

LinMot®

Linear Motors with ATEX and IECEx Certification



Designed for explosion proof environment



Categories: gas zones 1/2, dust zones 21/22



Stainless steel housing EN1.4404 / AISI 316



Completely sealed, protection IP67

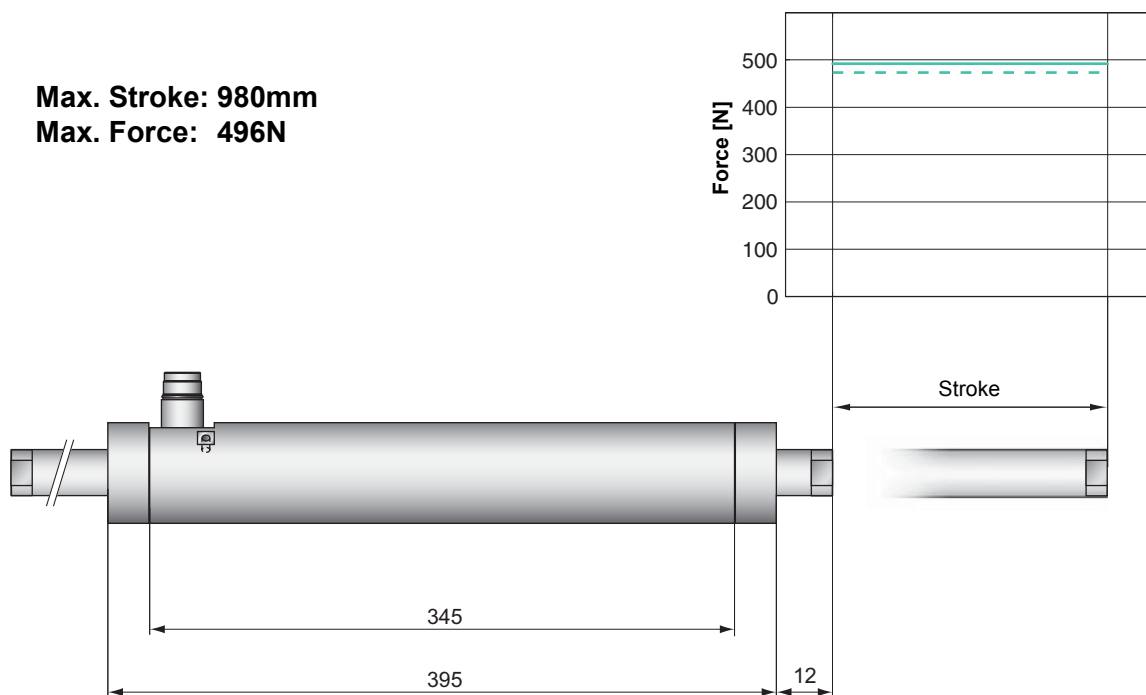


Available with integrated Fluid cooling

The linear motor technology for industrial applications

Max. Stroke: 980mm

Max. Force: 496N



Dimensions in mm



Motor Specification*

		P01-48x240F/...x...-EX							
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 Liquid 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)				

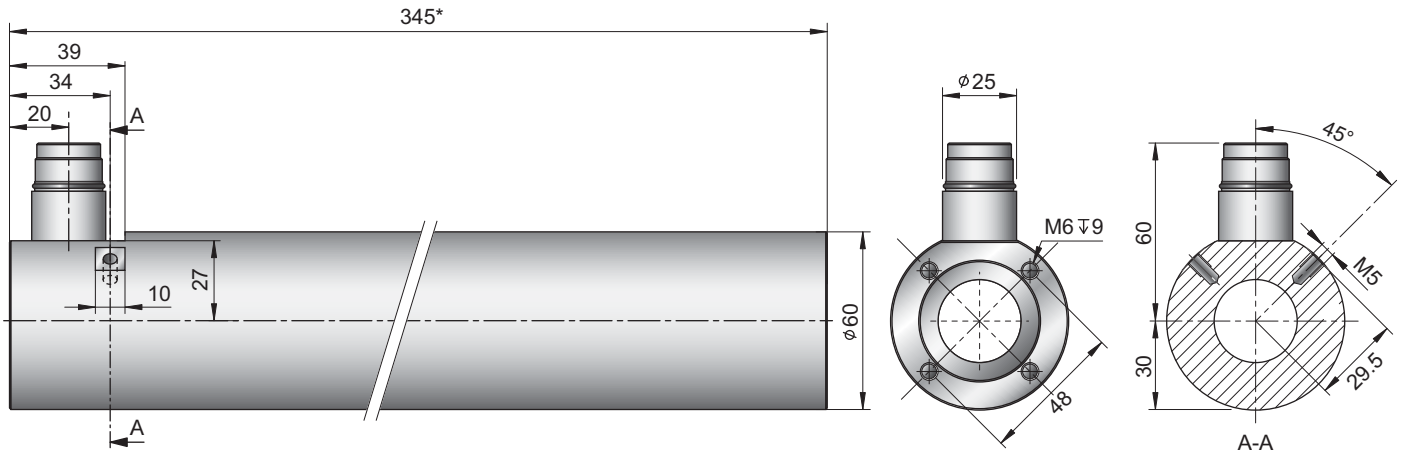


2 G Ex eb IIB T4 Gb



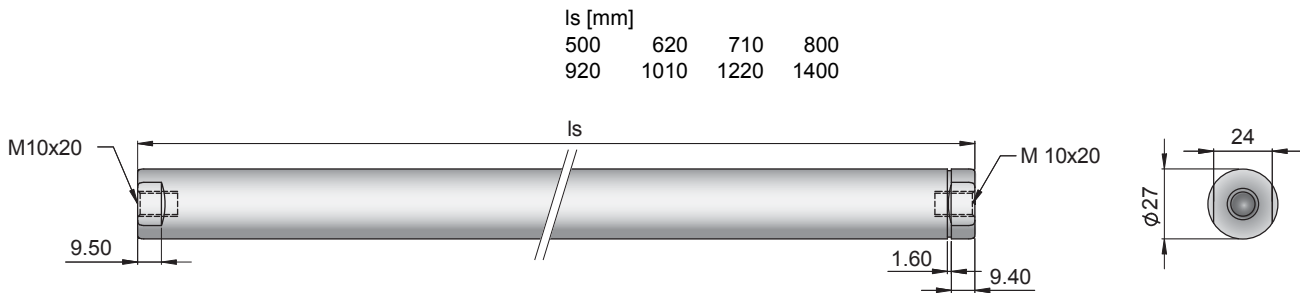
2 D Ex tb IIIC T135° Db

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



Dimensions in mm
* Motor without Bearings

PL01-27x.../...



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

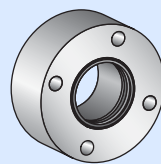
Linear Motor		Stator		Slider	
Type	Art. Nr.	Type	Art. No.	Type	Art No.
P01-48x240F/80x80-EX	-->			& PL01-27x500/420	0150-1469
P01-48x240F/200x200-EX	-->			& PL01-27x620/540	0150-1470
P01-48x240F/290x290-EX	-->			& PL01-27x710/630	0150-1471
P01-48x240F/380x380-EX	-->	PS01-48x240F-EX-C-FC	0150-1299	& PL01-27x800/720	0150-1472
P01-48x240F/500x500-EX	-->			& PL01-27x920/840	0150-1447
P01-48x240F/590x590-EX	-->			& PL01-27x1010/930	0150-1473
P01-48x240F/800x800-EX	-->			& PL01-27x1220/1140	0150-1587
P01-48x240F/980x980-EX	-->			& PL01-27x1400/1320	0150-1588

Connector

Accessories

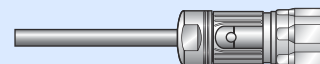
Pin	Wire (color)	
A	red	Ph 1+
B	pink	Ph 1-
C	blue	Ph 2+
D	grey	Ph 2-
PE	green/ yellow	PE
1	white	+5V
2	inner Shield	Gnd
3	yellow	Sin
4	green	Cos
5	black	Temp
6	(-)	n.c.
7	orange	Kty 1+
8	brown	Kty 1-
9	violet	Kty 2+
10	beige	Kty 2-

Plain Bearing



PB 01-48x25-P-SSC
Art. No. 0150-3281

Connector

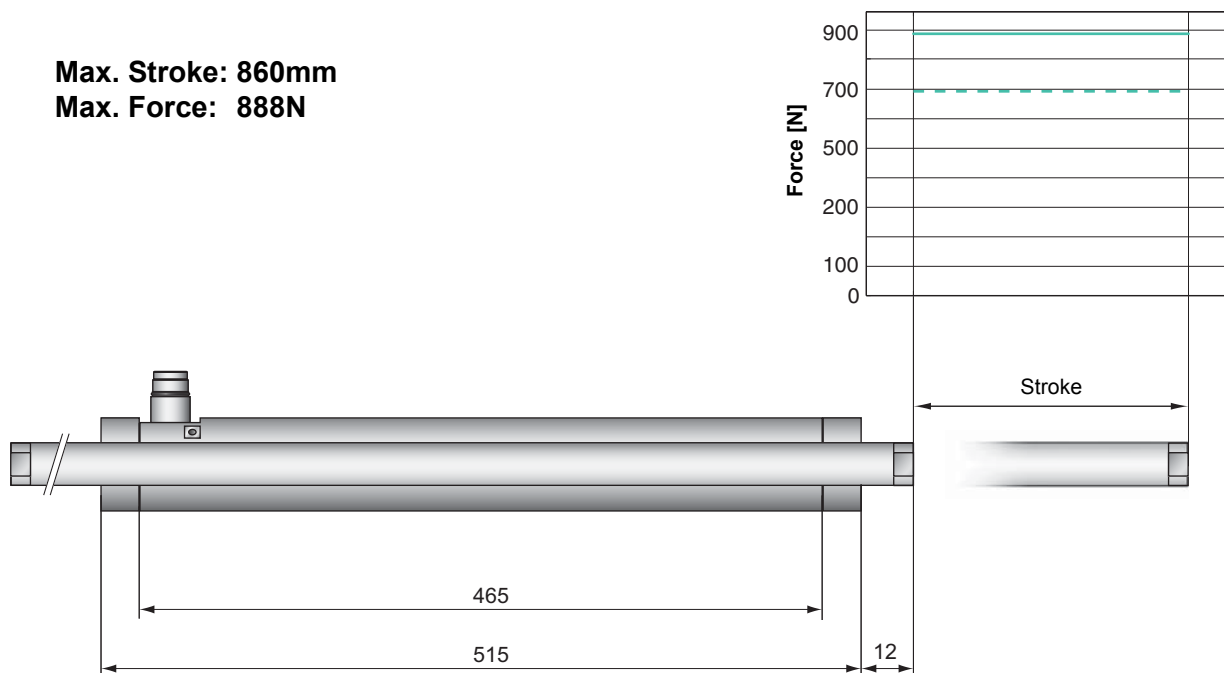


MC01-E6k/f-EX
Art. No. 0150-3538

MC01-E6k/f-EX-as
Art. No. 0150-3641

Max. Stroke: 860mm

Max. Force: 888N



Dimensions in mm

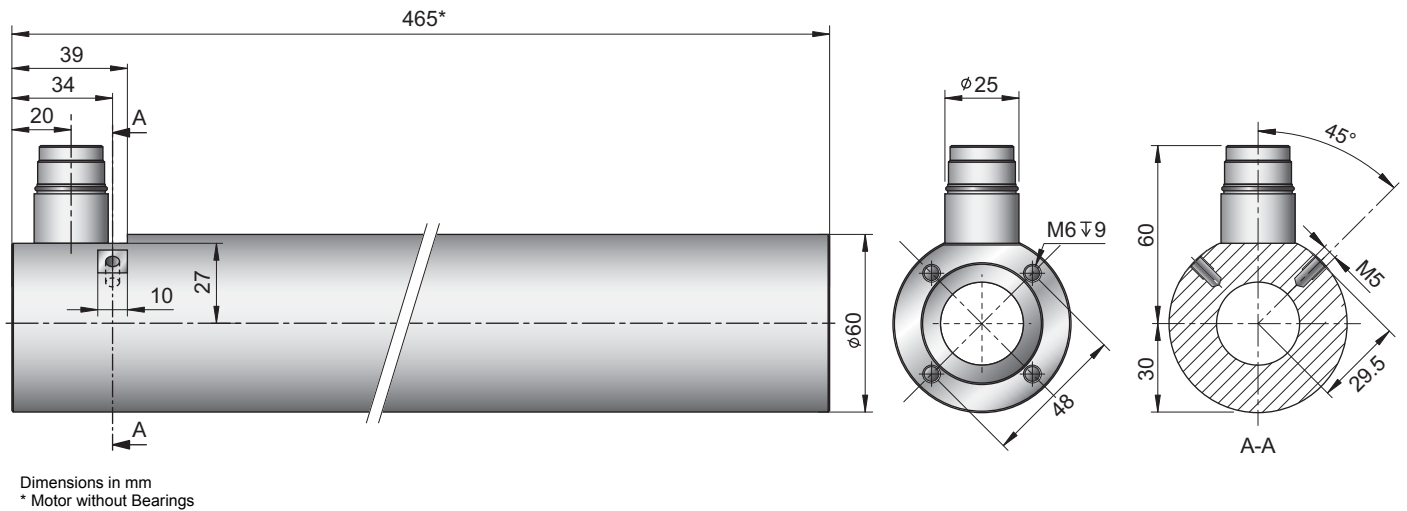
Motor Specification*

		P01-48x360F/...x...-EX							
Extended Stroke ES	mm (in)	80 (3.15)	170 (6.69)	260 (10.24)	380 (14.96)	470 (18.50)	680 (26.77)	860 (33.86)	
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 Liquid 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)				

Ex 2 G Ex eb IIB T4 Gb

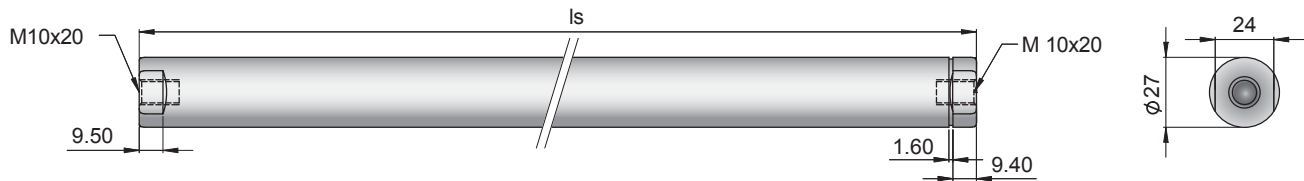
Ex 2 D Ex tb IIIC T135° Db

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



PL01-27x.../...

ls [mm]
620 710 800 920
1010 1220 1400

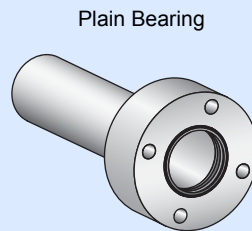


Linear Motor		Stator		Slider	
Type	Art. Nr.	Type	Art. No.	Type	Art No.
P01-48x360F/80x80-EX	-->			& PL01-27x620/540	0150-1470
P01-48x360F/170x170-EX	-->			& PL01-27x710/630	0150-1471
P01-48x360F/260x260-EX	-->			& PL01-27x800/720	0150-1472
P01-48x360F/380x380-EX	-->	PS01-48x360F-EX-C-FC	0150-1300	& PL01-27x920/840	0150-1447
P01-48x360F/470x470-EX	-->			& PL01-27x1010/930	0150-1473
P01-48x360F/680x680-EX	-->			& PL01-27x1220/1140	0150-1587
P01-48x360F/860x860-EX	-->			& PL01-27x1400/1320	0150-1588

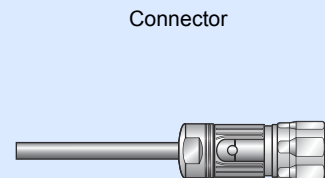
Connector

Accessories

Pin	Wire (color)	
A	red	Ph 1+
B	pink	Ph 1-
C	blue	Ph 2+
D	grey	Ph 2-
PE	green/yellow	PE
1	white	+5V
2	inner Shield	Gnd
3	yellow	Sin
4	green	Cos
5	black	Temp
6	(-)	n.c.
7	orange	Kty 1+
8	brown	Kty 1-
9	violet	Kty 2+
10	beige	Kty 2-



PB 01-48x25-80-P-SSC
Art. No. 0150-3213



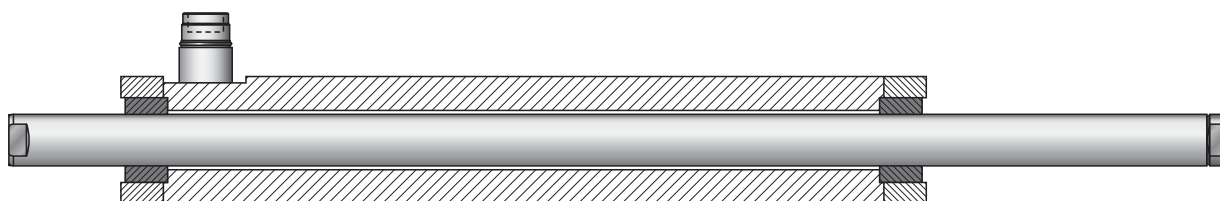
MC01-E6k/f-EX
Art. No. 0150-3538

MC01-E6k/f-EX-as
Art. No. 0150-3641

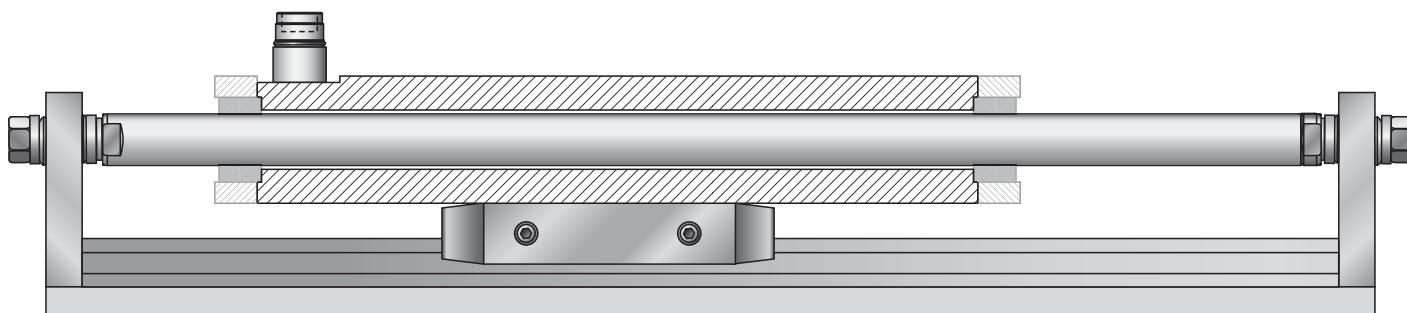
External bearings



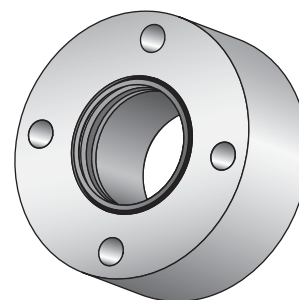
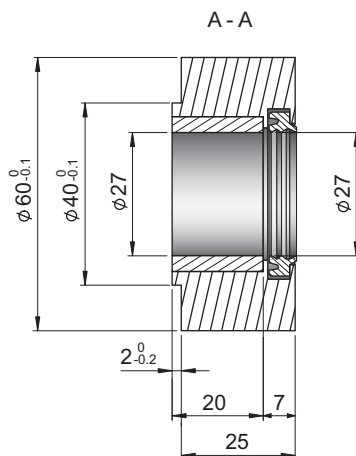
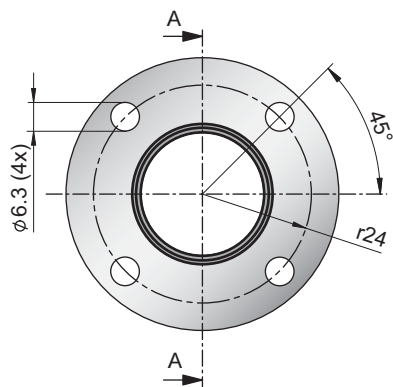
ATEX Stator with bearings



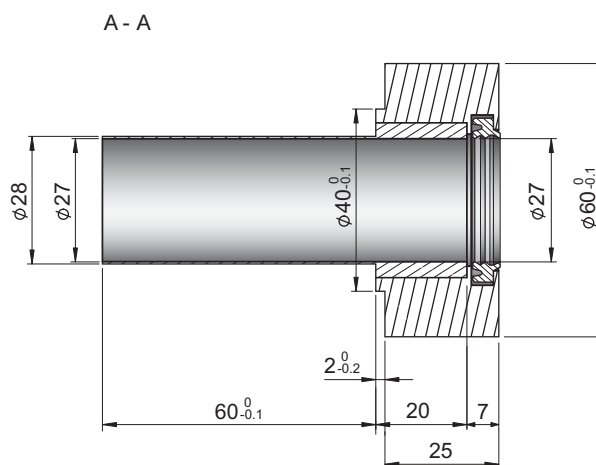
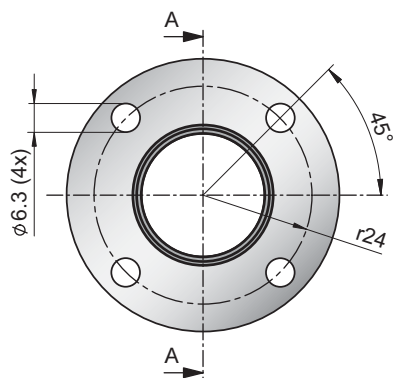
Application Example: Linear Stage



PB01-48x25-P-SSC



PB01-48x25-80-P-SSC



Ordering information

Item	Description	Part Number
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

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