

LINEAR MOTORS P01-23x160



- ✓ Highly dynamic drives
- ✓ Wide stroke range
- ✓ Available with cable outlet or with rotatable connector
- ✓ Optional with air cooling
- ✓ Wide range of applications in handling modules as well as in plant and machine construction

LINEAR MOTORS P01-23x160

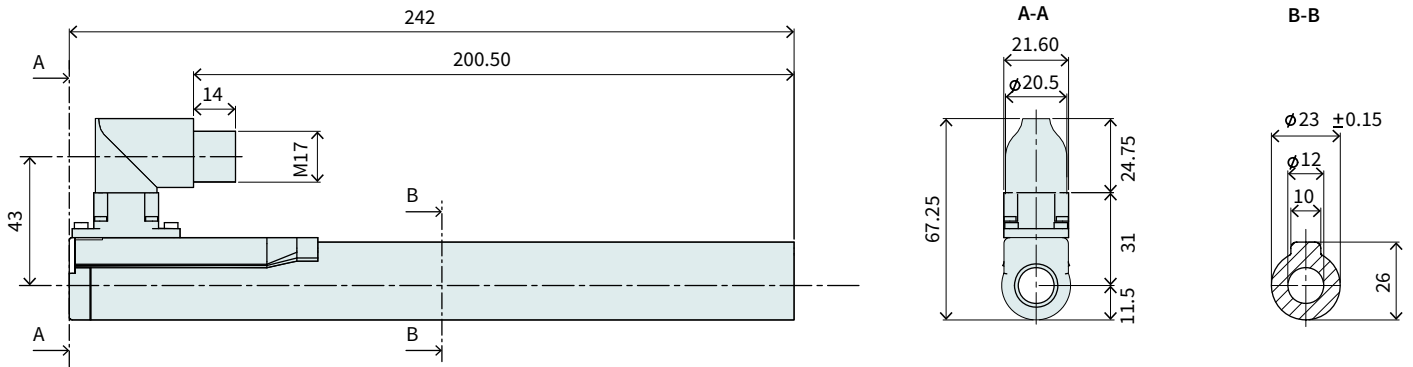
Technical Data	115
Motor Specifications	
P01-23x160/40x100-LC	118
P01-23x160/20x120-LC	119
P01-23x160/20x160-LC	120
P01-23x160/80x220-LC	121
P01-23x160/140x280-LC	122
P01-23x160/210x350-LC	123
P01-23x160/270x410-LC	124
P01-23x160/370x510-LC	125
P01-23x160/550x690-LC	126
P01-23x160/640x780-LC	127
Linear Guides	128
Accessories	129



MOTOR FAMILY P01-23x160

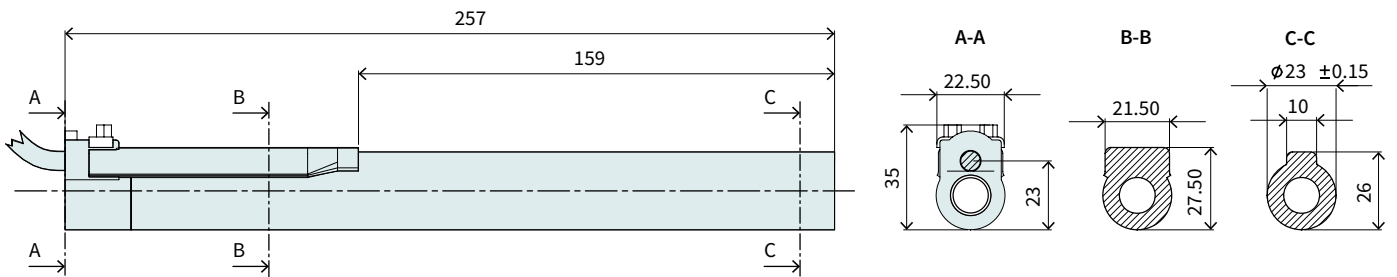
Technical Data				
Stroke				
Standard Stroke (SS)	mm (in)		≤ 640	(≤ 25.19)
Extended Stroke (ES)	mm (in)		≤ 780	(≤ 30.69)
Force				
Max. Force @ 48VDC	N (lbf)		41.6	(9.35)
Max. Force @ 72VDC	N (lbf)		62.4	(14)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		16 / 30 / -	(3.6 / 6.8 / -)
Max. Border Force relative	%		≤ 75	
Force Constant	N/A _{pk} (lbf/A _{pk})		22	(4.95)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		2.7	(109.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.9	(159.9)
Position Detection				
Position Resolution	mm (in)		0.002	(0.0001)
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)
Electrical Data				
Max. Current @ 48VDC	A _{pk}		1.8	
Max. Current @ 72VDC	A _{pk}		2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		0.73 / 1.4 / -	
Terminal Resistance 25 °C / 120 °C	Ohm		21 / 28	
Terminal Inductivity	mH		2.7	
Magnetic Period	mm (in)		20	(0.78)
Thermal Data				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		720 / 200 / -	
Mechanical Data				
Stator Diameter	mm (in)		23	(0.91)
Stator Length [Connector type / Cable type]	mm (in)		242 / 257	(9.5 / 10)
Stator Mass	g (lb)		450	(0.99)
Slider Diameter	mm (in)		12	(0.47)
Slider Length	mm (in)		170 - 850	(6.7 - 33)
Slider Mass	g (lb)		130 - 700	(0.28 - 1.5)
IP Code			IP 65	

STATOR CONNECTOR TYPE



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234

STATOR CABLE TYPE

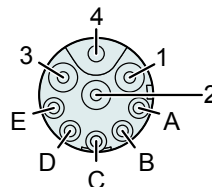


Item	Description	Item-No.
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202

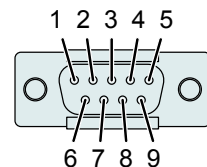
CONNECTOR

Motor Connector Wiring	PS01-23x160-R PS01-23x160-R20	PS01-23x160	Wire color motor cable
	R-Connector	D-Connector	
Ph 1+	1	1	red
Ph 1-	2	6	pink
Ph 2+	3	2	blue
Ph 2-	4	7	grey
+5VDC	A	3	white
GND	B	8	inner shield
Sin	C	4	yellow
Cos	D	9	green
Temp.	E	5	black
Shield	Housing	Housing	outer Shield

R-Connector



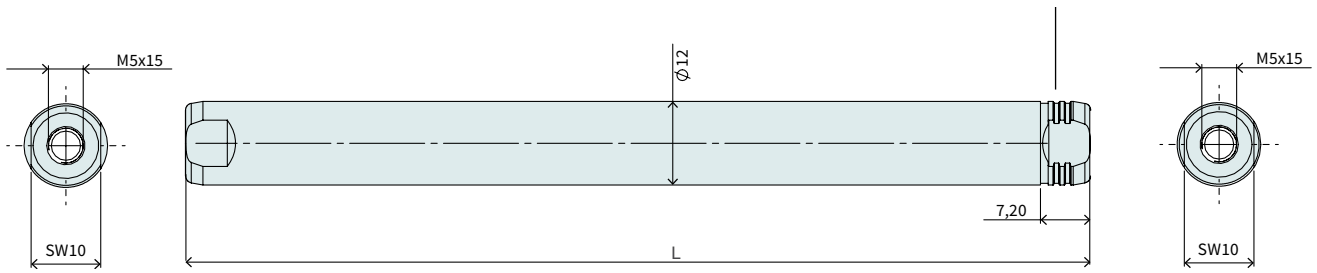
D-Connector



View: Motor Connector, plug side

SLIDER

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

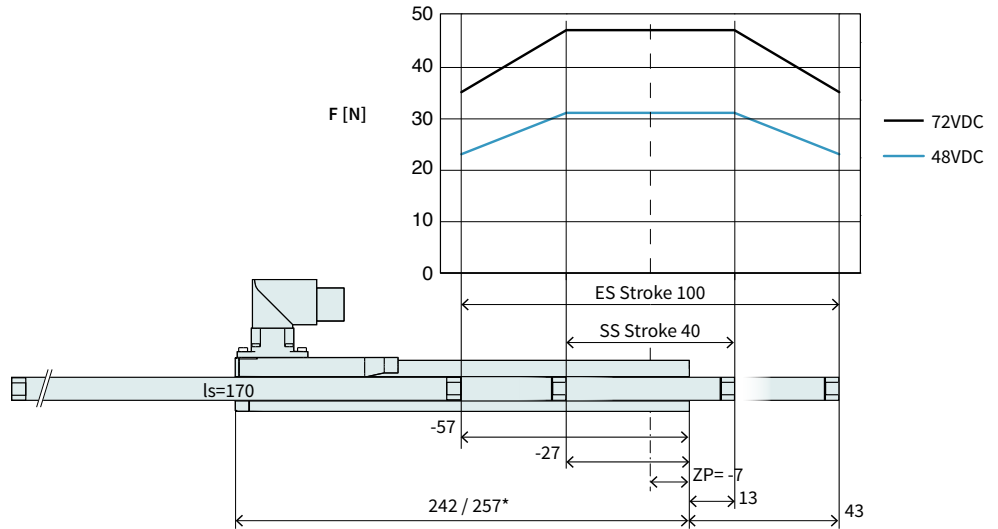


Slider Standard				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x170/130-LC	Slider 'standard LC'	100	40	0150-2581
PL01-12x190/150-LC	Slider 'standard LC'	120	60	0150-2582
PL01-12x230/190-LC	Slider 'standard LC'	160	100	0150-2598
PL01-12x290/250-LC	Slider 'standard LC'	220	160	0150-2583
PL01-12x350/310-LC	Slider 'standard LC'	280	220	0150-2584
PL01-12x420/380-LC	Slider 'standard LC'	350	290	0150-2585
PL01-12x480/440-LC	Slider 'standard LC'	410	350	0150-2586
PL01-12x580/540-LC	Slider 'standard LC'	510	450	0150-2587
PL01-12x760/720-LC	Slider 'standard LC'	690	630	0150-2589
PL01-12x850/810-LC	Slider 'standard LC'	780	720	0150-2588

Slider Heavy Duty				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL02-12x170/130-LC	Slider 'heavy duty LC'	100	40	0150-2591
PL02-12x190/150-LC	Slider 'heavy duty LC'	120	60	0150-2592
PL02-12x230/190-LC	Slider 'heavy duty LC'	160	100	0150-2599
PL02-12x290/250-LC	Slider 'heavy duty LC'	220	160	0150-2593
PL02-12x350/310-LC	Slider 'heavy duty LC'	280	220	0150-2594
PL02-12x420/380-LC	Slider 'heavy duty LC'	350	290	0150-2595
PL02-12x480/440-LC	Slider 'heavy duty LC'	410	350	0150-2597
PL02-12x580/540-LC	Slider 'heavy duty LC'	510	450	0150-2596
PL02-12x760/720-LC	Slider 'heavy duty LC'	690	630	on request
PL02-12x850/810-LC	Slider 'heavy duty LC'	780	720	on request

P01-23x160/40x100-LC

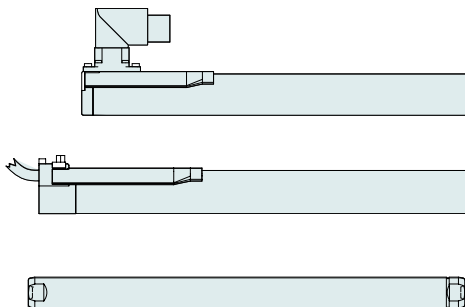
Max. Stroke: 100 mm
Peak Force: 47 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160/40x100-LC

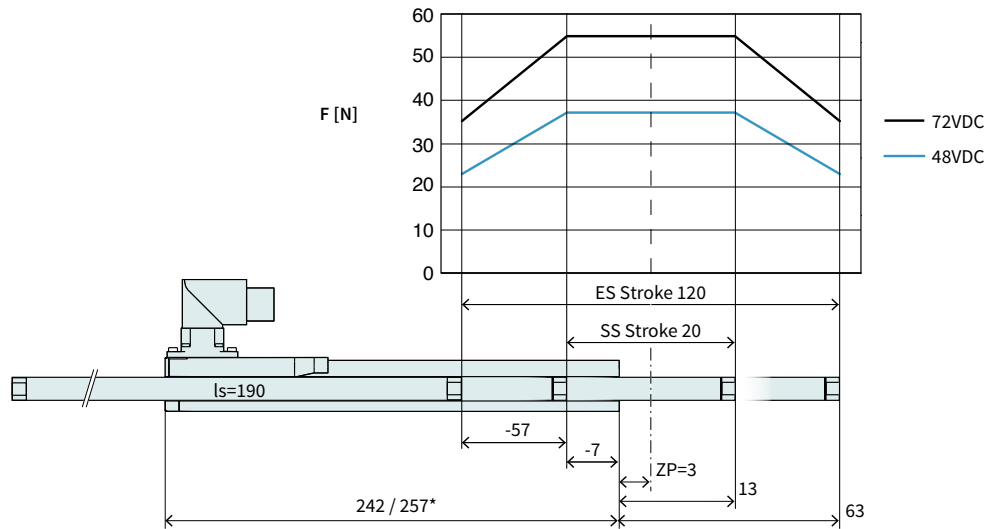
Stroke			
Standard Stroke (SS)	mm (in)	40	(1.57)
Extended Stroke (ES)	mm (in)	100	(3.93)
Force			
Max. Force @ 48VDC	N (lbf)	31.2	(7.01)
Max. Force @ 72VDC	N (lbf)	46.8	(10.5)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	12 / 23 / -	(2.7 / 5.1 / -)
Max. Border Force relative	%	75	
Force Constant	N/A _{pk} (lbf/A _{pk})	16.5	(3.71)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	2.7	(109.9)
Max. Velocity @ 72VDC	m/s (in/s)	3.9	(159.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.35	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	1.8	
Max. Current @ 72VDC	A _{pk}	2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	0.73 / 1.4 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	720 / 200 / -	
Mechanical Data			
Slider Length	mm (in)	170	(6.7)
Slider Mass	g (lb)	130	(0.29)



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x170/130-LC	Slider 'standard LC'	0150-2581
PL02-12x170/130-LC	Slider 'heavy duty LC'	0150-2591

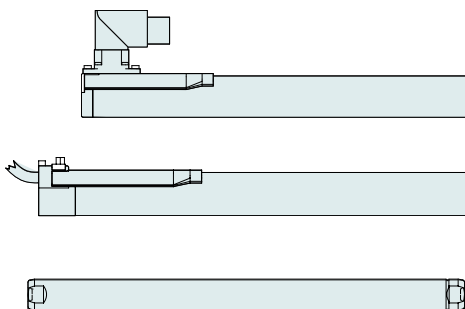
P01-23x160/20x120-LC

Max. Stroke: 120 mm
Peak Force: 55 N



Dimensions in mm
 *Cable Type

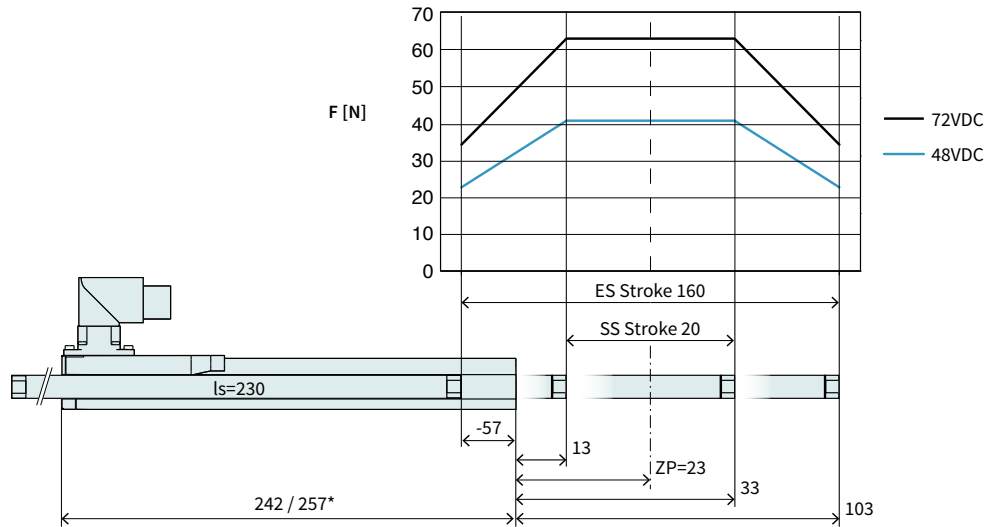
Technical Data P01-23x160/20x120-LC				
Stroke				
Standard Stroke (SS)	mm	(in)	20	(0.78)
Extended Stroke (ES)	mm	(in)	120	(4.71)
Force				
Max. Force @ 48VDC	N	(lbf)	36.4	(8.18)
Max. Force @ 72VDC	N	(lbf)	54.6	(12.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	14 / 27 / -	(3.2 / 6 / -)
Max. Border Force relative	%		64	
Force Constant	N/A _{pk}	(lbf/A _{pk})	19.3	(4.33)
Velocity				
Max. Velocity @ 48VDC	m/s	(in/s)	2.2	(89.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.3	(139.9)
Position Detection				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.3	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		1.8	
Max. Current @ 72VDC	A _{pk}		2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		0.73 / 1.4 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		720 / 200 / -	
Mechanical Data				
Slider Length	mm	(in)	190	(7.5)
Slider Mass	g	(lb)	145	(0.32)



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x190/150-LC	Slider 'standard LC'	0150-2582
PL02-12x190/150-LC	Slider 'heavy duty LC'	0150-2592

P01-23x160/20x160-LC

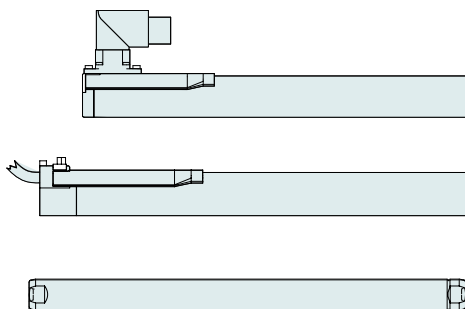
Max. Stroke: 160 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160/20x160-LC

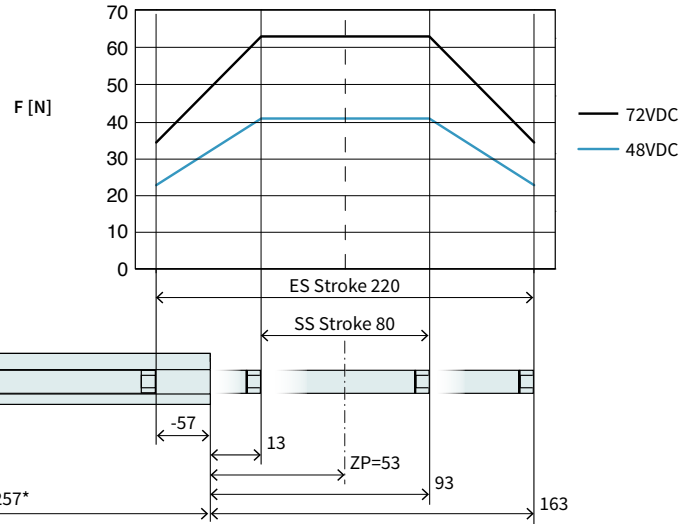
Technical Data P01-23x160/20x160-LC			
Stroke			
Standard Stroke (SS)	mm (in)		20 (0.78)
Extended Stroke (ES)	mm (in)		160 (6.29)
Force			
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)
Max. Force @ 72VDC	N (lbf)		62.4 (14)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		16 / 30 / - (3.6 / 6.8 / -)
Max. Border Force relative	%		56
Force Constant	N/A _{pk} (lbf/A _{pk})		22 (4.95)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		1.9 (78.9)
Max. Velocity @ 72VDC	m/s (in/s)		2.9 (119.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.25
Electrical Data			
Max. Current @ 48VDC	A _{pk}		1.8
Max. Current @ 72VDC	A _{pk}		2.8
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		0.73 / 1.4 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		3.6 / 1 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		720 / 200 / -
Mechanical Data			
Slider Length	mm (in)		230 (9.1)
Slider Mass	g (lb)		180 (0.4)



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x230/190-LC	Slider 'standard LC'	0150-2598
PL02-12x230/190-LC	Slider 'heavy duty LC'	0150-2599

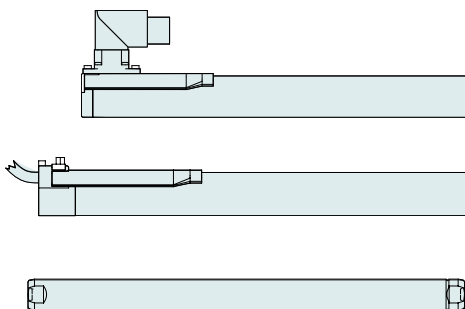
P01-23x160/80x220-LC

Max. Stroke: 220 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

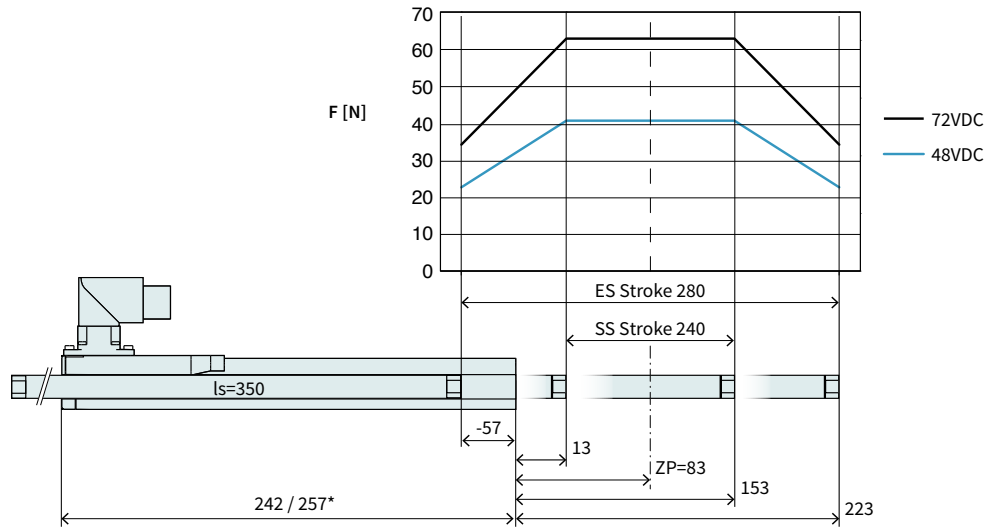
Technical Data P01-23x160/80x220-LC			
Stroke			
Standard Stroke (SS)	mm (in)	80 (3.14)	
Extended Stroke (ES)	mm (in)	220 (8.65)	
Force			
Max. Force @ 48VDC	N (lbf)	41.6 (9.35)	
Max. Force @ 72VDC	N (lbf)	62.4 (14)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	16 / 30 / - (3.6 / 6.8 / -)	
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	22 (4.95)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	1.9 (78.9)	
Max. Velocity @ 72VDC	m/s (in/s)	2.9 (119.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.2	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	1.8	
Max. Current @ 72VDC	A _{pk}	2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	0.73 / 1.4 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	720 / 200 / -	
Mechanical Data			
Slider Length	mm (in)	290 (11)	
Slider Mass	g (lb)	230 (0.51)	



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x290/250-LC	Slider 'standard LC'	0150-2583
PL02-12x290/250-LC	Slider 'heavy duty LC'	0150-2593

P01-23x160/140x280-LC

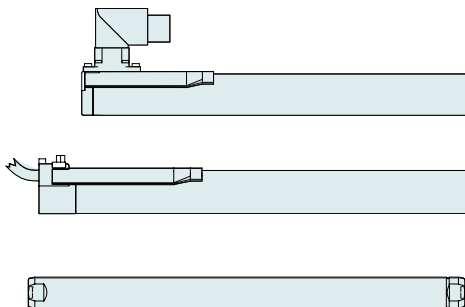
Max. Stroke: 280 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160/140x280-LC

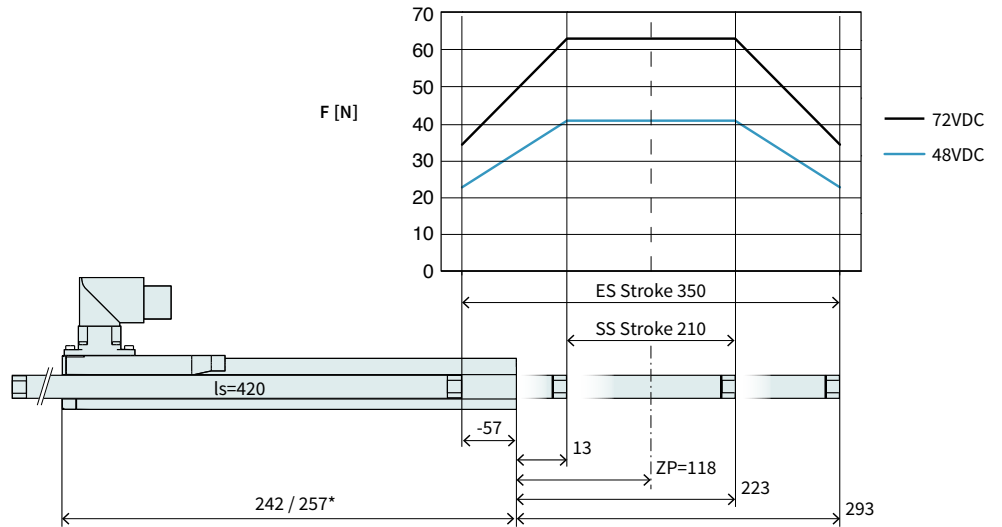
Stroke				
Standard Stroke (SS)	mm (in)		140	(5.5)
Extended Stroke (ES)	mm (in)		280	(10.99)
Force				
Max. Force @ 48VDC	N (lbf)		41.6	(9.35)
Max. Force @ 72VDC	N (lbf)		62.4	(14)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		16 / 30 / -	(3.6 / 6.8 / -)
Max. Border Force relative	%		56	
Force Constant	N/A _{pk} (lbf/A _{pk})		22	(4.95)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		1.9	(78.9)
Max. Velocity @ 72VDC	m/s (in/s)		2.9	(119.9)
Position Detection				
Repeatability	mm (in)		±0.05	(±0.002)
Linearity	%		± 0.2	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		1.8	
Max. Current @ 72VDC	A _{pk}		2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		0.73 / 1.4 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		720 / 200 / -	
Mechanical Data				
Slider Length	mm (in)		350	(14)
Slider Mass	g (lb)		280	(0.62)



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x350/310-LC	Slider 'standard LC'	0150-2584
PL02-12x350/310-LC	Slider 'heavy duty LC'	0150-2594

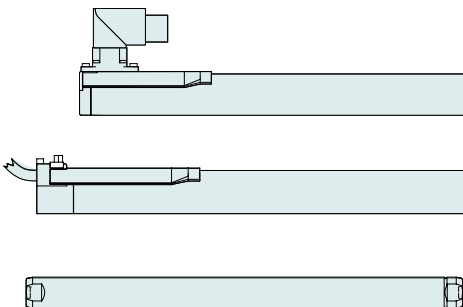
P01-23x160/210x350-LC

Max. Stroke: 350 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

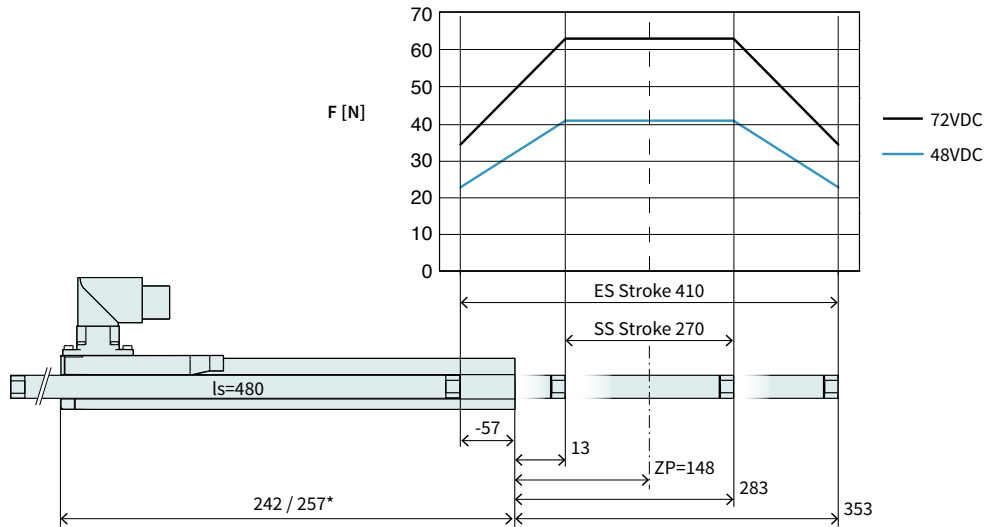
Technical Data P01-23x160/210x350-LC				
Stroke				
Standard Stroke (SS)	mm (in)		210 (8.26)	
Extended Stroke (ES)	mm (in)		350 (13.8)	
Force				
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)	
Max. Force @ 72VDC	N (lbf)		62.4 (14)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		16 / 30 / - (3.6 / 6.8 / -)	
Max. Border Force relative	%		56	
Force Constant	N/A _{pk} (lbf/A _{pk})		22 (4.95)	
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		1.9 (78.9)	
Max. Velocity @ 72VDC	m/s (in/s)		2.9 (119.9)	
Position Detection				
Repeatability	mm (in)		±0.05 (±0.002)	
Linearity	%		± 0.15	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		1.8	
Max. Current @ 72VDC	A _{pk}		2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		0.73 / 1.4 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		720 / 200 / -	
Mechanical Data				
Slider Length	mm (in)		420 (17)	
Slider Mass	g (lb)		340 (0.75)	



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x420/380-LC	Slider 'standard LC'	0150-2585
PL02-12x420/380-LC	Slider 'heavy duty LC'	0150-2595

P01-23x160/270x410-LC

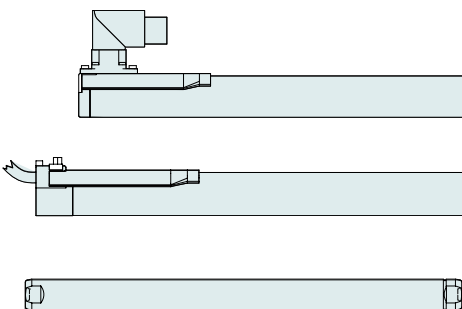
Max. Stroke: 410 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160/270x410-LC

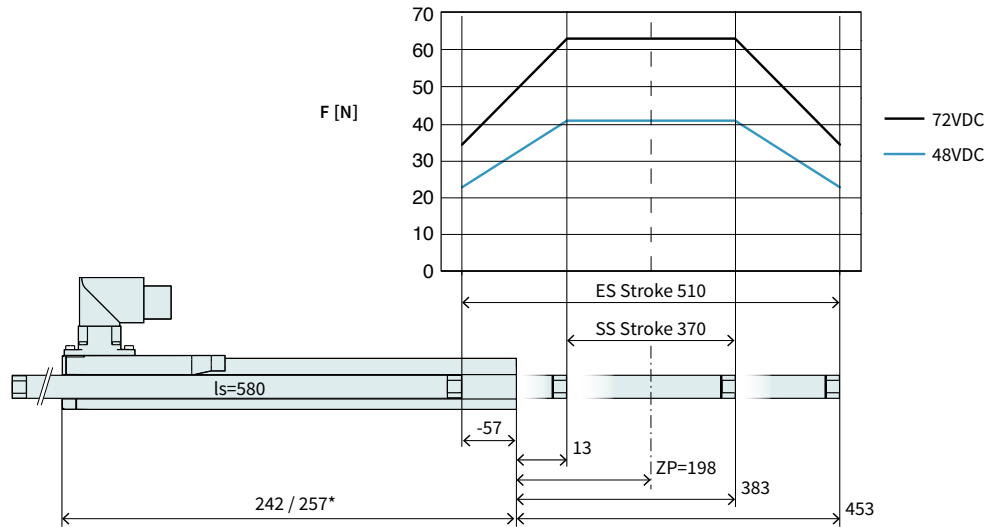
Stroke			
Standard Stroke (SS)	mm (in)	270	(10.59)
Extended Stroke (ES)	mm (in)	410	(16.1)
Force			
Max. Force @ 48VDC	N (lbf)	41.6	(9.35)
Max. Force @ 72VDC	N (lbf)	62.4	(14)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	16 / 30 / -	(3.6 / 6.8 / -)
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	22	(4.95)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	1.9	(78.9)
Max. Velocity @ 72VDC	m/s (in/s)	2.9	(119.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	1.8	
Max. Current @ 72VDC	A _{pk}	2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	0.73 / 1.4 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	720 / 200 / -	
Mechanical Data			
Slider Length	mm (in)	480	(19)
Slider Mass	g (lb)	390	(0.86)



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x480/440-LC	Slider 'standard LC'	0150-2586
PL02-12x480/440-LC	Slider 'heavy duty LC'	0150-2597

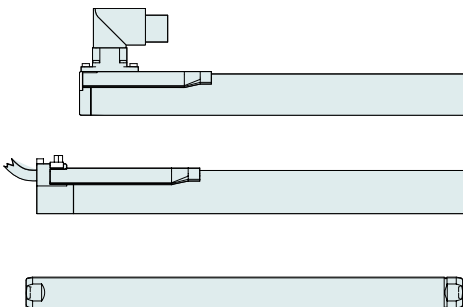
P01-23x160/370x510-LC

Max. Stroke: 510 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

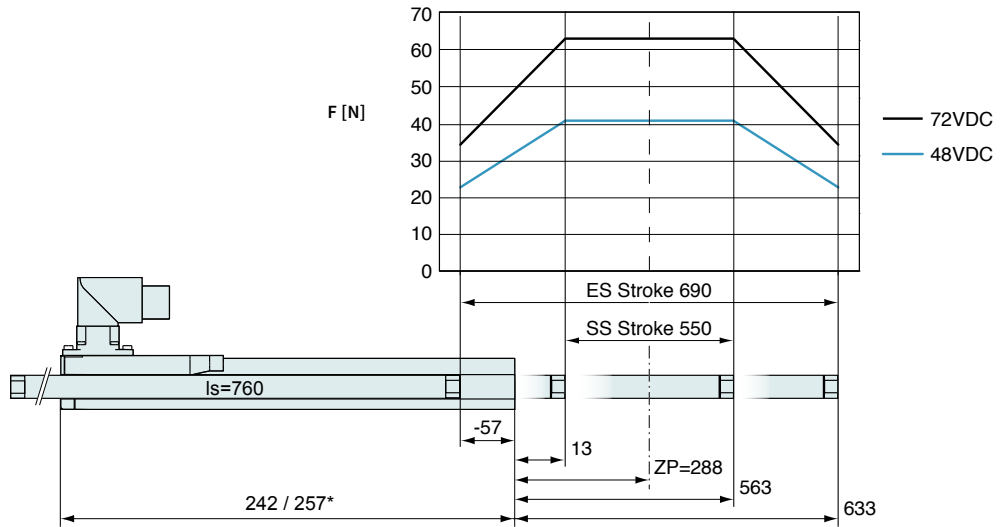
Technical Data P01-23x160/370x510-LC				
Stroke				
Standard Stroke (SS)	mm	(in)	370	(14.59)
Extended Stroke (ES)	mm	(in)	510	(20.1)
Force				
Max. Force @ 48VDC	N	(lbf)	41.6	(9.35)
Max. Force @ 72VDC	N	(lbf)	62.4	(14)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	16 / 30 / -	(3.6 / 6.8 / -)
Max. Border Force relative	%		56	
Force Constant	N/A _{pk}	(lbf/A _{pk})	22	(4.95)
Velocity				
Max. Velocity @ 48VDC	m/s	(in/s)	1.9	(78.9)
Max. Velocity @ 72VDC	m/s	(in/s)	2.9	(119.9)
Position Detection				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.15	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		1.8	
Max. Current @ 72VDC	A _{pk}		2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		0.73 / 1.4 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		720 / 200 / -	
Mechanical Data				
Slider Length	mm	(in)	580	(23)
Slider Mass	g	(lb)	480	(1.06)



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x580/540-LC	Slider 'standard LC'	0150-2587
PL02-12x580/540-LC	Slider 'heavy duty LC'	0150-2596

P01-23x160/550x690-LC

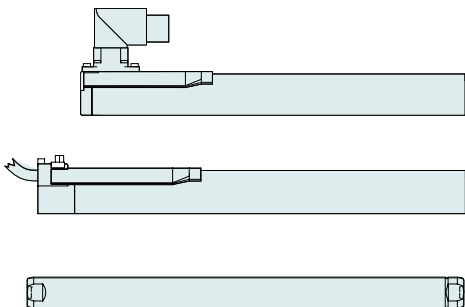
Max. Stroke: 690 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160/550x690-LC

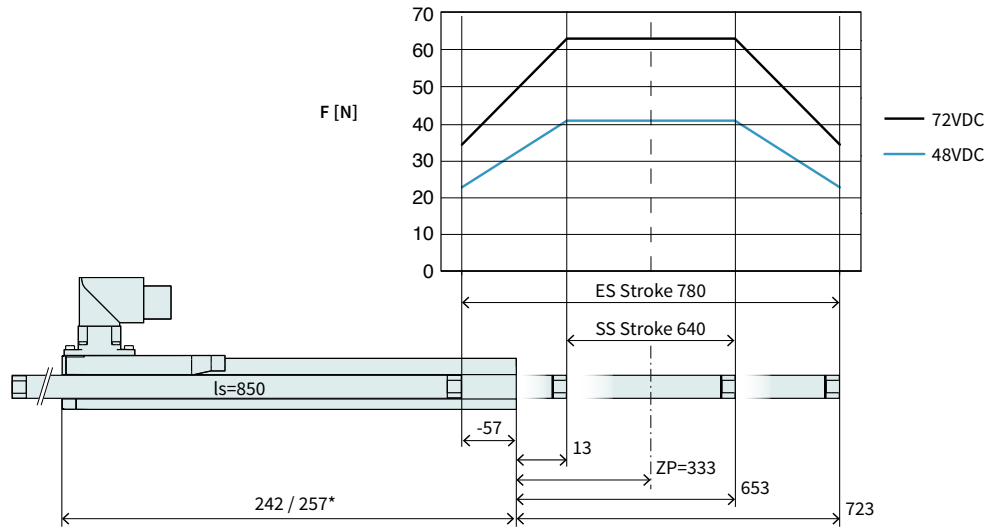
Stroke			
Standard Stroke (SS)	mm (in)	550 (21.69)	
Extended Stroke (ES)	mm (in)	690 (27.19)	
Force			
Max. Force @ 48VDC	N (lbf)	41.6 (9.35)	
Max. Force @ 72VDC	N (lbf)	62.4 (14)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	16 / 30 / - (3.6 / 6.8 / -)	
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	22 (4.95)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	1.9 (78.9)	
Max. Velocity @ 72VDC	m/s (in/s)	2.9 (119.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	1.8	
Max. Current @ 72VDC	A _{pk}	2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	0.73 / 1.4 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	720 / 200 / -	
Mechanical Data			
Slider Length	mm (in)	760 (30)	
Slider Mass	g (lb)	630 (1.39)	



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x760/720-LC	Slider 'standard LC'	0150-2589
PL01-12x760/720-LC	Slider 'heavy duty LC'	on request

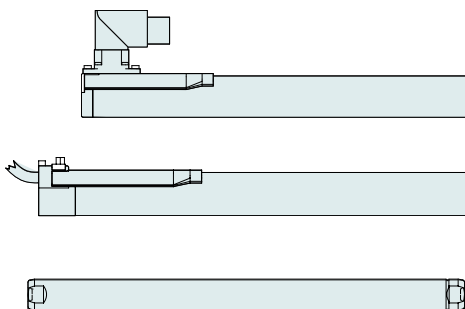
P01-23x160/640x780-LC

Max. Stroke: 780 mm
Peak Force: 62 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160/640x780-LC			
Stroke			
Standard Stroke (SS)	mm (in)	640	(25.19)
Extended Stroke (ES)	mm (in)	780	(30.69)
Force			
Max. Force @ 48VDC	N (lbf)	41.6	(9.35)
Max. Force @ 72VDC	N (lbf)	62.4	(14)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	16 / 30 / -	(3.6 / 6.8 / -)
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	22	(4.95)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	1.9	(78.9)
Max. Velocity @ 72VDC	m/s (in/s)	2.9	(119.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	±0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	1.8	
Max. Current @ 72VDC	A _{pk}	2.8	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	0.73 / 1.4 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	3.6 / 1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	720 / 200 / -	
Mechanical Data			
Slider Length	mm (in)	850	(33)
Slider Mass	g (lb)	700	(1.54)



Item	Description	Item-No.
PS01-23x160-R	Stator with IP67 Connector M17/9(m)	0150-1234
PS01-23x160-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1242
PS01-23x160	Stator, cable 1m, Connector D-Sub-9(m)	0150-1202
PL01-12x850/810-LC	Slider 'standard LC'	0150-2588
PL02-12x850/810-LC	Slider 'heavy duty LC'	on request

Linear Guides H01



HM01-23x160/80 | Linear Module 23x160 with 80 mm Stroke

→	H-Guide	H01-23x166/80	H-Guide for P01-23x160, Stroke max 80mm	0150-5017
		H01-23x166/80-GF	H-Guide for P01-23x160, Stroke max 80mm	0150-5077
→	Stator	PS01-23x160-R	Stator with IP67 connector M17/9(m)	0150-1234
		PS01-23x160-R20	Stator, 0.2m cable, IP67 con. M17/9(m)	0150-1242
		PS01-23x160	Stator, cable 1m, connector D-Sub-9(m)	0150-1202
→	Slider	PL01-12x290/250-LC	Slider 'standard LC'	0150-2583

HM01-23x160/180 | Linear Module 23x160 with 180 mm Stroke

→	H-Guide	H01-23x166/180	H-Guide for P01-23x160, Stroke max 180mm	0150-5018
		H01-23x166/180-GF	H-Guide for P01-23x160, Stroke max 180mm	0150-5078
→	Stator	PS01-23x160-R	Linearmotor Stator, Connector R - IP67	0150-1234
		PS01-23x160-R20	Linearmotor Stator, 0.2m Cable, Connector R - IP67	0150-1242
		PS01-23x160	Linearmotor Stator, 1.0m Cable, Connector D	0150-1202
→	Slider	PL01-12x420/380-LC	Slider 'standard LC'	0150-2585

HM01-23x160/280 | Linear Module 23x160 with 280 mm Stroke

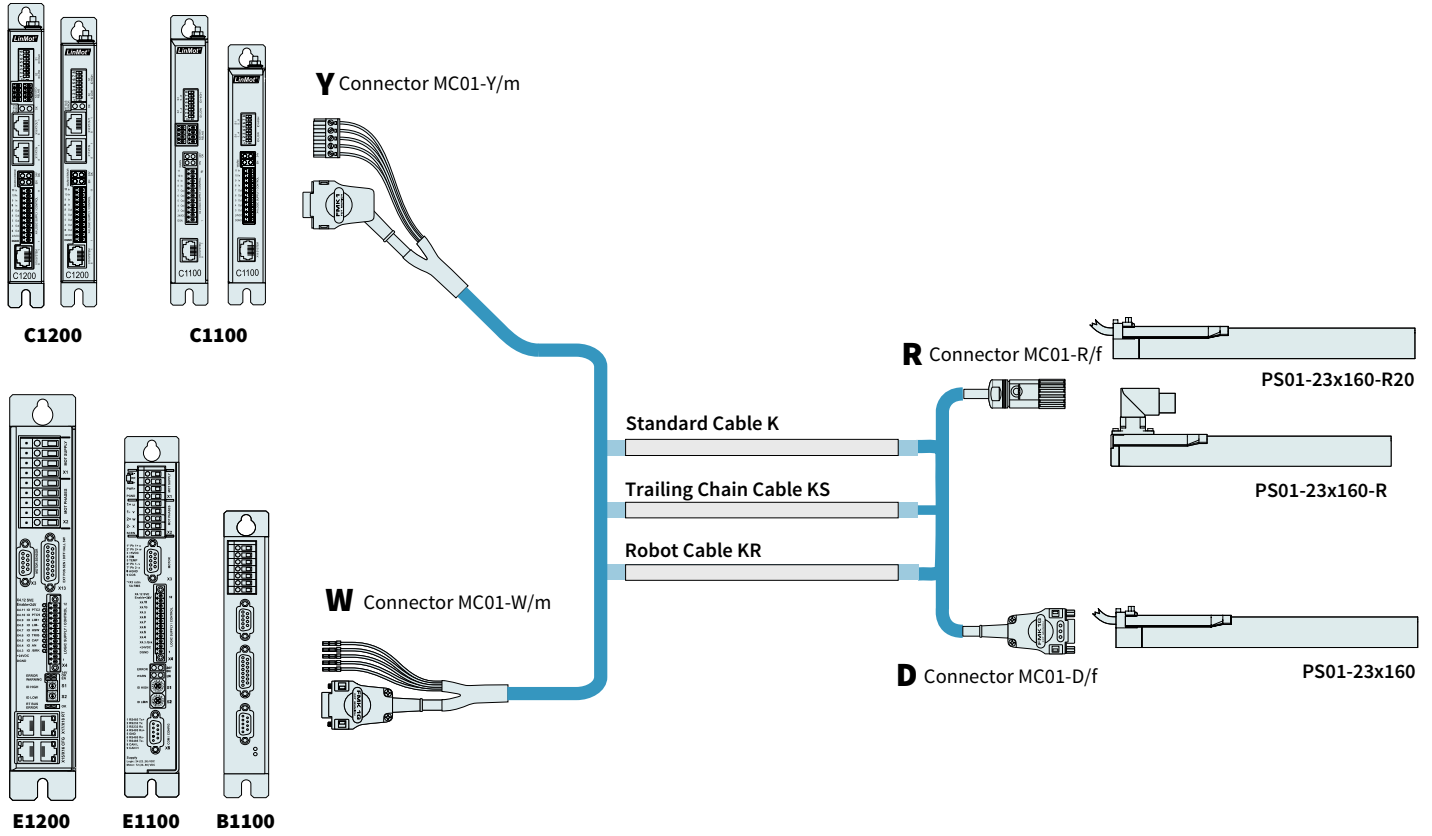
→	H-Guide	H01-23x166/280	H-Guide for P01-23x160, Stroke max 280 mm	0150-5019
		H01-23x166/280-GF	H-Guide for P01-23x160, Stroke max 280 mm	0150-5079
→	Stator	PS01-23x160-R	Linearmotor Stator, Connector R - IP67	0150-1234
		PS01-23x160-R20	Linearmotor Stator, 0.2m Cable, Connector R - IP67	0150-1242
		PS01-23x160	Linearmotor Stator, 1.0m Cable, Connector D	0150-1202
→	Slider	PL01-12x480/440-LC	Slider 'standard LC'	0150-2586

Accessories

→	Fan	HV01-23	Fan cooling for H01-23	0150-5050
→	MagSpring	MF01-20/H23	Flange MagSpring 20 / H-Guide 23	0250-2306
		MA01-20/H23	Flange MagSpring 20 / H-Guide 23	0250-0116
→	Centering sleeve	HC01-09/04	Centering sleeve D9x4mm	0150-3251

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

Motor Cable



ORDERING INFORMATION

STANDARD CABLE		
Item	Description	Item-No.
K05-W/R-2	Motor Cable W/R, 2 m	0150-2119
K05-W/R-4	Motor Cable W/R, 4 m	0150-2120
K05-W/R-6	Motor Cable W/R, 6 m	0150-2121
K05-W/R-8	Motor Cable W/R, 8 m	0150-2122
K05-W/R-	Motor Cable W/R, Custom length	0150-3262
K05-W/D-0.4	Motor Cable W/D, 0.4 m	0150-1947
K05-Y/R-2	Motor Cable Y/R, 2 m	0150-2421
K05-Y/R-4	Motor Cable Y/R, 4 m	0150-2422
K05-Y/R-6	Motor Cable Y/R, 6 m	0150-2423
K05-Y/R-8	Motor Cable Y/R, 8 m	0150-2424
K05-Y-Fe/R-	Motor Cable Y/R, Custom length	0150-3501
K05-Y-Fe/D-	Motor Cable Y-Fe/D, Custom length	0150-1947

TRAILING CHAIN CABLE

Item	Description	Item-No.
KS05-W/R-4	Trailing Chain Cable W/R, 4 m	0150-2106
KS05-W/R-6	Trailing Chain Cable W/R, 6 m	0150-2131
KS05-W/R-8	Trailing Chain Cable W/R, 8 m	0150-2107
KS05-W/R-	Trailing Chain Cable W/R, Custom length	0150-3256
KS05-Y/R-4	Trailing Chain Cable Y/R, 4 m	0150-2433
KS05-Y/R-6	Trailing Chain Cable Y/R, 6 m	0150-2434
KS05-Y/R-8	Trailing Chain Cable Y/R, 8 m	0150-2435
KS05-Y/R-	Trailing Chain Cable Y/R, Custom length	0150-3507
KS05-Y-Fe/D-	Trailing Chain Cable Y-Fe/D, Custom length	0150-3556

ROBOT CABLE

Item	Description	Item-No.
KR05-W/R-	Robot Cable KR05-W/R, Custom length	0150-3336
KR05-Y-Fe/R-	Robot Cable KR05-Y-Fe/R, Custom length	0150-3512

CONNECTOR & CABLE (INDIVIDUAL)

Item	Description	Item-No.
MC01-W/m	Motor Connector W/m	0150-3140
MC01-Y-Fe/m	Motor Connector Y-Fe/m	0150-3289
MC01-R/f	Motor Connector R/f	0150-3129
MC01-D/f	Motor Connector D/f	0150-3025
K05-04/05	Motor Cable per m	0150-1920
KS05-04/05	Trailing Chain Cable per m	0150-1938
KR05-04/05	Robot Cable per m	0150-1846

MOTOR FLANGES



Item	Description	Item-No.
PF02-23x120	Flange 23x120 mm	0150-2103
PF02-23x170	Flange 23x170 mm	0150-2117

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

FANS



Item	Description	Item-No.
HV01-23	Fan cooling for H01-23 and PF02-23	0150-5050

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

SLIDER MOUNTING



Item	Description	Item-No.
PLF01-12	Fixed Bearing Set for 12 mm sliders	0150-3085
PLF01-12-Ni	Fixed Bearing Set for 12 mm sliders nickel-plated	0150-3573
PLL02-12	Floating Bearing for PL01-12 Sliders	0150-3111

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

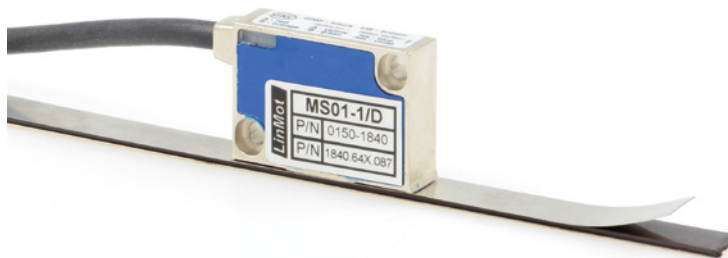
WIPERS



Item	Description	Item-No.
PA01-23/12-F	Wiper front side for PS01-23x...	0150-3125

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

EXTERNAL POSITION SENSORS



Item	Description	Item-No.
MS01-1/D	Linear Encoder 1µm, A/B (for incremental strip)	0150-1840
MB01-1000	Magnetic incremental strip for MS01-1/D, per cm	0150-1963
KS025-D/D-Encoder	Encoder Cable (Length in m)	0150-3166
KS025-D/D15-Encoder	Encoder Cable (Length in m)	0150-3168

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



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

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".