

LINEAR MOTORS P01-23X160H-HP



- ✓ Highly dynamic drives
- ✓ Higher permissible operating temperatures
- ✓ Maximum power density
- ✓ 25 Functional Safety variant available
- ✓ Wide stroke range
- ✓ Extensive range of accessories
- ✓ Dynamics and flexibility for handling, plant and machine construction

LINEARMOTOREN LINEAR MOTORS P01-23X160H-HP

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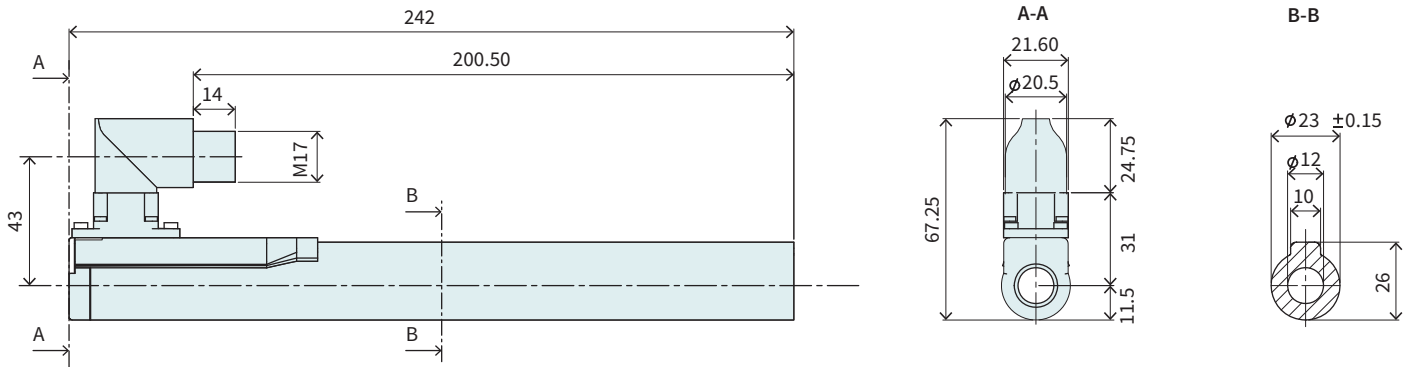
MOTOR FAMILY P01-23x160H-HP



Technical Data

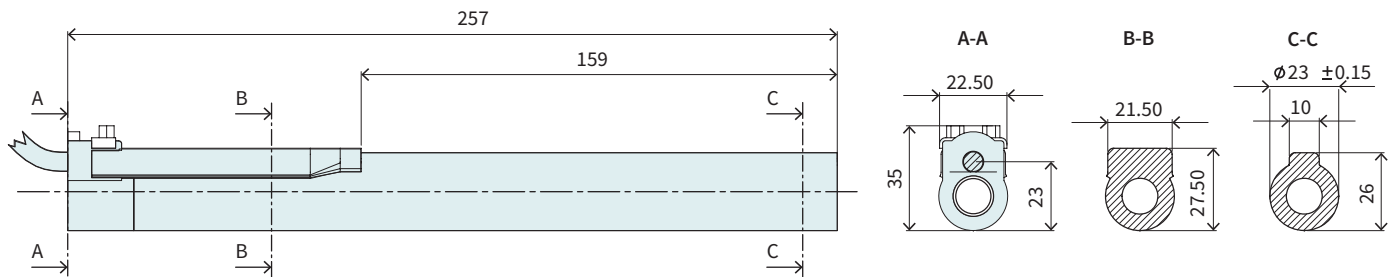
Stroke			
Standard Stroke (SS)	mm (in)		≤ 640 (≤ 25.19)
Extended Stroke (ES)	mm (in)		≤ 780 (≤ 30.69)
Force			
Max. Force @ 48VDC	N (lbf)		126 (28.3)
Max. Force @ 72VDC	N (lbf)		138 (31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / - (6.7 / 10 / -)
Max. Border Force relative	%		≤ 56
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5 (2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		3.4 (139.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.2 (209.9)
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}		10
Max. Current @ 72VDC	A _{pk}		10.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -
Terminal Resistance 25 °C / 150 °C	Ohm		3.9 / 5.7
Terminal Inductivity	mH		0.54
Magnetic Period	mm (in)		20 (0.78)
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -
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 (1.0)
Slider Diameter	mm (in)		12 (0.47)
Slider Length	mm (in)		230 - 850 (9.1 - 33)
Slider Mass	g (lb)		180 - 700 (0.4 - 1.54)
IP Code			IP 65
Certification			
cRUus	File-No.		E354430

STATOR CONNECTOR TYPE



Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254

STATOR CABLE TYPE

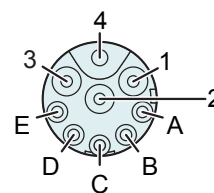


Item	Description	Item-No.
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255

CONNECTOR

Motor Connector Wiring	PS01-23x160H-HP-R PS01-23x160H-HP-R20	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
Sin	C	yellow
Cos	D	green
Temp.	E	black
Shield	Housing	outer Shield

R-Connector

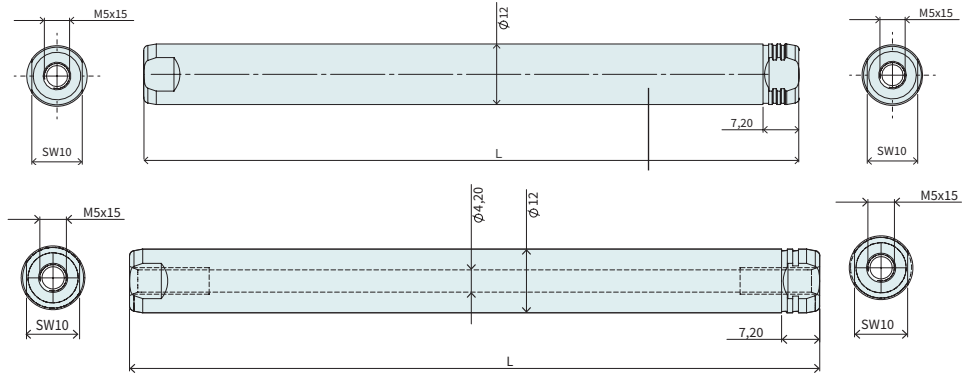


View: Motor Connector, plug side

SLIDER

Slider HP / Heavy Duty HP

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



Hollow slider HP

Slider High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x230/190-HP	Slider 'High Performance'	160	20	0150-1519
PL01-12x270/230-HP	Slider 'High Performance'	200	60	0150-1520
PL01-12x290/250-HP	Slider 'High Performance'	220	80	0150-1521
PL01-12x350/310-HP	Slider 'High Performance'	280	140	0150-1522
PL01-12x420/380-HP	Slider 'High Performance'	350	210	0150-1523
PL01-12x480/440-HP	Slider 'High Performance'	410	270	0150-1524
PL01-12x580/540-HP	Slider 'High Performance'	510	370	0150-1525
PL01-12x760/720-HP	Slider 'High Performance'	690	550	0150-1526
PL01-12x850/810-HP	Slider 'High Performance'	780	640	0150-1527

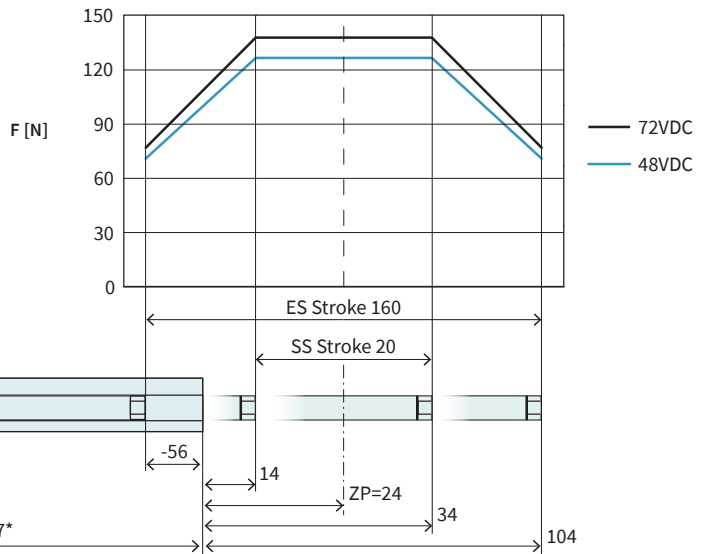
Slider High Performance S2				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x230/190-HP-2S	Slider 'High Performance' - Safety	160	20	0150-21519
PL01-12x270/230-HP-2S	Slider 'High Performance' - Safety	200	60	0150-21520
PL01-12x290/250-HP-2S	Slider 'High Performance' - Safety	220	80	0150-21521
PL01-12x350/310-HP-2S	Slider 'High Performance' - Safety	280	140	0150-21522
PL01-12x420/380-HP-2S	Slider 'High Performance' - Safety	350	210	0150-21523
PL01-12x480/440-HP-2S	Slider 'High Performance' - Safety	410	270	0150-21524
PL01-12x580/540-HP-2S	Slider 'High Performance' - Safety	510	370	0150-21525
PL01-12x760/720-HP-2S	Slider 'High Performance' - Safety	690	550	0150-21526
PL01-12x850/810-HP-2S	Slider 'High Performance' - Safety	780	640	0150-21527

Slider Heavy Duty High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL02-12x230/190-HP	Slider 'heavy duty' 'High Performance'	160	20	0150-1552
PL02-12x270/230-HP	Slider 'heavy duty' 'High Performance'	200	60	0150-1533
PL02-12x290/250-HP	Slider 'heavy duty' 'High Performance'	220	80	0150-1495
PL02-12x350/310-HP	Slider 'heavy duty' 'High Performance'	280	140	0150-1555
PL02-12x420/380-HP	Slider 'heavy duty' 'High Performance'	350	210	0150-1554
PL02-12x480/440-HP	Slider 'heavy duty' 'High Performance'	410	270	0150-2519
PL02-12x580/540-HP	Slider 'heavy duty' 'High Performance'	510	370	0150-2520
PL02-12x760/720-HP	Slider 'heavy duty' 'High Performance'	690	550	0150-2521
PL02-12x850/810-HP	Slider 'heavy duty' 'High Performance'	780	640	0150-2516

Hollow slider High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x230/190-HP-L	Slider 'High Performance L'	160	20	0150-2546
PL01-12x270/230-HP-L	Slider 'High Performance L'	200	60	0150-2557
PL01-12x290/250-HP-L	Slider 'High Performance L'	220	80	0150-3690
PL01-12x350/310-HP-L	Slider 'High Performance L'	280	140	0150-3691
PL01-12x420/380-HP-L	Slider 'High Performance L'	350	210	0150-3692
PL01-12x480/440-HP-L	Slider 'High Performance L'	410	270	0150-3693
PL01-12x580/540-HP-L	Slider 'High Performance L'	510	370	0150-3694
PL01-12x760/720-HP-L	Slider 'High Performance L'	690	550	0150-3695
PL01-12x850/810-HP-L	Slider 'High Performance L'	780	640	on request

P01-23x160H/20x160-HP

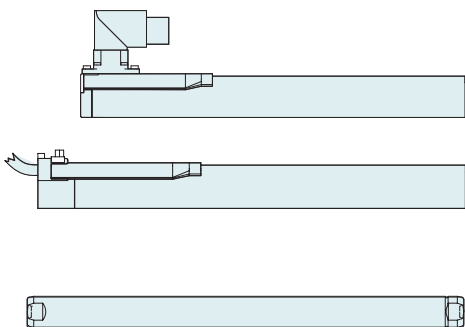
Max. Stroke: 160 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/20x160-HP

Stroke			
Standard Stroke (SS)	mm (in)	20	(0.78)
Extended Stroke (ES)	mm (in)	160	(6.29)
Force			
Max. Force @ 48VDC	N (lbf)	126	(28.3)
Max. Force @ 72VDC	N (lbf)	138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5	(2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)	5.2	(209.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.25	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	230	(9.1)
Slider Mass	g (lb)	180	(0.4)

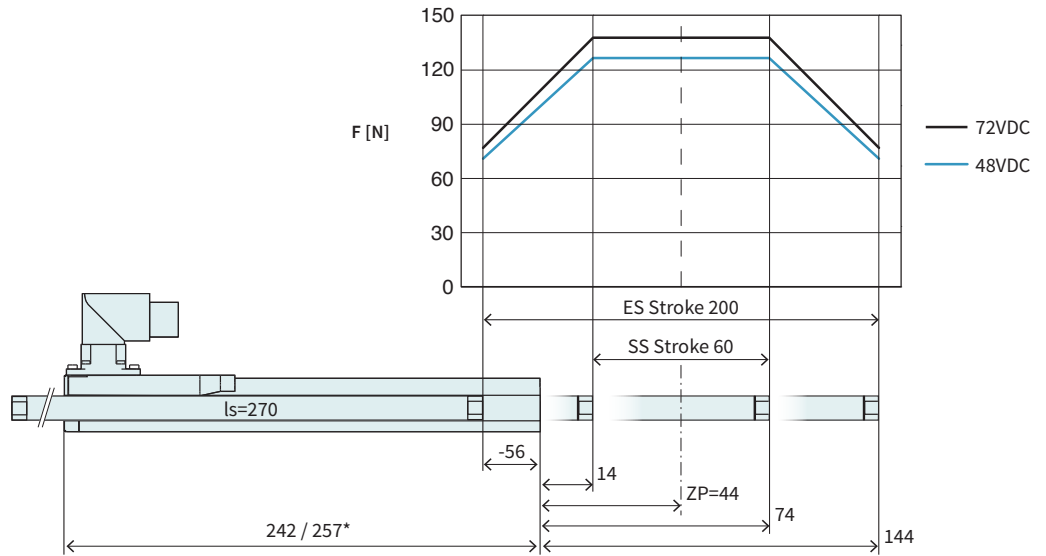


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x230/190-HP	Slider 'High Performance'	0150-1519
PL01-12x230/190-HP-2S	Slider 'High Performance' - Safety	0150-21519
PL02-12x230/190-HP	Slider 'heavy duty' 'High Performance'	0150-1552
PL01-12x230/190-HP-L*	Slider 'High Performance L'	0150-2546

* With this slider, the motor specifications above change.

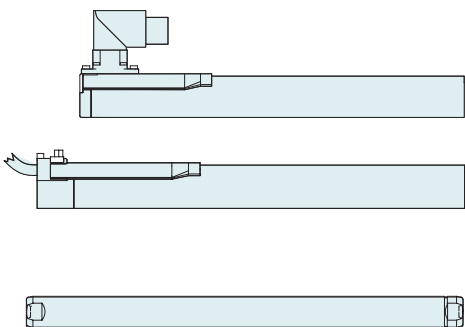
P01-23x160H/60x200-HP

Max. Stroke: 200 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/60x200-HP			
Stroke			
Standard Stroke (SS)	mm (in)	60 (2.35)	
Extended Stroke (ES)	mm (in)	200 (7.86)	
Force			
Max. Force @ 48VDC	N (lbf)	126 (28.3)	
Max. Force @ 72VDC	N (lbf)	138 (31)	
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N (lbf)	30 / 46 / - (6.7 / 10 / -)	
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5 (2.82)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4 (139.9)	
Max. Velocity @ 72VDC	m/s (in/s)	5.2 (209.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.2	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	270 (11)	
Slider Mass	g (lb)	215 (0.47)	

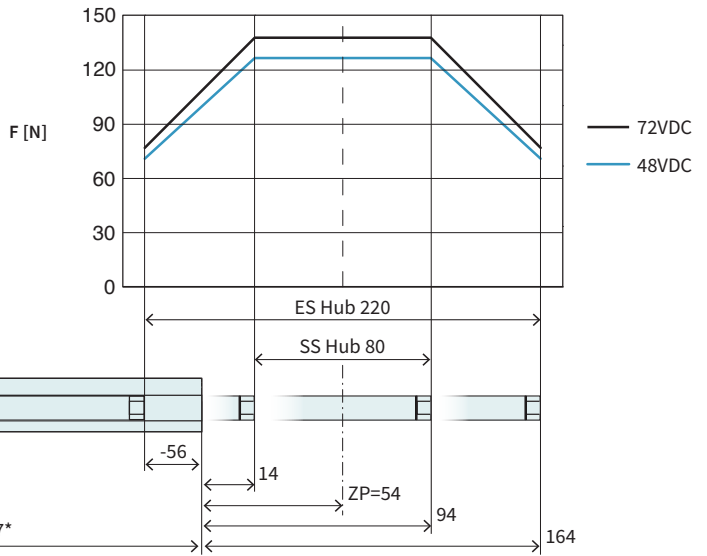


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x270/230-HP	Slider 'High Performance'	0150-1520
PL01-12x270/230-HP-2S	Slider 'High Performance' - Safety	0150-21520
PL02-12x270/230-HP	Slider 'heavy duty' 'High Performance'	0150-1533
PL01-12x270/230-HP-L*	Slider 'High Performance L'	0150-2557

* With this slider, the motor specifications above change.

P01-23x160H/80x220-HP

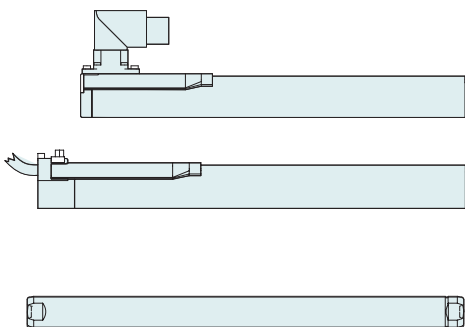
Max. Stroke: 220 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/80x220-HP

Technical Data P01-23x160H/80x220-HP			
Stroke			
Standard Stroke (SS)	mm (in)	80	(3.14)
Extended Stroke (ES)	mm (in)	220	(8.65)
Force			
Max. Force @ 48VDC	N (lbf)	126	(28.3)
Max. Force @ 72VDC	N (lbf)	138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5	(2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)	5.2	(209.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	±0.2	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	290	(11)
Slider Mass	g (lb)	230	(0.51)

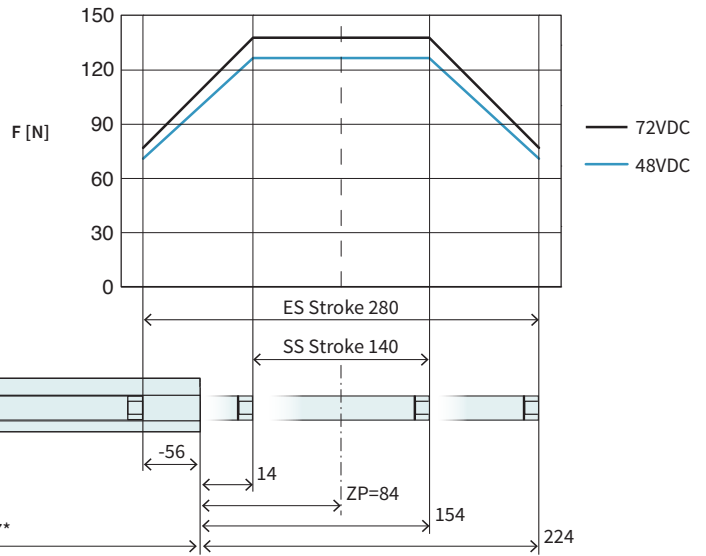


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x290/250-HP	Slider 'High Performance'	0150-1521
PL01-12x290/250-HP-2S	Slider 'High Performance' - Safety	0150-21521
PL02-12x290/250-HP	Slider 'heavy duty' 'High Performance'	0150-1495
PL01-12x290/250-HP-L*	Slider 'High Performance L'	0150-3690

* With this slider, the motor specifications above change.

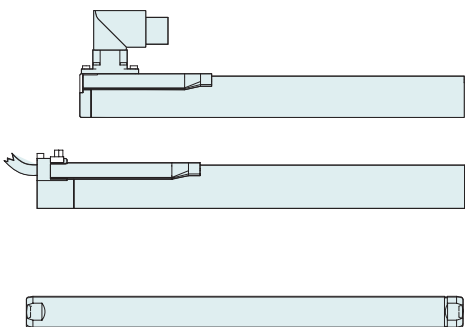
P01-23x160H/140x280-HP

Max. Stroke: 280 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/140x280-HP			
Stroke			
Standard Stroke (SS)	mm (in)		140 (5.5)
Extended Stroke (ES)	mm (in)		280 (10.99)
Force			
Max. Force @ 48VDC	N (lbf)		126 (28.3)
Max. Force @ 72VDC	N (lbf)		138 (31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / - (6.7 / 10 / -)
Max. Border Force relative	%		56
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5 (2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		3.4 (139.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.2 (209.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.2
Electrical Data			
Max. Current @ 48VDC	A _{pk}		10
Max. Current @ 72VDC	A _{pk}		10.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -
Mechanical Data			
Slider Length	mm (in)		350 (14)
Slider Mass	g (lb)		280 (0.62)

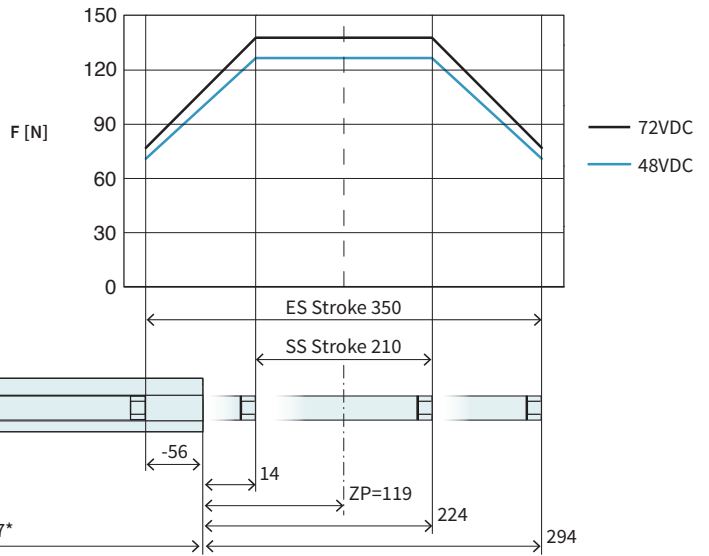


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x350/310-HP	Slider 'High Performance'	0150-1522
PL01-12x350/310-HP	Slider 'High Performance' - Safety	0150-21522
PL02-12x350/310-HP	Slider 'heavy duty' 'High Performance'	0150-1555
PL01-12x350/310-HP-L*	Slider 'High Performance L'	0150-3691

* With this slider, the motor specifications above change.

P01-23x160H/210x350-HP

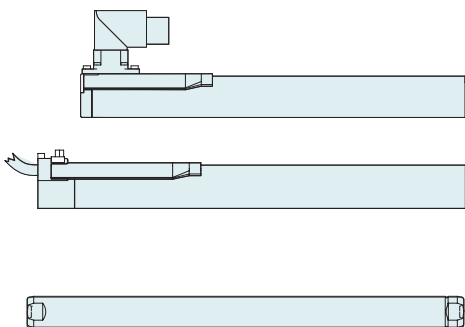
Max. Stroke: 350 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/210x350-HP

Stroke			
Standard Stroke (SS)	mm (in)	210 (8.26)	
Extended Stroke (ES)	mm (in)	350 (13.8)	
Force			
Max. Force @ 48VDC	N (lbf)	126 (28.3)	
Max. Force @ 72VDC	N (lbf)	138 (31)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5	(2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)	5.2	(209.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	420	(17)
Slider Mass	g (lb)	340	(0.75)

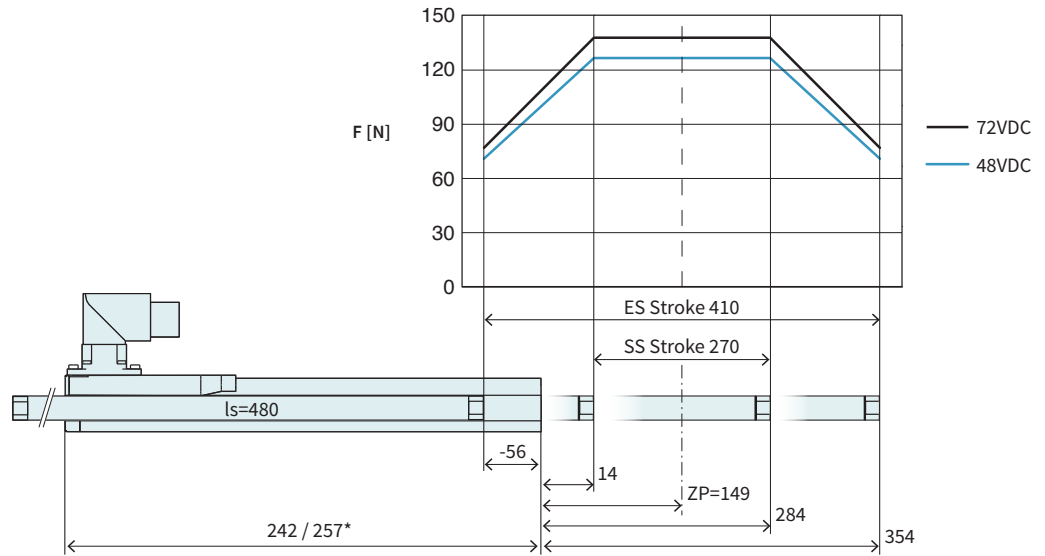


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x420/380-HP	Slider 'High Performance'	0150-1523
PL01-12x420/380-HP-2S	Slider 'High Performance' - Safety	0150-21523
PL02-12x420/380-HP	Slider 'heavy duty' 'High Performance'	0150-1554
PL01-12x420/380-HP-L*	Slider 'High Performance L'	0150-3692

* With this slider, the motor specifications above change.

P01-23x160H/270x410-HP

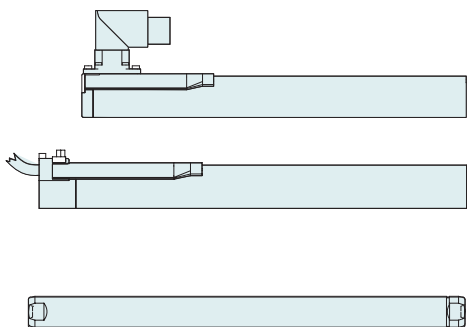
Max. Stroke: 410 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/270x410-HP

Stroke			
Standard Stroke (SS)	mm	(in)	270 (10.59)
Extended Stroke (ES)	mm	(in)	410 (16.1)
Force			
Max. Force @ 48VDC	N	(lbf)	126 (28.3)
Max. Force @ 72VDC	N	(lbf)	138 (31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	30 / 46 / - (6.7 / 10 / -)
Max. Border Force relative			56
Force Constant	N/A _{pk}	(lbf/A _{pk})	12.5 (2.82)
Velocity			
Max. Velocity @ 48VDC	m/s	(in/s)	3.4 (139.9)
Max. Velocity @ 72VDC	m/s	(in/s)	5.2 (209.9)
Position Detection			
Repeatability	mm	(in)	±0.05 (±0.002)
Linearity			± 0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)			120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm	(in)	480 (19)
Slider Mass	g	(lb)	390 (0.86)

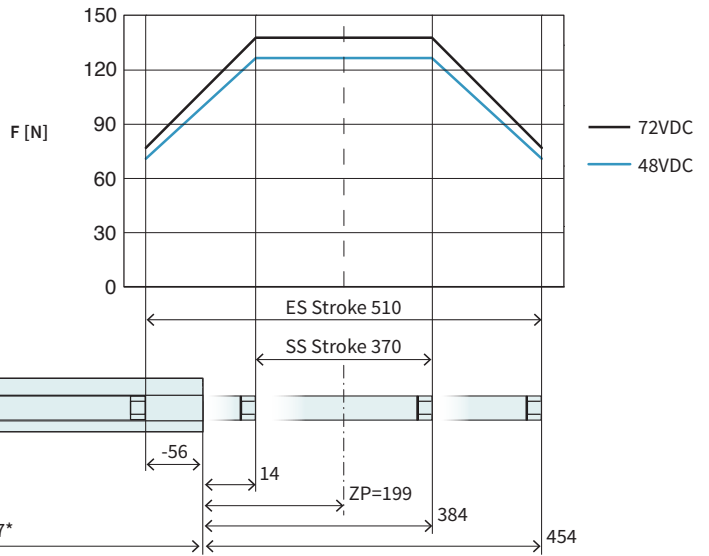


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x480/440-HP	Slider 'High Performance'	0150-1524
PL01-12x480/440-HP-2S	Slider 'High Performance' - Safety	0150-21524
PL02-12x480/440-HP	Slider 'heavy duty' 'High Performance'	0150-2519
PL01-12x480/440-HP-L*	Slider 'High Performance L'	0150-3693

* With this slider, the motor specifications above change.

P01-23x160H/370x510-HP

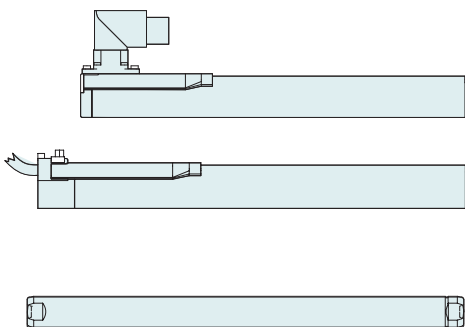
Max. Stroke: 510 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/370x510-HP

Stroke			
Standard Stroke (SS)	mm (in)	370	(14.59)
Extended Stroke (ES)	mm (in)	510	(20.1)
Force			
Max. Force @ 48VDC	N (lbf)	126	(28.3)
Max. Force @ 72VDC	N (lbf)	138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5	(2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)	5.2	(209.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	580	(23)
Slider Mass	g (lb)	480	(1.06)

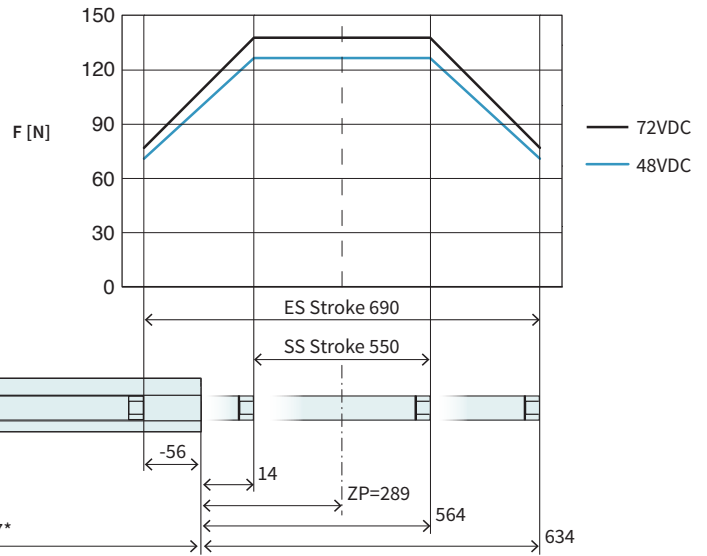


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x580/540-HP	Slider 'High Performance'	0150-1525
PL01-12x580/540-HP-2S	Slider 'High Performance' - Safety	0150-21525
PL02-12x580/540-HP	Slider 'heavy duty' 'High Performance	0150-2520
PL01-12x580/540-HP-L*	Slider 'High Performance L'	0150-3694

* With this slider, the motor specifications above change.

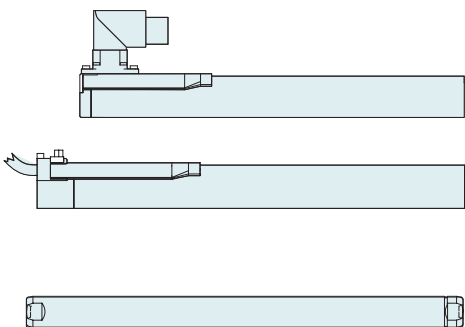
P01-23x160H/550x690-HP

Max. Stroke: 690 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/550x690-HP			
Stroke			
Standard Stroke (SS)	mm (in)		550 (21.69)
Extended Stroke (ES)	mm (in)		690 (27.19)
Force			
Max. Force @ 48VDC	N (lbf)		126 (28.3)
Max. Force @ 72VDC	N (lbf)		138 (31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / - (6.7 / 10 / -)
Max. Border Force relative	%		56
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5 (2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		3.4 (139.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.2 (209.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		±0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		10
Max. Current @ 72VDC	A _{pk}		10.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -
Mechanical Data			
Slider Length	mm (in)		760 (30)
Slider Mass	g (lb)		630 (1.39)

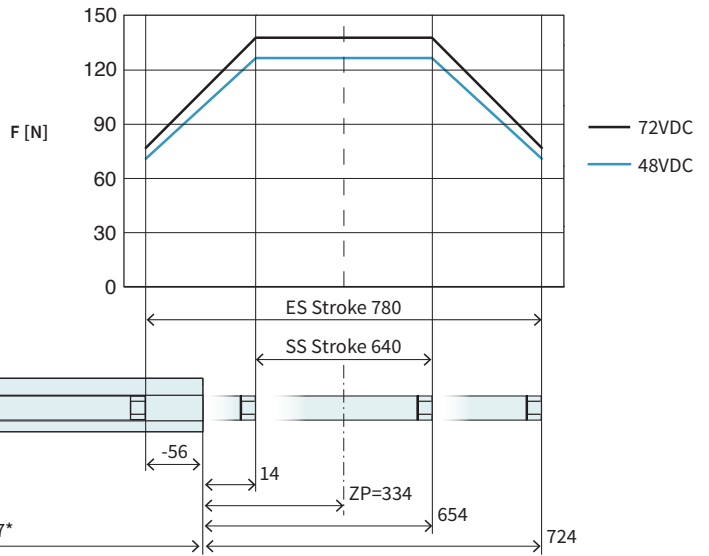


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x760/720-HP	Slider 'High Performance'	0150-1526
PL01-12x760/720-HP-2S	Slider 'High Performance' - Safety	0150-21526
PL02-12x760/720-HP	Slider 'heavy duty' 'High Performance'	0150-2521
PL01-12x760/720-HP-L*	Slider 'High Performance L'	0150-3695

* With this slider, the motor specifications above change.

P01-23x160H/640x780-HP

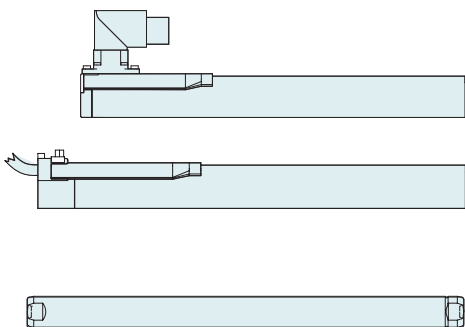
Max. Stroke: 780 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/640x780-HP

Stroke			
Standard Stroke (SS)	mm (in)		640 (25.19)
Extended Stroke (ES)	mm (in)		780 (30.69)
Force			
Max. Force @ 48VDC	N (lbf)		126 (28.3)
Max. Force @ 72VDC	N (lbf)		138 (31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / - (6.7 / 10 / -)
Max. Border Force relative	%		56
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5 (2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		3.4 (139.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.2 (209.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		10
Max. Current @ 72VDC	A _{pk}		10.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -
Mechanical Data			
Slider Length	mm (in)		850 (33)
Slider Mass	g (lb)		700 (1.54)



Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x850/810-HP	Slider 'High Performance'	0150-1527
PL01-12x850/810-HP-2S	Slider 'High Performance' - Safety	0150-21527
PL02-12x850/810-HP	Slider 'heavy duty' 'High Performance'	0150-2516
PL01-12x850/810-HP-L*	Slider 'High Performance L'	on request

* With this slider, the motor specifications above change.

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	PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
		PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21254
		PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
		PS01-23x160H-HP-R20-2S	Stator HP, 0.2m Cable, IP67 St. M17/9(m) - Safety	0150-21255
→	Slider	PL01-12x290/250-HP	Slider 'High Performance'	0150-1521
		PL01-12x290/250-HP	Slider 'High Performance' - Safety	0150-21521

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	PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
		PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21254
		PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
		PS01-23x160H-HP-R20-2S	Stator HP, 0.2m Cable, IP67 St. M17/9(m) - Safety	0150-21255
→	Slider	PL01-12x420/380-HP	Slider 'High Performance'	0150-1523
		PL01-12x420/380-HP	Slider 'High Performance' - Safety	0150-21523

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

→	H-Guide	H01-23x166/280	H-Guide for P01-23x160, Stroke max 280mm	0150-5019
		H01-23x166/280-GF	H-Guide for P01-23x160, Stroke max 280mm	0150-5079
→	Stator	PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
		PS01-23x160H-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21254
		PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
		PS01-23x160H-HP-R20-2S	Stator HP, 0.2m Cable, IP67 St. M17/9(m) - Safety	0150-21255
→	Slider	PL01-12x480/440-HP	Slider 'High Performance'	0150-1524
		PL01-12x480/440-HP	Slider 'High Performance' - Safety	0150-21524

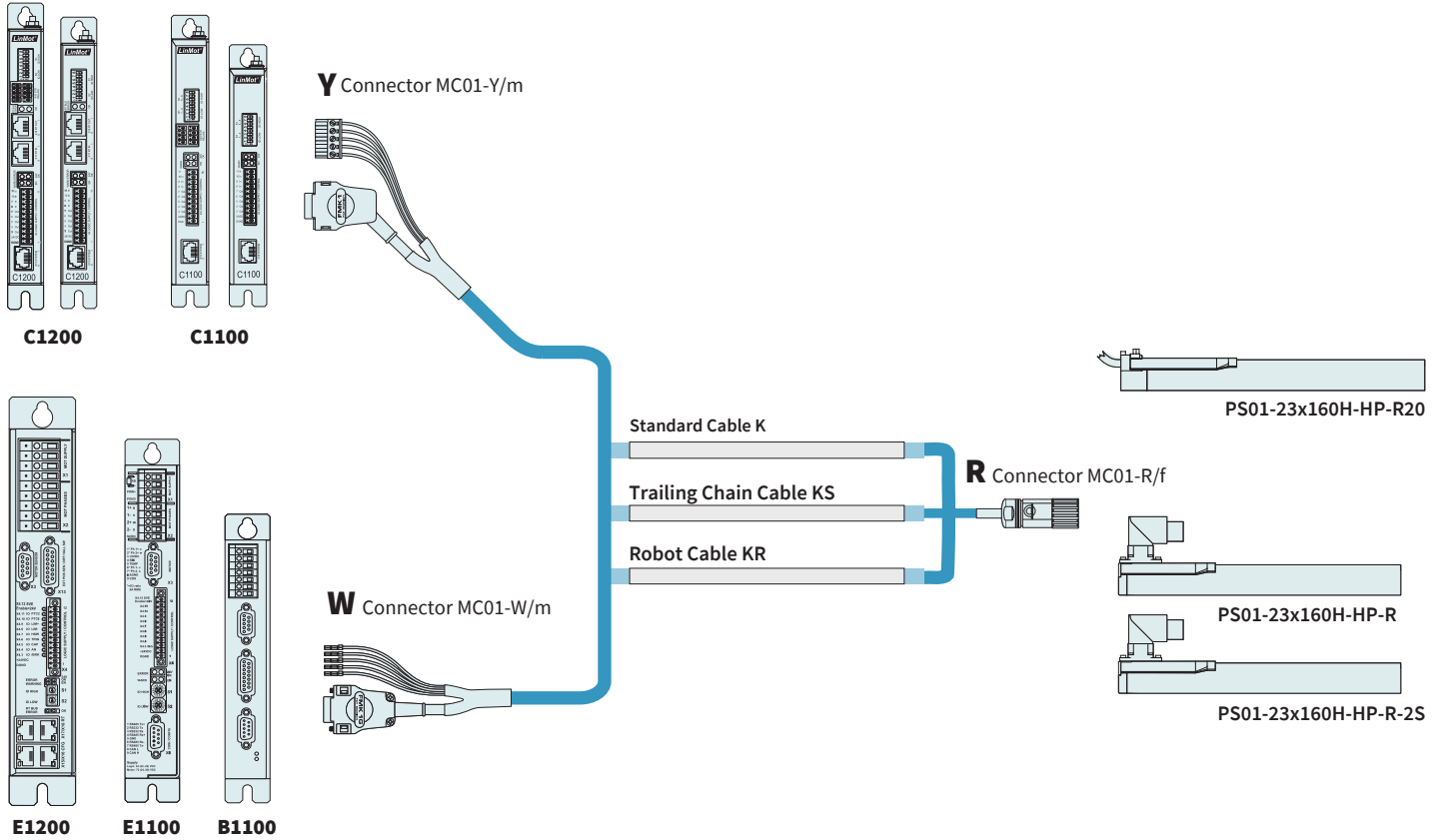
Accessories

→	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	Adapter 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

3



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-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

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

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

3



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 End Washer Set for 12 mm sliders	0150-3085
PLF01-12-Ni	Fixed End Washer Set for 12 mm sliders nickel-plated	0150-3573
PLL02-12	Floating support for PL01-12 Sliders	0150-3111

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

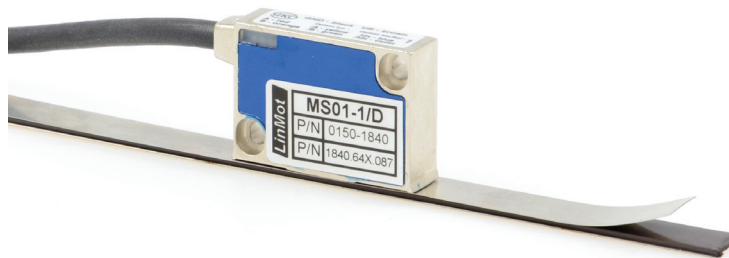
WIPERS



Item	Description	Item-No.
PA01-23/12-F-2	Wiper front side for PS01-23x...	0150-3293

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".

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