved.



### Safely protected in ATEX environments

The ATEX motors are completely encapsulated in stainless steel and do not require seals. All joint connections are welded. To completely seal off the motor, the windings and other internal components of the stator are potted in epoxy resin. This guarantees optimal protection of the motor and eliminates the risk of electrical arcing. The motors have been designed to be very compact and have no unnecessary edges, corners, holes, or threaded connections, so there is no place where explosive material could collect. This eliminates additional potential sources of ignition and the risk of non-uniform heating is greatly minimized. Even in environments with a low ignition temperature ( $> 85^{\circ}\text{C}$ ), LinMot ATEX motors are permitted to be used.

#### ADDITIONAL TEMPERATURE MONITORING

In addition to sensors for monitoring the winding temperature in the stator of the ATEX motor, additional temperature sensors are installed under the motor housing.

This allows 2-channel temperature monitoring of the motor. If the motor should overheat due to an error, the drive feed is interrupted by the higher-level channel. The technical safety concept of the LinMot ATEX motors is such that no further certified elements are required in the explosion hazard zone other than the motor and the feed cable.

#### INTEGRATED WATER COOLING

LinMot's ATEX linear motors can optionally be supplied with integrated water cooling. The stator is enclosed by the cooling system along its entire length.

The heat losses generated in the motor are dissipated through the liquid cooling system. This increases the rated power of the motor several times over in comparison with the self-cooled version. Due to the lower surface temperature of the motor, it can also be used in an explosive atmosphere with a lower ignition temperature.

#### HIGH AND CONTROLLED DYNAMICS

Max. acceleration values over  $400\text{ m/s}^2$  and travel speeds over  $3\text{ m/s}$  allow cyclical motion sequences of several Hertz.

For handling applications with sensitive products, such as transporting wafers in semiconductor production, very gentle, smooth motions with suitable accelerations can be obtained.



**FREELY POSITIONABLE**

LinMot linear motors can be freely positioned. With absolute or relative movement commands, they can move to any desired position in the stroke range. Since the LinMot linear drive is a closed-loop system, not only the end positions are monitored, but also deviations in position during travel. This allows, among other things, precise specification of travel speeds, acceleration and braking ramps, and travel through curved paths.

**PROCESS STABILITY**

Since not only the end position, but also speed and acceleration are controlled and monitored, motions that are programmed once are carried out the same way over the entire life of the machine.

**MOTOR CONNECTOR**

For the purpose of complete encapsulation, the plug is welded to the housing of the motor. The plug is made of stainless steel and is tightened with a coupling nut. At the same time the protection class IP 66/67 is fulfilled. To protect an outgoing spark, the motor plug and the cable plug are securely screwed together.

**SYNCHRONIZATION**

For synchronous machines, the linear motor can be synchronized to the main shaft. By replacing mechanical cam discs with LinMot linear motors, for example, great variations can be achieved, with format changeovers at the push of a button.

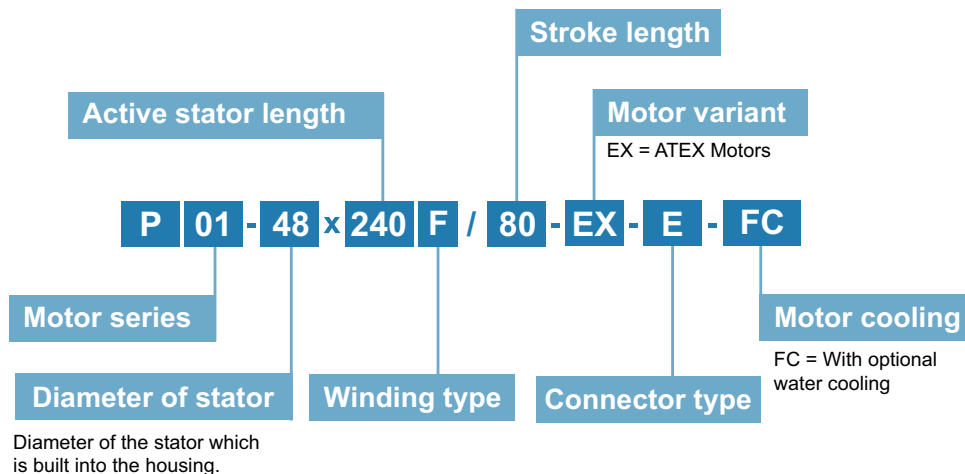
**OVERLOAD PROTECTION**

There are no mechanical components for force transfer that could be damaged in a crash or stall condition in a linear motor. Complex, expensive designs to protect gearboxes, gears, and shafts are thus eliminated. If the linear motor stalls, it acts like a pneumatic cylinder and tries to reach the target position with a defined force. The following error monitor in the drive can, however, immediately recognize a stall condition. Temperature sensors integrated in the stator prevent the drive from overloading in any case.

**LONG LIFESPAN**

Since the linear motion is generated purely magnetically, and no mechanical force transmission takes place, even extremely dynamic applications can be implemented with a long lifespan.

**Type Code**



For explanations of the terms, please refer to the section "Glossary"

