

# **LinMot®**

## **Stainless Steel Motors IP69K**



**Designed for harsh or aggressive environment**



**Hygienic design for food industry**



**Stainless steel housing EN1.4404 / AISI 316**



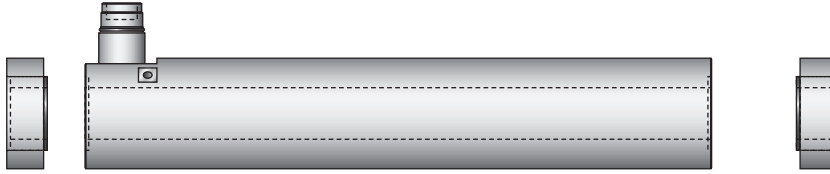
**Completely sealed, Protection rating IP69K**



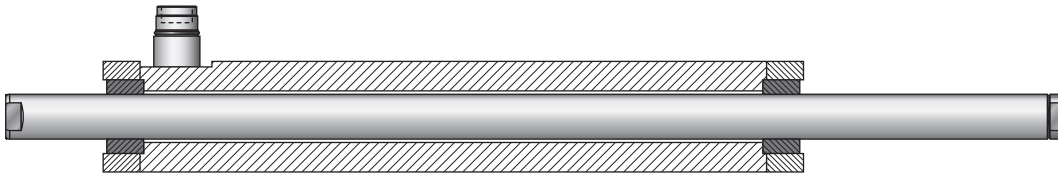
**Available with integrated Fluid cooling**

**The linear motor technology for industrial applications**

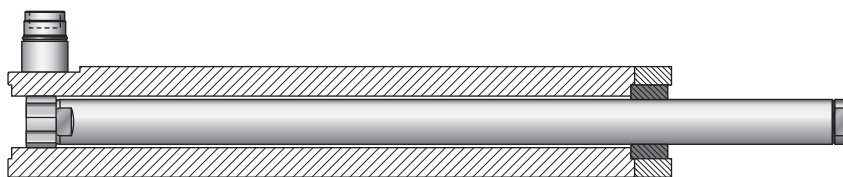
## Stainless Steel Stator IP69K with bearings



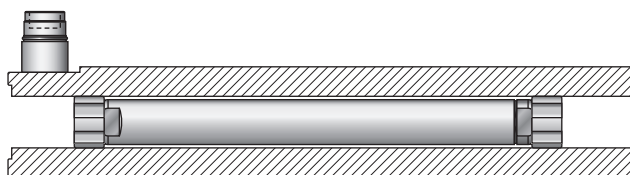
## External bearings for mid range Strokes



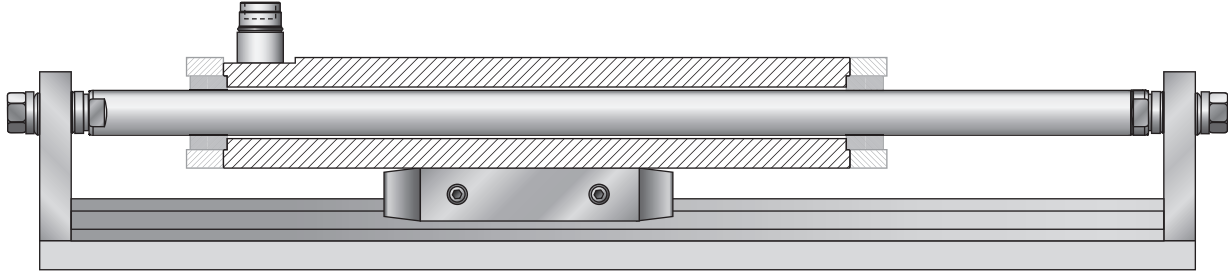
## Internal/external bearings for short Strokes



## Internal bearings for short Strokes

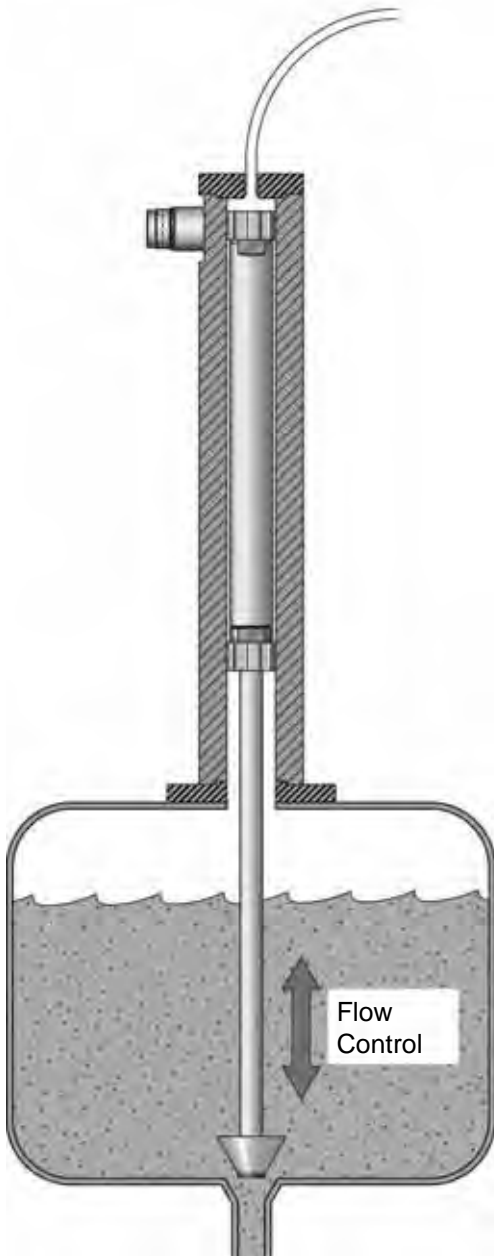


## Application Example 1: Linear Stage IP69K

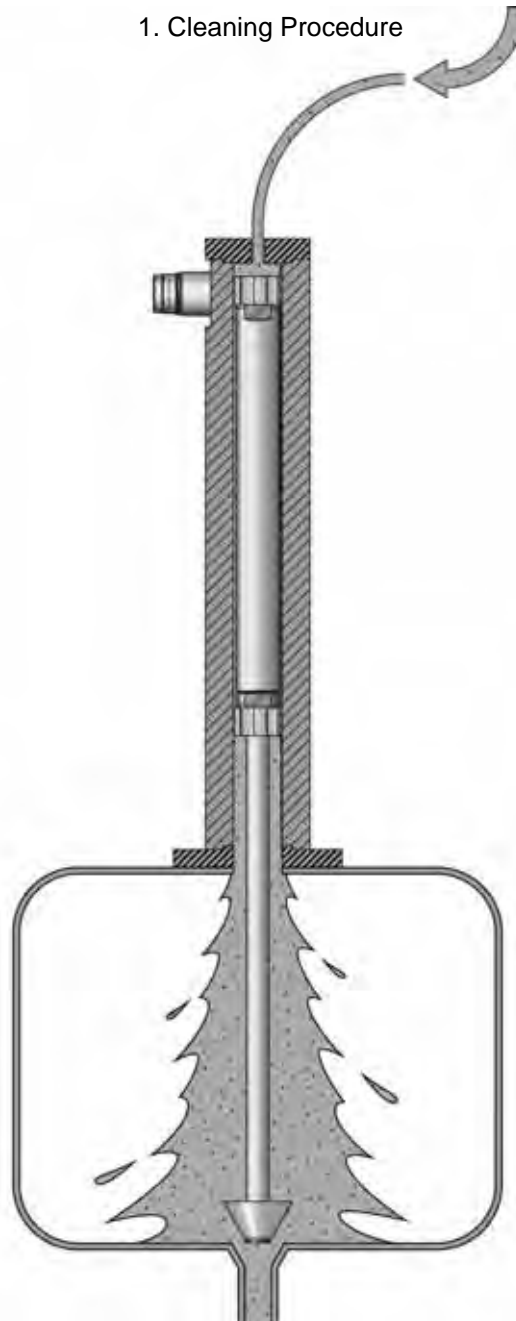


## Application Example 2: Flow Control

1. Normal Operation



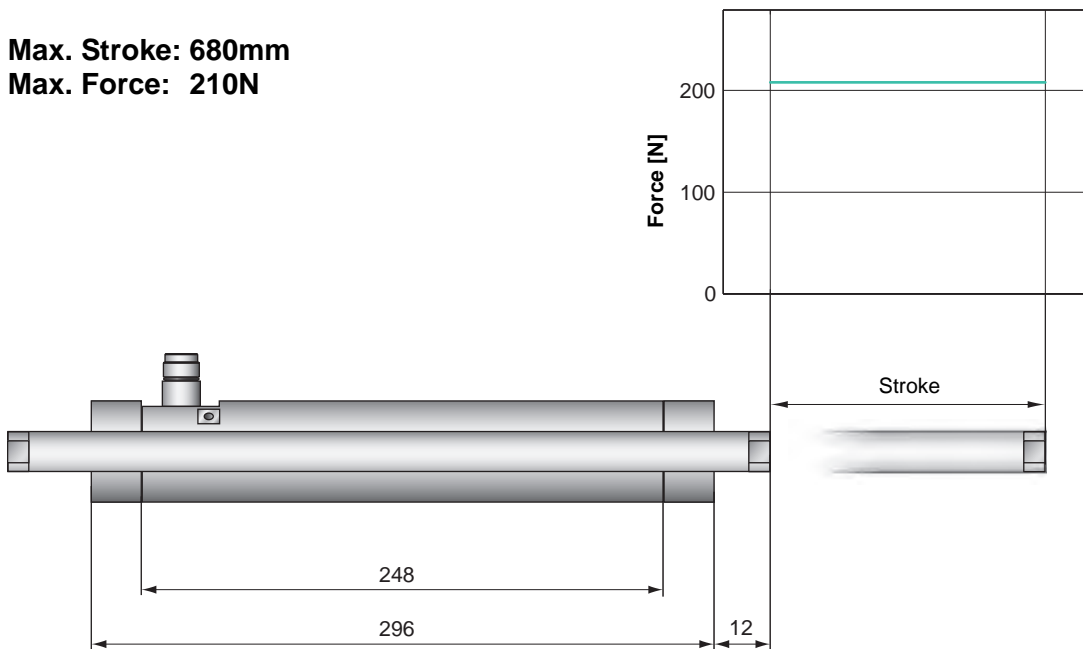
1. Cleaning Procedure



Applications:

- Clean Room
- Vacuum
- Aseptic

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



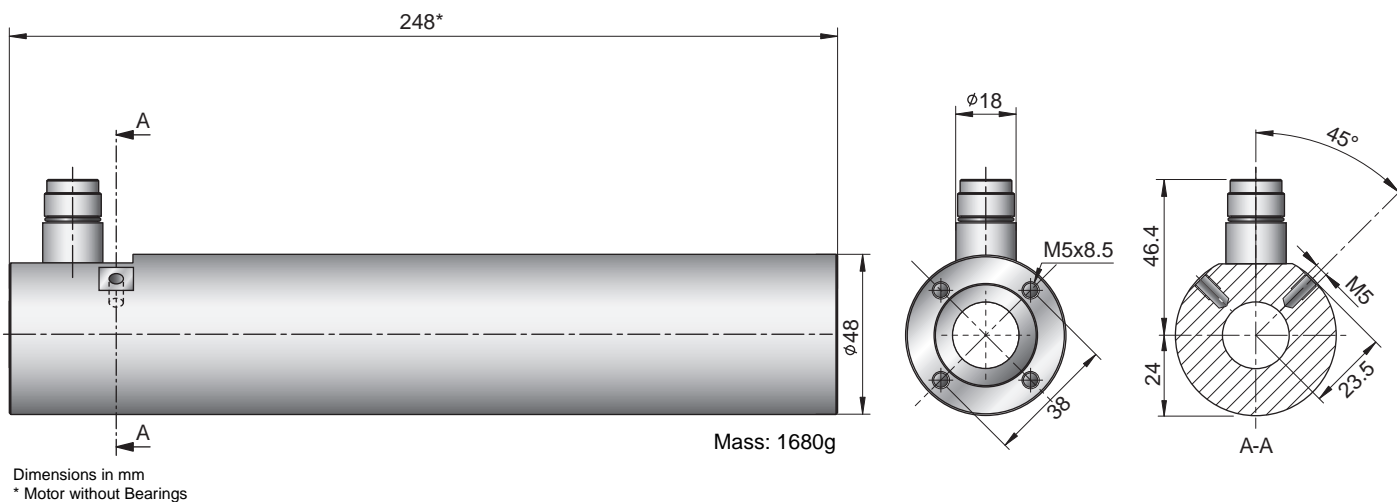
Dimensions in mm

## Motor Specification\*

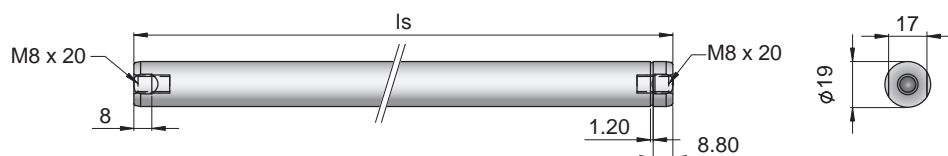
		P10-37x120F/...x...-HP-SSC							
		75 (2.95)	180 (7.09)	280 (11.02)	380 (14.96)	480 (18.90)	580 (22.83)	680 (26.77)	
Stroke	mm (in)								
Max. Force E12x0 - UC	N (lbf)				210 (47.2)				
Max. Force E11x0 - XC	N (lbf)				210 (47.2)				
Cont. Force	N (lbf)				24 (5.4)				
Cont. Force Fluid cooling	N (lbf)				65 (14.6)				
Force Constant	N/A (lbf/A)				14 (3.1)				
Max. Current @ 72VDC	A				15				
Max. Velocity @ 72VDC	m/s (in/s)				- (-)				
Phase Resist. 25/110 °C	Ohm				2.4/3.1				
Phase Inductance	mH				1.6				
Thermal Resistance	°K/W				-				
Thermal Time Const.	sec				-				
Stator Diameter	mm (in)				48 (1.89)				
Stator Length	mm (in)				296 (11.65)				
Stator Mass	g (lb)				2200 (4.85)				
Slider Diameter	mm (in)				19 (0.75)				
Slider Length	mm (in)	395 (15.55)	500 (19.69)	600 (23.62)	700 (27.56)	800 (31.50)	900 (35.43)	1000 (39.37)	
Slider Mass	g (lb)	746 (1.64)	958 (2.11)	1167 (2.57)	1376 (3.03)	1586 (3.50)	1785 (3.94)	1980 (4.37)	
Position Repeatability	mm (in)				±0.05 (±0.0020)				
Linearity	%				±0.10				
Repeatability with EPS	mm (in)				±0.01 (±0.0004)				
Linearity with EPS	mm (in)				±0.01 (±0.0004)				

\*for Motors with Bearings, other Values without Bearings (see LinMot Designer)

## PS01-37x120F-HP-SSC



## PL01-19x.../...



Is [mm]	395	500	600	700
	800	900	1000	

Linear Motor		Stator		Slider	
Type	Art. Nr.	Type	Art. No.	Type	Art No.
P01-37x120F/75x75-HP-SSC	-->			& PL01-19x395/320	0150-1452
P01-37x120F/180x180-HP-SSC	-->			& PL01-19x500/420	0150-1455
P01-37x120F/280x280-HP-SSC	-->	PS01-37x120F-HP-SSC-R	0150-1282	& PL01-19x600/520	0150-1456
P01-37x120F/380x380-HP-SSC	-->	PS01-37x120F-HP-SSC-R-FC	0150-1283	& PL01-19x700/620	0150-1457
P01-37x120F/480x480-HP-SSC	-->			& PL01-19x800/720	01-50-1458
P01-37x120F/580x580-HP-SSC	-->			& PL01-19x900/820	0150-1459
P01-37x120F/680x680-HP-SSC	-->			& PL01-19x1000/920	0150-1460

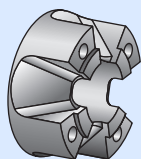
## Connectors

### Motor Connector Wiring

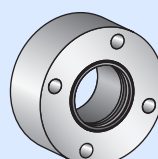
Ph 1+	red	1
Ph 1-	pink	2
Ph 2+	blue	3
Ph 2-	gray	4
+5VDC	white	A
GND	inner Shield	B
Sine	yellow	C
Cosine	green	D
Temp.	black	E
Shield	outer Shield	Case

## Accessories

### Plain Bearings

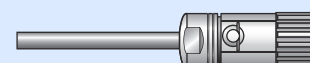


PB01-37x24-P-WD  
Art. No. 0150-3299



PB01-37x24-P-SSC  
Art. No. 0150-3290

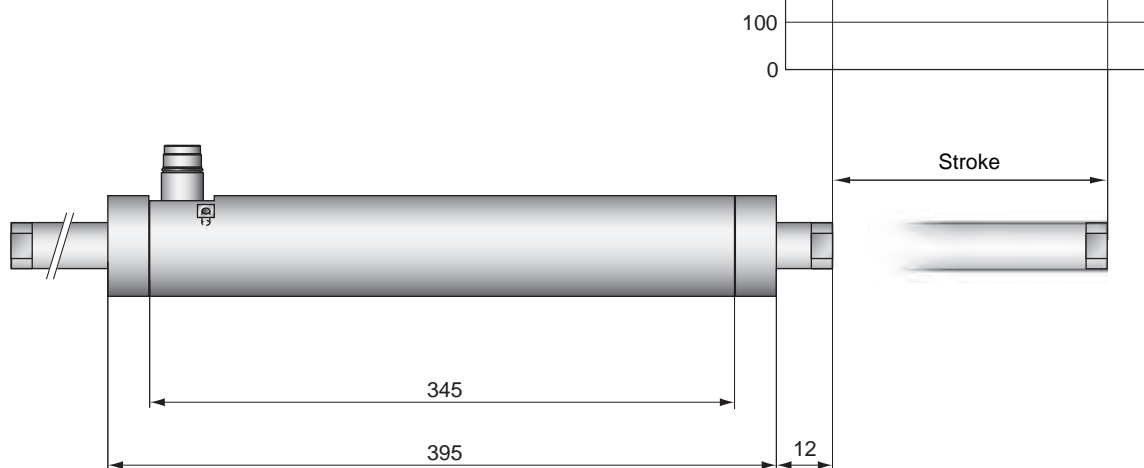
### Connectors



MC01-R/f-IP69K-SSC  
Art. No. 0150-3347

MC01-R/f-IP69K-SSC-as  
Art. No. 0150-3343

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



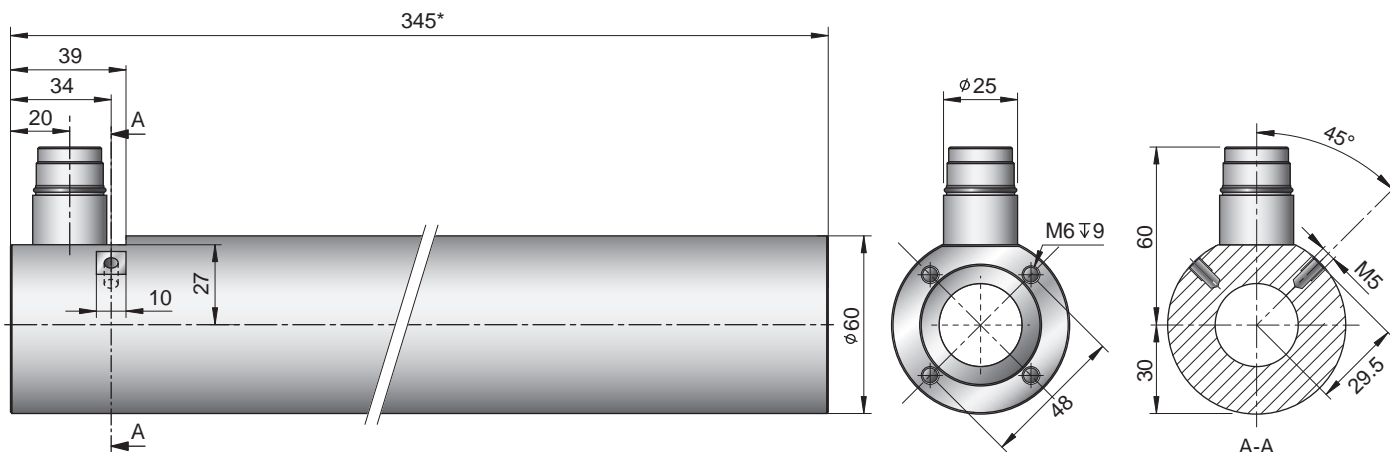
Dimensions in mm

## Motor Specification\*

		P01-48x240F/...x...-SSC							
		80 (3.15)	200 (7.87)	290 (11.42)	380 (14.96)	500 (19.69)	590 (23.23)	800 (31.50)	980 (38.58)
Stroke	mm (in)	80 (3.15)	200 (7.87)	290 (11.42)	380 (14.96)	500 (19.69)	590 (23.23)	800 (31.50)	980 (38.58)
Max. Force E12x0 - UC	N (lbf)	496 (111.51)							
Max. Force E11x0 - XC	N (lbf)	477 (107.23)							
Cont. Force	N (lbf)	86 (19.33)							
Cont. Force Fluid cooling	N (lbf)	241 (54.18)							
Force Constant	N/A (lbf/A)	19.1 (4.29)							
Max. Current @ 72VDC	A	26							
Max. Velocity @ 72VDC	m/s (in/s)	3.4 (134)							
Phase Resist. 25/80 °C	Ohm	1.0/1.2							
Phase Inductance	mH	1.0							
Thermal Resistance	°K/W	- (-)							
Thermal Time Const.	sec	- (-)							
Stator Diameter	mm (in)	60 (2.36)							
Stator Length	mm (in)	345 (13.58)							
Stator Mass	g (lb)	3710 (8.18)							
Slider Diameter	mm (in)	27 (0.059)							
Slider Length	mm (in)	500(19.69)	620(24.41)	710(27.95)	800(31.50)	920(36.22)	1010(39.76)	1220(48.03)	1400(55.12)
Slider Mass	g (lb)	2010(4.43)	2530(5.58)	2920(6.44)	3310(7.30)	3830(8.44)	4220(9.30)	5130(11.31)	5910(13.03)
Position Repeatability	mm (in)	±0.05 (±0.0020)							
Linearity	%	±0.10							
Repeatability with EPS	mm (in)	±0.01 (±0.0004)							
Linearity with EPS	mm (in)	±0.01 (±0.0004)							

\*for Motors with Bearings, other Values without Bearings (see LinMot Designer)

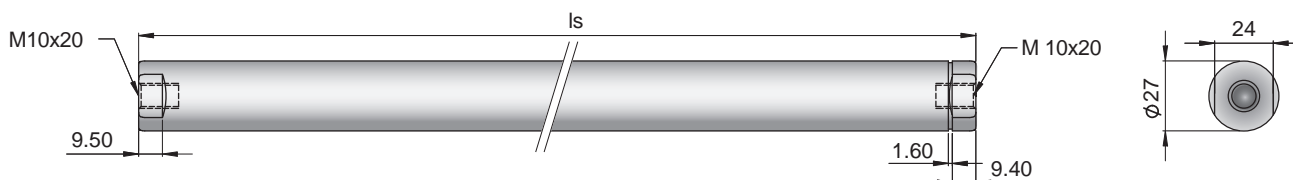
# PS01-48x240F-SSC



Dimensions in mm  
\* Motor without Bearings

# PL01-27x.../...

ls [mm]			
500	620	710	800
920	1010	1220	1400



Linear Motor	Stator		Slider		
Type	Art. Nr.	Type	Art. No.	Type	Art No.
P01-48x240F/80x80-SSC	-->			& PL01-27x500/420	0150-1469
P01-48x240F/200x200-SSC	-->			& PL01-27x620/540	0150-1470
P01-48x240F/290x290-SSC	-->			& PL01-27x710/630	0150-1471
P01-48x240F/380x380-SSC	-->	PS01-48x240F-SSC-C	0150-1267	& PL01-27x800/720	0150-1472
P01-48x240F/500x500-SSC	-->	PS01-48x240F-SSC-C-FC	0150-1268	& PL01-27x920/840	0150-1447
P01-48x240F/590x590-SSC	-->			& PL01-27x1010/930	0150-1473
P01-48x240F/800x800-SSC	-->			& PL01-27x1220/1140	0150-1587
P01-48x240F/980x980-SSC	-->			& PL01-27x1400/1320	0150-1588

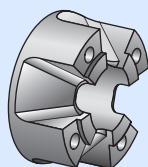
## Connectors

### Motor Connector Wiring

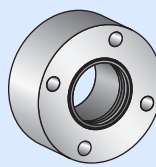
Ph 1+	red	1
Ph 1-	pink	2
Ph 2+	blue	3
Ph 2-	gray	4
+5VDC	white	A
GND	inner Shield	B
Sine	yellow	C
Cosine	green	D
Temp.	black	E
Shield	outer Shield	Case

## Accessories

### Plain Bearings

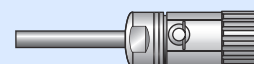


PB01-48x25-P-WD  
Art. No. 0150-3271



PB01-48x25-P-SSC  
Art. No. 0150-3281

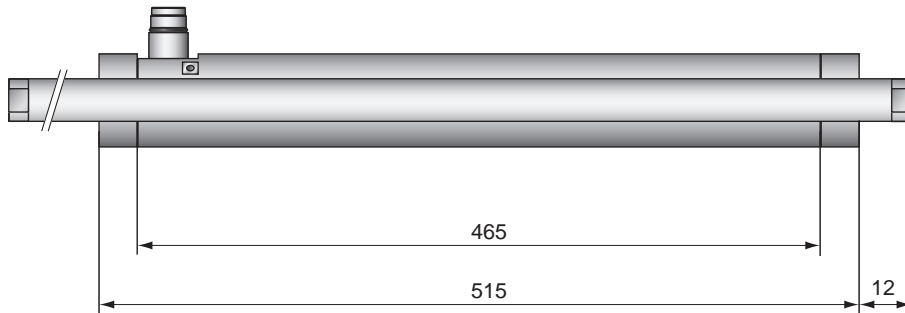
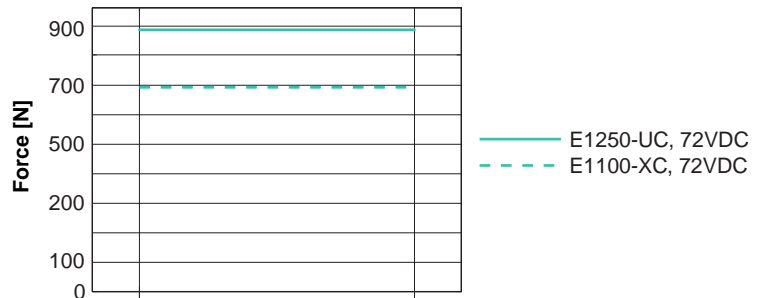
### Connectors



MC01-C/f-IP69K-SSC  
Art. No. 0150-3306

MC01-C/f-IP69K-SSC-as  
Art. No. 0150-3325

**Max. Stroke: 860mm**  
**Max. Force: 888N**



Dimensions in mm

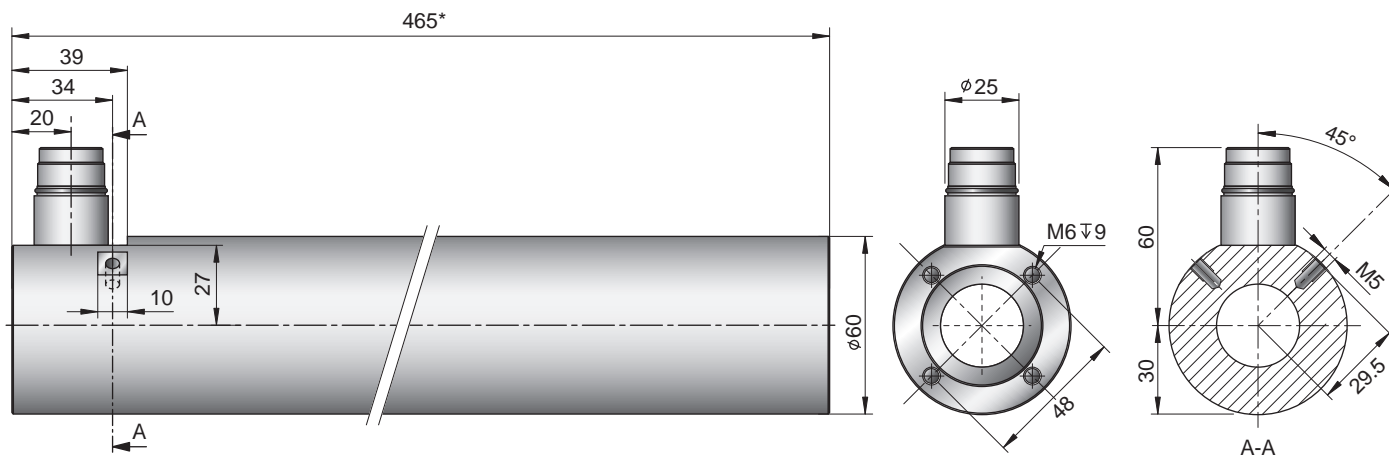
## Motor Specification\*

		P01-48x360F/...x...-SSC						
		80 (3.15)	170 (6.69)	260 (10.24)	380 (14.96)	470 (18.50)	680 (26.77)	860 (33.86)
Extended Stroke ES	mm (in)							
Max. Force E12x0 - UC	N (lbf)			888 (199.6)				
Max. Force E11x0 - XC	N (lbf)			693 (155.8)				
Cont. Force	N (lbf)			129 (29.0)				
Cont. Force Fluid cooling	N (lbf)			360 (80.9)				
Force Constant	N/A (lbf/A)			27.7 (6.23)				
Max. Current @ 72VDC	A			32				
Max. Velocity @ 72VDC	m/s (in/s)			2.35				
Phase Resist. 25/80 °C	Ohm			1.5/1.8				
Phase Inductance	mH			1.5				
Thermal Resistance	°K/W			- (-)				
Thermal Time Const.	sec			- (-)				
Stator Diameter	mm (in)			60 (2.36)				
Stator Length	mm (in)			465 (18.31)				
Stator Mass	g (lb)			5000 (11.02)				
Slider Diameter	mm (in)			27 (0.059)				
Slider Length	mm (in)	620(24.41)	710(27.95)	800(31.50)	920(36.22)	1010(39.76)	1220(48.03)	1400(55.12)
Slider Mass	g (lb)	2530(5.58)	2920(6.44)	3310(7.30)	3830(8.44)	4220(9.30)	5130(11.31)	5910(13.03)
Position Repeatability	mm (in)			±0.05 (±0.0020)				
Linearity	%			±0.10				
Repeatability with EPS	mm (in)			±0.01 (±0.0004)				
Linearity with EPS	mm (in)			±0.01 (±0.0004)				

\*for Motors with Bearings, other Values without Bearings (see LinMot Designer)



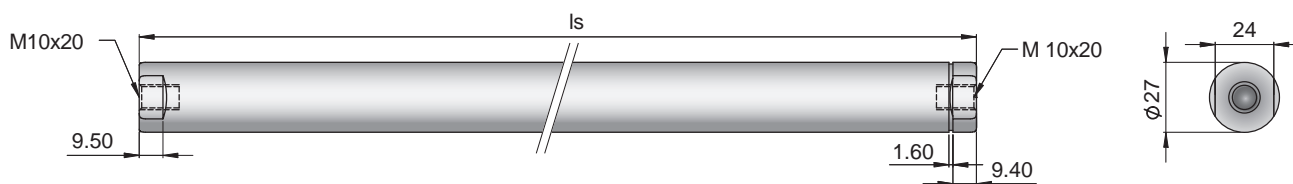
# PS01-48x360F-SSC



Dimensions in mm  
\* Motor without Bearings

# PL01-27x.../...

ls [mm]  
620 710 800 920  
1010 1220 1400



Linear Motor Type	Art. Nr.	Stator Type	Art. No.	Slider Type	Art No.
P01-48x360F/80x80-SSC	-->			& PL01-27x620/540	0150-1470
P01-48x360F/170x170-SSC	-->			& PL01-27x710/630	0150-1471
P01-48x360F/260x260-SSC	-->			& PL01-27x800/720	0150-1472
P01-48x360F/380x380-SSC	-->	PS01-48x360F-SSC-C	0150-1270	& PL01-27x920/840	0150-1447
P01-48x360F/470x470-SSC	-->	PS01-48x360F-SSC-C-FC	0150-1271	& PL01-27x1010/930	0150-1473
P01-48x360F/680x680-SSC	-->			& PL01-27x1220/1140	0150-1587
P01-48x360F/860x860-SSC	-->			& PL01-27x1400/1320	0150-1588

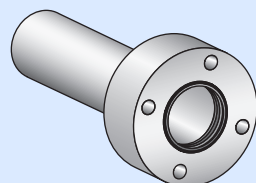
## Connectors

### Motor Connector Wiring

Ph 1+	red	1
Ph 1-	pink	2
Ph 2+	blue	3
Ph 2-	gray	4
+5VDC	white	A
GND	inner Shield	B
Sine	yellow	C
Cosine	green	D
Temp.	black	E
Shield	outer Shield	Case

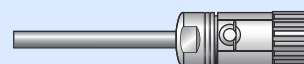
## Accessories

### Plain Bearings



PB 01-48x25-80-P-SSC  
Art. No. 0150-3271

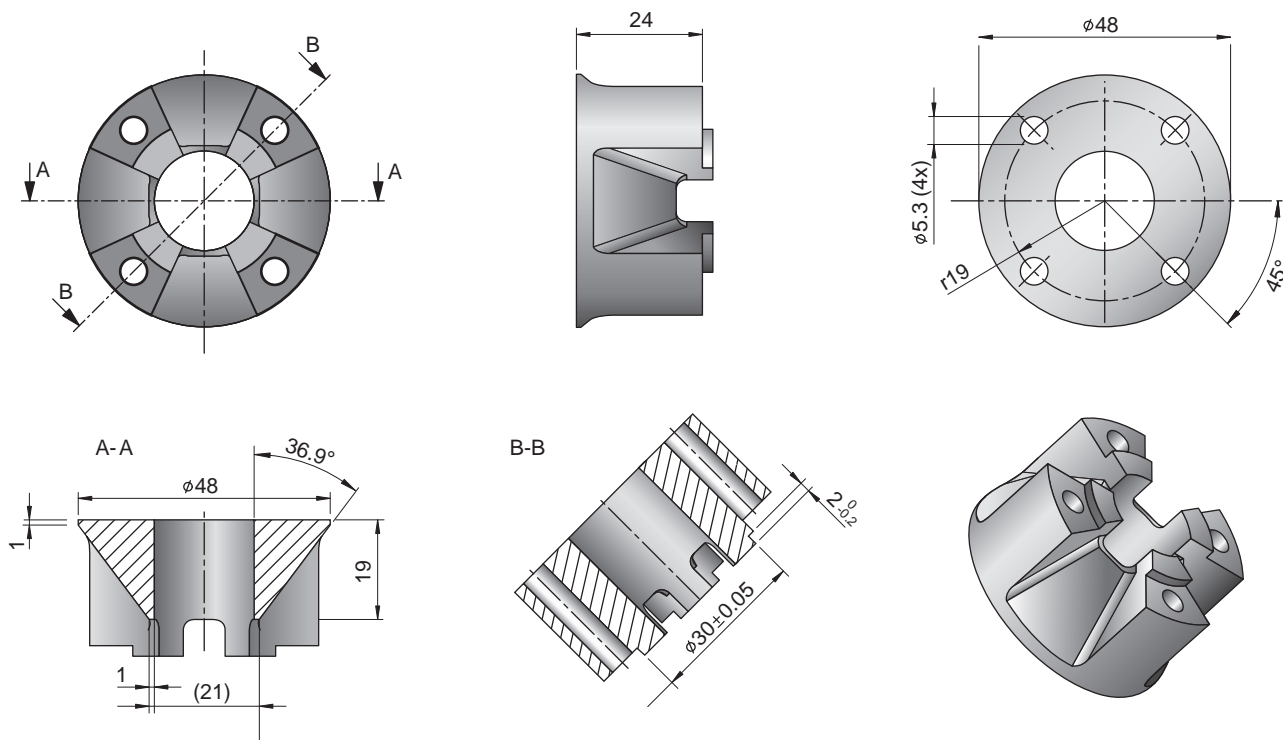
### Connectors



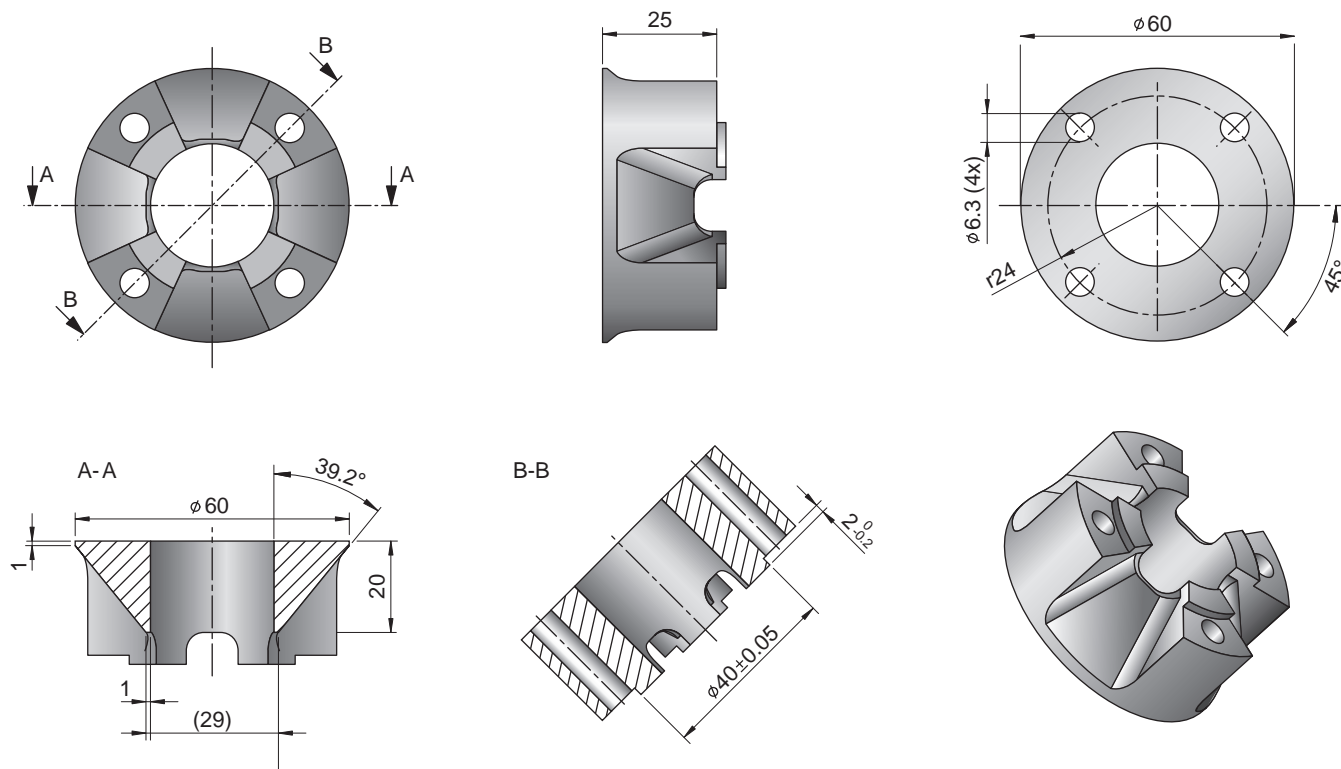
MC01-C/f-IP69K-SSC  
Art. No. 0150-3306

MC01-C/f-IP69K-SSC-as  
Art. No. 0150-3325

## PB02-37x24-P-WD



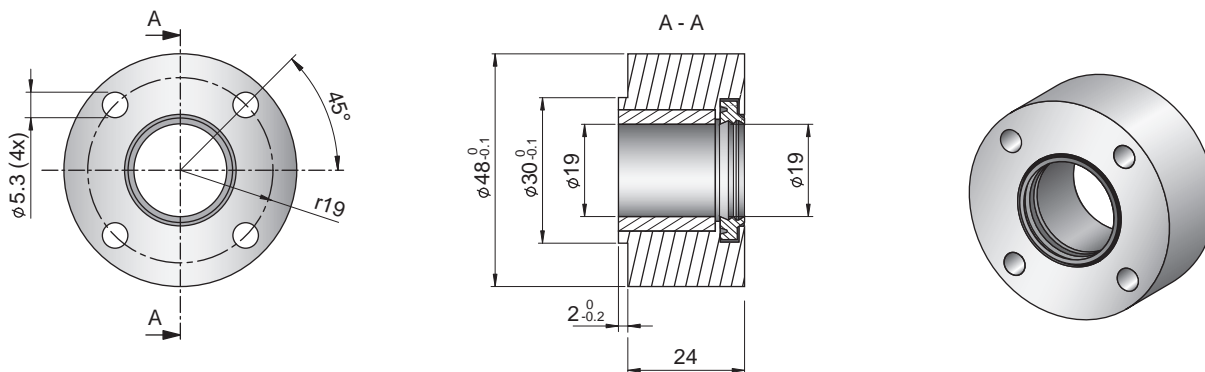
## PB02-48x25-P-WD



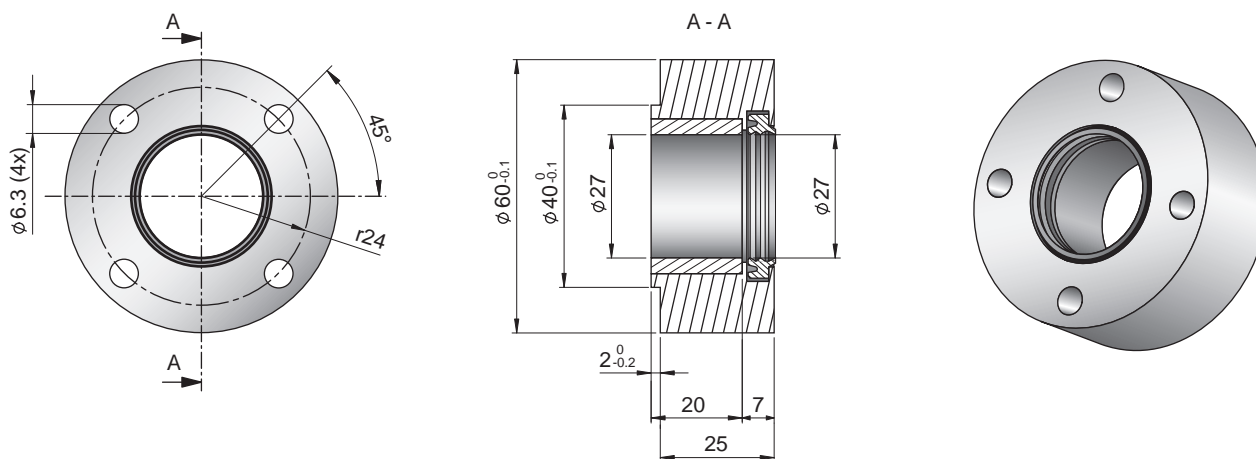
### Ordering information

Item	Description	Part Number
PB01-37x24-P-WD	Plain Bearing for PS01-37x...-SSC (synthetical, FDA materials)	0150-3299
PB01-48x25-P-WD	Plain Bearing for PS01-48x...-SSC (synthetical, FDA materials)	0150-3271

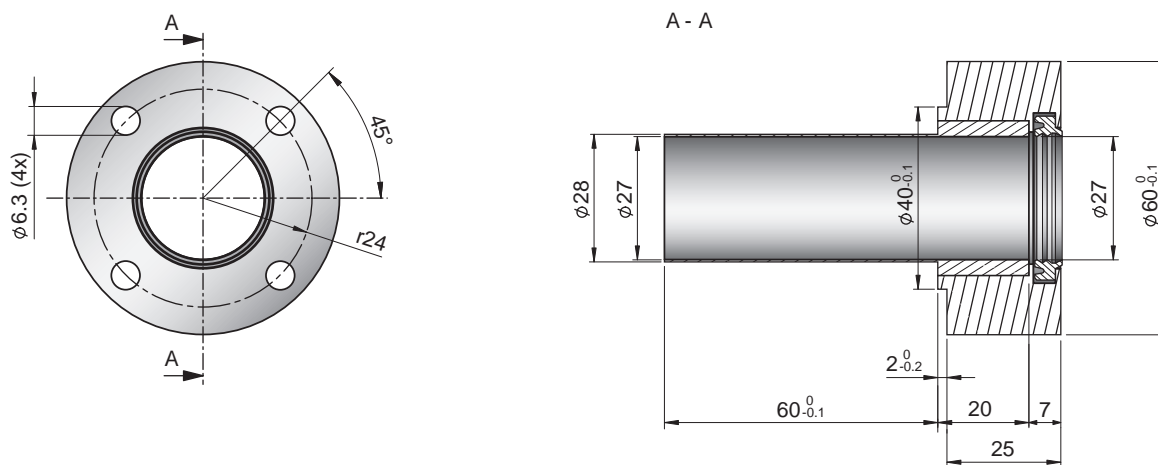
## PB01-37x24-P-SSC



## PB01-48x25-P-SSC



## PB01-48x25-80-P-SSC



## Ordering information

Item	Description	Part Number
PB01-37x24-P-SSC	Plain Bearing for PS01-37x120...-SSC (synthetical, FDA materials)	0150-3290
PB01-48x25-P-SSC	Plain Bearing for PS01-48x240...-SSC (synthetical, FDA materials)	0150-3281
PB01-48x25-80-P-SSC	Plain Bearing for PS01-48x360...-SSC (synthetical, FDA materials)	0150-3413