

# LINEAR MOTORS P01-23x80



- ✓ 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 P01-23x80

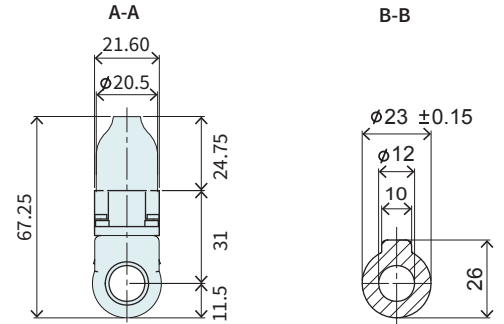
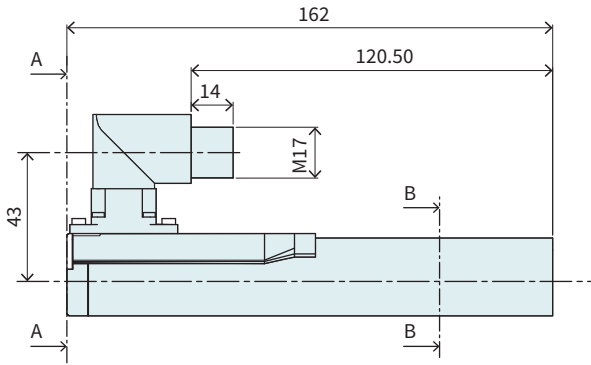
<b>Technical Data</b>	<b>29</b>
<b>Motor Specifications</b>	
P01-23x80/0x60-LC	<b>32</b>
P01-23x80/40x100-LC	<b>33</b>
P01-23x80/60x120-LC	<b>34</b>
P01-23x80/100x160-LC	<b>35</b>
P01-23x80/160x220-LC	<b>36</b>
P01-23x80/220x280-LC	<b>37</b>
P01-23x80/290x350-LC	<b>38</b>
P01-23x80/350x410-LC	<b>39</b>
P01-23x80/450x510-LC	<b>40</b>
P01-23x80/630x690-LC	<b>41</b>
P01-23x80/720x780-LC	<b>42</b>
<b>Linear Guides</b>	<b>43</b>
<b>Accessories</b>	<b>44</b>



## MOTOR FAMILY P01-23x80

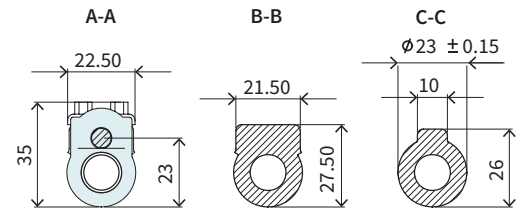
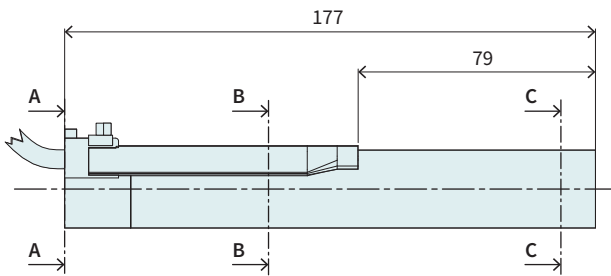
Technical Data				
<b>Stroke</b>				
Standard Stroke (SS)	mm (in)		≤ 720 (≤ 28.3)	
Extended Stroke (ES)	mm (in)		≤ 780 (≤ 30.69)	
<b>Force</b>				
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)	
Max. Force @ 72VDC	N (lbf)		44 (9.89)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)	
Max. Border Force relative	%		≤ 63	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)	
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)	
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)	
<b>Position Detection</b>				
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)	
<b>Electrical Data</b>				
Max. Current @ 48VDC	A <sub>pk</sub>		3.7	
Max. Current @ 72VDC	A <sub>pk</sub>		3.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -	
Terminal Resistance 25 °C / 120 °C	Ohm		10 / 14	
Terminal Inductivity	mH		1.4	
Magnetic Period	mm (in)		20 (0.78)	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -	
<b>Mechanical Data</b>				
Stator Diameter	mm (in)		23 (0.91)	
Stator Length [Connector type / Cable type]	mm (in)		162 / 177 (6.4 / 7)	
Stator Mass	g (lb)		265 (0.58)	
Slider Diameter	mm (in)		12 (0.47)	
Slider Length	mm (in)		130 - 850 (5.1 - 33)	
Slider Mass	g (lb)		90 - 700 (0.20 - 1.5)	
IP Code			IP 65	

**STATOR CONNECTOR TYPE**



Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233

**STATOR CABLE TYPE**

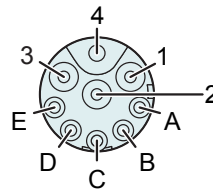


Item	Description	Item-No.
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1 m, Connector D-Sub-9(m)	0150-1201

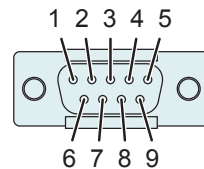
**CONNECTOR**

Motor Connector Wiring	PS01-23x80-R PS01-23x80-R20	PS01-23x80	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**



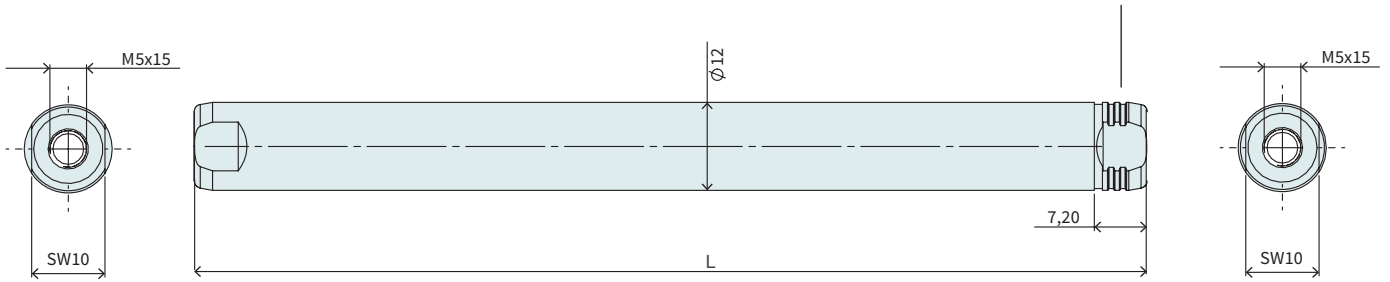
**D-Connector**



View: Motor Connector, plug side

**SLIDER**

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

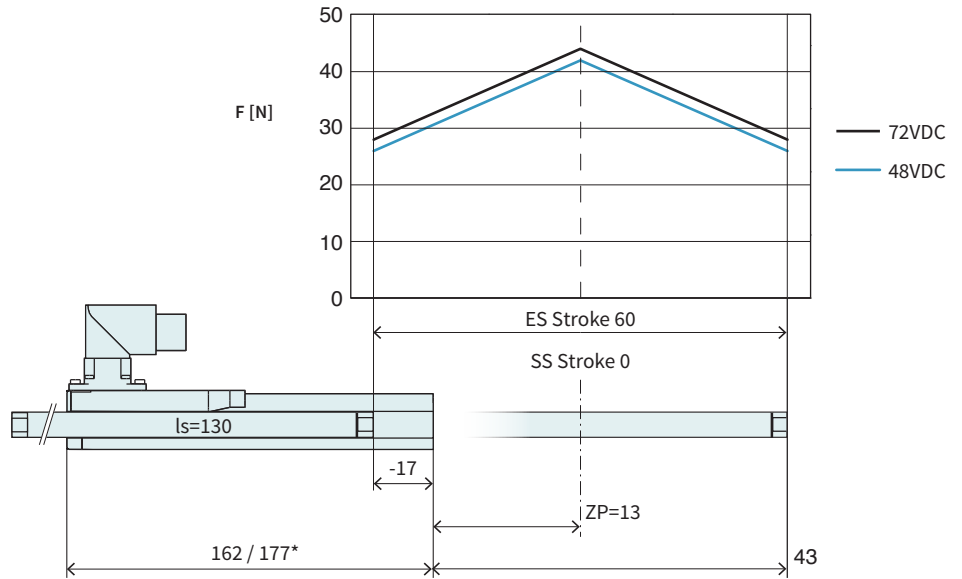


Slider Standard				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x130/90-LC	Slider 'standard LC'	60	0	0150-2580
PL01-12x170/130-LC	Slider 'standard LC'	100	40	0150-2581
PL01-12x190/150-LC	Slider 'standard LC'	120	60	0150-2582
PL01-12x230/190-LC	Slider 'standard LC'	160	100	0150-2598
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.
PL02-12x130/90-LC	Slider 'heavy duty LC'	60	0	0150-2590
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

**P01-23x80/0x60-LC**

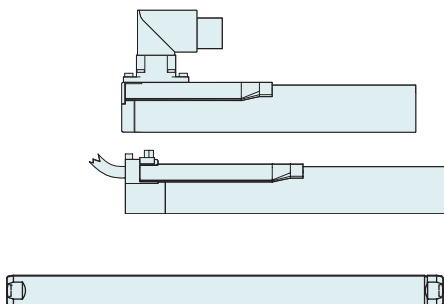
**Max. Stroke:** 60 mm  
**Peak Force:** 44 N



Dimensions in mm  
 \*Cable Type

**Technical Data P01-23x80/0x60-LC**

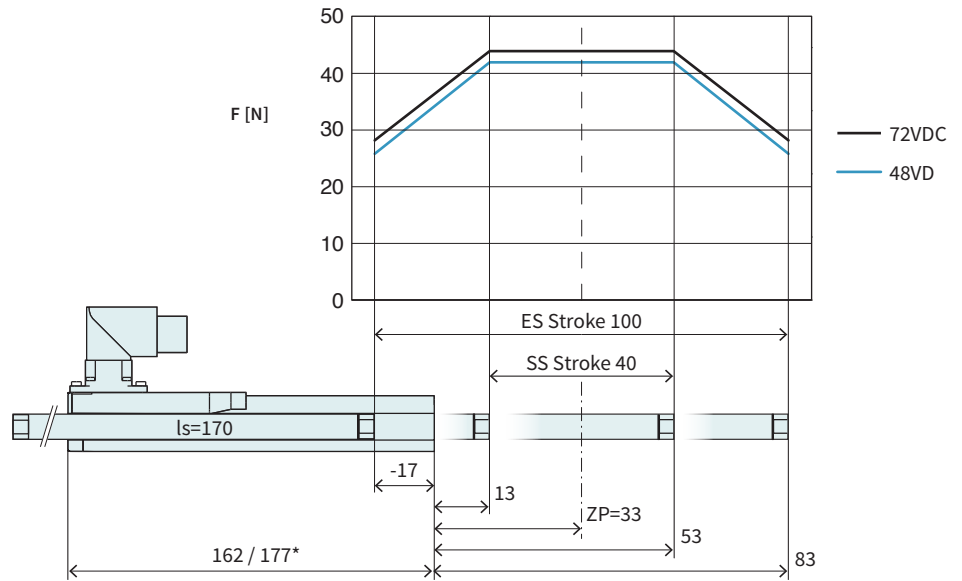
Stroke			
Standard Stroke (SS)	mm (in)		0 (0)
Extended Stroke (ES)	mm (in)		60 (2.35)
Force			
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)
Max. Force @ 72VDC	N (lbf)		44 (9.89)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)
Max. Border Force relative	%		63
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.5
Electrical Data			
Max. Current @ 48VDC	A <sub>pk</sub>		3.7
Max. Current @ 72VDC	A <sub>pk</sub>		3.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -
Mechanical Data			
Slider Length	mm (in)		130 (5.1)
Slider Mass	g (lb)		90 (0.16)



Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0,2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x130/90-LC</b>	Slider 'standard LC'	0150-2580
<b>PL02-12x130/90-LC</b>	Slider 'heavy duty LC'	0150-2590

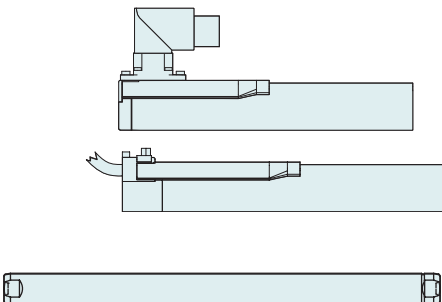
**P01-23x80/40x100-LC**

**Max. Stroke:** 100 mm  
**Peak Force:** 44 N



Dimensions in mm  
 \*Cable Type

Technical Data P01-23x80/40x100-LC			
<b>Stroke</b>			
Standard Stroke (SS)	mm (in)	40	(1.57)
Extended Stroke (ES)	mm (in)	100	(3.93)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)	41.6	(9.35)
Max. Force @ 72VDC	N (lbf)	44	(9.89)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	8.6 / 16 / -	(1.9 / 3.5 / -)
Max. Border Force relative	%	63	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	11	(2.47)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)	3.9	(159.9)
Max. Velocity @ 72VDC	m/s (in/s)	5.9	(239.9)
<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>	3.7	
Max. Current @ 72VDC	A <sub>pk</sub>	3.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	0.78 / 1.4 / -	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	6.4 / 1.9 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	770 / 230 / -	
<b>Mechanical Data</b>			
Slider Length	mm (in)	170	(6.7)
Slider Mass	g (lb)	130	(0.23)

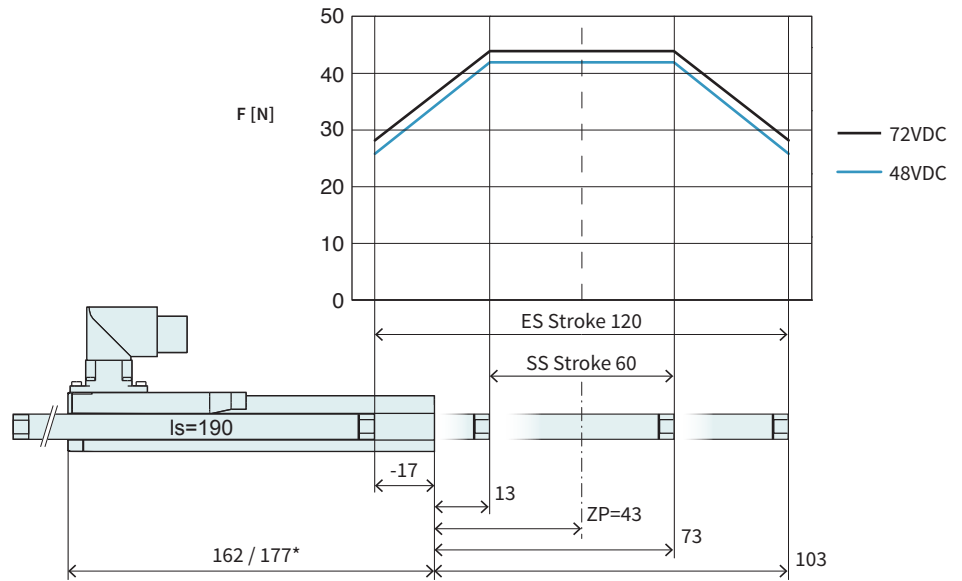


Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x170/130-LC</b>	Slider 'standard LC'	0150-2581
<b>PL02-12x170/130-LC</b>	Slider 'heavy duty LC'	0150-2591

**P01-23x80/60x120-LC**

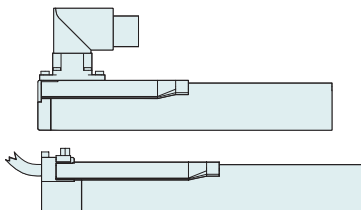
**Max. Stroke:** 120 mm  
**Peak Force:** 44 N

Dimensions in mm  
 \*Cable Type



Technical Data P01-23x80/60x120-LC

Stroke			
Standard Stroke (SS)	mm (in)		60 (2.35)
Extended Stroke (ES)	mm (in)		120 (4.71)
Force			
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)
Max. Force @ 72VDC	N (lbf)		44 (9.89)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)
Max. Border Force relative	%		63
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.3
Electrical Data			
Max. Current @ 48VDC	A <sub>pk</sub>		3.7
Max. Current @ 72VDC	A <sub>pk</sub>		3.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -
Mechanical Data			
Slider Length	mm (in)		190 (7.5)
Slider Mass	g (lb)		145 (0.26)

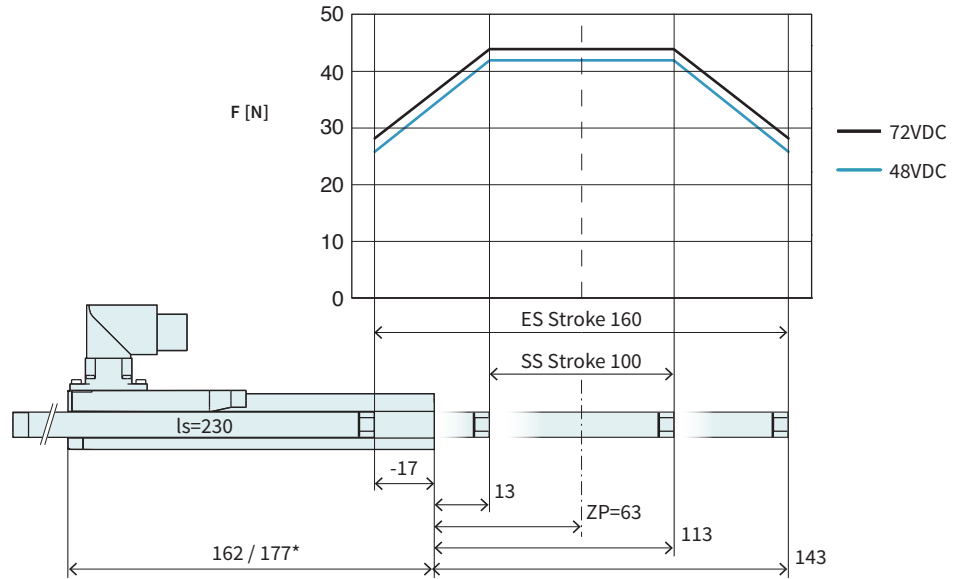


Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x190/150-LC</b>	Slider 'standard LC'	0150-2582
<b>PL02-12x190/150-LC</b>	Slider 'heavy duty LC'	0150-2592



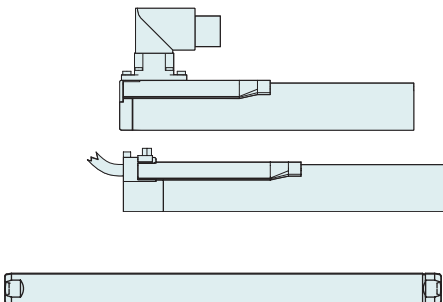
**P01-23x80/100x160-LC**

**Max. Stroke:** 160 mm  
**Peak Force:** 44 N



Dimensions in mm  
 \*Cable Type

Technical Data P01-23x80/100x160-LC			
<b>Stroke</b>			
Standard Stroke (SS)	mm (in)		100 (3.93)
Extended Stroke (ES)	mm (in)		160 (6.29)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)
Max. Force @ 72VDC	N (lbf)		44 (9.89)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)
Max. Border Force relative	%		63
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)
<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>		3.7
Max. Current @ 72VDC	A <sub>pk</sub>		3.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -
<b>Mechanical Data</b>			
Slider Length	mm (in)		230 (9.1)
Slider Mass	g (lb)		180 (0.32)

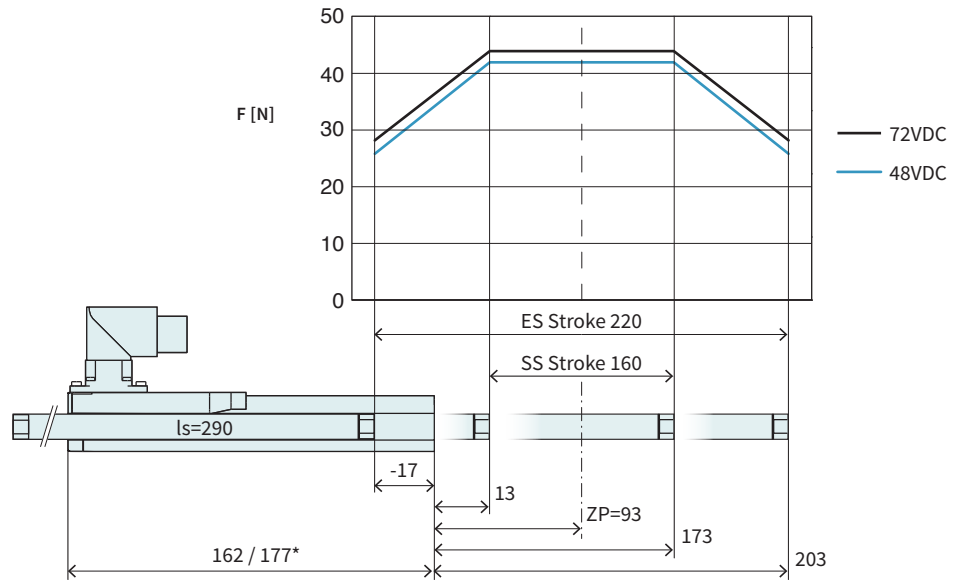


Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x230/190-LC</b>	Slider 'standard LC'	0150-2598
<b>PL02-12x230/190-LC</b>	Slider 'heavy duty LC'	0150-2599

**P01-23x80/160x220-LC**

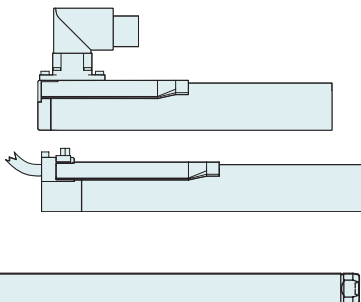
**Max. Stroke:** 220 mm  
**Peak Force:** 44 N

Dimensions in mm  
 \*Cable Type



Technical Data P01-23x80/160x220-LC

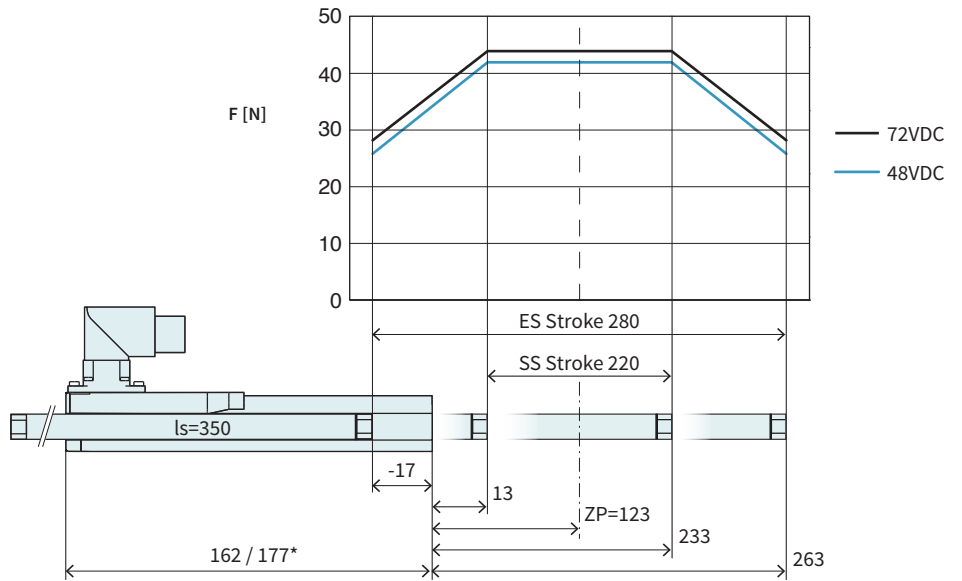
Stroke			
Standard Stroke (SS)	mm (in)	160	(6.29)
Extended Stroke (ES)	mm (in)	220	(8.65)
Force			
Max. Force @ 48VDC	N (lbf)	41.6	(9.35)
Max. Force @ 72VDC	N (lbf)	44	(9.89)
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N (lbf)	8.6 / 16 / -	(1.9 / 3.5 / -)
Max. Border Force relative	%	63	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	11	(2.47)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.9	(159.9)
Max. Velocity @ 72VDC	m/s (in/s)	5.9	(239.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.2	
Electrical Data			
Max. Current @ 48VDC	A <sub>pk</sub>	3.7	
Max. Current @ 72VDC	A <sub>pk</sub>	3.9	
Max. Cont. Current [Passive cooling/ Fan / Fluid]	A <sub>pk</sub>	0.78 / 1.4 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling/ Fan / Fluid]	°K/W	6.4 / 1.9 / -	
Thermal Time Constant [Passive cooling/ Fan / Fluid]	s	770 / 230 / -	
Mechanical Data			
Slider Length	mm (in)	290	(11)
Slider Mass	g (lb)	230	(0.41)



Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x290/250-LC</b>	Slider 'standard LC'	0150-2583
<b>PL02-12x290/250-LC</b>	Slider 'heavy duty LC'	0150-2593

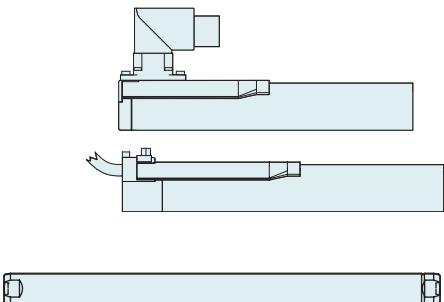
**P01-23x80/220x280-LC**

**Max. Stroke:** 280 mm  
**Peak Force:** 44 N



Dimensions in mm  
 \*Cable Type

Technical Data P01-23x80/220x280-LC				
<b>Stroke</b>				
Standard Stroke (SS)	mm	(in)	220	(8.65)
Extended Stroke (ES)	mm	(in)	280	(10.99)
<b>Force</b>				
Max. Force @ 48VDC	N	(lbf)	41.6	(9.35)
Max. Force @ 72VDC	N	(lbf)	44	(9.89)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	8.6 / 16 / -	(1.9 / 3.5 / -)
Max. Border Force relative	%		63	
Force Constant	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	11	(2.47)
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s	(in/s)	3.9	(159.9)
Max. Velocity @ 72VDC	m/s	(in/s)	5.9	(239.9)
<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>		3.7	
Max. Current @ 72VDC	A <sub>pk</sub>		3.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	350	(14)
Slider Mass	g	(lb)	280	(0.5)



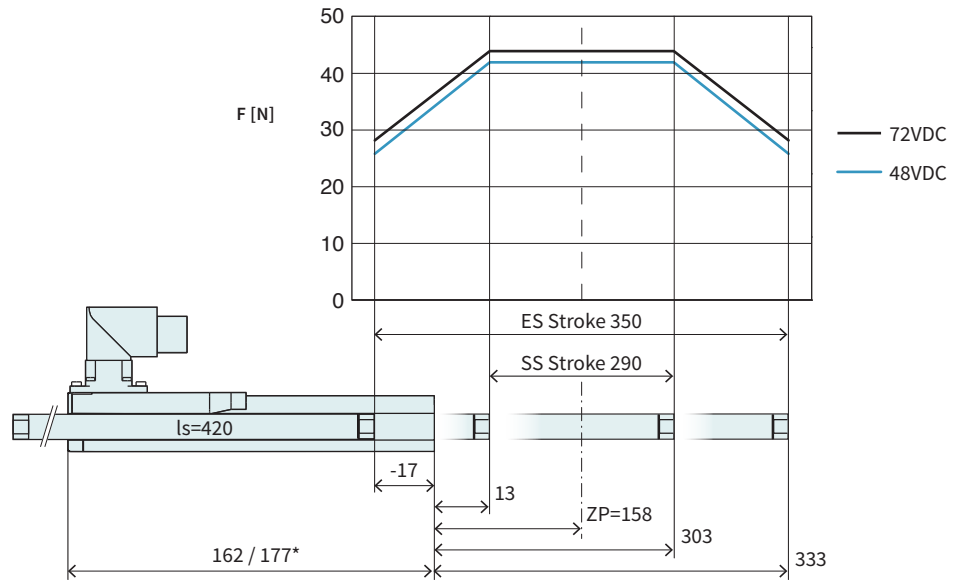
Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x350/310-LC</b>	Slider 'standard LC'	0150-2584
<b>PL02-12x350/310-LC</b>	Slider 'heavy duty LC'	0150-2594

**P01-23x80/290x350-LC**

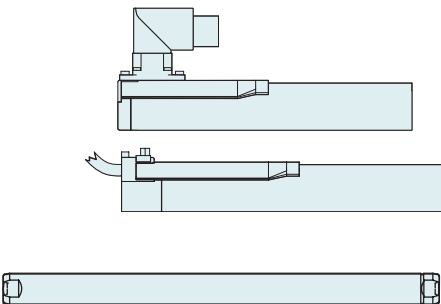
3

**Max. Stroke:** 350 mm  
**Peak Force:** 44 N

Dimensions in mm  
 \*Cable Type



Technical Data P01-23x80/290x350-LC			
<b>Stroke</b>			
Standard Stroke (SS)	mm (in)		290 (11.4)
Extended Stroke (ES)	mm (in)		350 (13.8)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)
Max. Force @ 72VDC	N (lbf)		44 (9.89)
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)
Max. Border Force relative	%		63
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)
<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>		3.7
Max. Current @ 72VDC	A <sub>pk</sub>		3.9
Max. Cont. Current [Passive cooling/ Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling/ Fan / Fluid]	°K/W		6.4 / 1.9 / -
Thermal Time Constant [Passive cooling/ Fan / Fluid]	s		770 / 230 / -
<b>Mechanical Data</b>			
Slider Length	mm (in)		420 (17)
Slider Mass	g (lb)		340 (0.61)

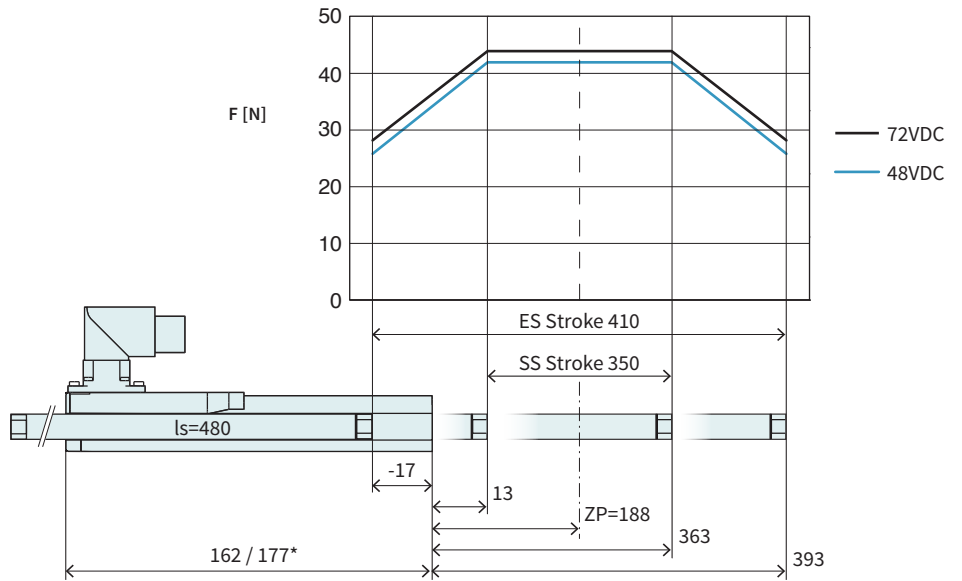


Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x420/380-LC</b>	Slider 'standard LC'	0150-2585
<b>PL02-12x420/380-LC</b>	Slider 'heavy duty LC'	0150-2595

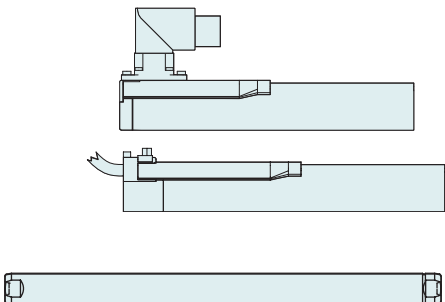
**P01-23x80/350x410-LC**

**Max. Stroke:** 410 mm  
**Peak Force:** 44 N

Dimensions in mm  
 \*Cable Type



Technical Data P01-23x80/350x410-LC				
<b>Stroke</b>				
Standard Stroke (SS)	mm (in)		350 (13.8)	
Extended Stroke (ES)	mm (in)		410 (16.1)	
<b>Force</b>				
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)	
Max. Force @ 72VDC	N (lbf)		44 (9.89)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)	
Max. Border Force relative	%		63	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)	
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)	
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)	
<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>		3.7	
Max. Current @ 72VDC	A <sub>pk</sub>		3.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -	
<b>Mechanical Data</b>				
Slider Length	mm (in)		480 (19)	
Slider Mass	g (lb)		390 (0.7)	

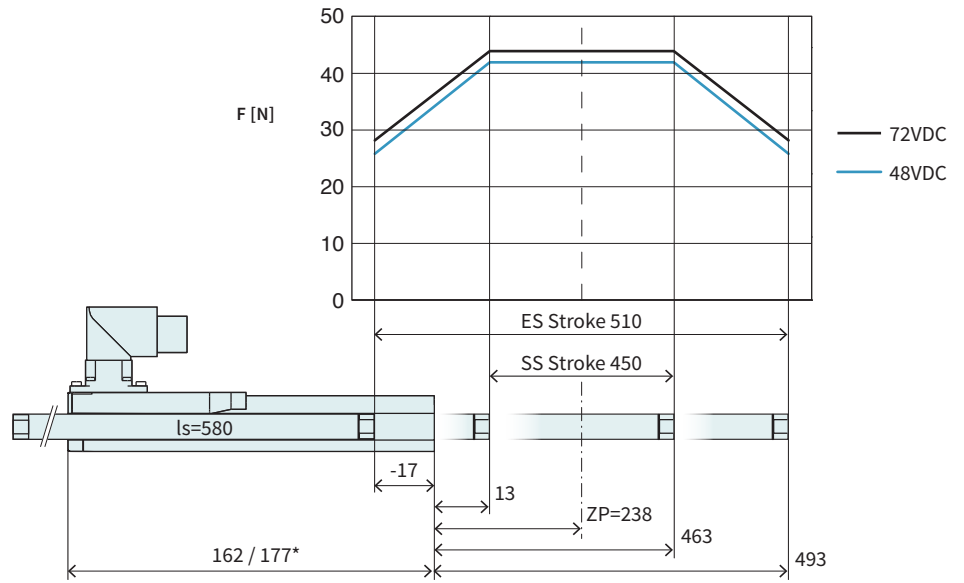


Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x480/440-LC</b>	Slider 'standard LC'	0150-2586
<b>PL02-12x480/440-LC</b>	Slider 'heavy duty LC'	0150-2597

**P01-23x80/450x510-LC**

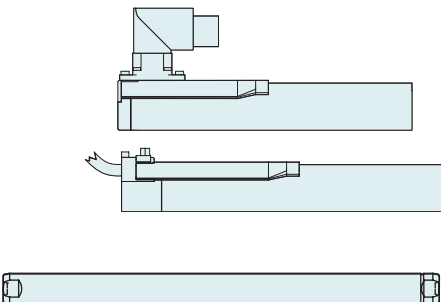
**Max. Stroke:** 510 mm  
**Peak Force:** 44 N

Dimensions in mm  
 \*Cable Type



Technical Data P01-23x80/450x510-LC

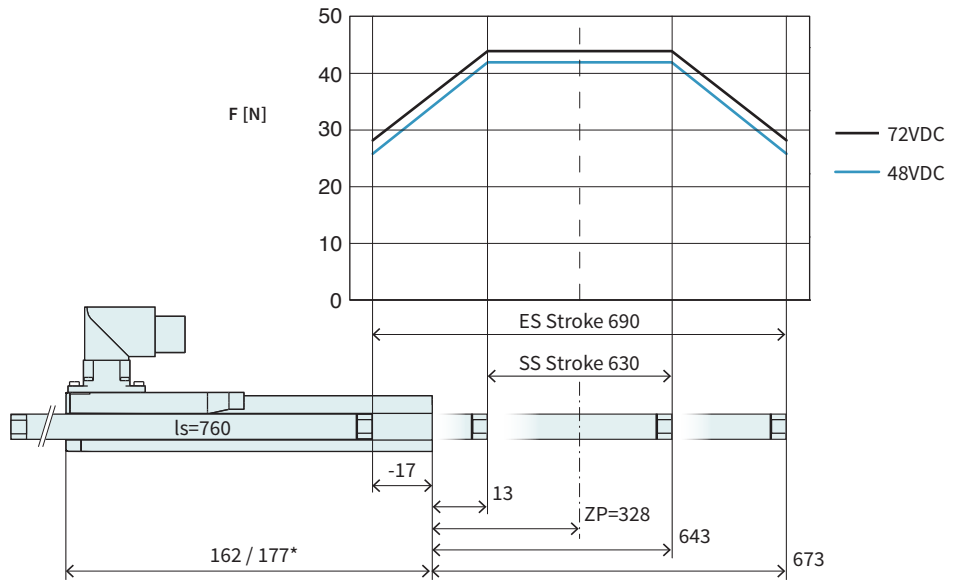
Technical Data P01-23x80/450x510-LC			
<b>Stroke</b>			
Standard Stroke (SS)	mm (in)		450 (17.69)
Extended Stroke (ES)	mm (in)		510 (20.1)
<b>Force</b>			
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)
Max. Force @ 72VDC	N (lbf)		44 (9.89)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)
Max. Border Force relative	%		63
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)
<b>Velocity</b>			
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)
<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>		3.7
Max. Current @ 72VDC	A <sub>pk</sub>		3.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -
<b>Mechanical Data</b>			
Slider Length	mm (in)		580 (23)
Slider Mass	g (lb)		480 (0.86)



Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x580/540-LC</b>	Slider 'standard LC'	0150-2587
<b>PL02-12x580/540-LC</b>	Slider 'heavy duty LC'	0150-2596

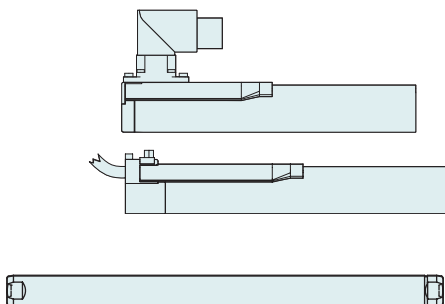
**P01-23x80/630x690-LC**

**Max. Stroke:** 690 mm  
**Peak Force:** 44 N



Dimensions in mm  
 \*Cable Type

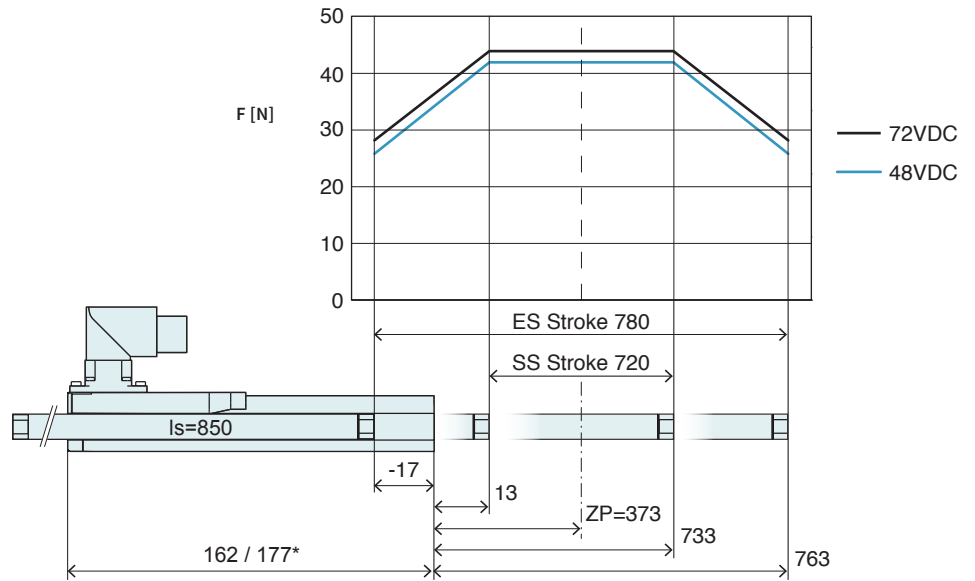
Technical Data P01-23x80/630x690-LC				
<b>Stroke</b>				
Standard Stroke (SS)	mm (in)		630 (24.8)	
Extended Stroke (ES)	mm (in)		690 (27.19)	
<b>Force</b>				
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)	
Max. Force @ 72VDC	N (lbf)		44 (9.89)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)	
Max. Border Force relative	%		63	
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)	
<b>Velocity</b>				
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)	
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)	
<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>		3.7	
Max. Current @ 72VDC	A <sub>pk</sub>		3.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -	
<b>Mechanical Data</b>				
Slider Length	mm (in)		760 (30)	
Slider Mass	g (lb)		630 (1.1)	



Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x760/720-LC</b>	Slider 'standard LC'	0150-2589
<b>PL01-12x760/720-LC</b>	Slider 'heavy duty LC'	on request

**P01-23x80/720x780-LC**

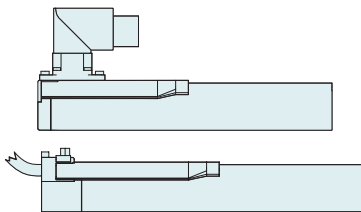
**Max. Stroke:** 780 mm  
**Peak Force:** 44 N



Dimensions in mm  
 \*Cable Type

Technical Data P01-23x80/720x780-LC

Stroke			
Standard Stroke (SS)	mm (in)		720 (28.3)
Extended Stroke (ES)	mm (in)		780 (30.69)
Force			
Max. Force @ 48VDC	N (lbf)		41.6 (9.35)
Max. Force @ 72VDC	N (lbf)		44 (9.89)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		8.6 / 16 / - (1.9 / 3.5 / -)
Max. Border Force relative	%		63
Force Constant	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		11 (2.47)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		3.9 (159.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.9 (239.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.15
Electrical Data			
Max. Current @ 48VDC	A <sub>pk</sub>		3.7
Max. Current @ 72VDC	A <sub>pk</sub>		3.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		0.78 / 1.4 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		6.4 / 1.9 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		770 / 230 / -
Mechanical Data			
Slider Length	mm (in)		850 (33)
Slider Mass	g (lb)		700 (1.3)



Item	Description	Item-No.
<b>PS01-23x80-R</b>	Stator with IP67 Connector M17/9(m)	0150-1233
<b>PS01-23x80-R20</b>	Stator, 0,2 m cable, IP67 con. M17/9(m)	0150-1241
<b>PS01-23x80</b>	Stator, cable 1m, Connector D-Sub-9(m)	0150-1201
<b>PL01-12x850/810-LC</b>	Slider 'standard LC'	0150-2588
<b>PL02-12x850/810-LC</b>	Slider 'heavy duty LC'	on request



**Linear Guides H01**



**HM01-23x80/60 | Linear Module 23x80 with 60 mm Stroke**

→	H-Guide	H01-23x86/60	H-Guide for P01-23x80, Stroke max 60 mm	0150-5014
		H01-23x86/60-GF	H-Guide for P01-23x80, Stroke max 60 mm	0150-5074
→	Stator	PS01-23x80-R	Stator with IP67 connector M17/9(m)	0150-1233
		PS01-23x80-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
		PS01-23x80	Stator, cable 1 m, connector D-Sub-9(m)	0150-1201
→	Slider	PL01-12x190/150-LC	Slider 'standard LC'	0150-2582

**HM01-23x80/160 | Linear Module 23x80 with 160mm Stroke**

→	H-Guide	H01-23x86/160	H-Guide for P01-23x80, Stroke max 160 mm	0150-5015
		H01-23x86/160-GF	H-Guide for P01-23x80, Stroke max 160 mm	0150-5075
→	Stator	PS01-23x80-R	Stator with IP67 connector M17/9(m)	0150-1233
		PS01-23x80-R20	Stator, 0.2 m cable, IP67 con. M17/9(m)	0150-1241
		PS01-23x80	Stator, cable 1 m, connector D-Sub-9(m)	0150-1201
→	Slider	PL01-12x290/250-LC	Slider 'standard LC'	0150-2583

**HM01-23x80/260 | Linear Module 23x80 with 260mm Stroke**

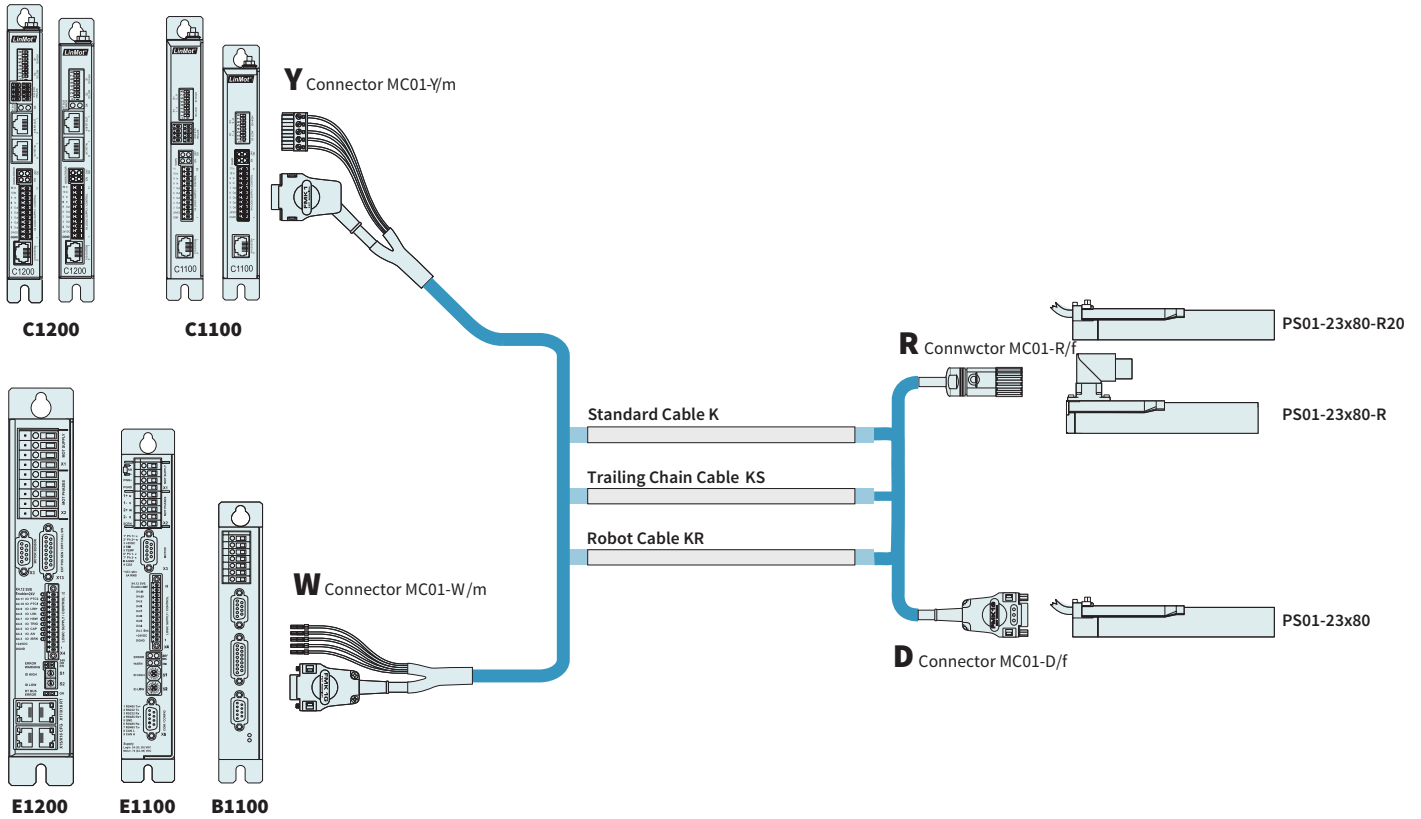
→	H-Guide	H01-23x86/260	H-Guide for P01-23x80, Stroke max 260 mm	0150-5016
		H01-23x86/260-GF	H-Guide for P01-23x80, Stroke max 260 mm	0150-5076
→	Stator	PS01-23x80-R	Stator with IP67 connector M17/9(m)	0150-1233
		PS01-23x80-R20	Stator, 0.2m cable, IP67 con. M17/9(m)	0150-1241
		PS01-23x80	Stator, cable 1m, connector D-Sub-9(m)	0150-1201
→	Slider	PL01-12x420/380-LC	Slider 'standard LC'	0150-2585

**Accessories**

→	MagSpring	MF01-20/H23	Flange MagSpring 20 / H-Guide 23	0250-2306
		MA01-20/H23	Adapter MagSpring 20 / H-Guide 23	0250-0116
→	Fan	HV01-23	Fan cooling for H01-23	0150-5050
→	Centering sleeve	HC01-09/04	Centering sleeve D9x4 mm	0150-3251

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

MOTOR CABLE



ORDERING INFORMATION

STANDARD CABLE

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

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

ROBOT CABLE		
Item	Description	Item-No.
<b>KR05-W/R-</b>	Robot Cable KR05-W/R, Custom length	0150-3336
<b>KR05-Y-Fe/R-</b>	Robot Cable KR05-Y-Fe/R, Custom length	0150-3512

CONNECTOR & CABLE (INDIVIDUAL)		
Item	Description	Item-No.
<b>MC01-W/m</b>	Motor Connector W/m	0150-3140
<b>MC01-Y-Fe/m</b>	Motor Connector Y-Fe/m	0150-3289
<b>MC01-R/f</b>	Motor Connector R/f	0150-3129
<b>MC01-D/f</b>	Motor Connector D/f	0150-3025
<b>K05-04/05</b>	Motor Cable per m	0150-1920
<b>KS05-04/05</b>	Trailing Chain Cable per m	0150-1938
<b>KR05-04/05</b>	Robot Cable per m	0150-1846

**MOTOR FLANGES**



Item	Description	Item-No.
<b>PF02-23x50</b>	Flange 23x50 mm	0150-2102
<b>PF02-23x90</b>	Flange 23x90 mm	0150-2146

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**FANS**



Item	Description	Item-No.
<b>HV01-23</b>	Fan cooling for H01-23 and PF02-23	0150-5050

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**SLIDER MOUNTING**



Item	Description	Item-No.
<b>PLF01-12</b>	Fixed End Washer Set for 12 mm sliders	0150-3085
<b>PLF01-12-Ni</b>	Fixed End Washer Set for 12 mm sliders nickel-plated	0150-3573
<b>PLL02-12</b>	Floating support for PL01-12 Sliders	0150-3111

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**WIPERS**



Item	Description	Item-No.
<b>PA01-23/12-F</b>	Seal front side for PS01-23x...	0150-3125

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**EXTERNAL POSITION SENSORS**



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

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



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

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

