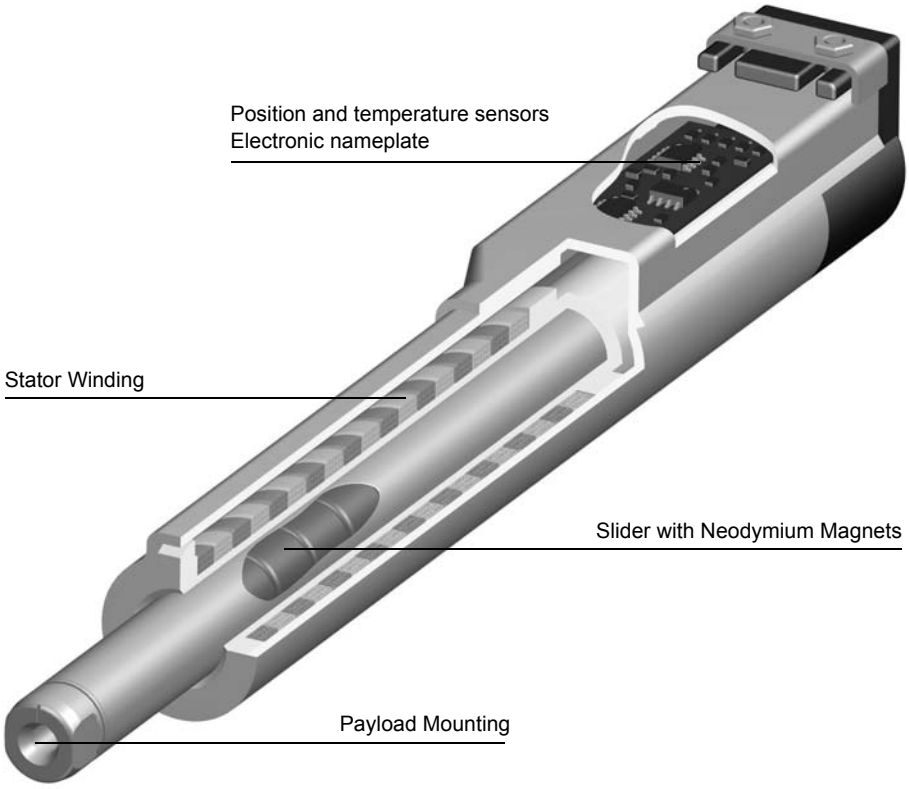
Linear Motors

LinMot P01 is a family of linear direct drives for highly dynamic motions.

The motor is made up of just two parts: the slider and the stator. The two parts are not connected by brushes or cables. The linear motion is generated directly by electromagnetic forces, without the wear associated with mechanical gearboxes, belts, or levers. Extremely dynamic motion sequences can be obtained with a long lifespan.

Cylindrical design and integrated bearings and position sensing make LinMot linear motors a compact design element.

Typical applications range from rapid positioning, lifting, and pushing motions, to synchronous pick and place applications, to complex palletizing gantry robots.



Mode of Operation

LinMot linear motors are permanently actuated synchronous servo motors, with integrated position measurement and overload protection. Permanent magnets in the slider (like a rotor) and windings in the stator are used to generate forces, like in a brushless rotary motor. The configuration and different arrangement of the magnets generate the linear motion directly, using electromagnetic force, without mechanical elements that are subject to wear.

Design

The windings, position sensors, temperature monitoring, and bearings are all located in the stator. It consists of a solid metal cylinder in which the motor components are cast, so that they are optimally protected from damage and contamination. The stators are available in two versions, with direct cable exit or a rotating angle connector.

The slider consists of a stainless steel tube in which the drive magnets are mounted. During operation, the slider is guided by the plain bearing integrated in the stator. There is no electrical or mechanical connection between the slider and the stator.

Flexibility

Freely positionable
with no mechanical end play along the entire stroke

Adjustable speed
within a range of 0.001 - 5.5m/s

Adjustable acceleration
for highly dynamic or slower moves.

Synchronization & motion profiling
for complicated motions and replacement of cam discs

Adjustable force
for totally programmable press and joining operations

Dynamics

Highly dynamic
Acceleration values of well over 500 m/s2 and travel speeds over 5.5 m/s allow cyclical motion sequences of several Hertz

Controlled dynamics
For handling applications with sensitive products, such as transporting wafers in semiconductor production, very gentle, smooth motions with suitable accelerations can be obtained.

Process Stability

Process stability
Since not only the end positions, but also speed and acceleration are controlled and monitored, motions that are programmed once are carried out the same way over the entire life of the machine.

Freely Positionable
LinMot linear motors can be freely positioned. With absolute or relative movement commands, they can move to any desired position in the stroke range. Since the LinMot linear drive is a closed-loop system, not only the end positions are monitored, but also deviations in position during travel. This allows, among other things, precise specification of travel speeds, acceleration and braking ramps, and travel through curved paths. For synchronous machines, the linear motor can be synchronized to the main shaft. By replacing mechanical cam discs with LinMot linear motors, for example, great variations can be achieved, with format changeovers at the push of a button.

Integrated Position Measurement
LinMot linear motors and LinMot Servo Drives form a closed-loop drive system. The position is detected in the motor by non-contact magnetic field sensors. These provide the Servo Drive with a sine/cosine signal, so that the current position is always available to the drive with no lag. In contrast to incremental position measurement, steps cannot be lost. Since position detection is done purely magnetically, with no optical sensors, and with the magnetic sensors being cast into the stator, LinMot linear motors can be used even in damp or dirty environments.

Overload Protection
There are no mechanical components for force transfer that could be damaged in a crash or stall condition in a linear motor. Complex, expensive designs to protect gearboxes, gears, and shafts are thus eliminated. If the linear motor stalls, it acts like a pneumatic cylinder and tries to reach the target position with maximum force. The following error monitor in the drive can, however, immediately recognize a stall condition. Temperature sensors integrated in the stator prevent the drive from overloading in any case.

Lifespan

Long Lifespan
Since the linear motion is generated purely magnetically, and no mechanical force transmission takes place, even extremely dynamic applications can be implemented with a long lifespan.

Reliability

Robust, even in exceptional situations
Since forces are generated purely magnetically, no mechanical components, such as gearboxes, belts, or spindles, can be damaged in case of a crash.

High Reliability
Since LinMot linear motors have no wear parts and a long lifespan, due to their operating principle, a high level of reliability is guaranteed, even in fast-moving machines.

Environmental Conditions

IP69K
LinMot linear motors are cast under vacuum, are splash-proof, and have protection class up to IP69K.

Clean Room Compatible
The Fraunhofer Institute has confirmed clean room compatibility (Certification FM9805-3475 per US Fed. Standard 209E).

Use in dirty environments
The magnetic measurement system and cast body style allow secure operation even in damp or dirty environments.

Variants

In order to provide the right solution for every application, the motors are available in various versions:

The stators are available with a rotating IP67 angle connector, or with cable exit. This allows simple installation, even in difficult spaces.

Since no gearboxes are used with linear direct drives, various winding options allow optimal adjustment of force and speed for a given application.

Connector Type Motors

Sizes

LinMot linear motors are available in various sizes with different strokes and force ranges. The wide range of product variations means that the right linear motor can be found for any application.

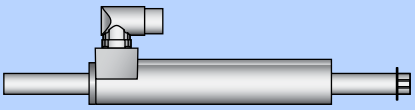
Cable Type Motors

Simple Installation

The connection between the motor and the Servo Drive requires only a single cable. Since all motors have a connector either directly on the motor or at the end of the motor cable, installation is as simple as you might think. Motor cables are available from stock in various lengths, in different versions. The standard cable is suitable for stationary applications. For applications with moving cables and stators, high-flex motor cables are available for use with cable tracks, and robotic cables are available for applications with cable torsion.

Connector Type Motors

The connector is protection class IP67. The angle connector can be rotated about its own axis, so that the motor cable can be led away from the motor in any direction.



For applications with moving stators, motors with connectors have an advantage; a cable-chain compatible cable can be plugged directly into the motor and run through the cable track.

Cable Type Motors

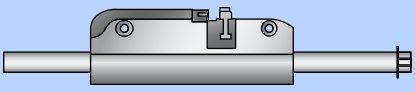
Motors with cable exit are particularly well suited to difficult installation locations, where there is no room for the connector.

Since the cable end is cast directly into the motor, these motors can be used in applications with difficult environmental conditions.

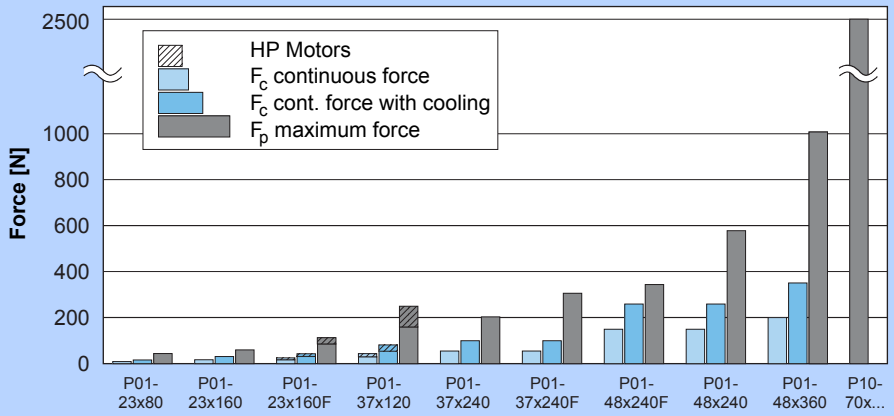
For motors with cable exits, the cable attached to the motor must be mountes securely.

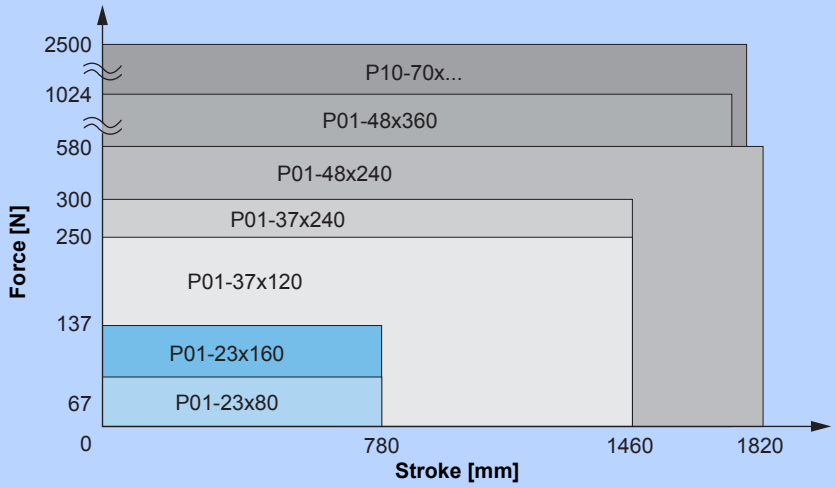
Short Motor

A shorter version of the smallest linear motor is available under the designation P02-23Sx80. Instead of a rotating IP67 connector, the short motor has a ZIF line plug for a flexible flat ribbon cable.



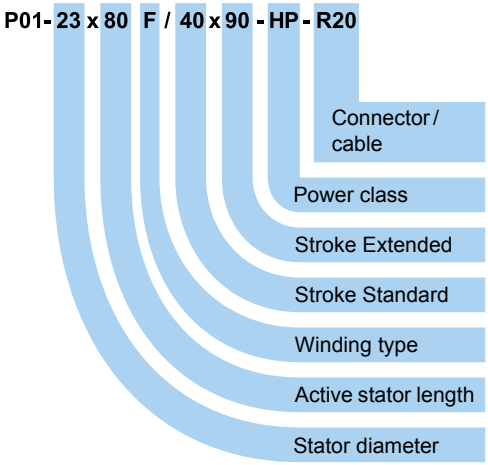
The short motor was developed for laboratory automation applications. Due to the connector style and the flat ribbon cable, this motor is not suitable for use in dirty or damp environments.





Model Description

The most important motor characteristics are encoded in the model description:



Electronic Nameplate

LinMot linear motors have an electronic nameplate in the stator, on which all specific motor data, as well as production and article information, is stored. The electronic nameplate guarantees simple and error-free configuration during startup. Using the stored production data, the servo drive compensates for even the smallest production tolerances, in order to provide the best possible accuracy and optimal control behavior, even under difficult conditions.

CAD Data

2D and 3D CAD data are available for linear motors and accessories at www.LinMot.com.

Winding Types

Certain stators are available in two versions, with standard windings or a special winding for higher top speeds. These have advantages primarily in long-stroke applications, which my require increased maximum speed. Stators with the special windings are indicated with an F or H in the description. Mechanical dimensions are identical to those of stators with standard windings.

High Performance Motors

The new High Performance linear motors have significantly more power than standard motors of the same size and dimensions.

The increased power comes from optimization of the motor windings, the magnet circuit, and heat dissipation. Also, further advances in magnet materials have been made in recent years.

With High Performance motors, the user has nearly double the available power.

Motor Cables

Stators with cable exit, in size P01-23, are provided with standard cable lengths of 20cm with IP67 plugs, 100 cm with D-plugs.

Stators with cable exit, in size P01-37, are provided with standard cable lengths of 20cm with IP67 plugs, 150 cm with P-plugs.

Motor cables of up to 50m can be used between the linear motor and the Servo Drive.

LinMot offers a wide range of extension cables in various versions.

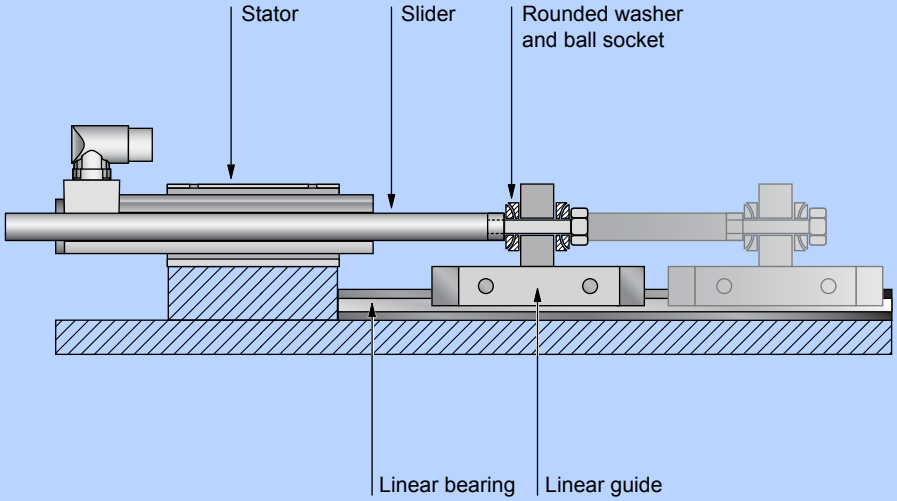
(Motor Cables see page 510).

"Moving Slider" Applications

In a "moving slider" installation, the stator is fixed and the slider is the moving part.

The load, borne by a linear guide, is attached directly to the end of the slider. In order to compensate for misalignment, spherical axial bearings consisting of rounded washers and ball sockets may be used to connect to the load.

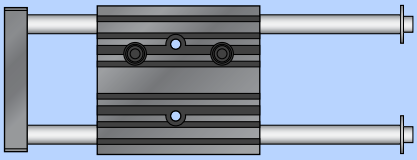
The "moving slider" installation has advantages of short-stroke and very dynamic motions, since the moving mass is small and the motor cable does not move.



Linear Guides

In order to prevent radial loads on the slider, the load are borne by linear guides.

For short to medium strokes, LinMot has matching linear guides for each motor family in its catalog.



LinMot linear guides are mechanically compatible with H-guides from pneumatics manufacturers.

The linear guides can be optionally equipped with a mechanical brake, a fan, or a counter balance using a MagSpring, for vertical applications.

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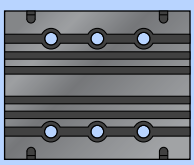
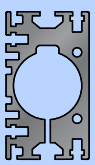
Flange

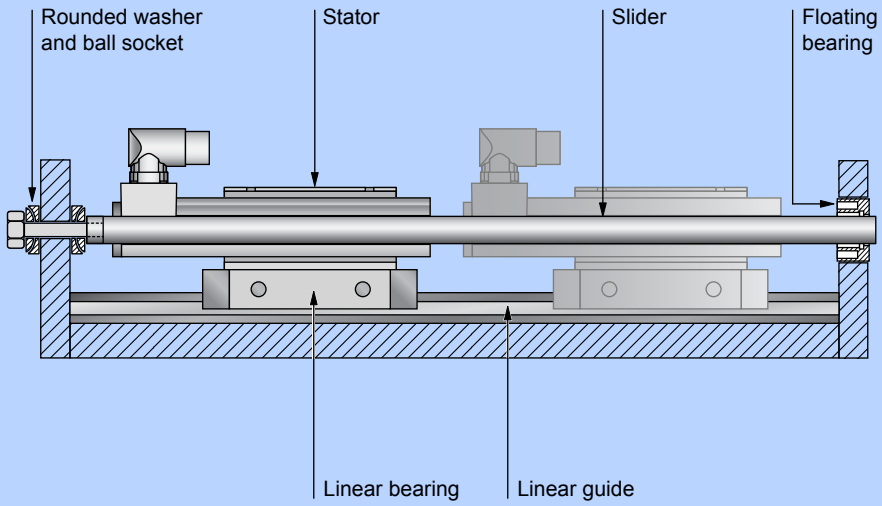
Various motor flanges are available for simple mounting of the stator.





Motor flanges are available in compatible lengths for the various motors.

(page 520)



For moving motor cables, only highly flexible motor cables of type KS (for use in cable tracks) or KR (robotic cables) should be used.

"Moving Stator" Applications

In "moving stator" applications, the slider is fixed, and the stator is the moving part.

The load is attached to the stator, which is mounted on a linear guide. In order to avoid an over-determined bearing mount, and compensate for alignment errors, the slider may be mounted on one end in a fixed bearing with a spherical axial bearing. On the opposite end, the slider is mounted in a floating bearing.

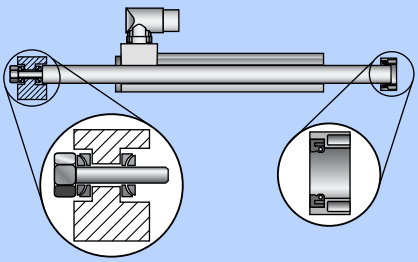
The "moving stator" installation has advantages for long-stroke motions, in terms of installation length.

Since the motor cable is always under motion in this installation type, only stators with plug connectors should be used, along with cable-chain compatible motor cables of type KS.

In some applications, multiple stators may be used on a single (long) slider

Mounting Kits for Sliders

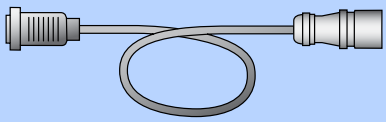
Special mounting kits are available for mounting the slider.



The mounting kits prevent over-determined bearing mounts, and simplify alignment during installation (page 526).

Standard Motor Cables

The standard motor cable, type K, is suitable for fixed installation, and should not not be used in any application where it would be flexed.



Motor cables are to be protected from mechanical damage by wireways.

Preconfigured motor cables are available in any length up to 50m. Standard lengths are available from stock (page 514).

Moving Motor Cables

For applications with moving motor cables, two different types of cables are available:

- Motor cable type KS
  Highly flexible cable for use in cable tracks (flexing, but no torsion)
- Motor cable type KR
  For use in robot applications, in which the cable is subject to twisting.

Moving motor cables are to be protected from mechanical damage in cable tracks or flexible cable conduits.

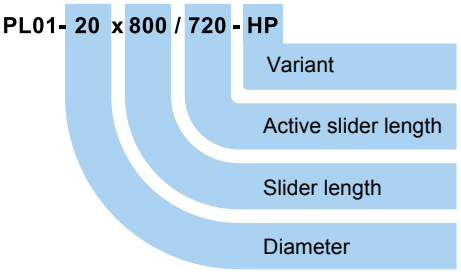
LinMot Sliders

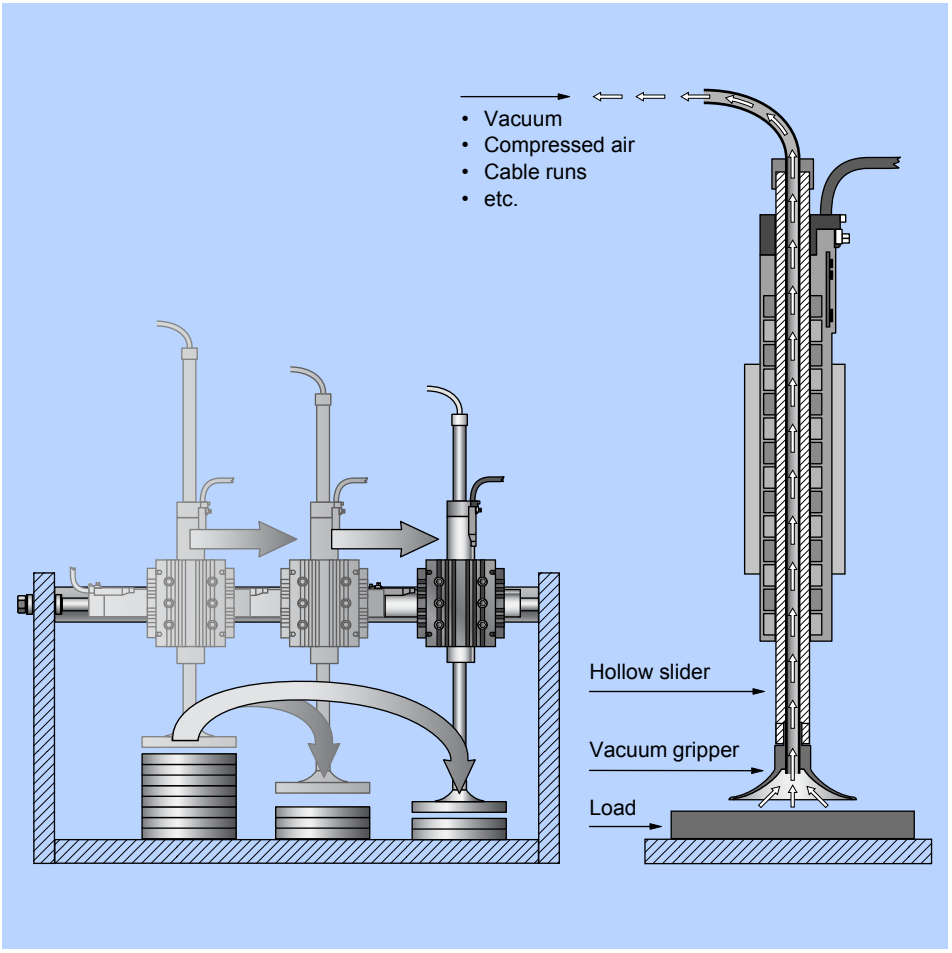
LinMot sliders consist of a stainless steel tube in which the drive magnets are mounted. The slider is guided in the slide bearing of the stator, and can be the moving or the fixed part of the drive, depending on the application.

The round design causes the attractive magnetic forces between the slider and the stator to balanced, so that the motor can be installed by hand without a problem. This is a great advantage over flat linear motors, in which large attractive forces are generated between the windings and the magnetic part.

In addition to standard sliders, LinMot has various special versions available.

Slider descriptions:



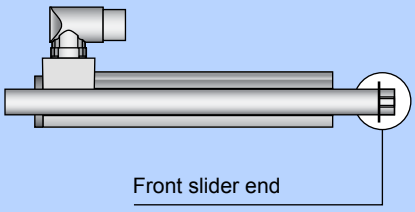


Hollow Sliders

Hollow sliders have a central hole through their length. This can be used to run compressed air, vacuum, or other media, or to run wires. Hollow sliders have the same mechanical dimensions as standard sliders.

Installation Orientation

LinMot sliders are not symmetrical. All specifications in the data sheets are based on standard slider orientation:



If the slider is installed backwards, the stroke and force ranges shift

Hollow Sliders

The central through-hole in the hollow slider has the following internal diameter:

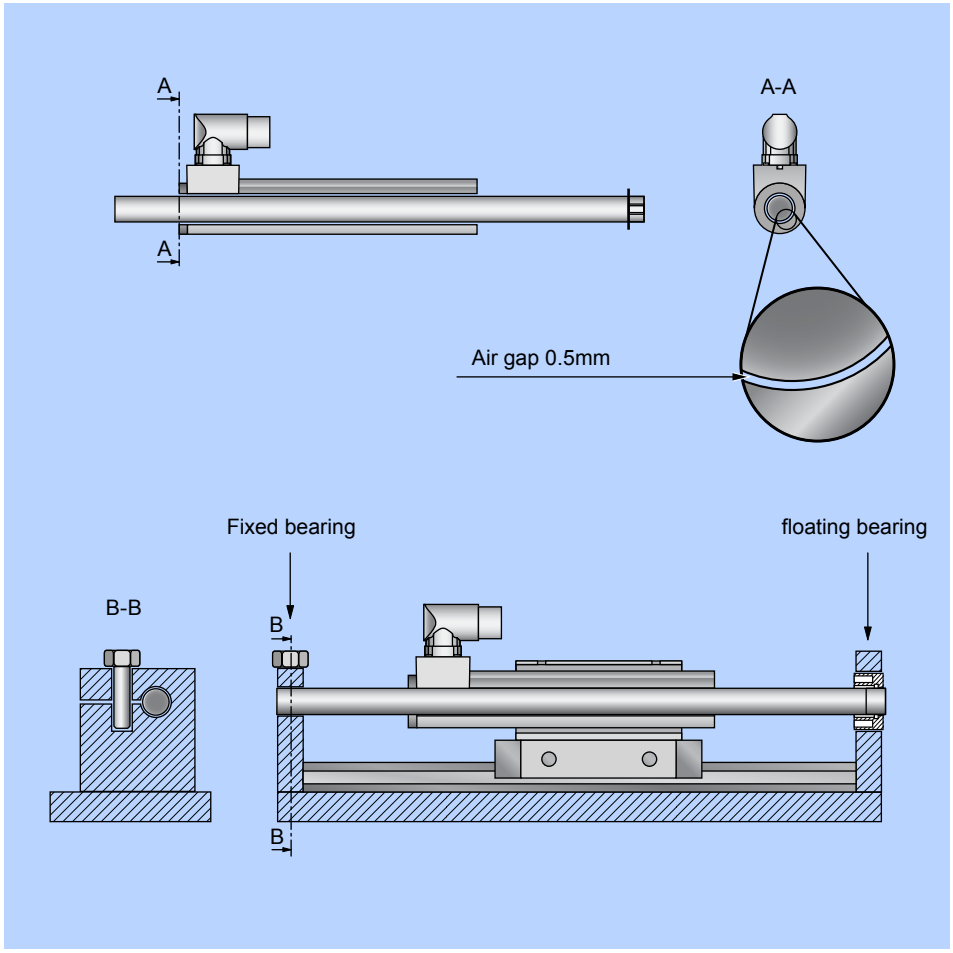
- 4.2mm for Linear Motors series P01-23
- 6.5mm for Linear Motors series P01-37
- 8.5mm for Linear Motors series P01-48

Hollow sliders have a lower mass, compared to standard sliders:

- -12% for Linear Motors series P01-23
- -12% for Linear Motors series P01-37
- -10% for Linear Motors series P01-48

Both the maximum force and the continuous force of hollow slider motors are slightly reduced relative to standard motors:

- -10% for Linear Motors series P01-23
- -10% for Linear Motors series P01-37
- -10% for Linear Motors series P01-48



High-Clearance Sliders

High-clearance sliders have an outer diameter that is 1mm less than that of a standard slider. This means there is an air gap of 0.5 mm between the slider and the stator.

The air gap simplifies installation and alignment of the motor, and allows maintenance-free operation of the motor. Sliders with reduced diameter must be mounted at both ends, or have external bearings.

High-clearance sliders can be used with all stator types, just like standard sliders. Mechanically, they are different from the standard slider only in their diameter. Due to the smaller diameter, the technical data are slightly different from those of the standard sliders (see below).

Heavy-Duty Sliders

PL02 heavy-duty sliders have a special hard-coated surface, with a microhardness of 1000 HV 0.05. The shape and mechanical dimensions are identical to the PL01 version.

Advantages of the heavy-duty version:
- Increased resistance to dirt, especially in contact with abrasive materials.
- Longer lifespan in critical installation conditions.

The heavy-duty version is recommended for:
- Difficult access to the drive for maintenance.
- Dirt in the environment
- Motion frequency greater than 3 Hz

High-Clearance Sliders

High-clearance sliders have a 1 mm smaller diameter compared to standard sliders:

- 19mm for Linear Motors series P01-37
- 27mm for Linear Motors series P01-48

High-clearance sliders have a smaller mass compared to standard sliders:

- -10% for Linear Motors series P01-37
- - 7% for Linear Motors series P01-48

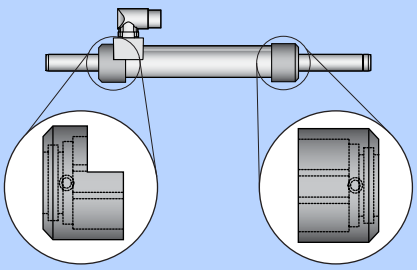
Both the maximum force and the continuous force of motors with high-clearance sliders are slightly different, compared to standard sliders:

- + 8% for Linear Motors series P01-37
- -13% for Linear Motors series P01-48

High-clearance sliders for Linear Motors Series P01-37 have, due to the use of stronger magnets, a slightly higher force than standard sliders.

Wiper Option

Wipers are mounted on the front and/or rear end of the stator, and keep the slider free of dirt.

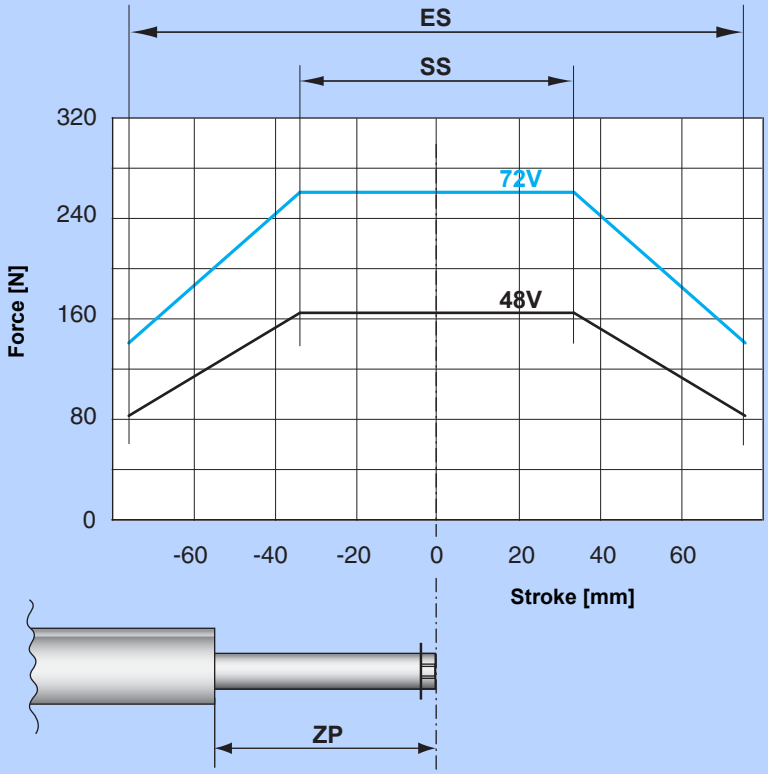


(Page 528)

Stroke-Force Diagram

Due to its design, the maximum force of a LinMot linear motor is dependent on the position of the slider in the stator. The maximum force curve is symmetrical about the center of the stroke range, which is known as the zero position (ZP). If the front slider end is moved out of the stator by the distance ZP, the slider is in the center of the stroke range. The zero position ZP is found in the data sheet for each linear motor, and is different for each motor.

In the Standard Stroke (SS) range, the motor has a constant maximum force, since the drive magnets of the slider are in the active range of the stator. This results in optimal force generation over the entire SS stroke range. The further the slide moves out of the SS stroke range, the fewer magnets are within the active part of the stator. This causes the maximum and effective force to drop off linearly at the edges of the Extended Stroke (ES). The maximum force is also dependent on the power supply voltage, and the maximum current from the Servo Drive. The maximum force, depending on the slider position, is shown for various Servo Drives in the stroke-force diagram.



Design notes:
Select a range of motion in operation that is symmetrical about the zero position ZP, since the linear motor develops the greatest force in this range.

Homing

After powering up the Servo Drive, a position initialization must be carried out, in the form of a homing, to determine the zero position. The initialization can be configured by the user. It can be made either to a mechanical stop, or to a reference sensor. In case of an emergency stop, the linear motor does not need to be referenced again, since only the power supply is interrupted, while the separate logic supply remains up.

If a linear absolute encoder is used, then no homing is required
.

Performance limits and thermal behavior

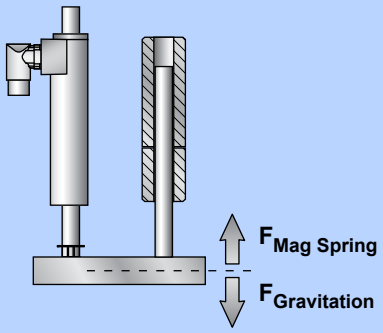
The performance limit of a linear motor with lower duty cycles is limited to the peak force and the maximum speed of the slider. In longer duty cycles, the continuous force of the linear motor is limited by the maximum permissible power dissipation. This, in turn, is largely determined by the ambient temperature, cooling, and mounting of the motor. With forced cooling of the linear motor using a fan, the continuous force can be nearly doubled.

Option: MagSpring / Weight Balancer

In vertical installation applications, a weight balancer can be implemented with a MagSpring to assist the linear motor. MagSpring is a purely passive design element that generates a constant force over a defined stroke (see page 469).

Weight balancing can also be done with a mechanical spring or a pneumatic cylinder under constant pressure, mounted in parallel with the linear motor.

In the ideal case, the force of the weight balancer is selected to be the same as or slightly greater than the gravitational force. This causes the vertical axis to remain



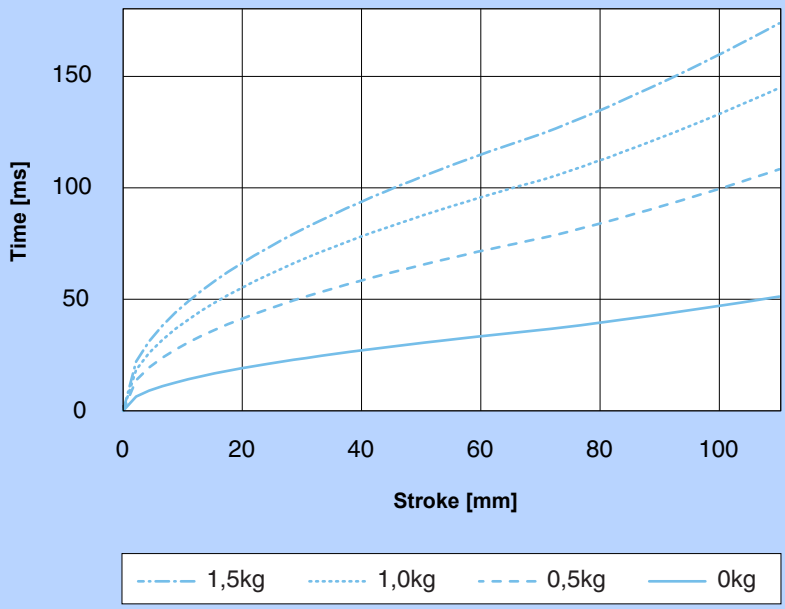
motionless at its current position when the motor is turned off, and may allow the use of a smaller linear motor

Option: Mechanical Brake

A brake prevents the motor from falling to the lower end stop when the motor is turned off in vertical installations.

LinMot linear guide models H01-37 and H01-48 have an option for installing a brake. These are controlled by the Servo Drive, and are automatically released when the motor is turned on. When the motor is turned off, or in case of a fault, the brake is automatically activated, so that the motor stays in its current position.

For horizontal installations, brakes are needed only in rare cases.



Example:
If a linear motor is to move a 0.5kg load mass by 100 mm horizontally, the positioning time, from the time the target position is given until final stop, is 100ms.

Stroke-Time Diagram

The stroke-time diagram shows the minimum movement time achievable for a horizontal point-to-point motion, depending on various load masses. The values shown in the diagram are the time from the start of the motion until final stop at the desired end position, using a time-optimized profile curve.

Stroke-time diagrams allow quick estimations of the minimum positioning time, without considering the thermal behavior of the motor in continuous operation. For a detailed analysis, LinMot Designer configuration software is available, with which entire motion sequences can be simulated and the correct motor can be determined quickly.

If the required motion times or cycles for an application are beyond the limits determined by the configuration program, then the effective performance limit must be determined with practical experiments, in conjunction with the vendor. This is the only way to capture all application-specific influences (additional friction on bearings, thermal boundary conditions, etc.).

Forced Cooling

The continuous force of the linear motor depends mainly on cooling. The values given in the data sheets for continuous force can be significantly increases with the use of forced cooling, using a fan. If a linear motor mounted using standard flanges is additionally cooled by a fan, it can be operated with nearly double the continuous force. The same cooling effect as a fan can be obtained by feeding air between the slider and the stator via a special hole in the stator.

Motor Temperature

Several absolute temperature sensors are located in the windings of LinMot stators. The absolute winding temperature in test operations can be read, and the instantaneous load on the motor can be determined.

In addition, the winding temperature can also be read during operation by the overall controller. This allows use of a diagnostic function that recognizes an increase in motor temperature during machine operation (such as in case of increasing friction), and can issue an appropriate warning.

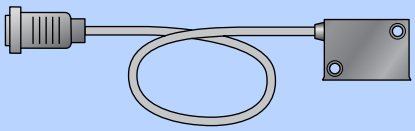
Option: End- and Reference-Switches

Since no mechanical components are used for force transmission in the linear motor, and the force can be limited, end position switches are not needed to protect gearboxes, spindles, etc. If end position switches are nevertheless needed for a special application, they can be connected to the LinMot drive.

As a rule, LinMot linear motors are referenced to a mechanical end stop at power-up. In applications where this is not possible or desirable, initialization can be done with a reference switch, a reference mark, or an end position switch.

Option: External Position Sensors

For high-precision applications, an optional external position measurement system can be used to increase the resolution and position accuracy beyond that of the internal measurement system.



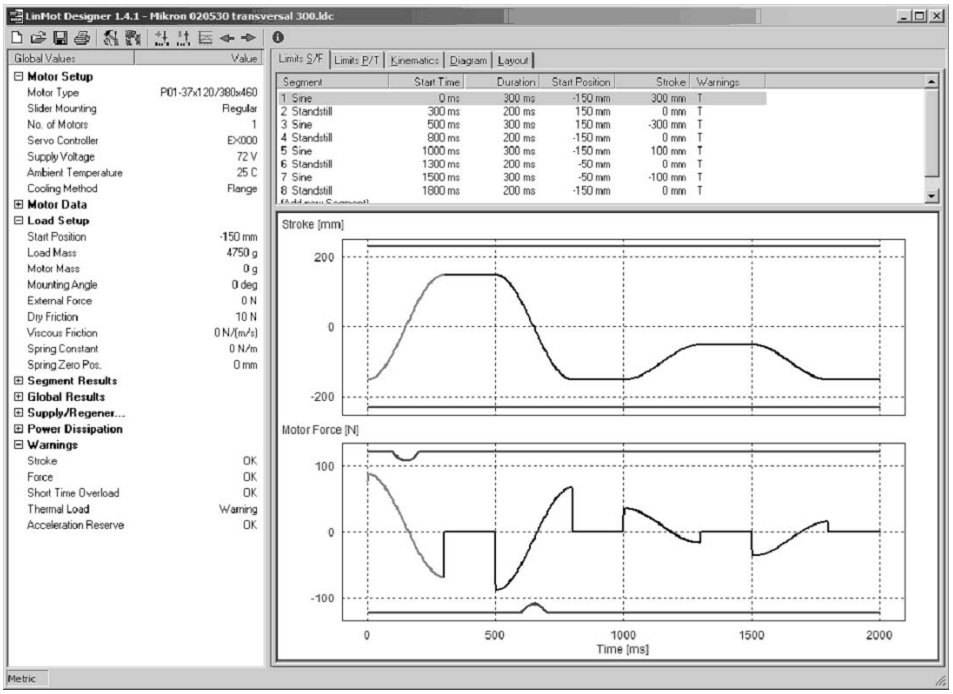
Since the principle of linear direct drives eliminates mechanical play and the external position sensors can be placed precisely where the precision is effective, positioning accuracy in the micrometer and sub-micrometer range can be obtained.

LinMot Servo Drives can operate the linear motors with an external measurement system. Both optical and magnetic systems are suitable for this, with incremental (RS422) or sin/cos interfaces, from any manufacturer.

LinMot carries an external position sensor with an accuracy of 10 µm (see page 530).

Configuration of Linear Motors

The use of a linear drive system starts with configuration of the linear motors. To support the designer during this step, LinMot provides an easy-to-use tool, the LinMot Designer configuration program. LinMot Designer quickly calculates the parameters required for selection of a drive, based on the required motion sequences and loads, and shows them in relation to the selected motor and drive type.



Simulation of a Motion Sequence

The LinMot Designer configuration program calculates the required data points for selecting an appropriate linear motor, such as peak force, nominal force, and maximum speed.

The global data for drive configuration are specified in a first step, such as installation orientation, load mass, friction, etc. The entire motion cycle is then divided into individual motion segments: forward motion, idle time, reverse motion, idle time, etc.

Various motion profiles area available to define motions in the individual segments, such as sinusoidal motions, motion profiles optimized for acceleration or time, etc. Additional, segment-specific data can be defined for each segment, such as increased friction, or a greater load mass during the reverse motion.

After entering the entire motion sequence, the desired motion path is simulated.

Based on the data entered, the critical kinematic data and relevant parameters for the motor are calculated. Both the short-term peak values and the characteristic data for long-term operation are calculated, and compared to those of the selected motor. If the motor performance data are exceeded by the required motion profile, then a warning is automatically given, meaning that the motor selection or the motion sequence must be adjusted.

Motor Drive Database

All data on the LinMot linear motors and Servo Drives is stored in a database in LinMot Designer.

Based on the linear motor and Servo Drive selected, LinMot Designer calculates the drive-specific data, such as maximum and continuous force, maximum speed, etc.

The motor data relevant to the simulation, such as slider or stator mass, are automatically transferred.

Based on the mechanical dimensions, a drawing is generated with the optimal installation orientation.

Dynamic Limits

Based on the motion sequence entered, kinematic data are calculated for each individual segment and for the entire sequence.

The kinematic data from the simulation are displayed graphically in a window, together with the motor limits.

This allows rapid analysis of whether the selected linear motor can follow the required motion profile with the defined load mass.

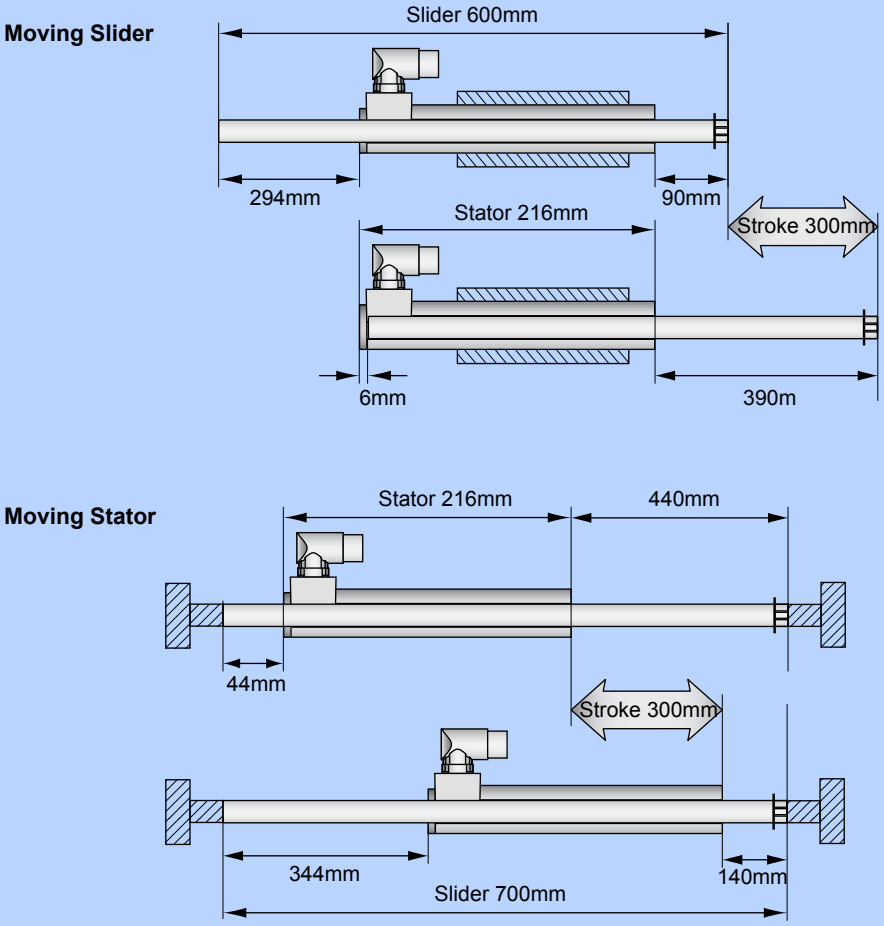
If the application cannot be realized with the selected motor, then a warning is automatically shown.

Continuous Operation

LinMot Designer always assumes for the simulation that the motion sequences entered are executed in continuous operation without pause.

LinMot Designer calculates the power dissipation in continuous operation for the configuration, based on the motion sequence entered, and compares this to the maximum permissible power dissipation of the linear motor.

If the maximum power dissipation of the selected linear motor is exceeded in continuous operation, then an appropriate warning is automatically displayed.



Graphic Display of Results

The motion and force requirements are shown in two graphical windows, together with the motor limits. The graphic representation of the results means that it can be determined at a glance which motion segments must be more closely scrutinized, and how much reserve force the selected linear motor has in the individual segments.

Graphic display of the results also allows simple optimization of the command sequences. For example, individual segments can be optimized for minimum motion times, or entire motion cycles fro minimal power dissipation.

Installation Orientation

Another graphic shows the mechanical dimensions of the linear motor, with the slider at the innermost and outermost positions. For applications with a moving stator, the position of the stator is shown at the two outermost positions.

The dimensions, together with detailed motor data and the results of the configuration, can be stored or printed out for documentation purposes.

LinMot Designer can be downloaded from the home page at www.LinMot.com.

Optimization

Graphic display of the results allows simple and rapid optimization according to various criteria:

- Short motion time
  Optimization for the shortest possible positioning time
- Minimum cycle time
  Optimization for the shortest cycle time for an entire motion sequence
- Minimum power dissipation
  Optimization for minimal power dissipation for the entire motion

Automatic Warnings

If the motor limits are exceeded, an appropriate warning is automatically issued:

- Stroke
  Allowable stroke range exceeded
- Force
  Maximum force not sufficient
- Overload
  Warning of short-term overload, and thermal overload in continuous operation
- Acceleration reserve
  The minimum acceleration reserve of 10 N/kg was not met

Calculation of Power Supply

To estimate the supplied power required, and to size the power supply, LinMot Designer calculates both the peak value and the effective value for the supplied power.

Motor Family P01-23x80 39

Motor Family P01-23x160 63

Motor Family P01-37x120 85

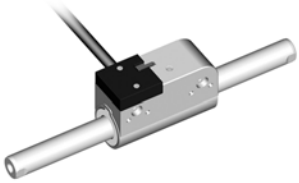
Motor Family P01-37x240 111

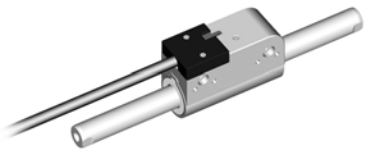
Motor Family P01-48x240 P01-48x360 137 / 165

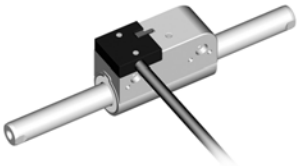
Motor Families P10x70 443

Motor Family P02-23Sx80 199

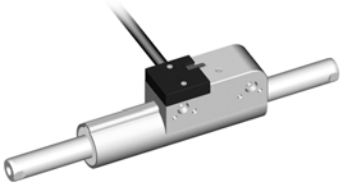
Motor Family P01-37Sx60 241

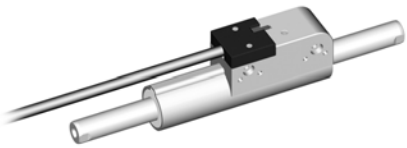


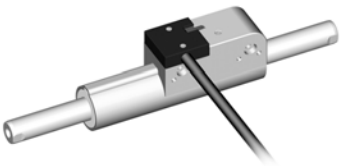




Motor Family P01-37Sx120 261





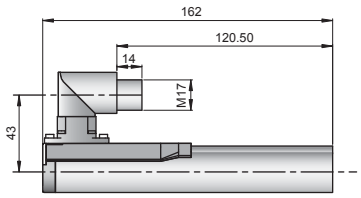


Linear Motors INOX IP69K 279

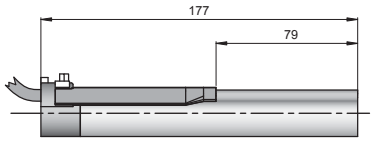
Linear Motors ATEX 291

Linear-Rotary-Motors 301

P01-23x80 Series

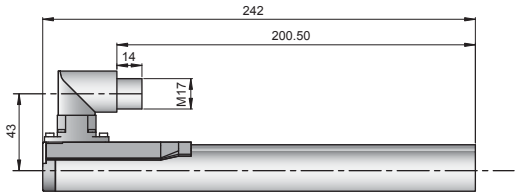


P01-23x80-R



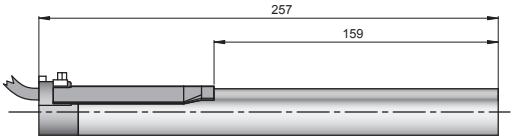
P01-23x80-D100
P01-23x80-R20

P01-23x160 Series



P01-23x160-R
P01-23x160F-R

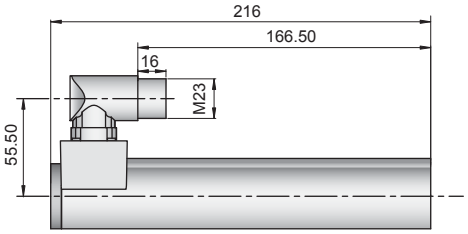
P01-23x160H-HP-R



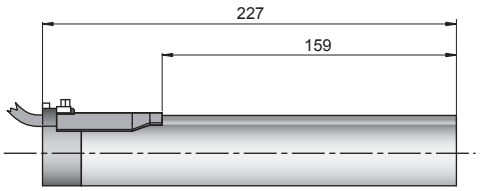
P01-23x160-D100
P01-23x160-R20

P01-23x160F-R20
P01-23x160H-HP-R20

P01-37x120 Series



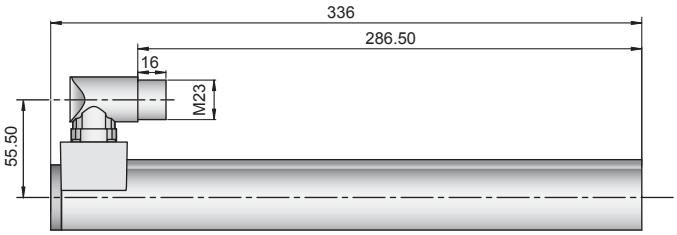
P01-37x120-C
P01-37x120F-HP-C



P01-37x120-P150
P01-37x120-C20

P01-37x120F-HP-C20

P01-37x240 Series

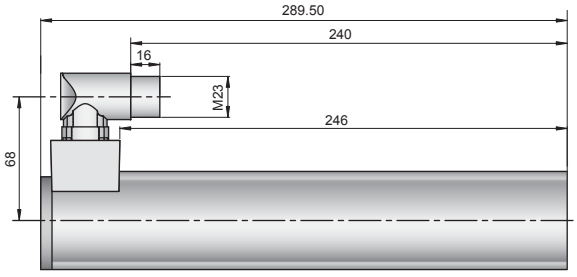


P01-37x240-C
P01-37x240F-C

P01-37x240-P150
P01-37x240-C20

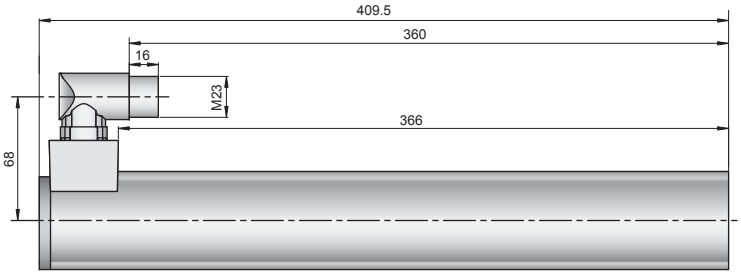
P01-37x240F-C20

P01-48x240 Series



P01-48x240-C
P01-48x240F-C

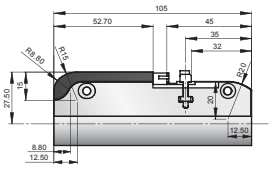
P01-48x360 Series



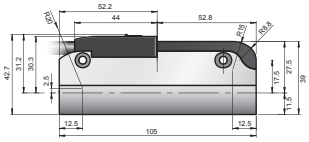
P01-48x360F-C

Dimensions in mm

P02-23Sx80 Series

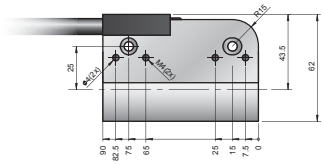


P02-23Sx80-F



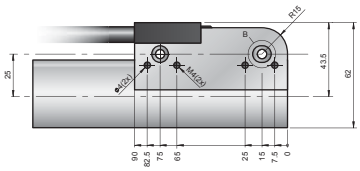
P02-23Sx80F-HP-K

P01-37Sx60 Series



P01-37Sx60-HP-N

P01-37Sx120 Series



P01-37Sx120F-HP-N

Technical Data and Abbreviations

A data sheet is available for every LinMot linear motor, with the technical data, dimensions, stroke-force and path-time diagram. The data and parameters specified in the data sheets are clarified further below.

Extended Stroke Range ES:
Maximum travel distance of the linear motor

Standard Stroke Range SS
Stroke range in which the linear motor develops its greatest force, since the magnets move within all of the windings in the short stroke range. The linear motor force is constant throughout the short stroke range.

peak force E100/E1001
Maximum linear motor force when controlled by a Servo Drive of
series E100 (48 VDC, 3A phase current) or series E1001 (72 VDC, 8A phase current)

peak force E1100/-HC
Maximum linear motor force when controlled by a Servo Drive of series E1100 (72 VDC, 8A phase current), E1100-HC (72 VDC, 15A)
or E1100-XC (72 VDC, 25A)

Continuous force
Force that the linear motor can apply permanently in the SS stroke range, when mounted with a standard flange at 25°C ambient temperature.

Continuous force with fan
Force that the linear motor can apply permanently in the SS stroke range, when mounted with a standard flange with a fan, at 25°C ambient temperature.

Boundary force
Peak force that the motor can apply at both ends of the stroke range S.

Force constant
The force constant describes the relationship between the phase current and the force generated in the SS range of the linear motor.

Max. phase current
Maximum phase current (Ipeak) at 72 VDC
or 48 VDC supply voltage

Max. speed
Maximum speed at 72 VDC or 48 VDC supply voltage

Phase resistance
Phase resistance at 25°C or maximum winding temperature

Phase inductivity
Connection inductivity of a motor phase

Thermal resistance
Thermal resistance of the linear motor with standard flange. Determines the maximum increase in temperature for a given power dissipation level

Thermal time constant
Is the typical reaction time for temperature changes in the stator mounted in a standard flange.

Stator diameter
Outer diameter of the stator, in millimeters. Note that this number is an average value. Precise dimensions are found in the design drawing

Stator length
Length of the stator

Stator mass
Mass of the stator

Slider diameter
Diameter of the slider

Slider length
Length of the slider from end to end

Slider mass
Mass of the slider

Repeatability
Maximum deviation from the intended position, in mm, when traveling to the same position under identical conditions.

Linearity
Absolute accuracy of the drive, relative to the maximum stroke S of the linear motor.

Repeatability with EPS
Maximum deviation from the intended position, in mm, when traveling to the same position under identical conditions with external position sensors.

Linearity with EPS
Maximum linearity error when positioning with external sensors.

P01-23x80/10x50 40

P01-23x80/30x90 42

P01-23x80/50x110 44

P01-23x80/80x140 46

P01-23x80/150x210 48

P01-23x80/210x270 50

P01-23x80/280x340 52

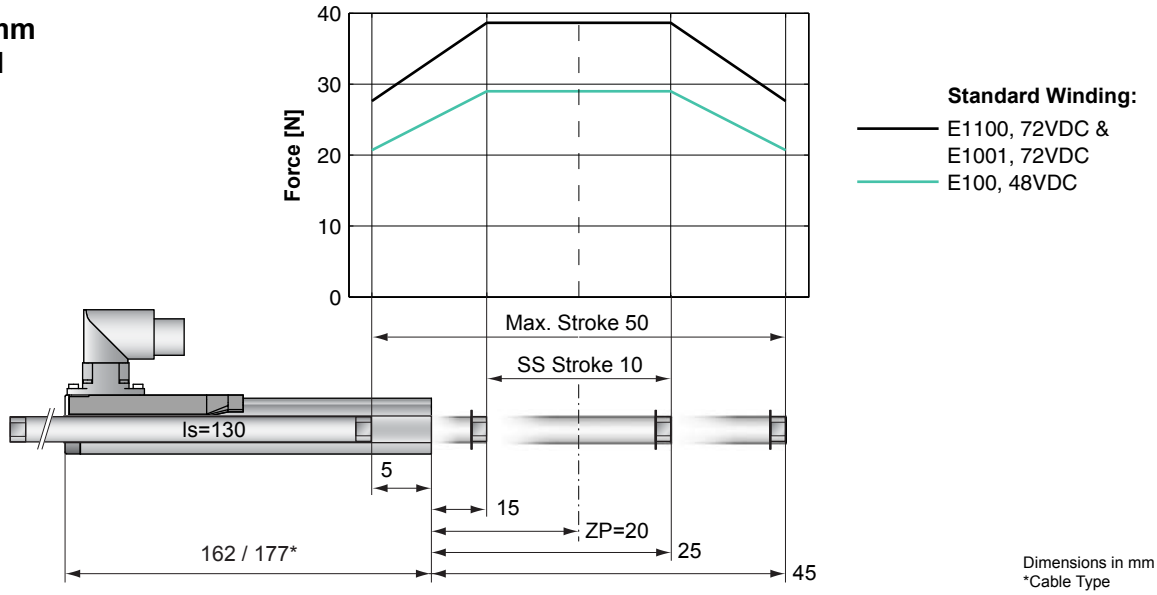
P01-23x80/340x400 54

P01-23x80/440x500 56

P01-23x80/620x680 58

P01-23x80/710x770 60

Max. Stroke: 50mm
Peak Force: 39N

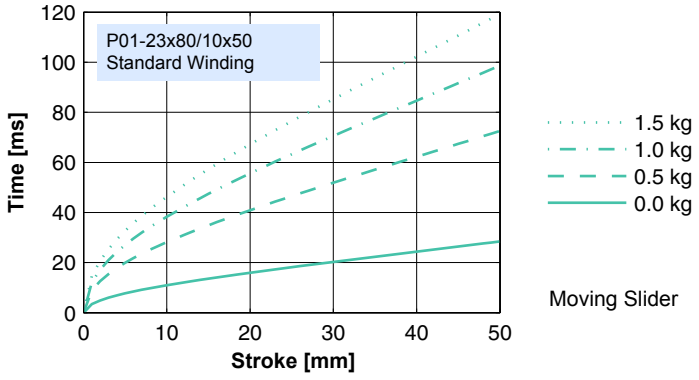


Dimensions in mm
*Cable Type

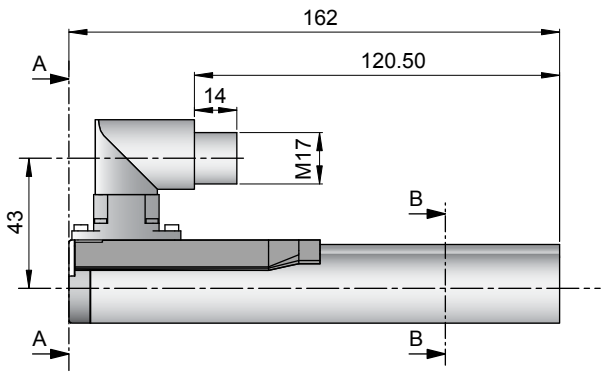
Motor Specification

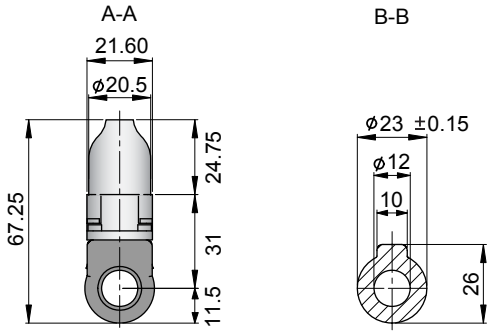
P01-		Connector Type **23x80/10x50-R**	Cable Type **23x80/10x50-D100** **23x80/10x50-R20**
Extended Stroke ES	mm (in)	50 (1.97)	50 (1.97)
Standard Stroke SS	mm (in)	10 (0.39)	10 (0.39)
Peak Force E1100 / E1001	N (lbf)	39 (8.7)	39 (8.7)
Peak Force E100	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force	N (lbf)	8 (1.7)	8 (1.7)
Cont. Force Fan cooling	N (lbf)	14 (3.2)	14 (3.2)
Border Force	%	71	71
Force Constant	N/A (lbf/A)	9.7 (2.17)	9.7 (2.17)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.9 (270)	6.9 (270)
Max. Velocity @ 48VDC	m/s (in/s)	4.6 (180)	4.6 (180)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	130 (5.12)	130 (5.12)
Slider Mass	g (lb)	89 (0.20)	89 (0.20)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.70	±0.70
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



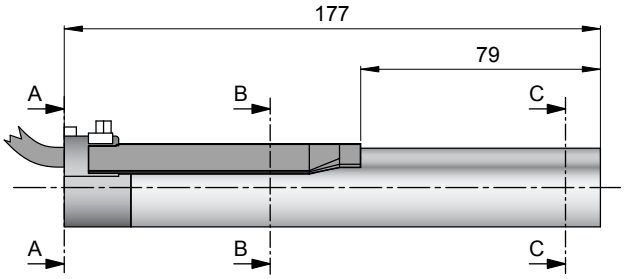
Connector Type

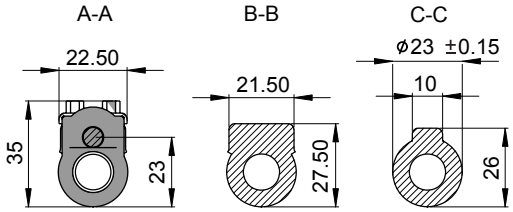




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/10x50-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x130/80	0150-1399

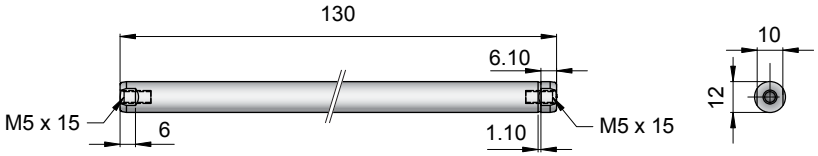
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/10x50-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x130/80	0150-1399
P01-23x80/10x50-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x130/80	0150-1399

Slider

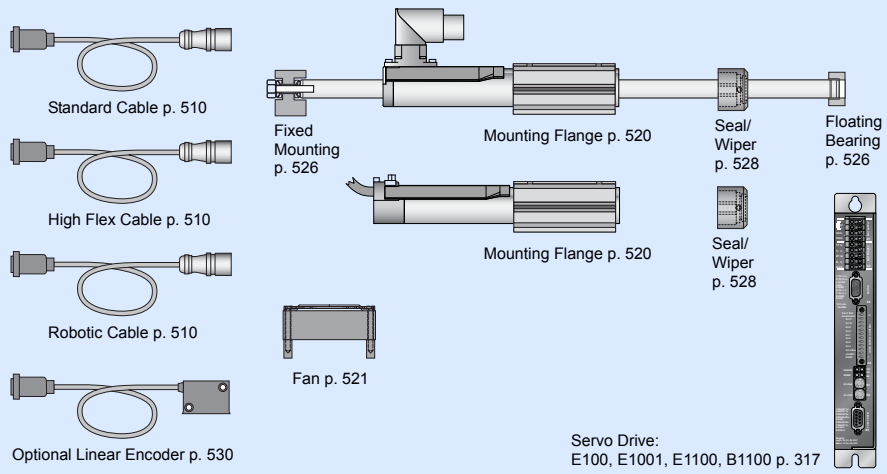


Standard Type	Slider Standard		PL01-12x130/80	0150-1399
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x130/80	0150-1424
	Hollow Slider	hole diameter 4.2mm	PL01-12x130/80-L	0150-1445

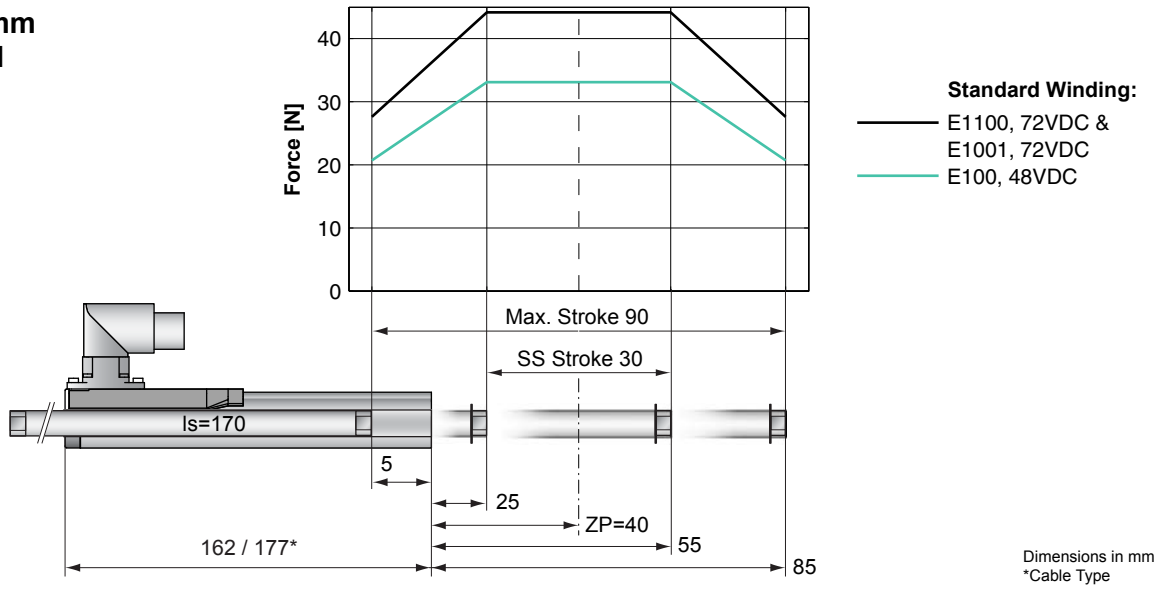
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 90mm
Peak Force: 44N

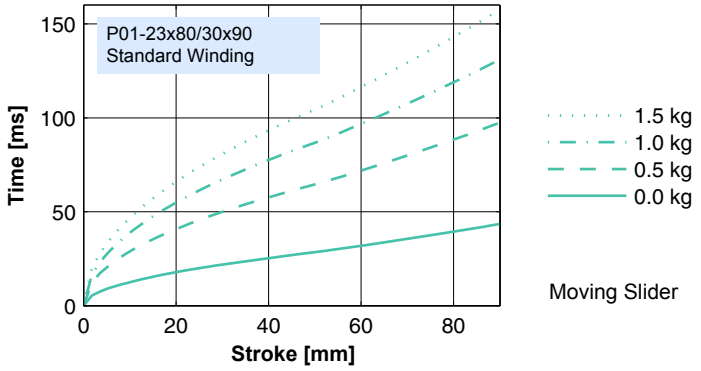


Dimensions in mm
*Cable Type

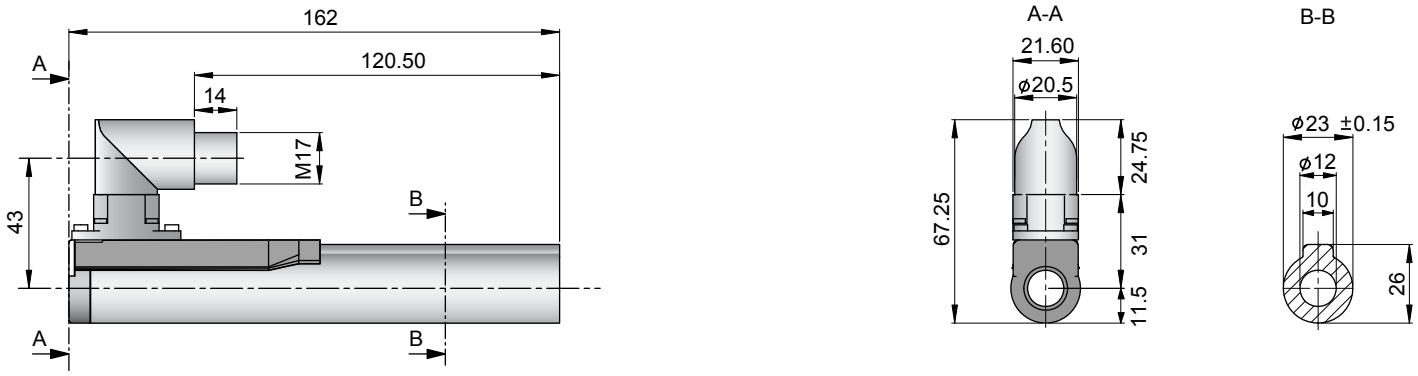
Motor Specification

P01-		Connector Type **23x80/30x90-R**	Cable Type **23x80/30x90-D100** **23x80/30x90-R20**
Extended Stroke ES	mm (in)	90 (3.54)	90 (3.54)
Standard Stroke SS	mm (in)	30 (1.18)	30 (1.18)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	170 (6.69)	170 (6.69)
Slider Mass	g (lb)	118 (0.26)	118 (0.26)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.45	±0.45
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

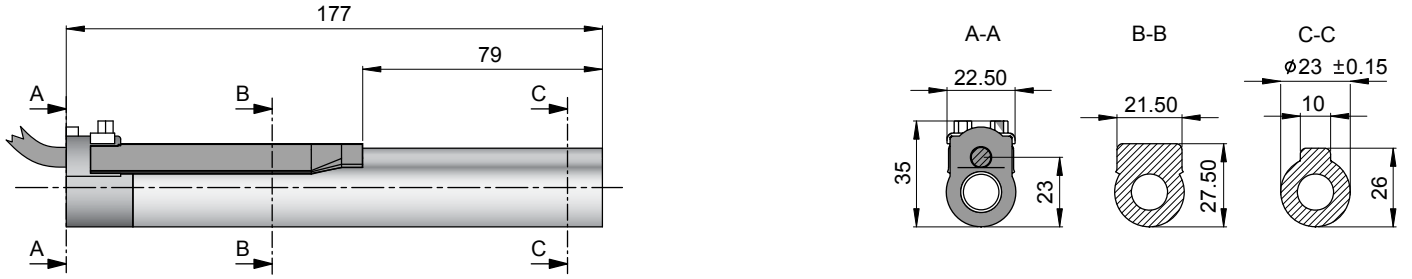


Connector Type



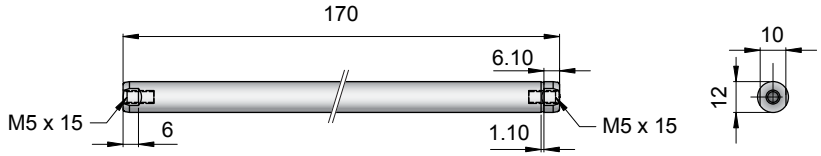
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/30x90-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x170/120	0150-1301

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/30x90-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x170/120	0150-1301
P01-23x80/30x90-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x170/120	0150-1301

Slider

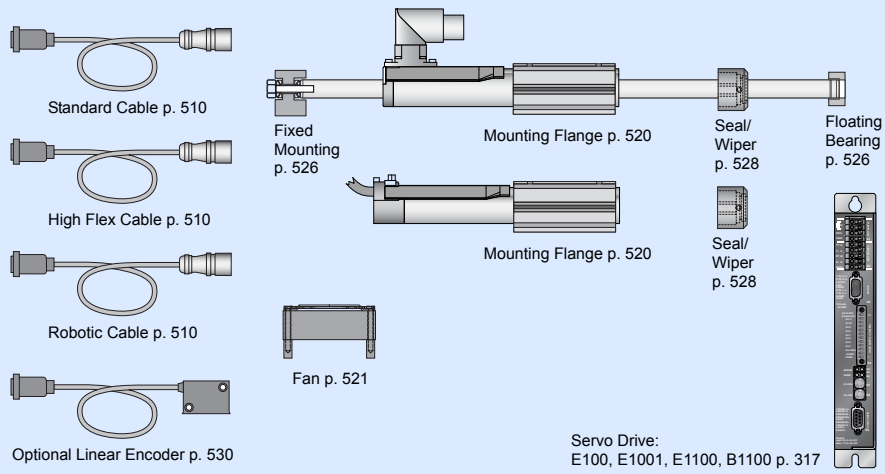


Standard Type	Slider Standard		PL01-12x170/120	0150-1301
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x170/120	0150-1303
	Hollow Slider	hole diameter 4.2mm	PL01-12x170/120-L	0150-1375

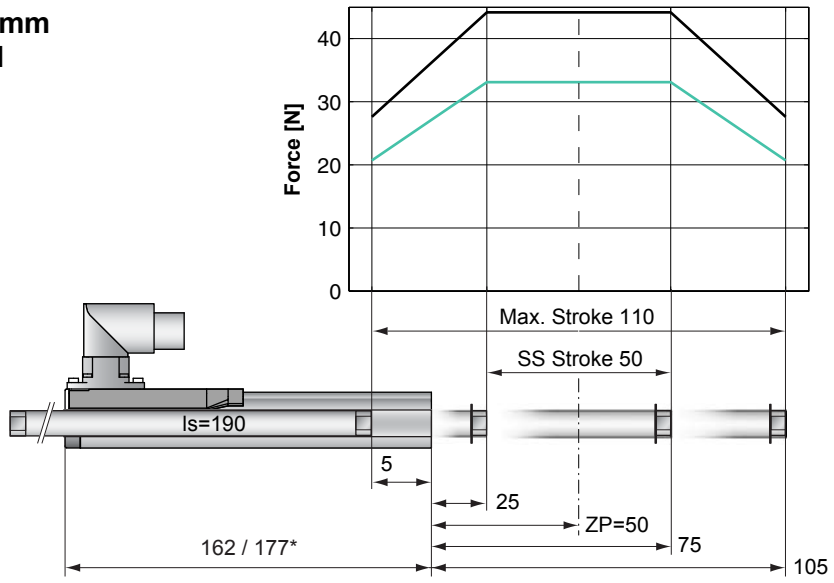
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 110mm
Peak Force: 44N



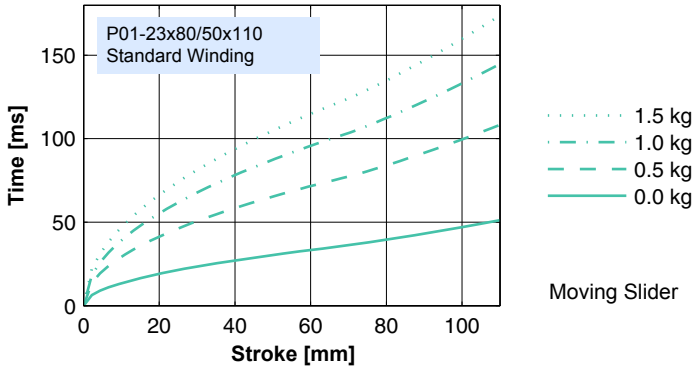
Standard Winding:
E1100, 72VDC &
E1001, 72VDC
E100, 48VDC

Dimensions in mm
*Cable Type

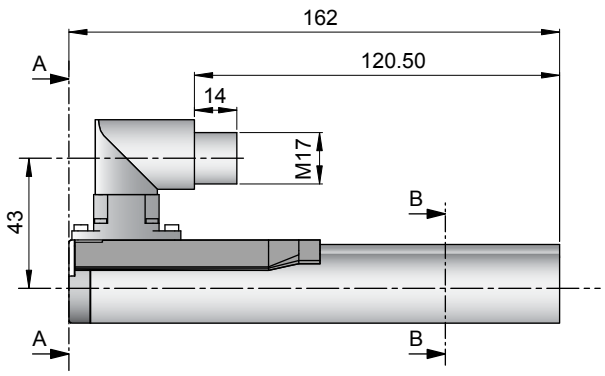
Motor Specification

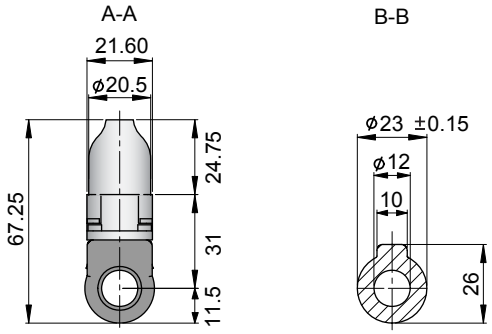
P01-		Connector Type **23x80/50x110-R**	Cable Type **23x80/50x110-D100** **23x80/50x110-R20**
Extended Stroke ES	mm (in)	110 (4.33)	110 (4.33)
Standard Stroke SS	mm (in)	50 (1.97)	50 (1.97)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	190 (7.48)	190 (7.48)
Slider Mass	g (lb)	135 (0.30)	135 (0.30)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.40	±0.40
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



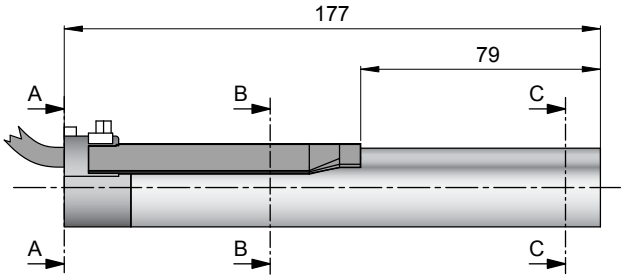
Connector Type

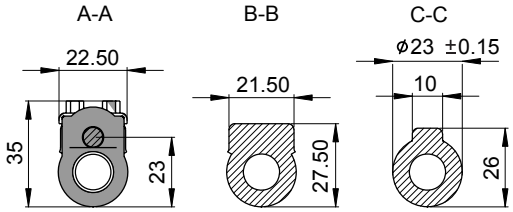




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/50x110-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x190/140	0150-1302

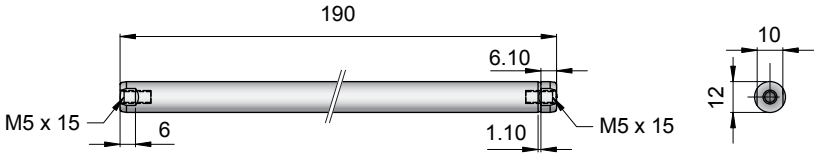
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/50x110-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x190/140	0150-1302
P01-23x80/50x110-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x190/140	0150-1302

Slider

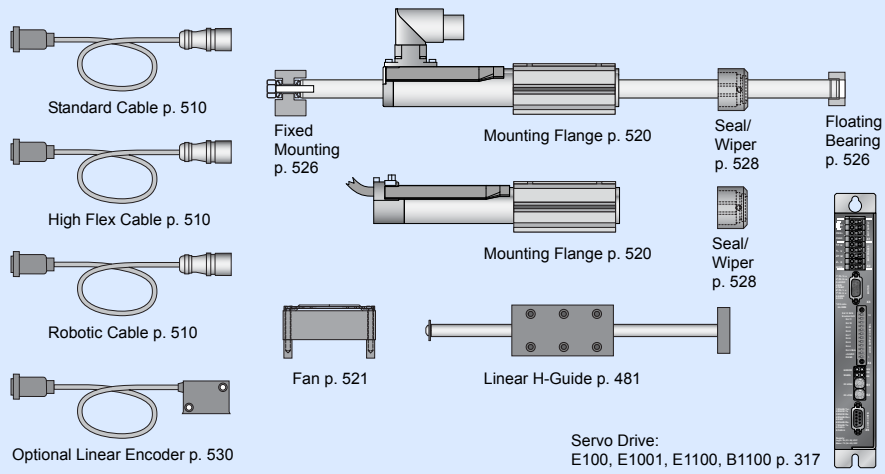


Standard Type	Slider Standard		PL01-12x190/140	0150-1302
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x190/140	0150-1304
	Hollow Slider	hole diameter 4.2mm	PL01-12x190/140-L	0150-1478

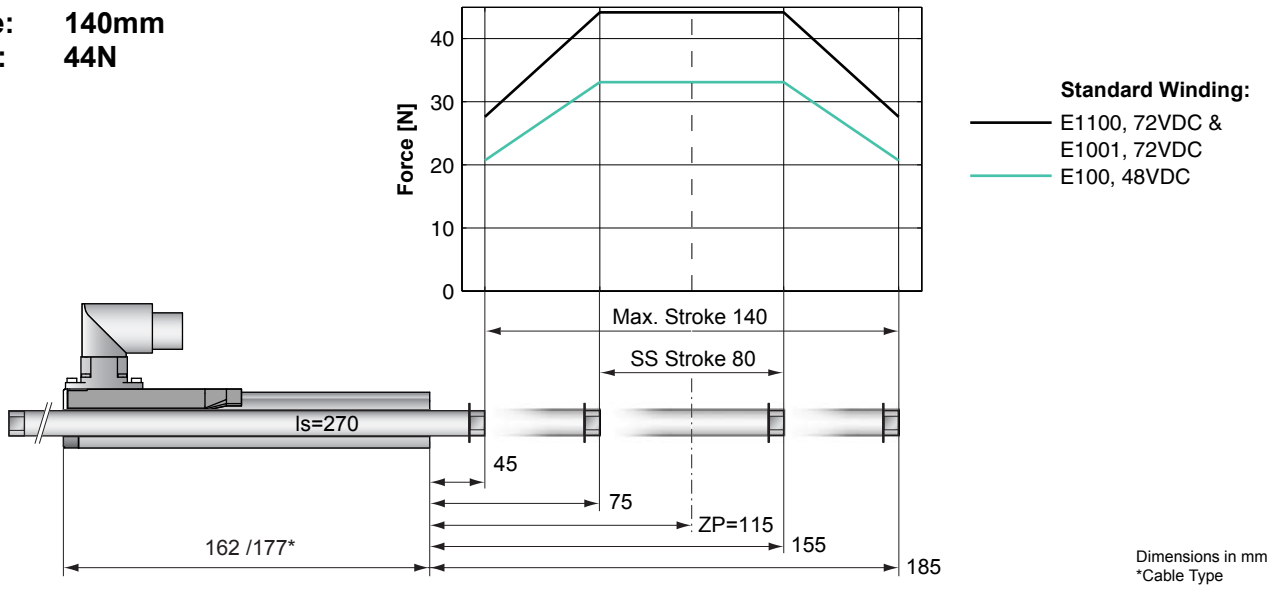
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 140mm
Peak Force: 44N

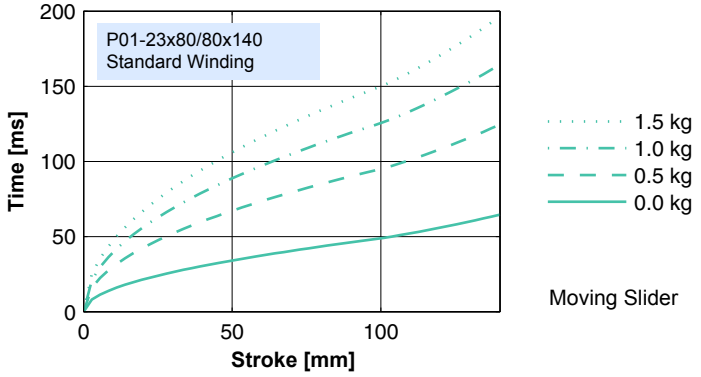


Dimensions in mm
*Cable Type

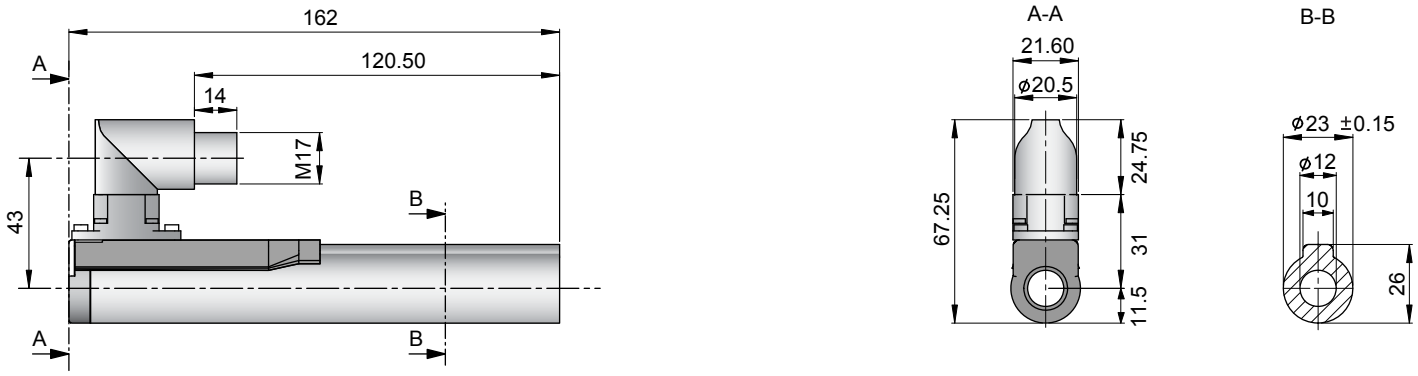
Motor Specification

P01-		Connector Type **23x80/80x140-R**	Cable Type **23x80/80x140-D100** **23x80/80x140-R20**
Extended Stroke ES	mm (in)	140 (5.51)	140 (5.51)
Standard Stroke SS	mm (in)	80 (3.15)	80 (3.15)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	270 (10.63)	270 (10.63)
Slider Mass	g (lb)	171 (0.38)	171 (0.38)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.35	±0.35
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

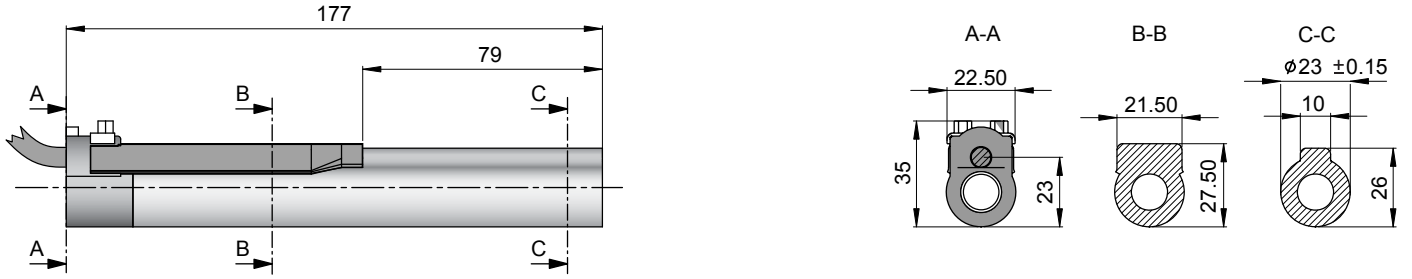


Connector Type



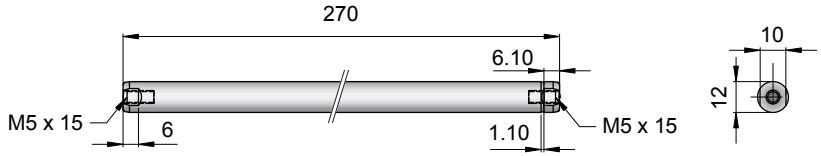
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/80x140-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x270/170	0150-1307

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/80x140-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x270/170	0150-1307
P01-23x80/80x140-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x270/170	0150-1307

Slider

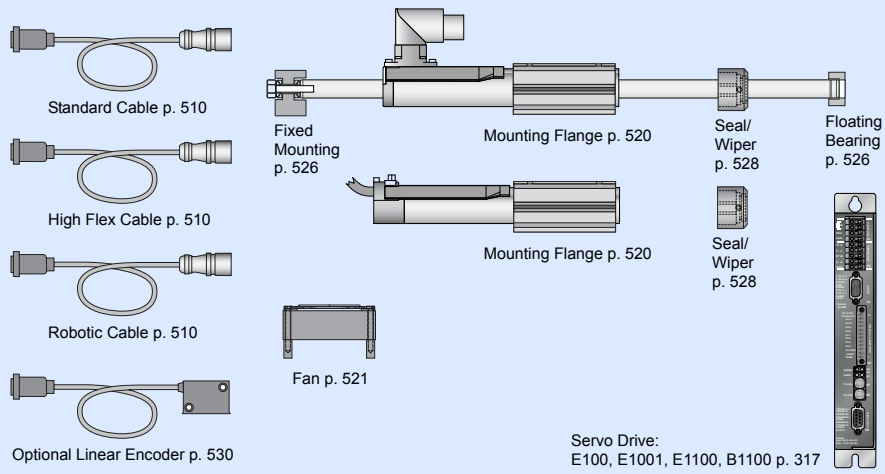


Standard Type	Slider Standard		PL01-12x270/170	0150-1307
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x270/170	0150-1310
	Hollow Slider	hole diameter 4.2mm	PL01-12x270/170-L	0150-1393

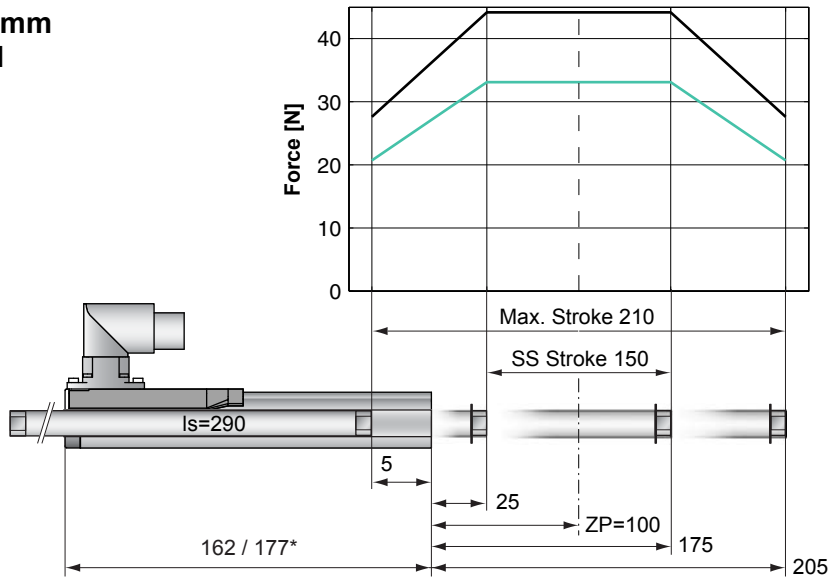
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 210mm
Peak Force: 44N



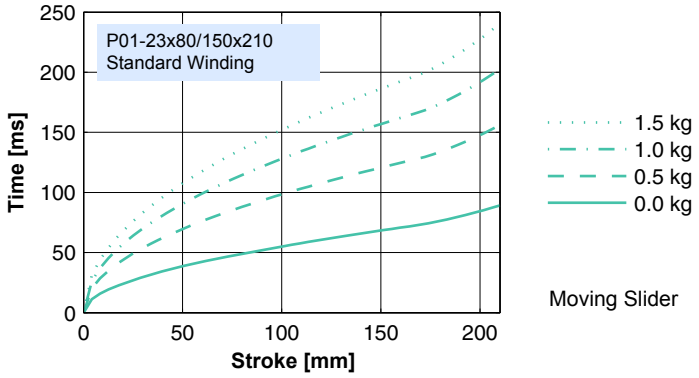
Standard Winding:
E1100, 72VDC &
E1001, 72VDC
E100, 48VDC

Dimensions in mm
*Cable Type

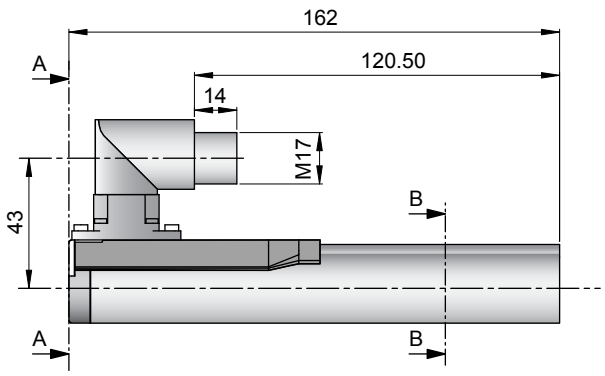
Motor Specification

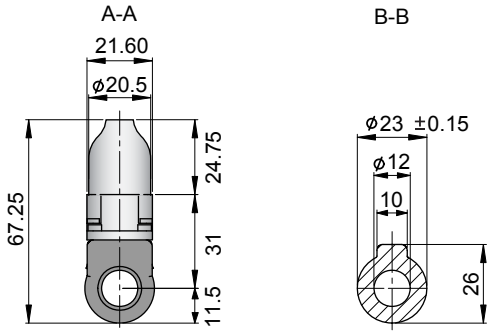
		Connector Type	Cable Type
	P01-	**23x80/150x210-R**	**23x80/150x210-D100** **23x80/150x210-R20**
Extended Stroke ES	mm (in)	210 (8.27)	210 (8.27)
Standard Stroke SS	mm (in)	150 (5.91)	150 (5.91)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	290 (11.42)	290 (11.42)
Slider Mass	g (lb)	220 (0.49)	220 (0.49)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.30	±0.30
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



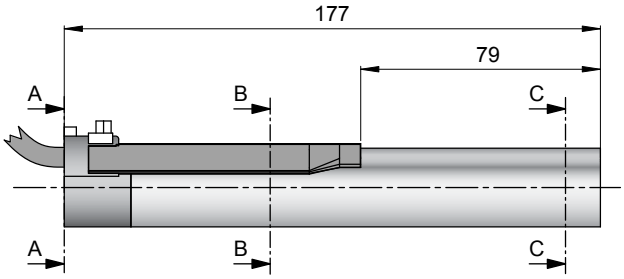
Connector Type

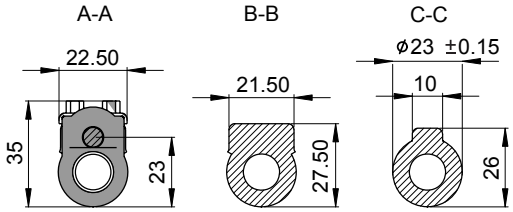




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/150x210-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x290/240	0150-1320

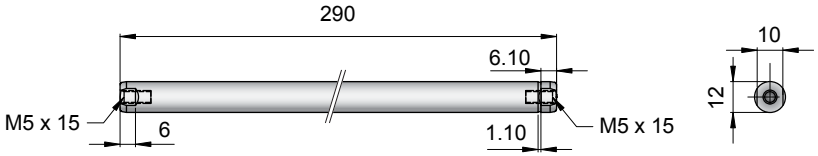
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/150x210-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x290/240	0150-1320
P01-23x80/150x210-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x290/240	0150-1320

Slider

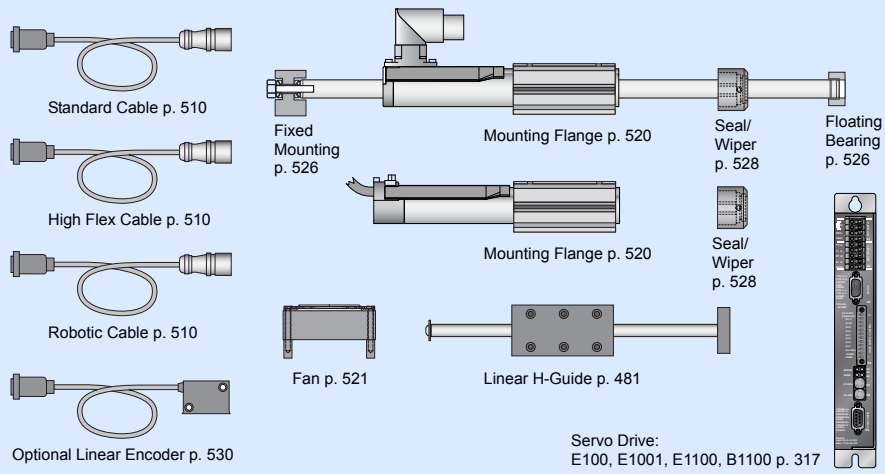


Standard Type	Slider Standard		PL01-12x290/240	0150-1320
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x290/240	0150-1321
	Hollow Slider	hole diameter 4.2mm	PL01-12x290/240-L	0150-1363

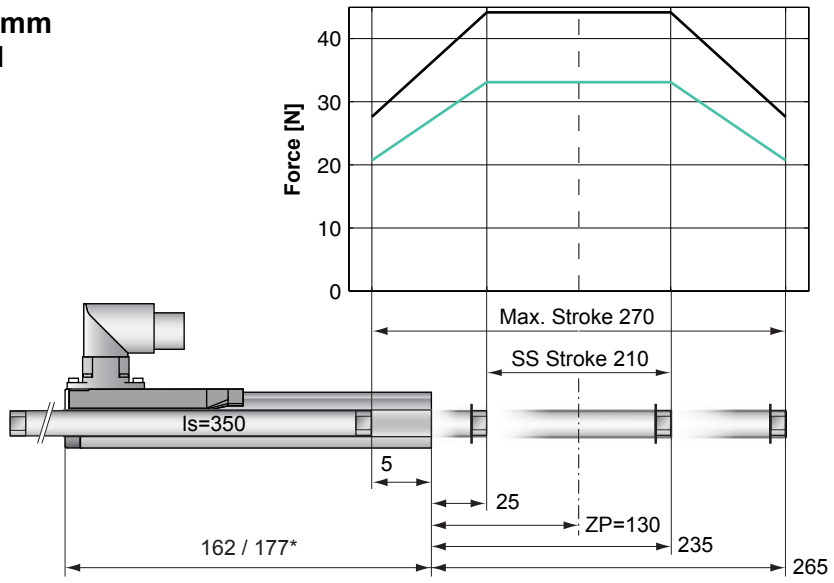
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 270mm
Peak Force: 44N



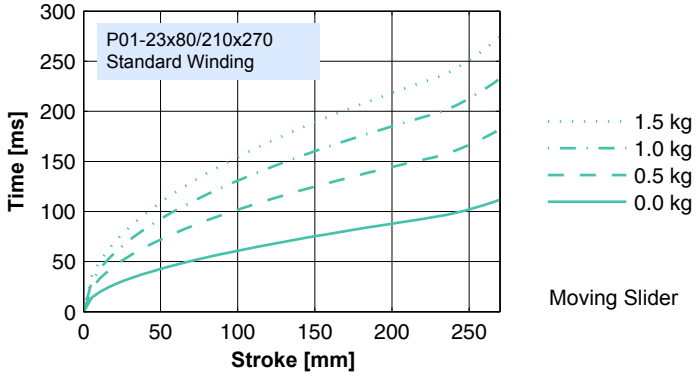
Standard Winding:
E1100, 72VDC &
E1001, 72VDC
E100, 48VDC

Dimensions in mm
*Cable Type

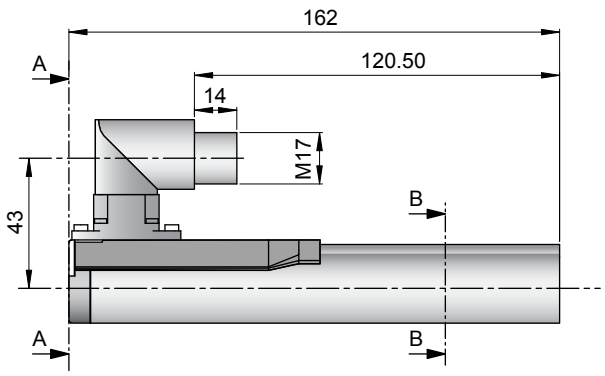
Motor Specification

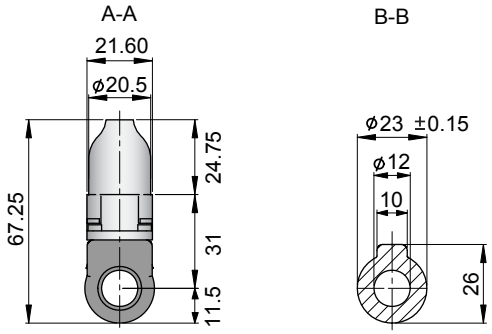
		Connector Type	Cable Type
	P01-	**23x80/210x270-R**	**23x80/210x270-D100** **23x80/210x270-R20**
Extended Stroke ES	mm (in)	270 (10.63)	270 (10.63)
Standard Stroke SS	mm (in)	210 (8.27)	210 (8.27)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	350 (13.78)	350 (13.78)
Slider Mass	g (lb)	271 (0.60)	271 (0.60)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.25	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



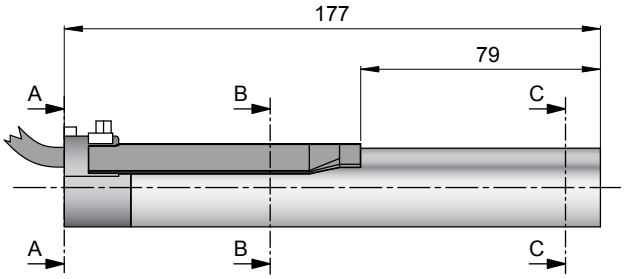
Connector Type

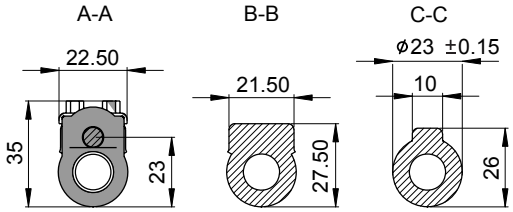




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/210x270-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x350/300	0150-1322

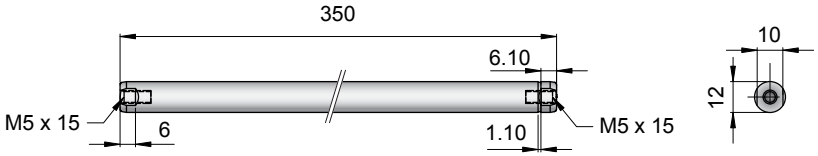
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/210x270-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x350/300	0150-1322
P01-23x80/210x270-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x350/300	0150-1322

Slider

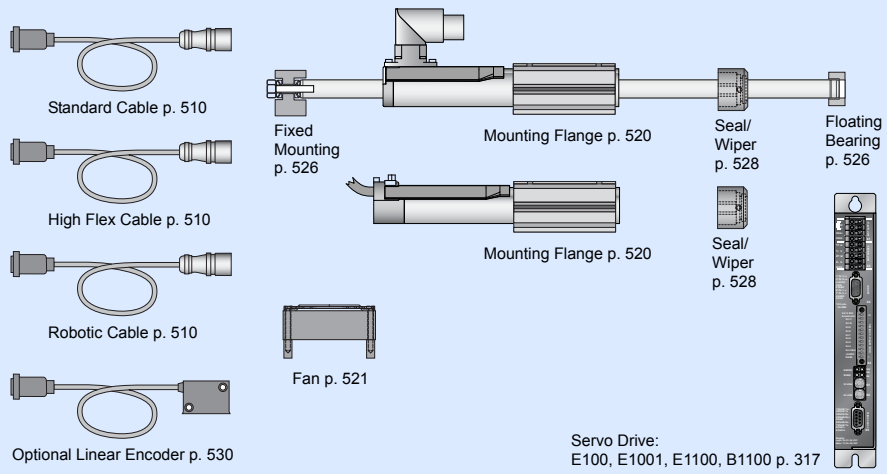


Standard Type	Slider Standard		PL01-12x350/300	0150-1322
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x350/300	0150-1323
	Hollow Slider	hole diameter 4.2mm	PL01-12x350/300-L	0150-1479

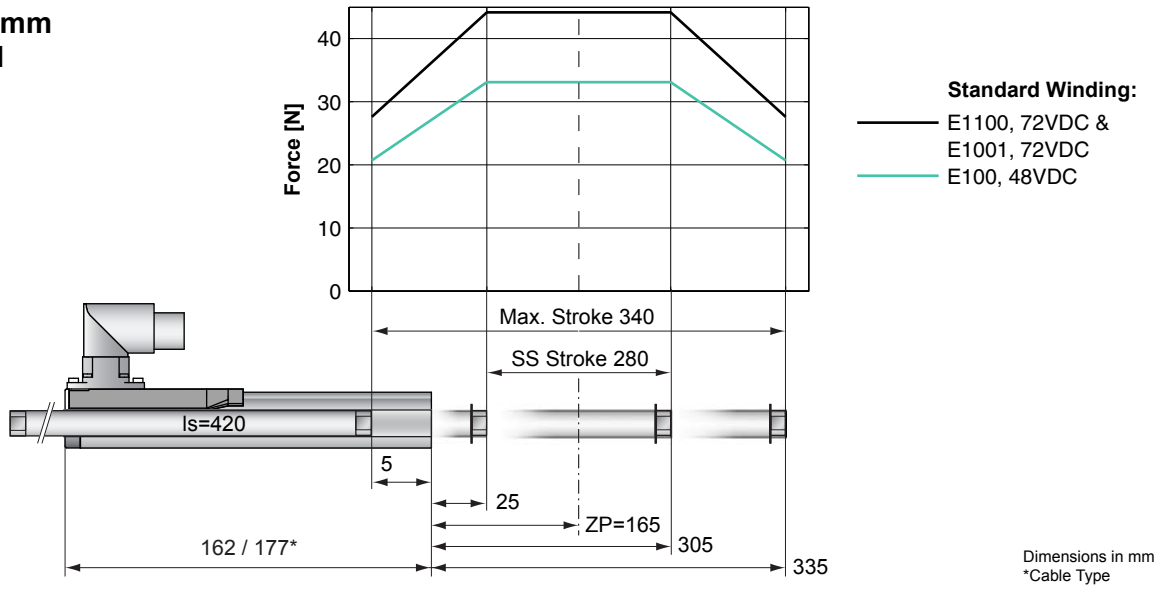
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 340mm
Peak Force: 44N

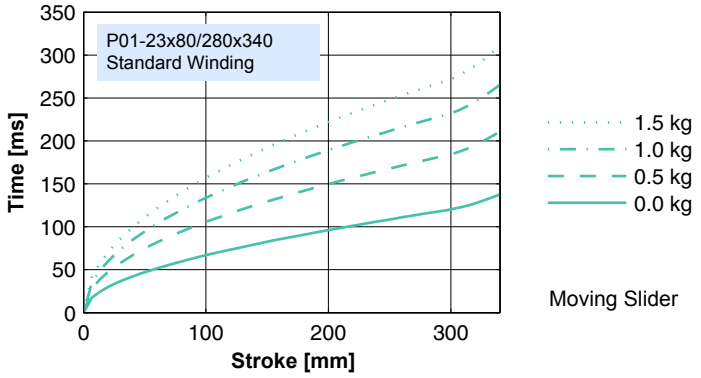


Dimensions in mm
*Cable Type

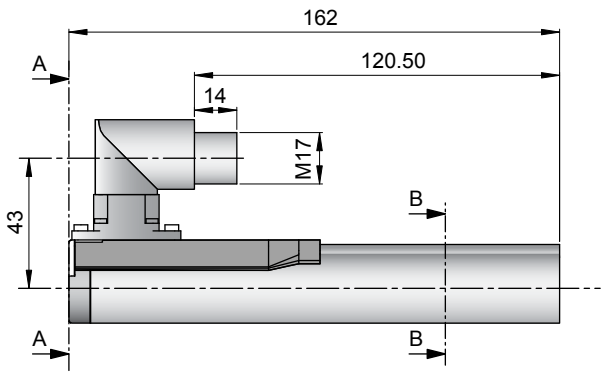
Motor Specification

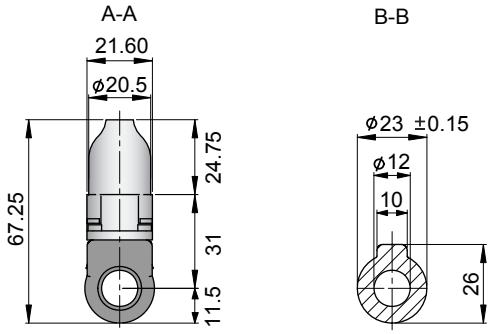
P01-		Connector Type **23x80/280x340-R**	Cable Type **23x80/280x340-D100** **23x80/280x340-R20**
Extended Stroke ES	mm (in)	340 (13.39)	340 (13.39)
Standard Stroke SS	mm (in)	280 (11.02)	280 (11.02)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	420 (16.54)	420 (16.54)
Slider Mass	g (lb)	330 (0.73)	330 (0.73)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.25	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



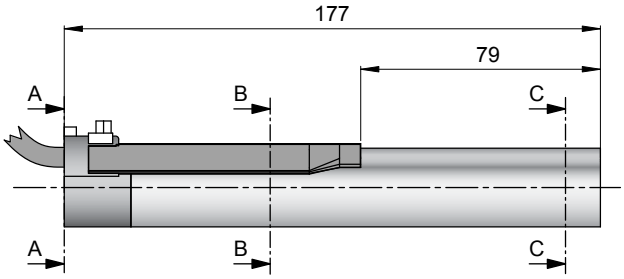
Connector Type

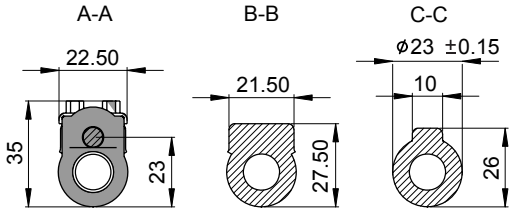




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/280x340-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x420/370	0150-1324

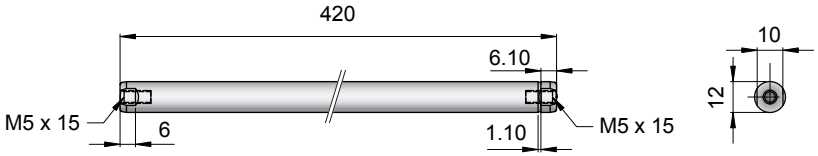
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/280x340-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x420/370	0150-1324
P01-23x80/280x340-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x420/370	0150-1324

Slider

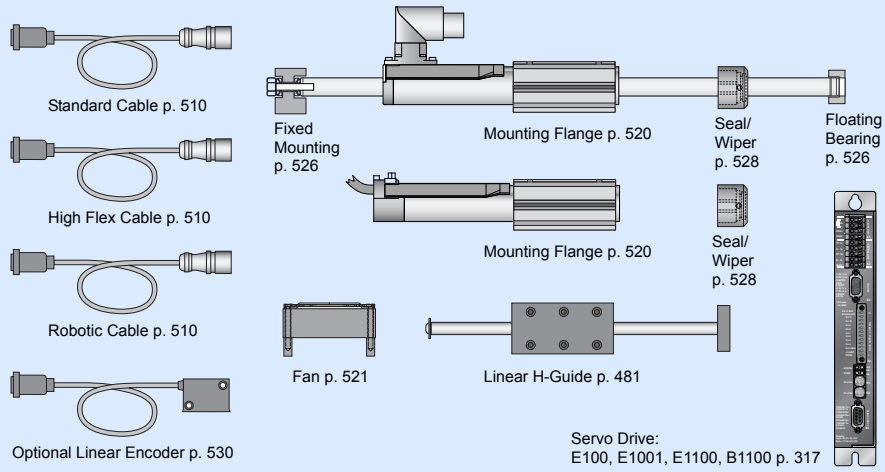


Standard Type	Slider Standard		PL01-12x420/370	0150-1324
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x420/370	0150-1325
	Hollow Slider	hole diameter 4.2mm	PL01-12x420/370-L	0150-1394

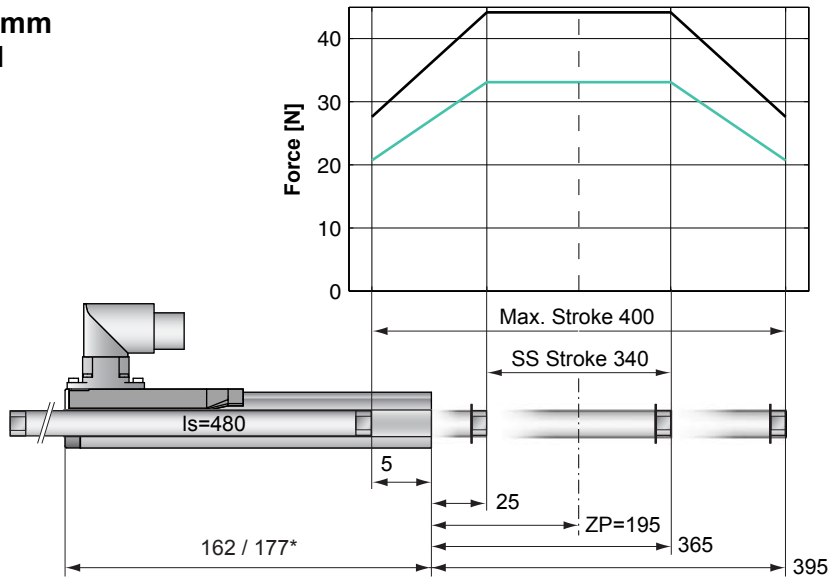
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 400mm
Peak Force: 44N



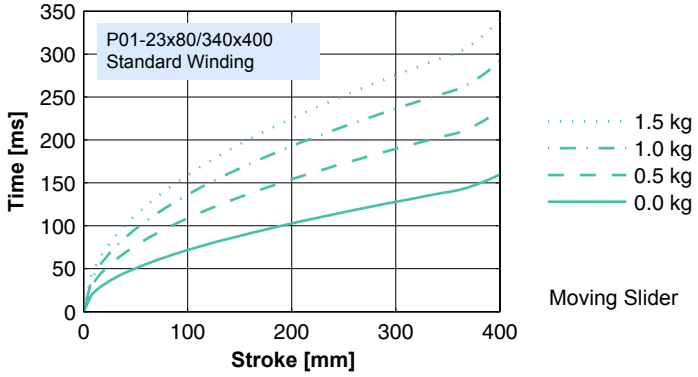
Standard Winding:
E1100, 72VDC &
E1001, 72VDC
E100, 48VDC

Dimensions in mm
*Cable Type

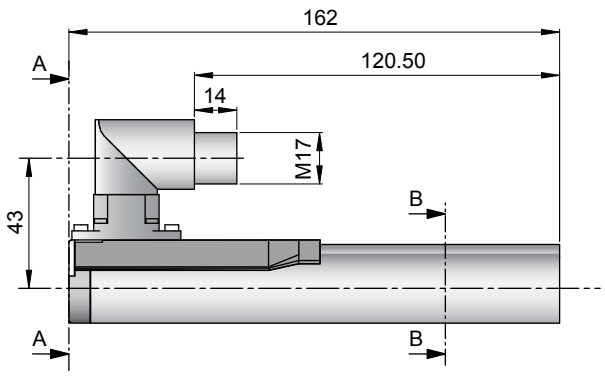
Motor Specification

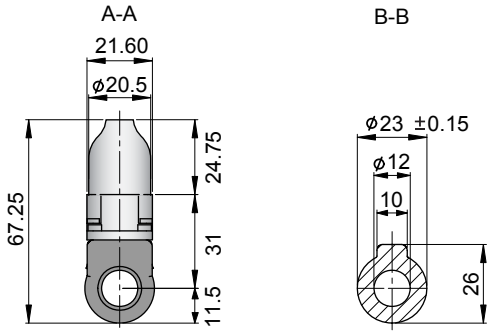
		Connector Type	Cable Type
	P01-	**23x80/340x400-R**	**23x80/340x400-D100** **23x80/340x400-R20**
Extended Stroke ES	mm (in)	400 (15.75)	400 (15.75)
Standard Stroke SS	mm (in)	340 (13.39)	340 (13.39)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	480 (18.90)	480 (18.90)
Slider Mass	g (lb)	380 (0.84)	380 (0.84)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.25	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



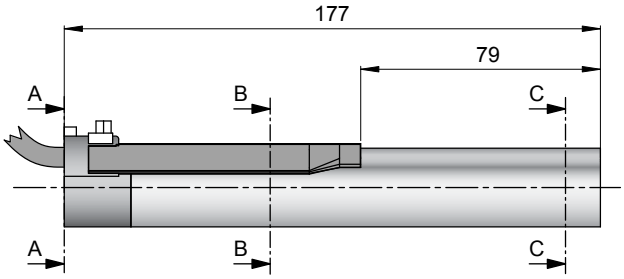
Connector Type

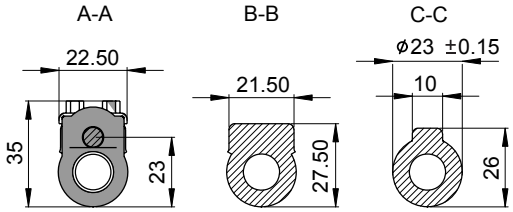




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/340x400-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x480/430	0150-1372

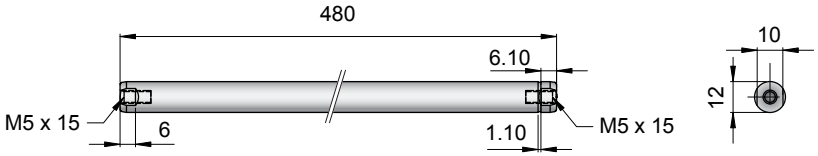
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/340x400-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x480/430	0150-1372
P01-23x80/340x400-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x480/430	0150-1372

Slider

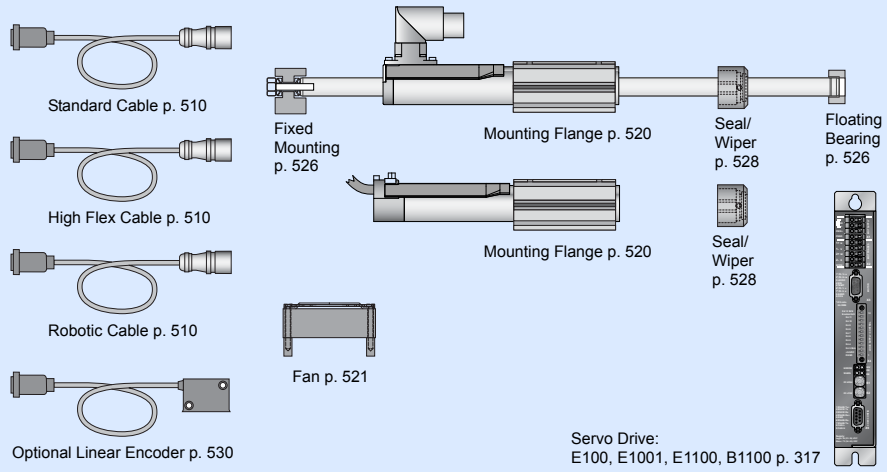


Standard Type	Slider Standard		PL01-12x480/430	0150-1372
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x480/430	0150-1373
	Hollow Slider	hole diameter 4.2mm	PL01-12x480/430-L	on request

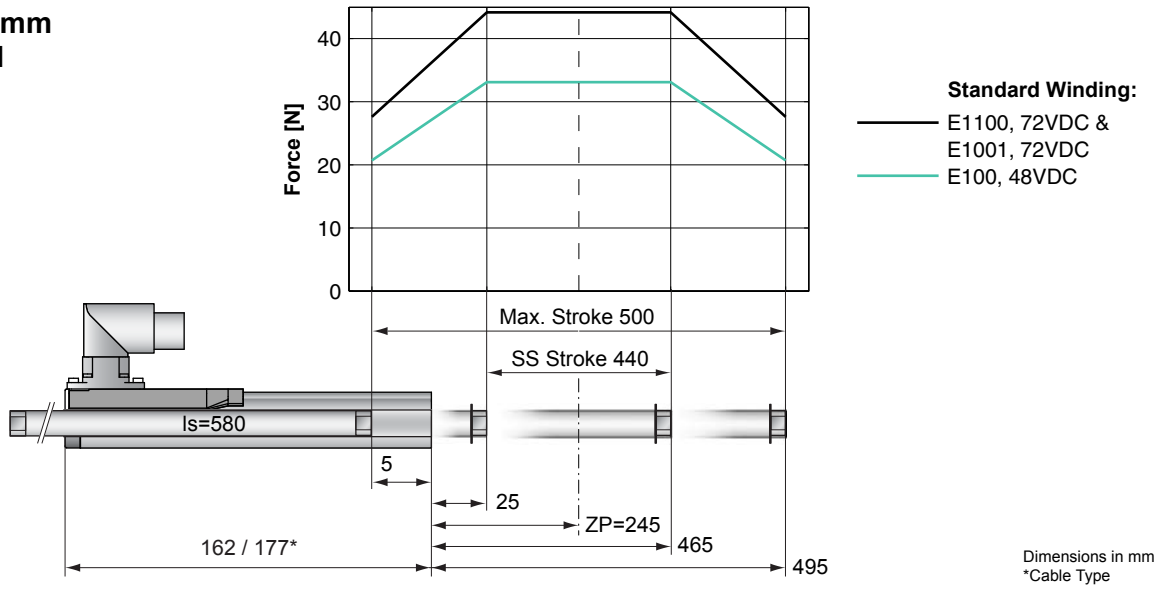
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: **500mm**
Peak Force: **44N**

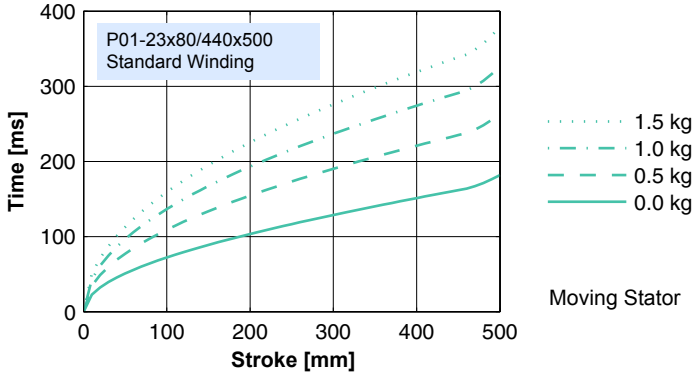


Dimensions in mm
*Cable Type

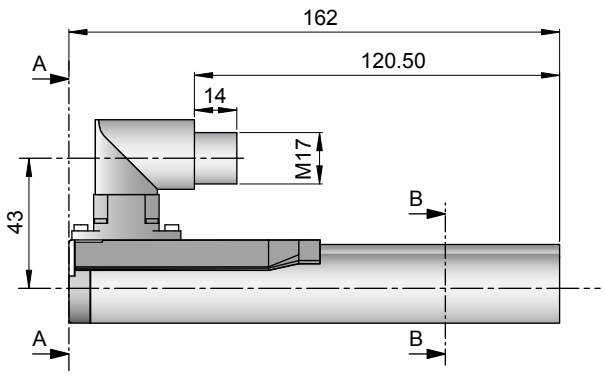
Motor Specification

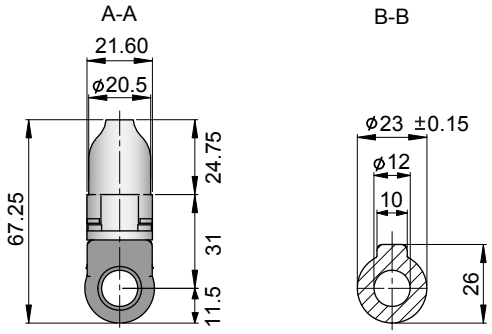
P01-		Connector Type **23x80/440x500-R**	Cable Type **23x80/440x500-D100** **23x80/440x500-R20**
Extended Stroke ES	mm (in)	500 (19.69)	500 (19.69)
Standard Stroke SS	mm (in)	440 (17.32)	440 (17.32)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	580 (22.83)	580 (22.83)
Slider Mass	g (lb)	465 (1.03)	465 (1.03)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



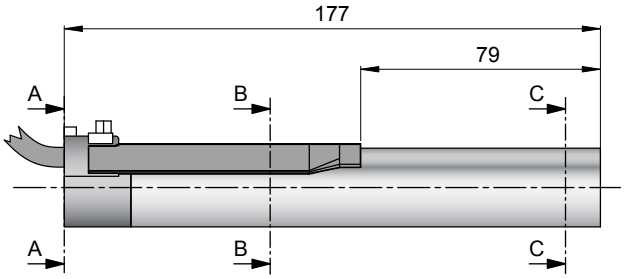
Connector Type

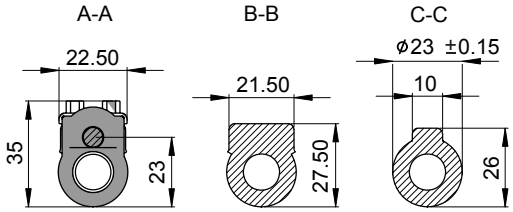




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/440x500-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x580/530	0150-1355

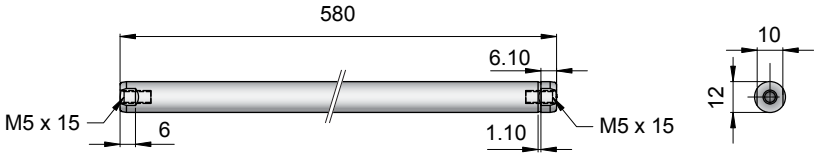
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/440x500-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x580/530	0150-1355
P01-23x80/440x500-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x580/530	0150-1355

Slider

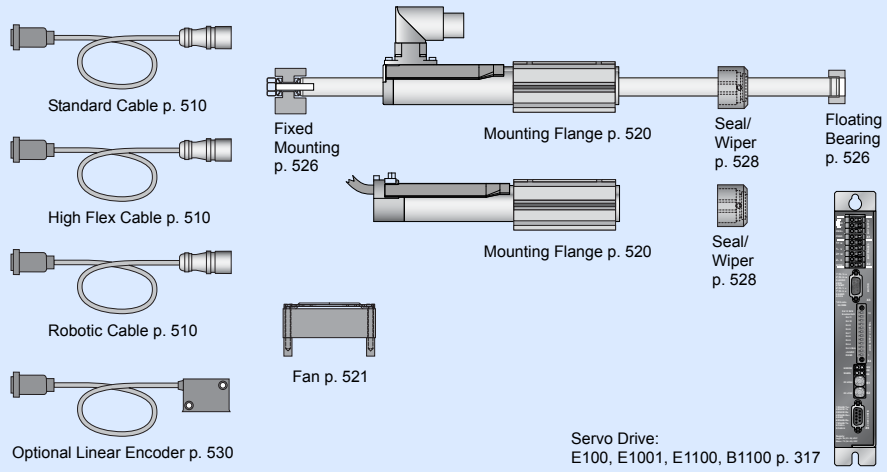


Standard Type	Slider Standard		PL01-12x580/530	0150-1355
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x580/530	0150-1356
	Hollow Slider	hole diameter 4.2mm	PL01-12x580/530-L	0150-1391

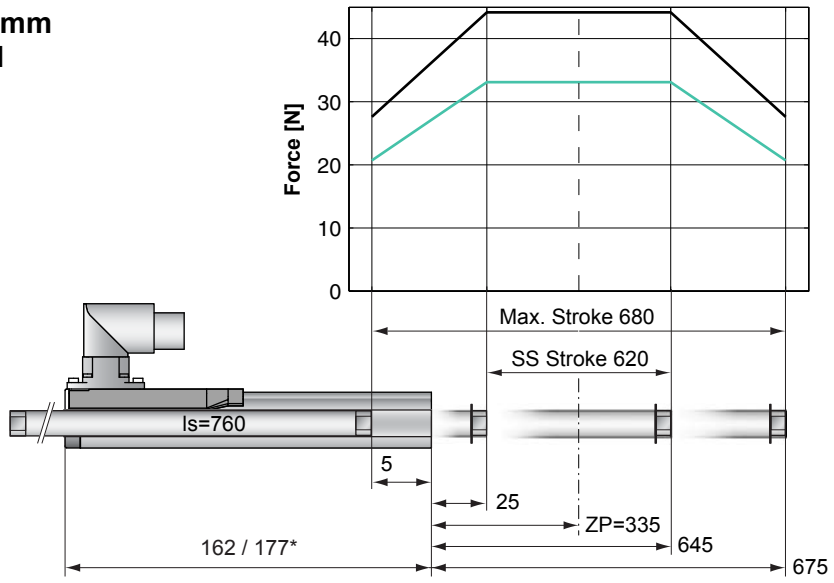
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 680mm
Peak Force: 44N



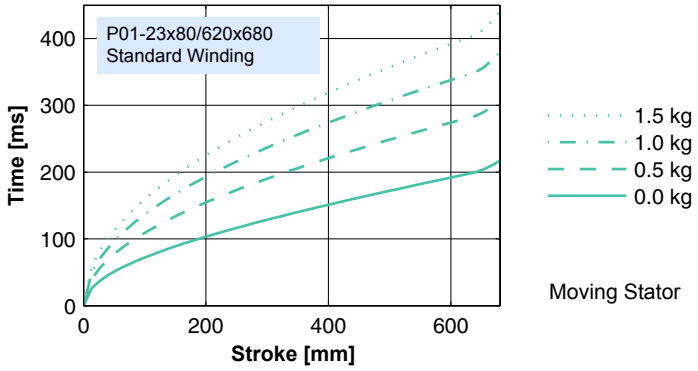
Standard Winding:
E1100, 72VDC &
E1001, 72VDC
E100, 48VDC

Dimensions in mm
*Cable Type

Motor Specification

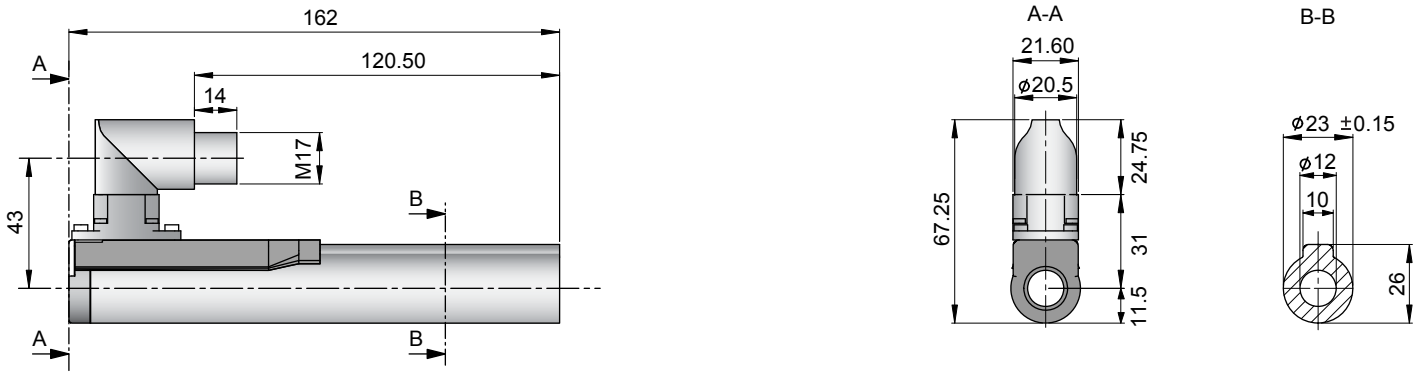
		Connector Type	Cable Type
	P01-	**23x80/620x680-R**	**23x80/620x680-D100** **23x80/620x680-R20**
Extended Stroke ES	mm (in)	680 (26.77)	680 (26.77)
Standard Stroke SS	mm (in)	620 (24.41)	620 (24.41)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	760 (29.92)	760 (29.92)
Slider Mass	g (lb)	615 (1.36)	615 (1.36)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



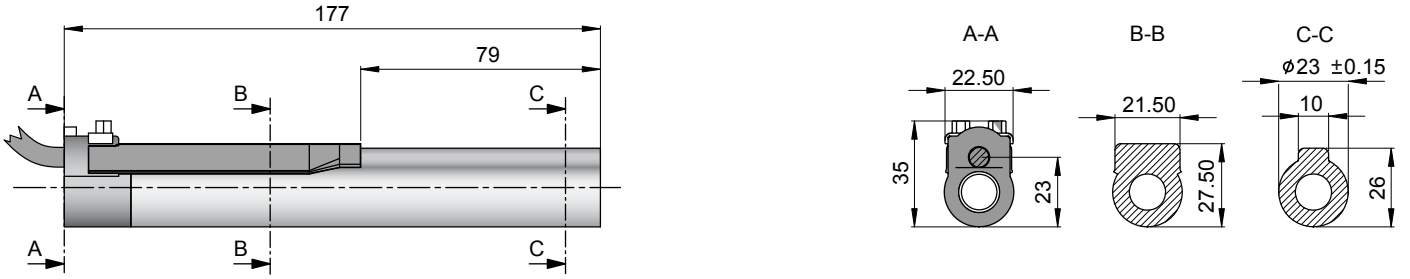
Moving Stator

Connector Type



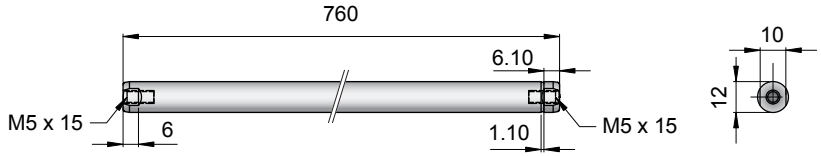
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/620x680-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x760/710	0150-1366

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/620x680-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x760/710	0150-1366
P01-23x80/620x680-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x760/710	0150-1366

Slider

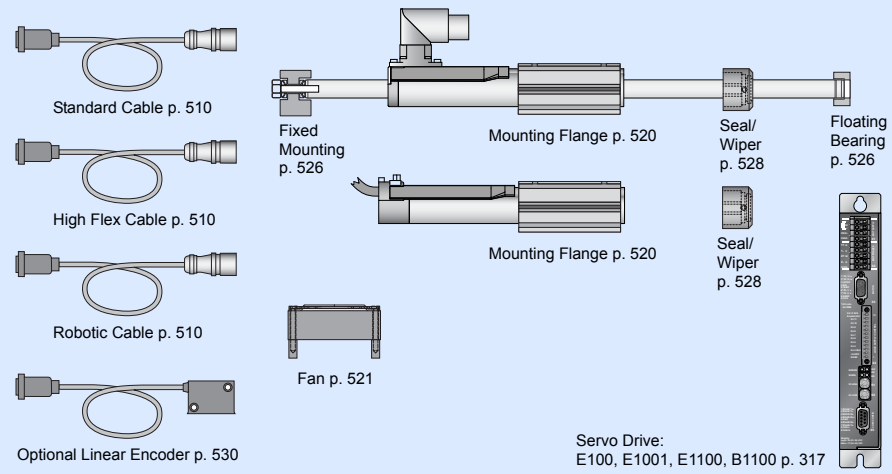


Standard Type	Slider Standard		PL01-12x760/710	0150-1366
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x760/710	on request
	Hollow Slider	hole diameter 4.2mm	PL01-12x760/710-L	0150-1392

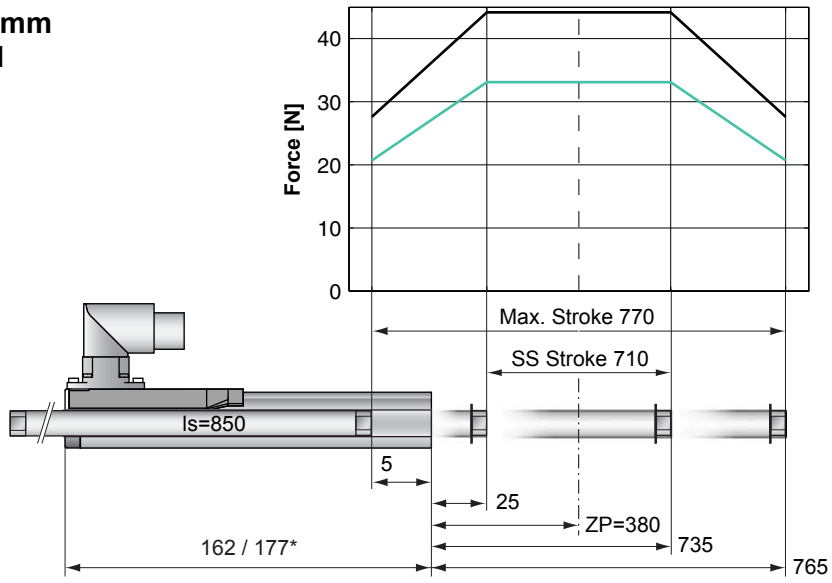
Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 770mm
Peak Force: 44N



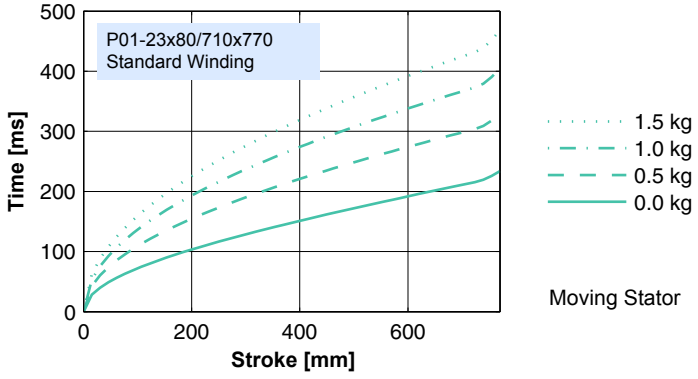
Standard Winding:
E1100, 72VDC &
E1001, 72VDC
E100, 48VDC

Dimensions in mm
*Cable Type

Motor Specification

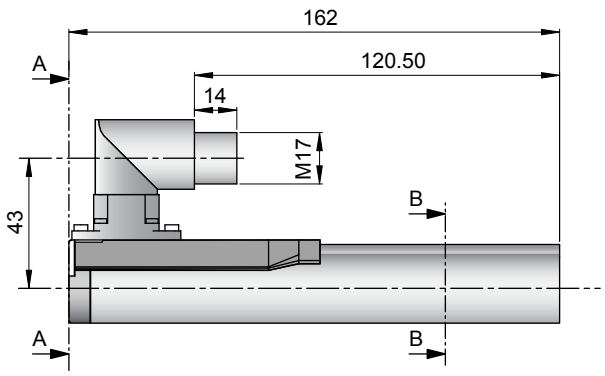
		Connector Type	Cable Type
P01-		**23x80/710x770-R**	**23x80/710x770-D100** **23x80/710x770-R20**
Extended Stroke ES	mm (in)	770 (30.31)	770 (30.31)
Standard Stroke ES	mm (in)	710 (27.95)	710 (27.95)
Peak Force E1100 / E1001	N (lbf)	44 (9.9)	44 (9.9)
Peak Force E100	N (lbf)	33 (7.4)	33 (7.4)
Cont. Force	N (lbf)	9 (2.0)	9 (2.0)
Cont. Force Fan cooling	N (lbf)	16 (3.7)	16 (3.7)
Border Force	%	63	63
Force Constant	N/A (lbf/A)	11.0 (2.48)	11.0 (2.48)
Max. Current @ 72VDC	A	4.0	4.0
Max. Current @ 48VDC	A	3.8	3.8
Max. Velocity @ 72VDC	m/s (in/s)	6.0 (236)	6.0 (236)
Max. Velocity @ 48VDC	m/s (in/s)	4.0 (157)	4.0 (157)
Phase Resist. 25/80 °C	Ohm	10.3/12.5	10.3/12.5
Phase Inductance	mH	1.4	1.4
Thermal Resistance	°K/W	7.0	7.0
Thermal Time Const.	sec	1600	1600
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	162 (6.38)	177 (6.97)
Stator Mass	g (lb)	265 (0.58)	265 (0.58)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	850 (33.46)	850 (33.46)
Slider Mass	g (lb)	690 (1.52)	690 (1.52)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

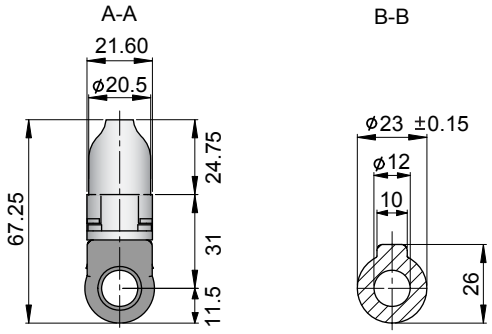
Position-Time Diagram



Moving Stator

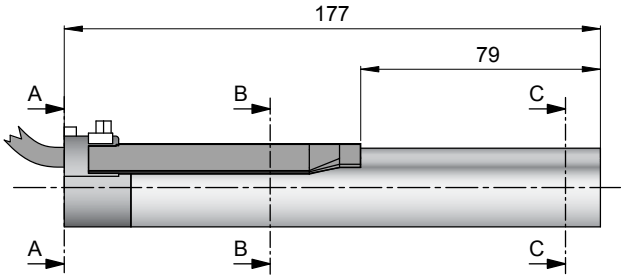
Connector Type

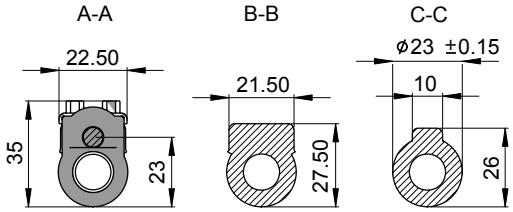




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/710x770-R	-->	PS01-23x80-R	0150-1233	&	PL01-12x850/800	0150-1365

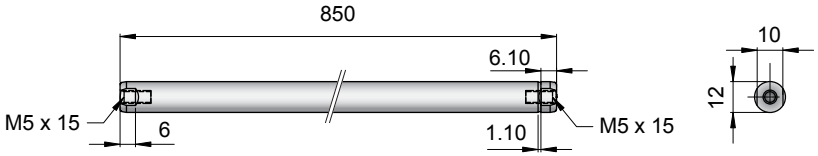
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x80/710x770-D100	-->	PS01-23x80-D100	0150-1201	&	PL01-12x850/800	0150-1365
P01-23x80/710x770-R20	-->	PS01-23x80-R20	0150-1241	&	PL01-12x850/800	0150-1365

Slider

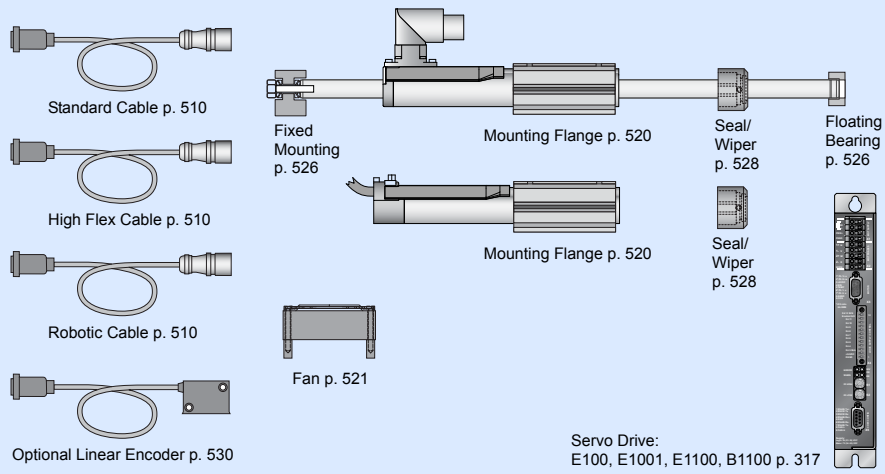


Standard Type	Slider Standard		PL01-12x850/800	0150-1365
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x850/800	on request
	Hollow Slider	hole diameter 4.2mm	PL01-12x850/800-L	on request

Connectors

Motor Connector Wiring Cable Length: P01-23x80/..x.. 1.0m P01-23x80/..x..-R20 0.2m		P01-23....-R P01-23....-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



P01-37x120/20x100 86

P01-37x120/80x160 88

P01-37x120/180x260 90

P01-37x120/280x360 92

P01-37x120/380x460 94

P01-37x120/480x560 96

P01-37x120/580x660 98

P01-37x120/680x760 100

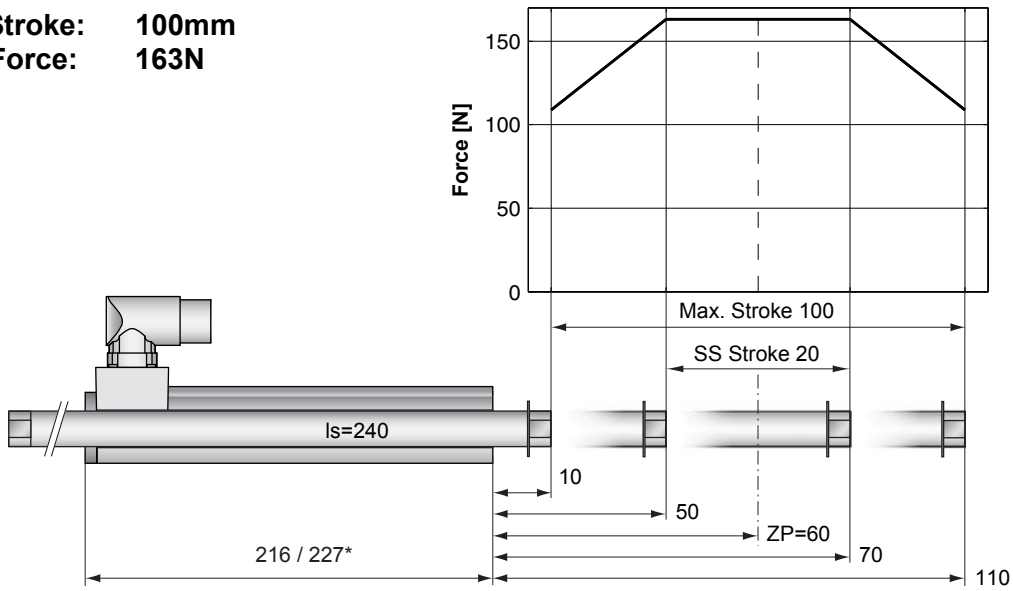
P01-37x120/780x860 102

P01-37x120/980x1060 104

P01-37x120/1180x1260 106

P01-37x120/1380x1460 108

Max. Stroke: 100mm
Peak Force: 163N



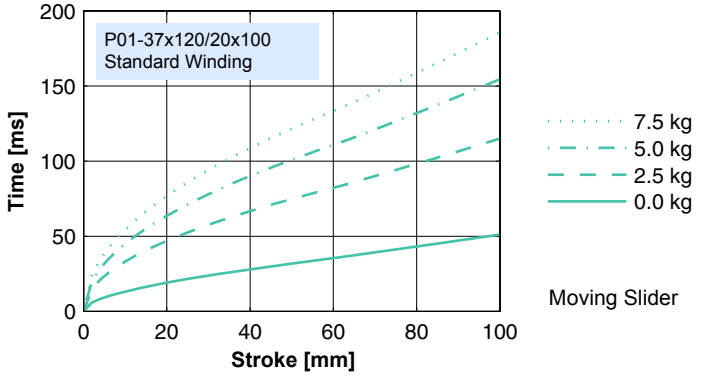
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

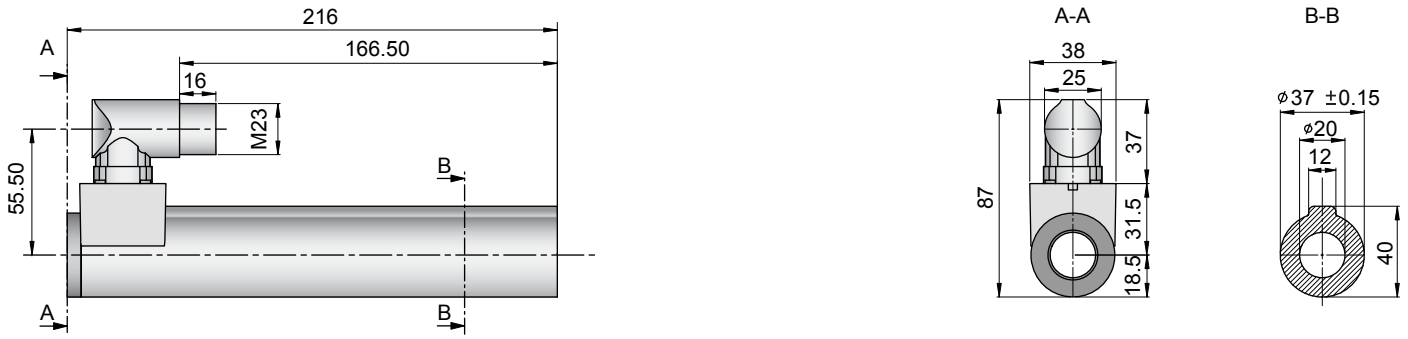
Motor Specification

		Connector Type	Cable Type
P01-		**37x120/20x100-C**	**37x120/20x100-P150** **37x120/20x100-C20**
Extended Stroke ES	mm (in)	100 (3.94)	100 (3.94)
Standard Stroke SS	mm (in)	20 (0.79)	20 (0.79)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	240 (9.45)	240 (9.45)
Slider Mass	g (lb)	460 (1.01)	460 (1.01)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.40	±0.40
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

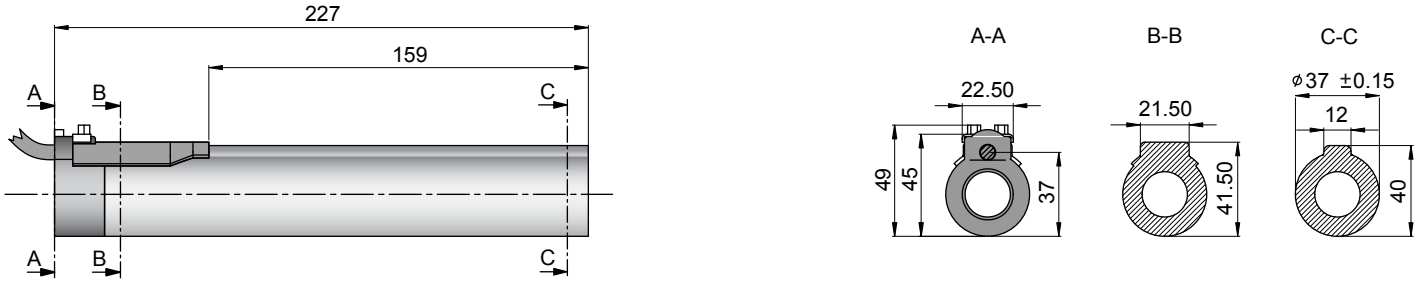


Connector Type



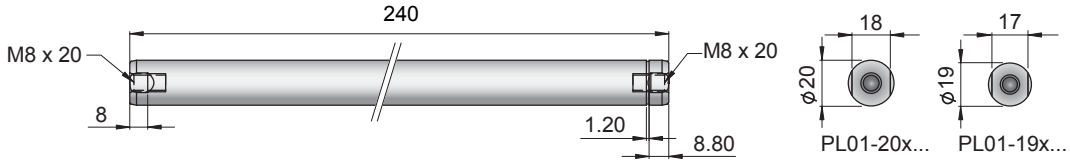
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/20x100-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x240/160	0150-1346

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/20x100-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x240/160	0150-1346
P01-37x120/20x100-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x240/160	0150-1346

Slider

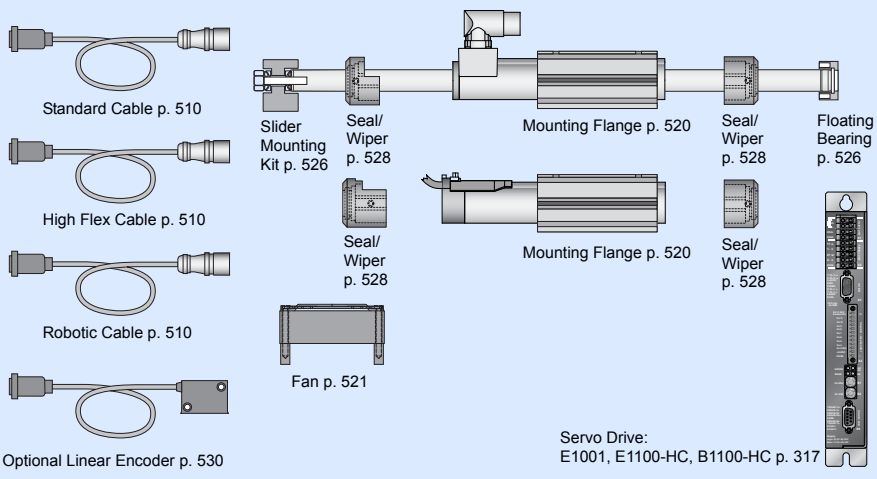


Standard Type	Slider Standard		PL01-20x240/160	0150-1346
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x240/160	0150-1347
	Hollow Slider	hole diameter 6.5mm	PL01-20x240/160-L	0150-1350
	High Clearance Slider	d=19mm, m=415g	PL01-19x240/160	0150-1448

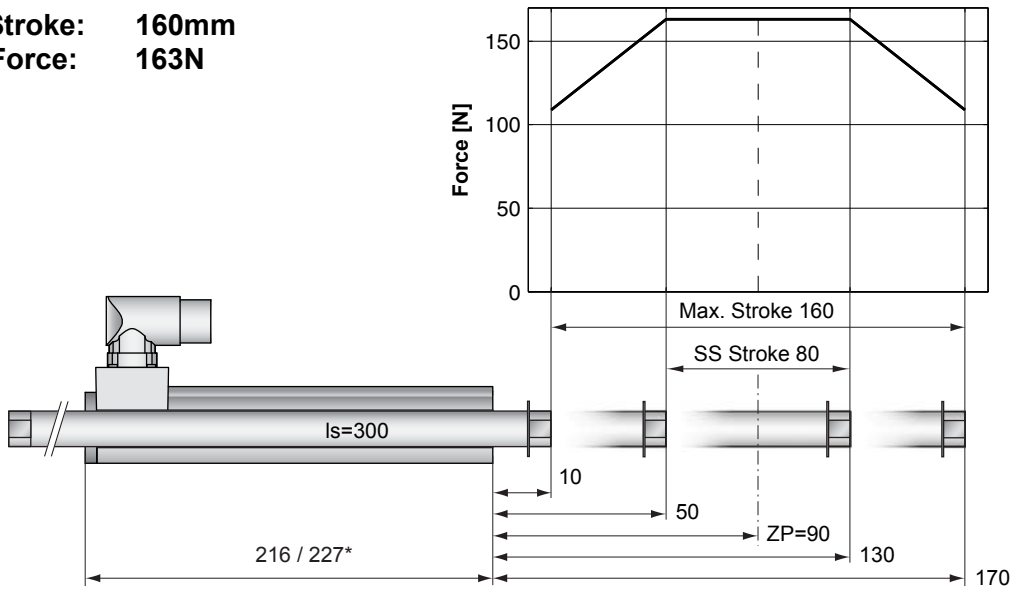
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 160mm
Peak Force: 163N



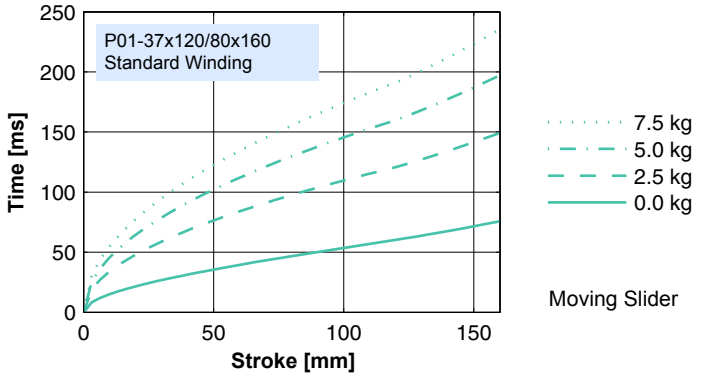
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

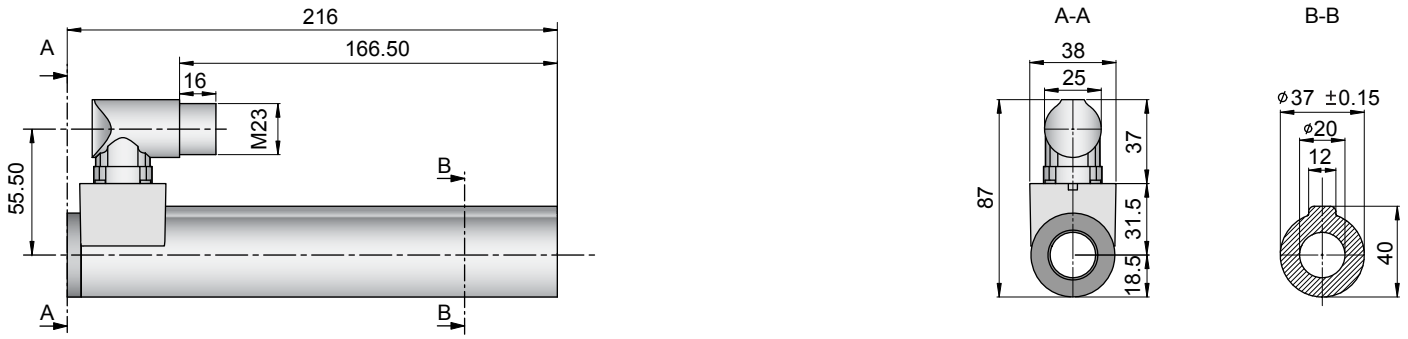
Motor Specification

P01-		Connector Type **37x120/80x160-C**	Cable Type **37x120/80x160-P150** **37x120/80x160-C20**
Extended Stroke ES	mm (in)	160 (6.30)	160 (6.30)
Standard Stroke SS	mm (in)	80 (3.15)	80 (3.15)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	300 (11.81)	300 (11.81)
Slider Mass	g (lb)	599 (1.32)	599 (1.32)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.30	±0.30
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

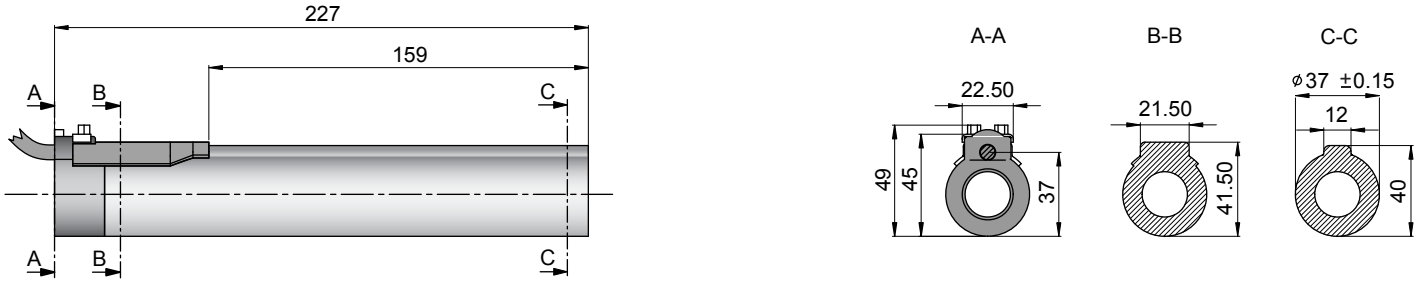


Connector Type



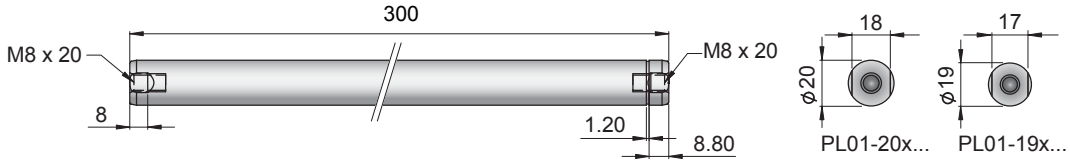
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/80x160-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x300/220	0150-1348

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/80x160-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x300/220	0150-1348
P01-37x120/80x160-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x300/220	0150-1348

Slider

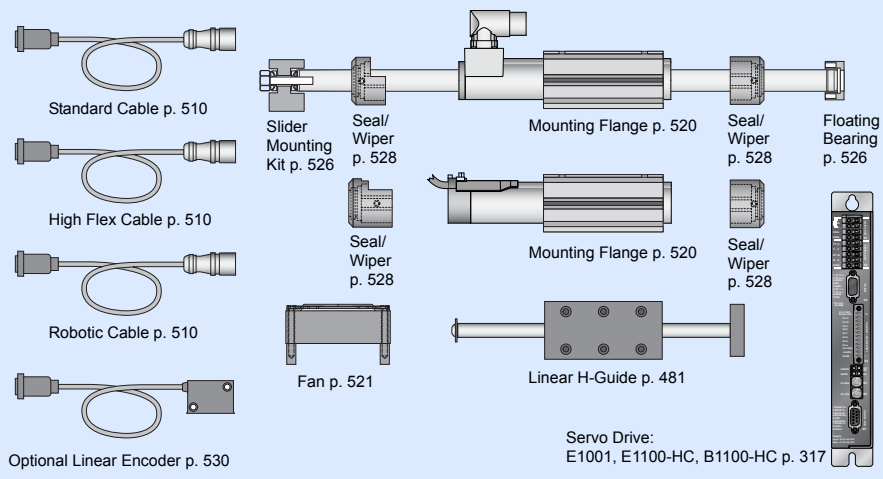


Standard Type	Slider Standard		PL01-20x300/220	0150-1348
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x300/220	0150-1349
	Hollow Slider	hole diameter 6.5mm	PL01-20x300/220-L	0150-1351
	High Clearance Slider	d=19mm, m=541g	PL01-19x300/220	0150-1449

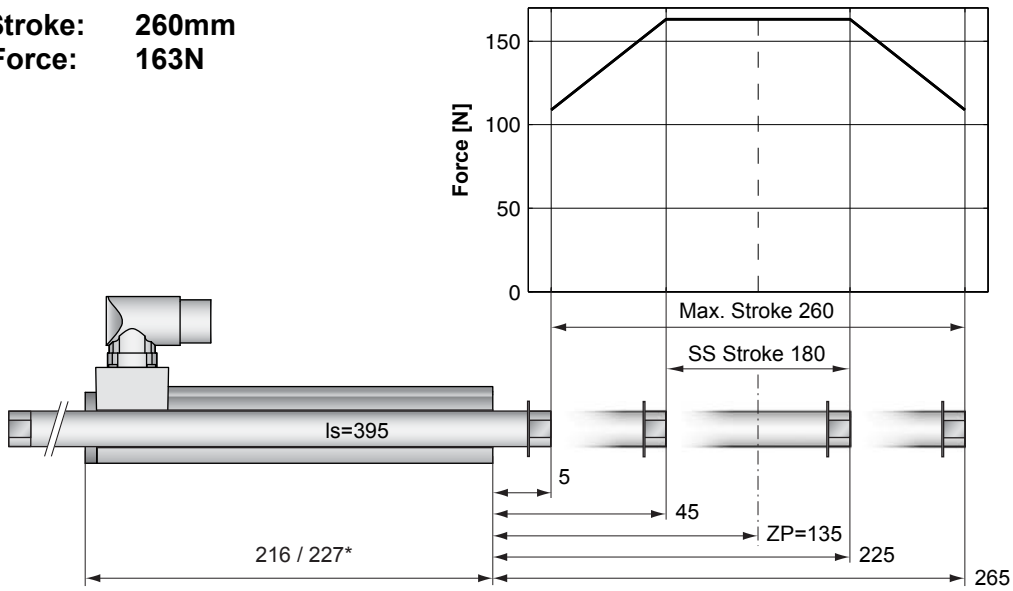
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 260mm
Peak Force: 163N



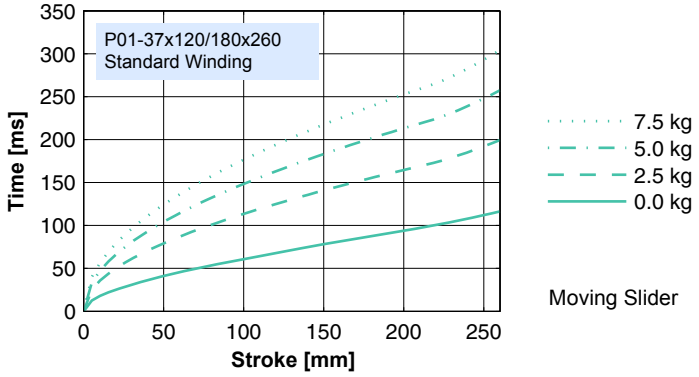
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

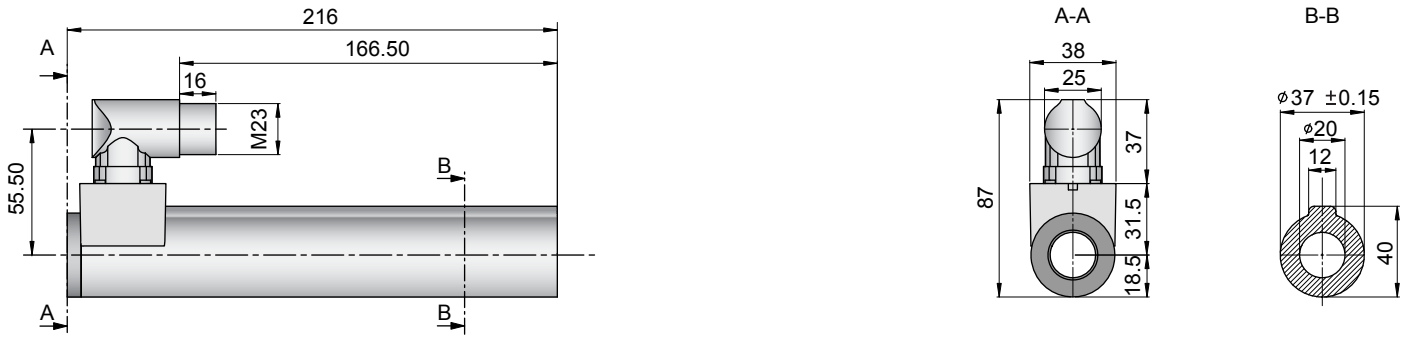
Motor Specification

P01-		Connector Type **37x120/180x260-C**	Cable Type **37x120/180x260-P150** **37x120/180x260-C20**
Extended Stroke ES	mm (in)	260 (10.24)	260 (10.24)
Standard Stroke SS	mm (in)	180 (7.09)	180 (7.09)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	395 (15.55)	395 (15.55)
Slider Mass	g (lb)	829 (1.83)	829 (1.83)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

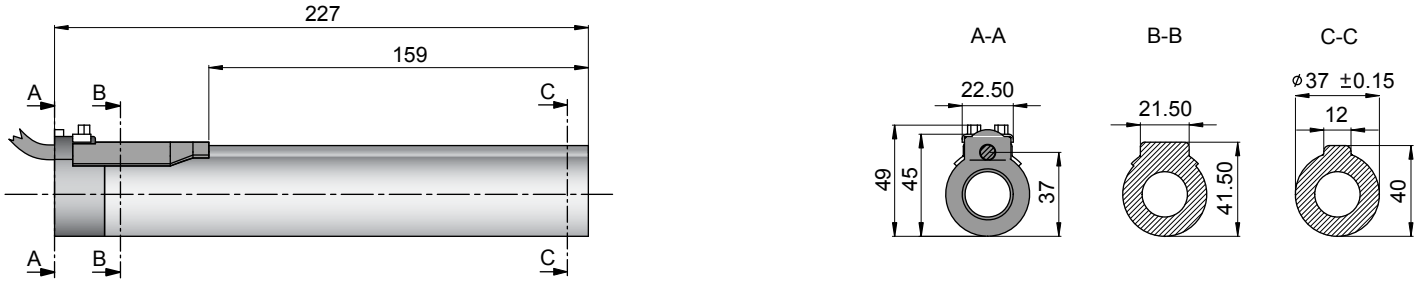


Connector Type



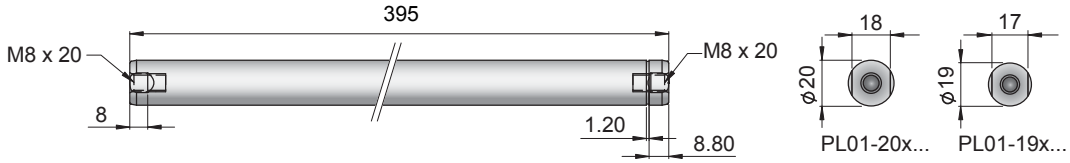
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/180x260-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x395/320	0150-1318

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/180x260-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x395/320	0150-1318
P01-37x120/180x260-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x395/320	0150-1318

Slider

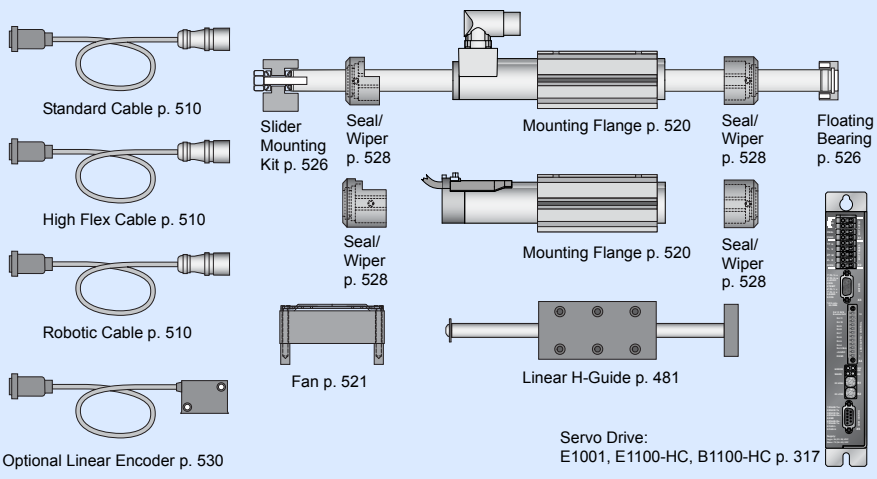


Standard Type	Slider Standard		PL01-20x395/320	0150-1318
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x395/320	0150-1319
	Hollow Slider	hole diameter 6.5mm	PL01-20x395/320-L	0150-1354
	High Clearance Slider	d=19mm, m=748g	PL01-19x395/320	0150-1452

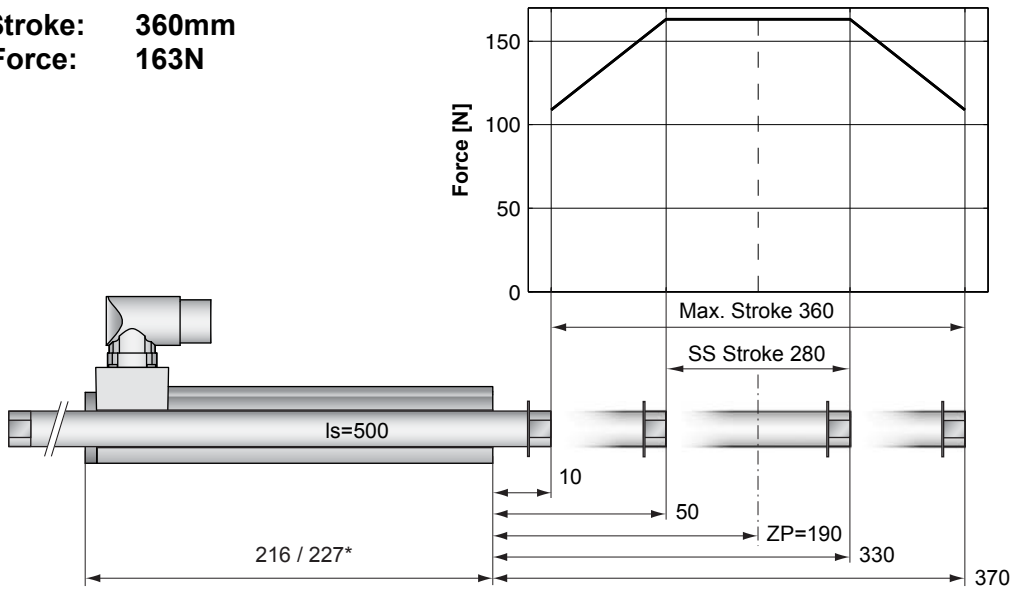
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 360mm
Peak Force: 163N



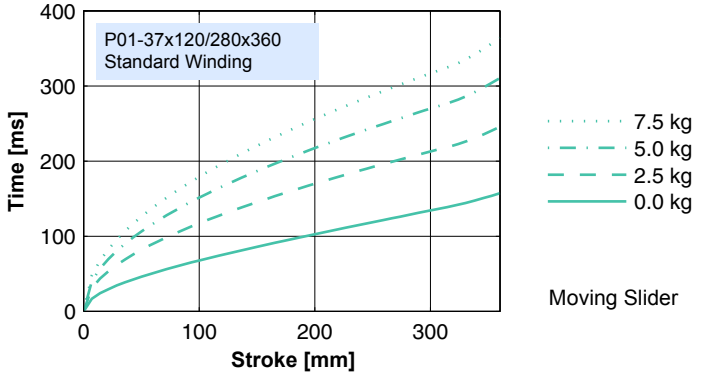
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

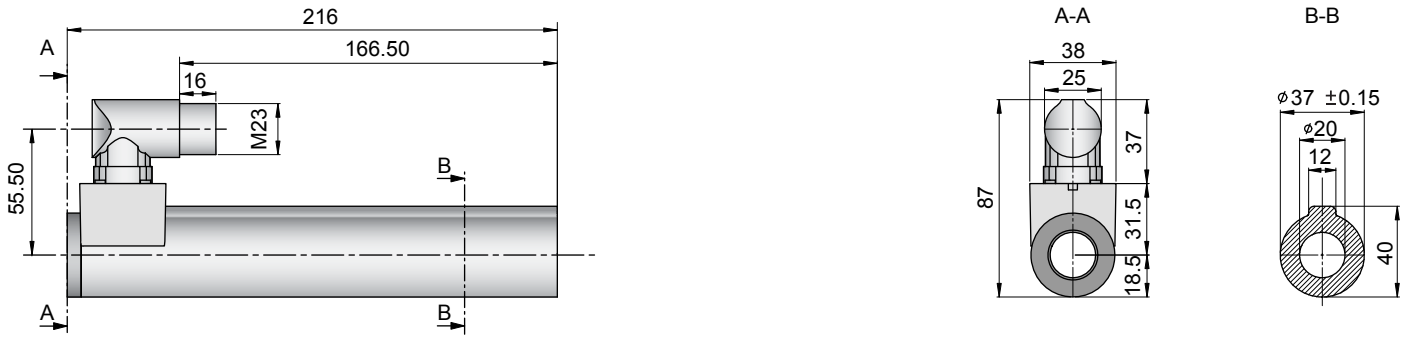
Motor Specification

P01-		Connector Type **37x120/280x360-C**	Cable Type **37x120/280x360-P150** **37x120/280x360-C20**
Extended Stroke ES	mm (in)	360 (14.17)	360 (14.17)
Standard Stroke SS	mm (in)	280 (11.02)	280 (11.02)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	500 (19.69)	500 (19.69)
Slider Mass	g (lb)	1064 (2.35)	1064 (2.35)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

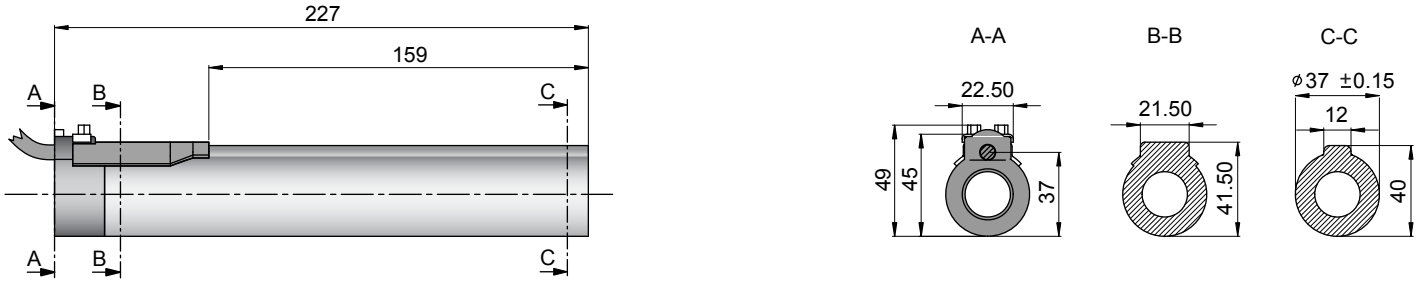


Connector Type



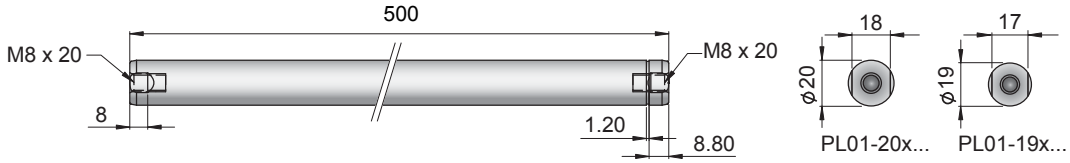
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/280x360-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x500/420	0150-1328

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/280x360-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x500/420	0150-1328
P01-37x120/280x360-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x500/420	0150-1328

Slider

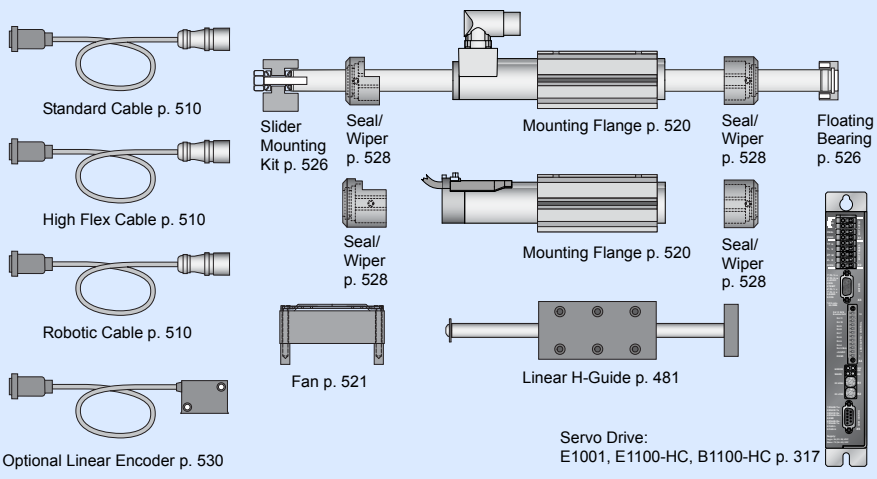


Standard Type	Slider Standard		PL01-20x500/420	0150-1328
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x500/420	0150-1329
	Hollow Slider	hole diameter 6.5mm	PL01-20x500/420-L	0150-1358
	High Clearance Slider	d=19mm, m=960g	PL01-19x500/420	0150-1455

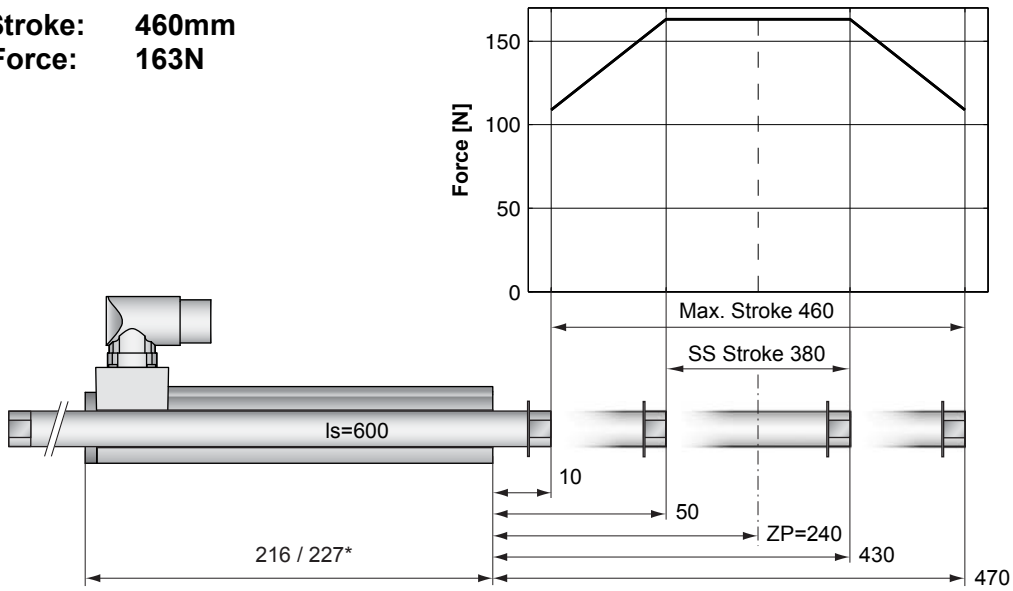
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 460mm
Peak Force: 163N

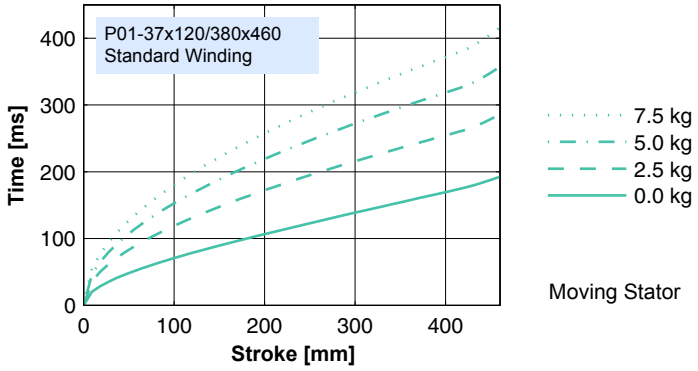


Dimensions in mm
*Cable Type

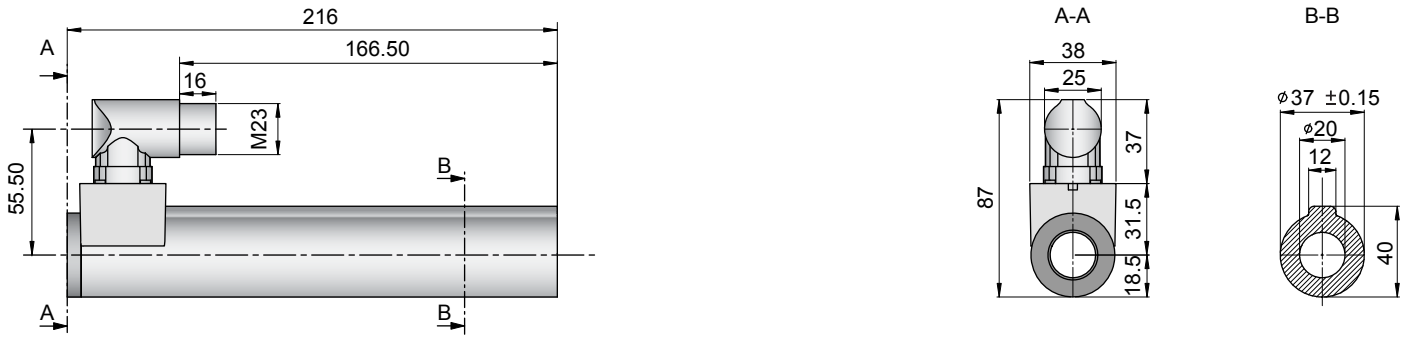
Motor Specification

P01-		Connector Type **37x120/380x460-C**	Cable Type **37x120/380x460-P150** **37x120/380x460-C20**
Extended Stroke ES	mm (in)	460 (18.11)	460 (18.11)
Standard Stroke SS	mm (in)	380 (14.96)	380 (14.96)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	600 (23.62)	600 (23.62)
Slider Mass	g (lb)	1297 (2.86)	1297 (2.86)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

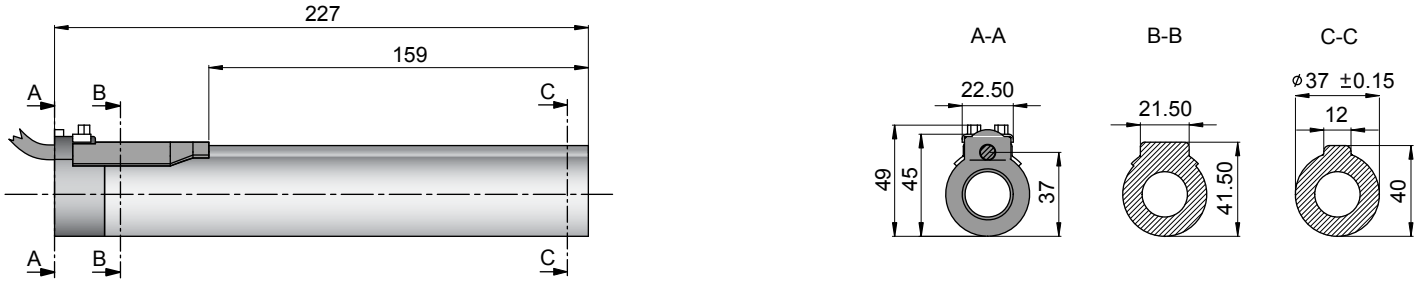


Connector Type



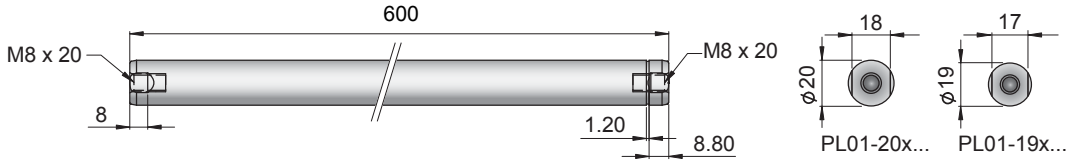
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/380x460-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x600/520	0150-1330

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/380x460-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x600/520	0150-1330
P01-37x120/380x460-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x600/520	0150-1330

Slider

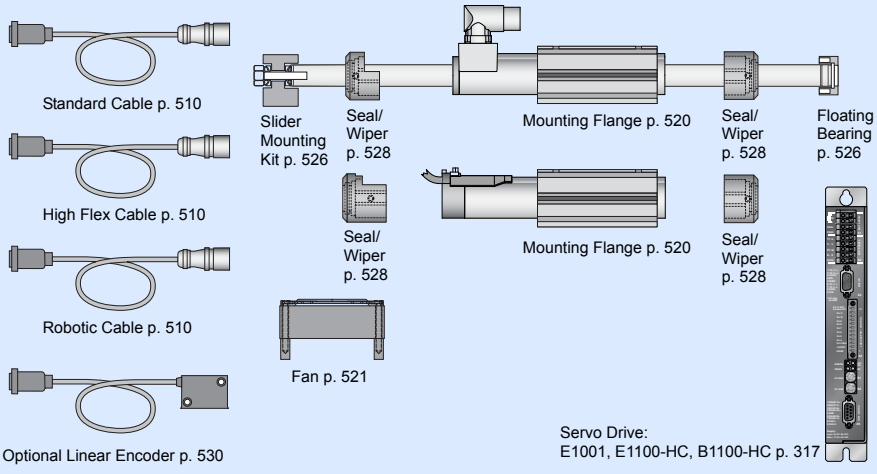


Standard Type	Slider Standard		PL01-20x600/520	0150-1330
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x600/520	0150-1331
	Hollow Slider	hole diameter 6.5mm	PL01-20x600/520-L	0150-1359
	High Clearance Slider	d=19mm, m=1171g	PL01-19x600/520	0150-1456

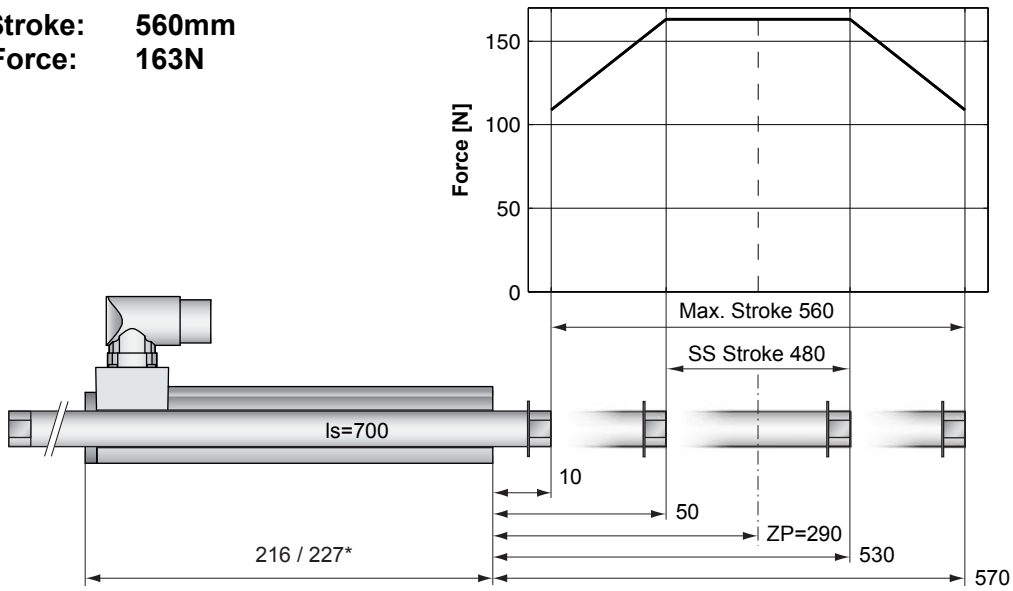
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 560mm
Peak Force: 163N

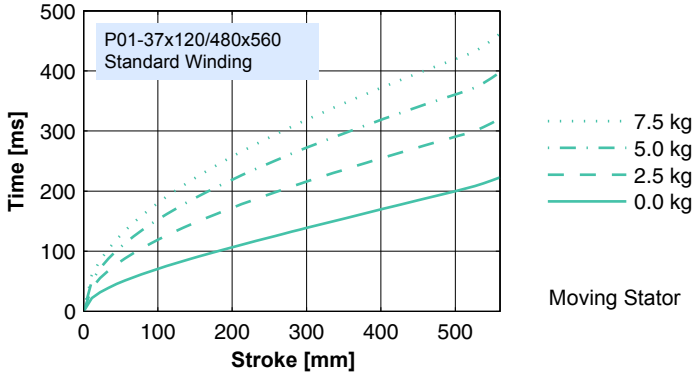


Dimensions in mm
*Cable Type

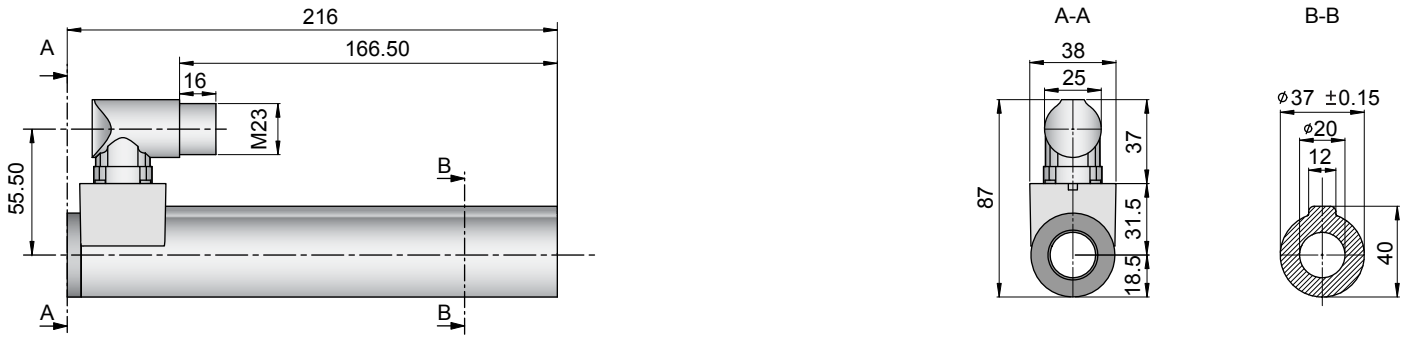
Motor Specification

P01-		Connector Type 37x120/480x560-C	Cable Type 37x120/480x560-P150 37x120/480x560-C20
Extended Stroke ES	mm (in)	560 (22.05)	560 (22.05)
Standard Stroke SS	mm (in)	480 (18.90)	480 (18.90)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	700 (27.56)	700 (27.56)
Slider Mass	g (lb)	1529 (3.37)	1529 (3.37)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

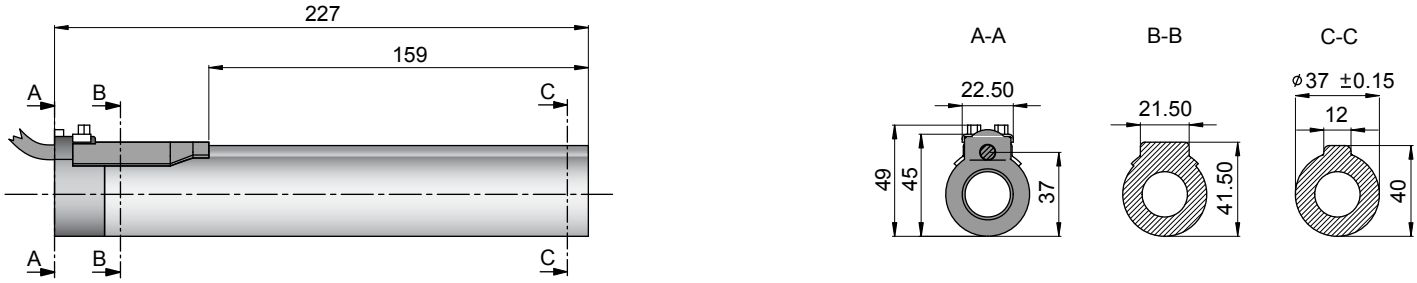


Connector Type



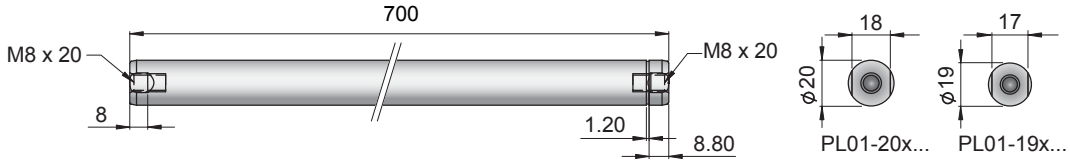
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/480x560-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x700/620	0150-1332

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/480x560-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x700/620	0150-1332
P01-37x120/480x560-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x700/620	0150-1332

Slider

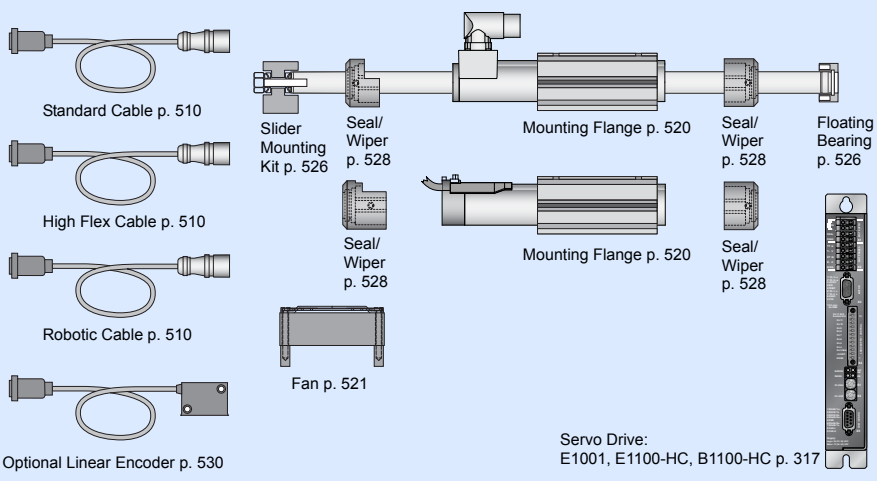


Standard Type	Slider Standard		PL01-20x700/620	0150-1332
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x700/620	0150-1333
	Hollow Slider	hole diameter 6.5mm	PL01-20x700/620-L	0150-1360
	High Clearance Slider	d=19mm, m=1380g	PL01-19x700/620	0150-1457

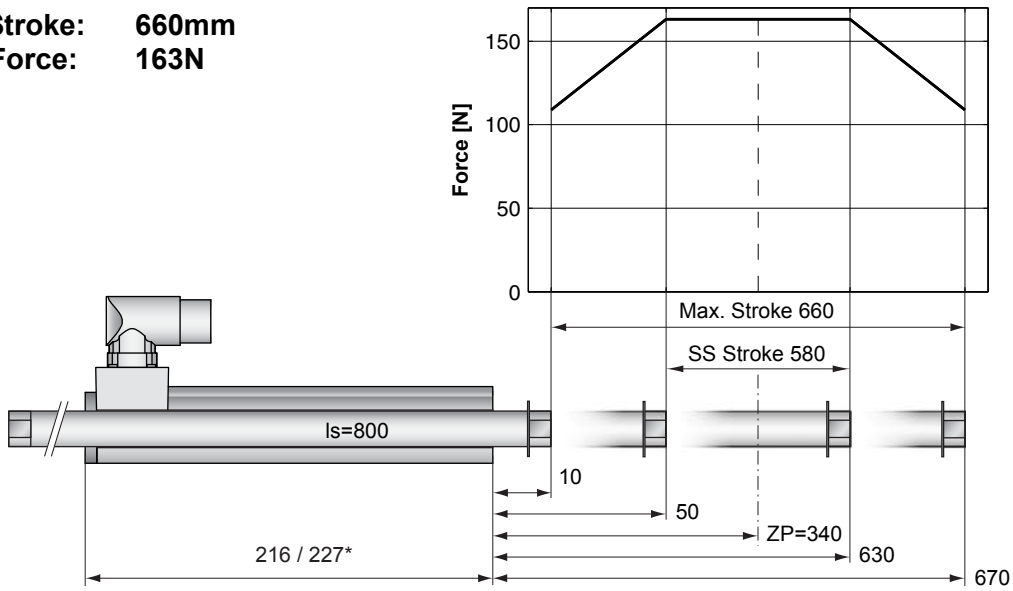
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 660mm
Peak Force: 163N

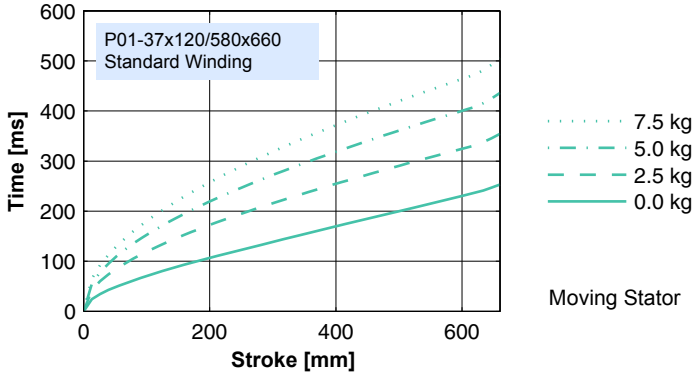


Dimensions in mm
*Cable Type

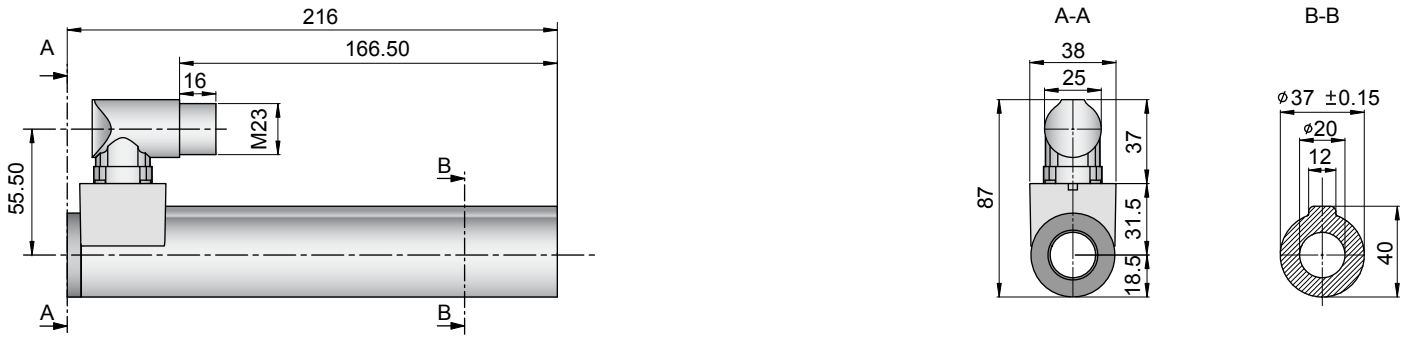
Motor Specification

P01-		Connector Type 37x120/580x660-C	Cable Type 37x120/580x660-P150 37x120/580x660-C20
Extended Stroke ES	mm (in)	660 (25.98)	660 (25.98)
Standard Stroke SS	mm (in)	580 (22.83)	580 (22.83)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	800 (31.50)	800 (31.50)
Slider Mass	g (lb)	1762 (3.88)	1762 (3.88)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

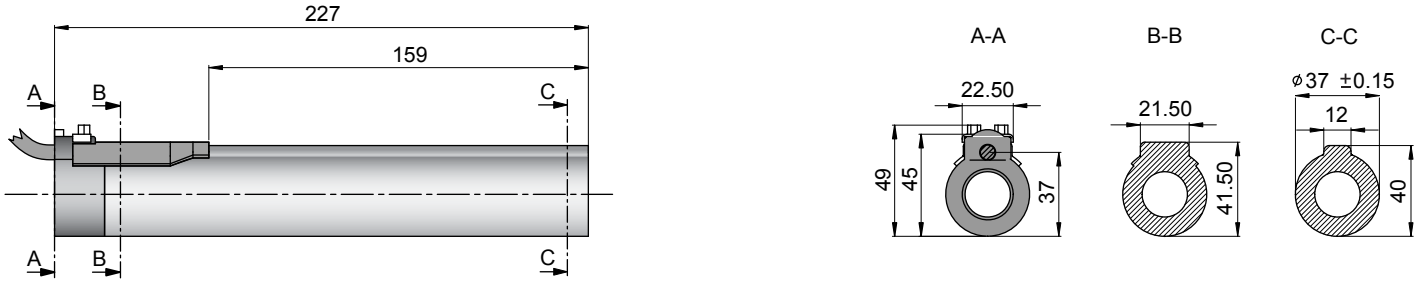


Connector Type



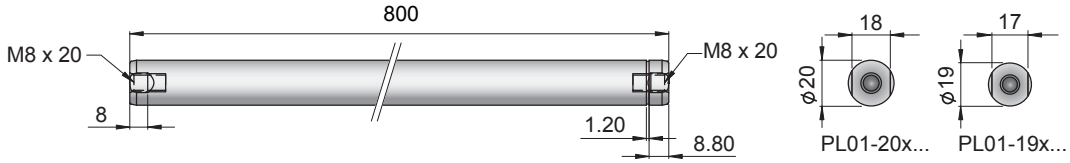
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/580x660-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x800/720	0150-1334

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/580x660-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x800/720	0150-1334
P01-37x120/580x660-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x800/720	0150-1334

Slider

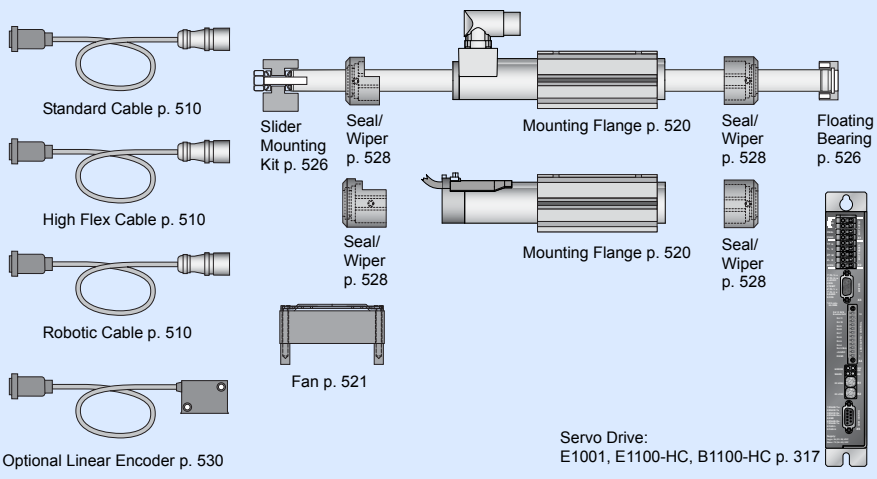


Standard Type	Slider Standard		PL01-20x800/720	0150-1334
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x800/720	0150-1335
	Hollow Slider	hole diameter 6.5mm	PL01-20x800/720-L	0150-1361
	High Clearance Slider	d=19mm, m=1590g	PL01-19x800/720	0150-1458

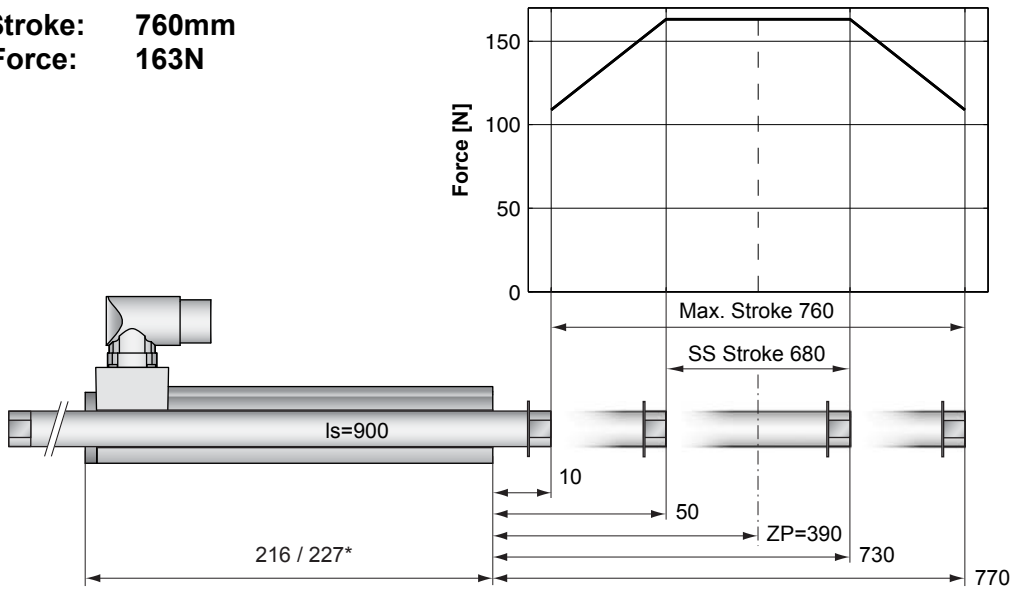
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 760mm
Peak Force: 163N



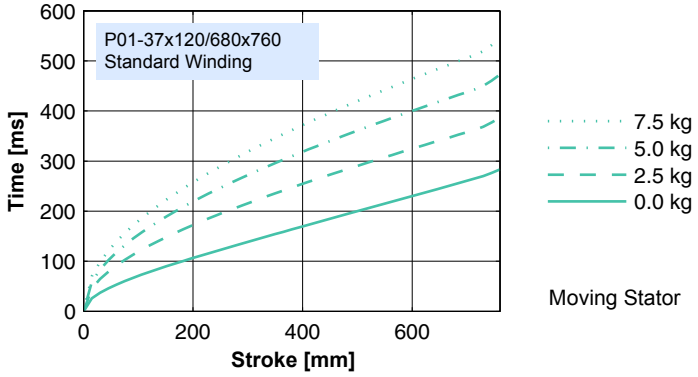
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

Motor Specification

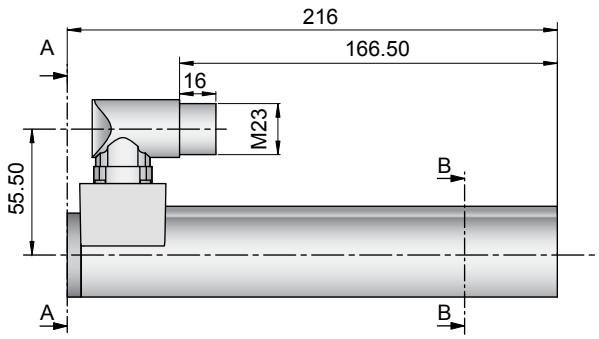
P01-		Connector Type **37x120/680x760-C**	Cable Type **37x120/680x760-P150** **37x120/680x760-C20**
Extended Stroke ES	mm (in)	760 (29.92)	760 (29.92)
Standard Stroke SS	mm (in)	680 (26.77)	680 (26.77)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	900 (35.43)	900 (35.43)
Slider Mass	g (lb)	1994 (4.40)	1994 (4.40)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

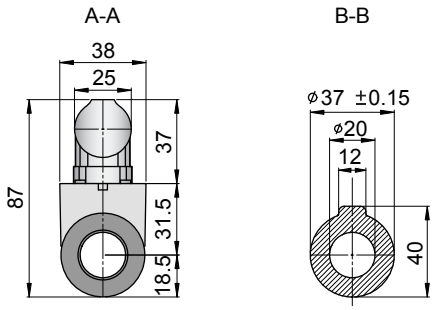
Position-Time Diagram



Moving Stator

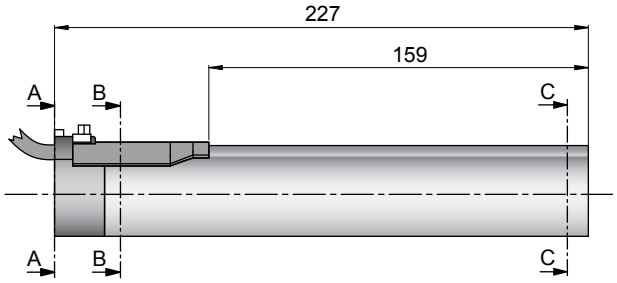
Connector Type

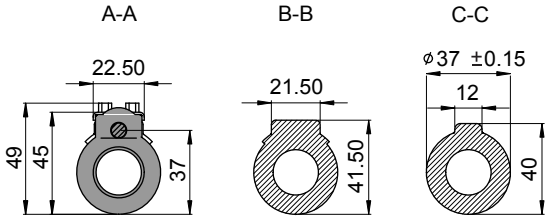




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/680x760-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x900/820	0150-1336

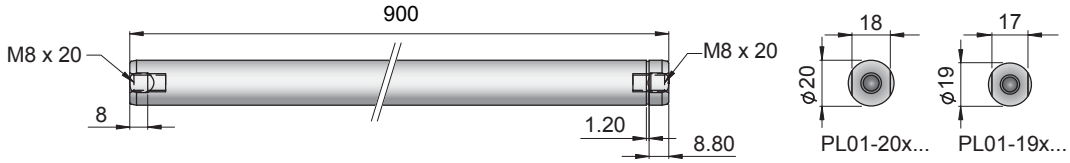
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/680x760-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x900/820	0150-1336
P01-37x120/680x760-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x900/820	0150-1336

Slider

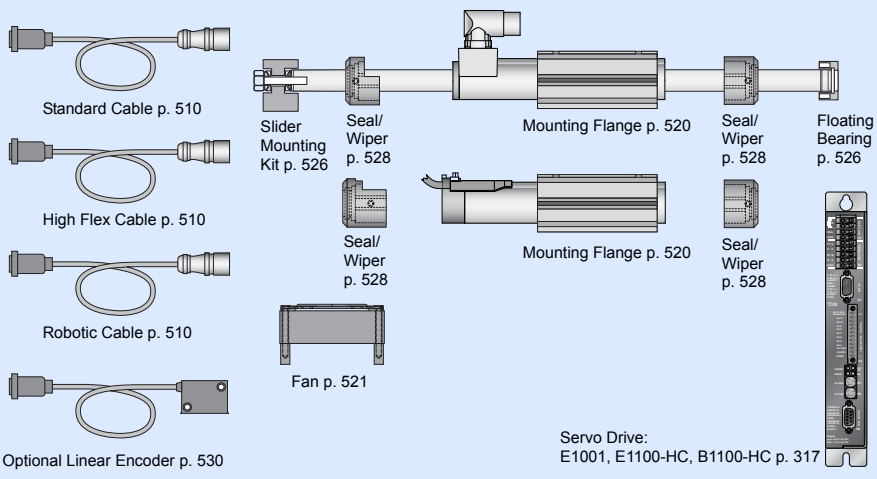


Standard Type	Slider Standard		PL01-20x900/820	0150-1336
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x900/820	0150-1337
	Hollow Slider	hole diameter 6.5mm	PL01-20x900/820-L	0150-1362
	High Clearance Slider	d=19mm	PL01-19x900/820	on request

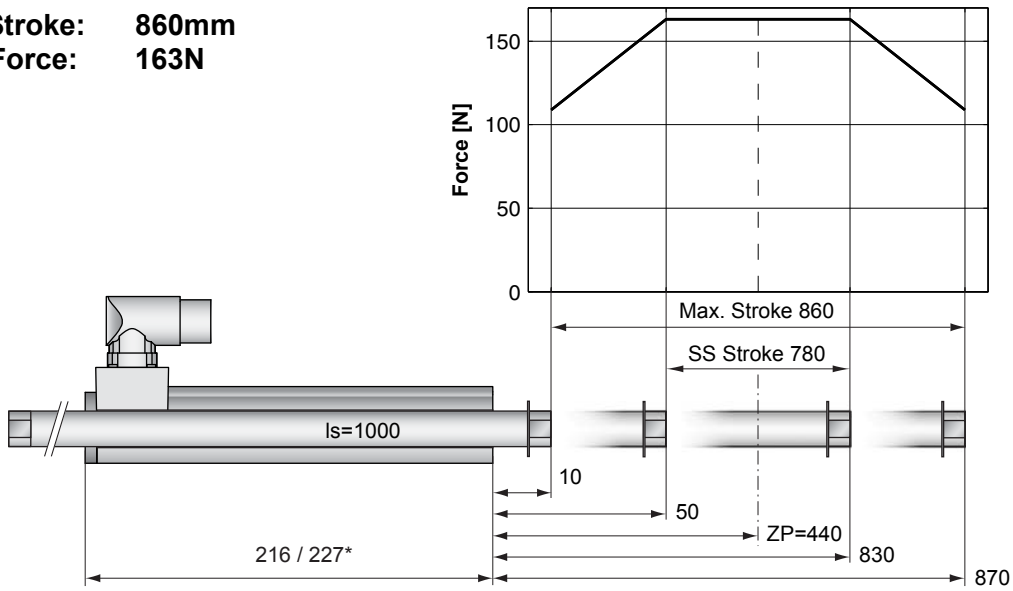
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 860mm
Peak Force: 163N



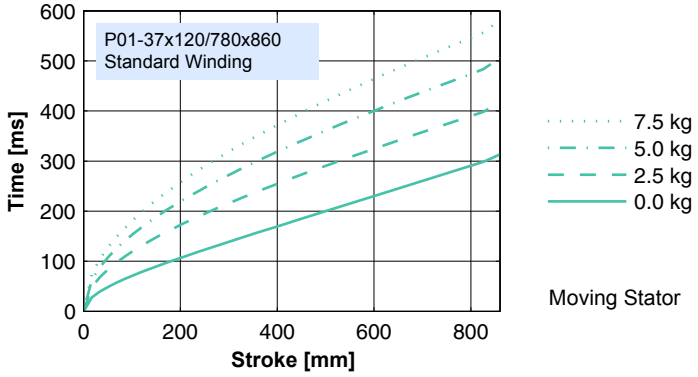
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

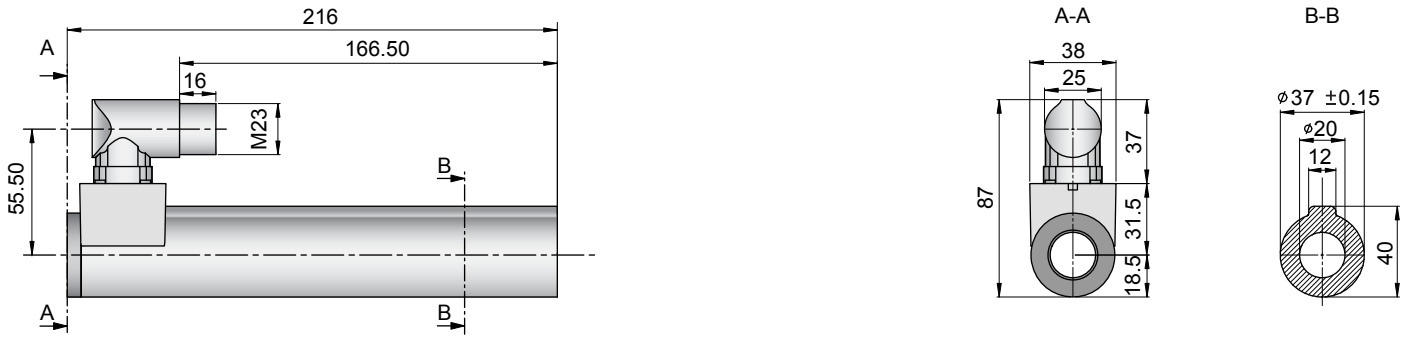
Motor Specification

		Connector Type	Cable Type
P01-		**37x120/780x860-C**	**37x120/780x860-P150** **37x120/780x860-C20**
Extended Stroke ES	mm (in)	860 (33.86)	860 (33.86)
Standard Stroke SS	mm (in)	780 (30.71)	780 (30.71)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1000 (39.37)	1000 (39.37)
Slider Mass	g (lb)	2227 (4.91)	2227 (4.91)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

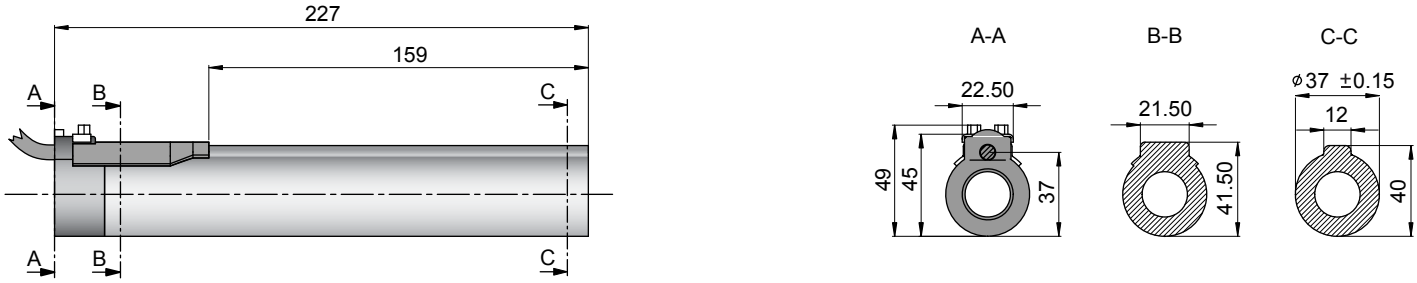


Connector Type



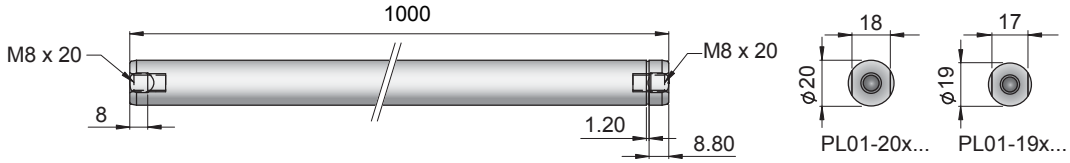
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/780x860-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x1000/920	0150-1338

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/780x860-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x1000/920	0150-1338
P01-37x120/780x860-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x1000/920	0150-1338

Slider

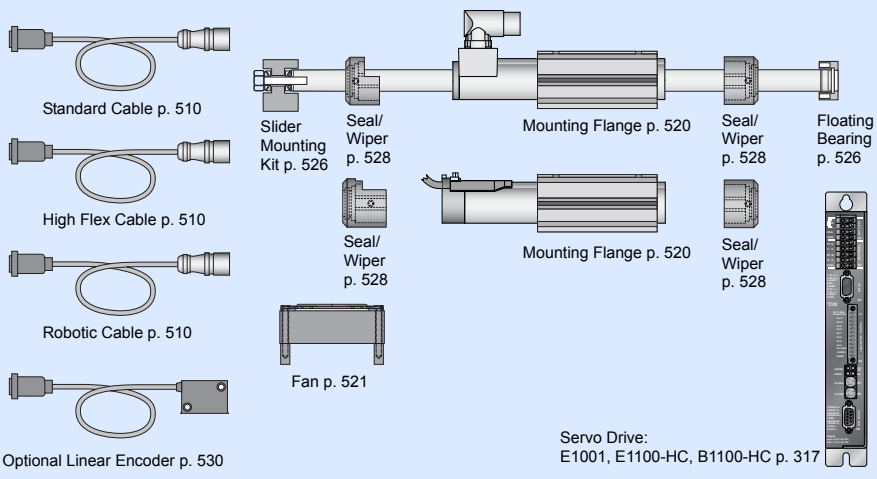


Standard Type	Slider Standard		PL01-20x1000/920	0150-1338
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1000/920	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1000/920-L	0150-1364
	High Clearance Slider	d=19mm	PL01-19x1000/920	on request

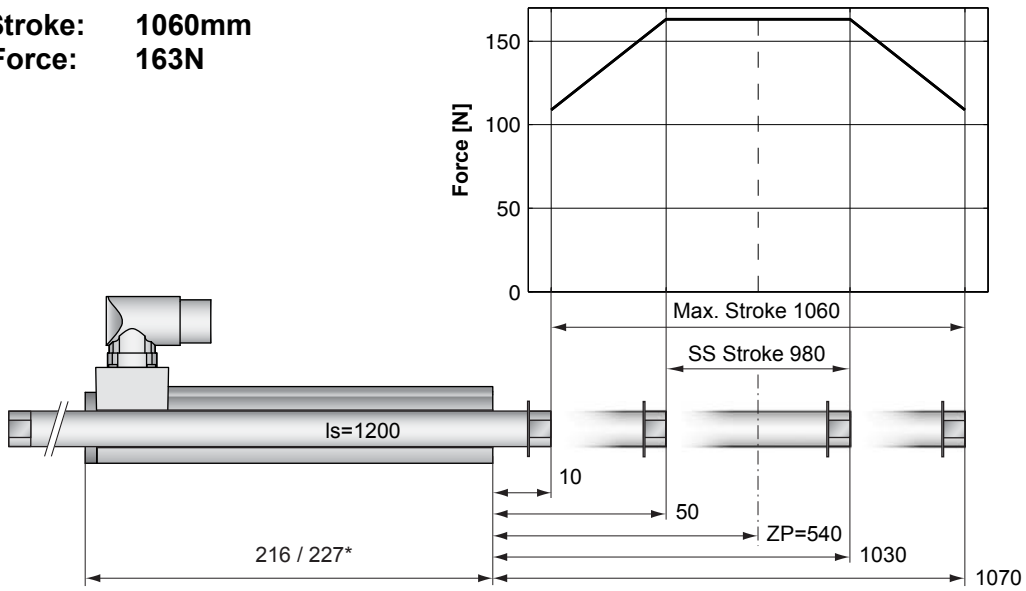
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 1060mm
Peak Force: 163N



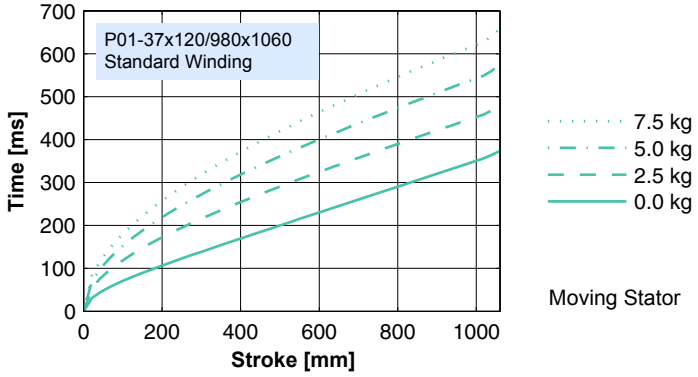
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

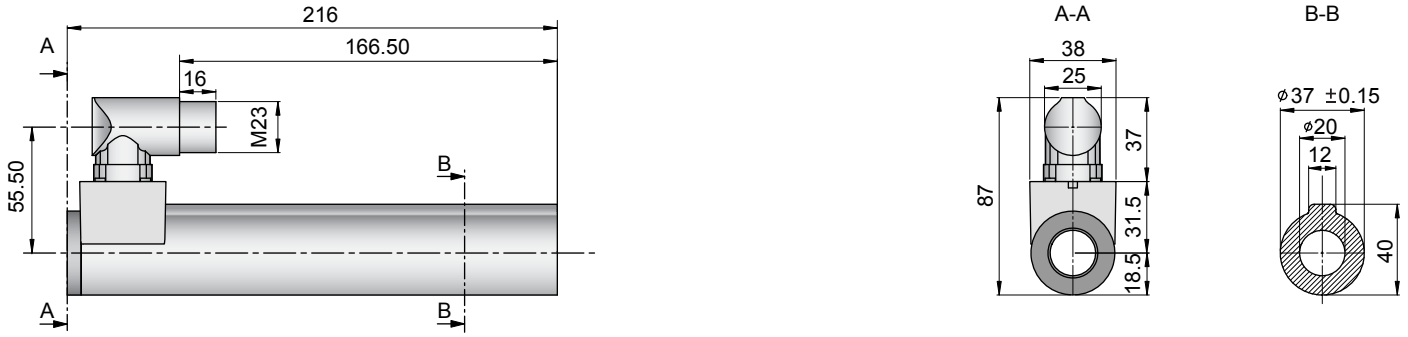
Motor Specification

		Connector Type	Cable Type
	P01-	**37x120/980x1060-C**	**37x120/980x1060-P150** **37x120/980x1060-C20**
Extended Stroke ES	mm (in)	1060 (41.73)	1060 (41.73)
Standard Stroke SS	mm (in)	980 (38.58)	980 (38.58)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1200 (47.24)	1200 (47.24)
Slider Mass	g (lb)	2692 (5.93)	2692 (5.93)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

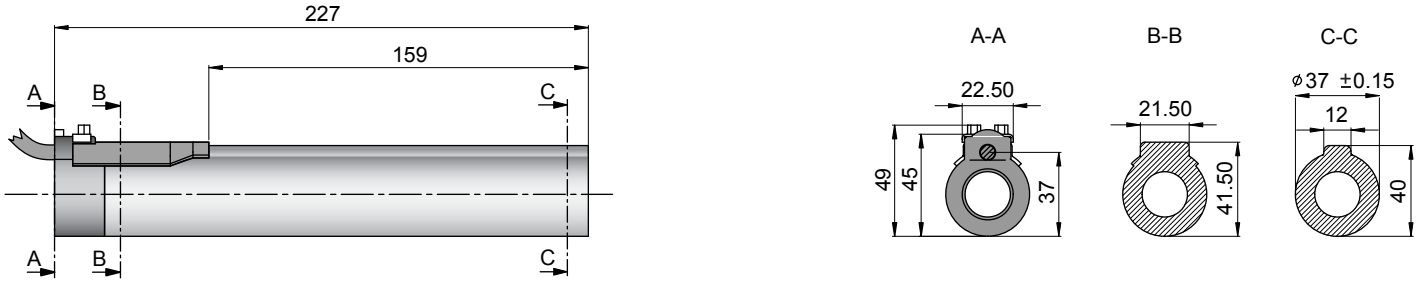


Connector Type



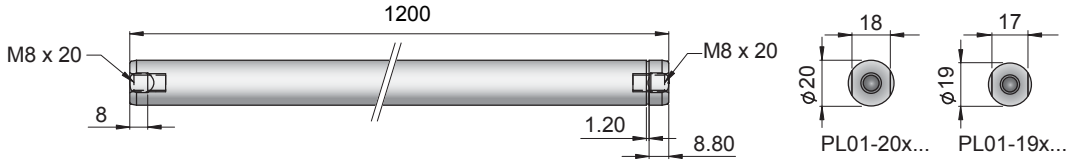
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/980x1060-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x1200/1120	0150-1340

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/980x1060-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x1200/1120	0150-1340
P01-37x120/980x1060-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x1200/1120	0150-1340

Slider

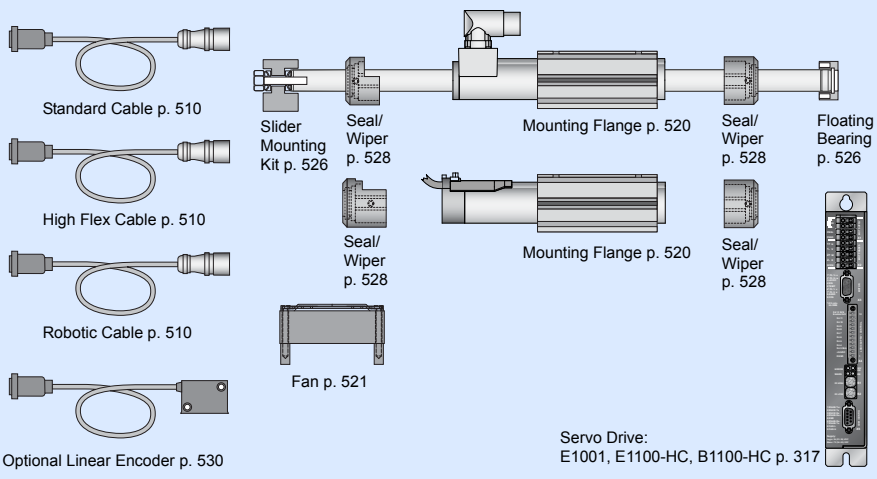


Standard Type	Slider Standard		PL01-20x1200/1120	0150-1340
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1200/1120	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1200/1120-L	0150-1376
	High Clearance Slider	d=19mm	PL01-19x1200/1120	on request

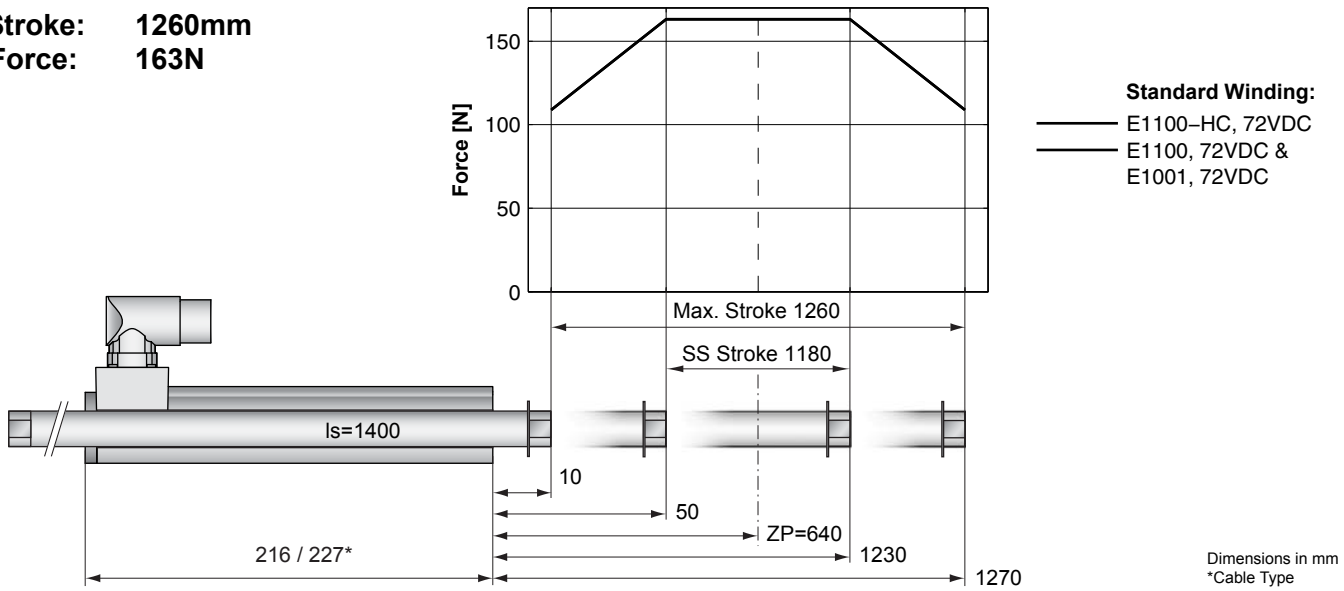
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



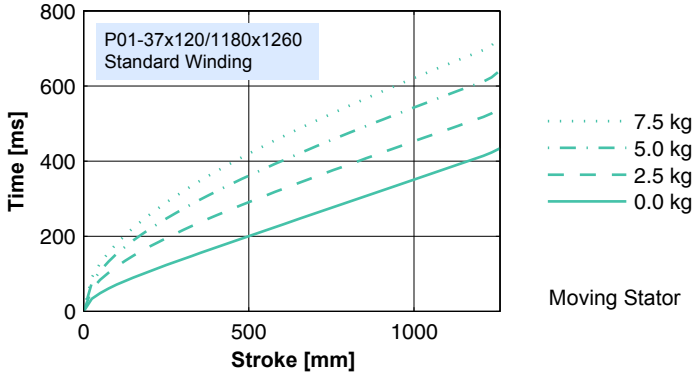
Max. Stroke: 1260mm
Peak Force: 163N



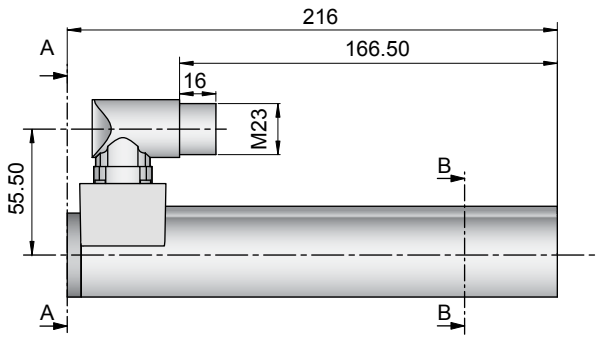
Motor Specification

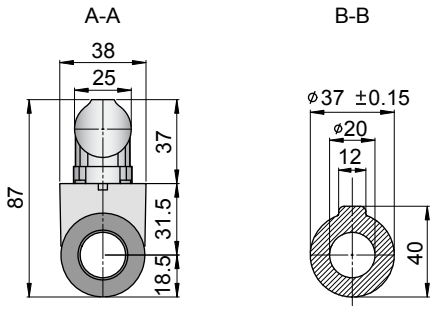
		Connector Type	Cable Type
	P01-	**37x120/1180x1260-C**	**37x120/1180x1260-P150** **37x120/1180x1260-C20**
Extended Stroke ES	mm (in)	1260 (49.61)	1260 (49.61)
Standard Stroke SS	mm (in)	1180 (46.46)	1180 (46.46)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1400 (55.12)	1400 (55.12)
Slider Mass	g (lb)	3157 (6.96)	3157 (6.96)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



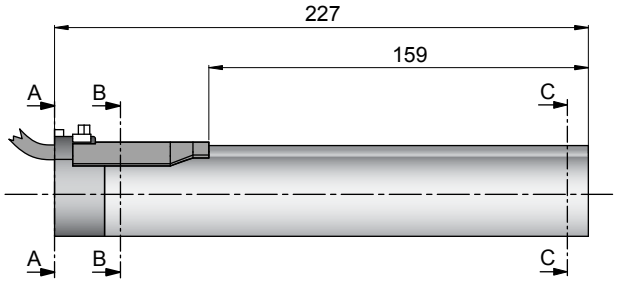
Connector Type

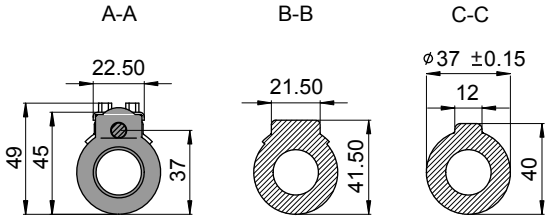




Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/1180x1260-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x1400/1320	0150-1342

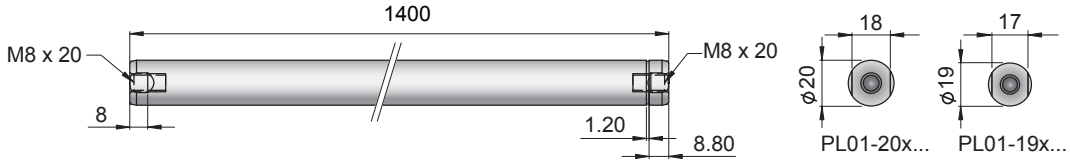
Cable Type





Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/1180x1260-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x1400/1320	0150-1342
P01-37x120/1180x1260-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x1400/1320	0150-1342

Slider

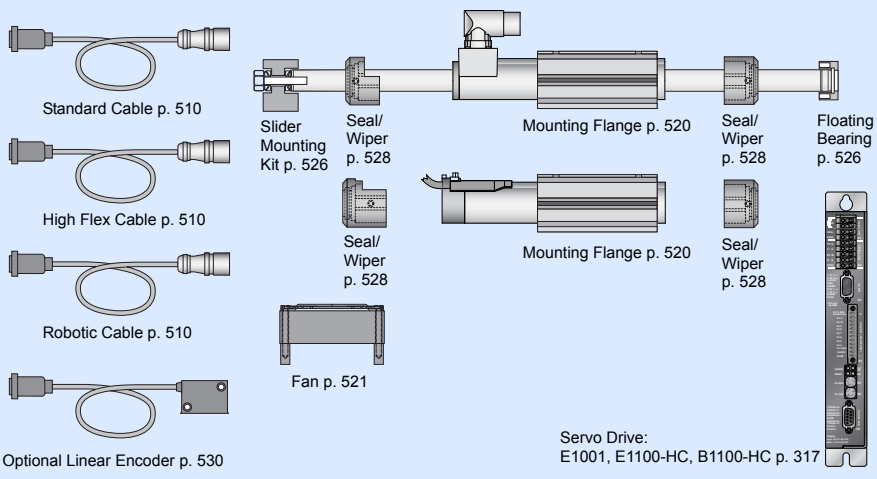


Standard Type	Slider Standard		PL01-20x1400/1320	0150-1342
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1400/1320	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1400/1320-L	on request
	High Clearance Slider	d=19mm	PL01-19x1400/1320	on request

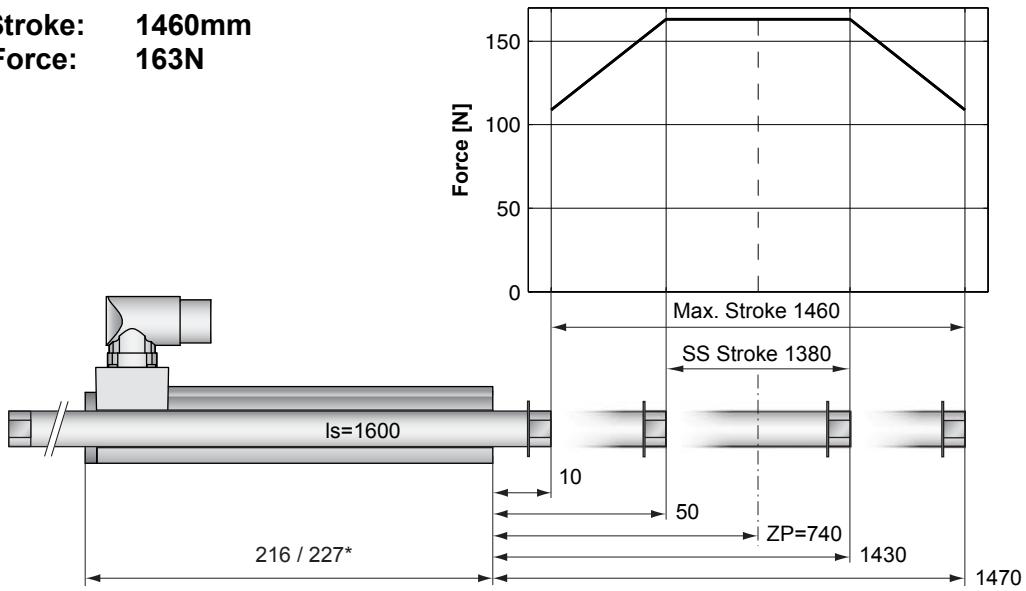
Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 1460mm
Peak Force: 163N



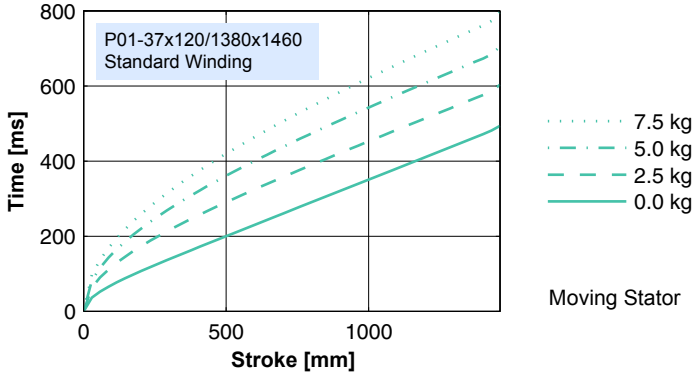
Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

Dimensions in mm
*Cable Type

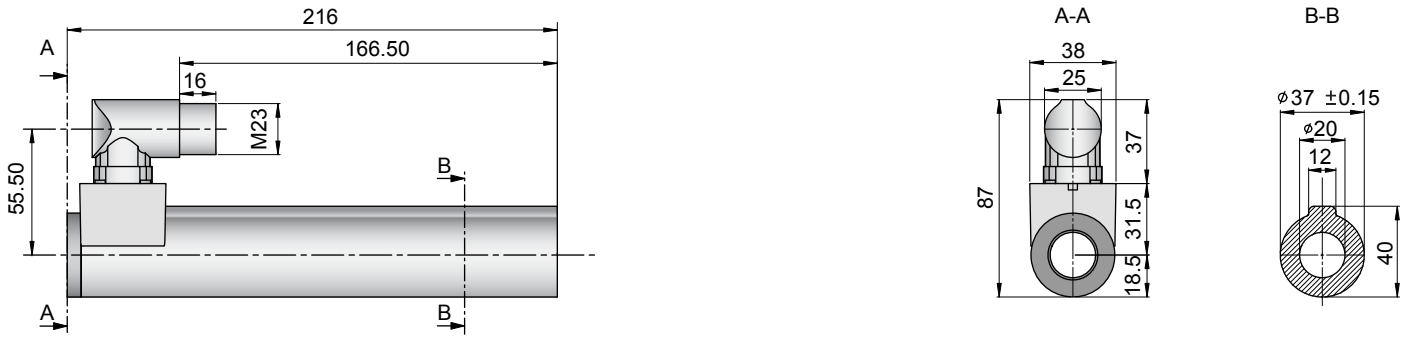
Motor Specification

		Connector Type	Cable Type
	P01-	**37x120/1380x1460-C**	**37x120/1380x1460-P150** **37x120/1380x1460-C20**
Extended Stroke ES	mm (in)	1460 (57.48)	1460 (57.48)
Standard Stroke SS	mm (in)	1380 (54.33)	1380 (54.33)
Peak Force E1100-HC	N (lbf)	163 (36.7)	163 (36.7)
Peak Force E1100 / E1001	N (lbf)	163 (36.7)	163 (36.7)
Cont. Force	N (lbf)	29 (6.5)	29 (6.5)
Cont. Force Fan cooling	N (lbf)	54 (12.2)	54 (12.2)
Border Force	%	67	67
Force Constant	N/A (lbf/A)	20.4 (4.59)	20.4 (4.59)
Max. Current @ 72VDC	A	8.0	8.0
Max. Current @ 48VDC	A	6.3	6.3
Max. Velocity @ 72VDC	m/s (in/s)	3.2 (128)	3.2 (128)
Max. Velocity @ 48VDC	m/s (in/s)	2.2 (85)	2.2 (85)
Phase Resist. 25/80 °C	Ohm	6.2/7.5	6.2/7.5
Phase Inductance	mH	3.1	3.1
Thermal Resistance	°K/W	3.6	3.6
Thermal Time Const.	sec	2900	2900
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	216 (8.50)	227 (8.94)
Stator Mass	g (lb)	740 (1.63)	740 (1.63)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1600 (62.99)	1600 (62.99)
Slider Mass	g (lb)	3622 (7.99)	3622 (7.99)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram

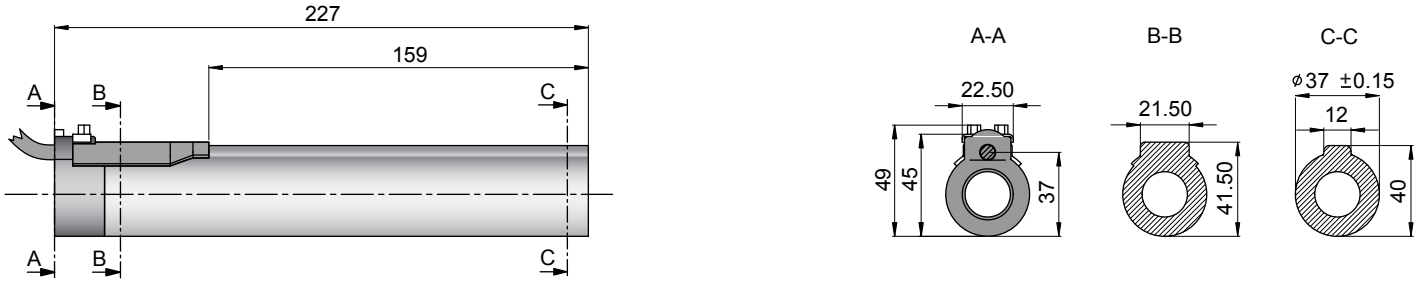


Connector Type



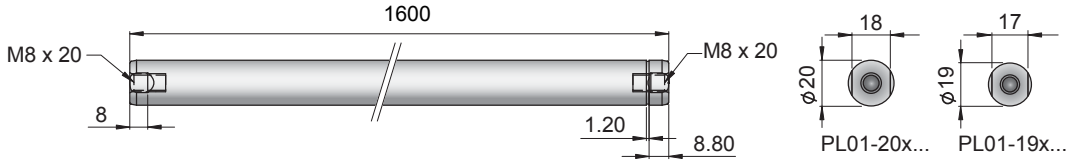
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/1380x1460-C	-->	PS01-37x120-C	0150-1223	&	PL01-20x1600/1520	0150-1344

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-37x120/1380x1460-P150	-->	PS01-37x120-P150	0150-1204	&	PL01-20x1600/1520	0150-1344
P01-37x120/1380x1460-C20	-->	PS01-37x120-C20	0150-1237	&	PL01-20x1600/1520	0150-1344

Slider

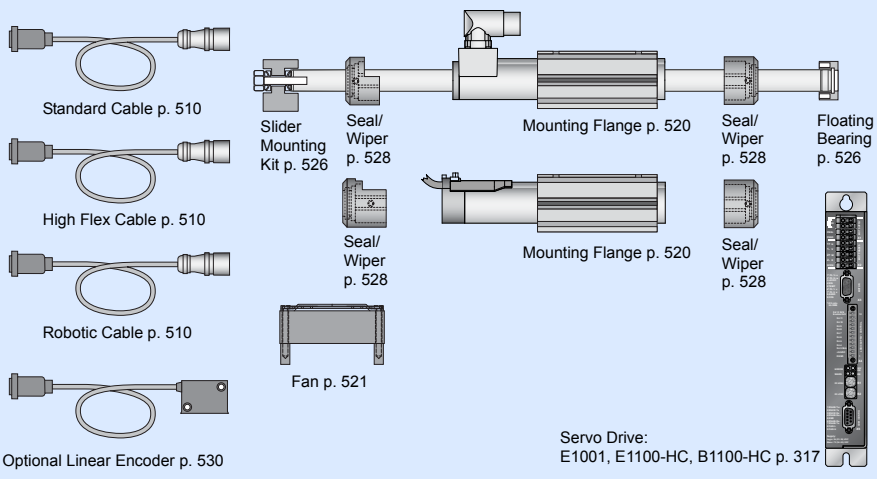


Standard Type	Slider Standard		PL01-20x1600/1520	0150-1344
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1600/1520	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1600/1520-L	on request
	High Clearance Slider	d=19mm	PL01-19x1600/1520	on request

Connectors

Motor Connector Wiring Cable Length: P01-37x120... 1.5m P01-37x120...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



P01-23x160/70x70 64

P01-23x160/40x100 66

P01-23x160/0x140 68

P01-23x160/70x210 70

P01-23x160/130x270 72

P01-23x160/200x340 74

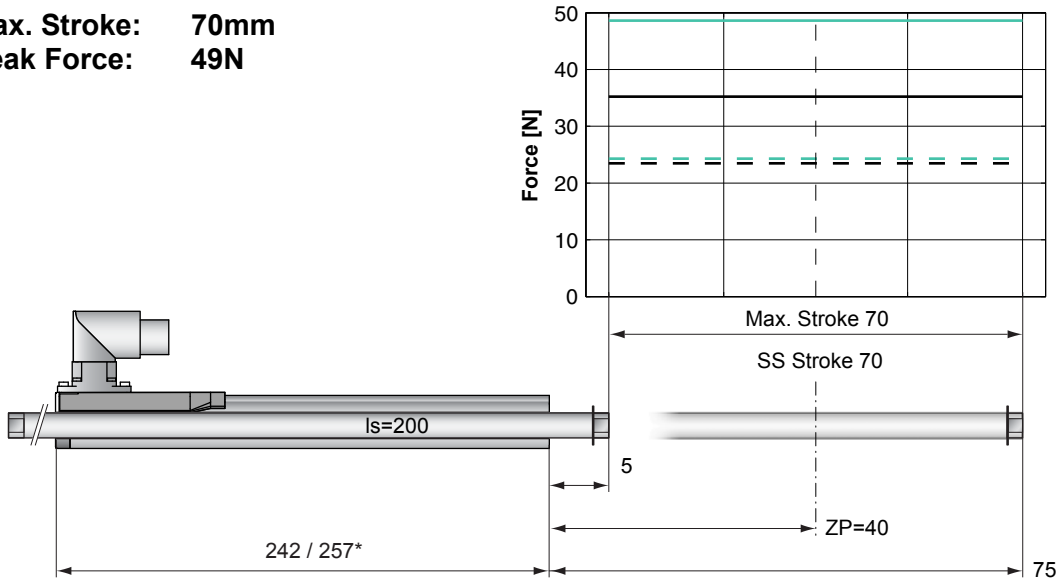
P01-23x160/260x400 76

P01-23x160/360x500 78

P01-23x160/540x680 80

P01-23x160/630x770 82

Max. Stroke: 70mm
Peak Force: 49N



Standard Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

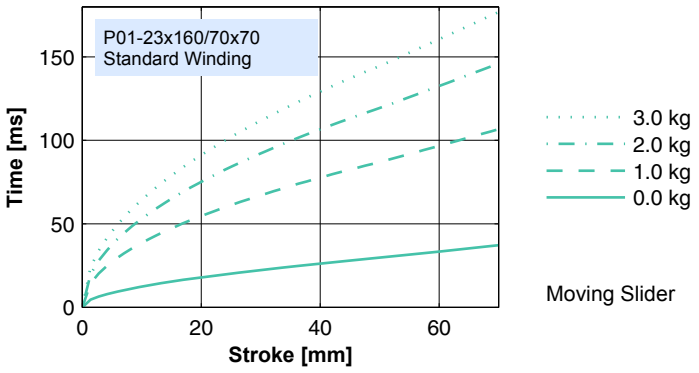
Fast Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

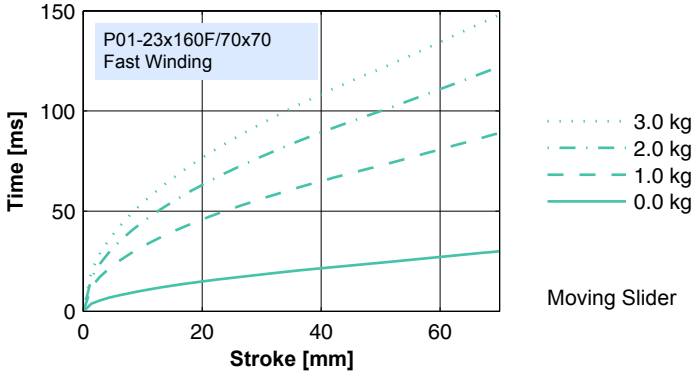
Dimensions in mm
*Cable Type

Motor Specification

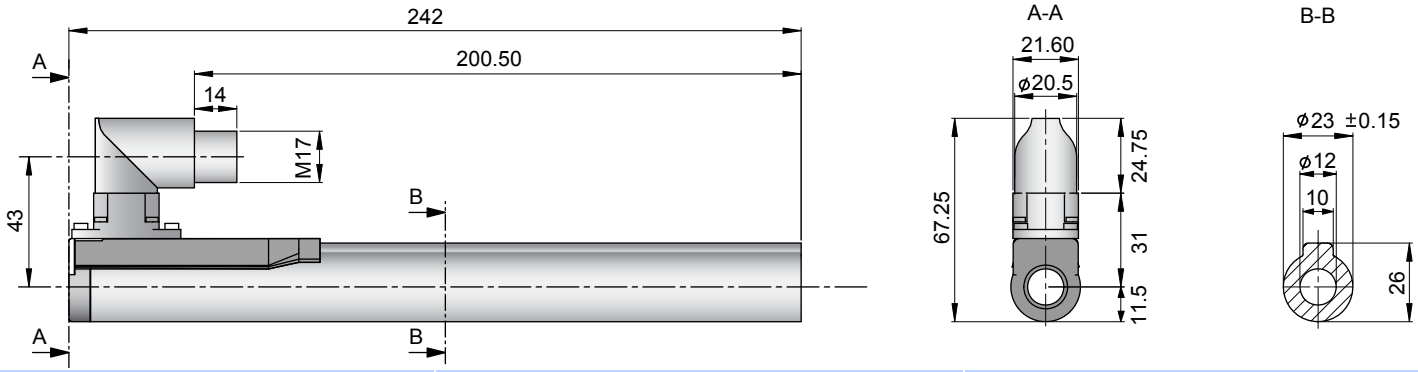
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/70x70-R**	**23x160F/70x70-R**	**23x160/70x70-D100** **23x160/70x70-R20**	**23x160F/70x70-R20**
Extended Stroke ES	mm (in)	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)
Standard Stroke SS	mm (in)	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)
Peak Force E1100 / E1001	N (lbf)	35 (7.9)	49 (10.9)	35 (7.9)	49 (10.9)
Peak Force E100	N (lbf)	23 (5.3)	24 (5.5)	23 (5.3)	24 (5.5)
Cont. Force	N (lbf)	9 (2.1)	9 (2.1)	9 (2.1)	9 (2.1)
Cont. Force Fan cooling	N (lbf)	18 (4.0)	18 (4.0)	18 (4.0)	18 (4.0)
Border Force	%	100	100	100	100
Force Constant	N/A (lbf/A)	12.4 (2.79)	8.1 (1.82)	12.4 (2.79)	8.1 (1.82)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	5.3 (210)	8.2 (322)	5.3 (210)	8.2 (322)
Max. Velocity @ 48VDC	m/s (in/s)	3.6 (140)	5.5 (215)	3.6 (140)	5.5 (215)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)
Slider Mass	g (lb)	112 (0.25)	112 (0.25)	112 (0.25)	112 (0.25)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.55	±0.55	±0.55	±0.55
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



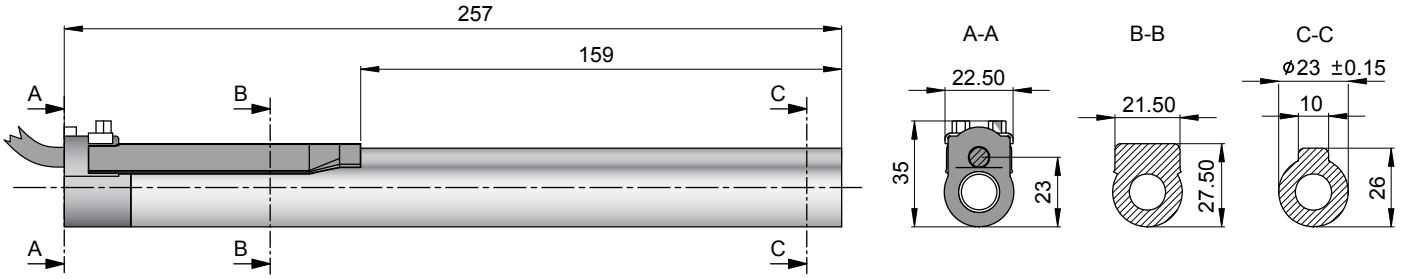


Connector Type



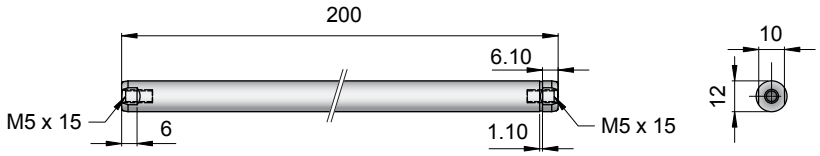
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/70x70-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x200/100	0150-1305
P01-23x160F/70x70-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x200/100	0150-1305

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/70x70-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x200/100	0150-1305
P01-23x160/70x70-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x200/100	0150-1305
P01-23x160F/70x70-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x200/100	0150-1305

Slider

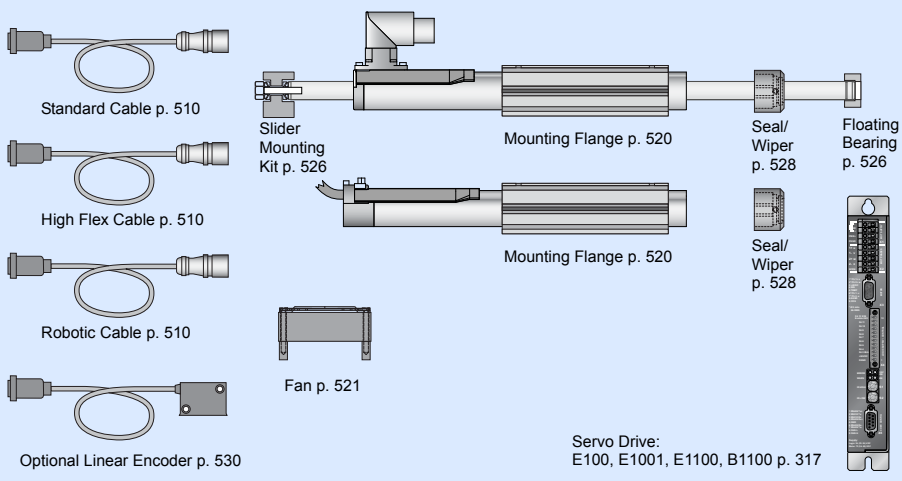


Standard Type	Slider Standard		PL01-12x200/100	0150-1305
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x200/100	0150-1308
	Hollow Slider	hole diameter 4.2mm	PL01-12x200/100-L	on request

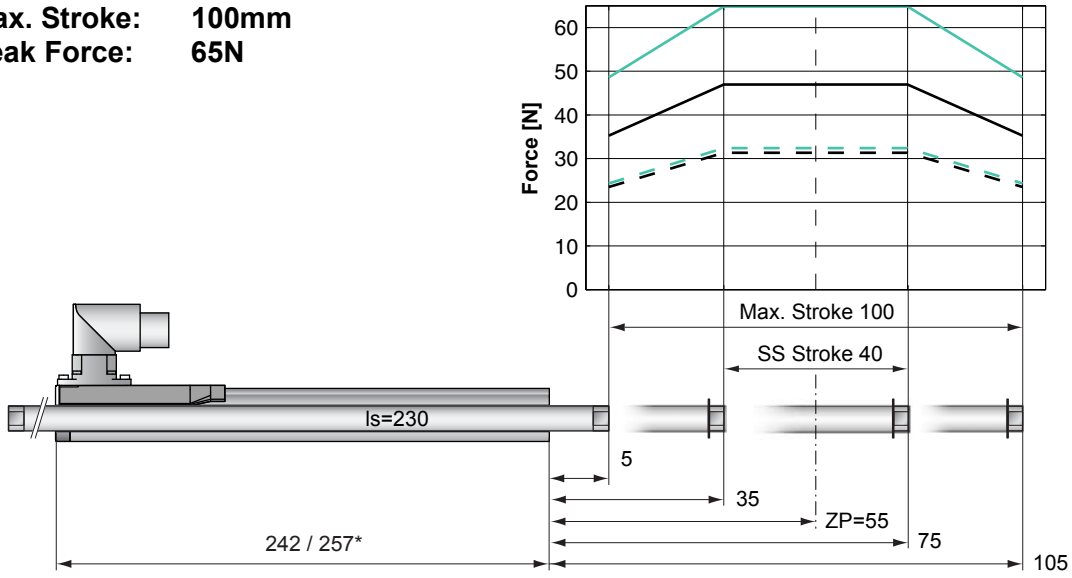
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 100mm
Peak Force: 65N

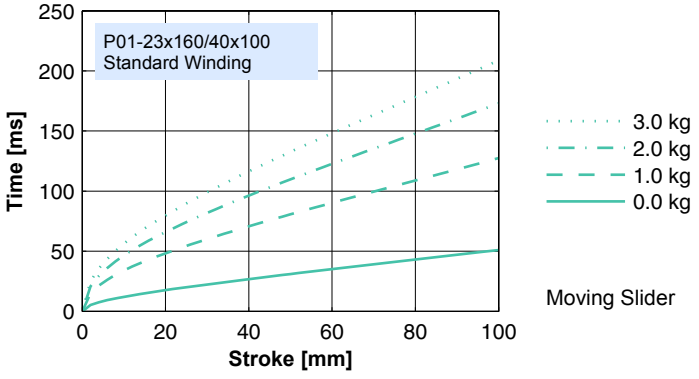


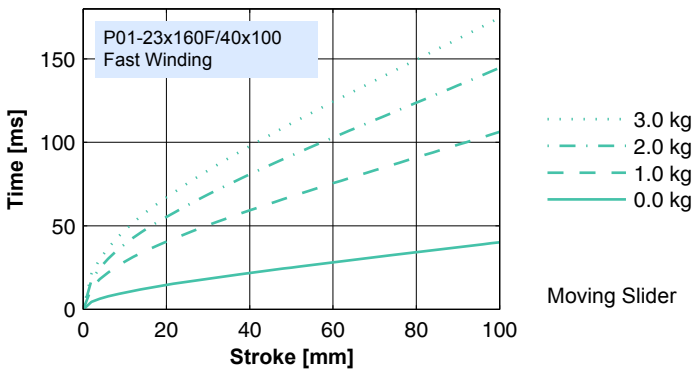
Dimensions in mm
*Cable Type

Motor Specification

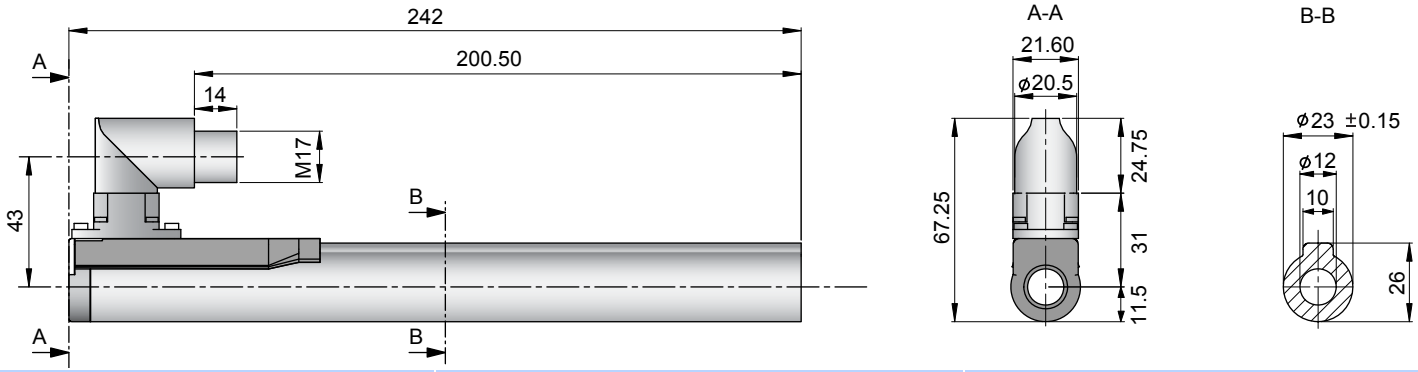
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/40x100-R**	**23x160F/40x100-R**	**23x160/40x100-D100** **23x160/40x100-R20**	**23x160F/40x100-R20**
Extended Stroke ES	mm (in)	100 (3.94)	100 (3.94)	100 (3.94)	100 (3.94)
Standard Stroke SS	mm (in)	40 (1.57)	40 (1.57)	40 (1.57)	40 (1.57)
Peak Force E1100 / E1001	N (lbf)	47 (10.6)	65 (14.6)	47 (10.6)	65 (14.6)
Peak Force E100	N (lbf)	31 (7.0)	32 (7.3)	31 (7.0)	32 (7.3)
Cont. Force	N (lbf)	12 (2.8)	12 (2.8)	12 (2.8)	12 (2.8)
Cont. Force Fan cooling	N (lbf)	24 (5.3)	24 (5.3)	24 (5.3)	24 (5.3)
Border Force	%	75	75	75	75
Force Constant	N/A (lbf/A)	16.6 (3.72)	10.8 (2.43)	16.6 (3.72)	10.8 (2.43)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	4.0 (157)	6.1 (241)	4.0 (157)	6.1 (241)
Max. Velocity @ 48VDC	m/s (in/s)	2.7 (105)	4.1 (161)	2.7 (105)	4.1 (161)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	230 (9.06)	230 (9.06)	230 (9.06)	230 (9.06)
Slider Mass	g (lb)	137 (0.30)	137 (0.30)	137 (0.30)	137 (0.30)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.45	±0.45	±0.45	±0.45
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



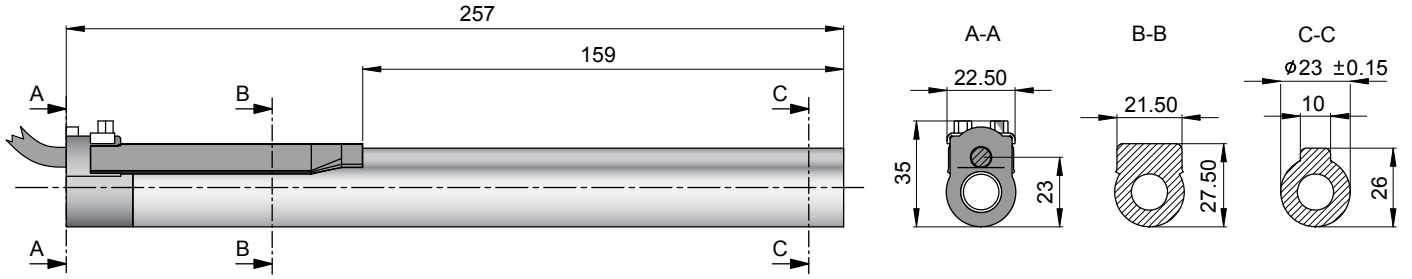


Connector Type



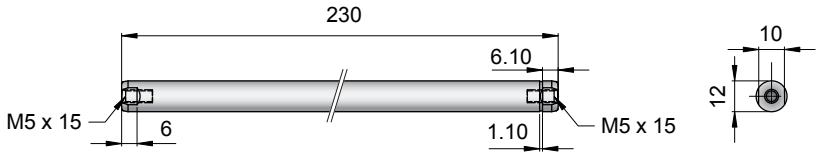
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/40x100-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x230/130	0150-1306
P01-23x160F/40x100-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x230/130	0150-1306

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/40x100-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x230/130	0150-1306
P01-23x160/40x100-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x230/130	0150-1306
P01-23x160F/40x100-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x230/130	0150-1306

Slider

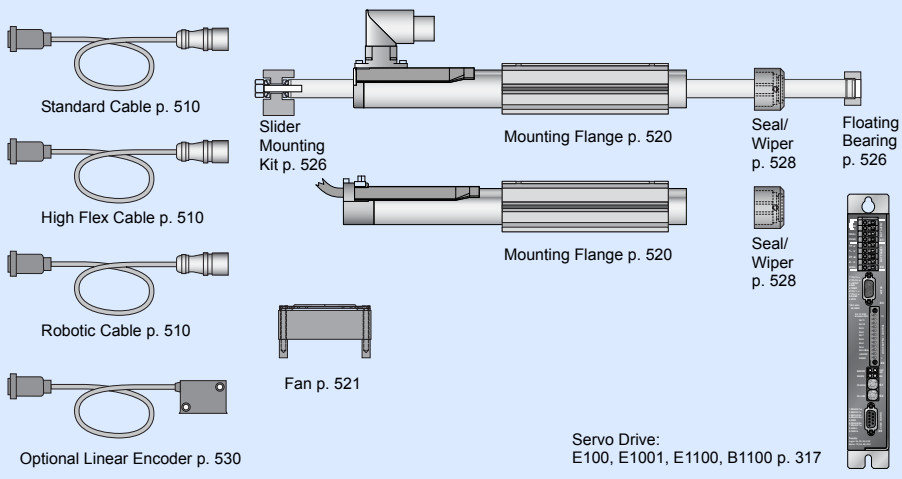


Standard Type	Slider Standard		PL01-12x230/130	0150-1306
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x230/130	0150-1309
	Hollow Slider	hole diameter 4.2mm	PL01-12x230/130-L	on request

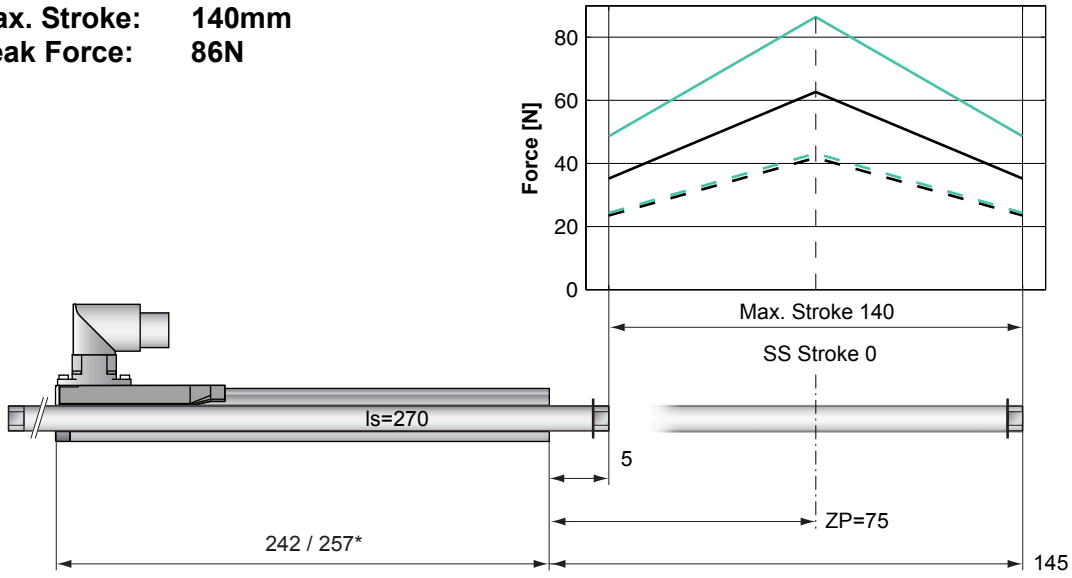
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 140mm
Peak Force: 86N

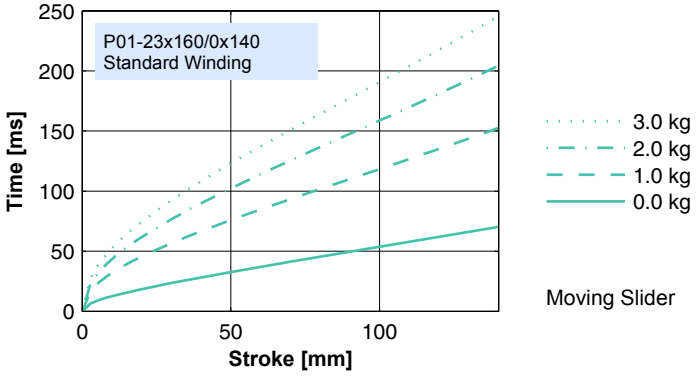


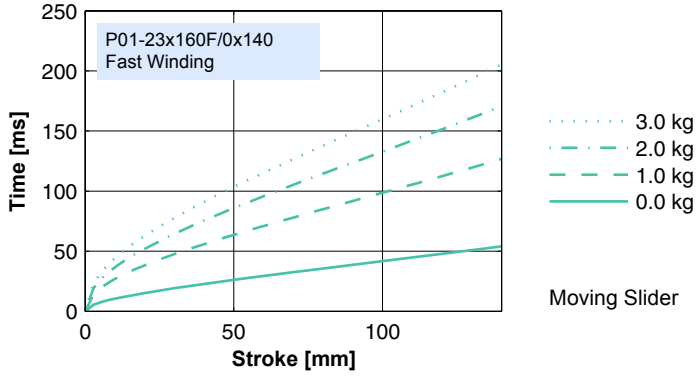
Dimensions in mm
*Cable Type

Motor Specification

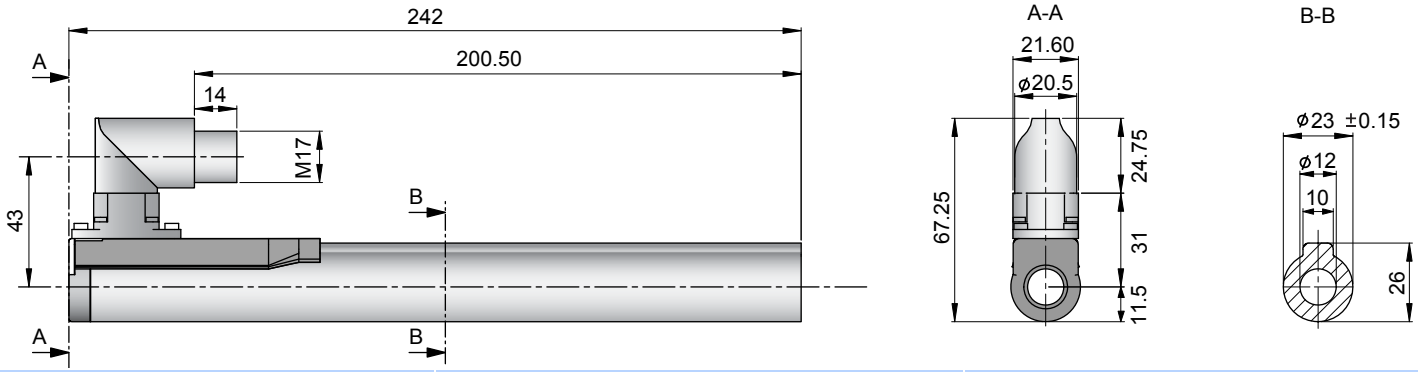
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/0x140-R**	**23x160F/0x140-R**	**23x160/0x140-D100 23x160/0x140-R20**	**23x160F/0x140-R20**
Extended Stroke ES	mm (in)	140 (5.51)	140 (5.51)	140 (5.51)	140 (5.51)
Standard Stroke SS	mm (in)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	270 (10.63)	270 (10.63)	270 (10.63)	270 (10.63)
Slider Mass	g (lb)	171 (0.38)	171 (0.38)	171 (0.38)	171 (0.38)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.35	±0.35	±0.35	±0.35
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



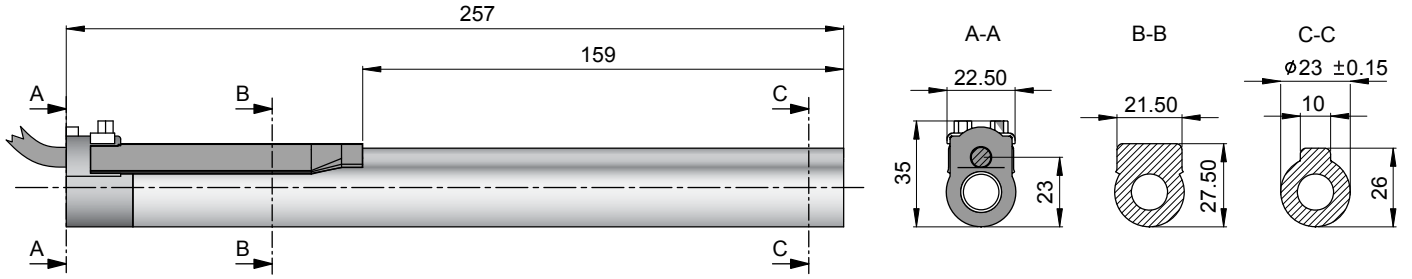


Connector Type



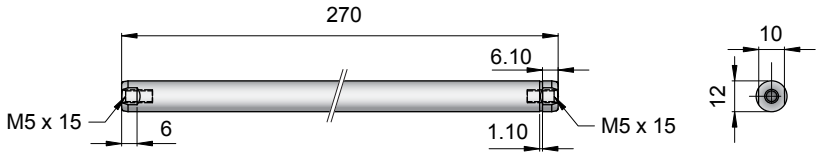
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/0x140-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x270/170	0150-1307
P01-23x160F/0x140-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x270/170	0150-1307

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/0x140-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x270/170	0150-1307
P01-23x160/0x140-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x270/170	0150-1307
P01-23x160F/0x140-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x270/170	0150-1307

Slider

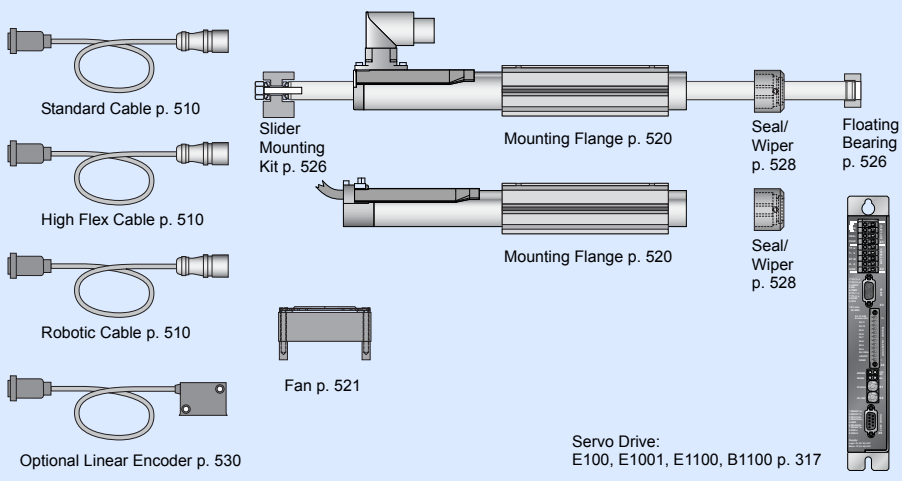


Standard Type	Slider Standard		PL01-12x270/170	0150-1307
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x270/170	0150-1310
	Hollow Slider	hole diameter 4.2mm	PL01-12x270/170-L	0150-1393

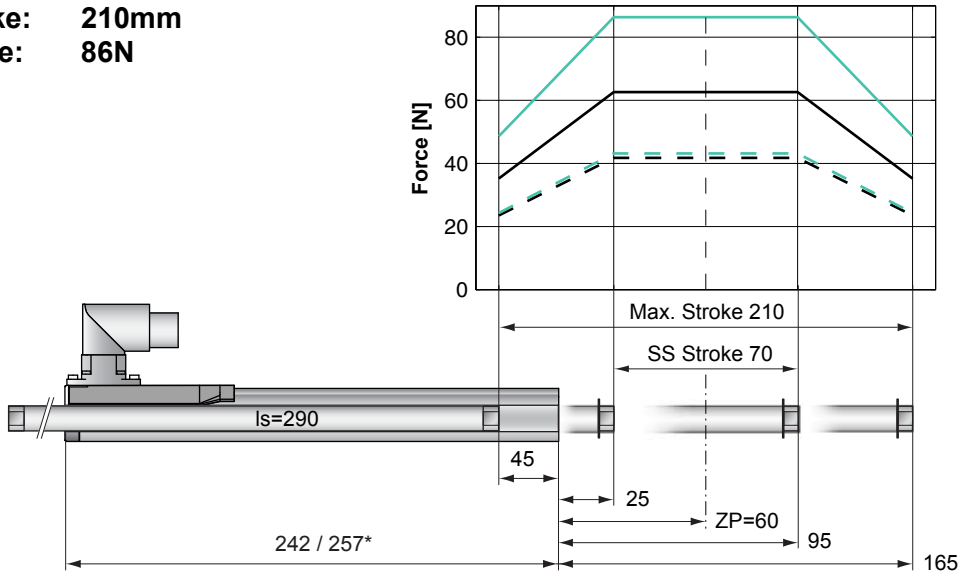
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 210mm
Peak Force: 86N



Standard Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

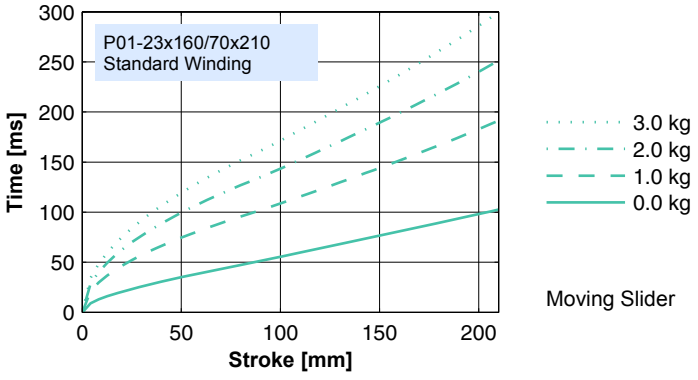
Fast Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

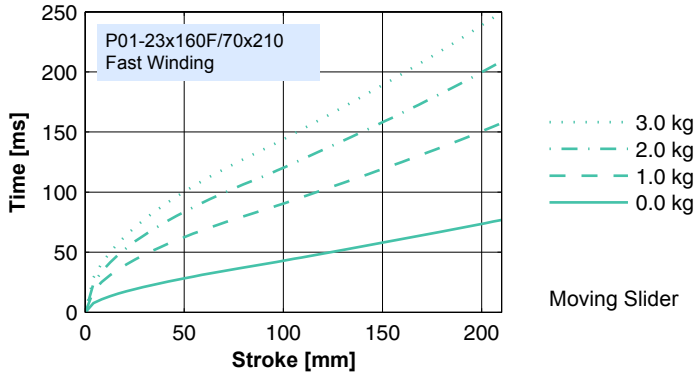
Dimensions in mm
*Cable Type

Motor Specification

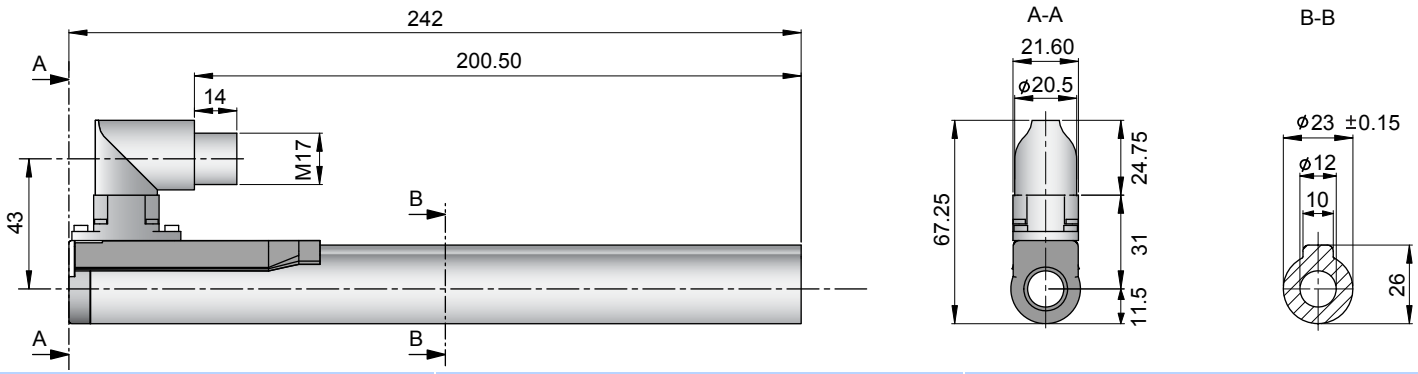
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/70x210-R**	**23x160F/70x210-R**	**23x160/70x210-D100** **23x160/70x210-R20**	**23x160F/70x210-R20**
Extended Stroke ES	mm (in)	210 (8.27)	210 (8.27)	210 (8.27)	210 (8.27)
Standard Stroke SS	mm (in)	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	290 (11.42)	290 (11.42)	290 (11.42)	290 (11.42)
Slider Mass	g (lb)	220 (0.49)	220 (0.49)	220 (0.49)	220 (0.49)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.30	±0.30	±0.30	±0.30
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



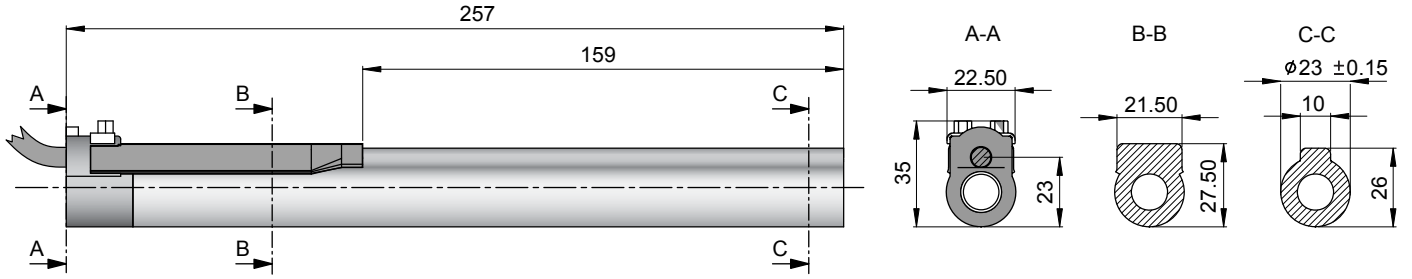


Connector Type



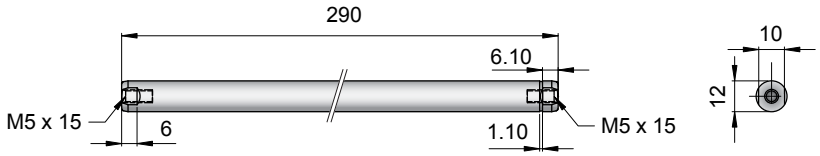
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/70x210-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x290/240	0150-1320
P01-23x160F/70x210-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x290/240	0150-1320

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/70x210-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x290/240	0150-1320
P01-23x160/70x210-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x290/240	0150-1320
P01-23x160F/70x210-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x290/240	0150-1320

Slider

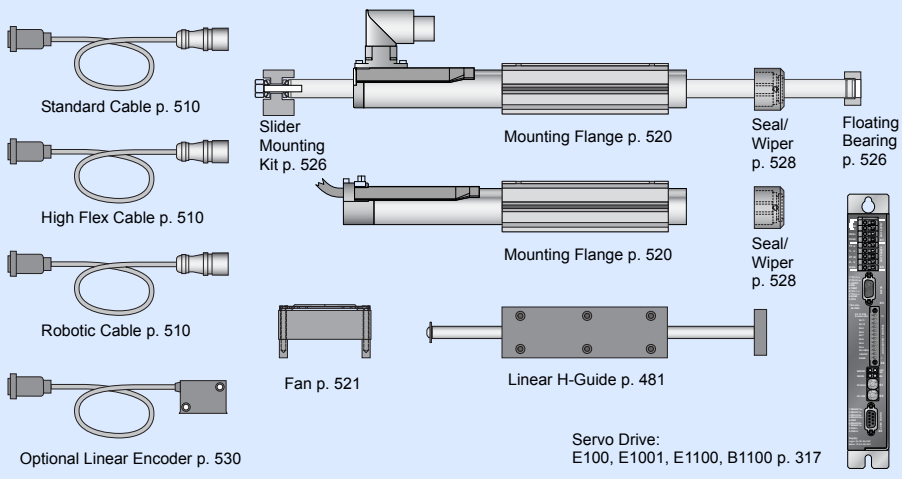


Standard Type	Slider Standard		PL01-12x290/240	0150-1320
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x290/240	0150-1321
	Hollow Slider	hole diameter 4.2mm	PL01-12x290/240-L	0150-1363

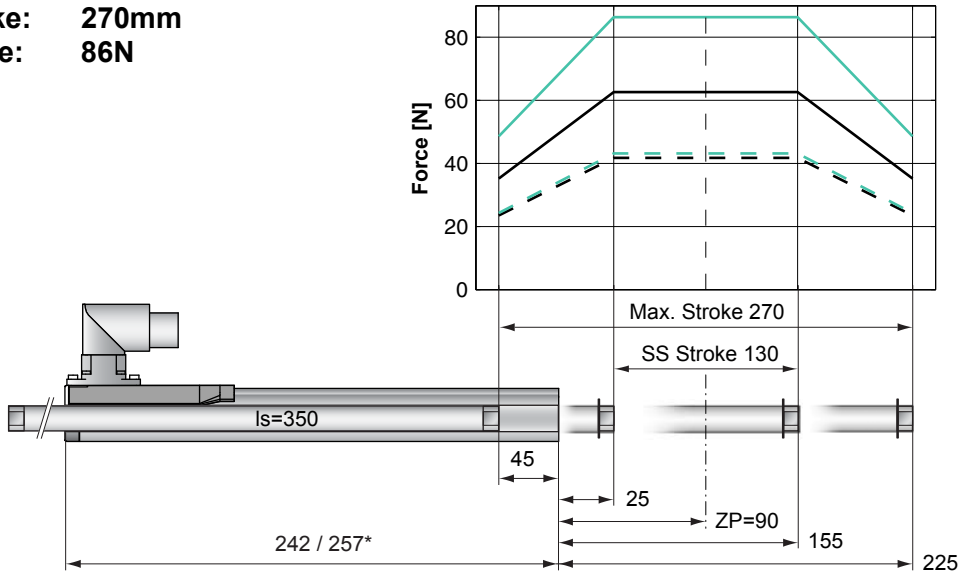
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 270mm
Peak Force: 86N



Standard Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

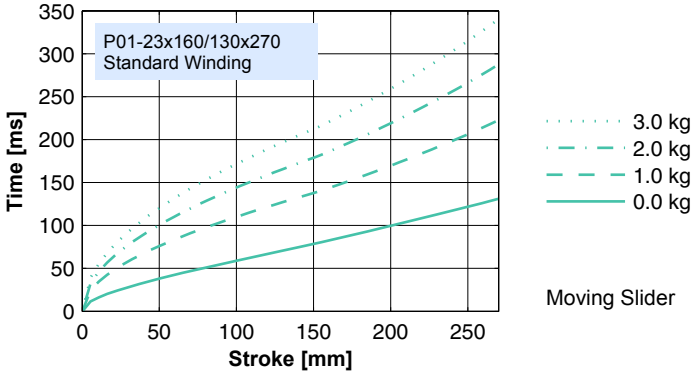
Fast Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

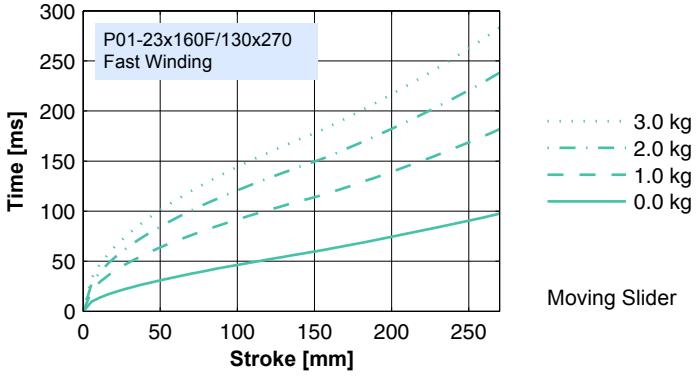
Dimensions in mm
*Cable Type

Motor Specification

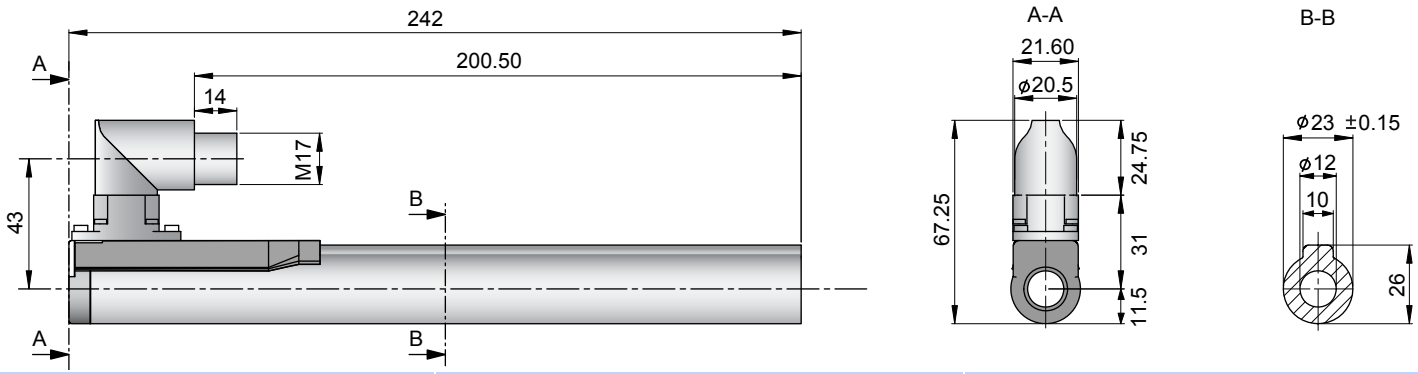
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/130x270-R**	**23x160F/130x270-R**	**23x160/130x270-D100 23x160/130x270-R20**	**23x160F/130x270-R20**
Extended Stroke ES	mm (in)	270 (10.63)	270 (10.63)	270 (10.63)	270 (10.63)
Standard Stroke SS	mm (in)	130 (5.12)	130 (5.12)	130 (5.12)	130 (5.12)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	350 (13.78)	350 (13.78)	350 (13.78)	350 (13.78)
Slider Mass	g (lb)	271 (0.60)	271 (0.60)	271 (0.60)	271 (0.60)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.25	±0.25	±0.25	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



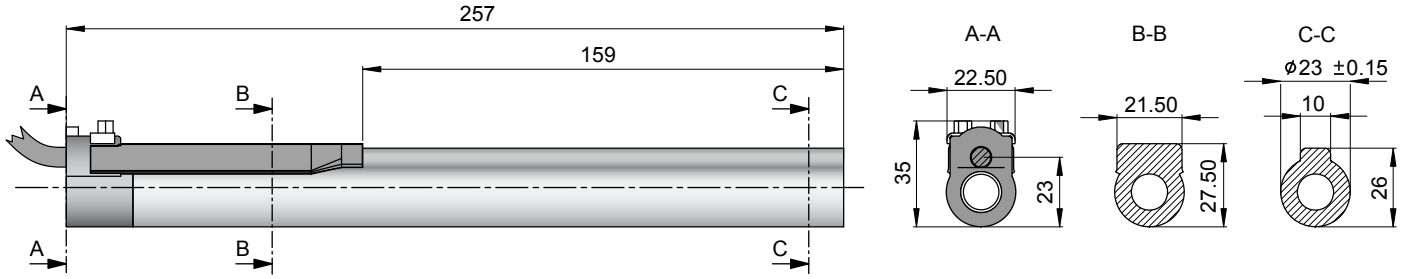


Connector Type



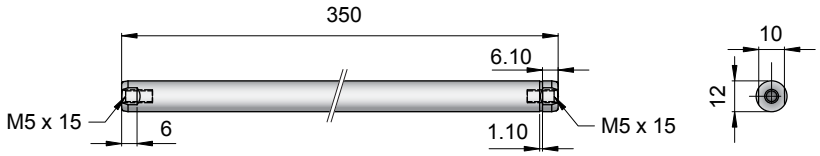
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/130x270-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x350/300	0150-1322
P01-23x160F/130x270-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x350/300	0150-1322

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/130x270-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x350/300	0150-1322
P01-23x160/130x270-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x350/300	0150-1322
P01-23x160F/130x270-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x350/300	0150-1322

Slider

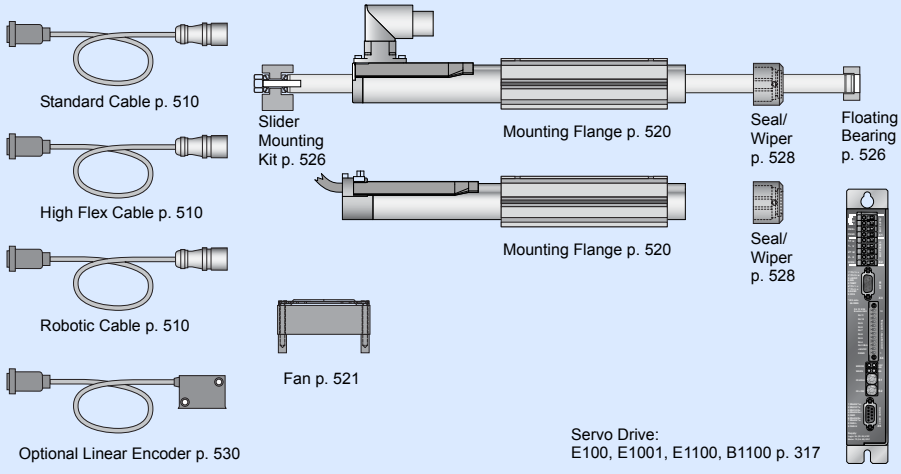


Standard Type	Slider Standard		PL01-12x350/300	0150-1322
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x350/300	0150-1323
	Hollow Slider	hole diameter 4.2mm	PL01-12x350/300-L	0150-1479

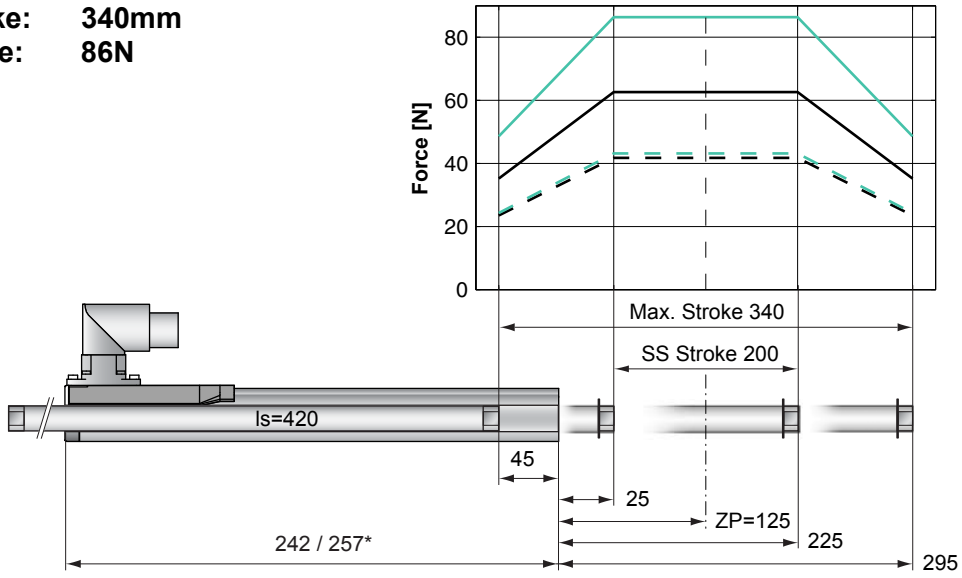
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 340mm
Peak Force: 86N



Standard Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

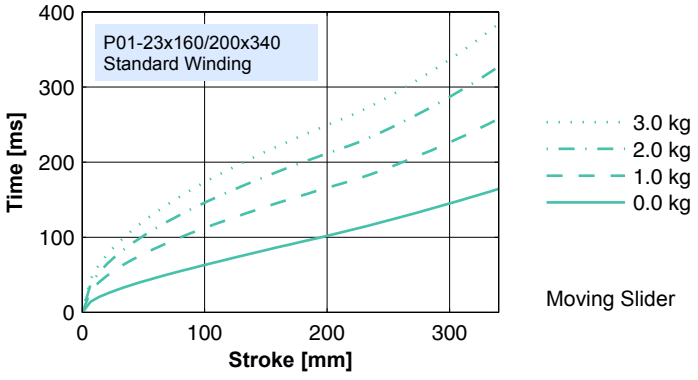
Fast Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

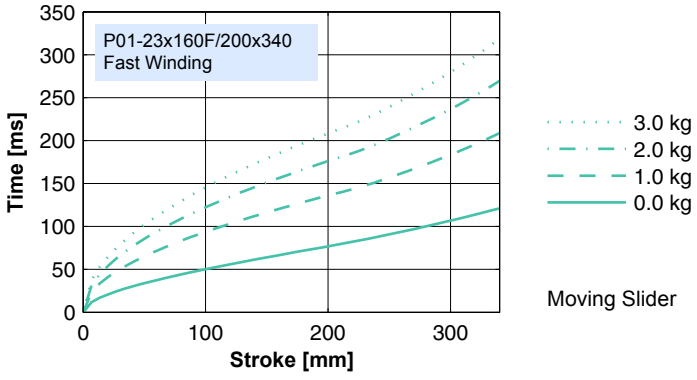
Dimensions in mm
*Cable Type

Motor Specification

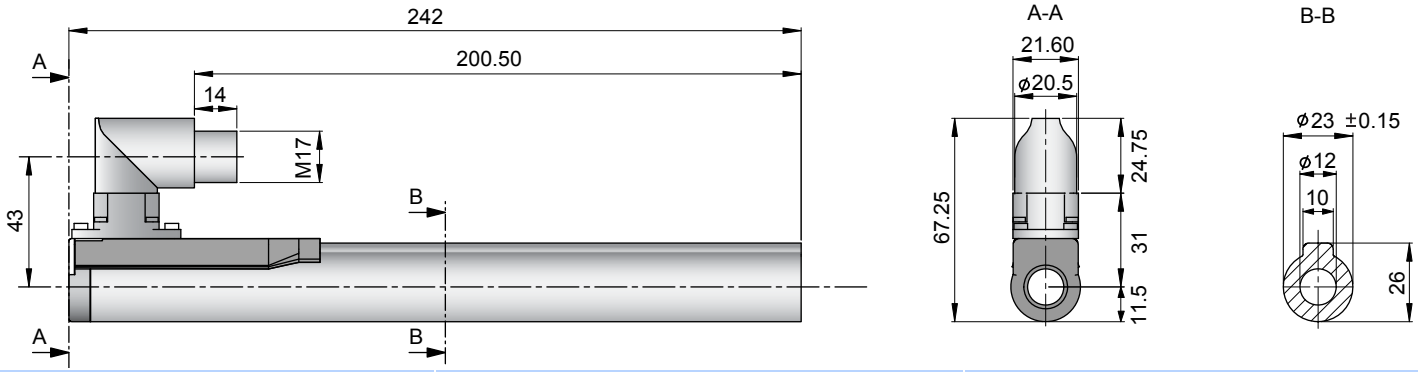
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/200x340-R**	**23x160F/200x340-R**	**23x160/200x340-D100 23x160/200x340-R20**	**23x160F/200x340-R20**
Extended Stroke ES	mm (in)	340 (13.39)	340 (13.39)	340 (13.39)	340 (13.39)
Standard Stroke SS	mm (in)	200 (7.87)	200 (7.87)	200 (7.87)	200 (7.87)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	420 (16.54)	420 (16.54)	420 (16.54)	420 (16.54)
Slider Mass	g (lb)	330 (0.73)	330 (0.73)	330 (0.73)	330 (0.73)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.25	±0.25	±0.25	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



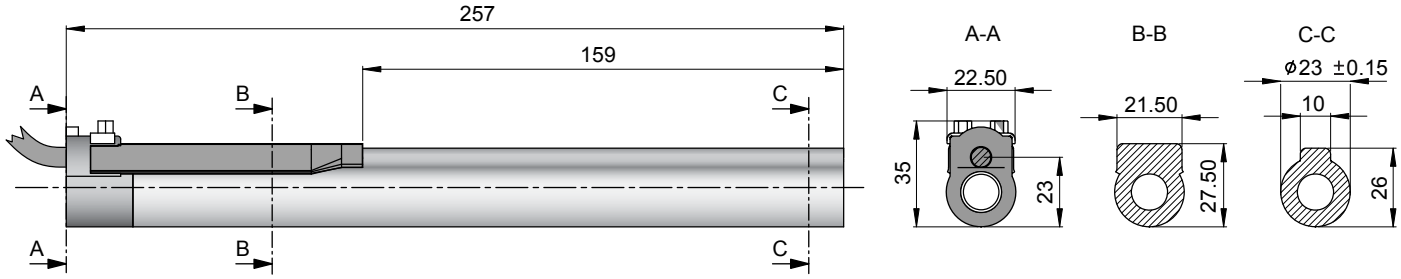


Connector Type



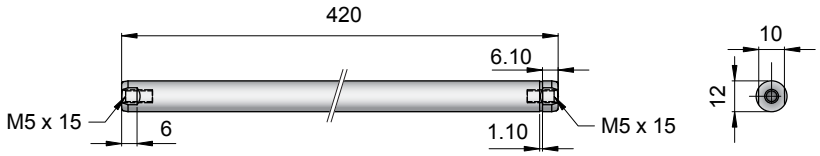
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/200x340-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x420/370	0150-1324
P01-23x160F/200x340-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x420/370	0150-1324

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/200x340-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x420/370	0150-1324
P01-23x160/200x340-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x420/370	0150-1324
P01-23x160F/200x340-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x420/370	0150-1324

Slider

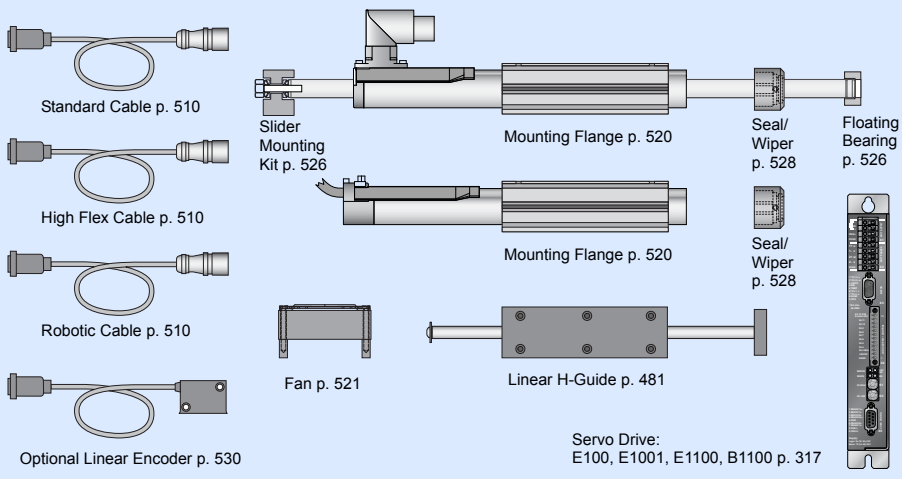


Standard Type	Slider Standard		PL01-12x420/370	0150-1324
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x420/370	0150-1325
	Hollow Slider	hole diameter 4.2mm	PL01-12x420/370-L	0150-1394

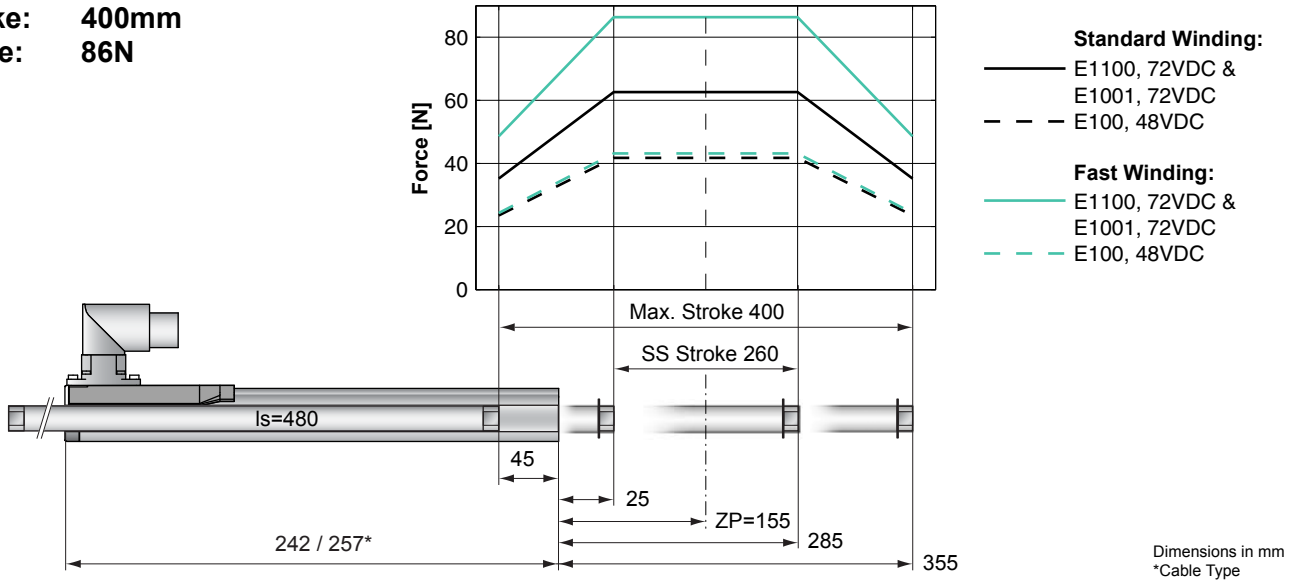
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23...-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 400mm
Peak Force: 86N

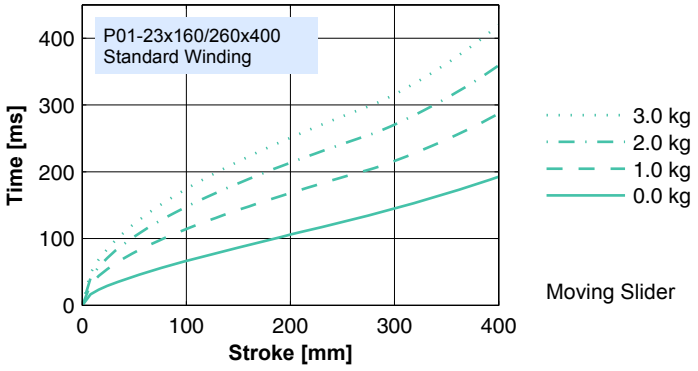


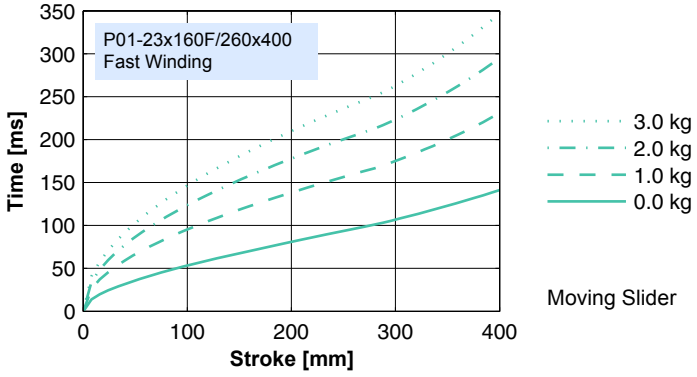
Dimensions in mm
*Cable Type

Motor Specification

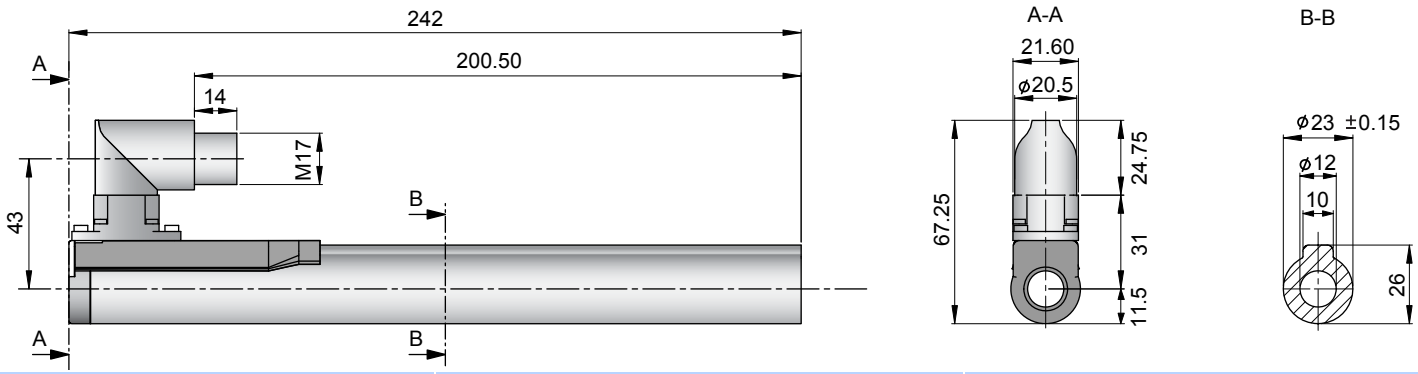
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/260x400-R**	**23x160F/260x400-R**	**23x160/260x400-D100** **23x160/260x400-R20**	**23x160F/260x400-R20**
Extended Stroke ES	mm (in)	400 (15.75)	400 (15.75)	400 (15.75)	400 (15.75)
Standard Stroke SS	mm (in)	260 (10.24)	260 (10.24)	260 (10.24)	260 (10.24)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	480 (18.90)	480 (18.90)	480 (18.90)	480 (18.90)
Slider Mass	g (lb)	380 (0.84)	380 (0.84)	380 (0.84)	380 (0.84)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.25	±0.25	±0.25	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



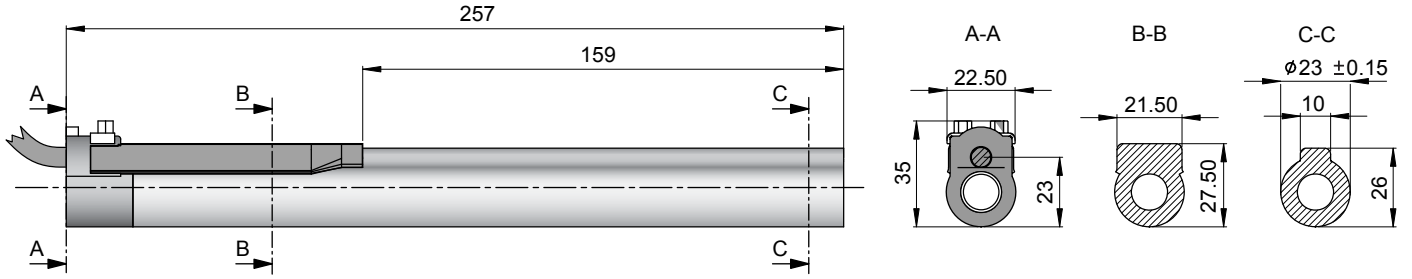


Connector Type



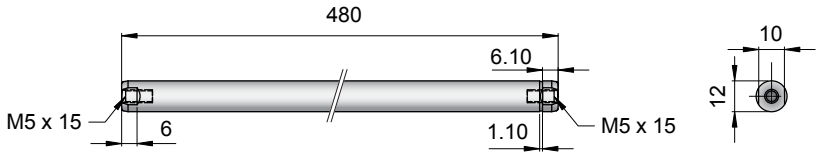
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/260x400-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x480/430	0150-1372
P01-23x160F/260x400-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x480/430	0150-1372

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/260x400-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x480/430	0150-1372
P01-23x160/260x400-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x480/430	0150-1372
P01-23x160F/260x400-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x480/430	0150-1372

Slider

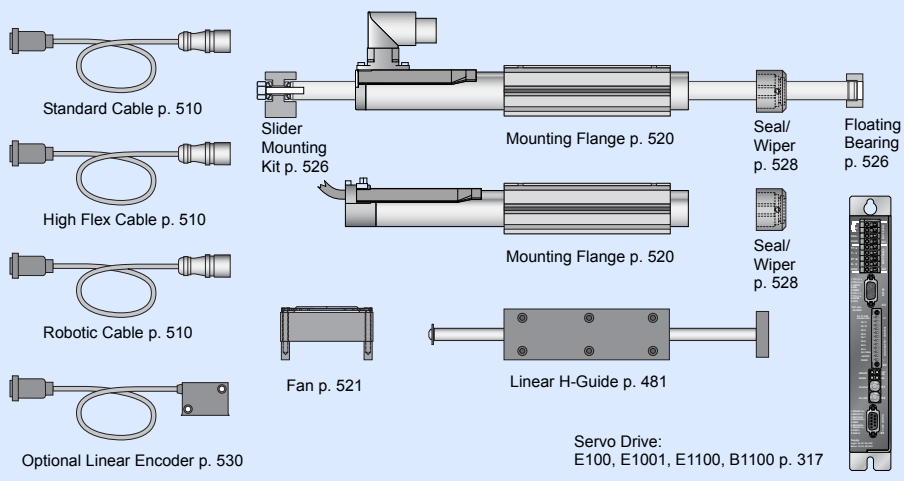


Standard Type	Slider Standard		PL01-12x480/430	0150-1372
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x480/430	0150-1373
	Hollow Slider	hole diameter 4.2mm	PL01-12x480/430-L	on request

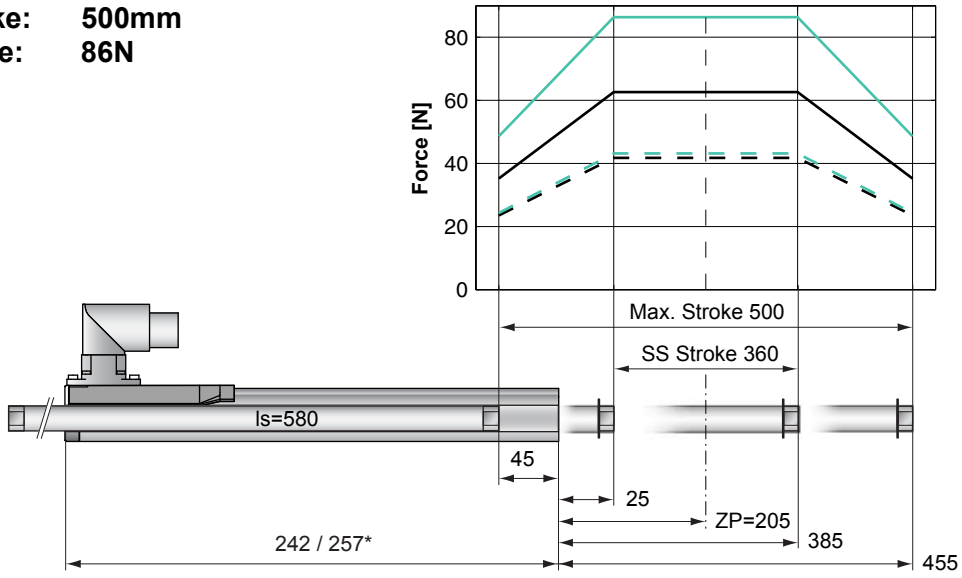
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 500mm
Peak Force: 86N

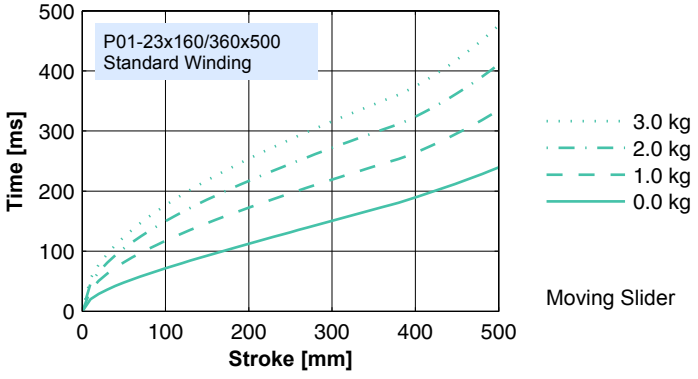


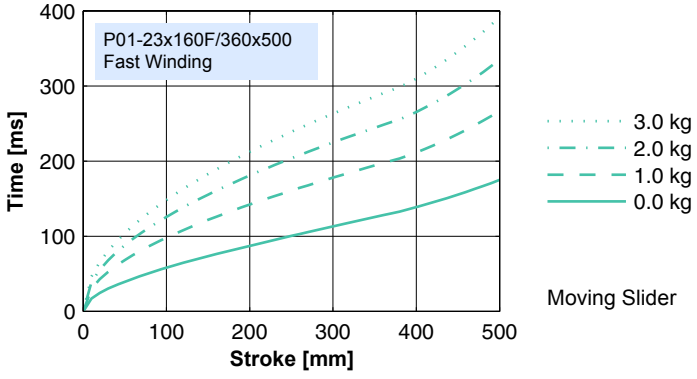
Dimensions in mm
*Cable Type

Motor Specification

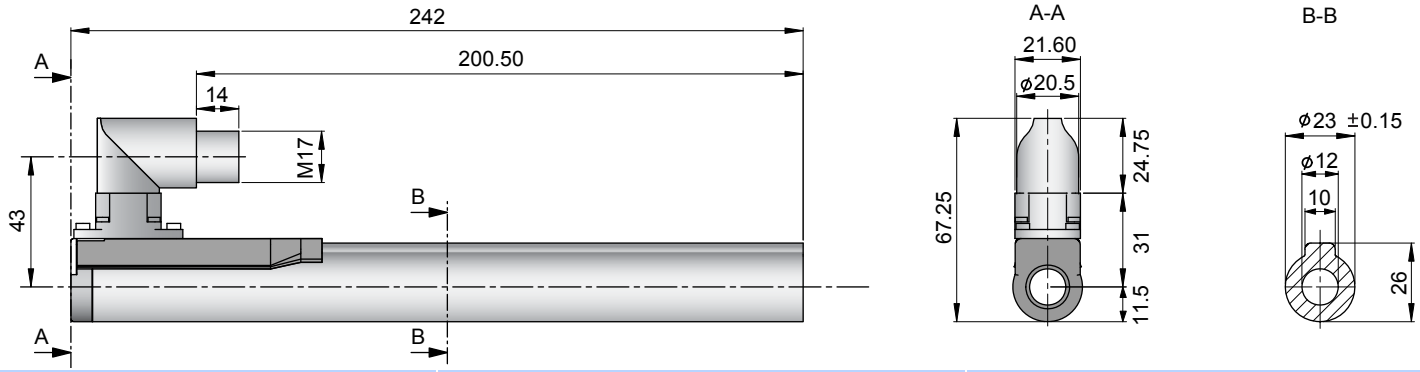
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/360x500-R**	**23x160F/360x500-R**	**23x160/360x500-D100** **23x160/360x500-R20**	**23x160F/360x500-R20**
Extended Stroke ES	mm (in)	500 (19.69)	500 (19.69)	500 (19.69)	500 (19.69)
Standard Stroke SS	mm (in)	360 (14.17)	360 (14.17)	360 (14.17)	360 (14.17)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	580 (22.83)	580 (22.83)	580 (22.83)	580 (22.83)
Slider Mass	g (lb)	465 (1.03)	465 (1.03)	465 (1.03)	465 (1.03)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



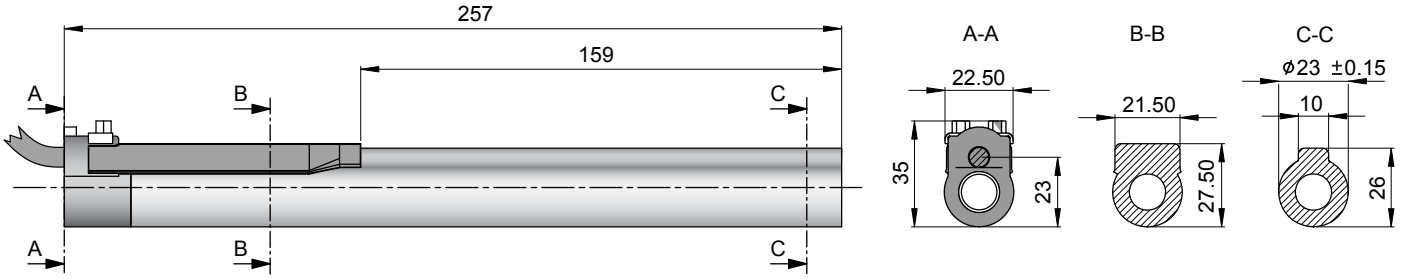


Connector Type



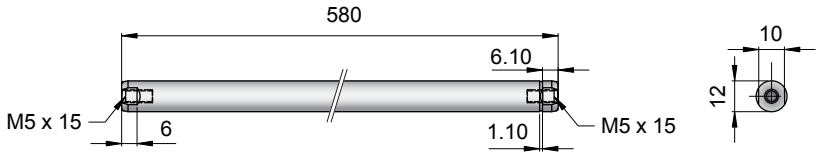
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/360x500-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x580/530	0150-1355
P01-23x160F/360x500-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x580/530	0150-1355

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/360x500-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x580/530	0150-1355
P01-23x160/360x500-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x580/530	0150-1355
P01-23x160F/360x500-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x580/530	0150-1355

Slider

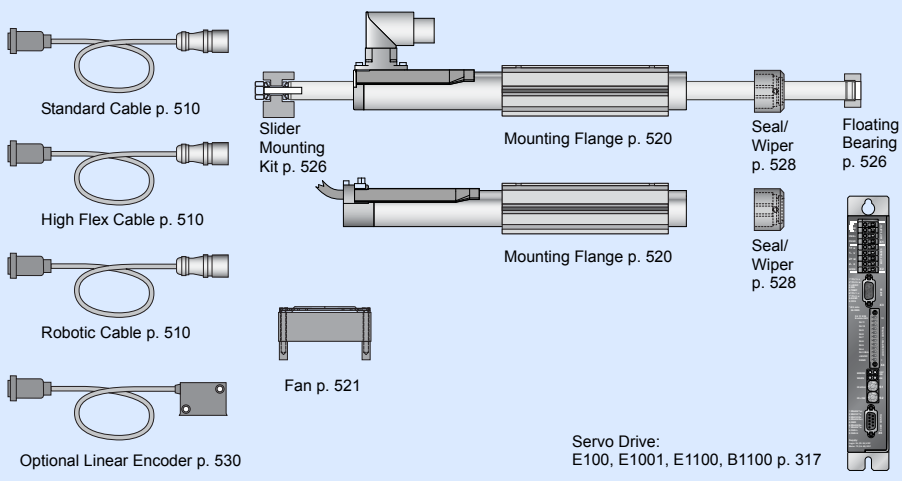


Standard Type	Slider Standard		PL01-12x580/530	0150-1355
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x580/530	0150-1356
	Hollow Slider	hole diameter 4.2mm	PL01-12x580/530-L	0150-1391

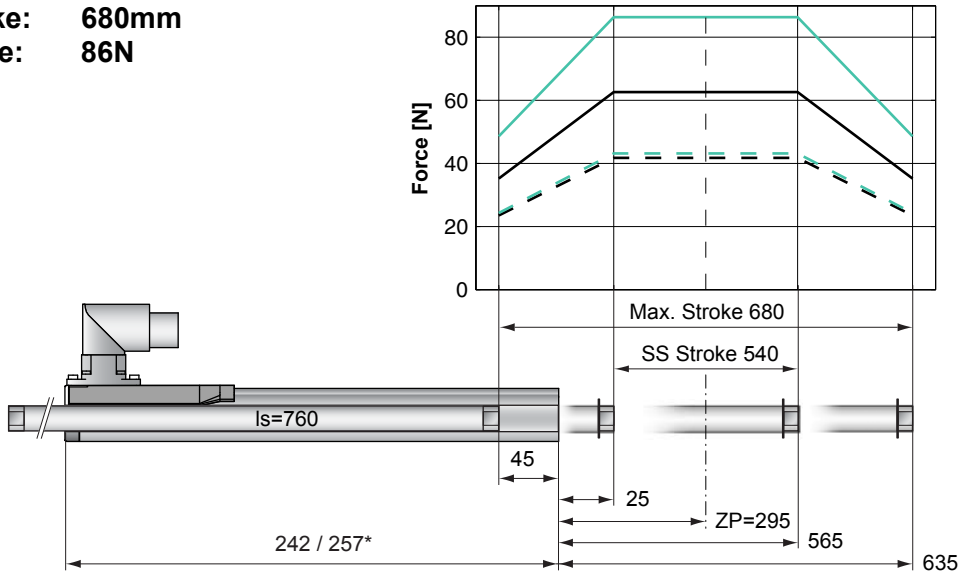
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 680mm
Peak Force: 86N



Standard Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

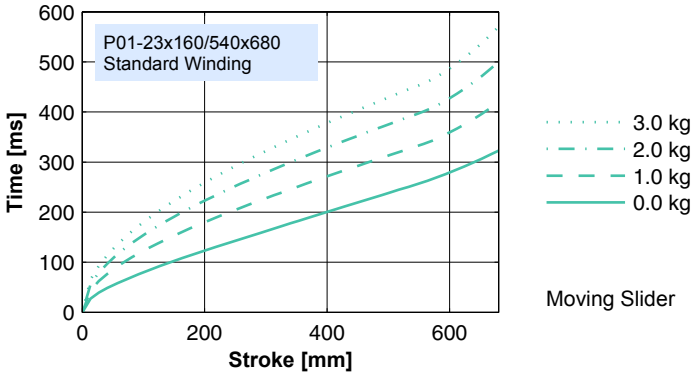
Fast Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

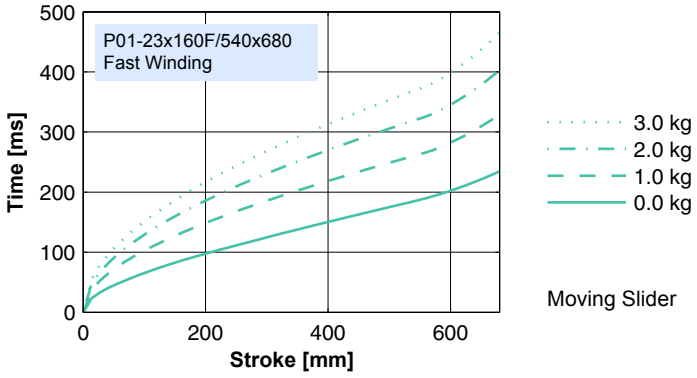
Dimensions in mm
*Cable Type

Motor Specification

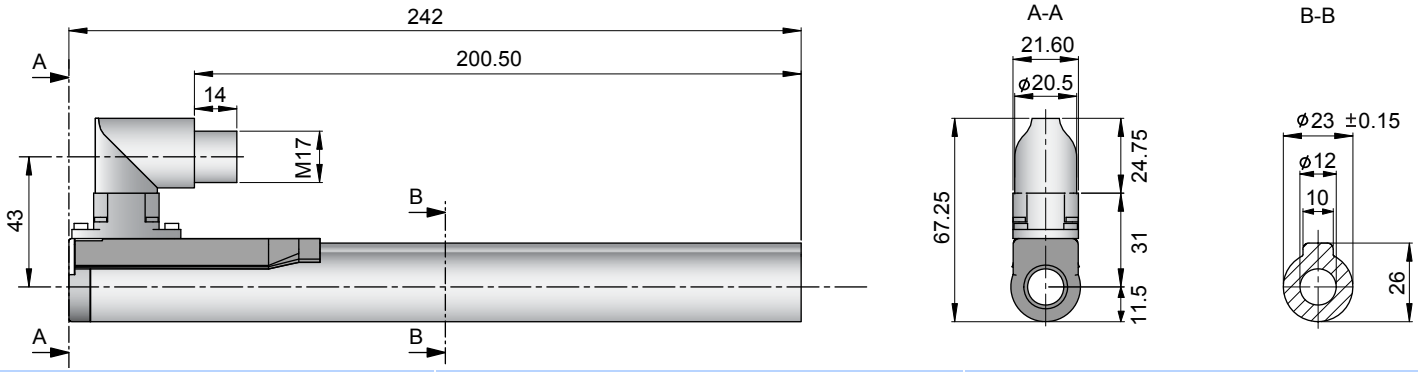
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/540x680-R**	**23x160F/540x680-R**	**23x160/540x680-D100 23x160/540x680-R20**	**23x160F/540x680-R20**
Extended Stroke ES	mm (in)	680 (26.77)	680 (26.77)	680 (26.77)	680 (26.77)
Standard Stroke SS	mm (in)	540 (21.26)	540 (21.26)	540 (21.26)	540 (21.26)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	760 (29.92)	760 (29.92)	760 (29.92)	760 (29.92)
Slider Mass	g (lb)	615 (1.36)	615 (1.36)	615 (1.36)	615 (1.36)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



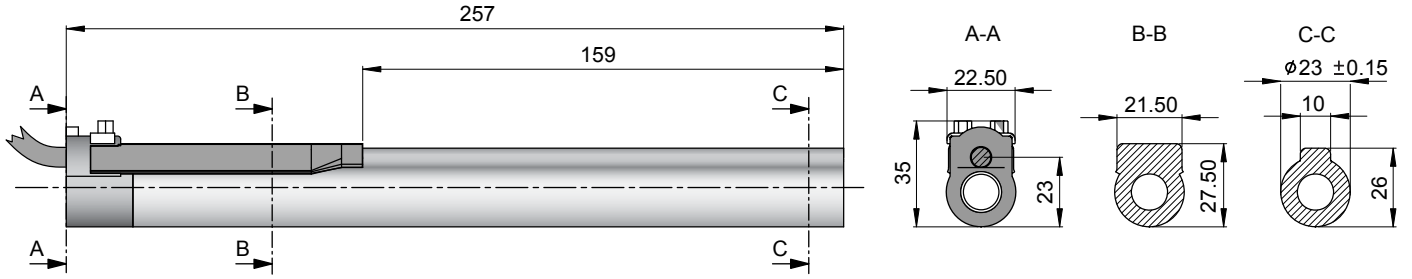


Connector Type



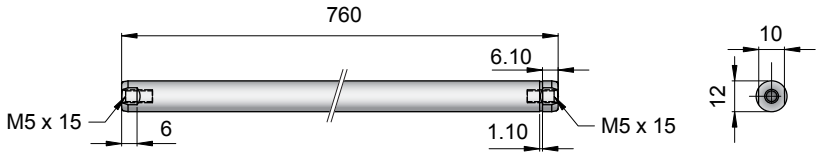
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/540x680-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x760/710	0150-1366
P01-23x160F/540x680-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x760/710	0150-1366

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/540x680-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x760/710	0150-1366
P01-23x160/540x680-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x760/710	0150-1366
P01-23x160F/540x680-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x760/710	0150-1366

Slider

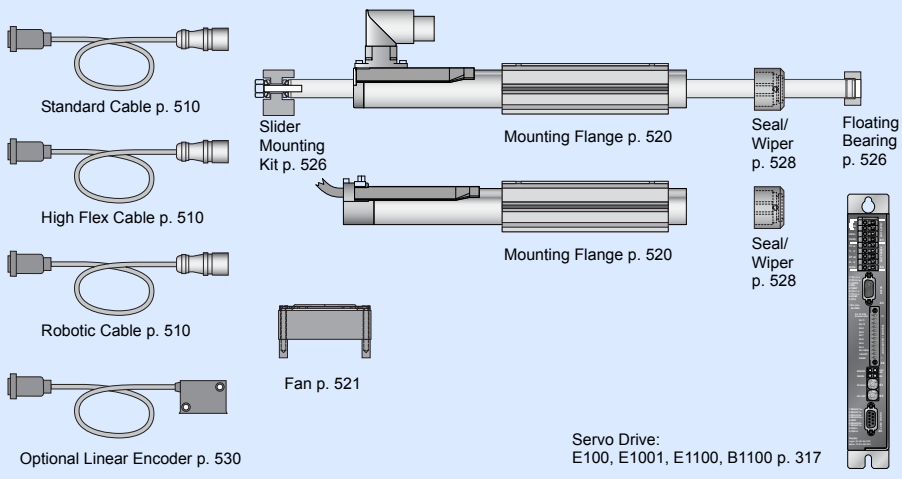


Standard Type	Slider Standard		PL01-12x760/710	0150-1366
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x760/710	on request
	Hollow Slider	hole diameter 4.2mm	PL01-12x760/710-L	0150-1392

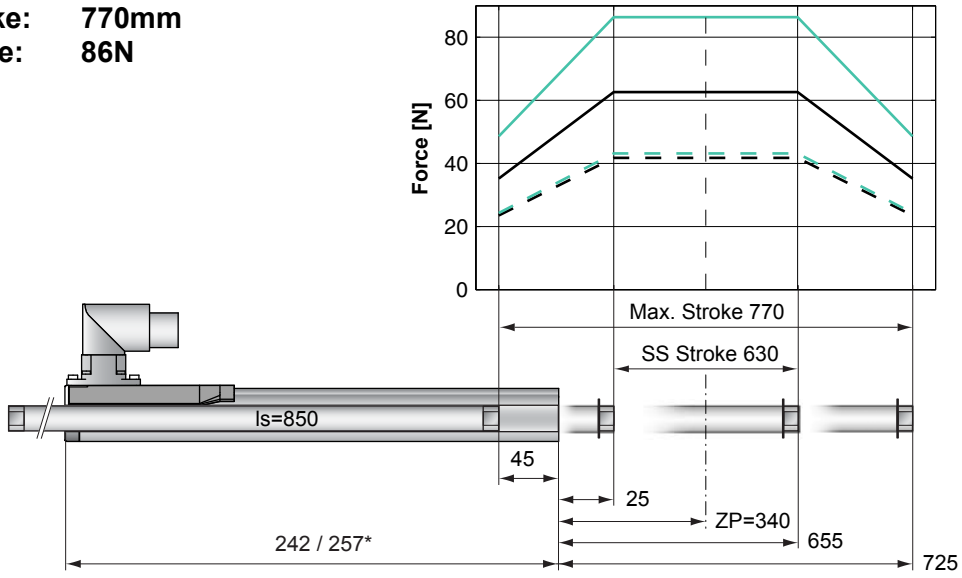
Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



Max. Stroke: 770mm
Peak Force: 86N



Standard Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

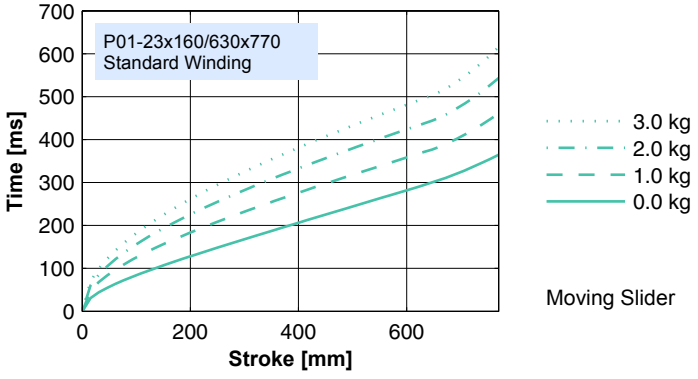
Fast Winding:
E1100, 72VDC & E1001, 72VDC
E100, 48VDC

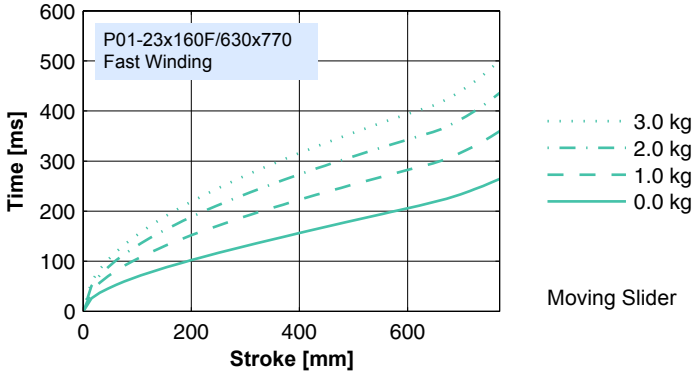
Dimensions in mm
*Cable Type

Motor Specification

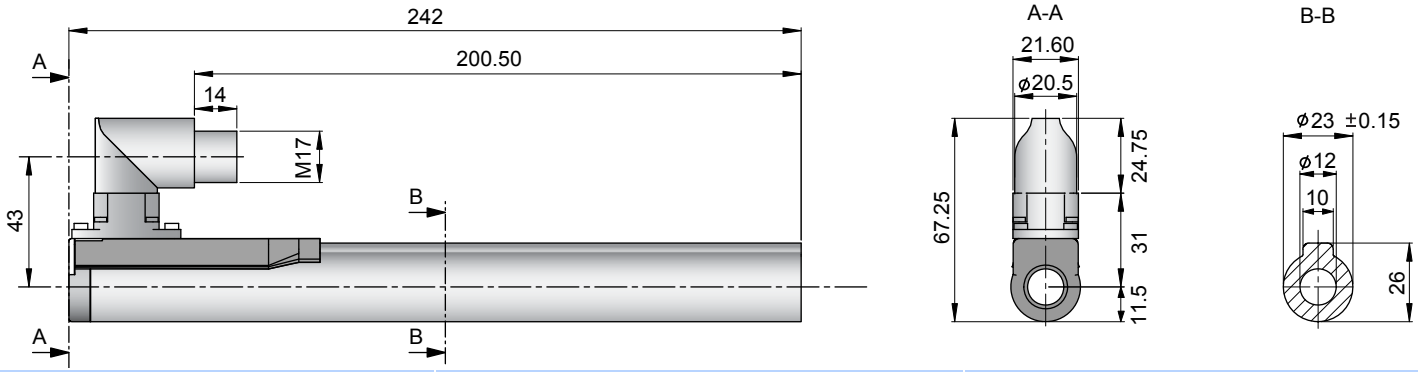
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**23x160/630x770-R**	**23x160F/630x770-R**	**23x160/630x770-D100** **23x160/630x770-R20**	**23x160F/630x770-R20**
Extended Stroke ES	mm (in)	770 (30.31)	770 (30.31)	770 (30.31)	770 (30.31)
Standard Stroke SS	mm (in)	630 (24.80)	630 (24.80)	630 (24.80)	630 (24.80)
Peak Force E1100 / E1001	N (lbf)	63 (14.1)	86 (19.4)	63 (14.1)	86 (19.4)
Peak Force E100	N (lbf)	42 (9.4)	43 (9.7)	42 (9.4)	43 (9.7)
Cont. Force	N (lbf)	17 (3.7)	17 (3.7)	17 (3.7)	17 (3.7)
Cont. Force Fan cooling	N (lbf)	31 (7.1)	32 (7.1)	31 (7.1)	32 (7.1)
Border Force	%	56	56	56	56
Force Constant	N/A (lbf/A)	22.1 (4.96)	14.4 (3.24)	22.1 (4.96)	14.4 (3.24)
Max. Current @ 72VDC	A	2.8	6.0	2.8	6.0
Max. Current @ 48VDC	A	1.9	4.3	1.9	4.3
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)	4.6 (181)	3.0 (118)	4.6 (181)
Max. Velocity @ 48VDC	m/s (in/s)	2.0 (79)	3.1 (121)	2.0 (79)	3.1 (121)
Phase Resist. 25/80 °C	Ohm	20.6/24.9	9.0/10.9	20.6/24.9	9.0/10.9
Phase Inductance	mH	2.7	1.2	2.7	1.2
Thermal Resistance	°K/W	3.9	3.8	3.9	3.8
Thermal Time Const.	sec	1900	1800	1900	1800
Stator Diameter	mm (in)	23 (0.91)	23 (0.91)	23 (0.91)	23 (0.91)
Stator Length	mm (in)	242 (9.53)	242 (9.53)	257 (10.12)	257 (10.12)
Stator Mass	g (lb)	450 (0.99)	450 (0.99)	450 (0.99)	450 (0.99)
Slider Diameter	mm (in)	12 (0.47)	12 (0.47)	12 (0.47)	12 (0.47)
Slider Length	mm (in)	850 (33.46)	850 (33.46)	850 (33.46)	850 (33.46)
Slider Mass	g (lb)	690 (1.52)	690 (1.52)	690 (1.52)	690 (1.52)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



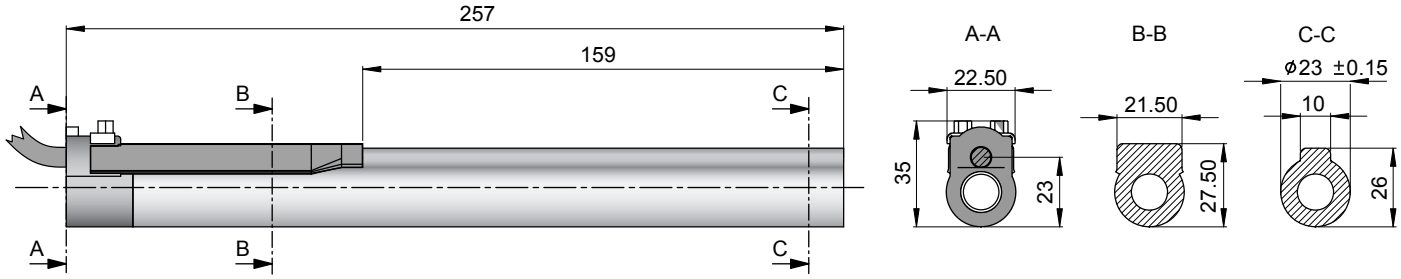


Connector Type



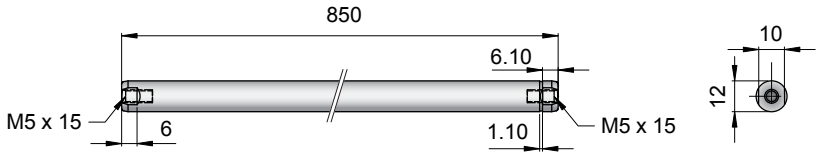
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/630x770-R	-->	PS01-23x160-R	0150-1234	&	PL01-12x850/800	0150-1365
P01-23x160F/630x770-R	-->	PS01-23x160F-R	0150-1235	&	PL01-12x850/800	0150-1365

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-23x160/630x770-D100	-->	PS01-23x160-D100	0150-1202	&	PL01-12x850/800	0150-1365
P01-23x160/630x770-R20	-->	PS01-23x160-R20	0150-1242	&	PL01-12x850/800	0150-1365
P01-23x160F/630x770-R20	-->	PS01-23x160F-R20	0150-1243	&	PL01-12x850/800	0150-1365

Slider

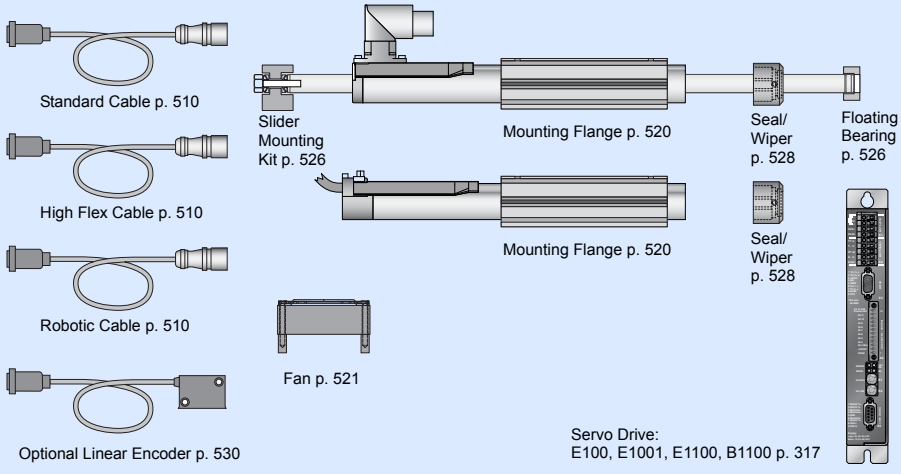


Standard Type	Slider Standard		PL01-12x850/800	0150-1365
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-12x850/800	on request
	Hollow Slider	hole diameter 4.2mm	PL01-12x850/800-L	on request

Connectors

Motor Connector Wiring Cable Length: P01-23x160... 1.0m P01-23x160...-R20 0.2m		P01-23....-R P01-23...-R20	P01-23....
Ph 1+	red	1	1
Ph 1-	pink	2	6
Ph 2+	blue	3	2
Ph 2-	grey	4	7
+5VDC	white	A	3
GND	inner Shield	B	8
Sine	yellow	C	4
Cosine	green	D	9
Temp.	black	E	5
Shield	outer Shield	Case	Case

Accessoires



P01-37x240/100x100 112

P01-37x240/40x160 114

P01-37x240/60x260 116

P01-37x240/160x360 118

P01-37x240/260x460 120

P01-37x240/360x560 122

P01-37x240/460x660 124

P01-37x240/560x760 126

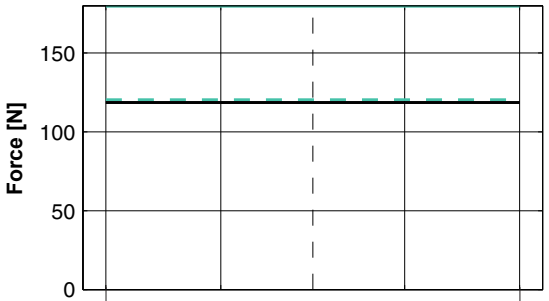
P01-37x240/660x860 128

P01-37x240/860x1060 130

P01-37x240/1060x1260 132

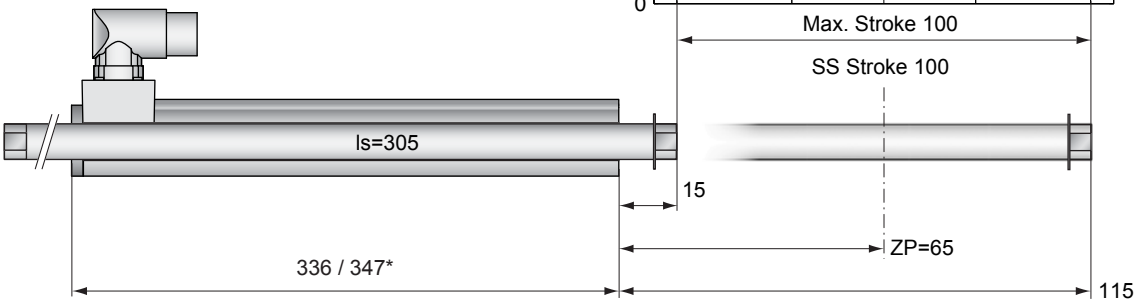
P01-37x240/1260x1460 134

Max. Stroke: 100mm
Peak Force: 180N



Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC & E1001, 72VDC

Fast Winding:
E1100–HC, 72VDC
E1100, 72VDC & E1001, 72VDC

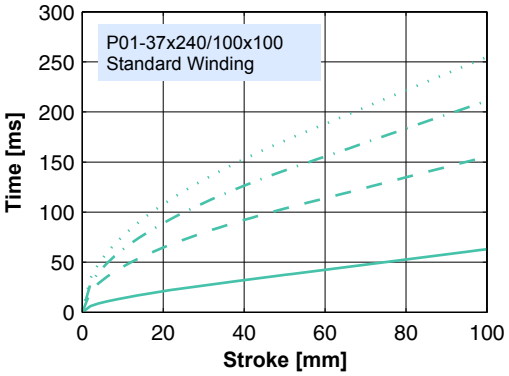


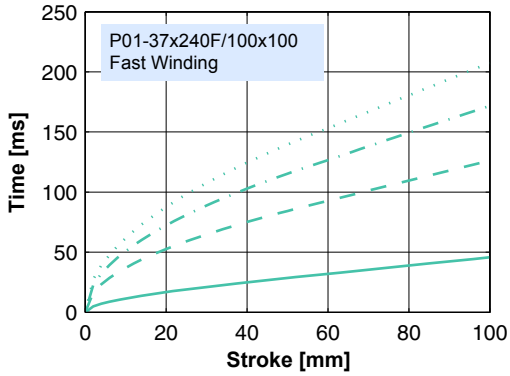
Dimensions in mm
*Cable Type

Motor Specification

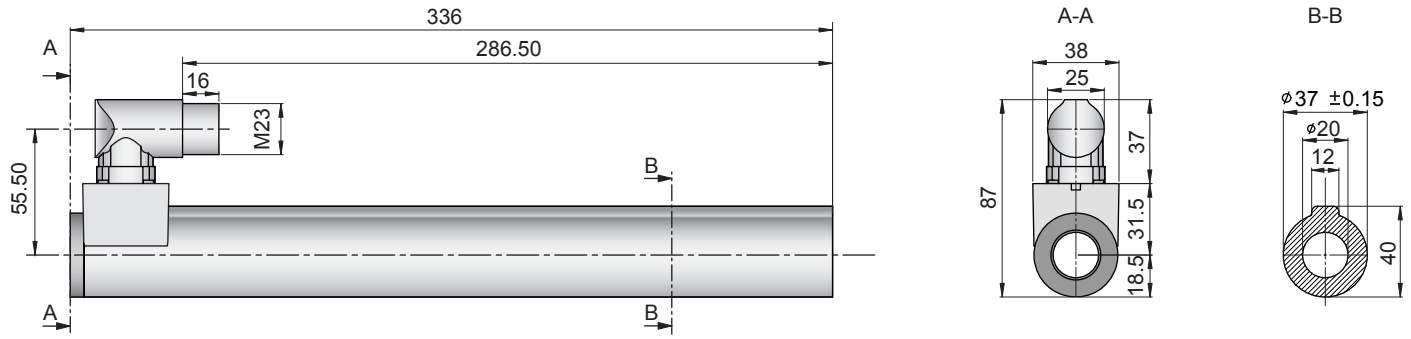
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/100x100-C**	**37x240F/100x100-C**	**37x240/100x100-P150** **37x240/100x100-C20**	**37x240F/100x100-C20**
Extended Stroke ES	mm (in)	100 (3.94)	100 (3.94)	100 (3.94)	100 (3.94)
Standard Stroke SS	mm (in)	100 (3.94)	100 (3.94)	100 (3.94)	100 (3.94)
Peak Force E1100-HC	N (lbf)	119 (26.7)	180 (40.4)	119 (26.7)	180 (40.4)
Peak Force E1100 / E1001	N (lbf)	119 (26.7)	120 (27.1)	119 (26.7)	120 (27.1)
Cont. Force	N (lbf)	31 (7.0)	31 (7.0)	31 (7.0)	31 (7.0)
Cont. Force Fan cooling	N (lbf)	58 (13.1)	58 (13.1)	58 (13.1)	58 (13.1)
Border Force	%	100	100	100	100
Force Constant	N/A (lbf/A)	23.8 (5.35)	15.1 (3.38)	23.8 (5.35)	15.1 (3.38)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	2.8 (110)	4.4 (173)	2.8 (110)	4.4 (173)
Max. Velocity @ 48VDC	m/s (in/s)	1.9 (73)	2.9 (116)	1.9 (73)	2.9 (116)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	305 (12.01)	305 (12.01)	305 (12.01)	305 (12.01)
Slider Mass	g (lb)	496 (1.09)	496 (1.09)	496 (1.09)	496 (1.09)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.40	±0.40	±0.40	±0.40
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



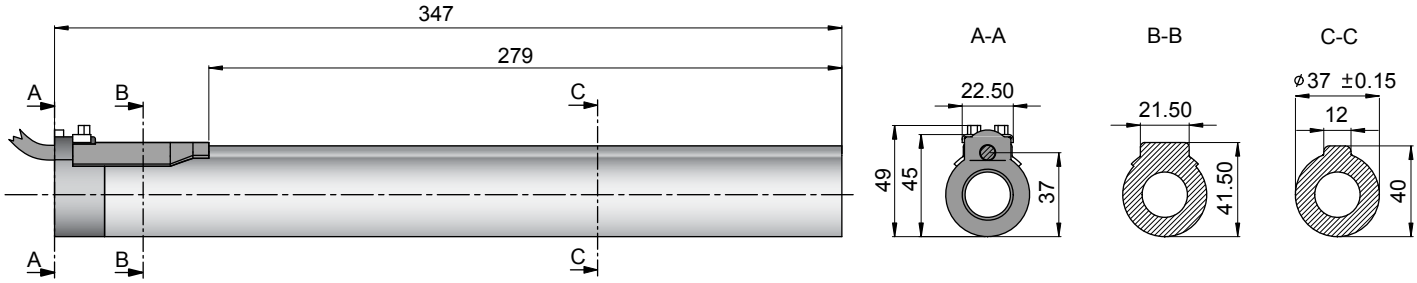


Connector Type



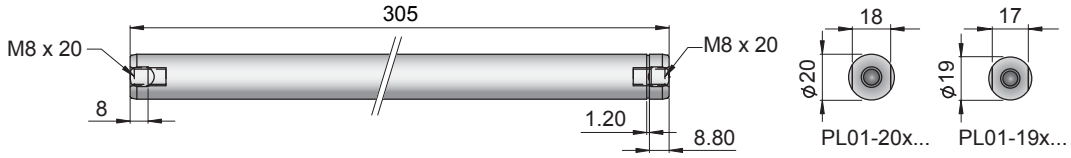
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/100x100-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x305/160	0150-1311
P01-37x240F/100x100-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x305/160	0150-1311

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/100x100-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x305/160	0150-1311
P01-37x240/100x100-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x305/160	0150-1311
P01-37x240F/100x100-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x305/160	0150-1311

Slider

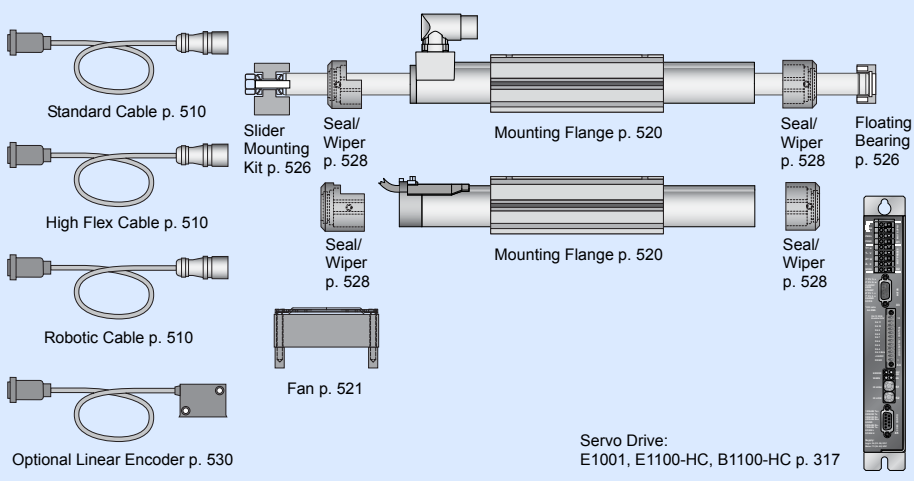


Standard Type	Slider Standard		PL01-20x305/160	0150-1311
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x305/160	0150-1314
	Hollow Slider	hole diameter 6.5mm	PL01-20x305/160-L	0150-1352
	High Clearance Slider	d=19mm, m=448g	PL01-19x305/160	0150-1450

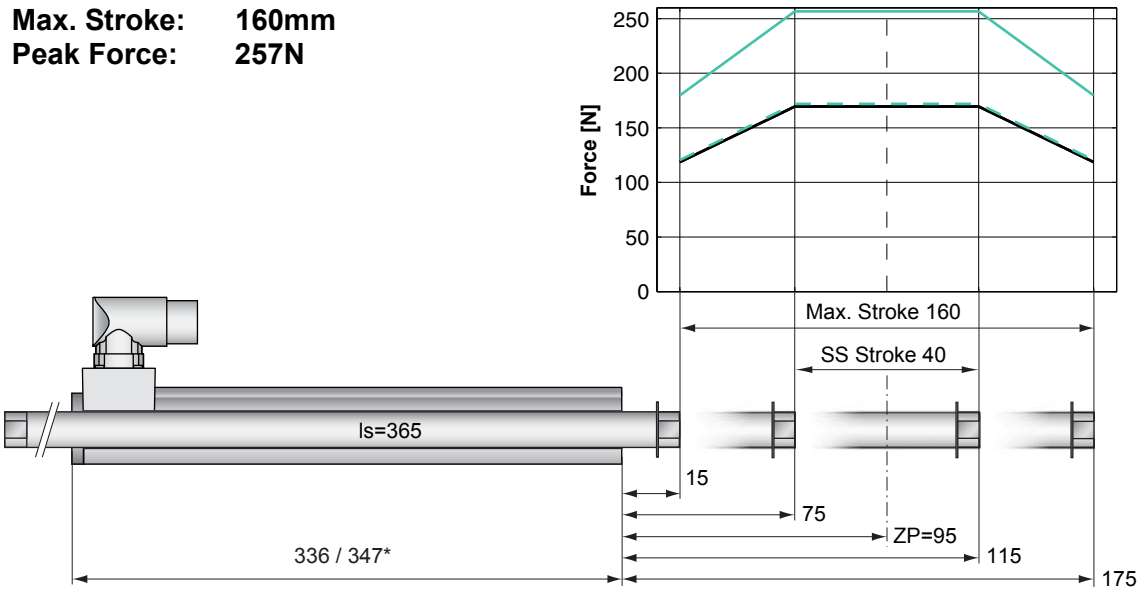
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 160mm
Peak Force: 257N

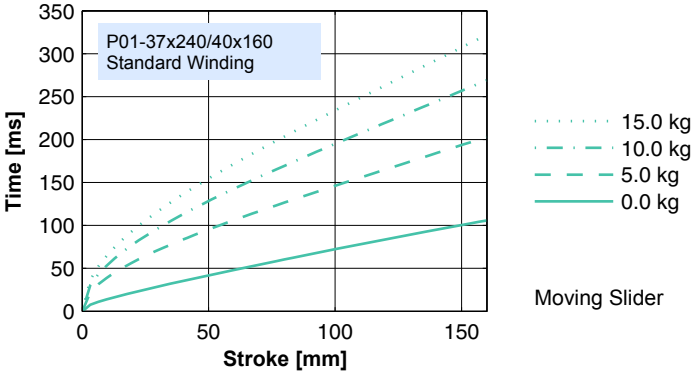


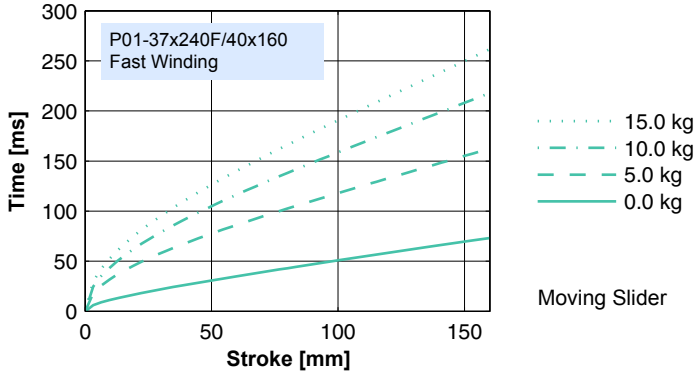
Dimensions in mm
*Cable Type

Motor Specification

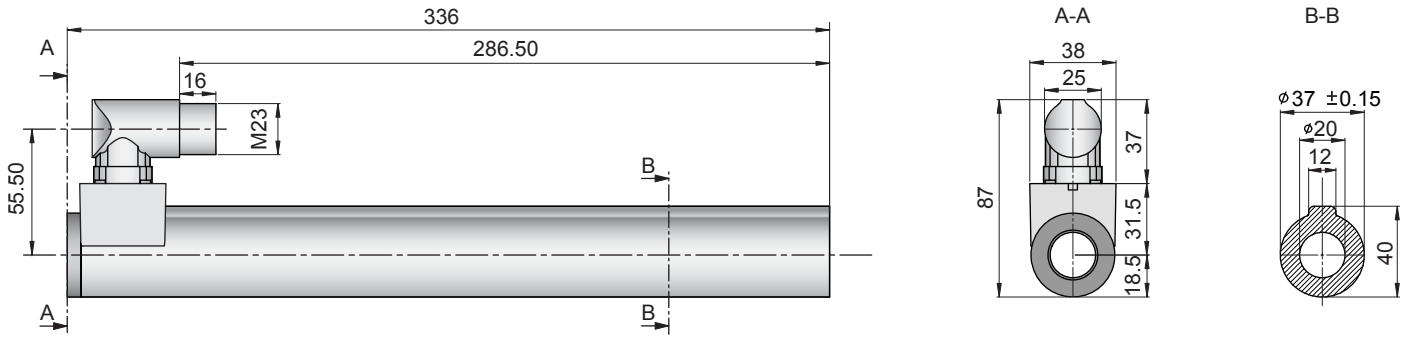
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/40x160-C**	**37x240F/40x160-C**	**37x240/40x160-P150** **37x240/40x160-C20**	**37x240F/40x160-C20**
Extended Stroke ES	mm (in)	160 (6.30)	160 (6.30)	160 (6.30)	160 (6.30)
Standard Stroke SS	mm (in)	40 (1.57)	40 (1.57)	40 (1.57)	40 (1.57)
Peak Force E1100-HC	N (lbf)	169 (38.1)	257 (57.7)	169 (38.1)	257 (57.7)
Peak Force E1100 / E1001	N (lbf)	169 (38.1)	172 (38.7)	169 (38.1)	172 (38.7)
Cont. Force	N (lbf)	44 (10.0)	44 (10.0)	44 (10.0)	44 (10.0)
Cont. Force Fan cooling	N (lbf)	83 (18.7)	83 (18.7)	83 (18.7)	83 (18.7)
Border Force	%	70	70	70	70
Force Constant	N/A (lbf/A)	34.0 (7.64)	21.5 (4.83)	34.0 (7.64)	21.5 (4.83)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.9 (77)	3.1 (121)	1.9 (77)	3.1 (121)
Max. Velocity @ 48VDC	m/s (in/s)	1.3 (51)	2.1 (81)	1.3 (51)	2.1 (81)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	365 (14.37)	365 (14.37)	365 (14.37)	365 (14.37)
Slider Mass	g (lb)	635 (1.40)	635 (1.40)	635 (1.40)	635 (1.40)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.30	±0.30	±0.30	±0.30
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



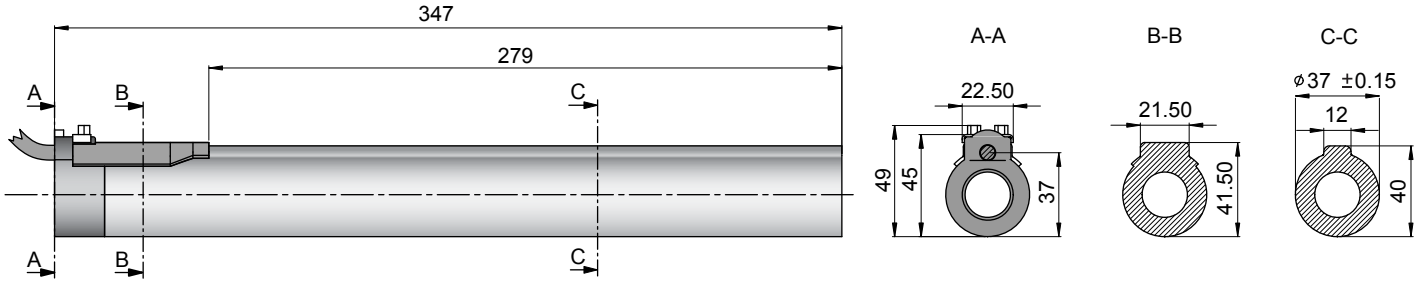


Connector Type



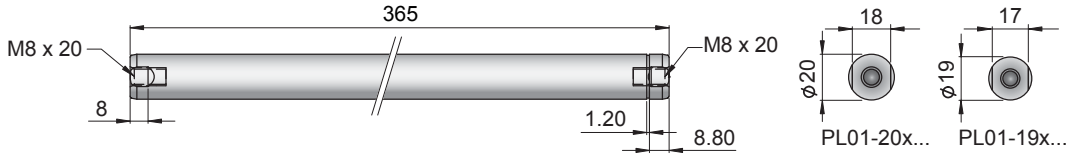
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/40x160-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x365/220	0150-1312
P01-37x240F/40x160-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x365/220	0150-1312

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/40x160-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x365/220	0150-1312
P01-37x240/40x160-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x365/220	0150-1312
P01-37x240F/40x160-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x365/220	0150-1312

Slider

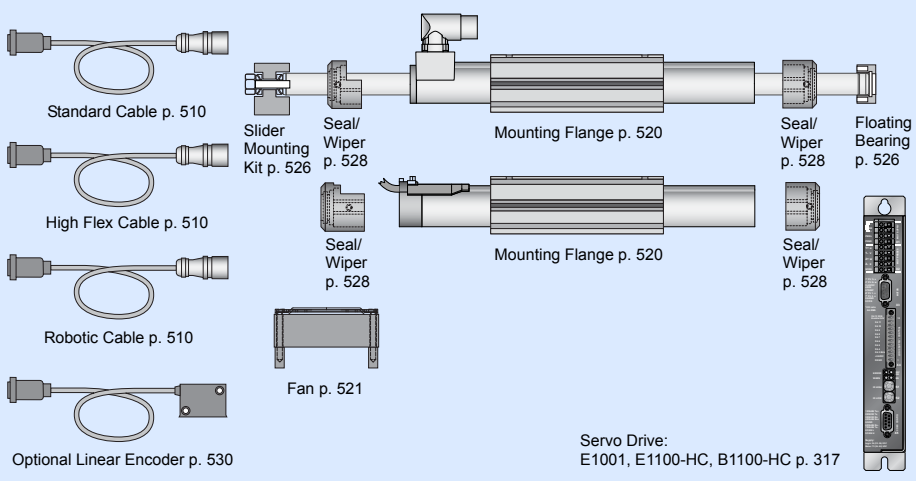


Standard Type	Slider Standard		PL01-20x365/220	0150-1312
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x365/220	0150-1315
	Hollow Slider	hole diameter 6.5mm	PL01-20x365/220-L	0150-1353
	High Clearance Slider	d=19mm, m=573g	PL01-19x365/220	0150-1451

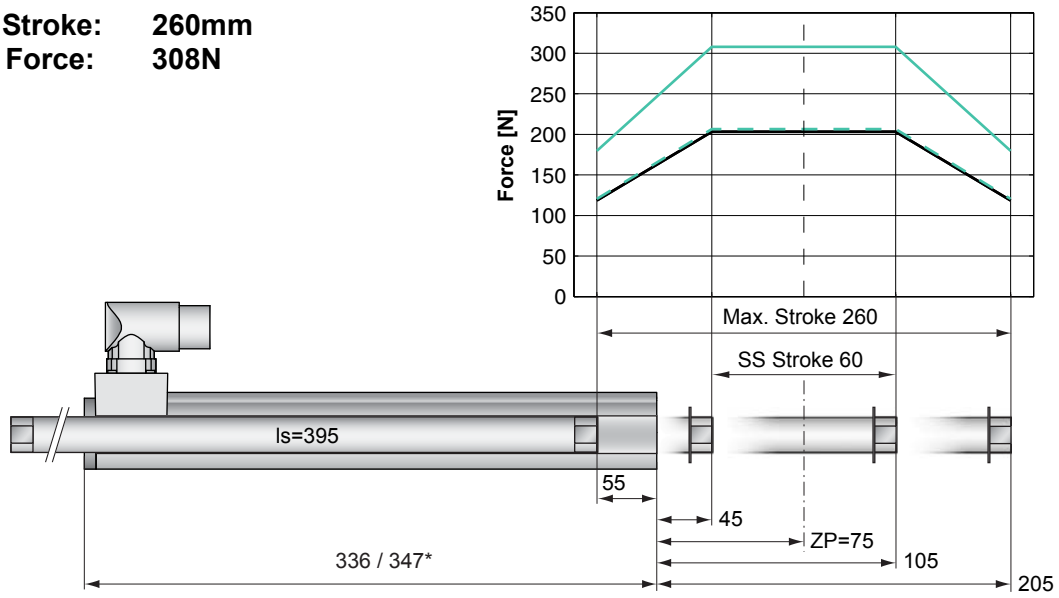
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 260mm
Peak Force: 308N



Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC & E1001, 72VDC

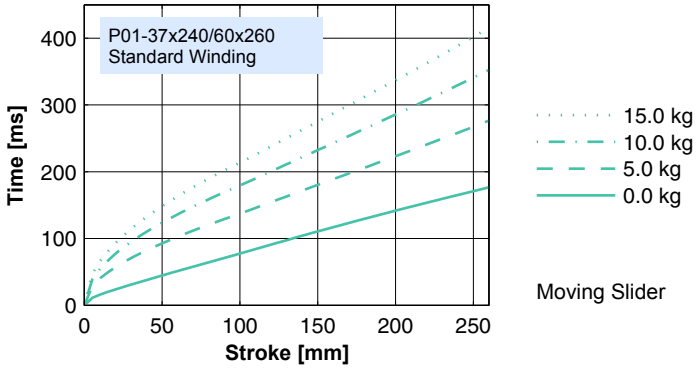
Fast Winding:
E1100–HC, 72VDC
E1100, 72VDC & E1001, 72VDC

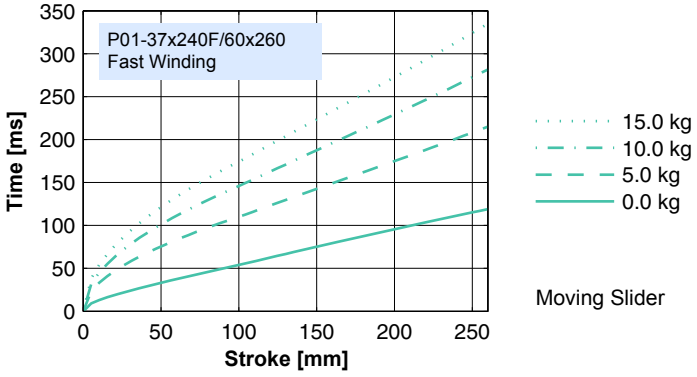
Dimensions in mm
*Cable Type

Motor Specification

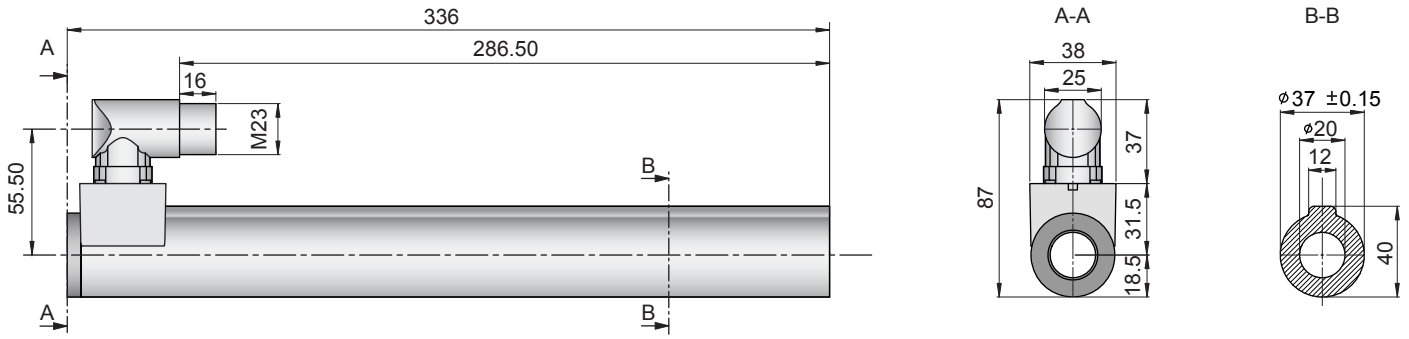
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/60x260-C**	**37x240F/60x260-C**	**37x240/60x260-P150** **37x240/60x260-C20**	**37x240F/60x260-C20**
Extended Stroke ES	mm (in)	260 (10.24)	260 (10.24)	260 (10.24)	260 (10.24)
Standard Stroke SS	mm (in)	60 (2.36)	60 (2.36)	60 (2.36)	60 (2.36)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	395 (15.55)	395 (15.55)	395 (15.55)	395 (15.55)
Slider Mass	g (lb)	829 (1.83)	829 (1.83)	829 (1.83)	829 (1.83)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



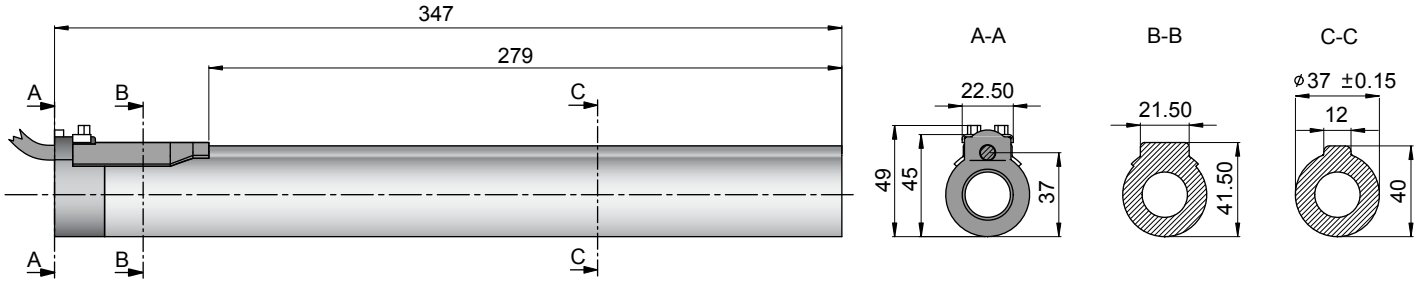


Connector Type



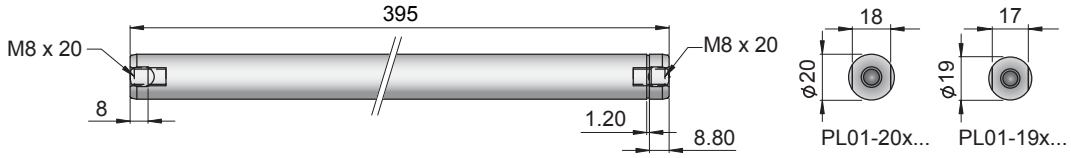
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/60x260-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x395/320	0150-1318
P01-37x240F/60x260-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x395/320	0150-1318

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/60x260-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x395/320	0150-1318
P01-37x240/60x260-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x395/320	0150-1318
P01-37x240F/60x260-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x395/320	0150-1318

Slider

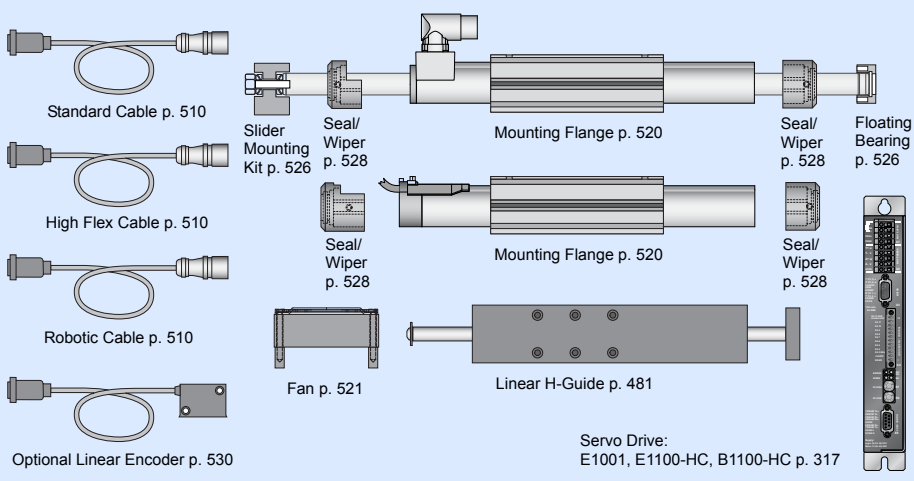


Standard Type	Slider Standard		PL01-20x395/320	0150-1318
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x395/320	0150-1319
	Hollow Slider	hole diameter 6.5mm	PL01-20x395/320-L	0150-1354
	High Clearance Slider	d=19mm, m=748g	PL01-19x395/320	0150-1452

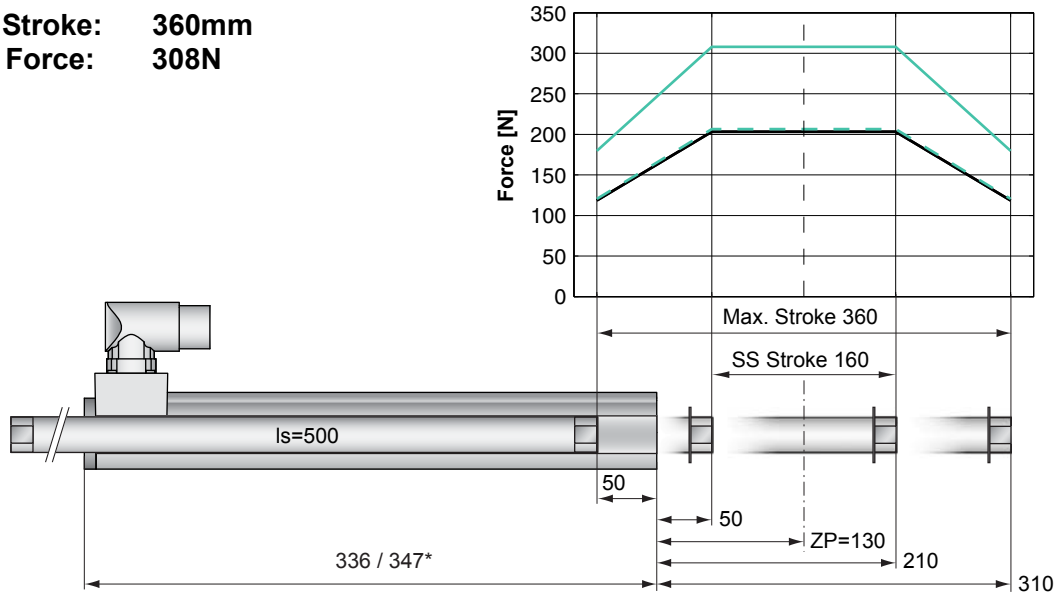
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 360mm
Peak Force: 308N



Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

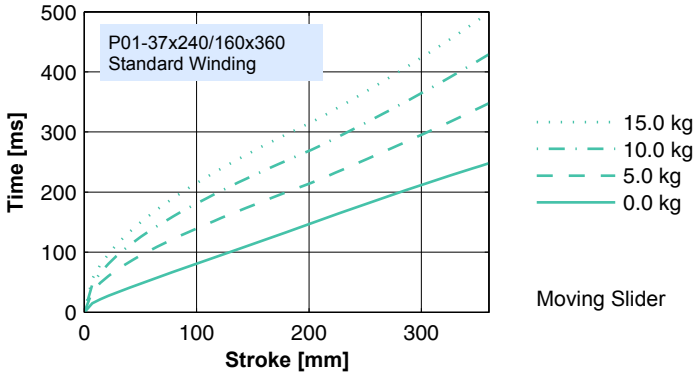
Fast Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

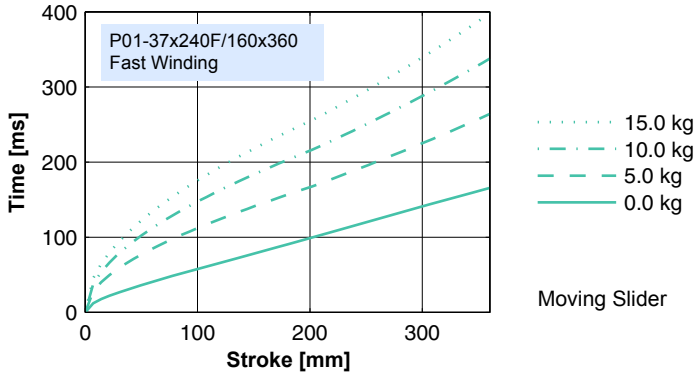
Dimensions in mm
*Cable Type

Motor Specification

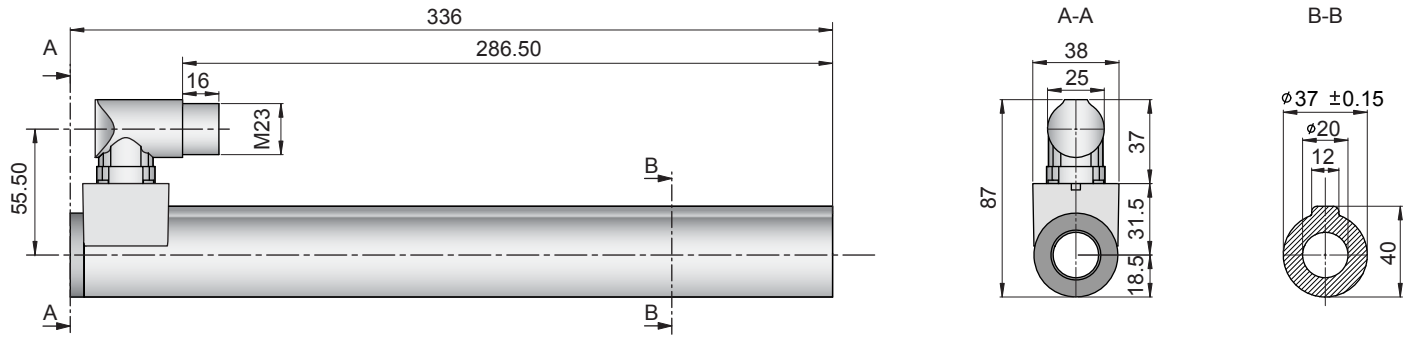
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/160x360-C**	**37x240F/160x360-C**	**37x240/160x360-P150** **37x240/160x360-C20**	**37x240F/160x360-C20**
Extended Stroke ES	mm (in)	360 (14.17)	360 (14.17)	360 (14.17)	360 (14.17)
Standard Stroke SS	mm (in)	160 (6.30)	160 (6.30)	160 (6.30)	160 (6.30)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	500 (19.69)	500 (19.69)	500 (19.69)	500 (19.69)
Slider Mass	g (lb)	1064 (2.35)	1064 (2.35)	1064 (2.35)	1064 (2.35)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



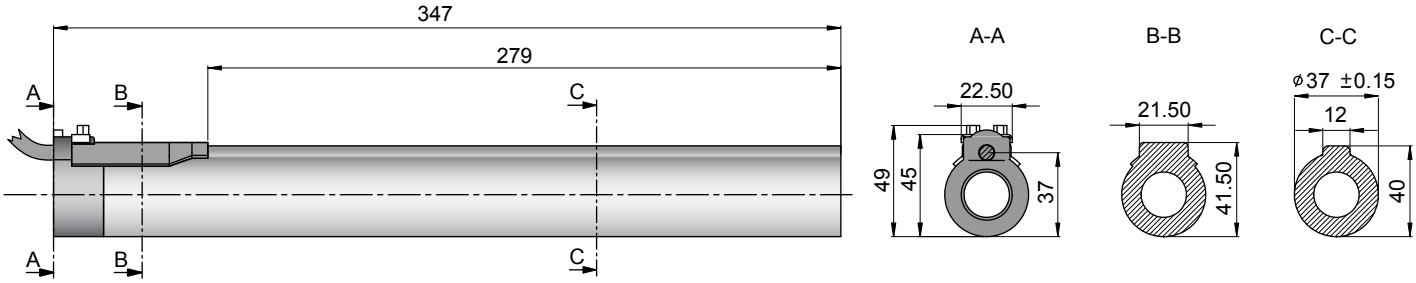


Connector Type



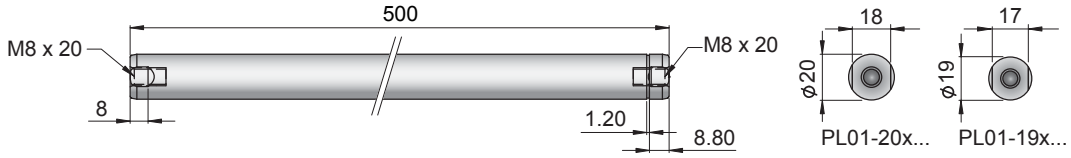
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/160x360-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x500/420	0150-1328
P01-37x240F/160x360-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x500/420	0150-1328

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/160x360-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x500/420	0150-1328
P01-37x240/160x360-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x500/420	0150-1328
P01-37x240F/160x360-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x500/420	0150-1328

Slider

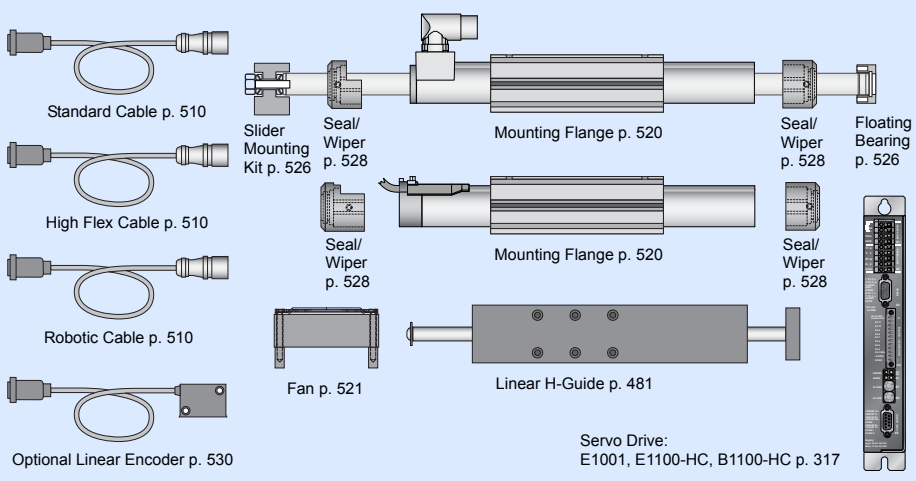


Standard Type	Slider Standard		PL01-20x500/420	0150-1328
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x500/420	0150-1329
	Hollow Slider	hole diameter 6.5mm	PL01-20x500/420-L	0150-1358
	High Clearance Slider	d=19mm, m=960g	PL01-19x500/420	0150-1455

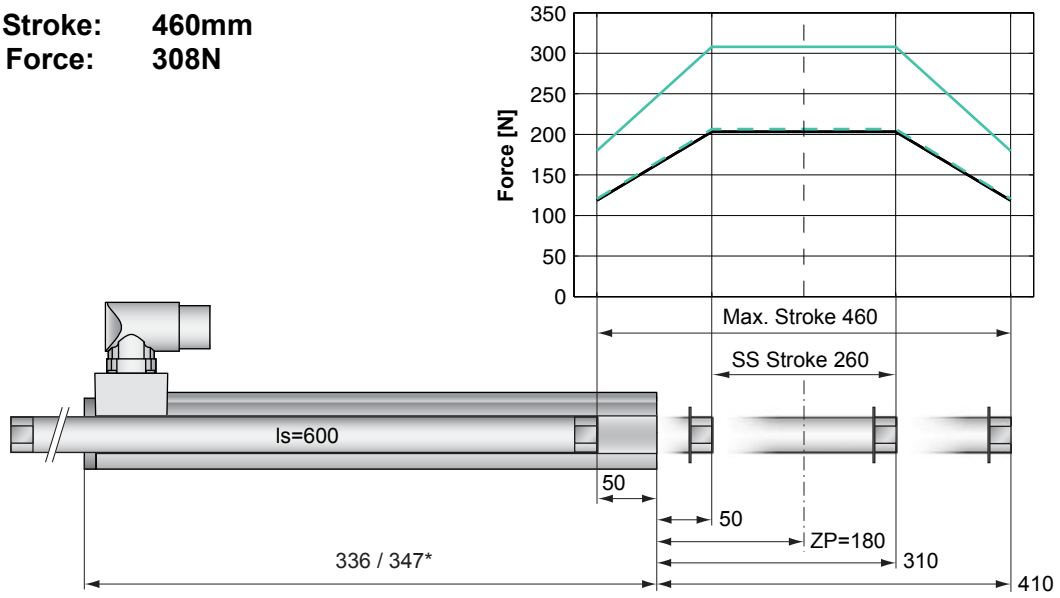
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 460mm
Peak Force: 308N

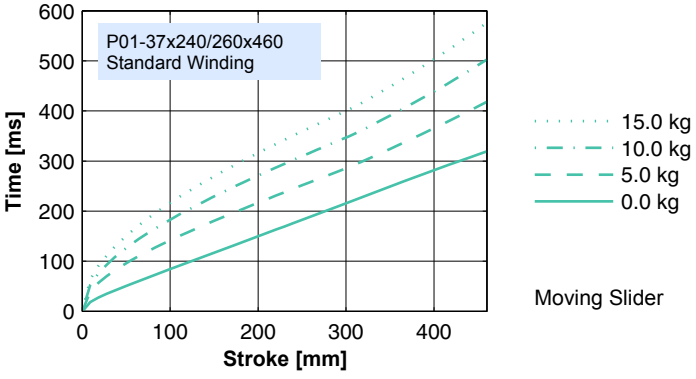


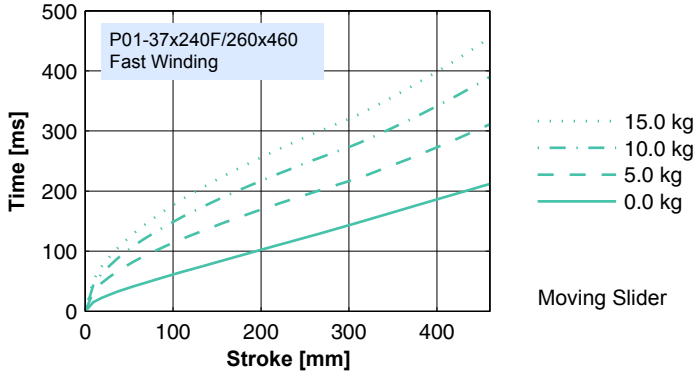
Dimensions in mm
*Cable Type

Motor Specification

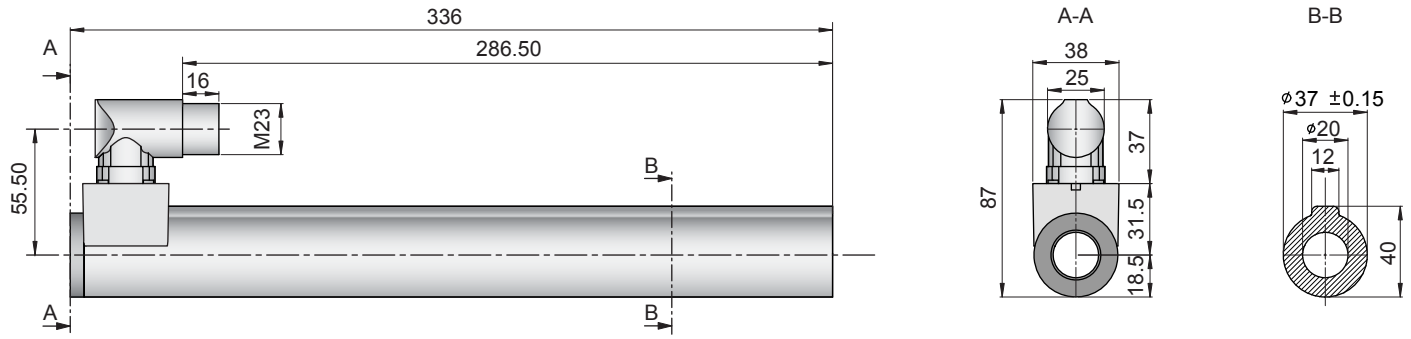
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/260x460-C**	**37x240F/260x460-C**	**37x240/260x460-P150** **37x240/260x460-C20**	**37x240F/260x460-C20**
Extended Stroke ES	mm (in)	460 (18.11)	460 (18.11)	460 (18.11)	460 (18.11)
Standard Stroke SS	mm (in)	260 (10.24)	260 (10.24)	260 (10.24)	260 (10.24)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	600 (23.62)	600 (23.62)	600 (23.62)	600 (23.62)
Slider Mass	g (lb)	1297 (2.86)	1297 (2.86)	1297 (2.86)	1297 (2.86)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



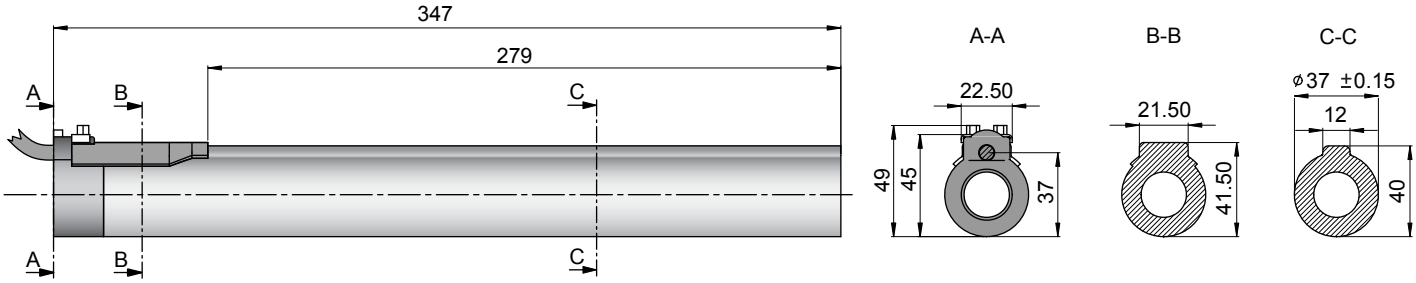


Connector Type



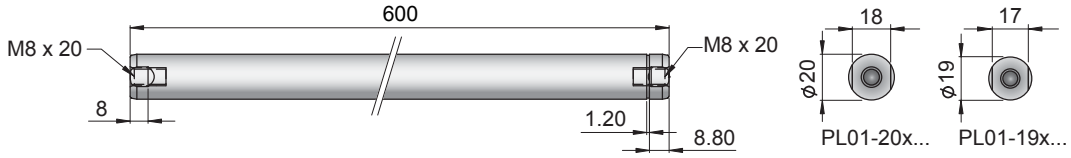
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/260x460-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x600/520	0150-1330
P01-37x240F/260x460-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x600/520	0150-1330

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/260x460-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x600/520	0150-1330
P01-37x240/260x460-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x600/520	0150-1330
P01-37x240F/260x460-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x600/520	0150-1330

Slider

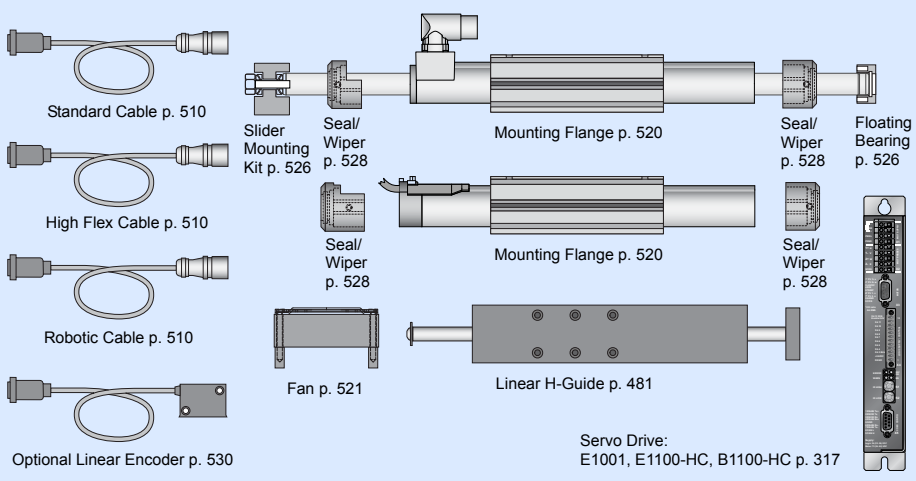


Standard Type	Slider Standard		PL01-20x600/520	0150-1330
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x600/520	0150-1331
	Hollow Slider	hole diameter 6.5mm	PL01-20x600/520-L	0150-1359
	High Clearance Slider	d=19mm, m=1171g	PL01-19x600/520	0150-1456

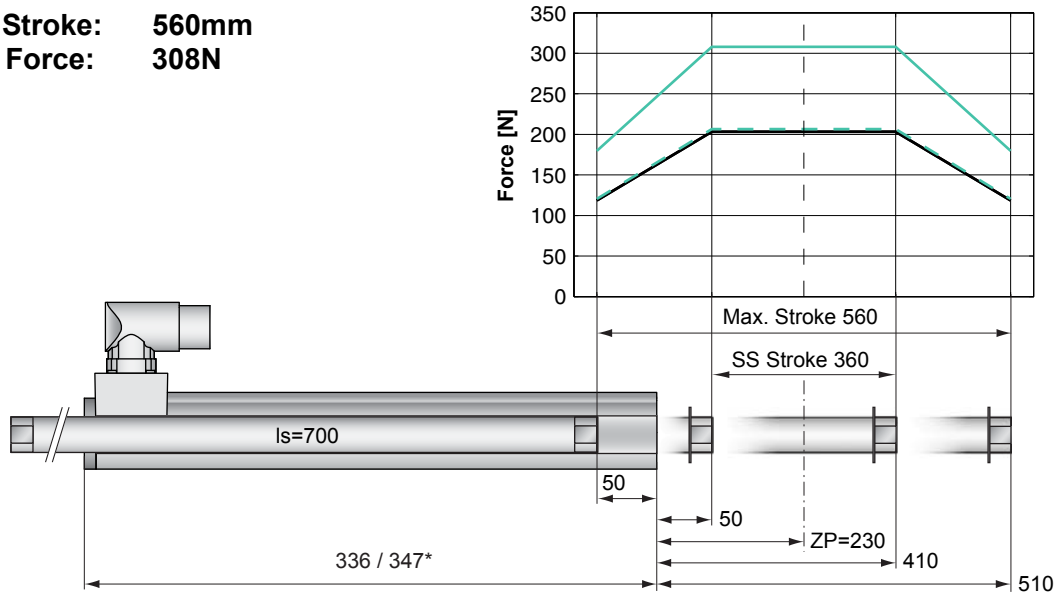
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 560mm
Peak Force: 308N

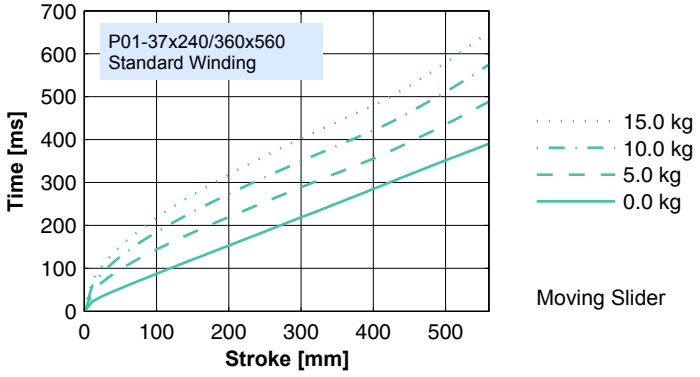


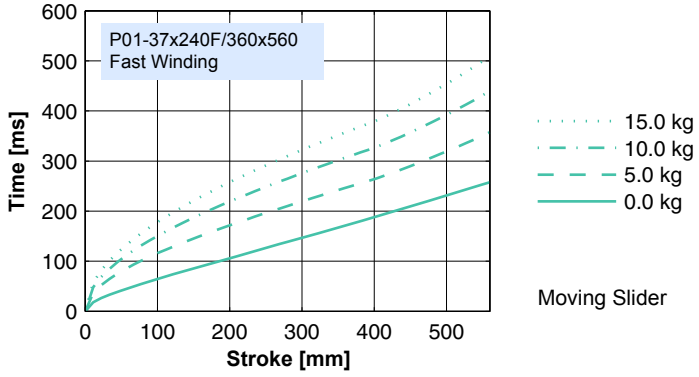
Dimensions in mm
*Cable Type

Motor Specification

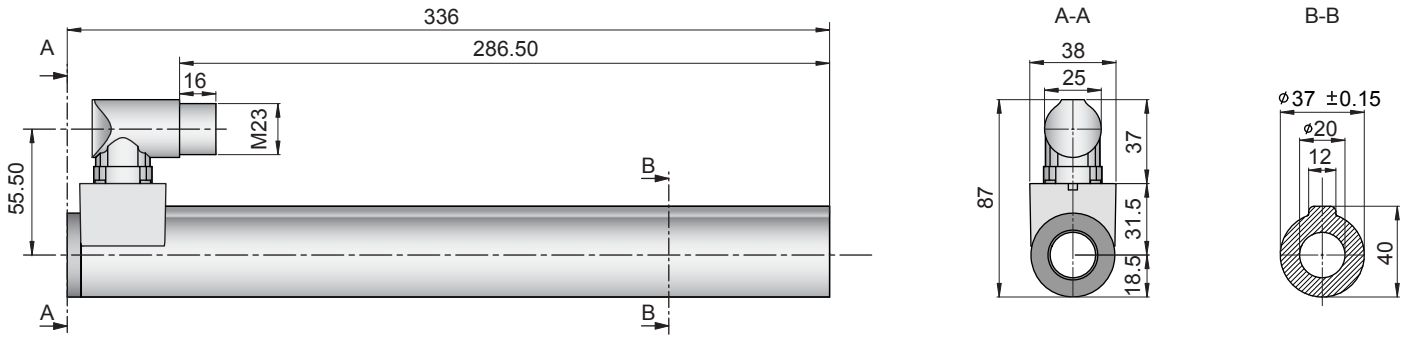
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/360x560-C**	**37x240F/360x560-C**	**37x240/360x560-P150** **37x240/360x560-C20**	**37x240F/360x560-C20**
Extended Stroke ES	mm (in)	560 (22.05)	560 (22.05)	560 (22.05)	560 (22.05)
Standard Stroke SS	mm (in)	360 (14.17)	360 (14.17)	360 (14.17)	360 (14.17)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	700 (27.56)	700 (27.56)	700 (27.56)	700 (27.56)
Slider Mass	g (lb)	1529 (3.37)	1529 (3.37)	1529 (3.37)	1529 (3.37)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



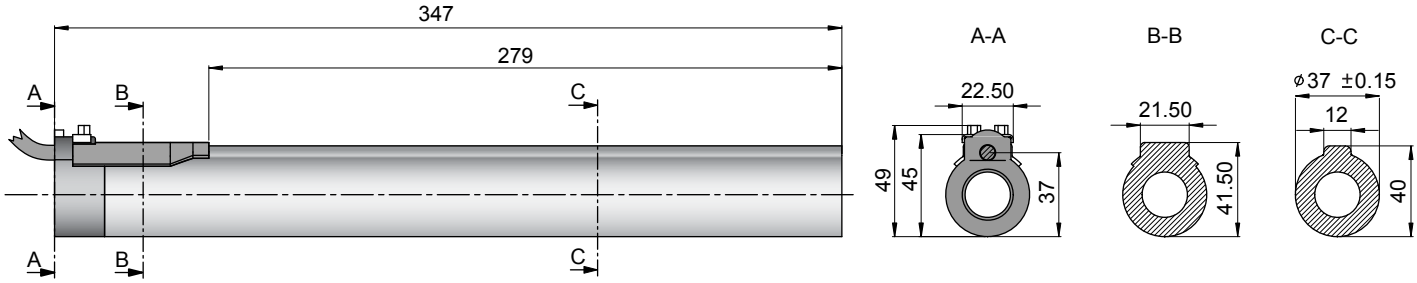


Connector Type



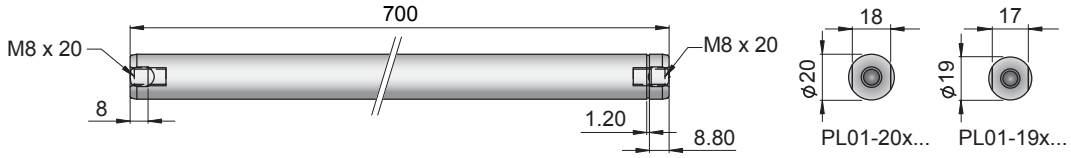
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/360x560-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x700/620	0150-1332
P01-37x240F/360x560-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x700/620	0150-1332

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/360x560-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x700/620	0150-1332
P01-37x240/360x560-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x700/620	0150-1332
P01-37x240F/360x560-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x700/620	0150-1332

Slider

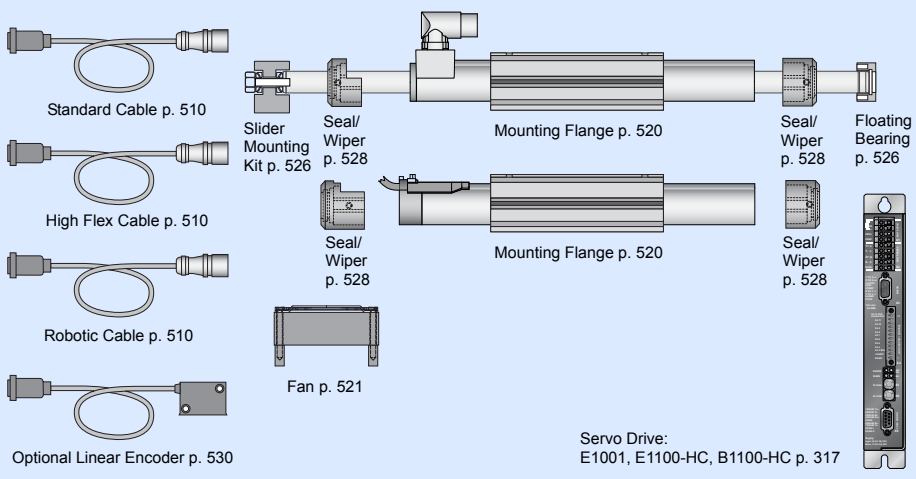


Standard Type	Slider Standard		PL01-20x700/620	0150-1332
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x700/620	0150-1333
	Hollow Slider	hole diameter 6.5mm	PL01-20x700/620-L	0150-1360
	High Clearance Slider	d=19mm, m=1380g	PL01-19x700/620	0150-1457

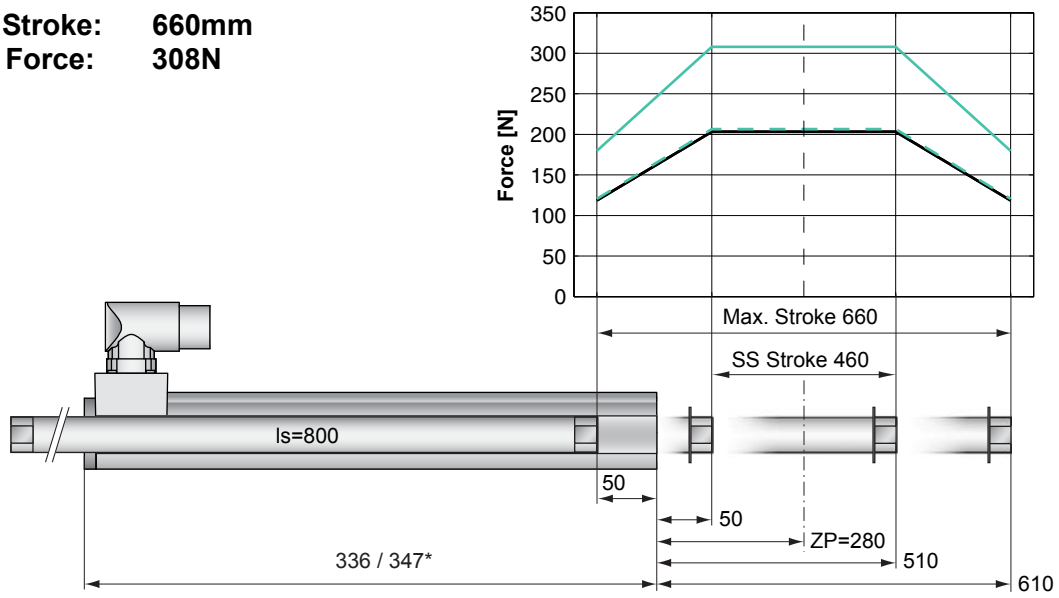
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 660mm
Peak Force: 308N



Standard Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

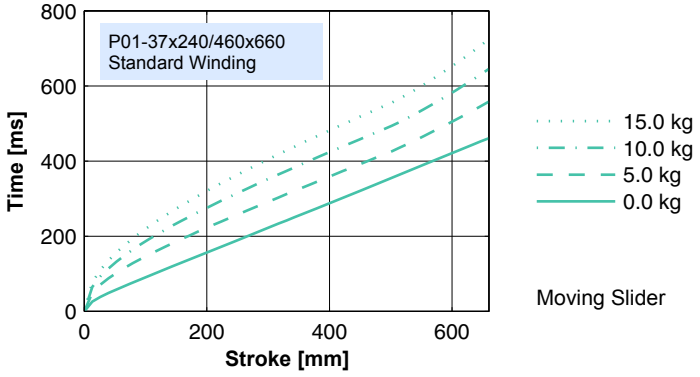
Fast Winding:
E1100–HC, 72VDC
E1100, 72VDC &
E1001, 72VDC

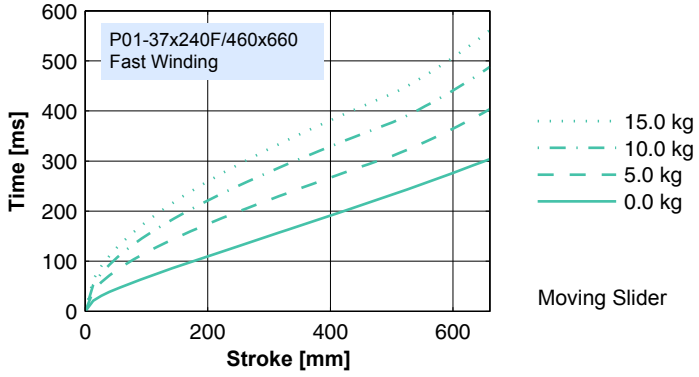
Dimensions in mm
*Cable Type

Motor Specification

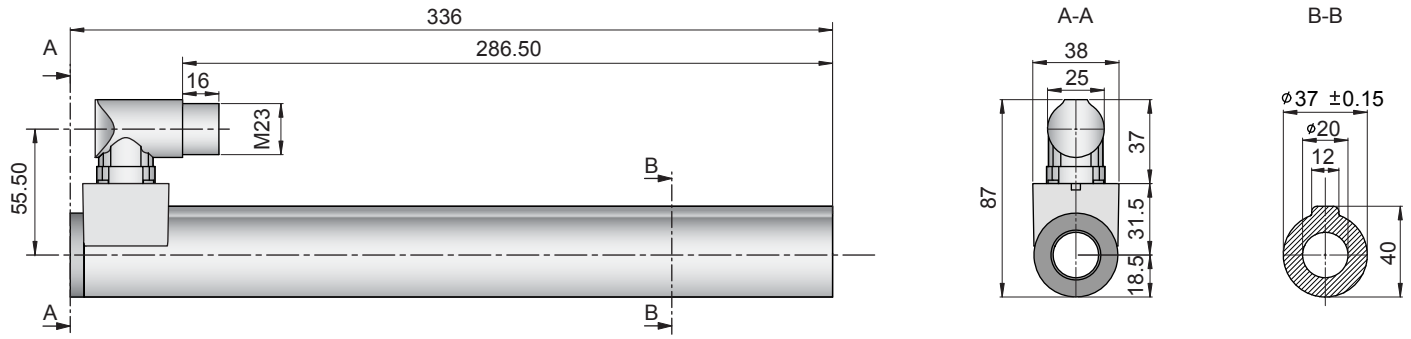
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/460x660-C**	**37x240F/460x660-C**	**37x240/460x660-P150** **37x240/460x660-C20**	**37x240F/460x660-C20**
Extended Stroke ES	mm (in)	660 (25.98)	660 (25.98)	660 (25.98)	660 (25.98)
Standard Stroke SS	mm (in)	460 (18.11)	460 (18.11)	460 (18.11)	460 (18.11)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	800 (31.50)	800 (31.50)	800 (31.50)	800 (31.50)
Slider Mass	g (lb)	1762 (3.88)	1762 (3.88)	1762 (3.88)	1762 (3.88)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



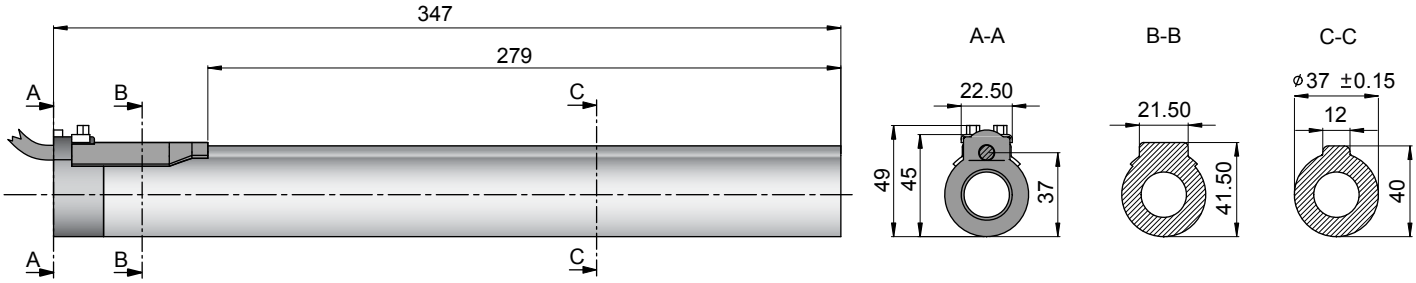


Connector Type



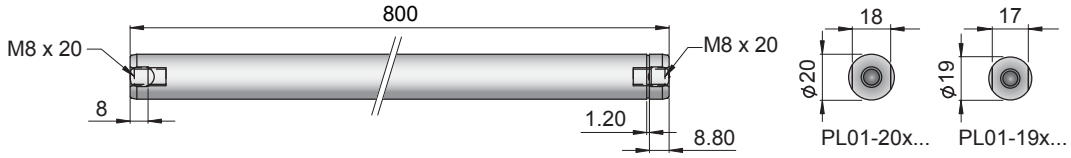
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/460x660-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x800/720	0150-1334
P01-37x240F/460x660-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x800/720	0150-1334

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/460x660-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x800/720	0150-1334
P01-37x240/460x660-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x800/720	0150-1334
P01-37x240F/460x660-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x800/720	0150-1334

Slider

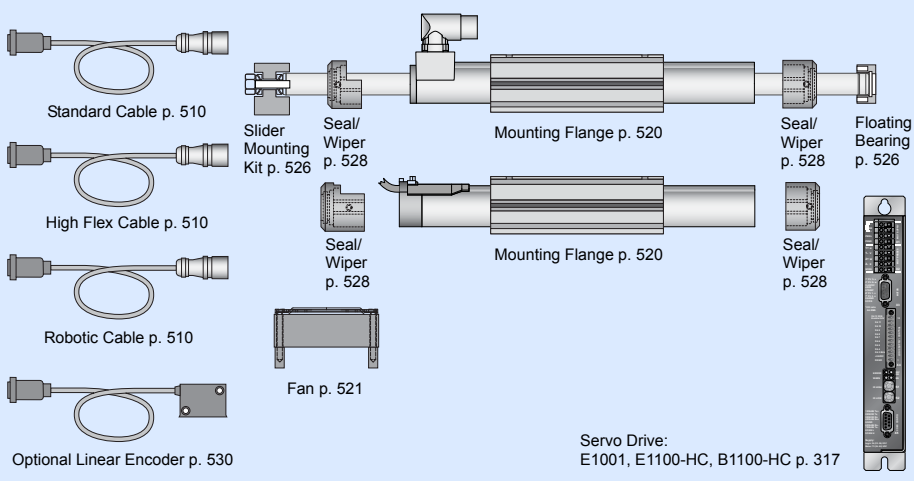


Standard Type	Slider Standard		PL01-20x800/720	0150-1334
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x800/720	0150-1335
	Hollow Slider	hole diameter 6.5mm	PL01-20x800/720-L	0150-1361

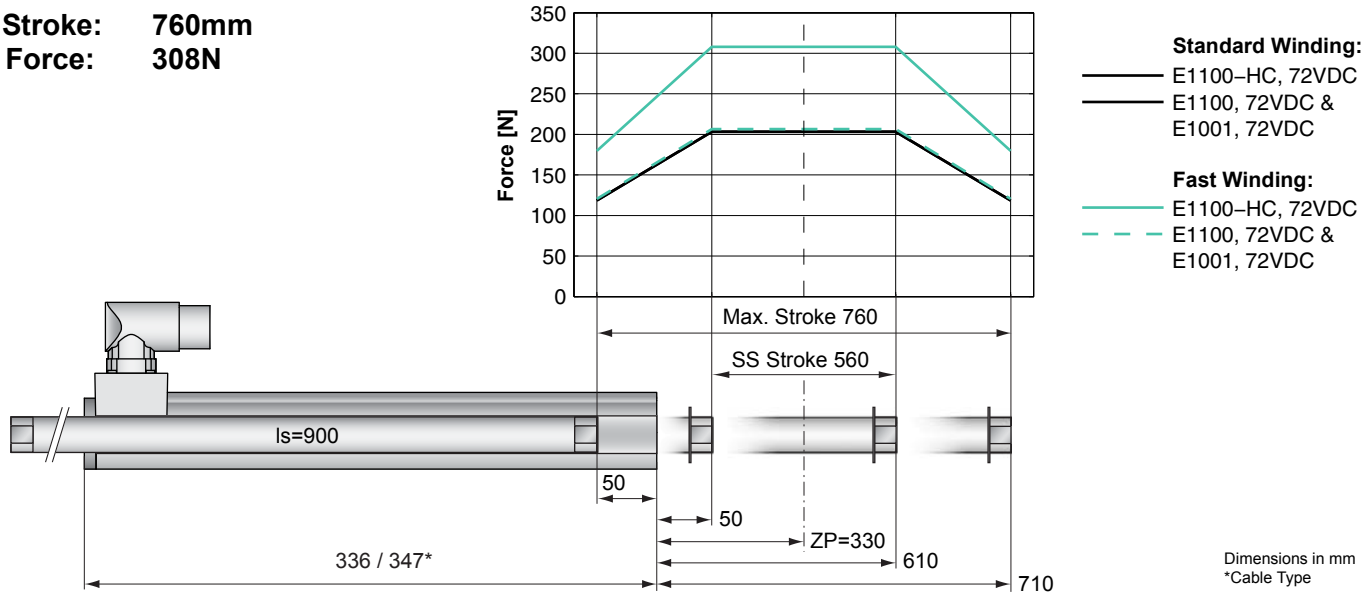
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 760mm
Peak Force: 308N

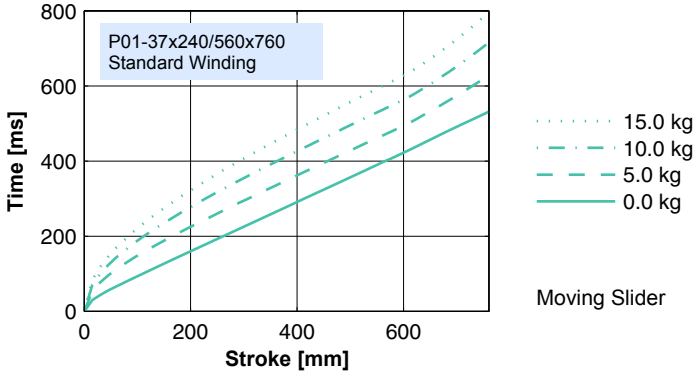


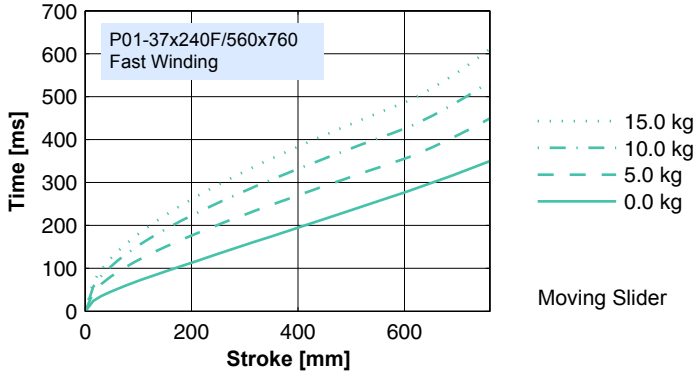
Dimensions in mm
*Cable Type

Motor Specification

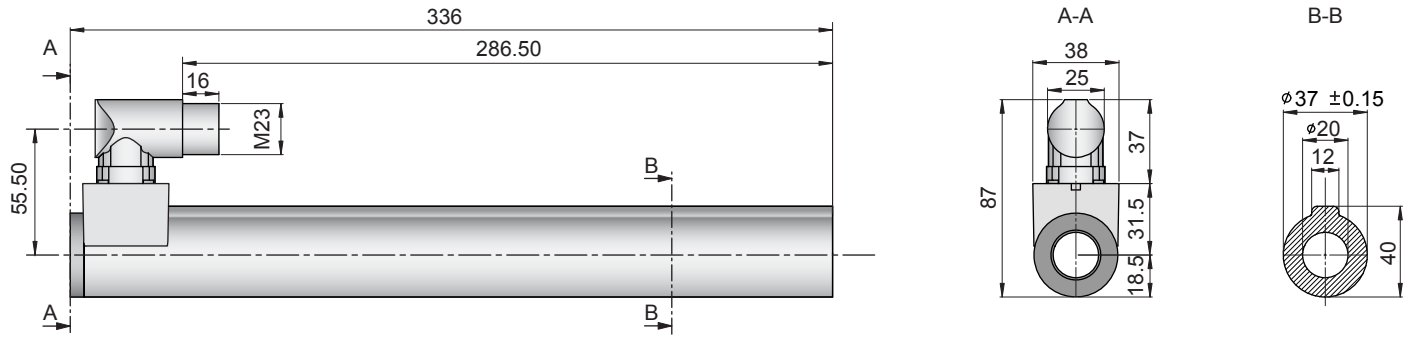
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/560x760-C**	**37x240F/560x760-C**	**37x240/560x760-P150** **37x240/560x760-C20**	**37x240F/560x760-C20**
Extended Stroke ES	mm (in)	760 (29.92)	760 (29.92)	760 (29.92)	760 (29.92)
Standard Stroke SS	mm (in)	560 (22.05)	560 (22.05)	560 (22.05)	560 (22.05)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	900 (35.43)	900 (35.43)	900 (35.43)	900 (35.43)
Slider Mass	g (lb)	1994 (4.40)	1994 (4.40)	1994 (4.40)	1994 (4.40)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



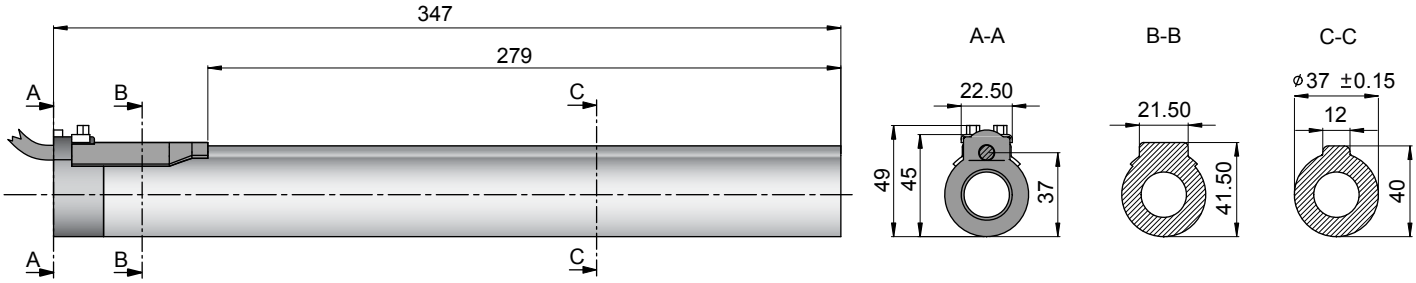


Connector Type



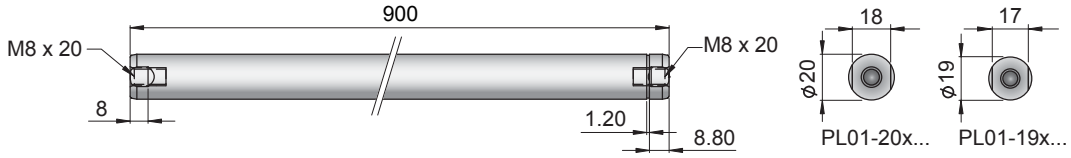
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/560x760-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x900/820	0150-1336
P01-37x240F/560x760-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x900/820	0150-1336

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/560x760-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x900/820	0150-1336
P01-37x240/560x760-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x900/820	0150-1336
P01-37x240F/560x760-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x900/820	0150-1336

Slider

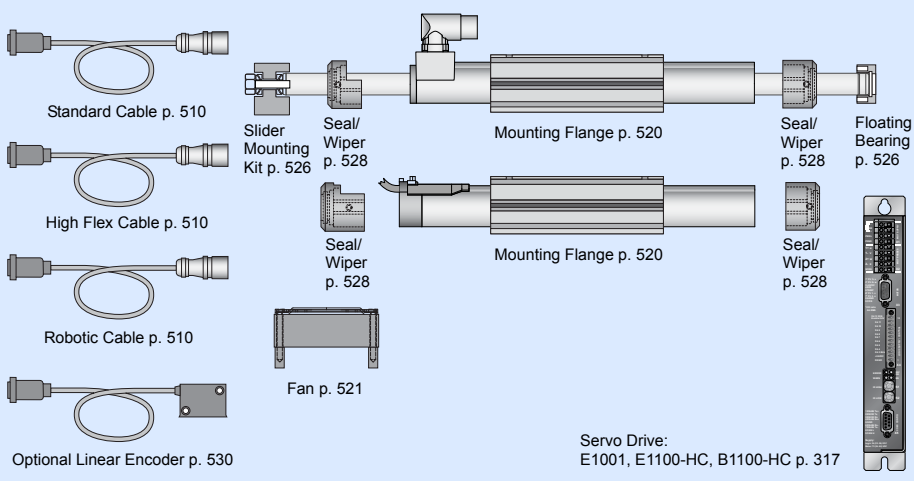


Standard Type	Slider Standard		PL01-20x900/820	0150-1336
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x900/820	0150-1337
	Hollow Slider	hole diameter 6.5mm	PL01-20x900/820-L	0150-1362

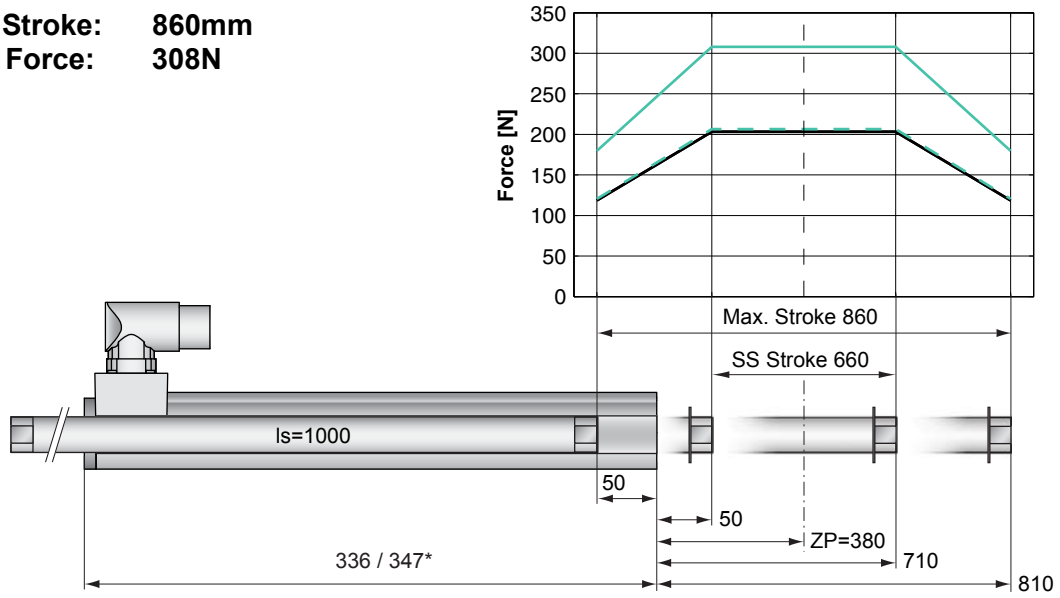
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 860mm
Peak Force: 308N

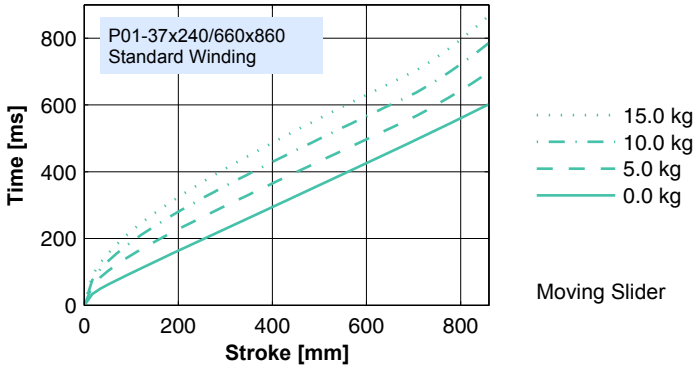


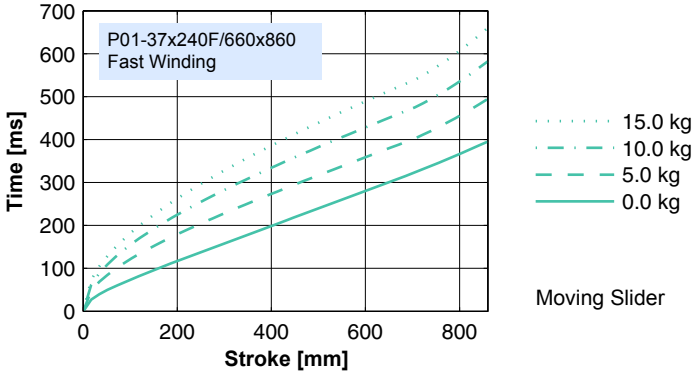
Dimensions in mm
*Cable Type

Motor Specification

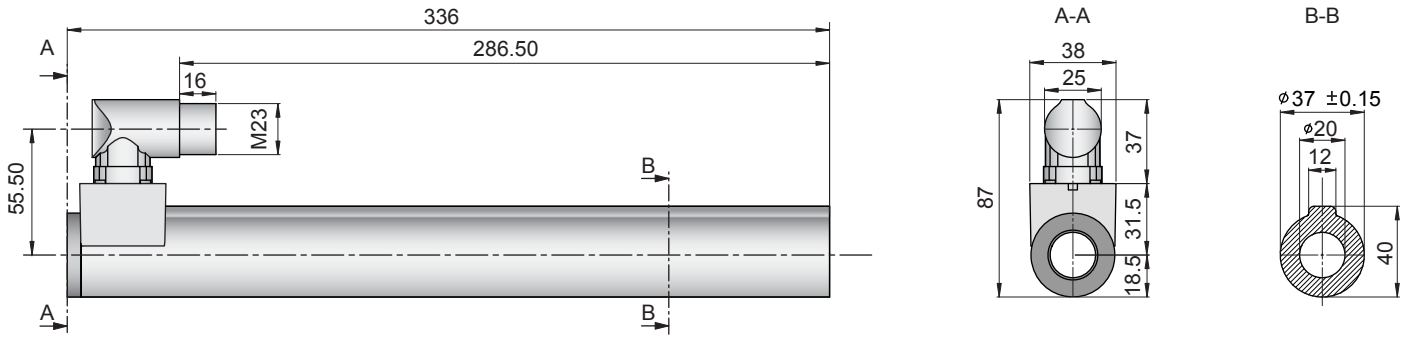
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/660x860-C**	**37x240F/660x860-C**	**37x240/660x860-P150** **37x240/660x860-C20**	**37x240F/660x860-C20**
Extended Stroke ES	mm (in)	860 (33.86)	860 (33.86)	860 (33.86)	860 (33.86)
Standard Stroke SS	mm (in)	660 (25.98)	660 (25.98)	660 (25.98)	660 (25.98)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1000 (39.37)	1000 (39.37)	1000 (39.37)	1000 (39.37)
Slider Mass	g (lb)	2227 (4.91)	2227 (4.91)	2227 (4.91)	2227 (4.91)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



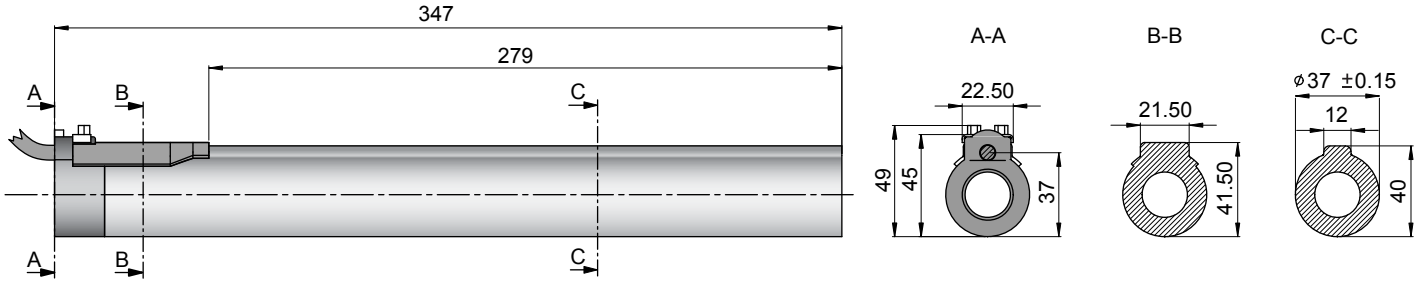


Connector Type



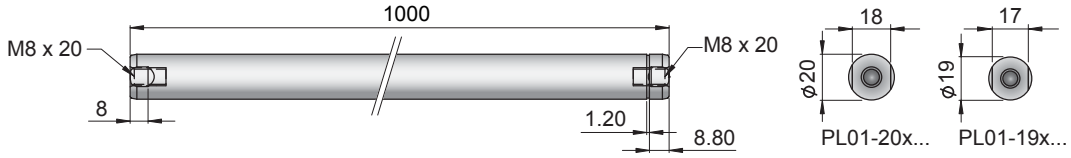
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/660x860-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x1000/920	0150-1338
P01-37x240F/660x860-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x1000/920	0150-1338

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/660x860-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x1000/920	0150-1338
P01-37x240/660x860-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x1000/920	0150-1338
P01-37x240F/660x860-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x1000/920	0150-1338

Slider

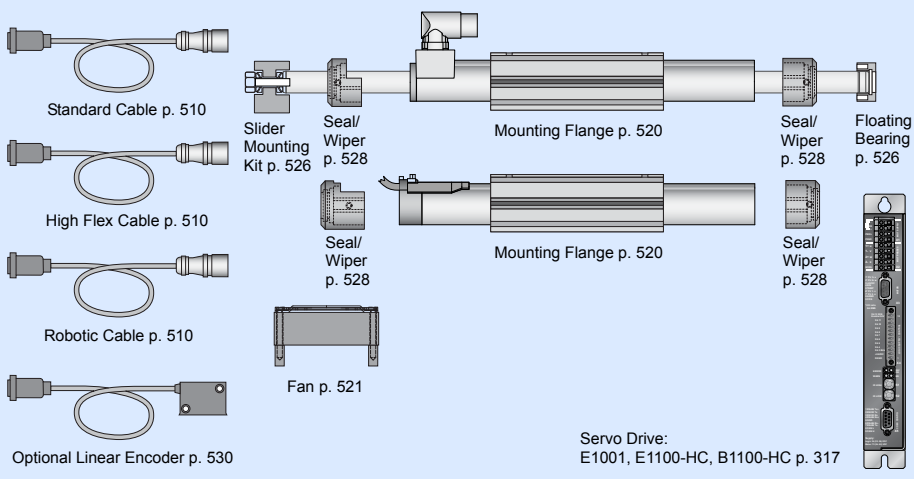


Standard Type	Slider Standard		PL01-20x1000/920	0150-1338
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1000/920	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1000/920-L	0150-1364

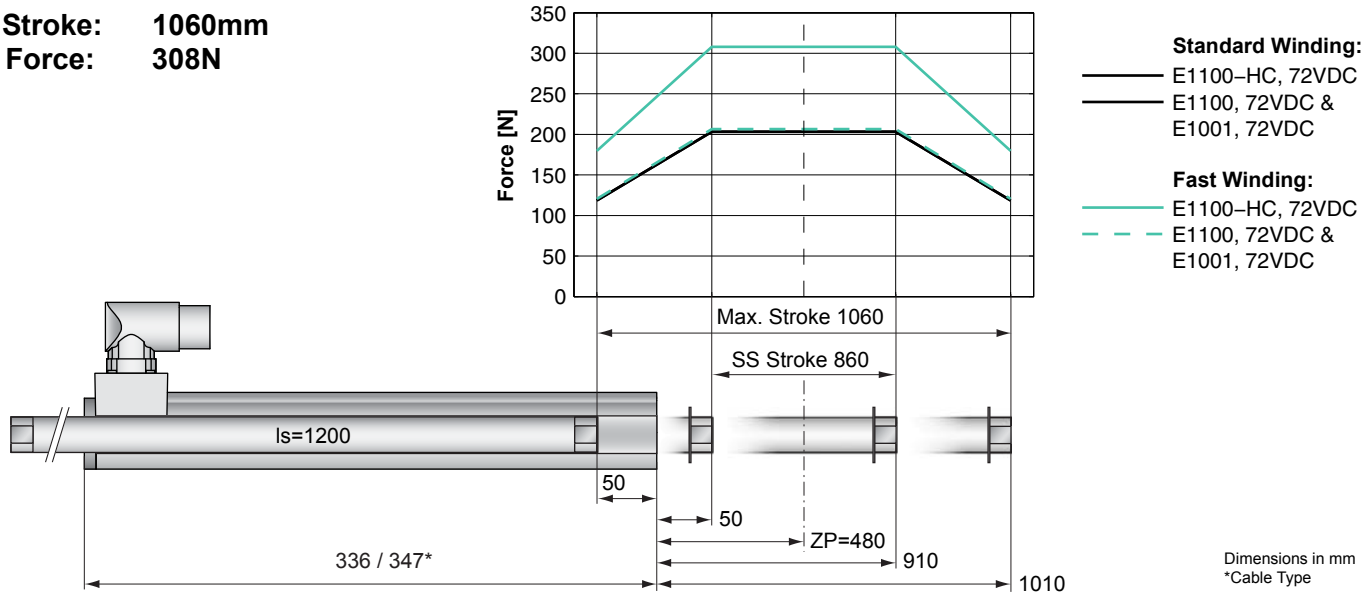
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 1060mm
Peak Force: 308N

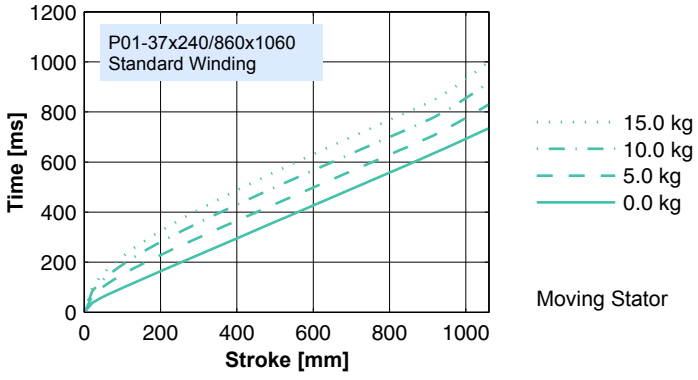


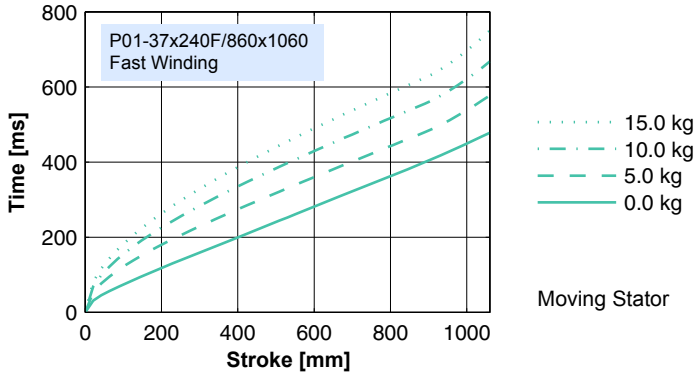
Dimensions in mm
*Cable Type

Motor Specification

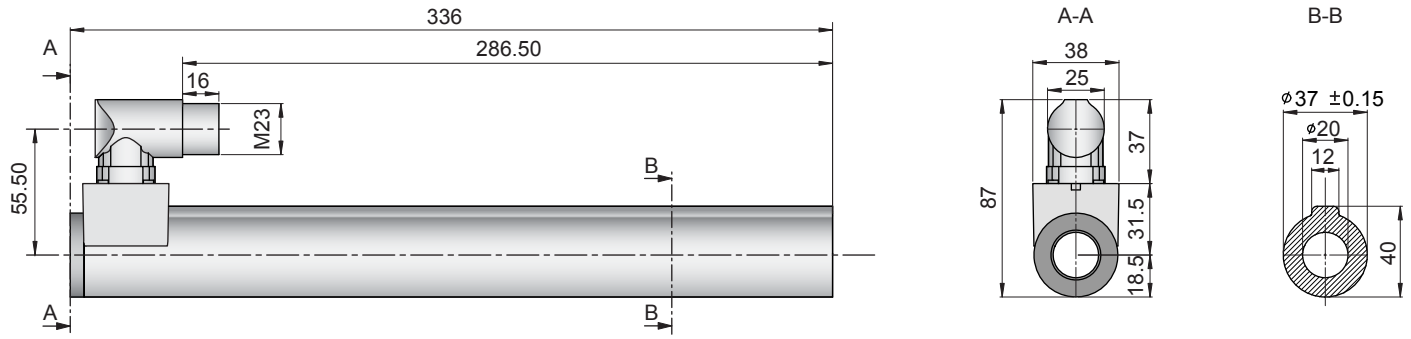
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/860x1060-C**	**37x240F/860x1060-C**	**37x240/860x1060-P150** **37x240/860x1060-C20**	**37x240F/860x1060-C20**
Extended Stroke ES	mm (in)	1060 (41.73)	1060 (41.73)	1060 (41.73)	1060 (41.73)
Standard Stroke SS	mm (in)	860 (33.86)	860 (33.86)	860 (33.86)	860 (33.86)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1200 (47.24)	1200 (47.24)	1200 (47.24)	1200 (47.24)
Slider Mass	g (lb)	2692 (5.93)	2692 (5.93)	2692 (5.93)	2692 (5.93)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



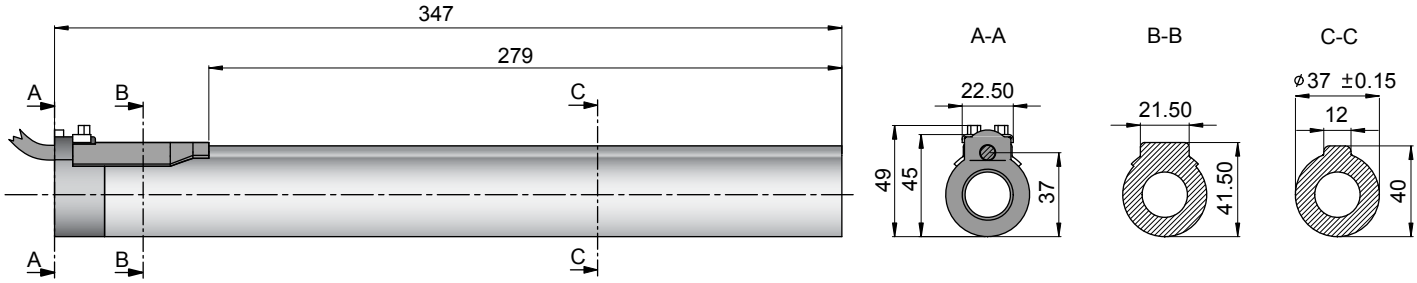


Connector Type



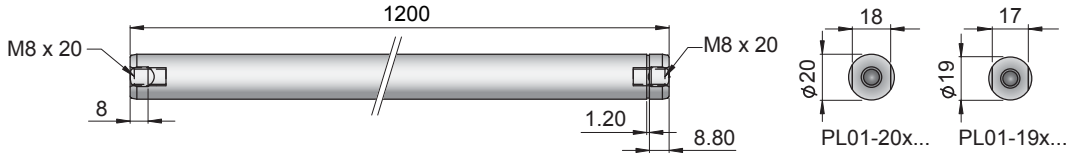
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/860x1060-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x1200/1120	0150-1340
P01-37x240F/860x1060-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x1200/1120	0150-1340

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/860x1060-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x1200/1120	0150-1340
P01-37x240/860x1060-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x1200/1120	0150-1340
P01-37x240F/860x1060-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x1200/1120	0150-1340

Slider

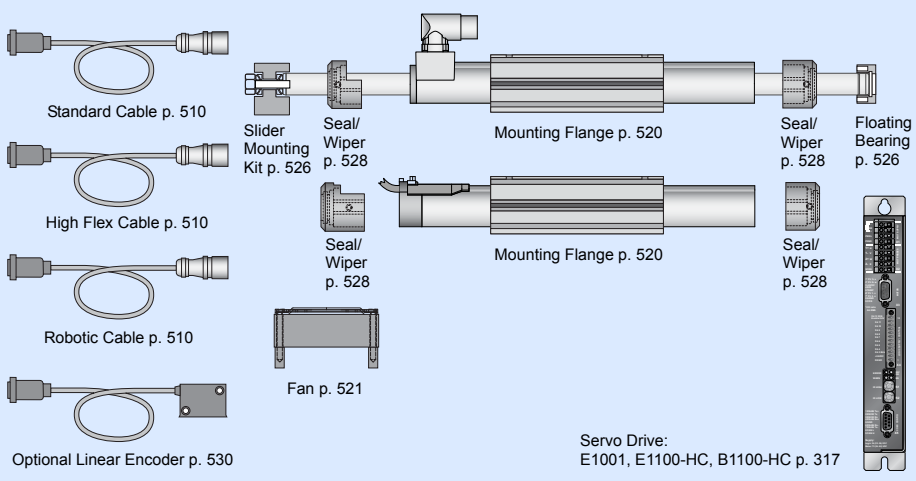


Standard Type	Slider Standard		PL01-20x1200/1120	0150-1340
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1200/1120	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1200/1120-L	0150-1376

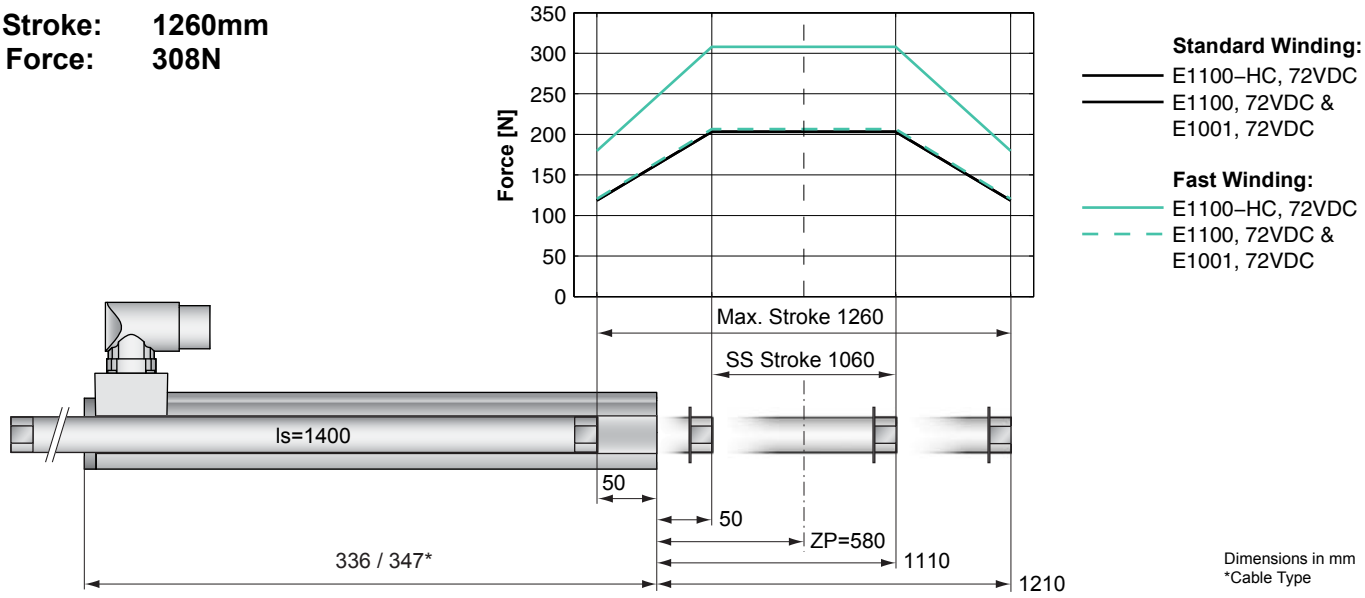
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37...-C P01-37...-C20	P01-37...
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 1260mm
Peak Force: 308N

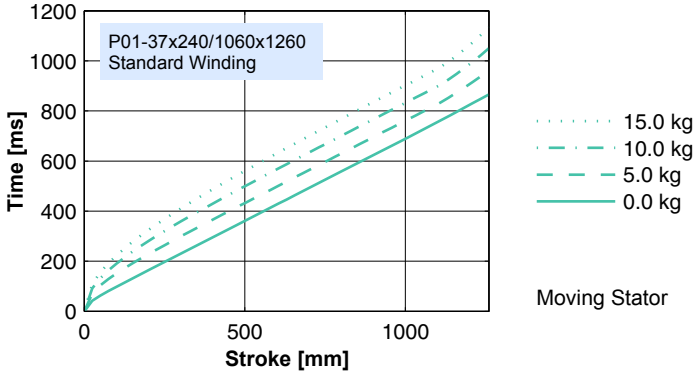


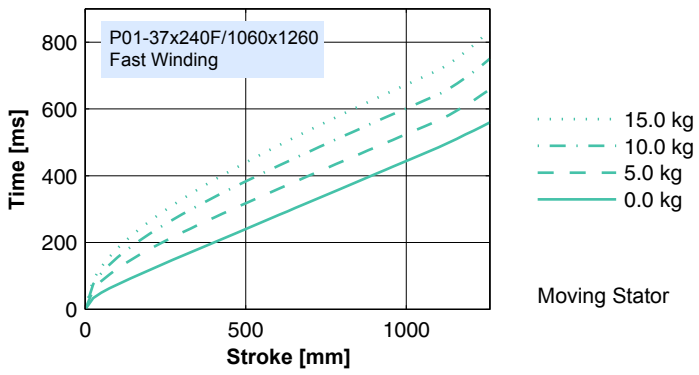
Dimensions in mm
*Cable Type

Motor Specification

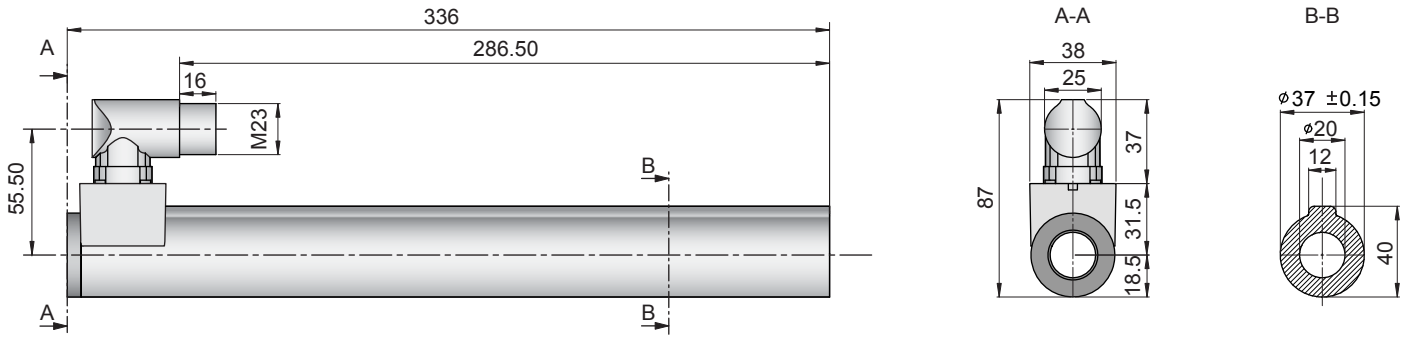
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/1060x1260-C**	**37x240F/1060x1260-C**	**37x240/1060x1260-P150** **37x240/1060x1260-C20**	**37x240F/1060x1260-C20**
Extended Stroke ES	mm (in)	1260 (49.61)	1260 (49.61)	1260 (49.61)	1260 (49.61)
Standard Stroke SS	mm (in)	1060 (41.73)	1060 (41.73)	1060 (41.73)	1060 (41.73)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1400 (55.12)	1400 (55.12)	1400 (55.12)	1400 (55.12)
Slider Mass	g (lb)	3157 (6.96)	3157 (6.96)	3157 (6.96)	3157 (6.96)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



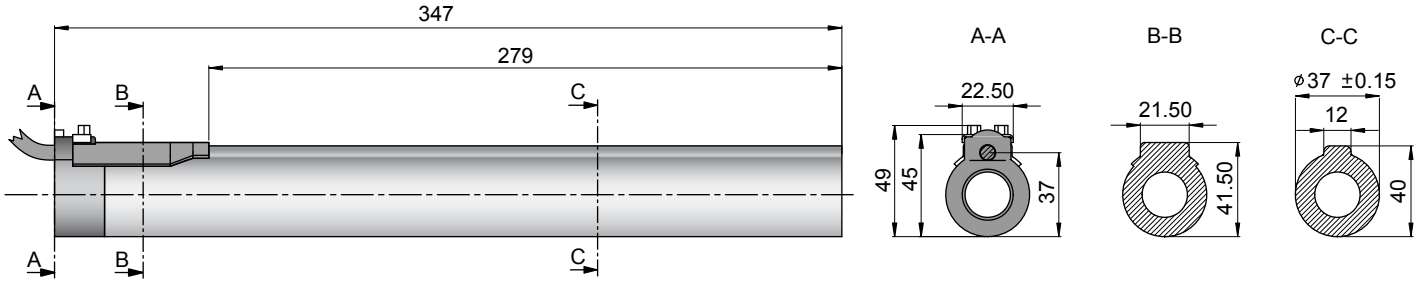


Connector Type



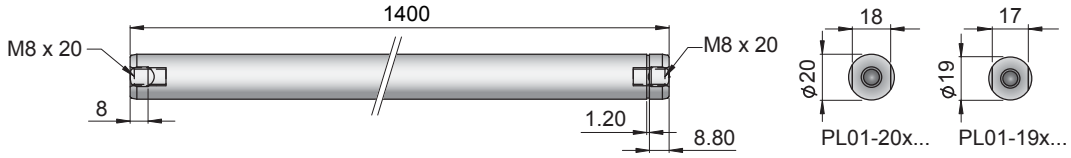
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/1060x1260-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x1400/1320	0150-1342
P01-37x240F/1060x1260-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x1400/1320	0150-1342

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/1060x1260-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x1400/1320	0150-1342
P01-37x240/1060x1260-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x1400/1320	0150-1342
P01-37x240F/1060x1260-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x1400/1320	0150-1342

Slider

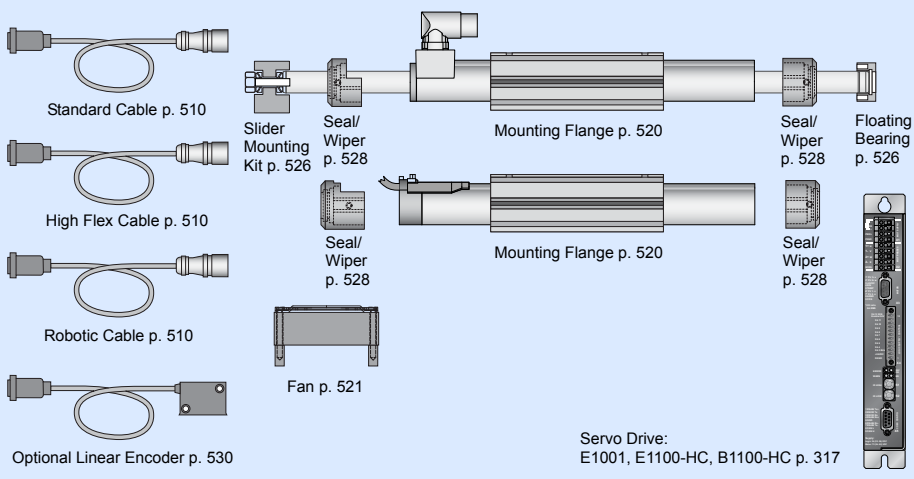


Standard Type	Slider Standard		PL01-20x1400/1320	0150-1342
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1400/1320	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1400/1320-L	on request

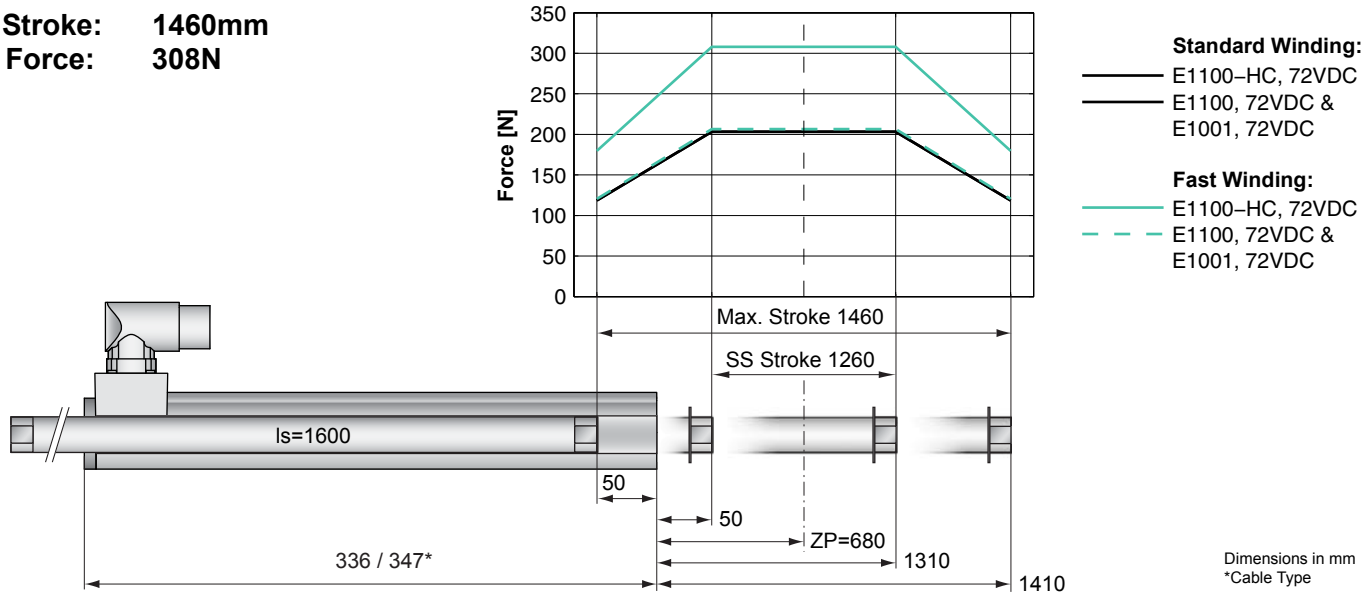
Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



Max. Stroke: 1460mm
Peak Force: 308N

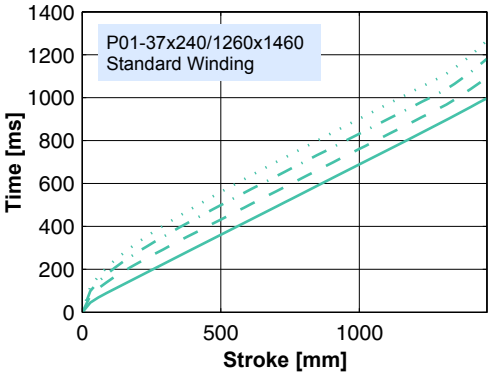


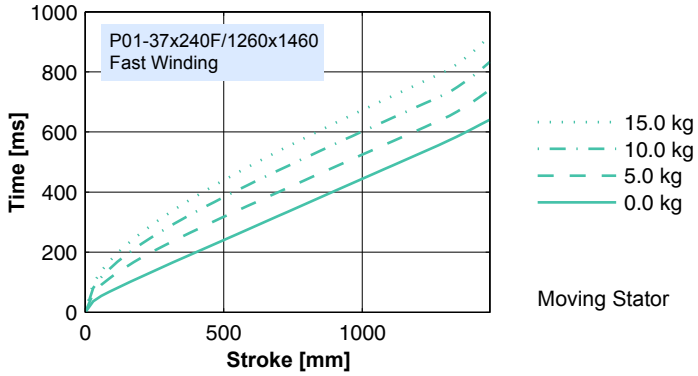
Dimensions in mm
*Cable Type

Motor Specification

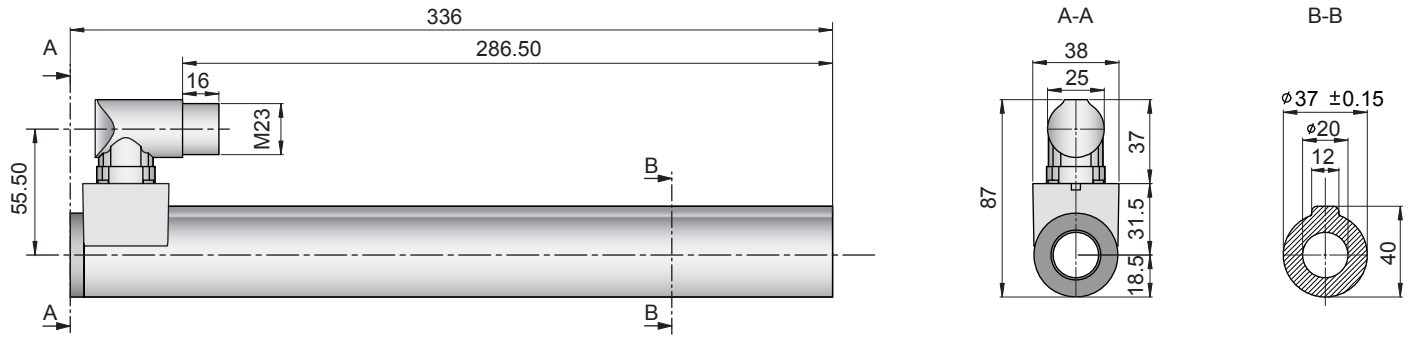
		Connector Type		Cable Type	
		Standard Winding	Fast Winding	Standard Winding	Fast Winding
P01-		**37x240/1260x1460-C**	**37x240F/1260x1460-C**	**37x240/1260x1460-P150** **37x240/1260x1460-C20**	**37x240F/1260x1460-C20**
Extended Stroke ES	mm (in)	1460 (57.48)	1460 (57.48)	1460 (57.48)	1460 (57.48)
Standard Stroke SS	mm (in)	1260 (49.61)	1260 (49.61)	1260 (49.61)	1260 (49.61)
Peak Force E1100-HC	N (lbf)	203 (45.7)	308 (69.2)	203 (45.7)	308 (69.2)
Peak Force E1100 / E1001	N (lbf)	203 (45.7)	206 (46.4)	203 (45.7)	206 (46.4)
Cont. Force	N (lbf)	53 (12.0)	53 (12.0)	53 (12.0)	53 (12.0)
Cont. Force Fan cooling	N (lbf)	100 (22.4)	100 (22.4)	100 (22.4)	100 (22.4)
Border Force	%	58	58	58	58
Force Constant	N/A (lbf/A)	40.8 (9.17)	25.8 (5.80)	40.8 (9.17)	25.8 (5.80)
Max. Current @ 72VDC	A	5.0	11.9	5.0	11.9
Max. Current @ 48VDC	A	3.3	8.0	3.3	8.0
Max. Velocity @ 72VDC	m/s (in/s)	1.6 (64)	2.6 (101)	1.6 (64)	2.6 (101)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (43)	1.7 (67)	1.1 (43)	1.7 (67)
Phase Resist. 25/80 °C	Ohm	11.7/14.2	4.9/5.9	11.7/14.2	4.9/5.9
Phase Inductance	mH	6.0	2.4	6.0	2.4
Thermal Resistance	°K/W	2.3	2.2	2.3	2.2
Thermal Time Const.	sec	3400	3200	3400	3200
Stator Diameter	mm (in)	37 (1.46)	37 (1.46)	37 (1.46)	37 (1.46)
Stator Length	mm (in)	336 (13.23)	336 (13.23)	347 (13.66)	347 (13.66)
Stator Mass	g (lb)	1385 (3.05)	1385 (3.05)	1385 (3.05)	1385 (3.05)
Slider Diameter	mm (in)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)
Slider Length	mm (in)	1600 (62.99)	1600 (62.99)	1600 (62.99)	1600 (62.99)
Slider Mass	g (lb)	3622 (7.99)	3622 (7.99)	3622 (7.99)	3622 (7.99)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



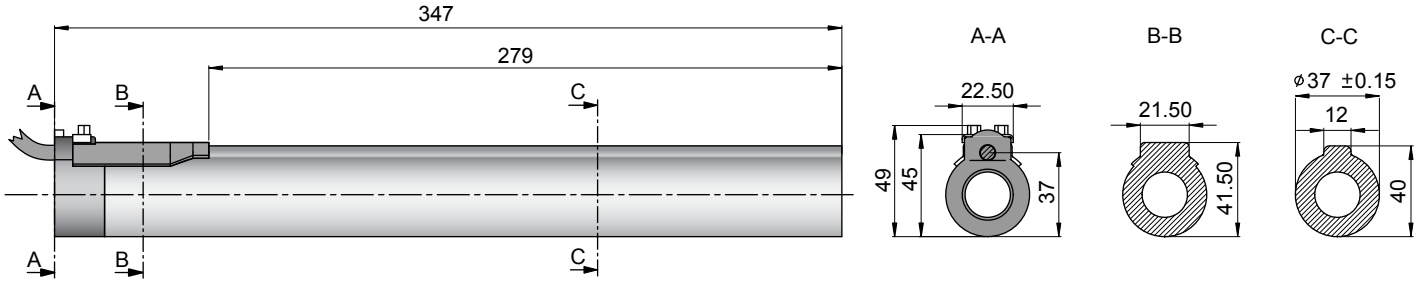


Connector Type



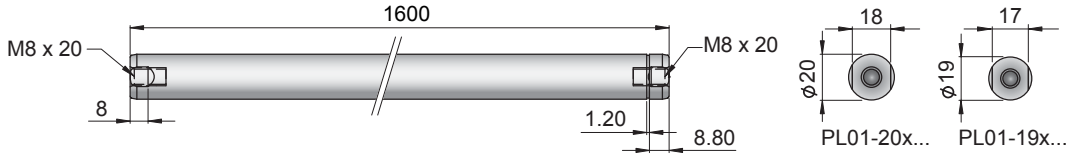
Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/1260x1460-C	-->	PS01-37x240-C	0150-1224	&	PL01-20x1600/1520	0150-1344
P01-37x240F/1260x1460-C	-->	PS01-37x240F-C	0150-1225	&	PL01-20x1600/1520	0150-1344

Cable Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-37x240/1260x1460-P150	-->	PS01-37x240-P150	0150-1203	&	PL01-20x1600/1520	0150-1344
P01-37x240/1260x1460-C20	-->	PS01-37x240-C20	0150-1238	&	PL01-20x1600/1520	0150-1344
P01-37x240F/1260x1460-C20	-->	PS01-37x240F-C20	0150-1239	&	PL01-20x1600/1520	0150-1344

Slider

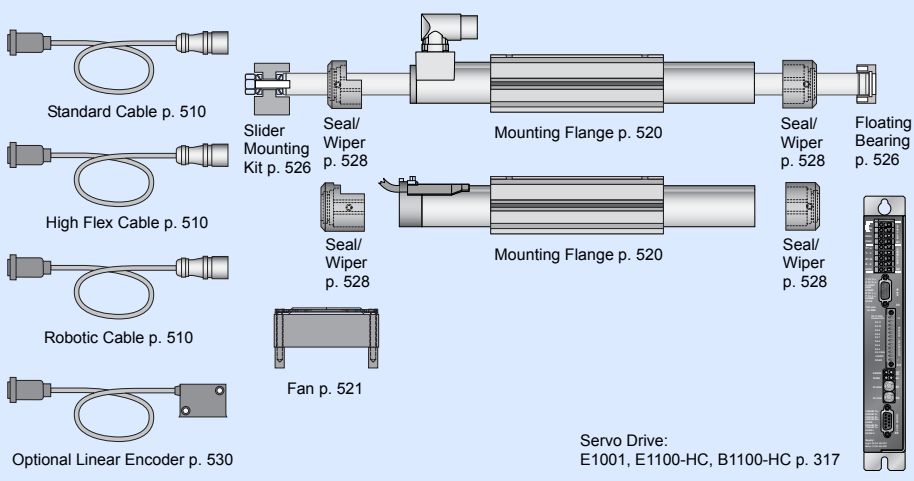


Standard Type	Slider Standard		PL01-20x1600/1520	0150-1344
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-20x1600/1520	on request
	Hollow Slider	hole diameter 6.5mm	PL01-20x1600/1520-L	on request

Connectors

Motor Connector Wiring Cable Length: P01-37x240... 1.5m P01-37x240...-C20 0.2m		P01-37....-C P01-37...-C20	P01-37....
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	grey	D	4
+5VDC	white	E	5
GND	inner Shield	F	6
Sine	yellow	G	7
Cosine	green	H	8
Temp.	black	L	9
Shield	outer Shield	Case	10

Accessoires



P01-48x240/30x180 138

P01-48x240/90x240 140

P01-48x240/180x330 142

P01-48x240/300x450 144

P01-48x240/390x540 146

P01-48x240/480x630 148

P01-48x240/600x750 150

P01-48x240/690x840 152

P01-48x240/900x1050 154

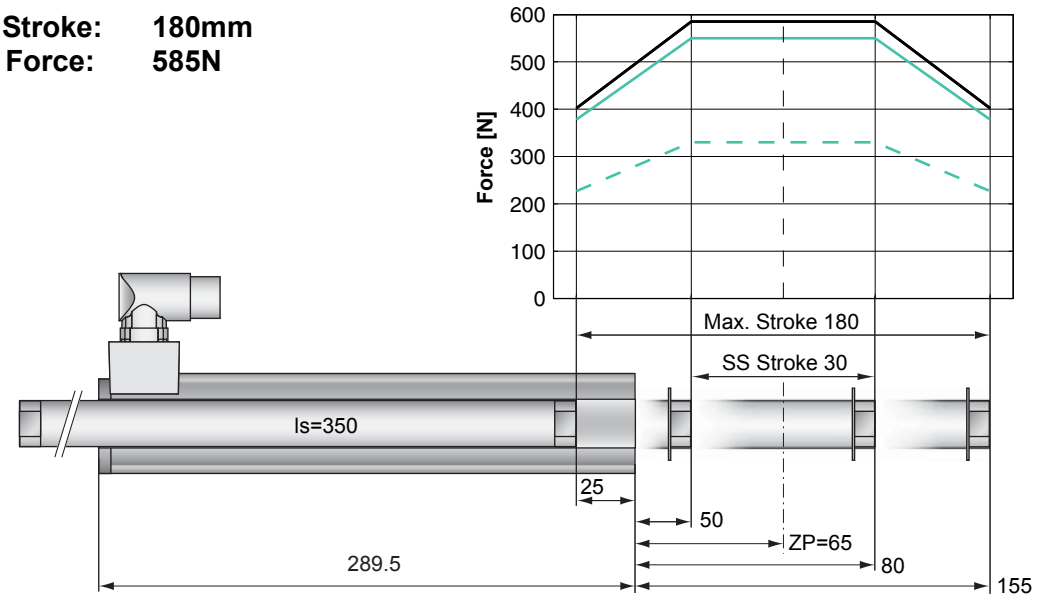
P01-48x240/1080x1230 156

P01-48x240/1290x1440 158

P01-48x240/1500x1650 160

P01-48x240/1680x1830 162

Max. Stroke: 180mm
Peak Force: 585N

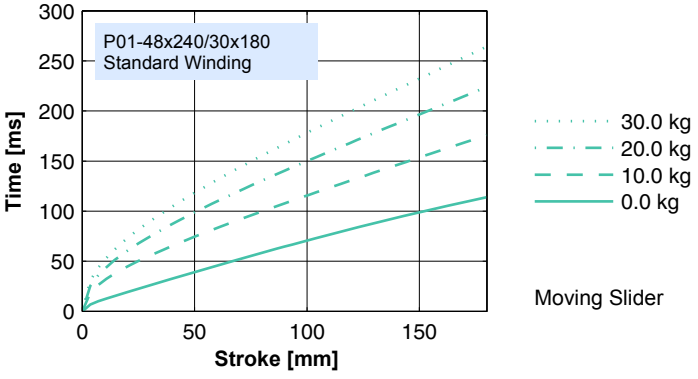


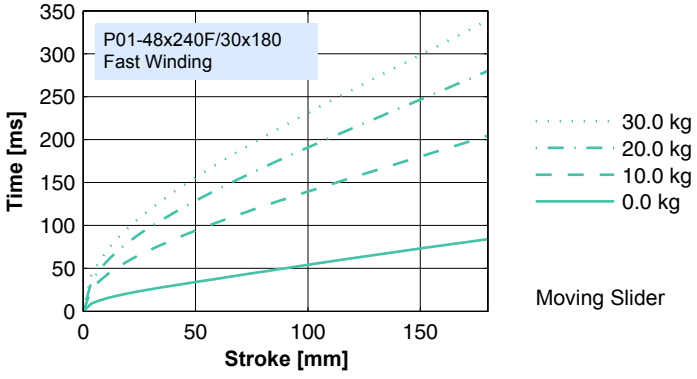
Dimensions in mm

Motor Specification

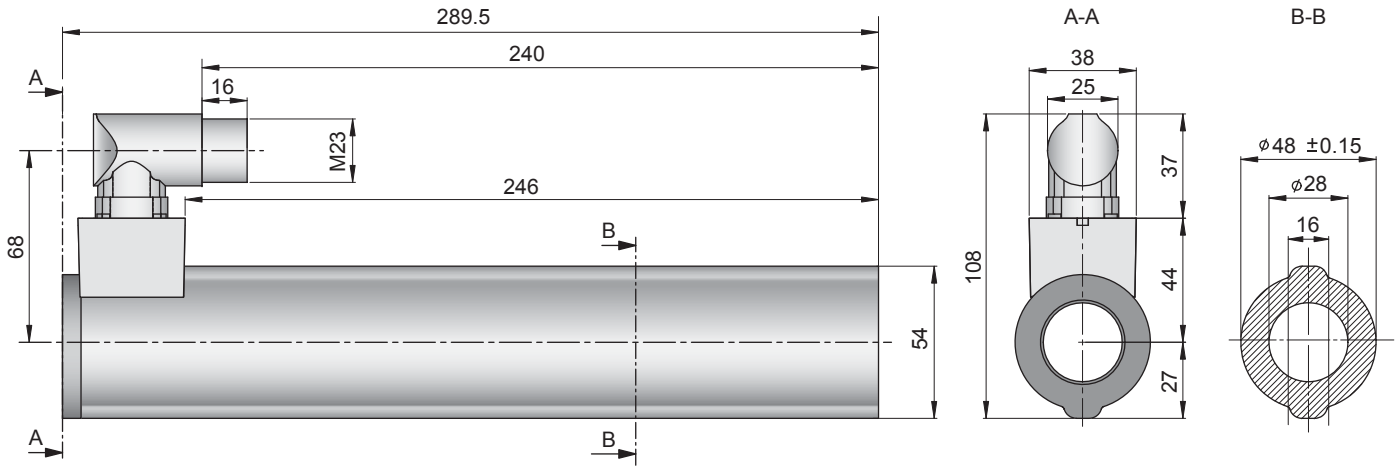
		Standard Winding	Fast Winding
	P01-	**48x240/30x180-C**	**48x240F/30x180-C**
Extended Stroke ES	mm (in)	180 (7.09)	180 (7.09)
Standard Stroke SS	mm (in)	30 (1.18)	30 (1.18)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	350 (13.78)	350 (13.78)
Slider Mass	g (lb)	1460 (3.22)	1460 (3.22)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.25	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



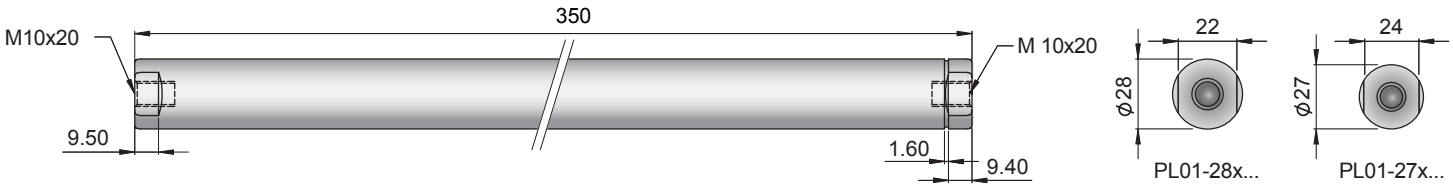


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/30x180-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x350/270	0150-1380
P01-48x240F/30x180-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x350/270	0150-1380

Slider

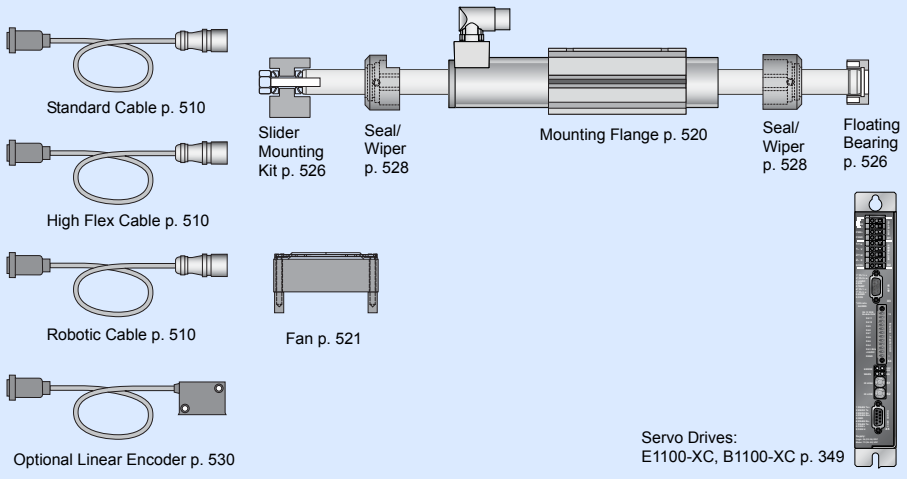


Standard Type	Slider Standard		PL01-28x350/270	0150-1380
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x350/270	0150-1411
	Hollow Slider	hole diameter 8.5mm	PL01-28x350/270-L	0150-1475
	High Clearance Slider	d=27mm, m=1360g	PL01-27x350/270	0150-1467

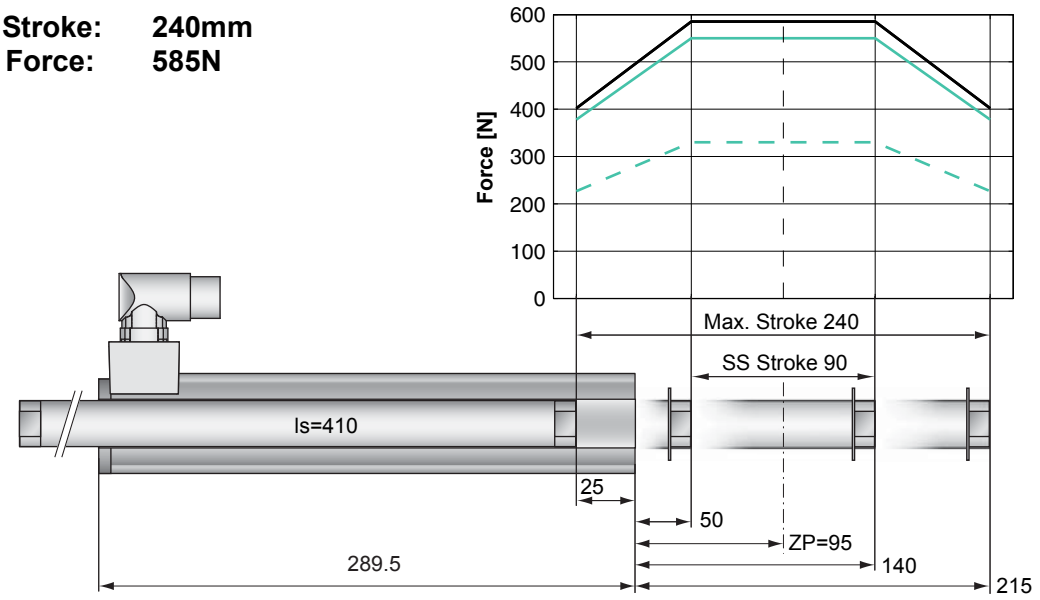
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 240mm
Peak Force: 585N

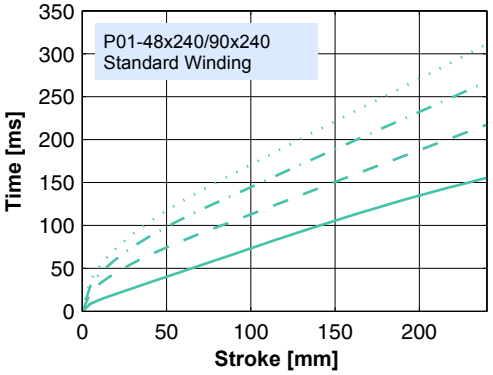


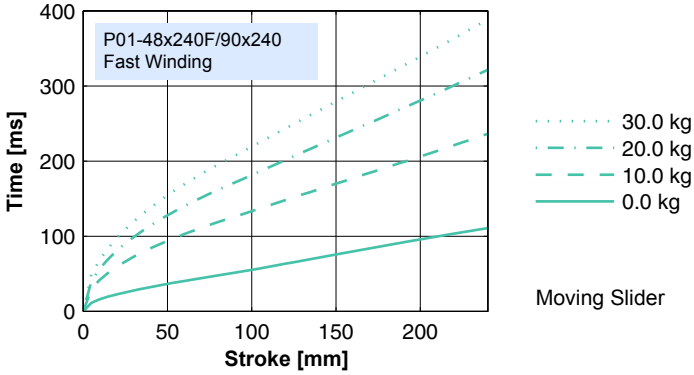
Dimensions in mm

Motor Specification

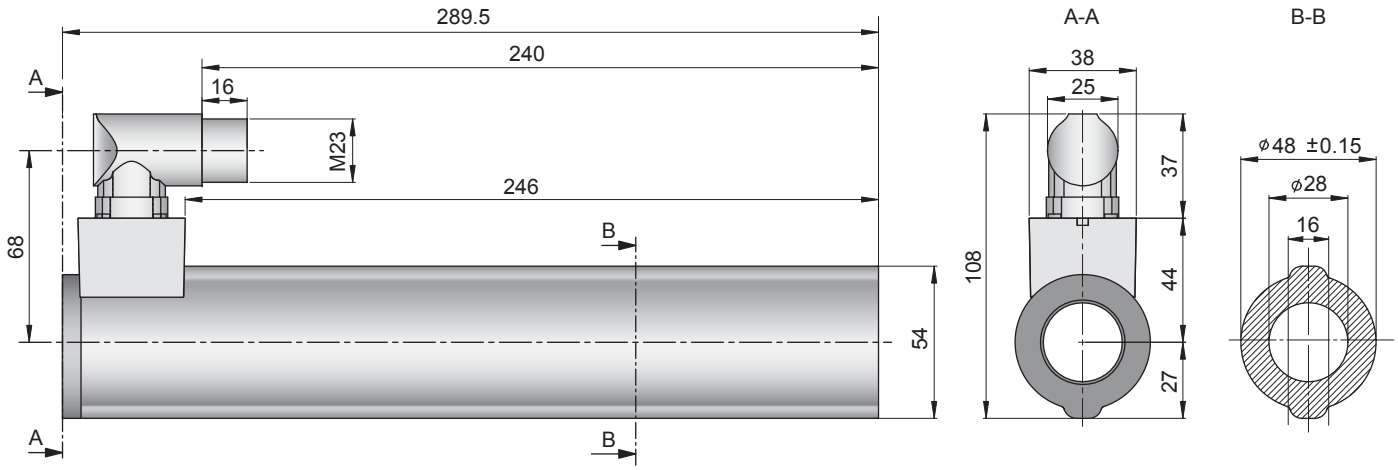
		Standard Winding	Fast Winding
P01-		**48x240/90x240-C**	**48x240F/90x240-C**
Extended Stroke ES	mm (in)	240 (9.45)	240 (9.45)
Standard Stroke SS	mm (in)	90 (3.54)	90 (3.54)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	410 (16.14)	410 (16.14)
Slider Mass	g (lb)	1740 (3.84)	1740 (3.84)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.20	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



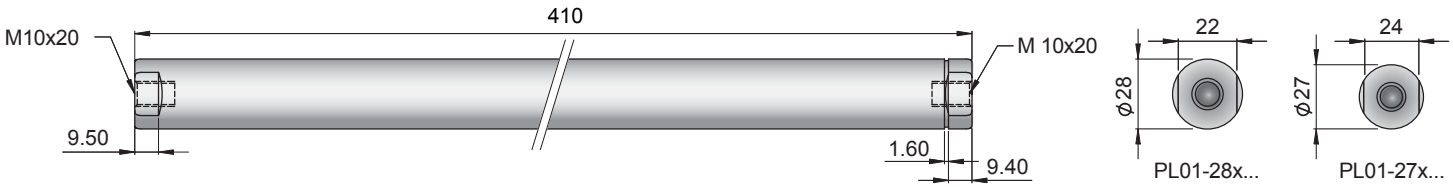


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/90x240-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x410/330	0150-1381
P01-48x240F/90x240-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x410/330	0150-1381

Slider

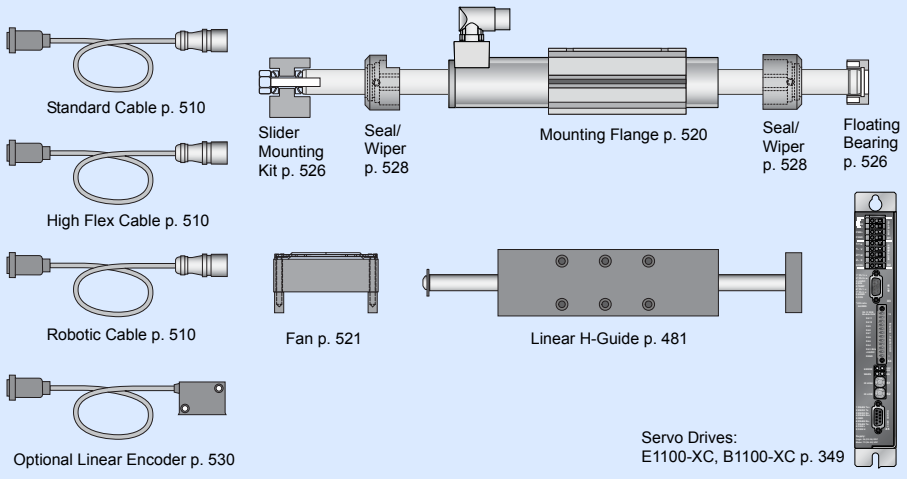


Standard Type	Slider Standard		PL01-28x410/330	0150-1381
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x410/330	0150-1412
	Hollow Slider	hole diameter 8.5mm	PL01-28x410/330-L	0150-1476
	High Clearance Slider	d=27mm, m=1620g	PL01-27x410/330	0150-1468

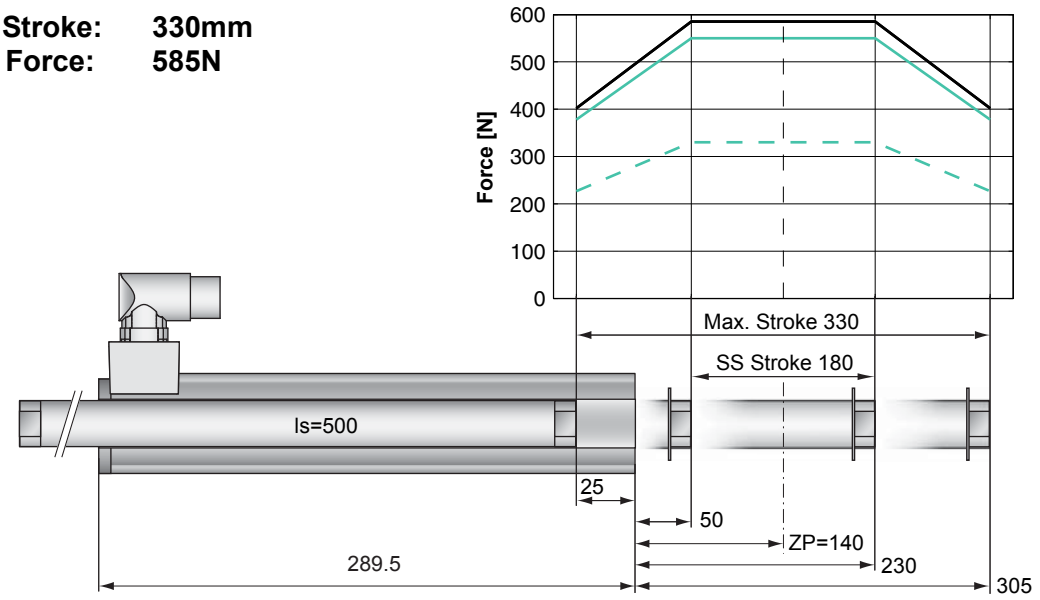
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 330mm
Peak Force: 585N

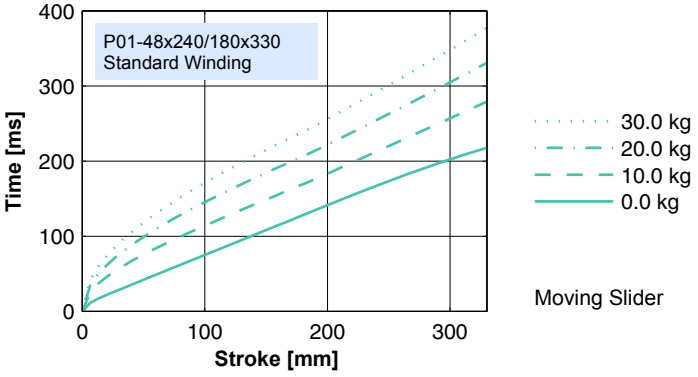


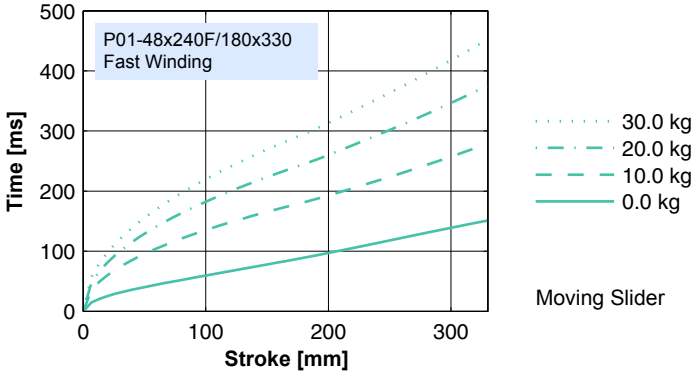
Dimensions in mm

Motor Specification

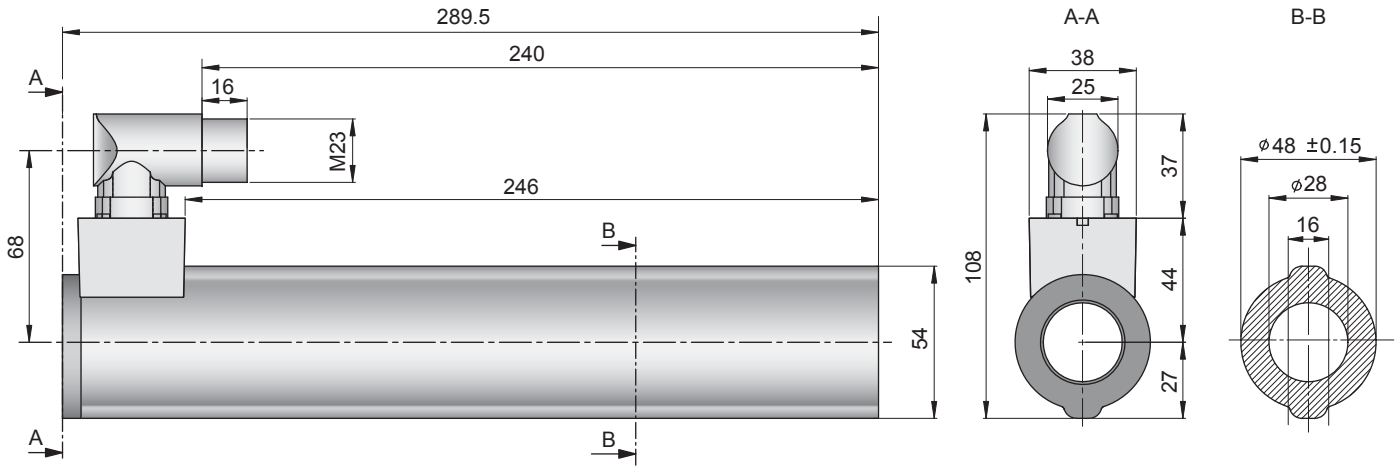
		Standard Winding	Fast Winding
	P01-	**48x240/180x330-C**	**48x240F/180x330-C**
Extended Stroke ES	mm (in)	330 (12.99)	330 (12.99)
Standard Stroke SS	mm (in)	180 (7.09)	180 (7.09)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	500 (19.69)	500 (19.69)
Slider Mass	g (lb)	2160 (4.76)	2160 (4.76)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



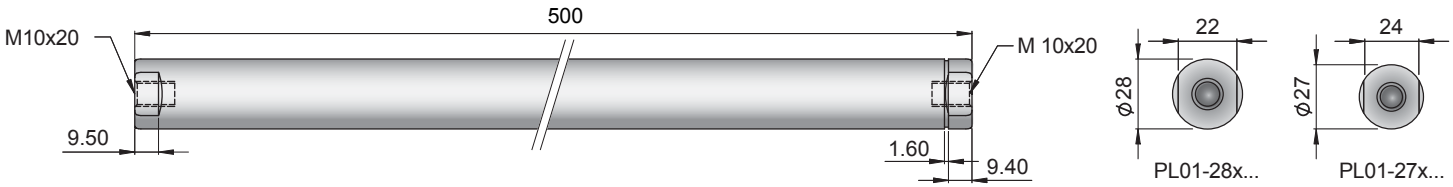


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/180x330-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x500/420	0150-1382
P01-48x240F/180x330-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x500/420	0150-1382

Slider

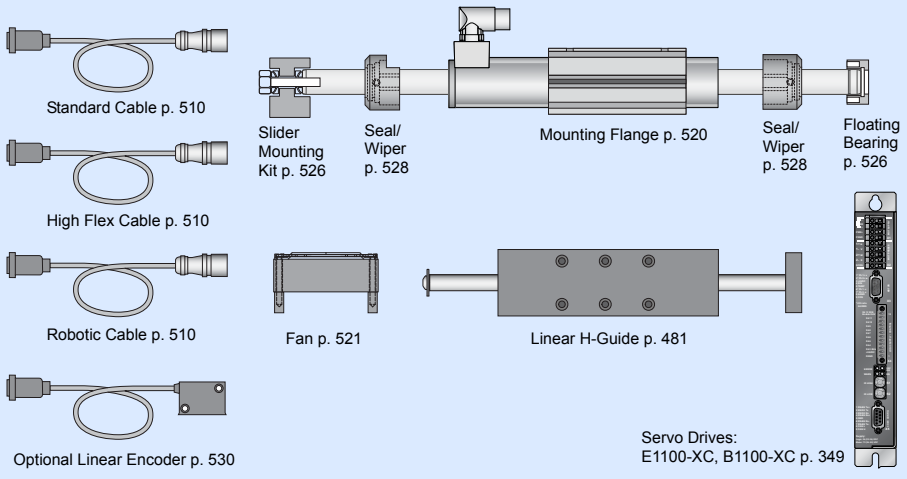


Standard Type	Slider Standard		PL01-28x500/420	0150-1382
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x500/420	0150-1413
	Hollow Slider	hole diameter 8.5mm	PL01-28x500/420-L	0150-1480
	High Clearance Slider	d=27mm, m=2010g	PL01-27x500/420	0150-1469

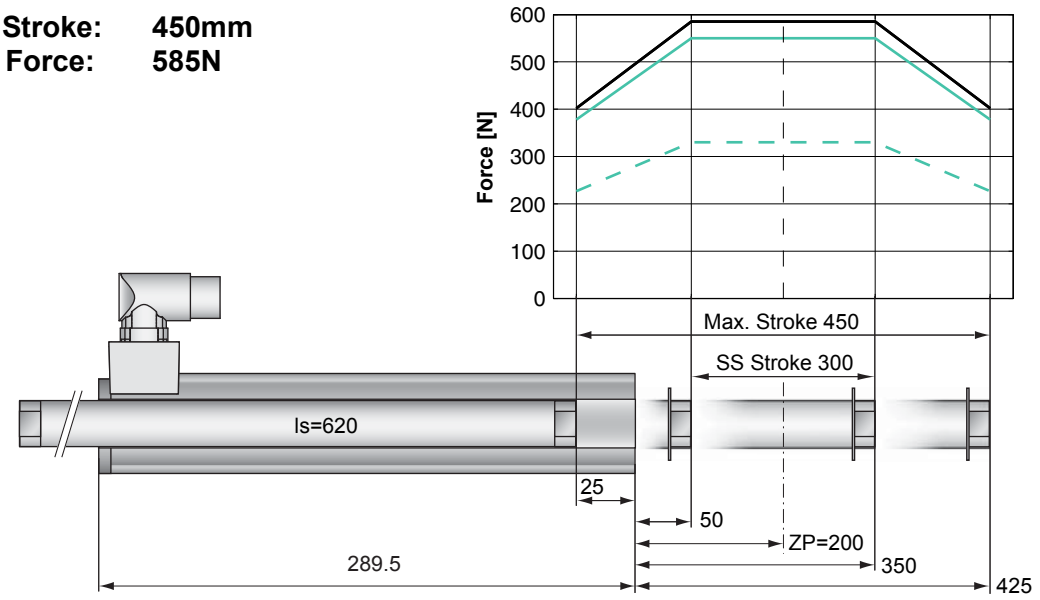
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 450mm
Peak Force: 585N

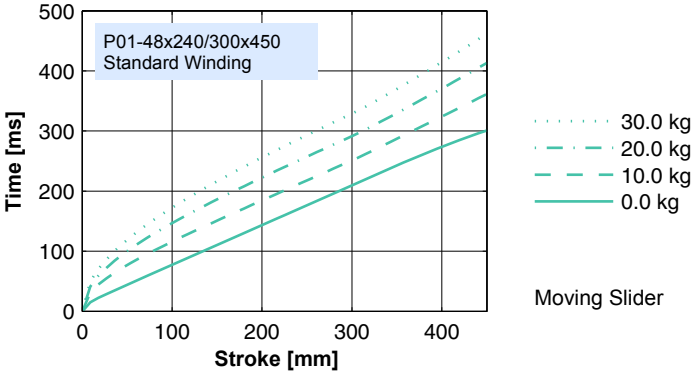


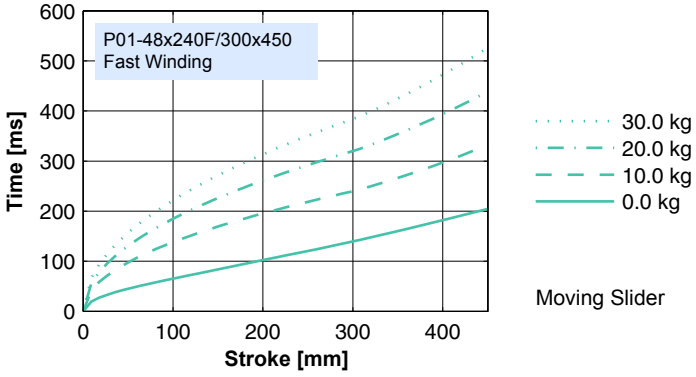
Dimensions in mm

Motor Specification

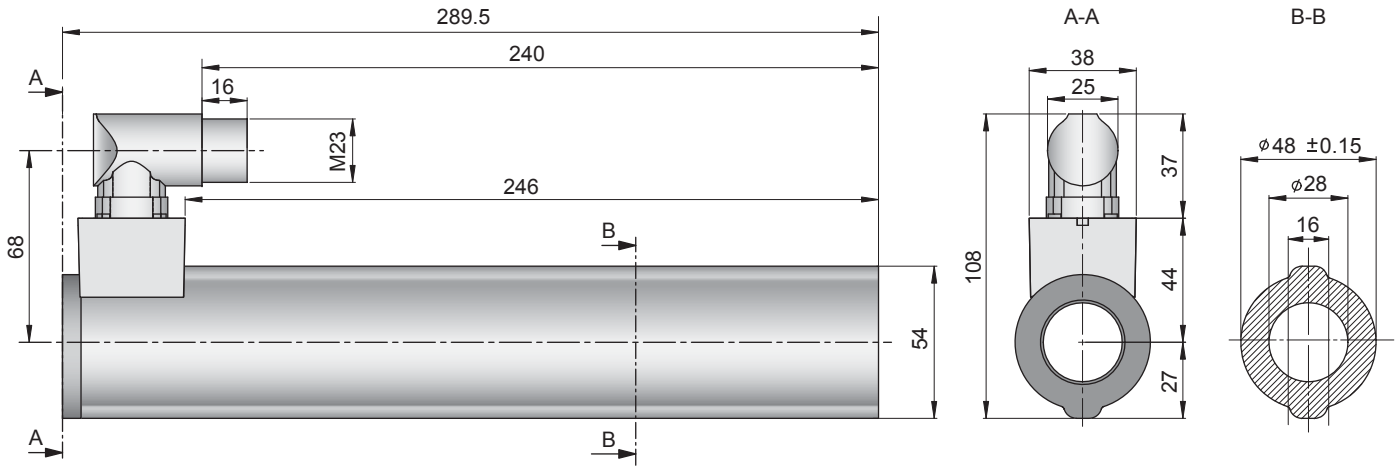
		Standard Winding	Fast Winding
	P01-	**48x240/300x450-C**	**48x240F/300x450-C**
Extended Stroke ES	mm (in)	450 (17.72)	450 (17.72)
Standard Stroke SS	mm (in)	300 (11.81)	300 (11.81)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	620 (24.41)	620 (24.41)
Slider Mass	g (lb)	2720 (6.00)	2720 (6.00)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



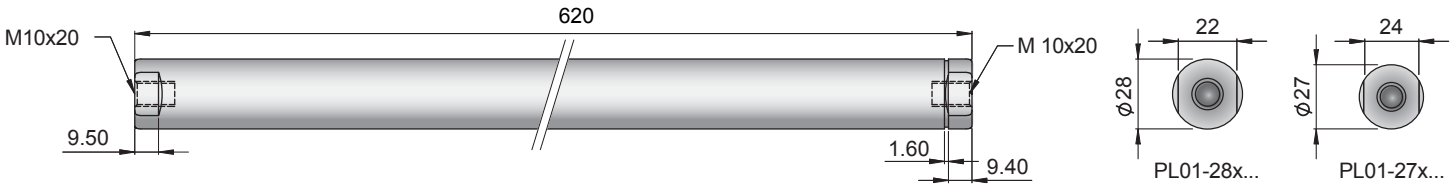


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/300x450-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x620/540	0150-1383
P01-48x240F/300x450-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x620/540	0150-1383

Slider

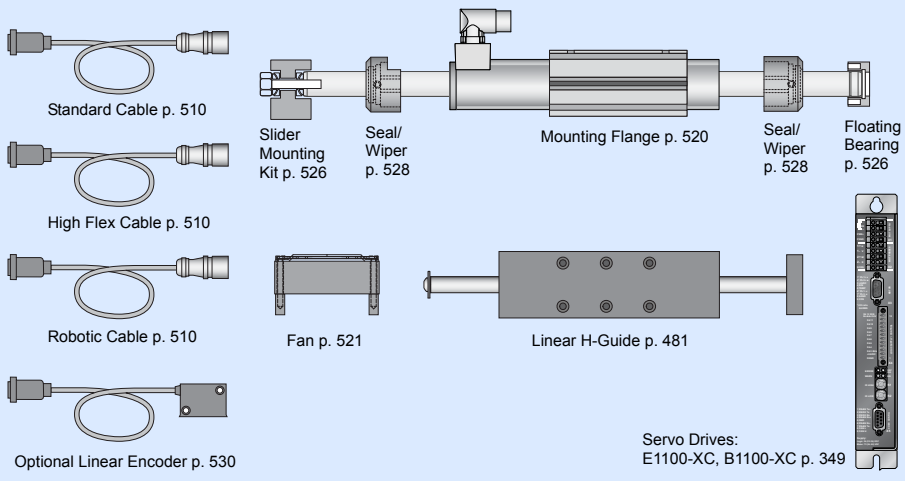


Standard Type	Slider Standard		PL01-28x620/540	0150-1383
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x620/540	0150-1414
	Hollow Slider	hole diameter 8.5mm	PL01-28x620/540-L	0150-1481
	High Clearance Slider	d=27mm, m=2530g	PL01-27x620/540	0150-1470

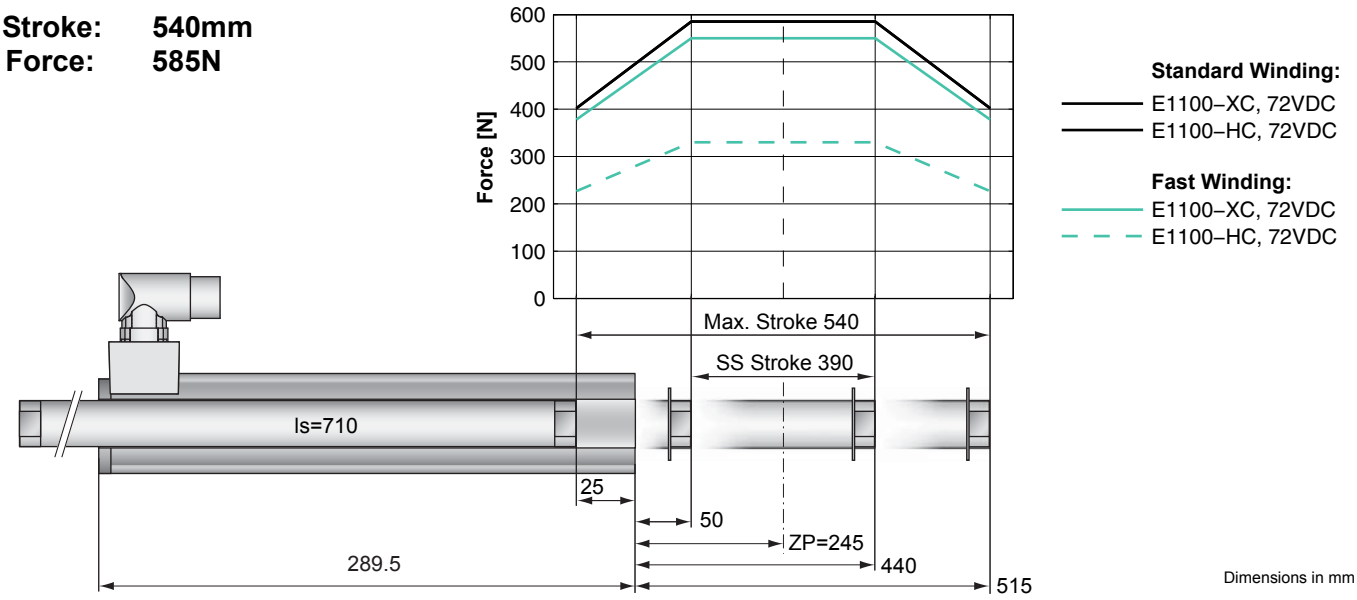
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 540mm
Peak Force: 585N

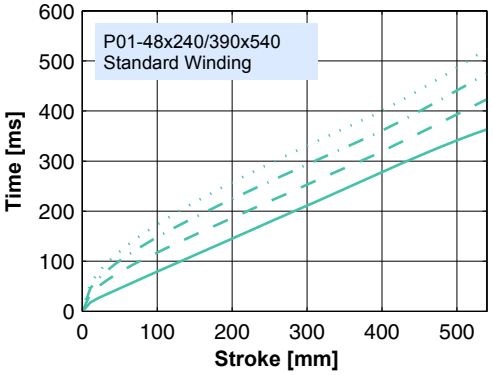


Dimensions in mm

Motor Specification

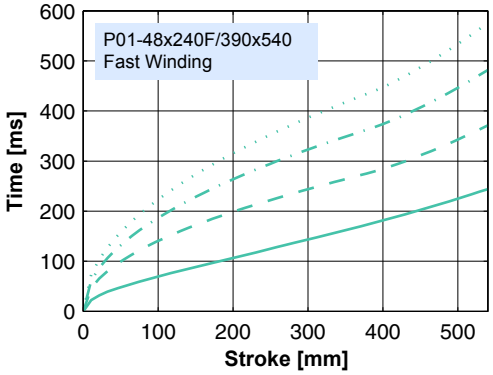
		Standard Winding	Fast Winding
	P01-	**48x240/390x540-C**	**48x240F/390x540-C**
Extended Stroke ES	mm (in)	540 (21.26)	540 (21.26)
Standard Stroke SS	mm (in)	390 (15.35)	390 (15.35)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	710 (27.95)	710 (27.95)
Slider Mass	g (lb)	3140 (6.92)	3140 (6.92)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.15	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



30.0 kg
20.0 kg
10.0 kg
0.0 kg

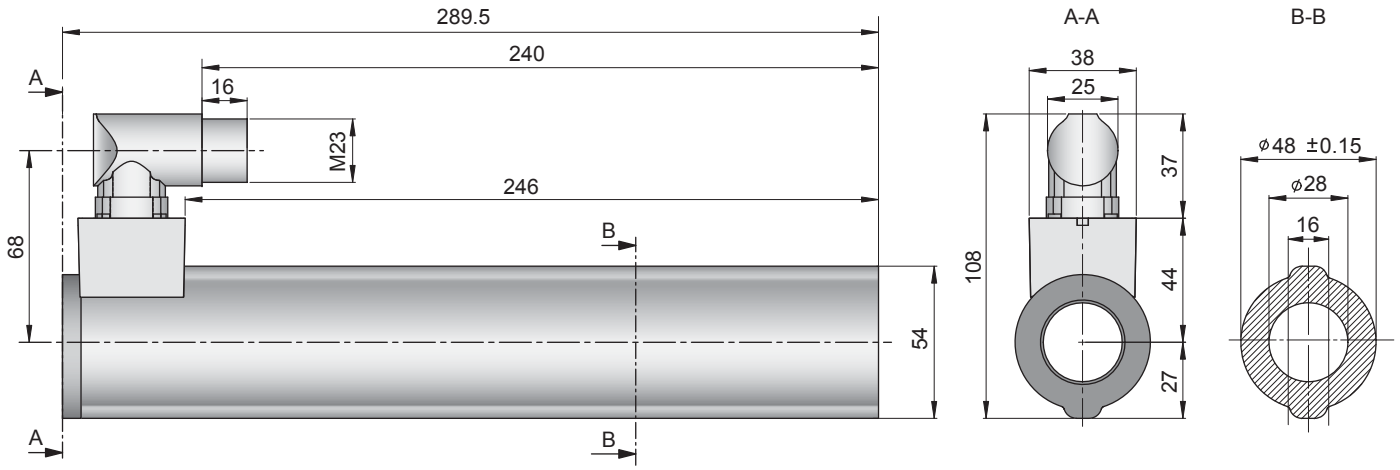
Moving Slider



30.0 kg
20.0 kg
10.0 kg
0.0 kg

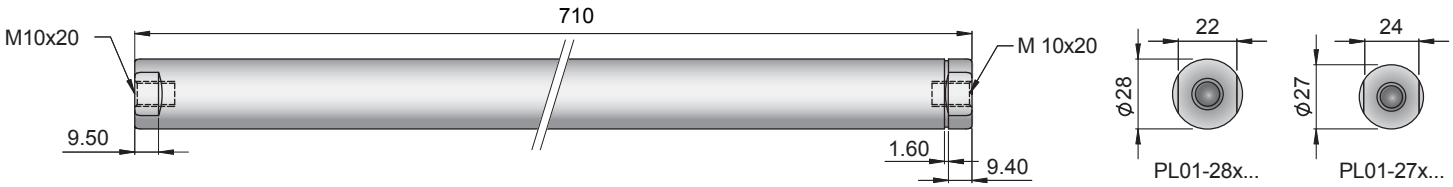
Moving Slider

Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/390x540-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x710/630	0150-1384
P01-48x240F/390x540-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x710/630	0150-1384

Slider

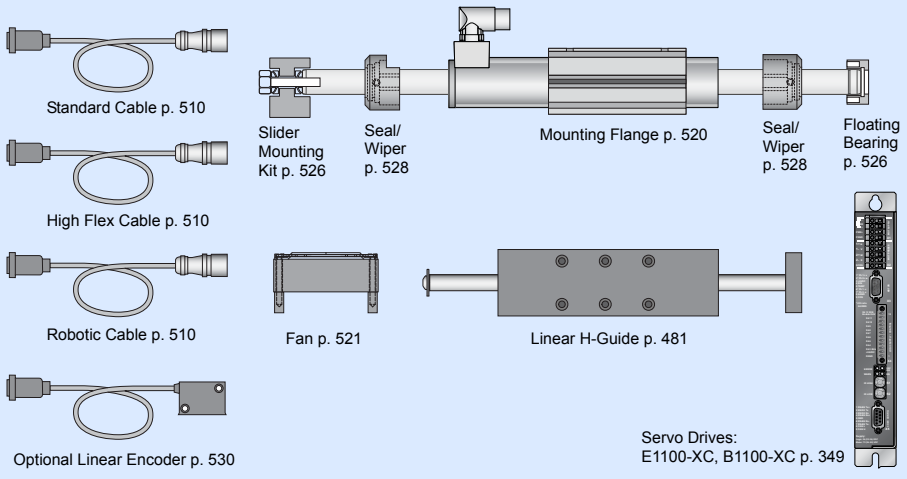


Standard Type	Slider Standard		PL01-28x710/630	0150-1384
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x710/630	0150-1415
	Hollow Slider	hole diameter 8.5mm	PL01-28x710/630-L	0150-1482
	High Clearance Slider	d=27mm, m=2920g	PL01-27x710/630	0150-1471

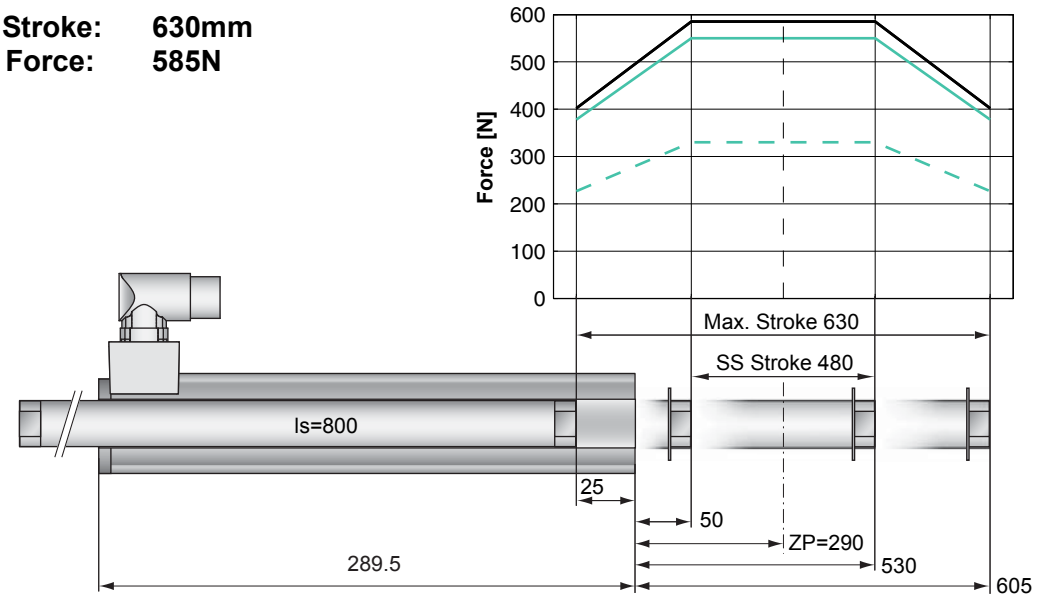
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 630mm
Peak Force: 585N

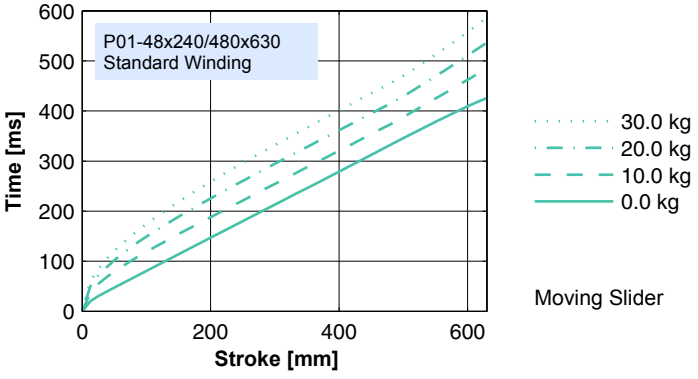


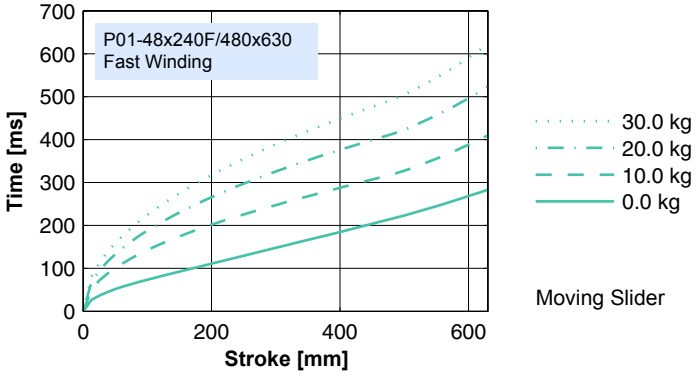
Dimensions in mm

Motor Specification

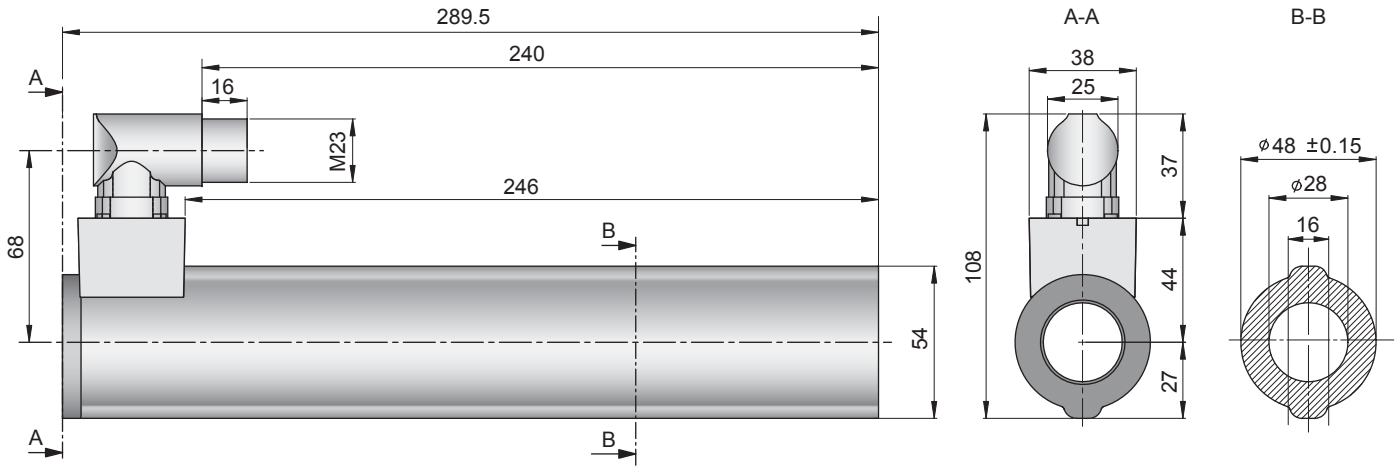
		Standard Winding	Fast Winding
	P01-	**48x240/480x630-C**	**48x240F/480x630-C**
Extended Stroke ES	mm (in)	630 (24.80)	630 (24.80)
Standard Stroke SS	mm (in)	480 (18.90)	480 (18.90)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	800 (31.50)	800 (31.50)
Slider Mass	g (lb)	3560 (7.85)	3560 (7.85)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



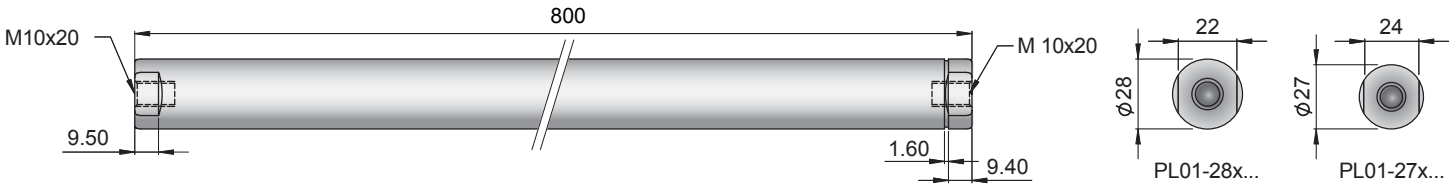


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/480x630-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x800/720	0150-1385
P01-48x240F/480x630-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x800/720	0150-1385

Slider

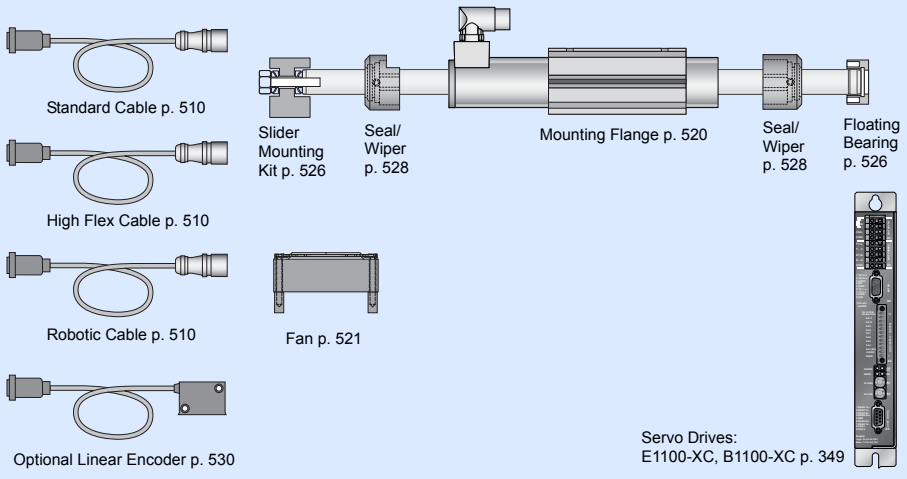


Standard Type	Slider Standard		PL01-28x800/720	0150-1385
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x800/720	0150-1416
	Hollow Slider	hole diameter 8.5mm	PL01-28x800/720-L	0150-1483

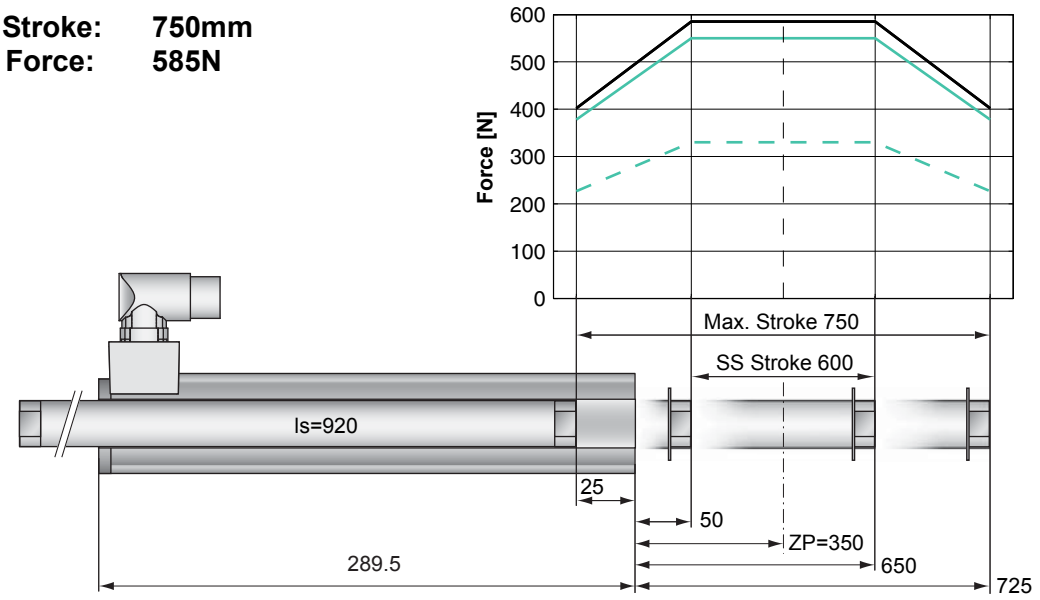
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 750mm
Peak Force: 585N

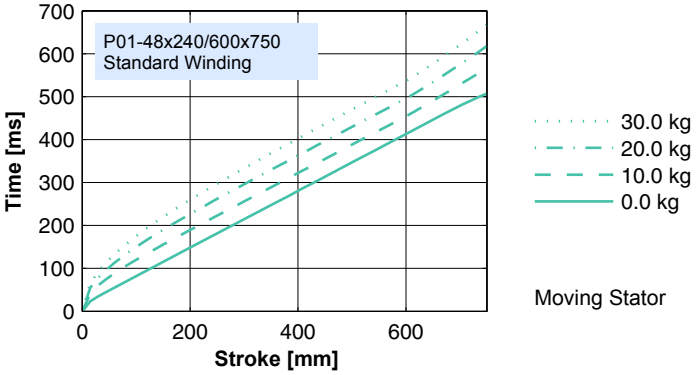


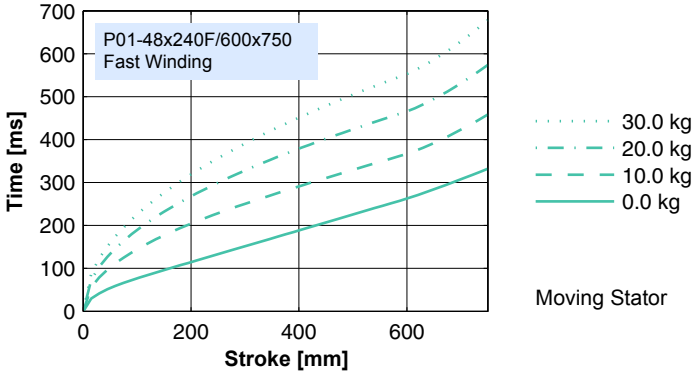
Dimensions in mm

Motor Specification

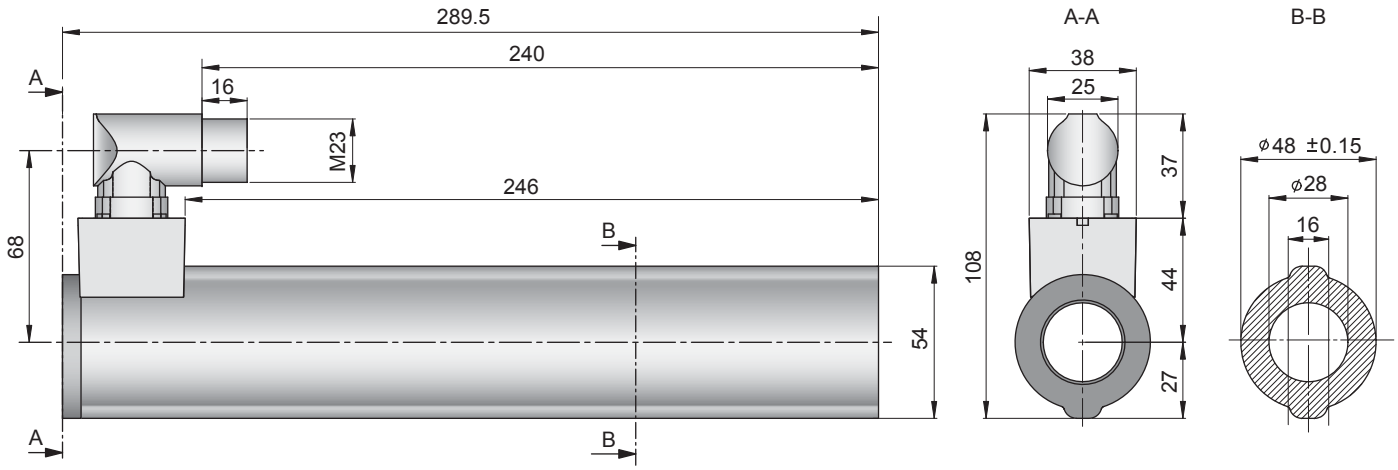
		Standard Winding	Fast Winding
	P01-	**48x240/600x750-C**	**48x240F/600x750-C**
Extended Stroke ES	mm (in)	750 (29.53)	750 (29.53)
Standard Stroke SS	mm (in)	600 (23.62)	600 (23.62)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	920 (36.22)	920 (36.22)
Slider Mass	g (lb)	4120 (9.08)	4120 (9.08)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



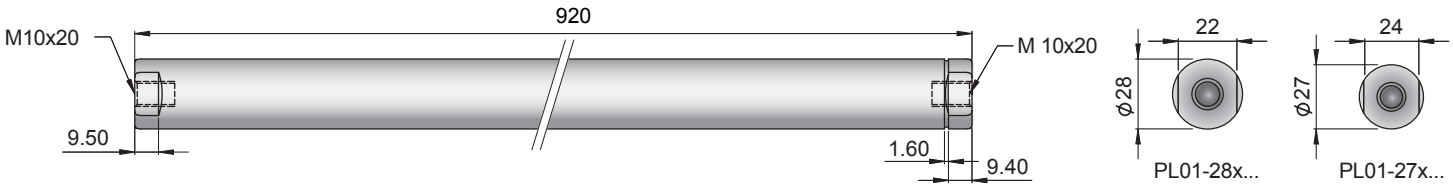


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/600x750-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x920/840	0150-1386
P01-48x240F/600x750-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x920/840	0150-1386

Slider

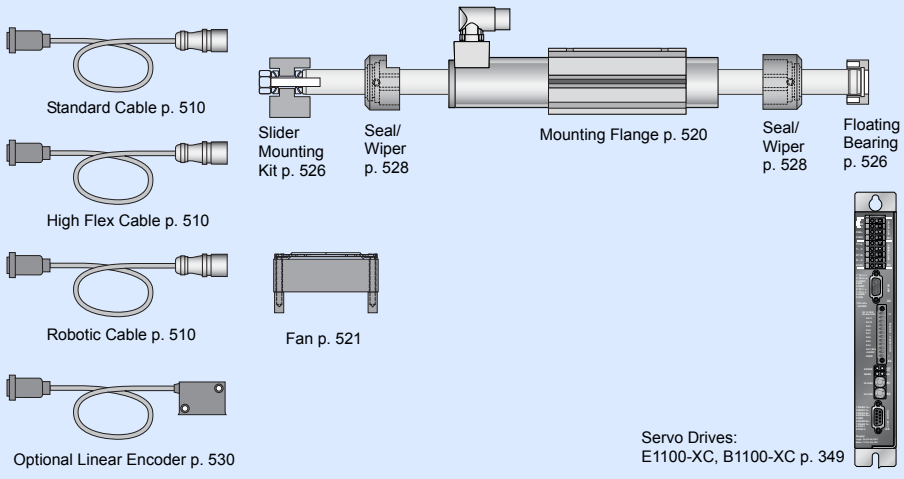


Standard Type	Slider Standard		PL01-28x920/840	0150-1386
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x920/840	0150-1417
	Hollow Slider	hole diameter 8.5mm	PL01-28x920/840-L	on request

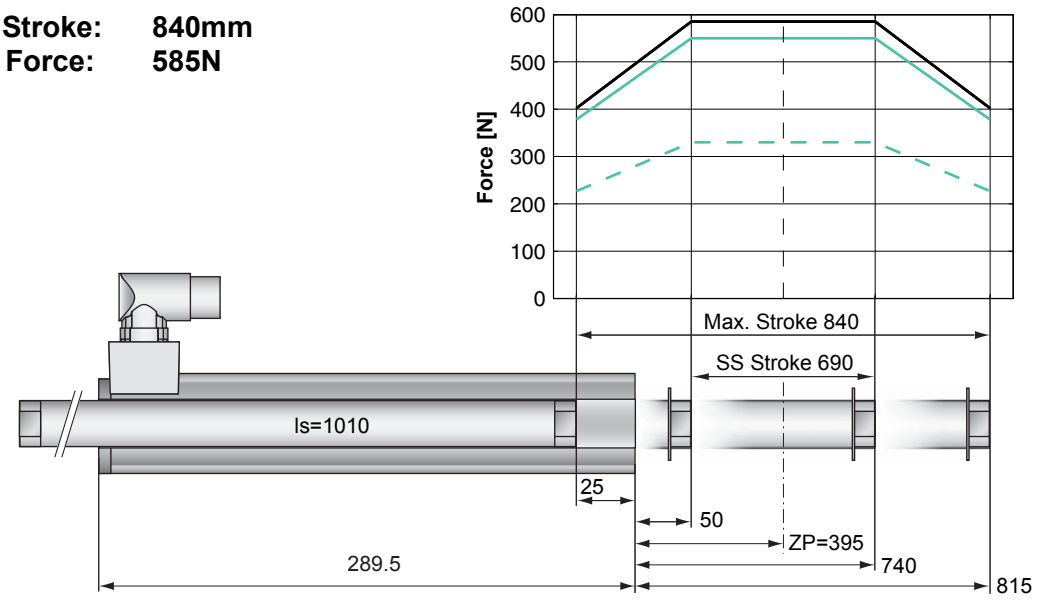
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 840mm
Peak Force: 585N

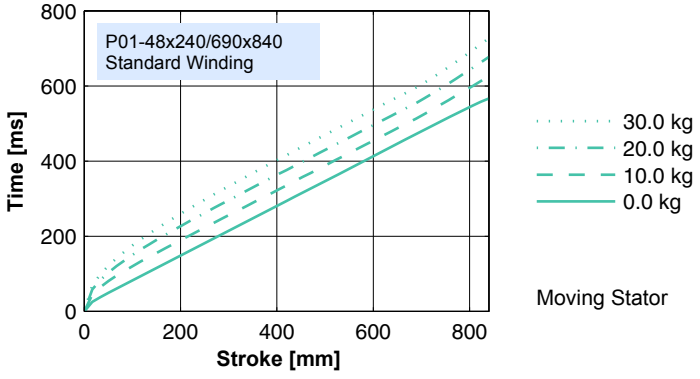


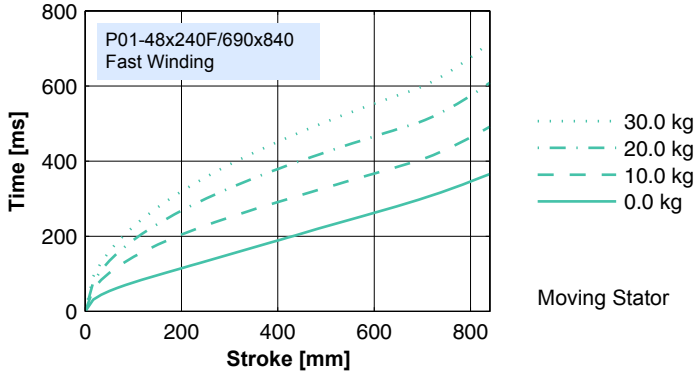
Dimensions in mm

Motor Specification

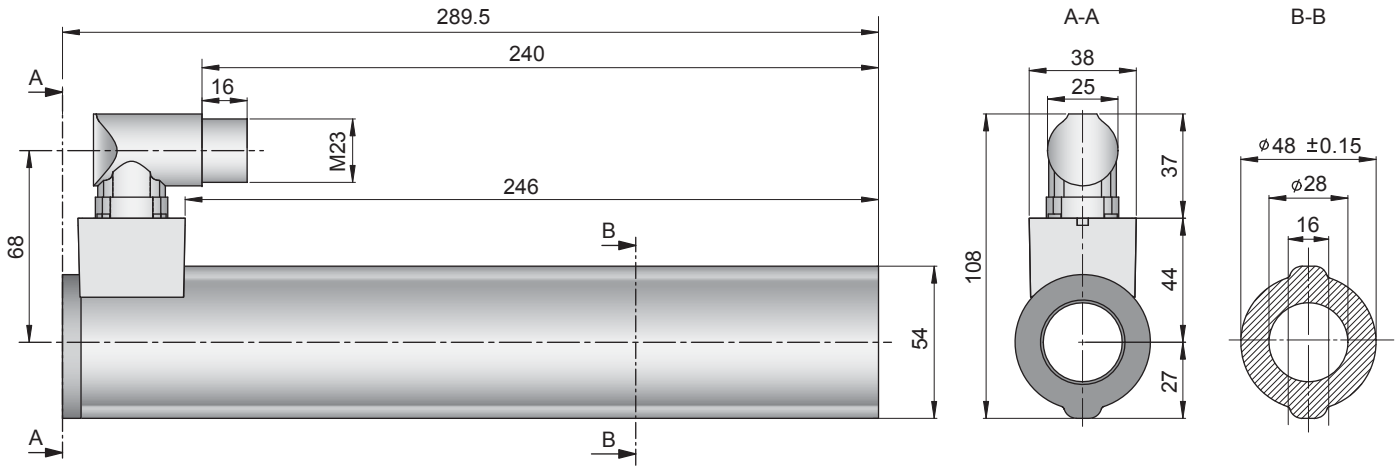
		Standard Winding	Fast Winding
	P01-	**48x240/690x840-C**	**48x240F/690x840-C**
Extended Stroke ES	mm (in)	840 (33.07)	840 (33.07)
Standard Stroke SS	mm (in)	690 (27.17)	690 (27.17)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	1010 (39.76)	1010 (39.76)
Slider Mass	g (lb)	4540 (10.01)	4540 (10.01)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



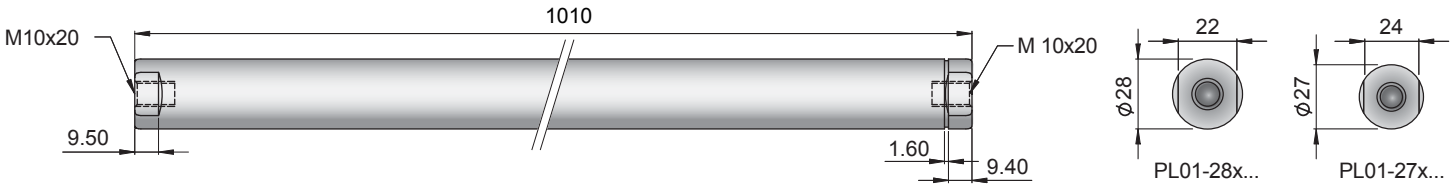


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/690x840-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x1010/930	0150-1387
P01-48x240F/690x840-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x1010/930	0150-1387

Slider

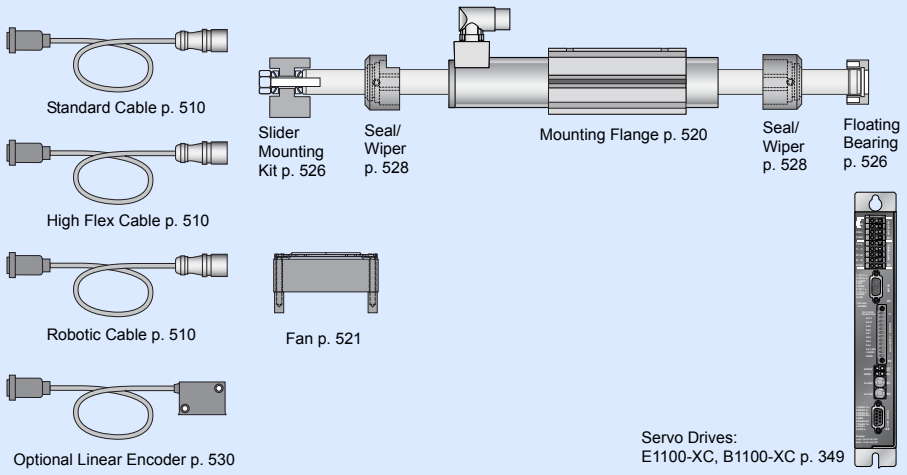


Standard Type	Slider Standard		PL01-28x1010/930	0150-1387
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1010/930	on request
	Hollow Slider	hole diameter 8.5mm	PL01-28x1010/930-L	on request

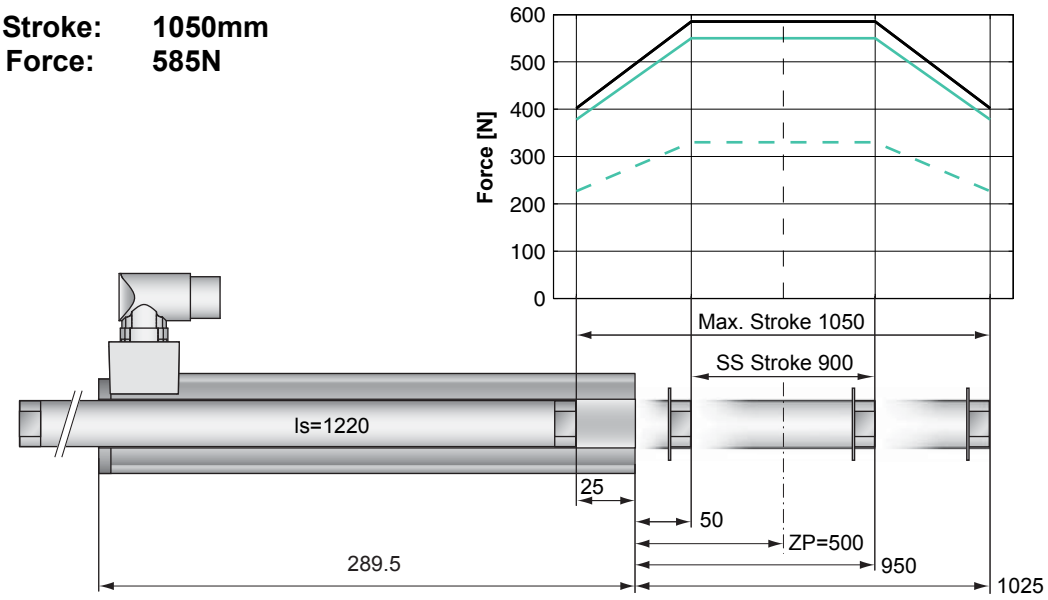
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 1050mm
Peak Force: 585N

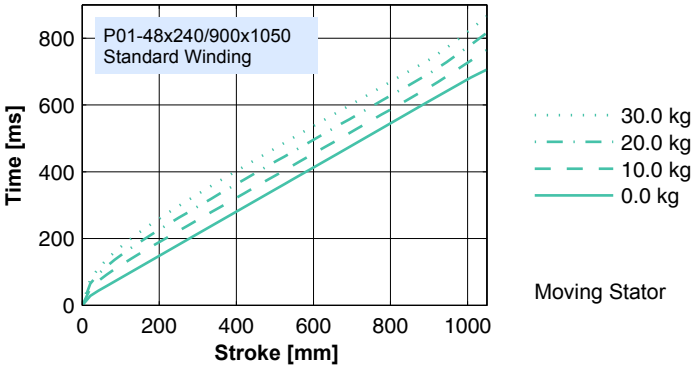


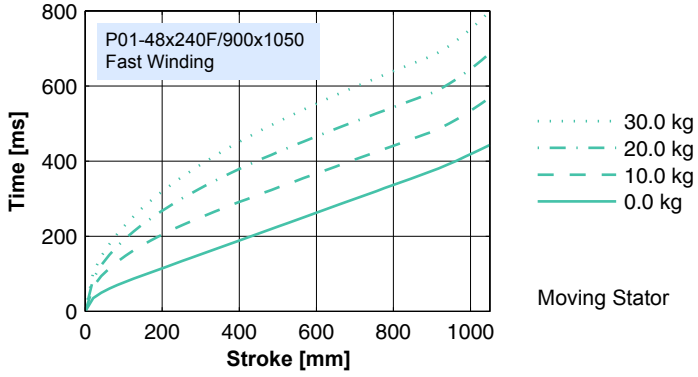
Dimensions in mm

Motor Specification

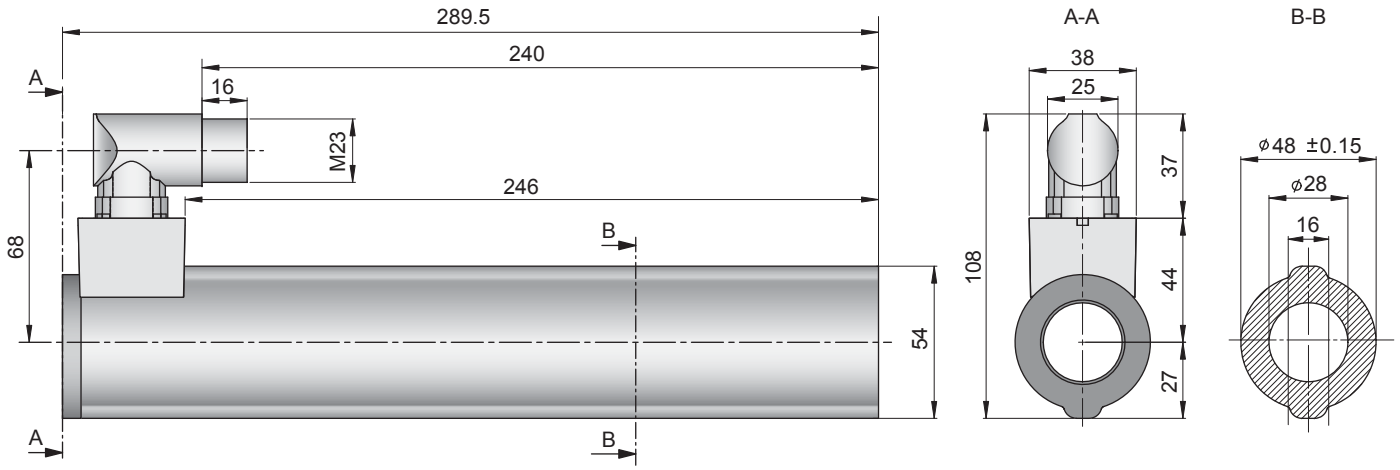
		Standard Winding	Fast Winding
P01-		**48x240/900x1050-C**	**48x240F/900x1050-C**
Extended Stroke ES	mm (in)	1050 (41.34)	1050 (41.34)
Standard Stroke SS	mm (in)	900 (35.43)	900 (35.43)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	1220 (48.03)	1220 (48.03)
Slider Mass	g (lb)	5510 (12.15)	5510 (12.15)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



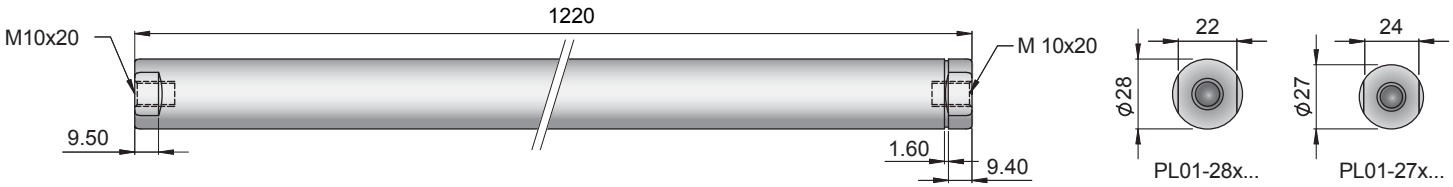


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/900x1050-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x1220/1140	0150-1388
P01-48x240F/900x1050-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x1220/1140	0150-1388

Slider

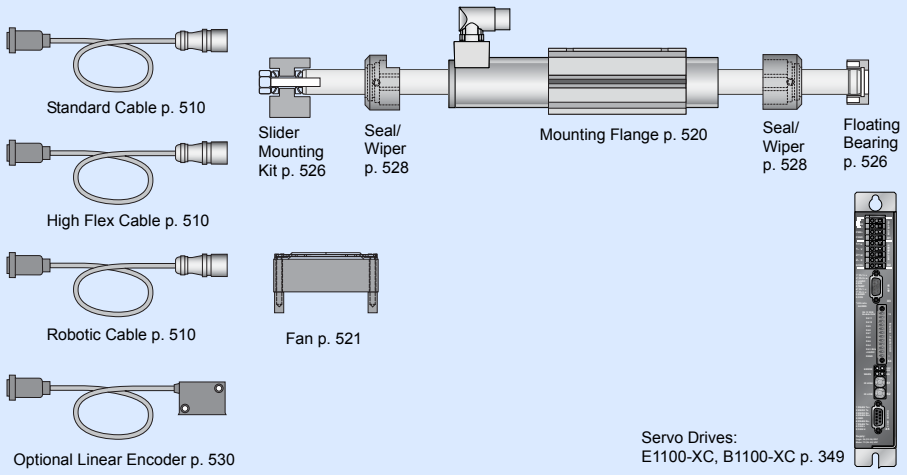


Standard Type	Slider Standard		PL01-28x1220/1140	0150-1388
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1220/1140	on request
	Hollow Slider	hole diameter 8.5mm	PL01-28x1220/1140-L	on request

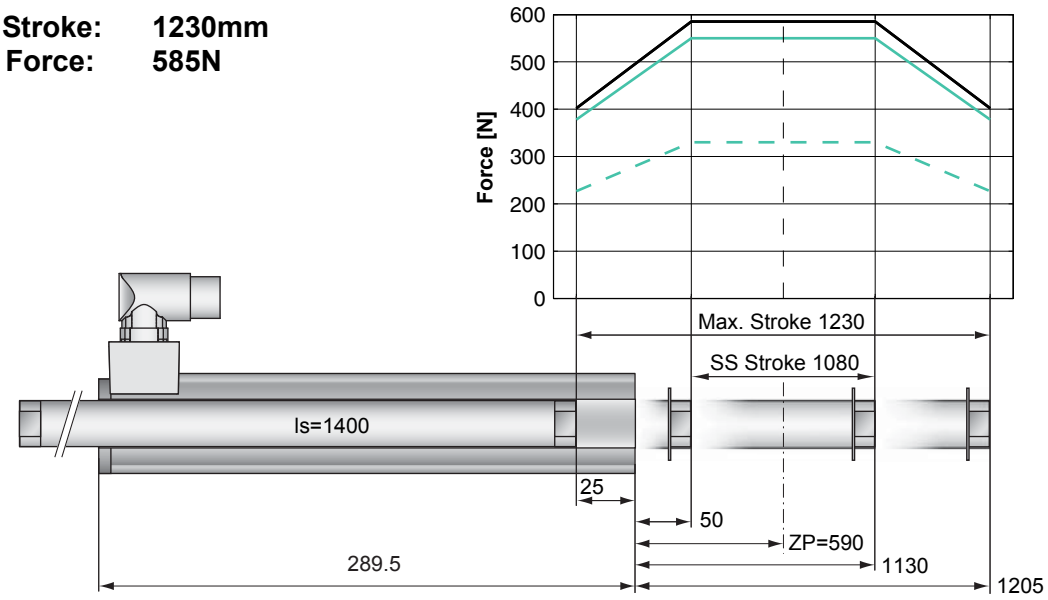
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 1230mm
Peak Force: 585N

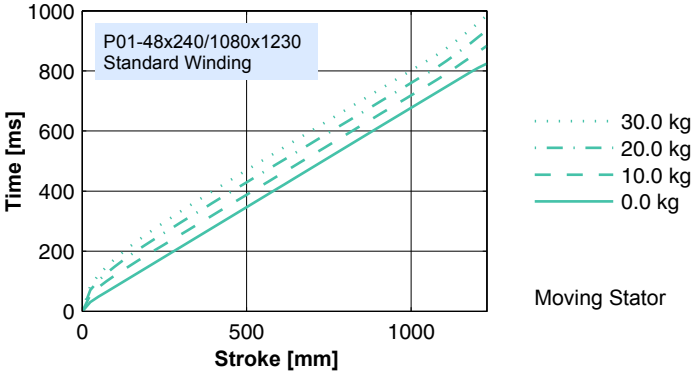


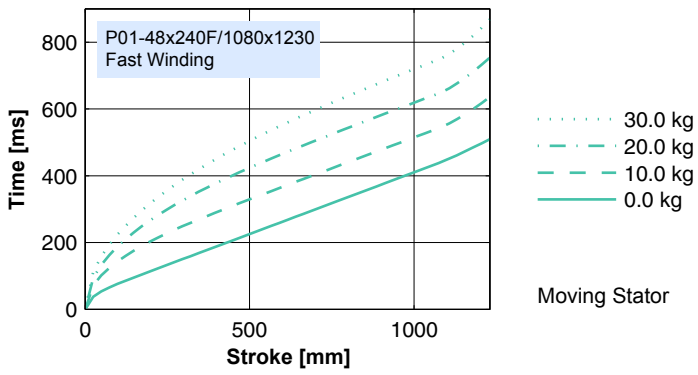
Dimensions in mm

Motor Specification

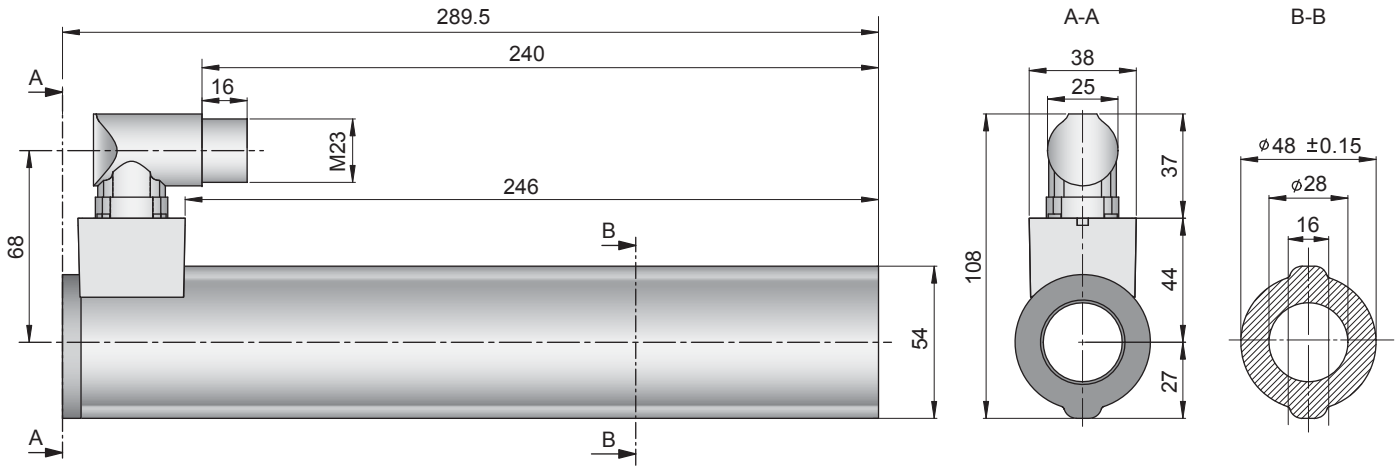
		Standard Winding	Fast Winding
	P01-	**48x240/1080x1230-C**	**48x240F/1080x1230-C**
Extended Stroke ES	mm (in)	1230 (48.43)	1230 (48.43)
Standard Stroke SS	mm (in)	1080 (42.52)	1080 (42.52)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	1400 (55.12)	1400 (55.12)
Slider Mass	g (lb)	6350 (14.00)	6350 (14.00)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



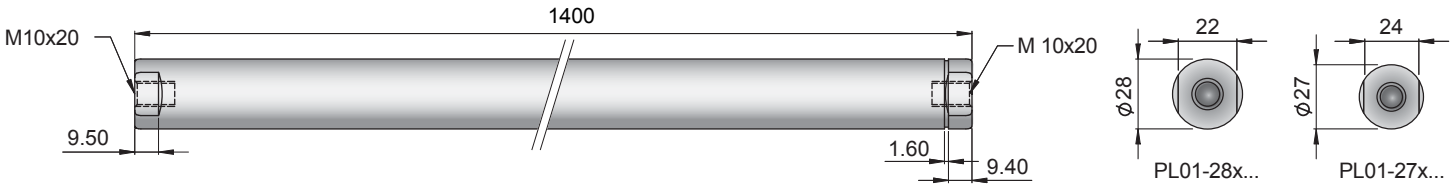


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/1080x1230-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x1400/1320	0150-1389
P01-48x240F/1080x1230-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x1400/1320	0150-1389

Slider

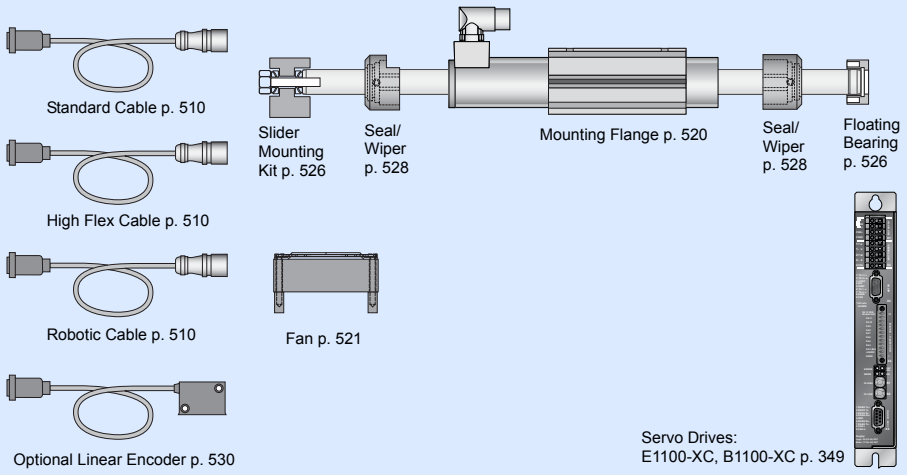


Standard Type	Slider Standard		PL01-28x1400/1320	0150-1389
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1400/1320	on request
	Hollow Slider	hole diameter 8.5mm	PL01-28x1400/1320-L	on request

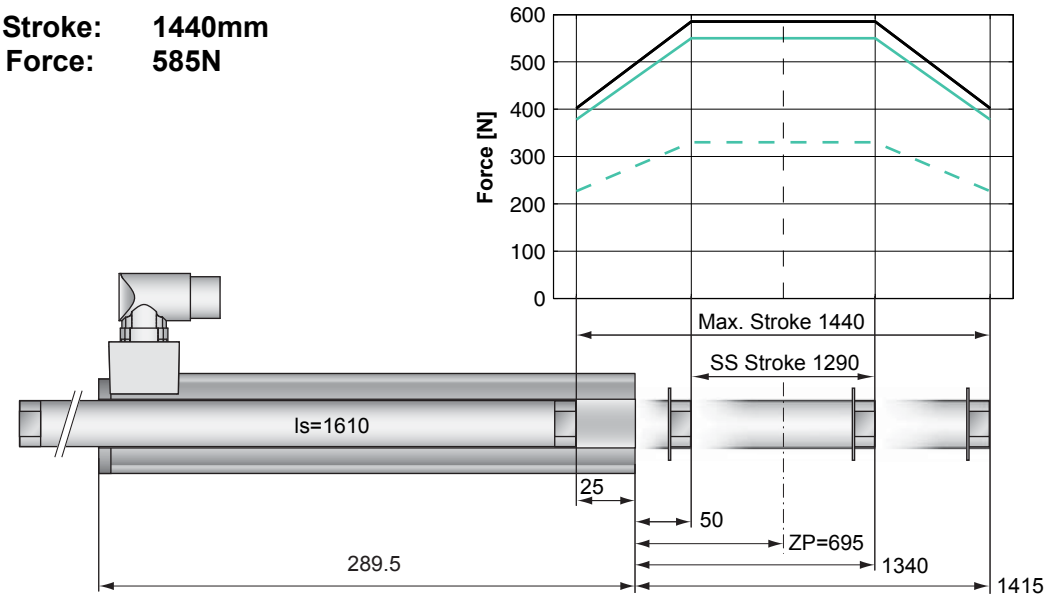
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 1440mm
Peak Force: 585N

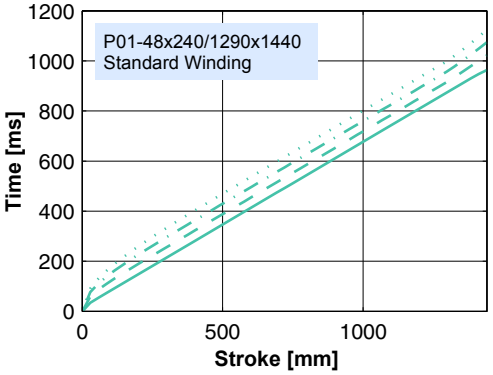


Dimensions in mm

Motor Specification

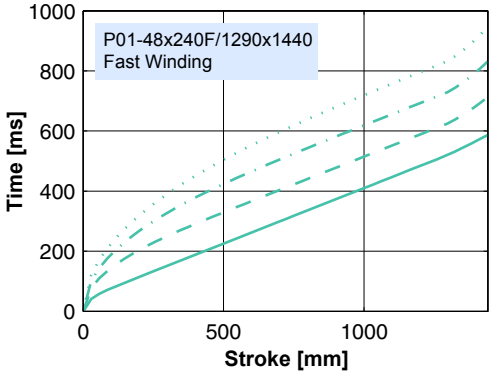
		Standard Winding	Fast Winding
	P01-	**48x240/1290x1440-C**	**48x240F/1290x1440-C**
Extended Stroke ES	mm (in)	1440 (56.69)	1440 (56.69)
Standard Stroke SS	mm (in)	1290 (50.79)	1290 (50.79)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	1610 (63.39)	1610 (63.39)
Slider Mass	g (lb)	7330 (16.16)	7330 (16.16)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



30.0 kg
20.0 kg
10.0 kg
0.0 kg

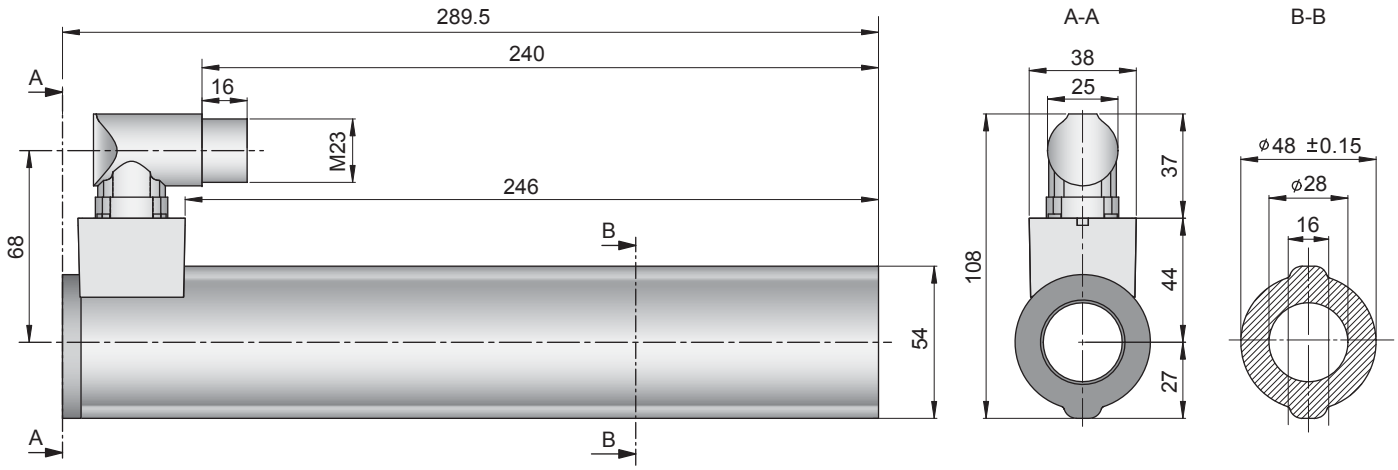
Moving Stator



30.0 kg
20.0 kg
10.0 kg
0.0 kg

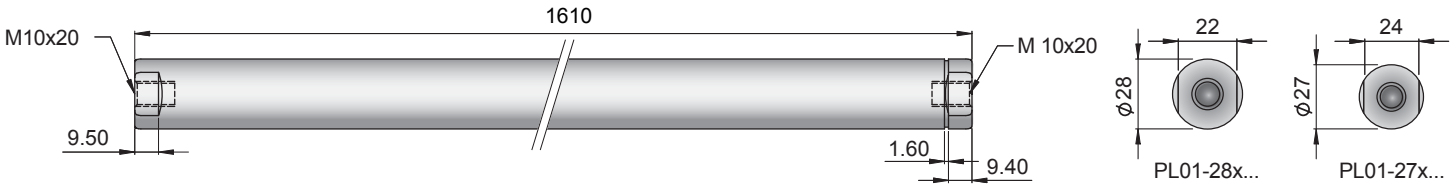
Moving Stator

Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art No.
P01-48x240/1290x1440-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x1610/1530	0150-1390
P01-48x240F/1290x1440-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x1610/1530	0150-1390

Slider

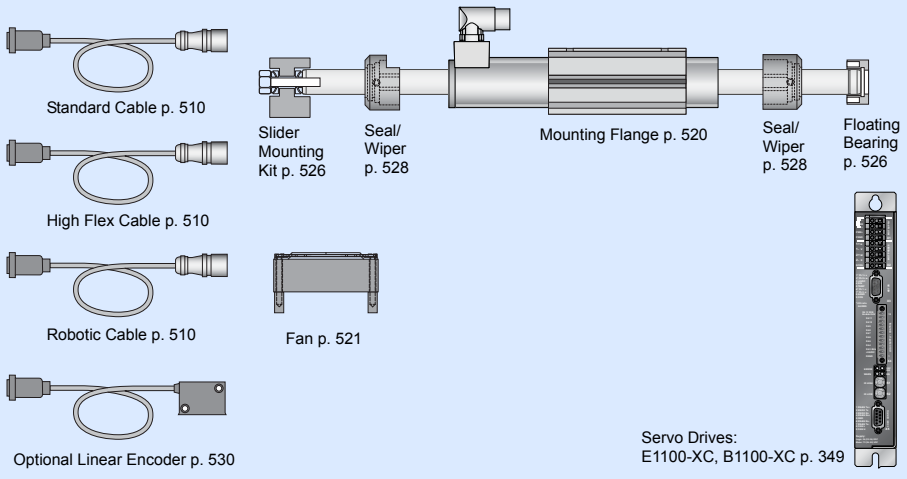


Standard Type	Slider Standard		PL01-28x1610/1530	0150-1390
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1610/1530	on request
	Hollow Slider	hole diameter 8.5mm	PL01-28x1610/1530-L	on request

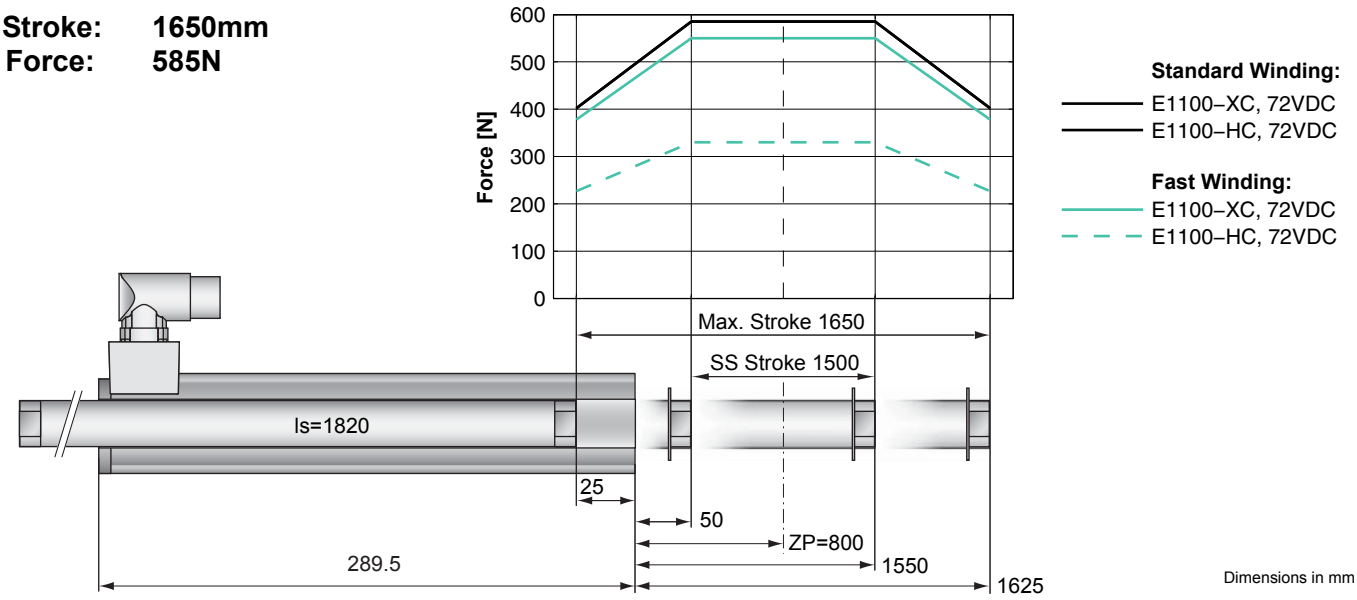
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 1650mm
Peak Force: 585N

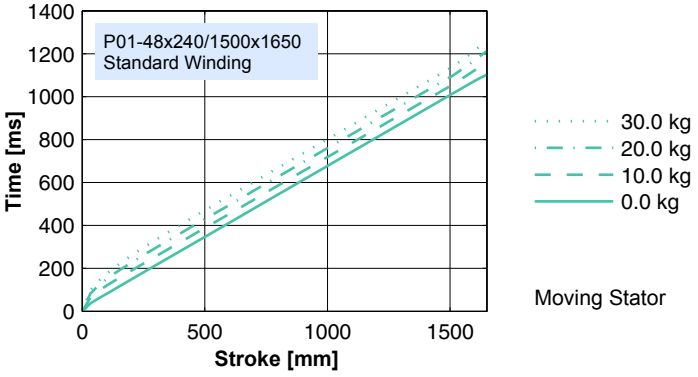


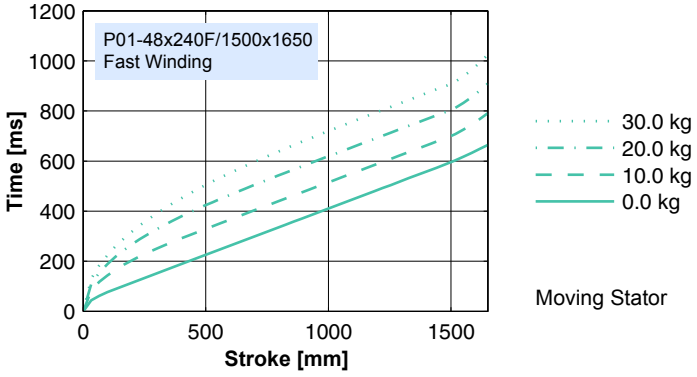
Dimensions in mm

Motor Specification

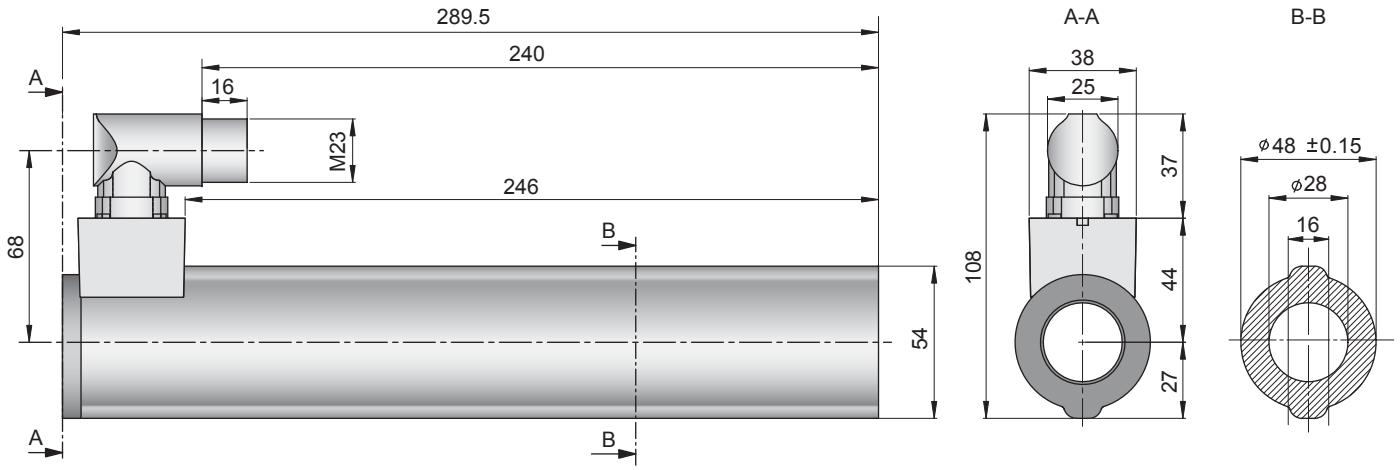
		Standard Winding	Fast Winding
	P01-	**48x240/1500x1650-C**	**48x240F/1500x1650-C**
Extended Stroke ES	mm (in)	1650 (64.96)	1650 (64.96)
Standard Stroke SS	mm (in)	1500 (59.06)	1500 (59.06)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	1820 (71.65)	1820 (71.65)
Slider Mass	g (lb)	8300 (18.30)	8300 (18.30)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



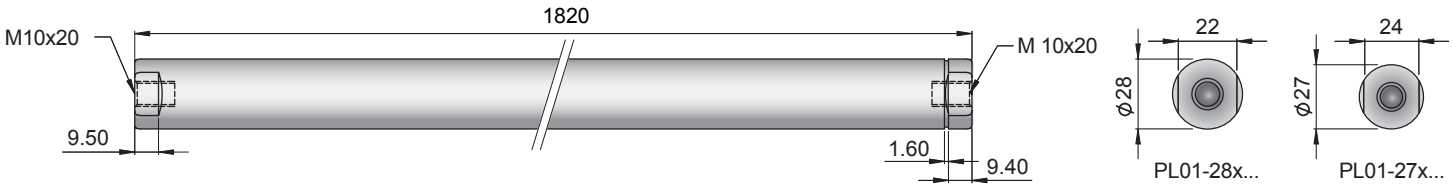


Connector Type



Linear Motor		Stator			Slider	
Type	Art. No.	Type	Art. No.		Type	Art. No.
P01-48x240/1500x1650-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x1820/1740	0150-1395
P01-48x240F/1500x1650-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x1820/1740	0150-1395

Slider

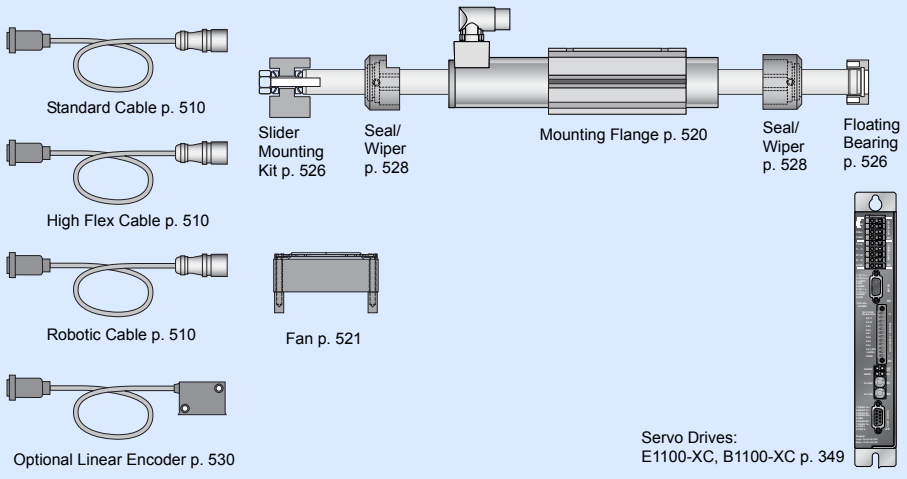


Standard Type	Slider Standard		PL01-28x1820/1740	0150-1395
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1820/1740	on request
	Hollow Slider	hole diameter 8.5mm	PL01-28x1820/1740-L	on request

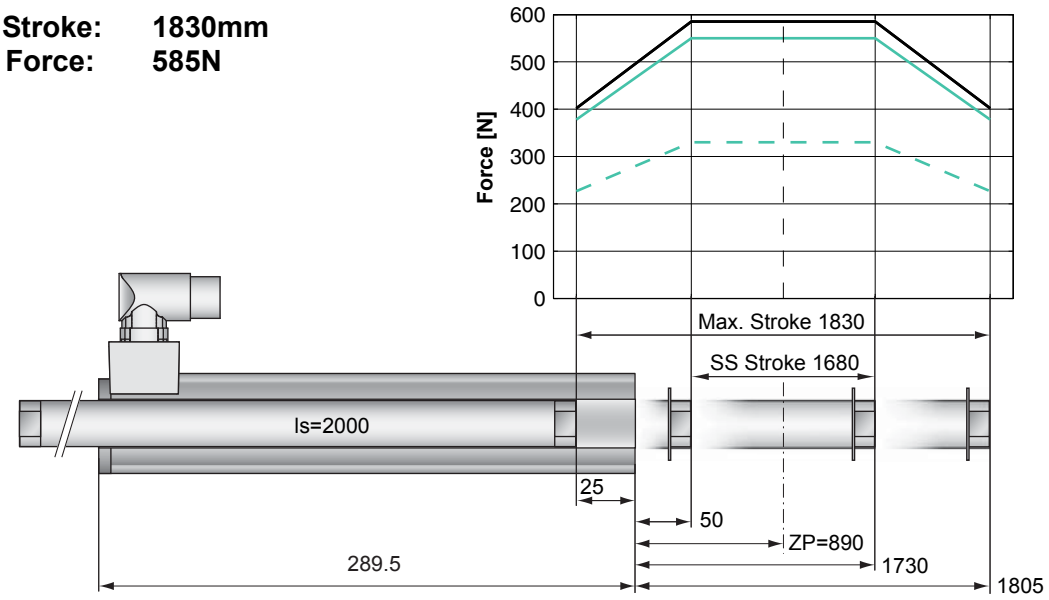
Connectors

Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



Max. Stroke: 1830mm
Peak Force: 585N

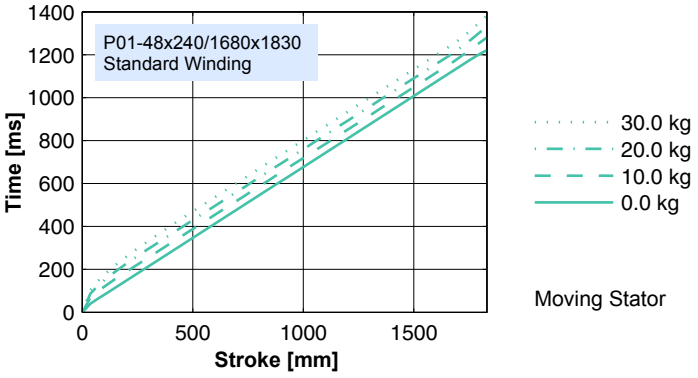


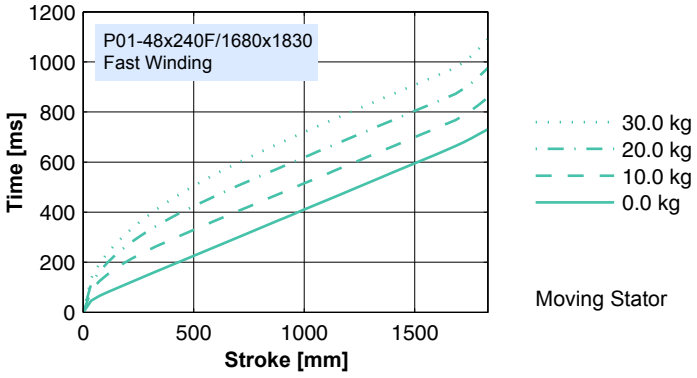
Dimensions in mm

Motor Specification

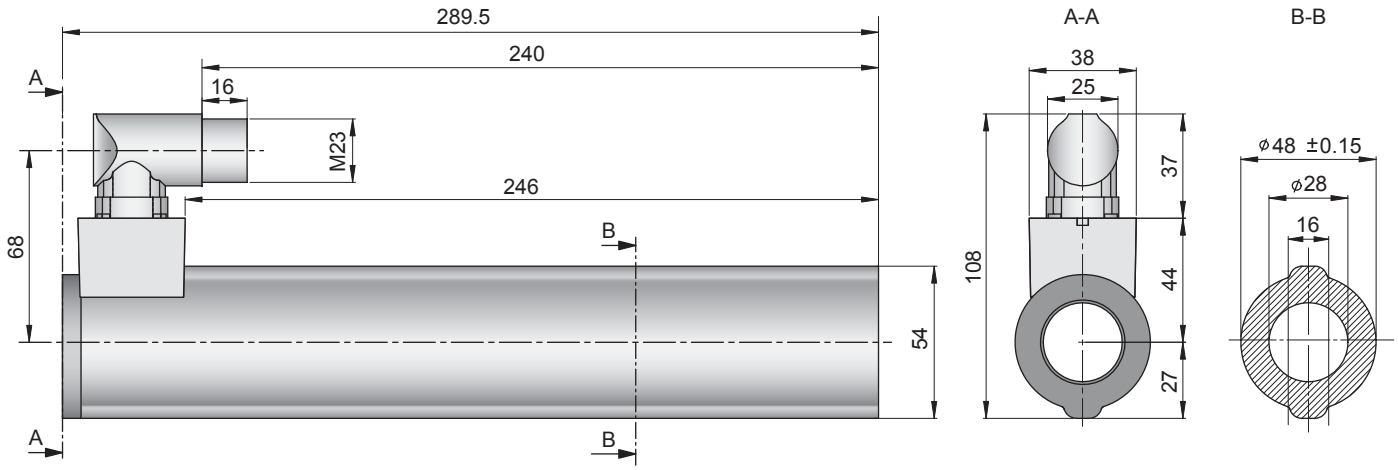
		Standard Winding	Fast Winding
P01-		**48x240/1680x1830-C**	**48x240F/1680x1830-C**
Extended Stroke ES	mm (in)	1830 (72.05)	1830 (72.05)
Standard Stroke SS	mm (in)	1680 (66.14)	1680 (66.14)
Peak Force E1100-XC	N (lbf)	585 (131.5)	550 (123.6)
Peak Force E1100-HC	N (lbf)	585 (131.5)	330 (74.2)
Cont. Force	N (lbf)	145 (32.5)	145 (32.6)
Cont. Force Fan cooling	N (lbf)	258 (58.0)	255 (57.3)
Border Force	%	69	69
Force Constant	N/A (lbf/A)	39.0 (8.77)	22.0 (4.95)
Max. Current @ 72VDC	A	15.0	26.0
Max. Current @ 48VDC	A	12.7	26.0
Max. Velocity @ 72VDC	m/s (in/s)	1.7 (67)	3.0 (119)
Max. Velocity @ 48VDC	m/s (in/s)	1.1 (45)	2.0 (79)
Phase Resist. 25/80 °C	Ohm	3.1/3.7	1.0/1.2
Phase Inductance	mH	3.1	1.0
Thermal Resistance	°K/W	1.1	1.1
Thermal Time Const.	sec	3000	3000
Stator Diameter	mm (in)	48 (1.89)	48 (1.89)
Stator Length	mm (in)	289.5 (11.40)	289.5 (11.40)
Stator Mass	g (lb)	1930 (4.25)	1930 (4.25)
Slider Diameter	mm (in)	28 (1.10)	28 (1.10)
Slider Length	mm (in)	2000 (78.74)	2000 (78.74)
Slider Mass	g (lb)	9140 (20.15)	9140 (20.15)
Position Repeatability	mm (in)	±0.05 (±0.0020)	±0.05 (±0.0020)
Linearity	%	±0.10	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)	±0.01 (±0.0004)

Position-Time Diagram



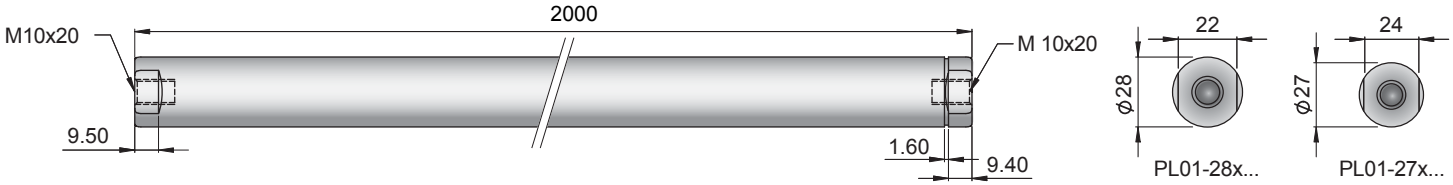


Connector Type



Linear Motor		Stator			Slider	
Type	Art. No.	Type	Art. No.		Type	Art. No.
P01-48x240/1680x1830-C	-->	PS01-48x240-C	0150-1219	&	PL01-28x2000/1920	0150-1396
P01-48x240F/1680x1830-C	-->	PS01-48x240F-C	0150-1220	&	PL01-28x2000/1920	0150-1396

Slider

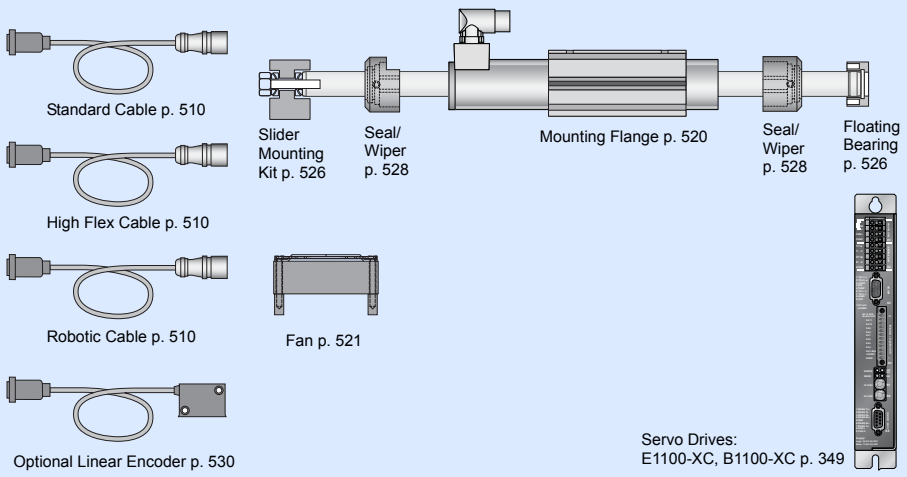


Standard Type	Slider Standard		PL01-28x2000/1920	0150-1396
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x2000/1920	on request
	Hollow Slider	hole diameter 8.5mm	PL01-28x2000/1920-L	on request

Connectors

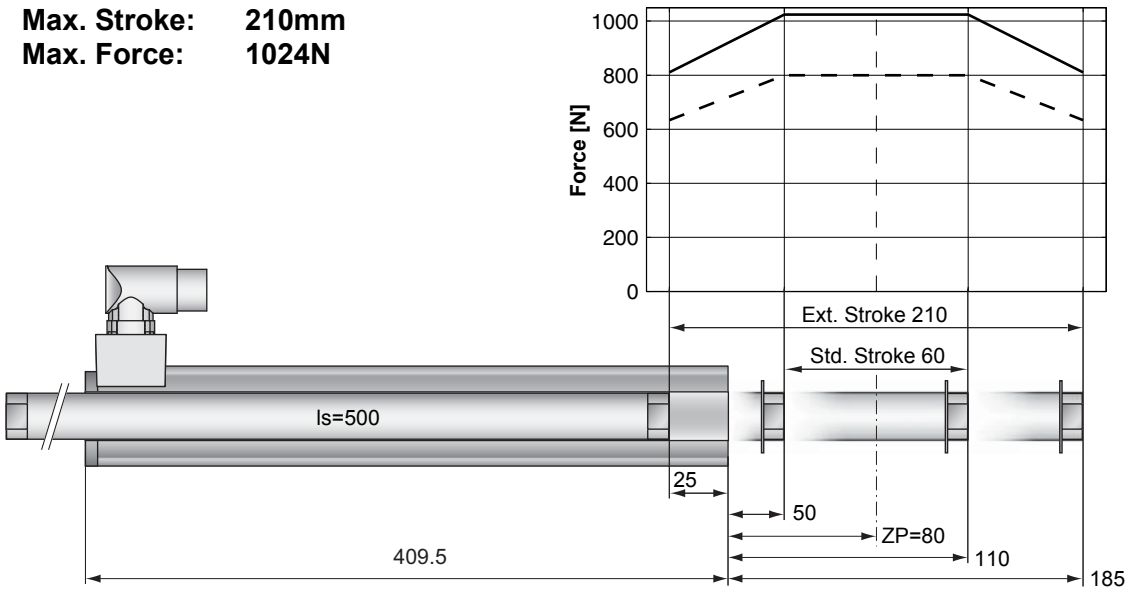
Motor Connector Wiring		P01-48...-C
Ph 1+	red	A
Ph 1-	pink	B
Ph 2+	blue	C
Ph 2-	grey	D
+5VDC	white	E
GND	inner Shield	F
Sine	yellow	G
Cosine	green	H
Temp.	black	L
Shield	outer Shield	Case

Accessoires



P01-48x360F/60x210 166
P01-48x360F/180x330 168
P01-48x360F/270x420 170
P01-48x360F/360x510 172
P01-48x360F/480x630 174
P01-48x360F/570x720 176
P01-48x360F/780x930 178
P01-48x360F/960x1110 180
P01-48x360F/1170x1320 182
P01-48x360F/1380x1530 184
P01-48x360F/1560x1710 186

Max. Stroke: 210mm
Max. Force: 1024N

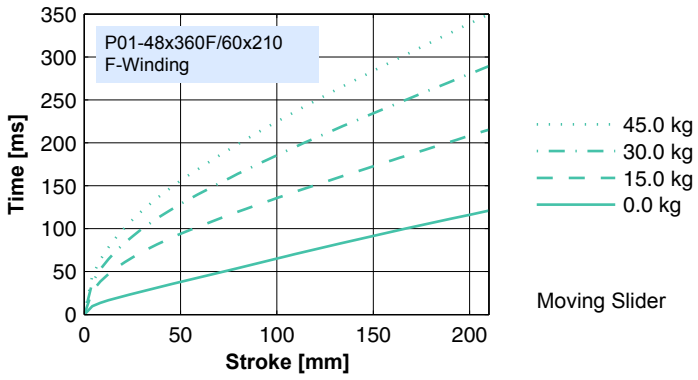


Dimensions in mm

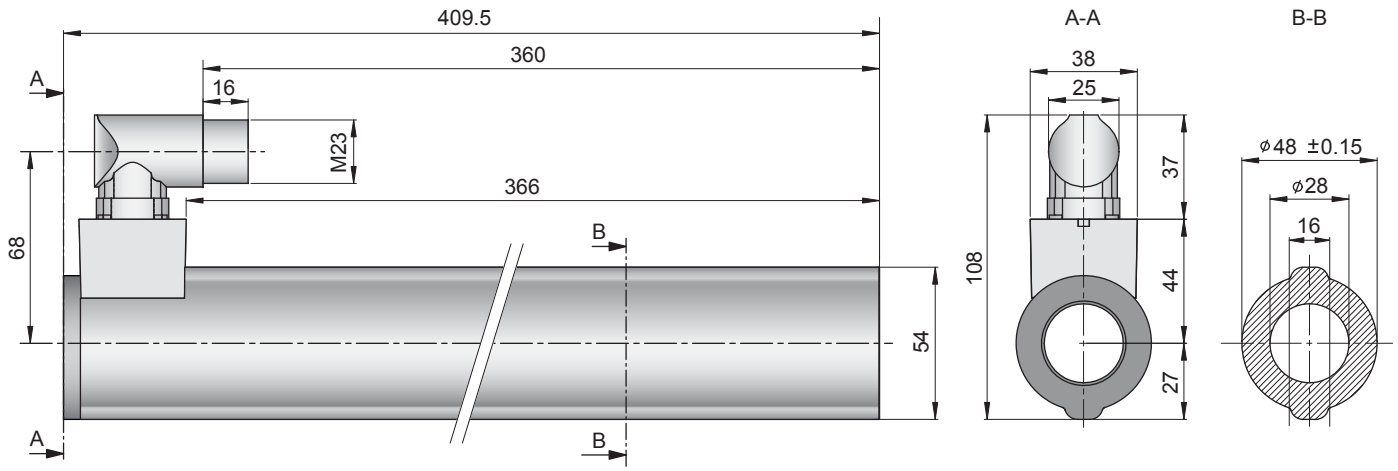
Motor Specification

		F-Winding
P01-		**48x360F/60x210-C**
Extended Stroke	mm (in)	210 (8.27)
Standard Stroke	mm (in)	60 (2.36)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	500 (19.69)
Slider Mass	g (lb)	2160 (4.76)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.25
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

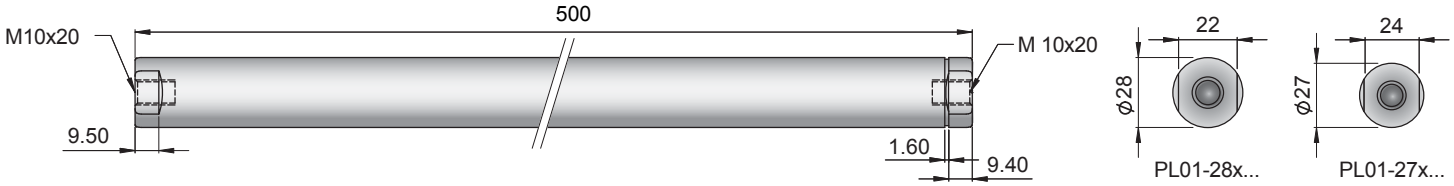


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/60x210-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x500/420	0150-1382

Slider

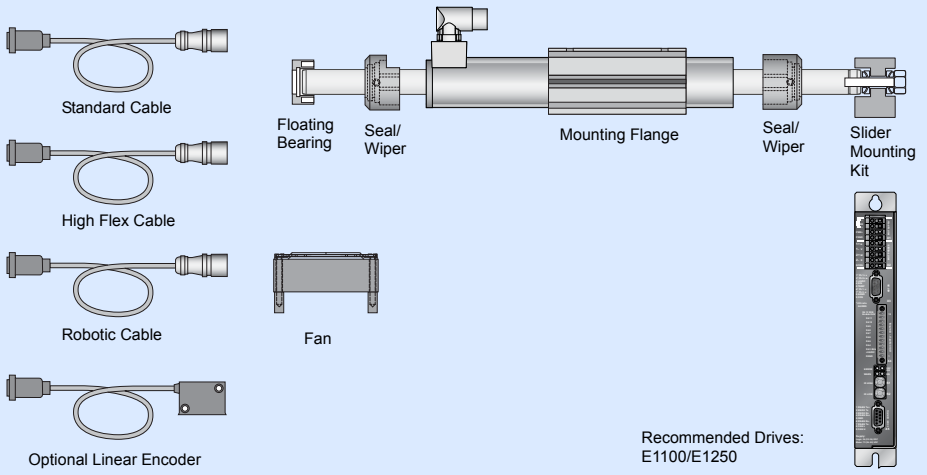


Standard Type	Slider Standard		PL01-28x500/420	0150-1382
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x500/420	0150-1413
	Hollow Slider	hole diameter 6mm	PL01-28x500/420-L	0150-1480
	High Clearance Slider	d=27mm	PL01-27x500/420	on request

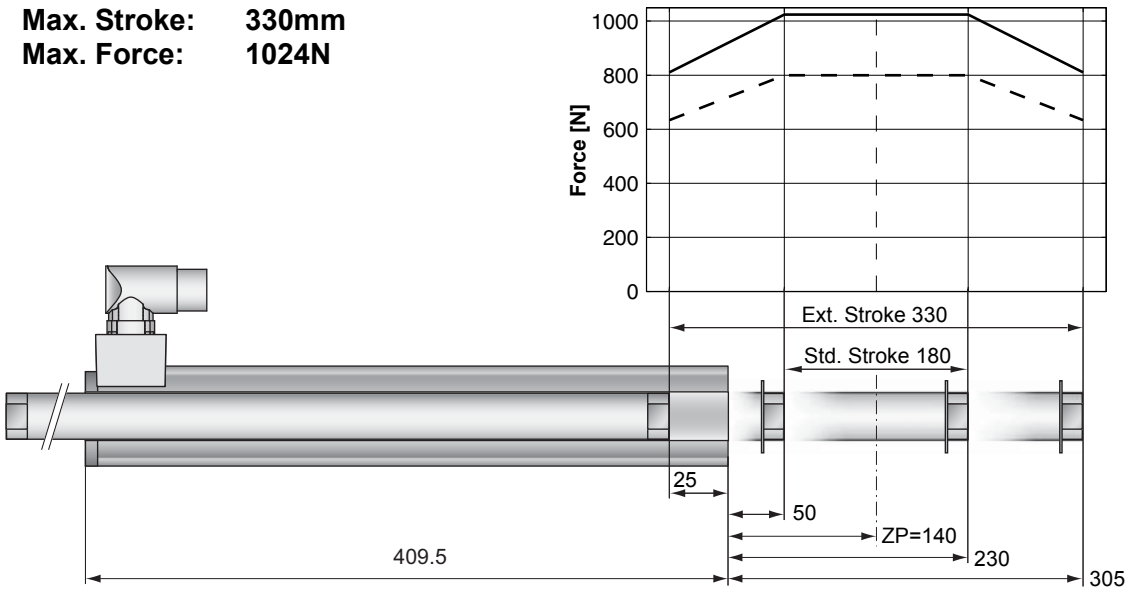
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 330mm
Max. Force: 1024N

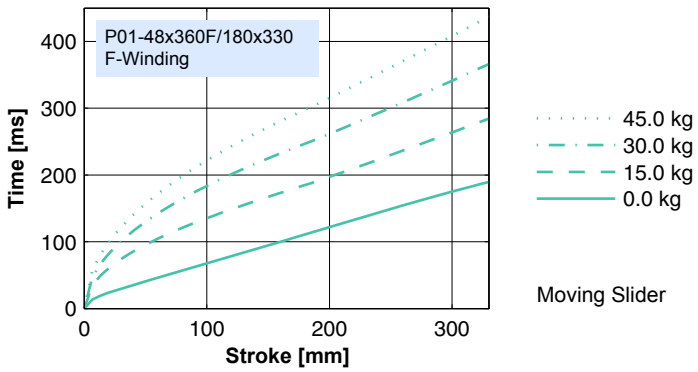


Dimensions in mm

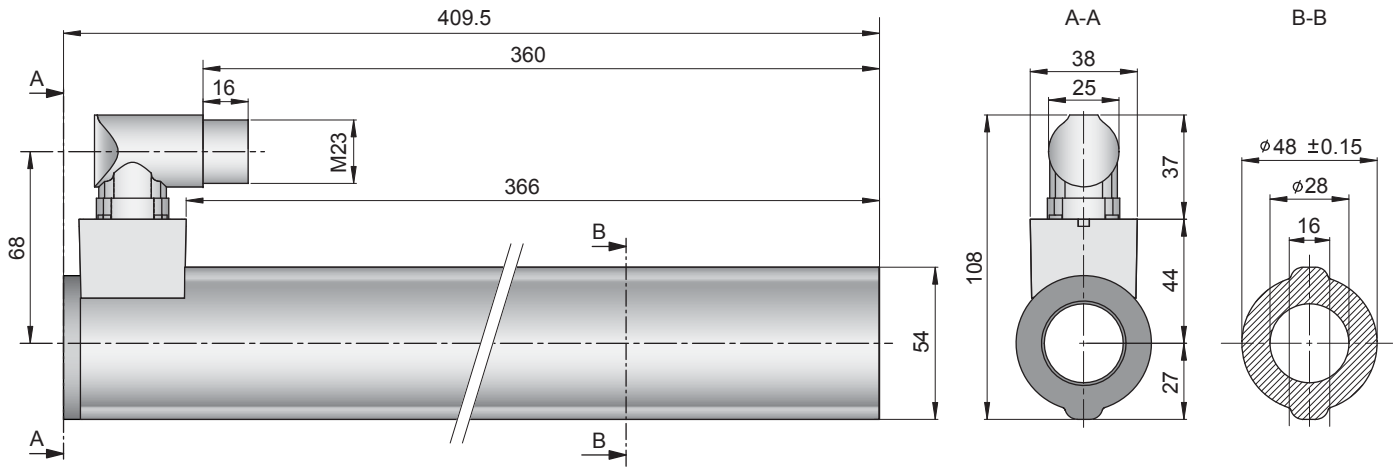
Motor Specification

P01-		F-Winding 48x360F/180x330-C
Extended Stroke	mm (in)	330 (12.99)
Standard Stroke	mm (in)	180 (7.09)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	620 (24.41)
Slider Mass	g (lb)	2720 (6.00)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.20
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

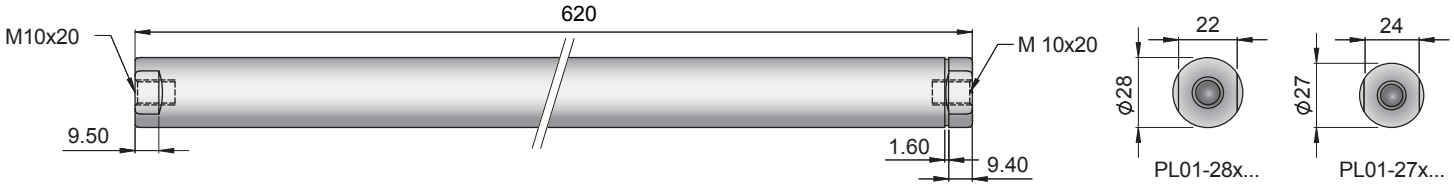


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/180x330-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x620/540	0150-1383

Slider

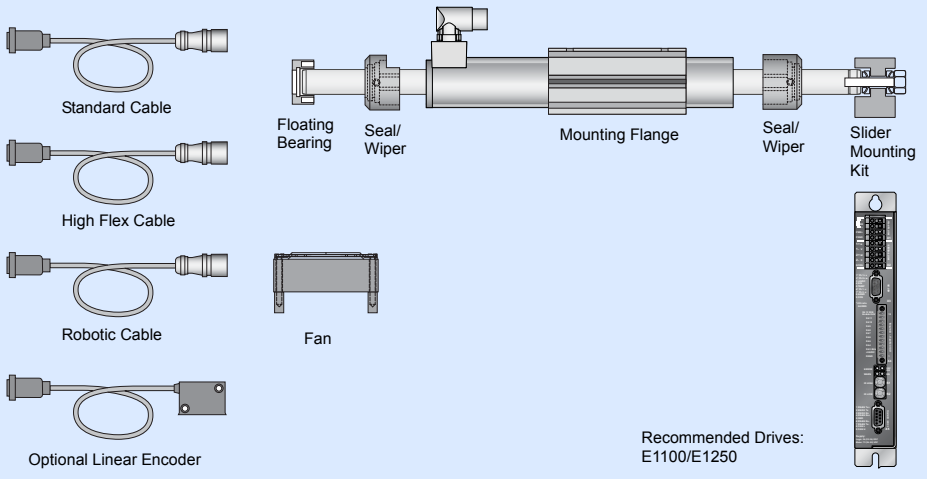


Standard Type	Slider Standard		PL01-28x620/540	0150-1383
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x620/540	0150-1414
	Hollow Slider	hole diameter 6mm	PL01-28x620/540-L	0150-1481
	High Clearance Slider	d=27mm	PL01-27x620/540	on request

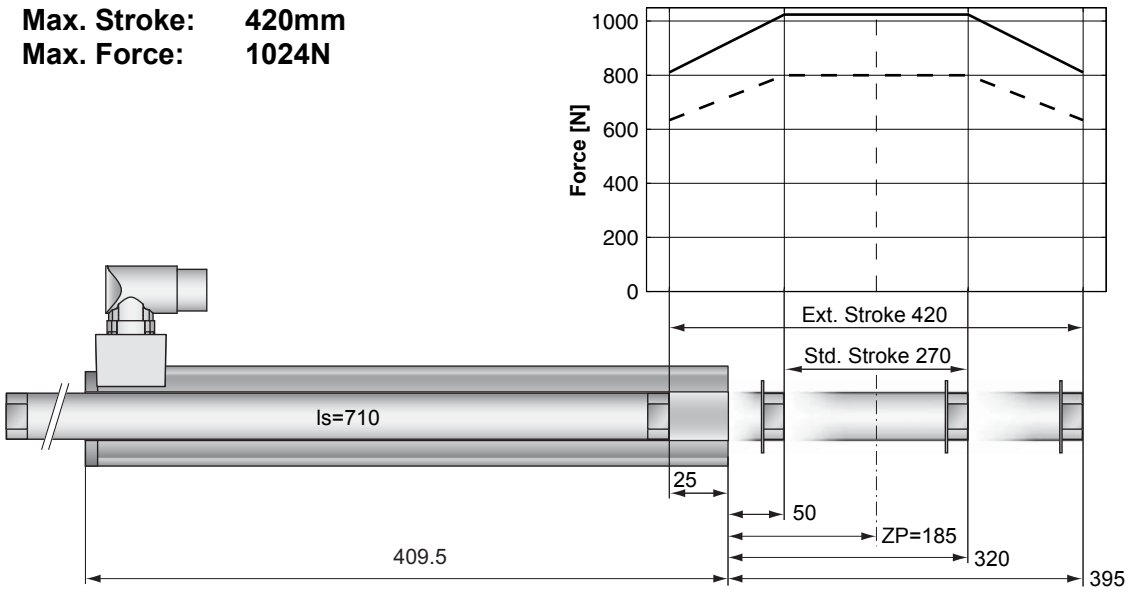
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 420mm
Max. Force: 1024N

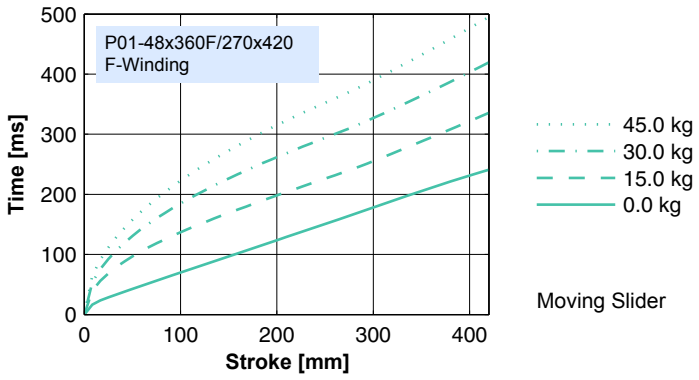


Dimensions in mm

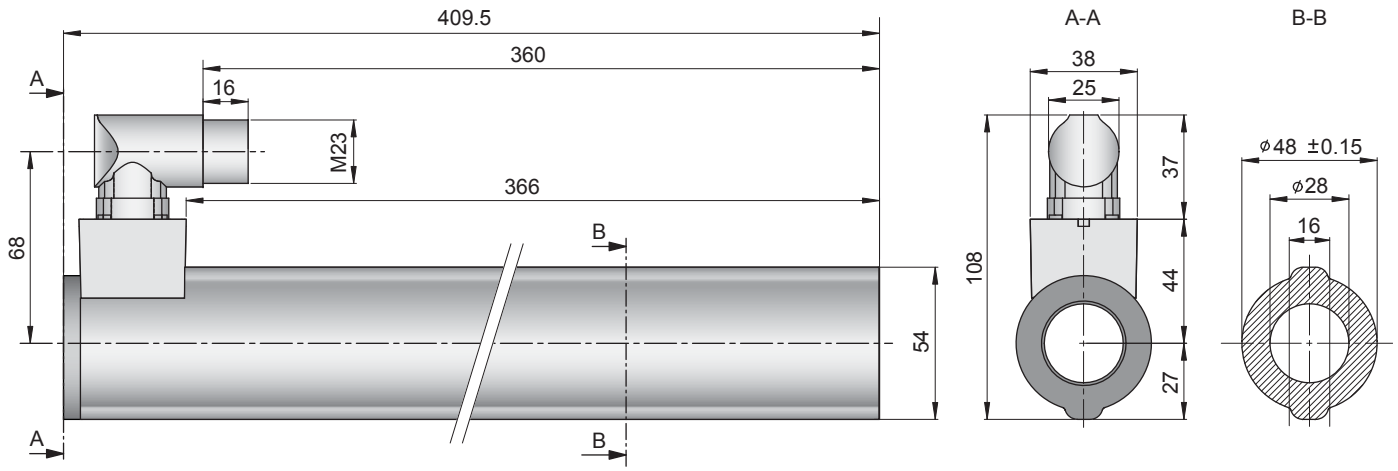
Motor Specification

		F-Winding
P01-		**48x360F/270x420-C**
Extended Stroke	mm (in)	420 (16.54)
Standard Stroke	mm (in)	270 (10.63)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	710 (27.95)
Slider Mass	g (lb)	3140 (6.92)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

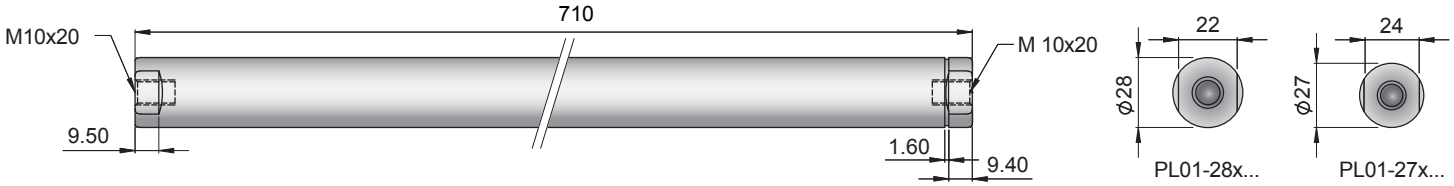


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/270x420-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x710/630	0150-1384

Slider

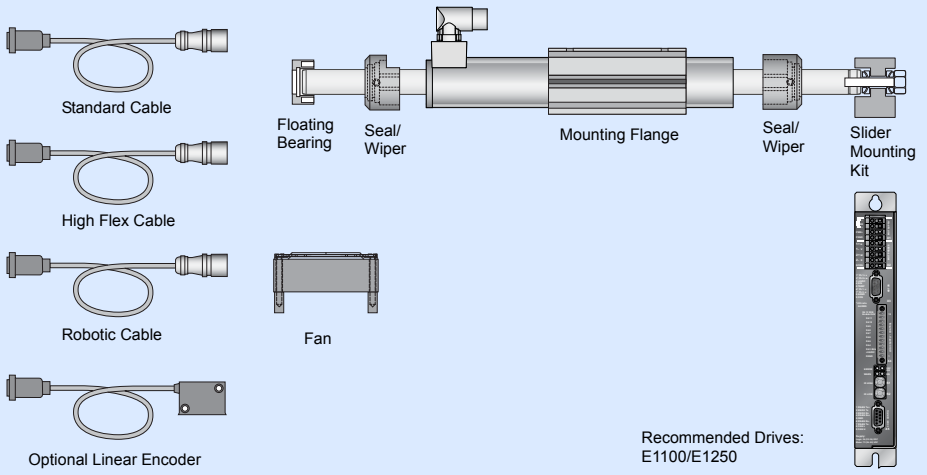


Standard Type	Slider Standard		PL01-28x710/630	0150-1384
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x710/630	0150-1415
	Hollow Slider	hole diameter 6mm	PL01-28x710/630-L	0150-1482
	High Clearance Slider	d=27mm	PL01-27x710/630	on request

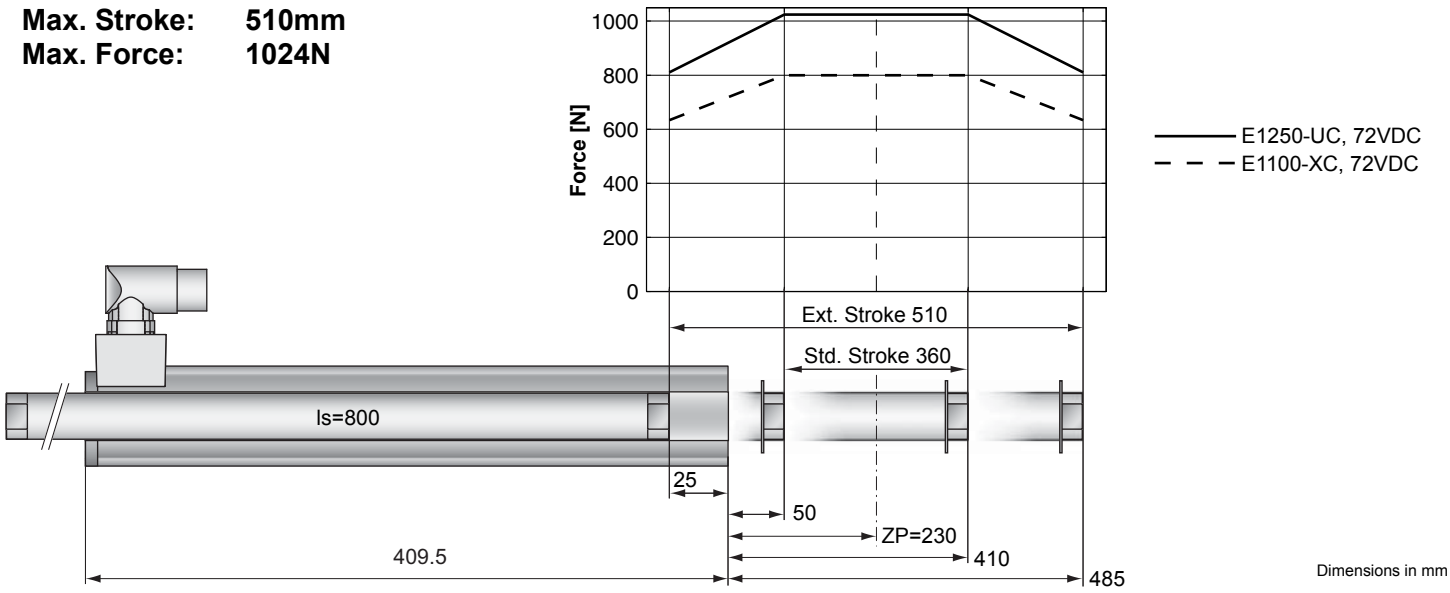
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 510mm
Max. Force: 1024N

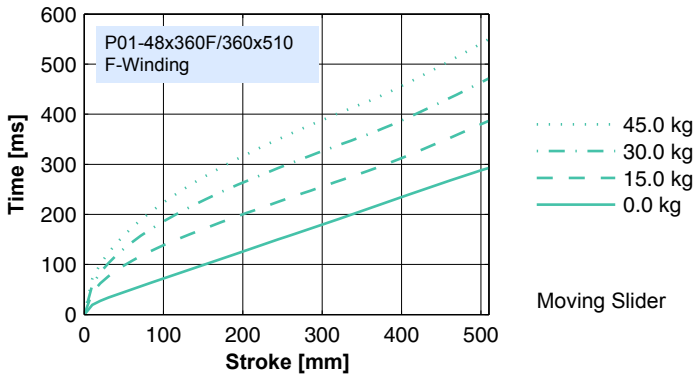


Dimensions in mm

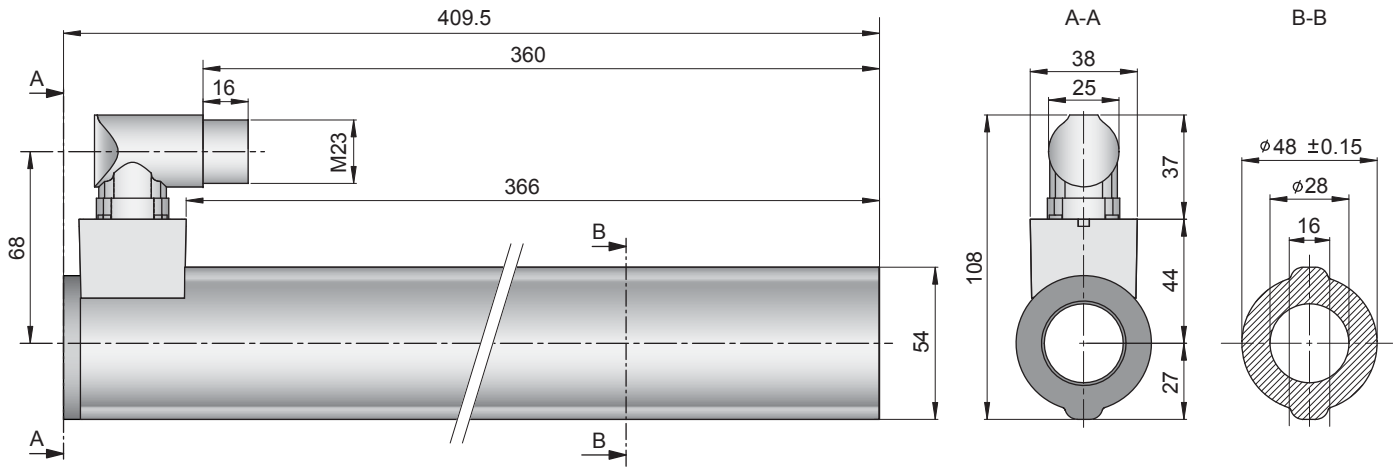
Motor Specification

		F-Winding
P01-		**48x360F/360x510-C**
Extended Stroke	mm (in)	510 (20.08)
Standard Stroke	mm (in)	360 (14.17)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	800 (31.50)
Slider Mass	g (lb)	3560 (7.85)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

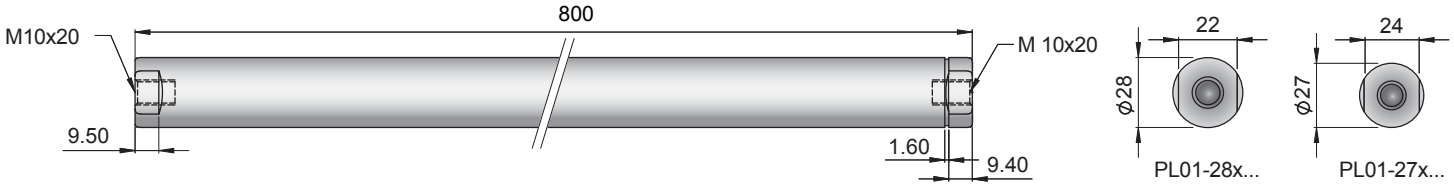


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/360x510-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x800/720	0150-1385

Slider

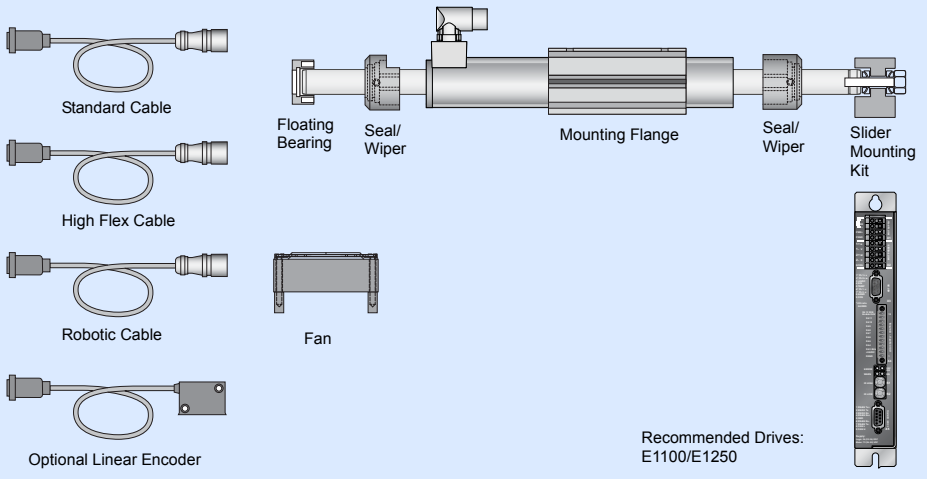


Standard Type	Slider Standard		PL01-28x800/720	0150-1385
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x800/720	0150-1416
	Hollow Slider	hole diameter 6mm	PL01-28x800/720-L	0150-1483
	High Clearance Slider	d=27mm	PL01-27x800/720	on request

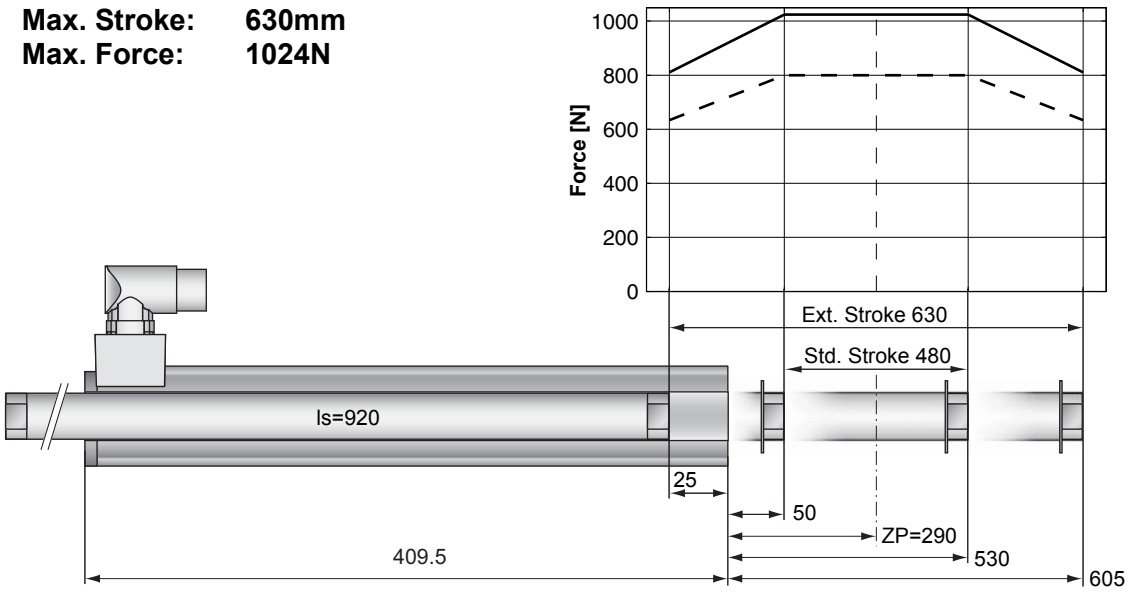
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 630mm
Max. Force: 1024N

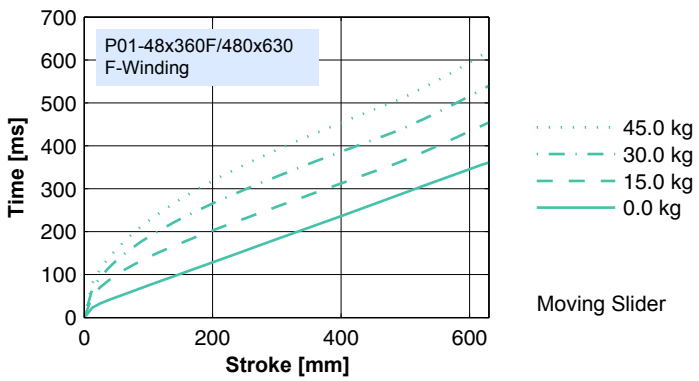


Dimensions in mm

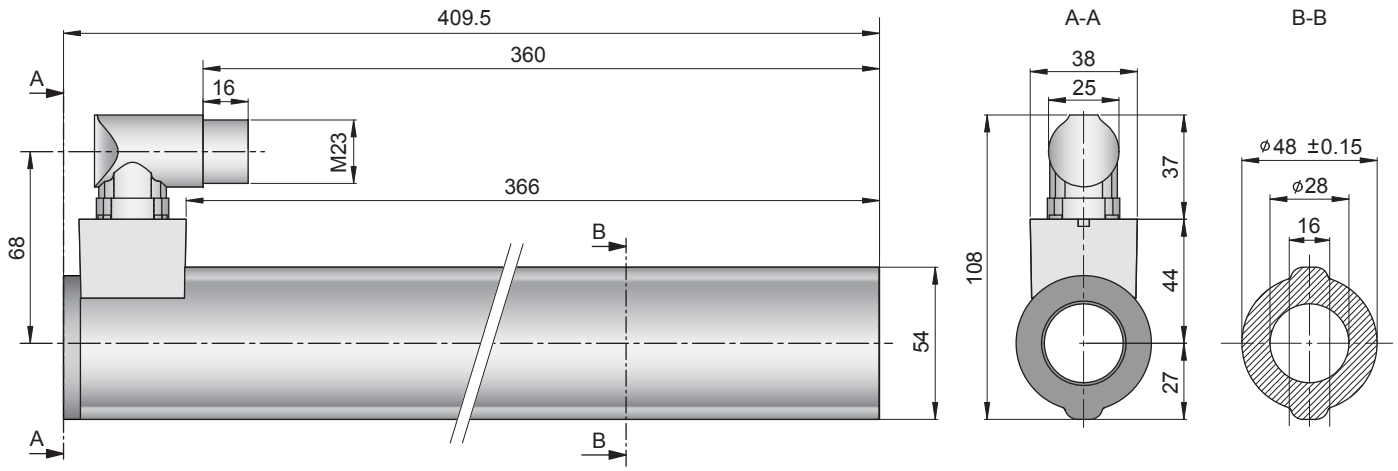
Motor Specification

		F-Winding
P01-		**48x360F/480x630-C**
Extended Stroke	mm (in)	630 (24.80)
Standard Stroke	mm (in)	480 (18.90)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	920 (36.22)
Slider Mass	g (lb)	4120 (9.08)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.15
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

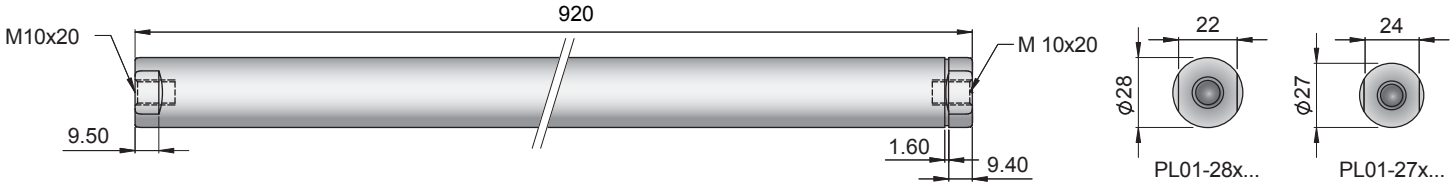


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/480x630-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x920/840	0150-1386

Slider

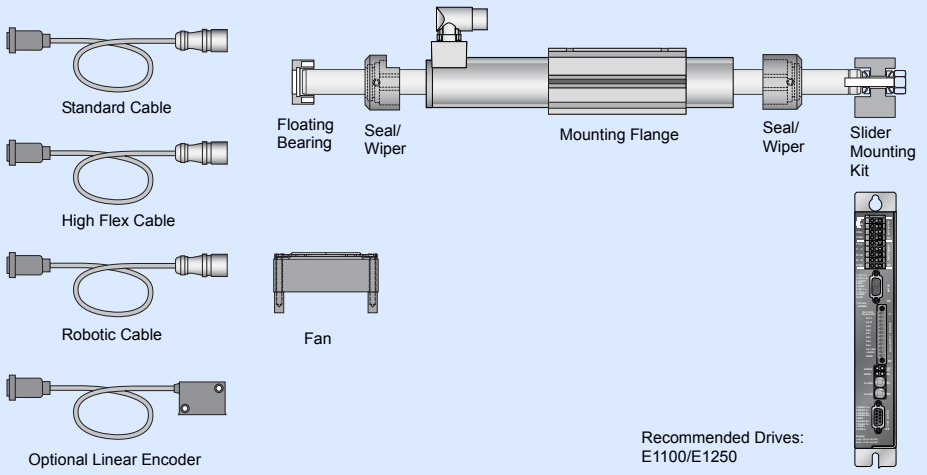


Standard Type	Slider Standard		PL01-28x920/840	0150-1386
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x920/840	0150-1417
	Hollow Slider	hole diameter 6mm	PL01-28x920/840-L	on request
	High Clearance Slider	d=27mm	PL01-27x920/840	on request

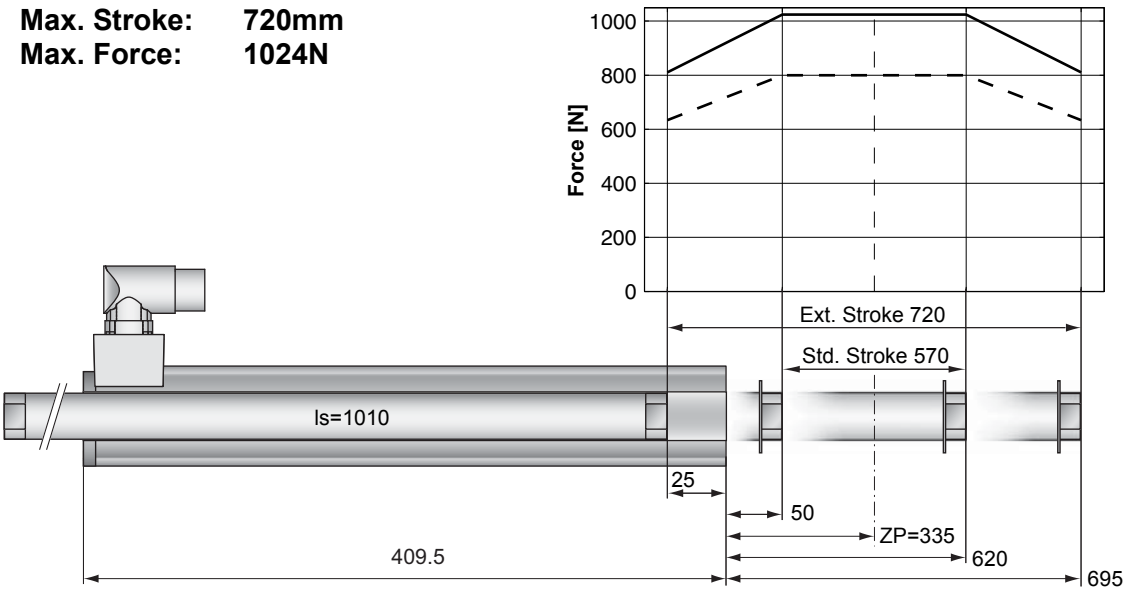
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 720mm
Max. Force: 1024N

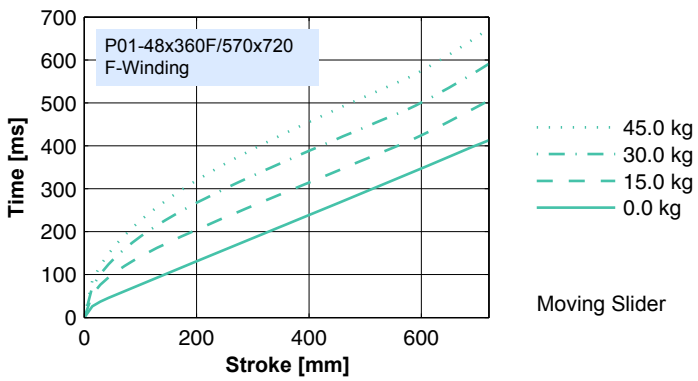


Dimensions in mm

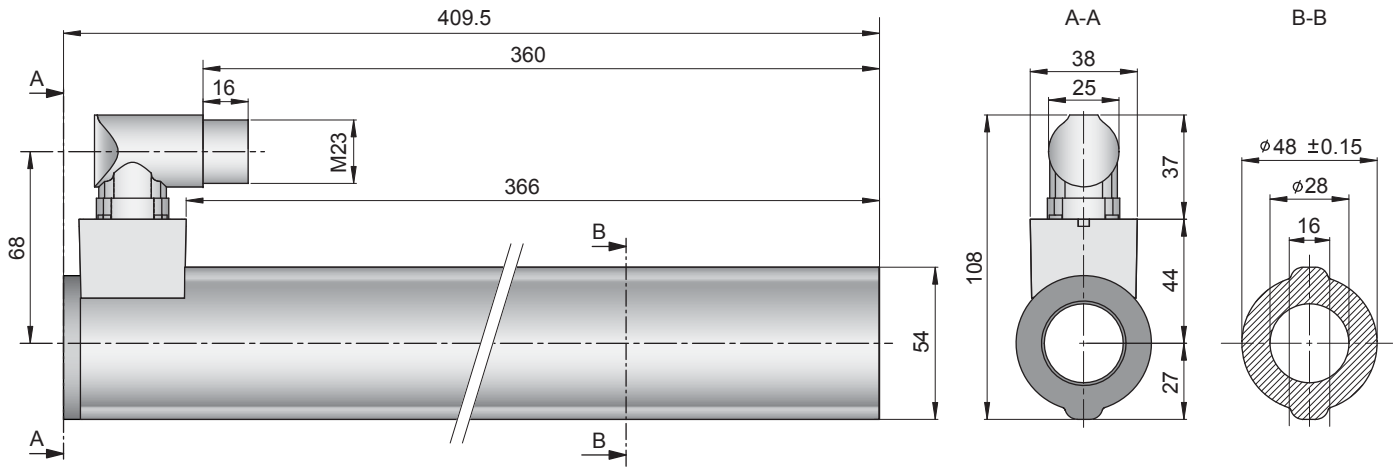
Motor Specification

		F-Winding
P01-		**48x360F/570x720-C**
Extended Stroke	mm (in)	720 (28.35)
Standard Stroke	mm (in)	570 (22.44)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	1010 (39.76)
Slider Mass	g (lb)	4540 (10.01)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

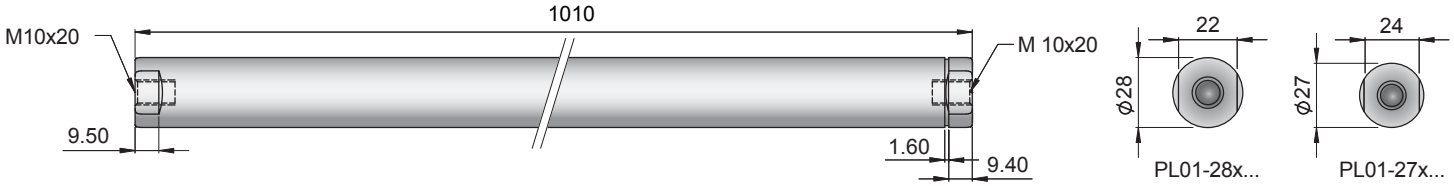


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/570x720-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x1010/930	0150-1387

Slider

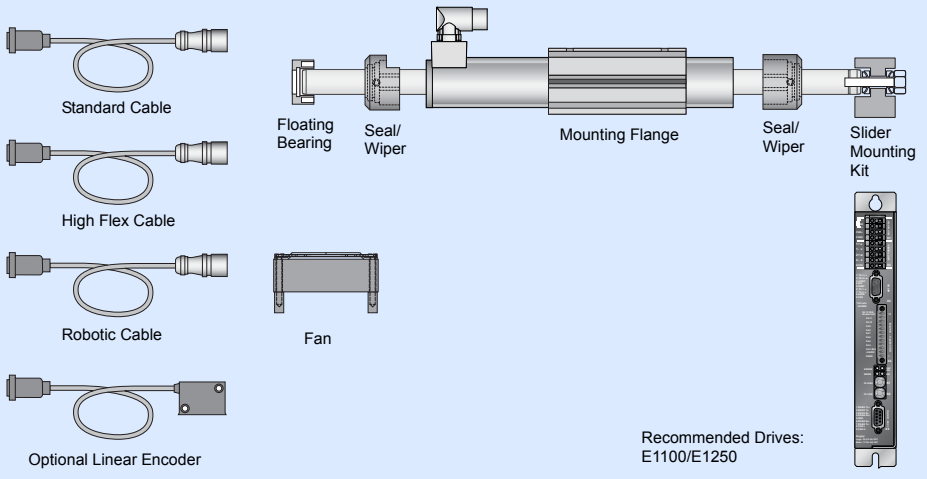


Standard Type	Slider Standard		PL01-28x1010/930	0150-1387
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1010/930	on request
	Hollow Slider	hole diameter 6mm	PL01-28x1010/930-L	on request
	High Clearance Slider	d=27mm	PL01-27x1010/930	on request

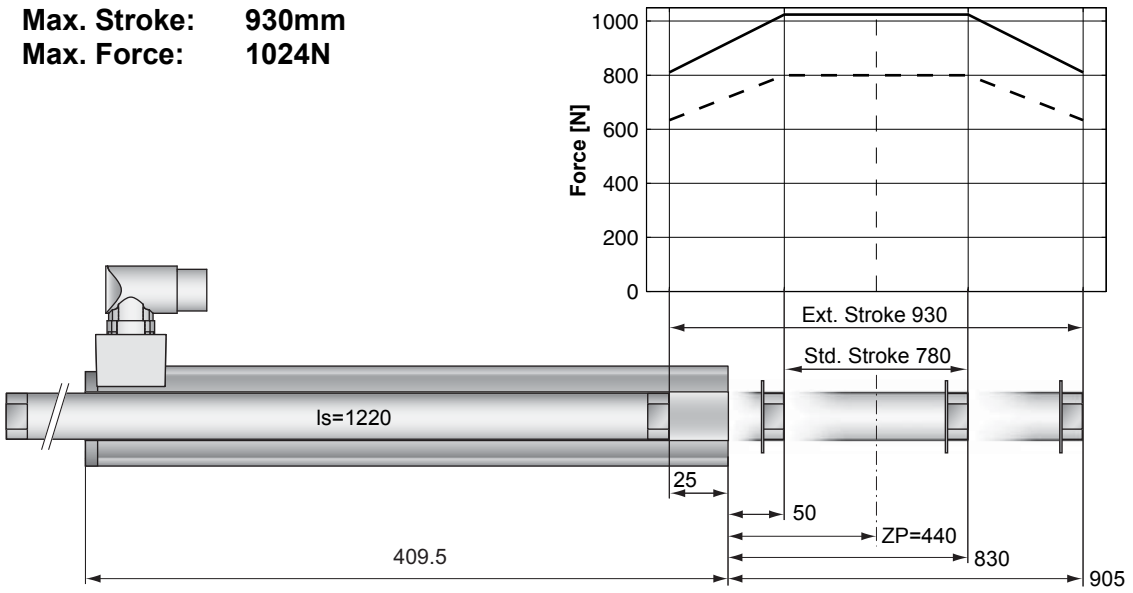
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 930mm
Max. Force: 1024N

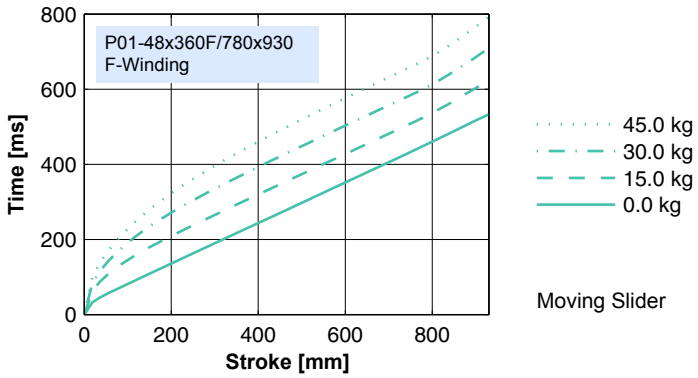


Dimensions in mm

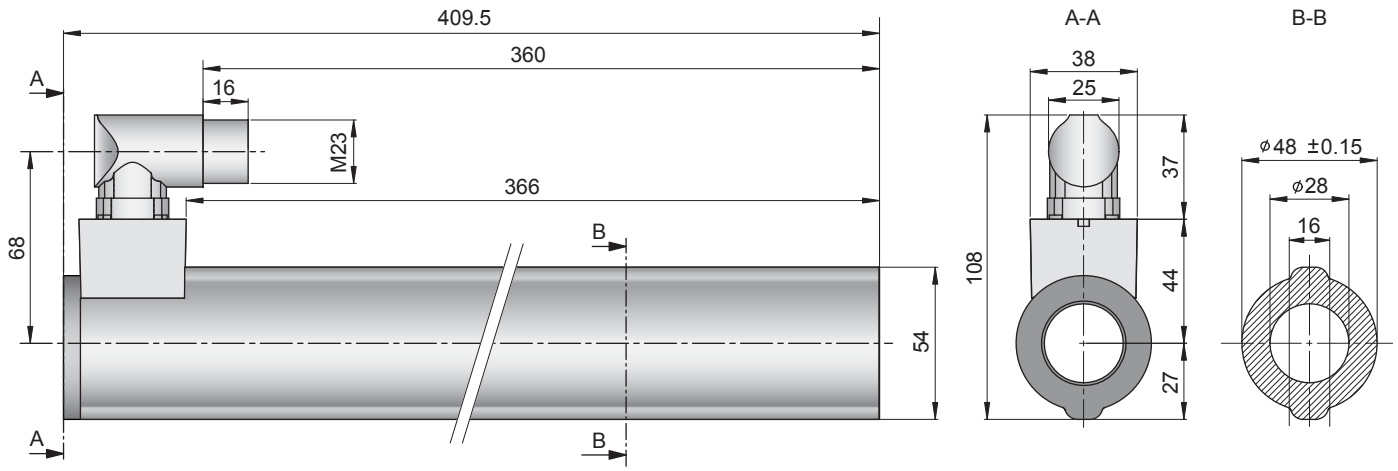
Motor Specification

P01-		F-Winding 48x360F/780x930-C
Extended Stroke	mm (in)	930 (36.61)
Standard Stroke	mm (in)	780 (30.71)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	1220 (48.03)
Slider Mass	g (lb)	5510 (12.15)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

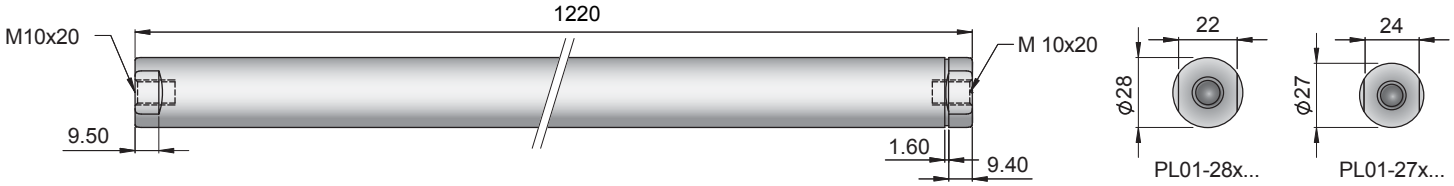


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/780x930-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x1220/1140	0150-1388

Slider

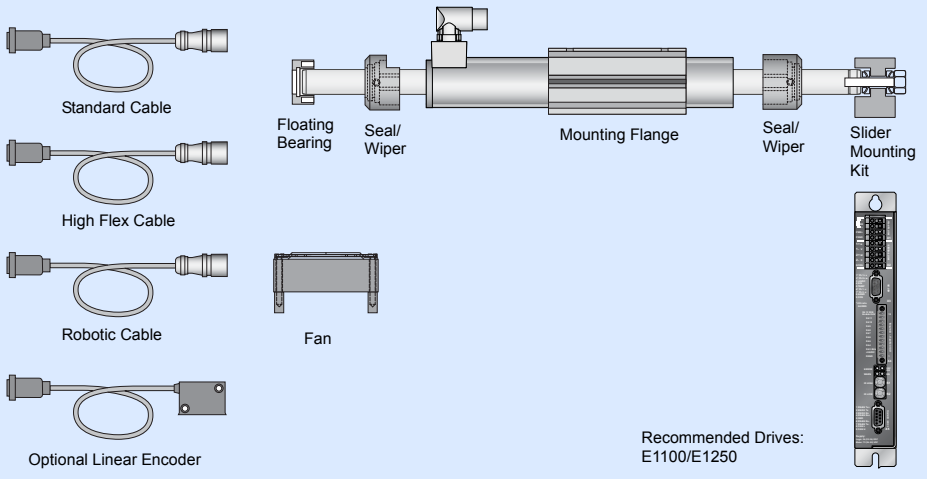


Standard Type	Slider Standard		PL01-28x1220/1140	0150-1388
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1220/1140	on request
	Hollow Slider	hole diameter 6mm	PL01-28x1220/1140-L	on request
	High Clearance Slider	d=27mm	PL01-27x1220/1140	on request

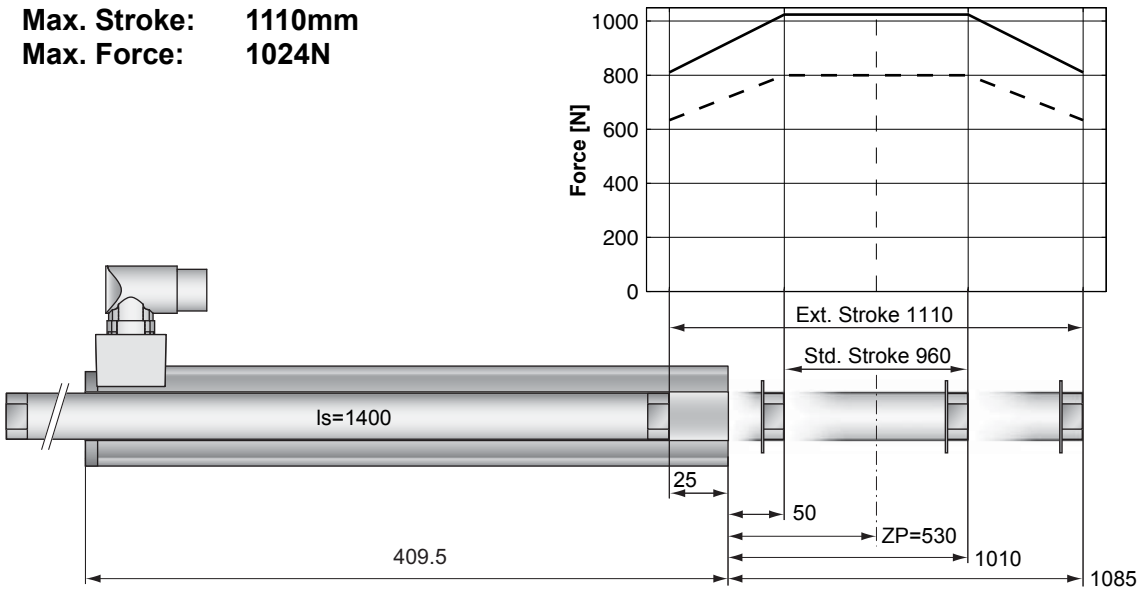
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 1110mm
Max. Force: 1024N

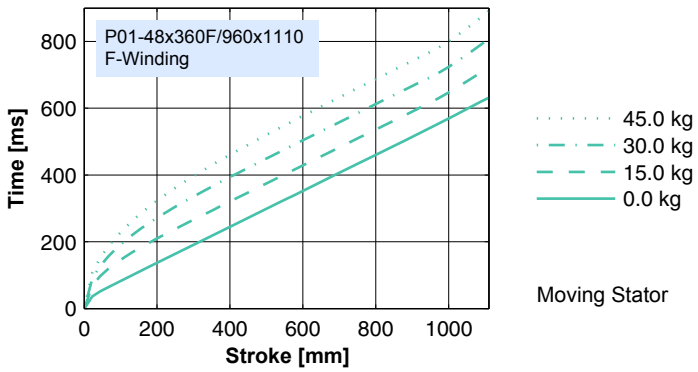


Dimensions in mm

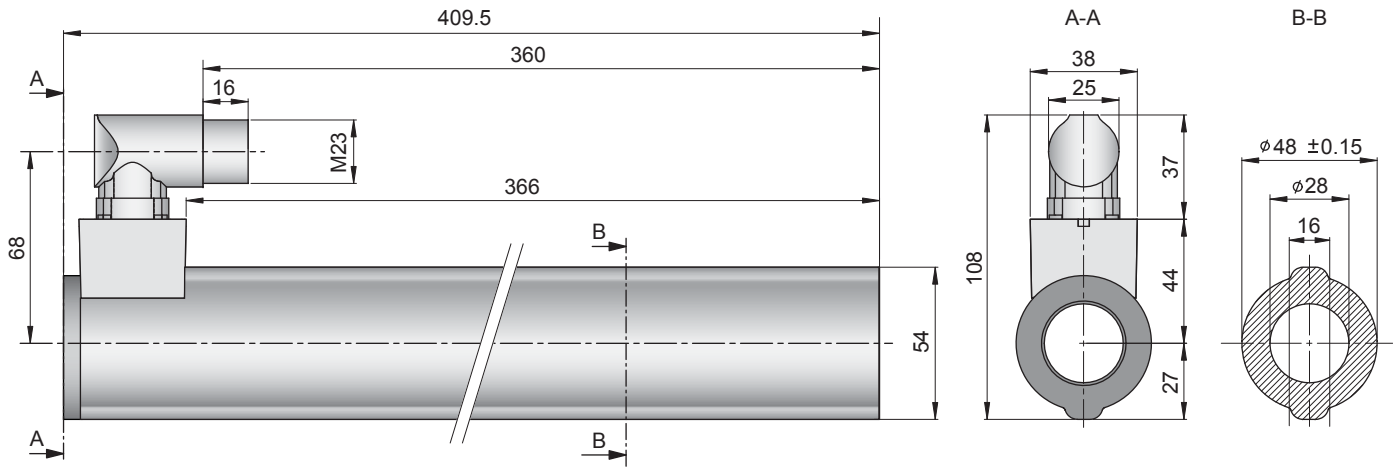
Motor Specification

		F-Winding
P01-		**48x360F/960x1110-C**
Extended Stroke	mm (in)	1110 (43.70)
Standard Stroke	mm (in)	960 (37.80)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	1400 (55.12)
Slider Mass	g (lb)	6350 (14.00)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

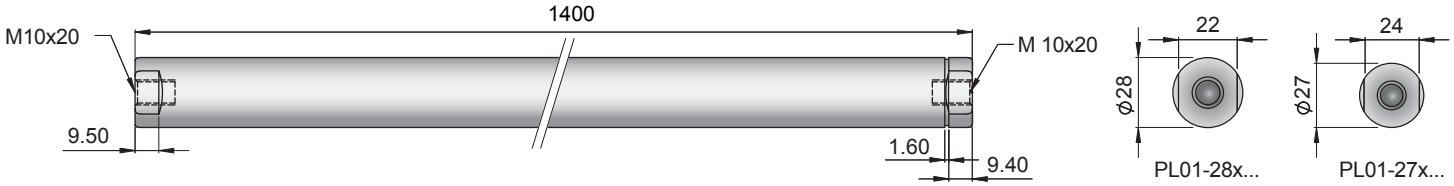


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/960x1110-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x1400/1320	0150-1389

Slider

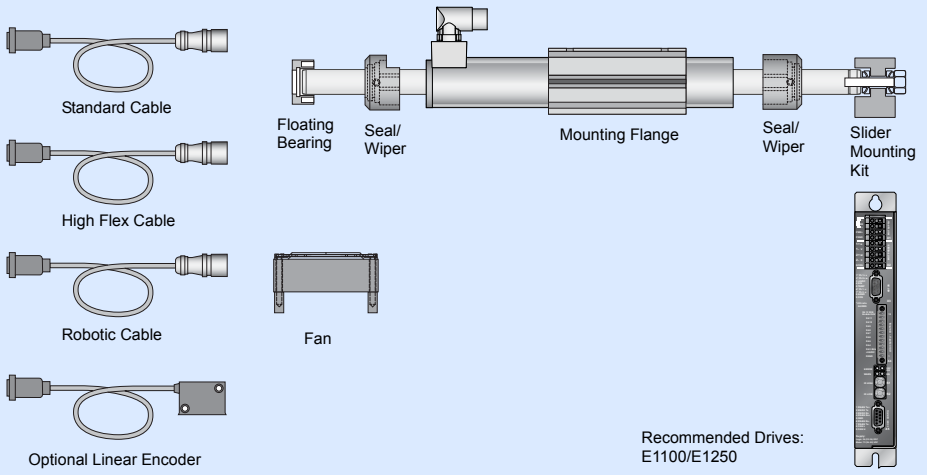


Standard Type	Slider Standard		PL01-28x1400/1320	0150-1389
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1400/1320	on request
	Hollow Slider	hole diameter 6mm	PL01-28x1400/1320-L	on request
	High Clearance Slider	d=27mm	PL01-27x1400/1320	on request

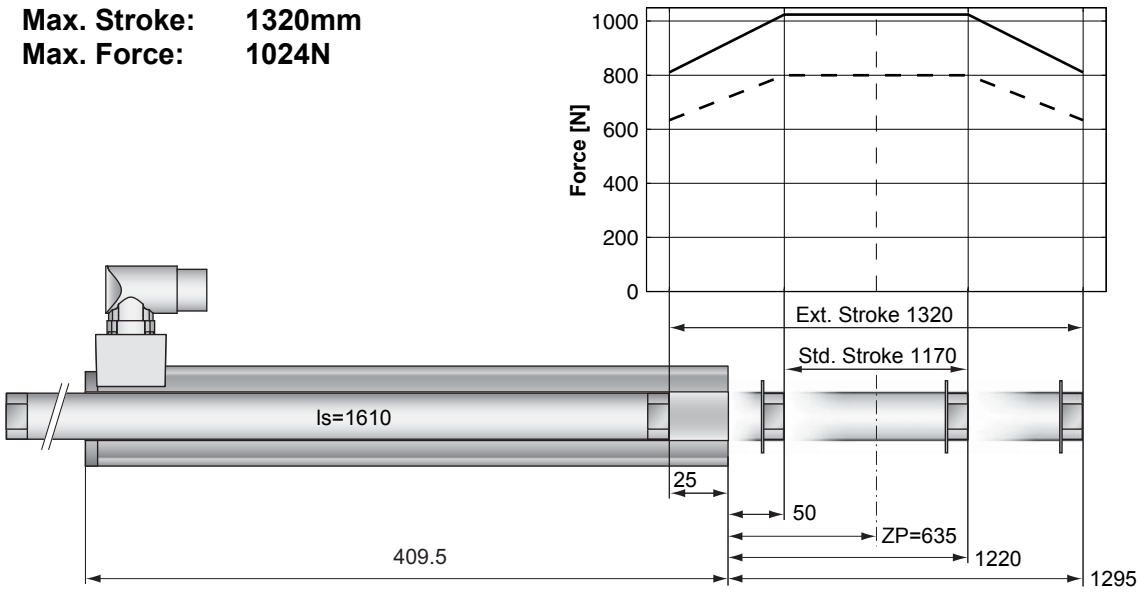
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 1320mm
Max. Force: 1024N

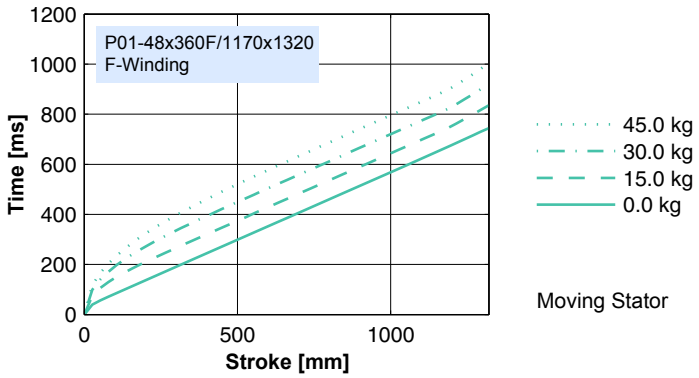


Dimensions in mm

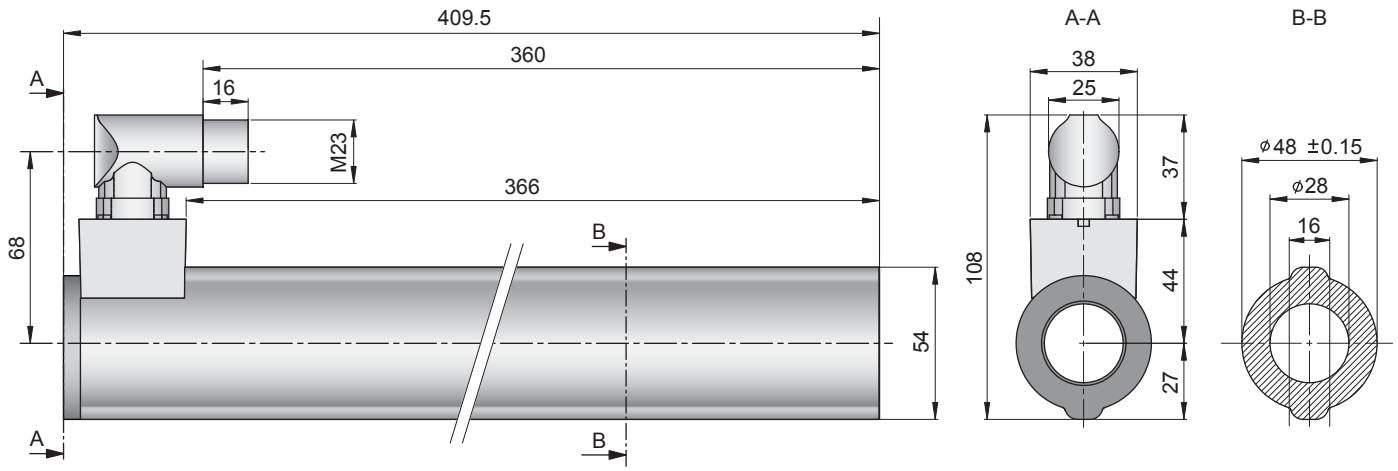
Motor Specification

		F-Winding
P01-		**48x360F/1170x1320-C**
Extended Stroke	mm (in)	1320 (51.97)
Standard Stroke	mm (in)	1170 (46.06)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	1610 (63.39)
Slider Mass	g (lb)	7330 (16.16)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

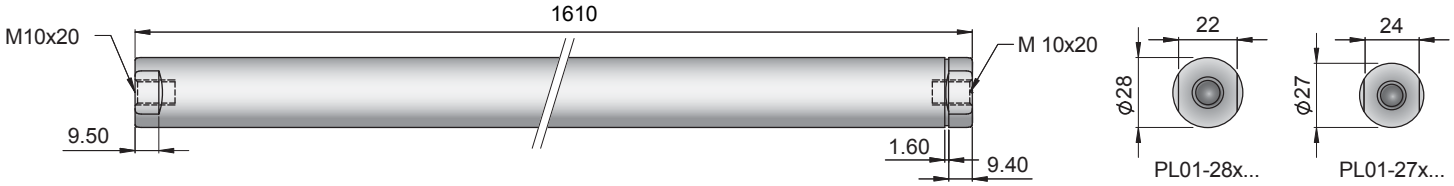


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/1170x1320-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x1610/1530	0150-1390

Slider

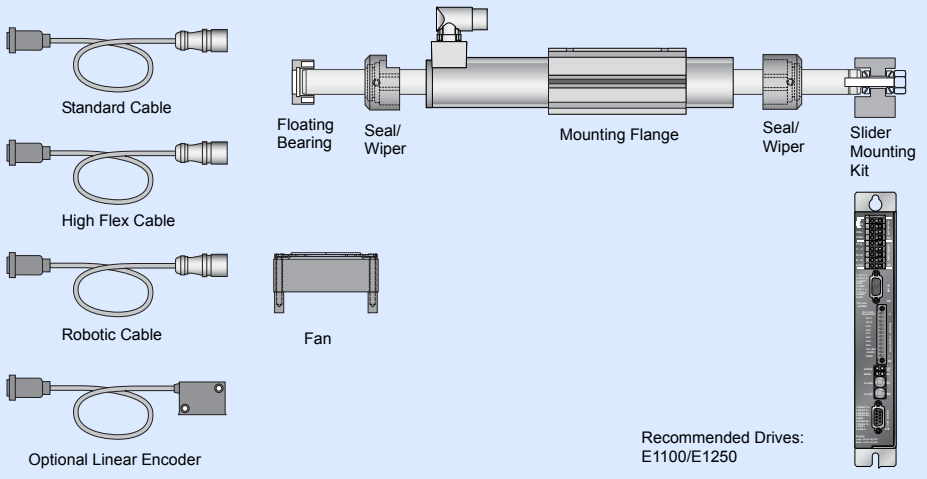


Standard Type	Slider Standard		PL01-28x1610/1530	0150-1390
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1610/1530	on request
	Hollow Slider	hole diameter 6mm	PL01-28x1610/1530-L	on request
	High Clearance Slider	d=27mm	PL01-27x1610/1530	on request

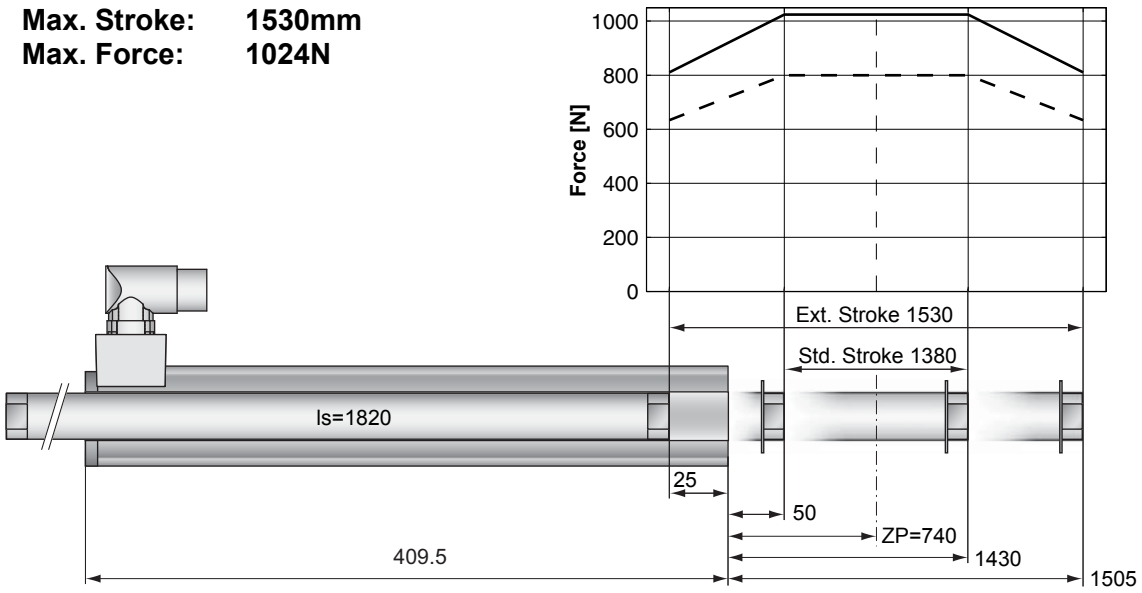
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 1530mm
Max. Force: 1024N

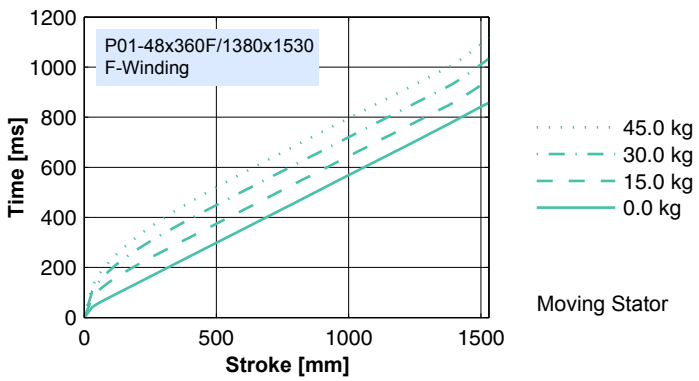


Dimensions in mm

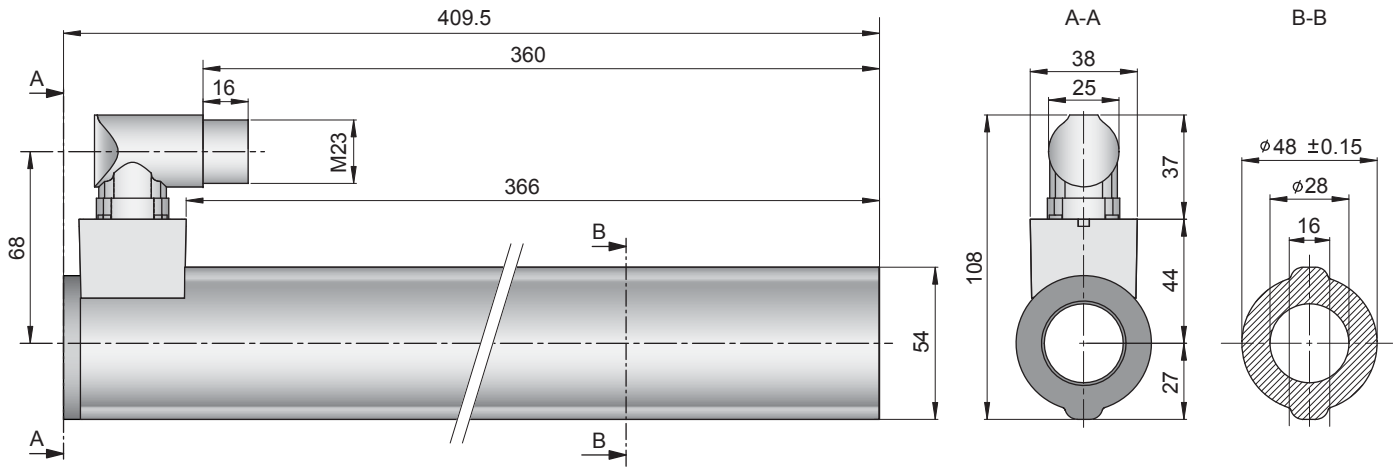
Motor Specification

		F-Winding
P01-		**48x360F/1380x1530-C**
Extended Stroke	mm (in)	1530 (60.24)
Standard Stroke	mm (in)	1380 (54.33)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	1820 (71.65)
Slider Mass	g (lb)	8300 (18.30)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

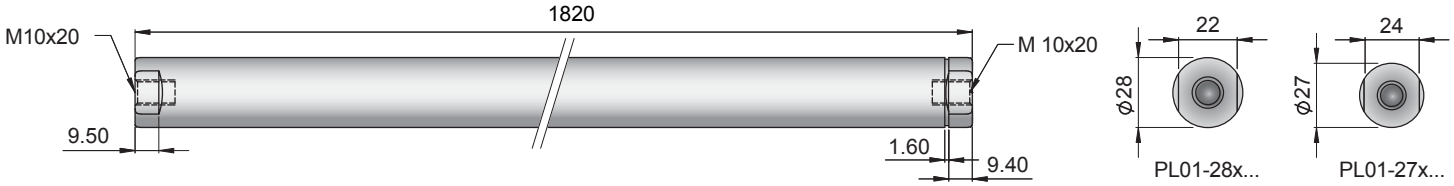


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/1380x1530-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x1820/1740	0150-1395

Slider

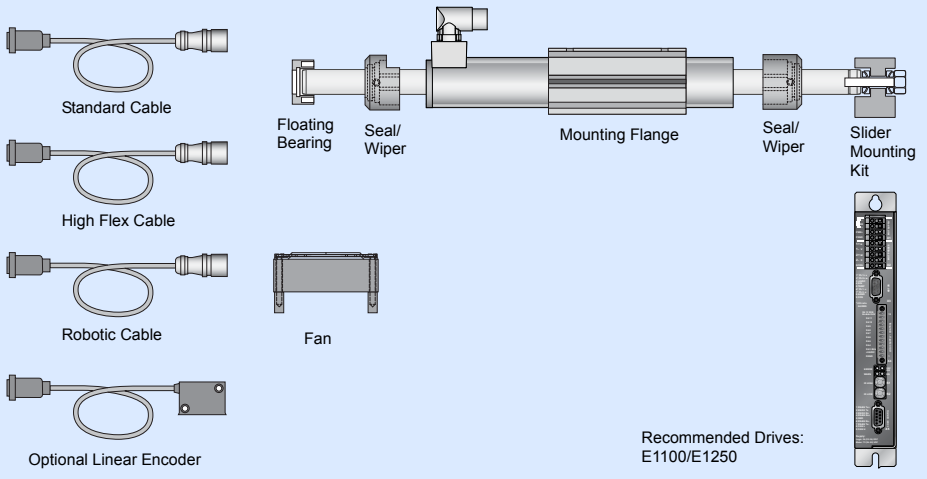


Standard Type	Slider Standard		PL01-28x1820/1740	0150-1395
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x1820/1740	on request
	Hollow Slider	hole diameter 6mm	PL01-28x1820/1740-L	on request
	High Clearance Slider	d=27mm	PL01-27x1820/1740	on request

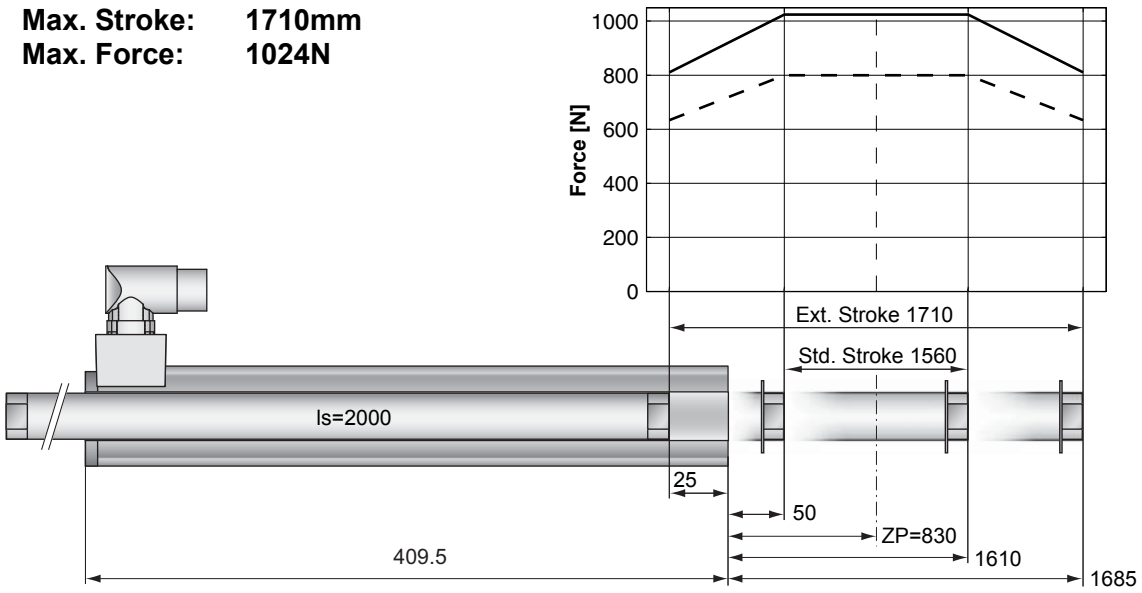
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



Max. Stroke: 1710mm
Max. Force: 1024N

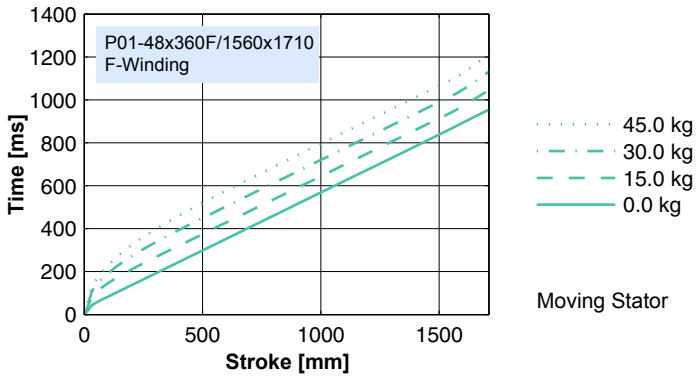


Dimensions in mm

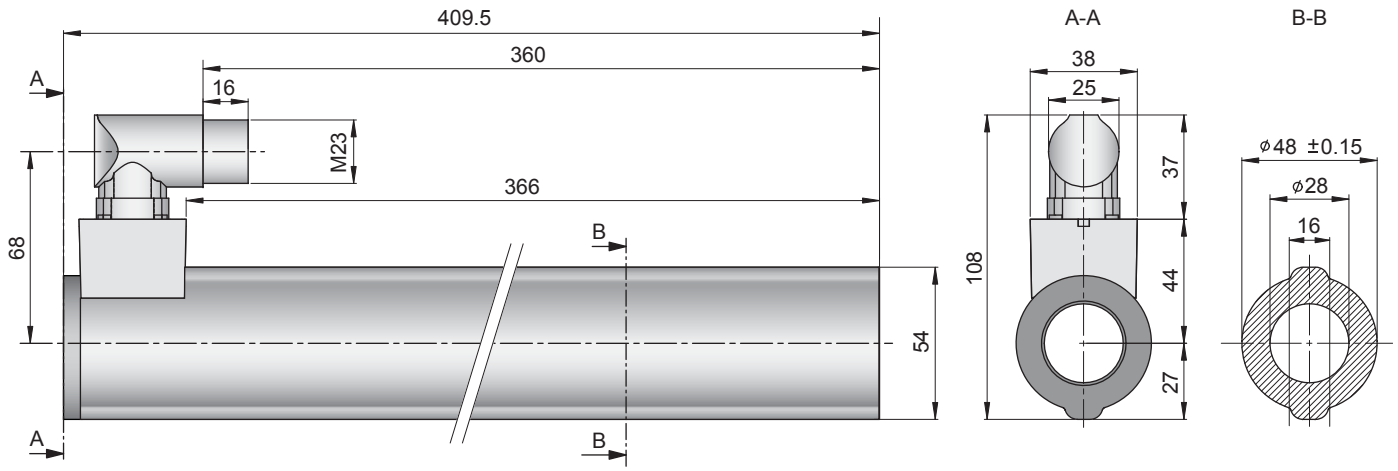
Motor Specification

		F-Winding
	P01-	**48x360F/1560x1710-C**
Extended Stroke	mm (in)	1710 (67.32)
Standard Stroke	mm (in)	1560 (61.42)
Max. Force E1250-UC	N (lbf)	1024 (230.1)
Max. Force E1100-XC	N (lbf)	800 (179.8)
Cont. Force	N (lbf)	203 (45.7)
Cont. Force with fan	N (lbf)	354 (79.7)
Border Force	%	79
Force Constant	N/A (lbf/A)	32.0 (7.19)
Max. Current @ 72VDC	A	32.0
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (82)
Phase Resist. 25/80 °C	Ohm	1.38/1.67
Phase Inductance	mH	1.6
Thermal Resistance	°K/W	0.8
Thermal Time Const.	sec	3200
Stator Diameter	mm (in)	48 (1.89)
Stator Length	mm (in)	409.5 (16.12)
Stator Mass	g (lb)	2880 (6.35)
Slider Diameter	mm (in)	28 (1.10)
Slider Length	mm (in)	2000 (78.74)
Slider Mass	g (lb)	9140 (20.15)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Repeatability with EPS	mm (in)	±0.01 (±0.0004)
Linearity with EPS	mm (in)	±0.01 (±0.0004)

Position-Time Diagram

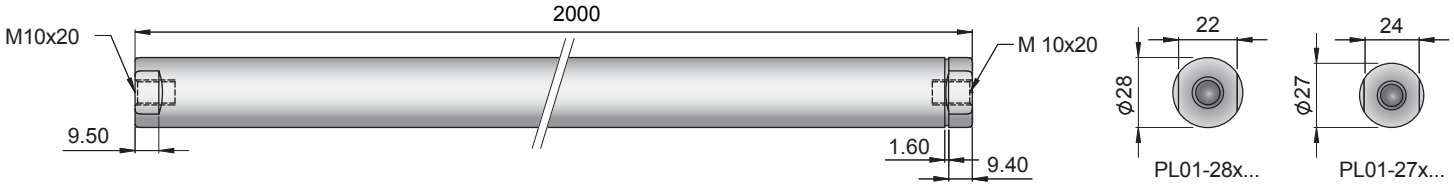


Connector Type



Linear Motor		Stator			Slider	
Type	Art.No	Type	Art. No.		Type	Art. No.
P01-48x360F/1560x1710-C	-->	PS01-48x360F-C	0150-1269	&	PL01-28x2000/1920	0150-1396

Slider

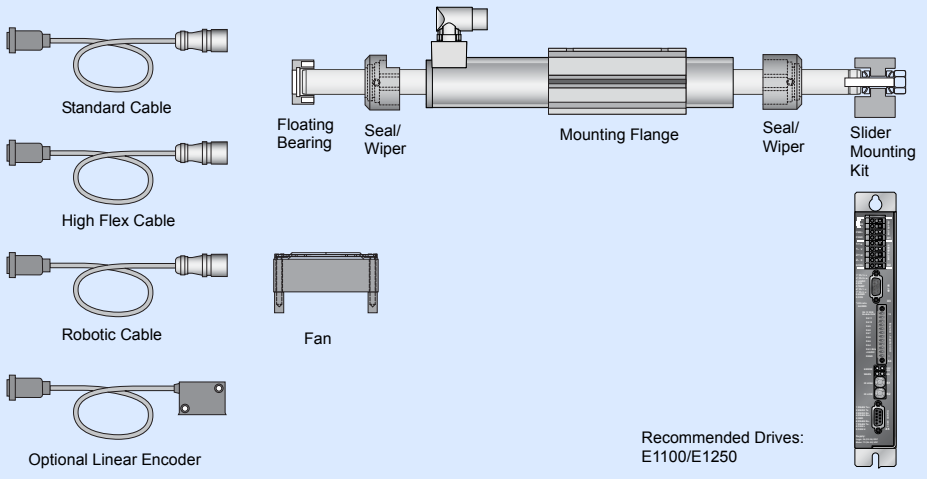


Standard Type	Slider Standard		PL01-28x2000/1920	0150-1396
Special Sliders	Heavy Duty Slider	with WC/C-Coating	PL02-28x2000/1920	on request
	Hollow Slider	hole diameter 6mm	PL01-28x2000/1920-L	on request
	High Clearance Slider	d=27mm	PL01-27x2000/1920	on request

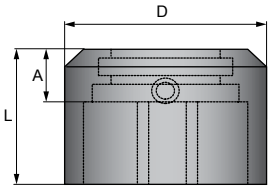
Connectors

Motor connector Wiring		P01-48...-C
Ph 1+	Red	A
Ph 1-	Pink	B
Ph 2+	Blue	C
Ph 2-	Grey	D
+5VDC	White	E
GND	Inner Shield	F
Sine	Yellow	G
Cosine	Green	H
Temp.	Black	L
Shield	Outer Shield	Case

Accessoires



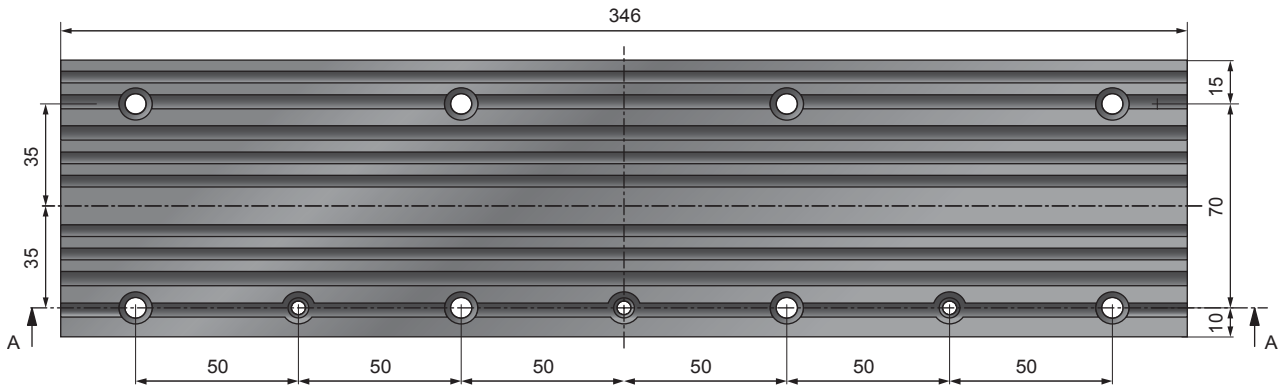
Dimensions and ordering information



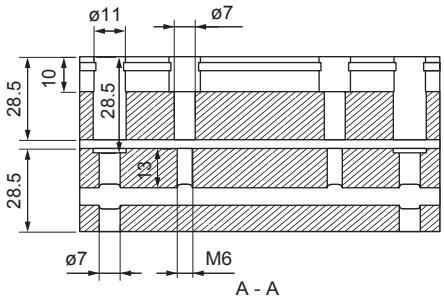
Item	D	L	A	Weight
PA01-48	58mm (2.28in)	32mm (1.26in)	14mm (0.55in)	0.056kg
PA01-48R	58mm (2.28in)	32mm (1.26in)	14mm (0.55in)	0.050kg

Item	Description	Part Number
PA01-48/27-F	Wiper for PS01-48x... (front wiper for high clearance sliders)	0150-3228
PA01-48/27-R	Wiper for PS01-48x...(-C rear wiper for high clearance sliders)	0150-3229
PA01-48/28-F	Wiper for PS01-48x... (front wiper)	0150-3127
PA01-48/28-R	Wiper for PS01-48x...(-C rear wiper)	0150-3202

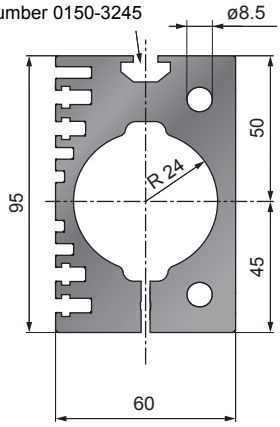
PF01-48x346



Max. torque for clamp plate screws: 12Nm

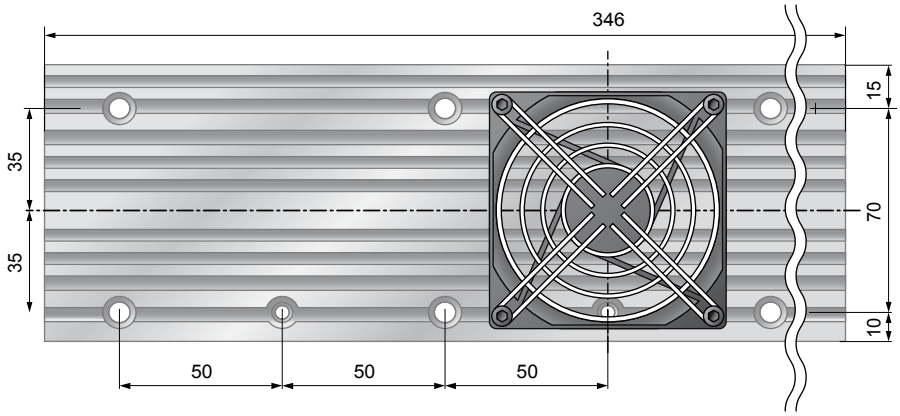


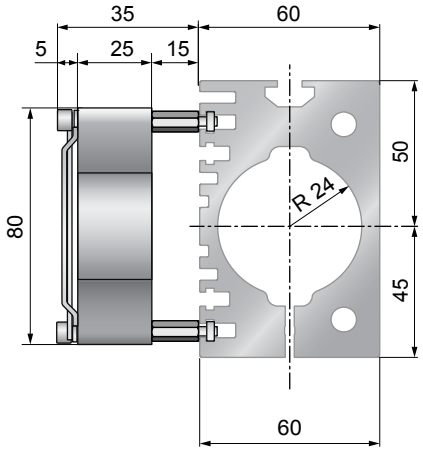
Sliding block M6
Part Number 0150-3245



Item	Description	L [mm]	B [mm]	Weight [g]	Part Number
PF01-48x346	Flange 48x346 mm	346	85	2840	0150-2145

Optional Fan for PF01-48





Fan supply:
24VDC, 120mA

Air flow:
80m³/h

Item	Description	Part Number
HV01-37/48	Fan kit for H01-48, B01-48 and PF01-48	0150-5051