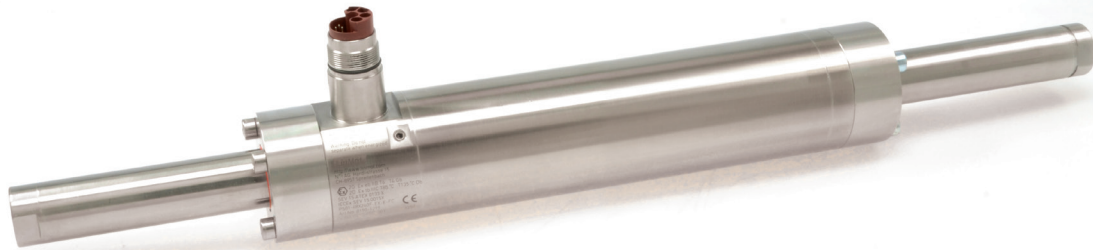


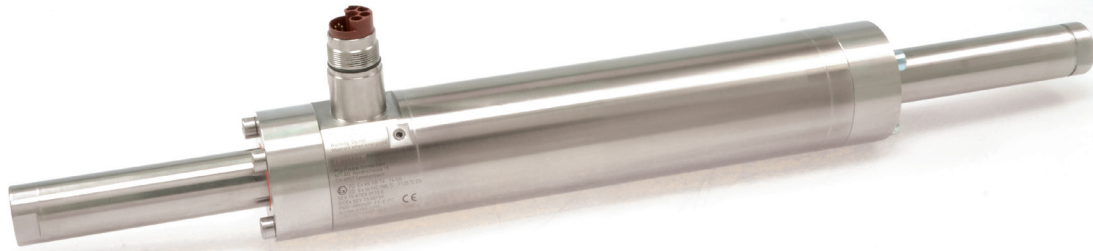
# LINEAR MOTORS P01-48X150G-HP-EX



- ✓ For use in an explosive atmosphere consisting of gases, vapors, mist, or dust
- ✓ Welded connections
- ✓ Completely encapsulated
- ✓ Optional integrated water cooling

## **LINEAR MOTORS P01-48x150G-HP-EX**

|                               |            |
|-------------------------------|------------|
| <b>Technical Data</b>         | <b>695</b> |
| <b>Motor Specifications</b>   |            |
| P01-48x150G/80x80-HP-EX-E     | <b>698</b> |
| P01-48x150G/170x170-HP-EX-E   | <b>699</b> |
| P01-48x150G/290x290-HP-EX-E   | <b>700</b> |
| P01-48x150G/380x380-HP-EX-E   | <b>701</b> |
| P01-48x150G/470x470-HP-EX-E   | <b>702</b> |
| P01-48x150G/590x590-HP-EX-E   | <b>703</b> |
| P01-48x150G/680x680-HP-EX-E   | <b>704</b> |
| P01-48x150G/890x890-HP-EX-E   | <b>705</b> |
| P01-48x150G/1070x1070-HP-EX-E | <b>705</b> |
| <b>Accessories</b>            | <b>706</b> |



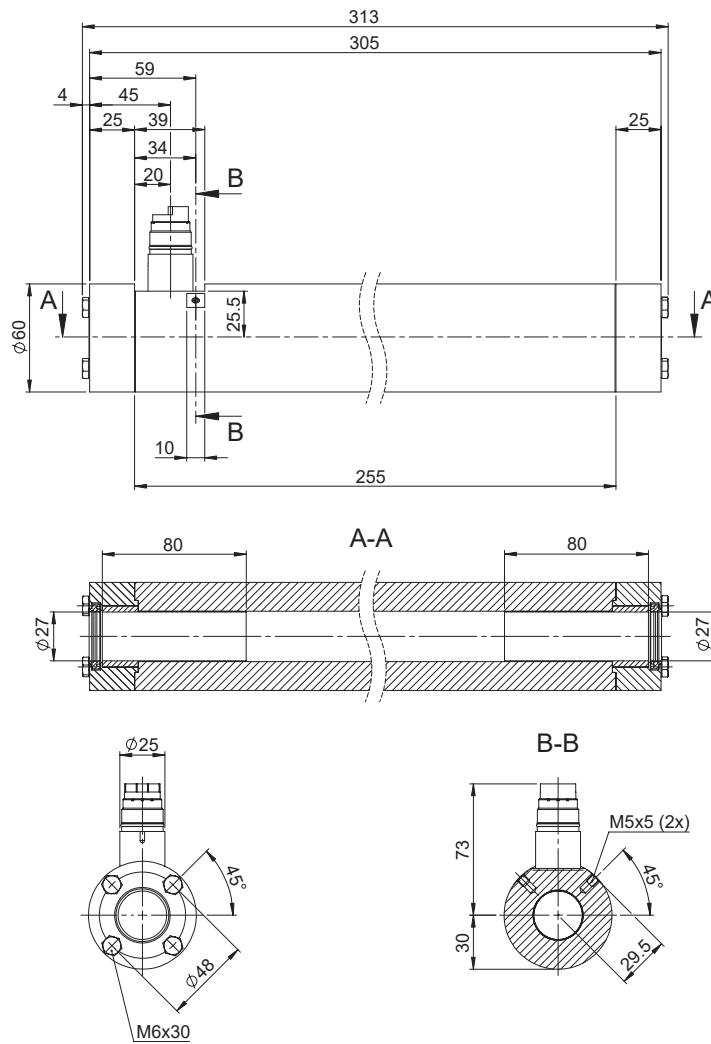
### MOTOR FAMILY P01-48x150G-HP-EX

| Technical Data  |                   |                        |                |                   |
|---|-------------------|------------------------|----------------|-------------------|
| <b>Stroke</b>   |                   |                        |                |                   |
| Max. Stroke   | mm                | (in)                   | 1070           | (42.1)            |
| <b>Force</b>  |                   |                        |                |                   |
| Max. Force @ 48VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N                 | (lbf)                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %                 |                        | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> | (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |                   |                        |                |                   |
| Max. Velocity @ 48VDC                                 | m/s               | (in/s)                 | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s               | (in/s)                 | 4.8            | (188)             |
| <b>Position Detection</b>                             |                   |                        |                |                   |
| Position Resolution                                   | mm                | (in)                   | 0.007          | (0.0003)          |
| Repeatability   | mm                | (in)                   | ±0.05          | (±0.002)          |
| Position Resolution with ES                           | mm                | (in)                   | 0.001          | (0.00004)         |
| Repeatability with ES                                 | mm                | (in)                   | ±0.01          | (±0.0004)         |
| Linearity with ES                                     | mm                | (in)                   | ±0.01          | (±0.0004)         |
| <b>Electrical Data</b>                                |                   |                        |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>   |                        | 4.4 / - / 11.9 |                   |
| Terminal Resistance 25 °C / 120 °C                    | Ohm               |                        | 0.87 / 1.2     |                   |
| Terminal Inductivity                                  | mH                |                        | 0.7            |                   |
| Magnetic Period                                       | mm                | (in)                   | 60             | (2.35)            |
| <b>Thermal Data</b>                                   |                   |                        |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                |                        | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W              |                        | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s                 |                        | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |                   |                        |                |                   |
| Stator Diameter                                       | mm                | (in)                   | 60             | (2.4)             |
| Stator Length   | mm                | (in)                   | 305            | (12.35)           |
| Stator Mass   | g                 | (lb)                   | 3780           | (8.3)             |
| Slider Diameter                                       | mm                | (in)                   | 27             | (1.1)             |
| Slider Length   | mm                | (in)                   | 410 - 1400     | (16.1 - 55.1)     |
| Slider Mass   | g                 | (lb)                   | 1620 - 5910    | (3.6 - 13)        |
| IP Code   |                   |                        | IP67           |                   |

CE 1258 Ex II 2G Ex eb IIC T6...T4 Gb

CE 1258 Ex II 2D Ex tb IIC T85 °C...T135 °C Db

**STATOR**

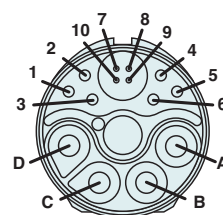


| Item                           | Description                    | Item-No.                  |
|--------------------------------|--------------------------------|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator EX, IP67                | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator EX, IP67, Fluid Cooling | <a href="#">0150-4371</a> |

**CONNECTOR**

| Motor Connector Wiring | PS01-48x240F-HP-EX-E<br>PS01-48x240F-HP-EX-E-FC | Wire Color<br>Motor Cable |
|------------------------|---|---------------------------|
|                        | E6k-Connector                                   |                           |
| Ph 1+                  | A   | red                       |
| Ph 1-                  | B   | pink                      |
| Ph 2+                  | C   | blue                      |
| Ph 2-                  | D   | grey                      |
| PE                     | Protective Earth                                | green-yellow              |
| +5VDC                  | 1   | white                     |
| GND                    | 2   | Inner Shield              |
| Sinus                  | 3   | yellow                    |
| Cosinus                | 4   | green                     |
| Temp.                  | 5   | black                     |
| n. c.                  | 6   | -                         |
| P+1000 1+              | 7   | orange                    |
| P+1000 1-              | 8   | brown                     |
| P+1000 2+              | 9   | purple                    |
| P+1000 2-              | 10  | beige                     |

**E6k-Connector**

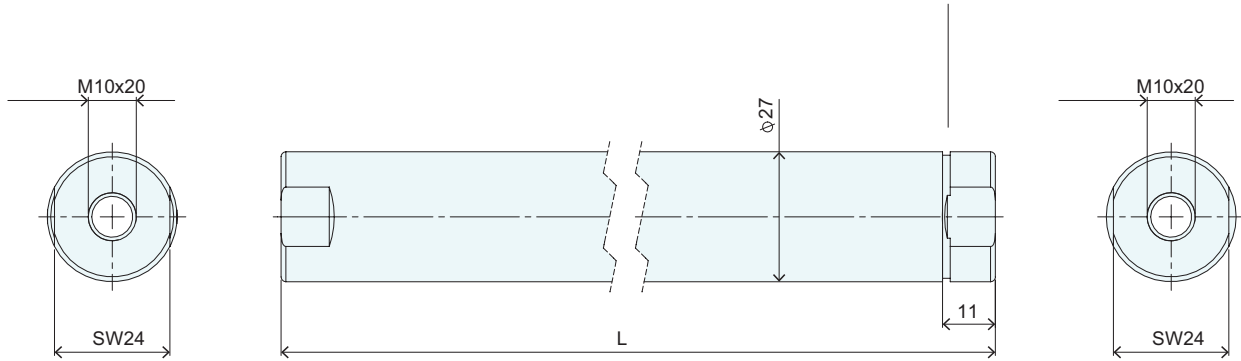


View: Motor connector, plug side

**SLIDER**

**Slider High Clearance**

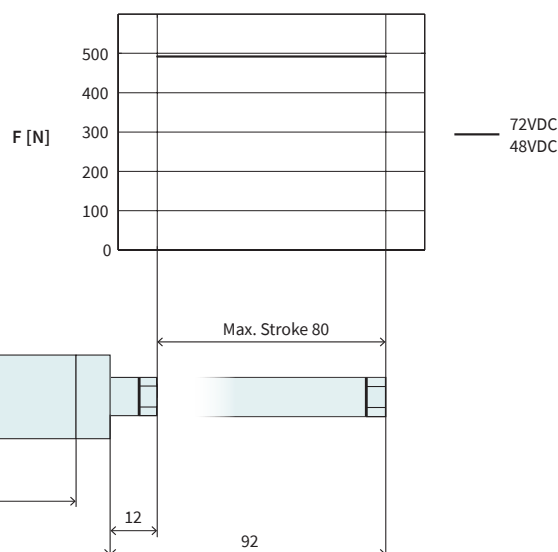
Number of grooves determines the slider type (see chapter 2 / slider) and marks the front end.



| Slider High Clearance |                         |                  |                           |
|-----------------------|-------------------------|------------------|---------------------------|
| Item                  | Description             | Max. Stroke [mm] | Item-No.                  |
| PL01-27x410/330       | Slider 'High Clearance' | 80               | <a href="#">0150-1468</a> |
| PL01-27x500/420       | Slider 'High Clearance' | 170              | <a href="#">0150-1469</a> |
| PL01-27x620/540       | Slider 'High Clearance' | 290              | <a href="#">0150-1470</a> |
| PL01-27x710/630       | Slider 'High Clearance' | 380              | <a href="#">0150-1471</a> |
| PL01-27x800/720       | Slider 'High Clearance' | 470              | <a href="#">0150-1472</a> |
| PL01-27x920/840       | Slider 'High Clearance' | 590              | <a href="#">0150-1447</a> |
| PL01-27x1010/930      | Slider 'High Clearance' | 680              | <a href="#">0150-1473</a> |
| PL01-27x1220/1140     | Slider 'High Clearance' | 890              | <a href="#">0150-1587</a> |
| PL01-27x1400/1320     | Slider 'High Clearance' | 1070             | <a href="#">0150-1588</a> |

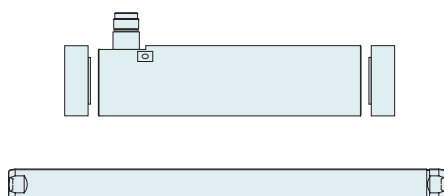
**P01-48x150G/80x80-HP-EX-E**

**Max. Stroke:** 80 mm  
**Peak Force:** 310 N



Dimensions in mm

| Technical Data P01-48x150G/80x80-HP-EX-E              |  |                |                   |
|---|--|----------------|-------------------|
| <b>Stroke</b>   |  |                |                   |
| Max. Stroke   | mm (in)                                  | 80             | (3.14)            |
| <b>Force</b>  |  |                |                   |
| Max. Force @ 48VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N (lbf)                                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %  | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |  |                |                   |
| Max. Velocity @ 48VDC                                 | m/s (in/s)                               | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s (in/s)                               | 4.8            | (188)             |
| <b>Position Detection</b>                             |  |                |                   |
| Repeatability   | mm (in)                                  | ±0.05          | (±0.002)          |
| Linearity   | %  | ± 1.0          |                   |
| <b>Electrical Data</b>                                |  |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>                          | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |  |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                                       | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W                                     | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s  | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |  |                |                   |
| Slider Length   | mm (in)                                  | 410            | (16.1)            |
| Slider Mass   | g (lb)                                   | 1620           | (3.57)            |

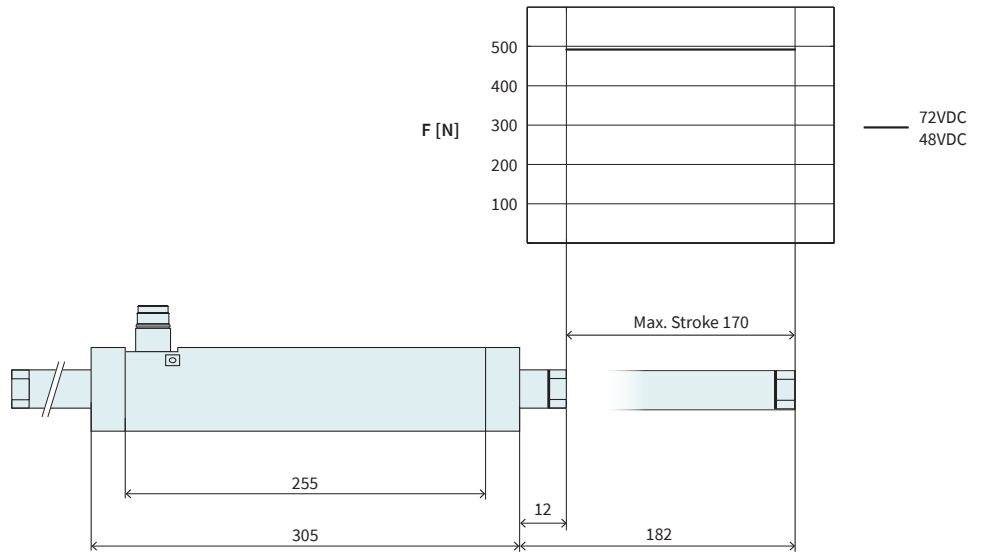


| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x410/330</b>         | Slider 'High Clearance'                 | <a href="#">0150-1468</a> |

\* 2 Bearings or bearing flanges must be ordered separately.

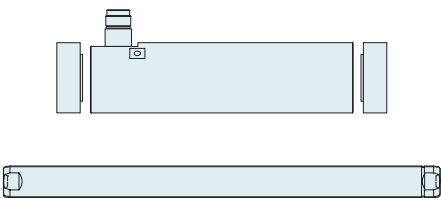
**P01-48x150G/170x170-HP-EX-E**

**Max. Stroke:** 170 mm  
**Peak Force:** 310 N



Dimensions in mm

| Technical Data P01-48x150G/170x170-HP-EX-E            |  |  |                |                   |
|---|--|--|----------------|-------------------|
| <b>Stroke</b>   |  |  |                |                   |
| Max. Stroke   | mm (in)                                  |  | 170            | (6.69)            |
| <b>Force</b>  |  |  |                |                   |
| Max. Force @ 48VDC                                    | N (lbf)                                  |  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N (lbf)                                  |  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N (lbf)                                  |  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %  |  | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> (lbf/A <sub>pk</sub> ) |  | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |  |  |                |                   |
| Max. Velocity @ 48VDC                                 | m/s (in/s)                               |  | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s (in/s)                               |  | 4.8            | (188)             |
| <b>Position Detection</b>                             |  |  |                |                   |
| Repeatability   | mm (in)                                  |  | ±0.05          | (±0.002)          |
| Linearity   | %  |  | ± 0.5          |                   |
| <b>Electrical Data</b>                                |  |  |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>                          |  | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>                          |  | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>                          |  | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |  |  |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                                       |  | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W                                     |  | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s  |  | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |  |  |                |                   |
| Slider Length   | mm (in)                                  |  | 500            | (19.69)           |
| Slider Mass   | g (lb)                                   |  | 2010           | (4.43)            |

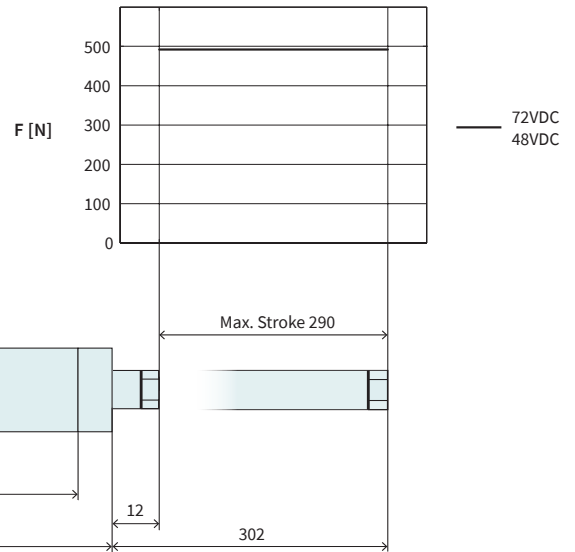


| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x500/420</b>         | Slider 'High Clearance'                 | <a href="#">0150-1469</a> |

\* 2 Bearings or bearing flanges must be ordered separately.

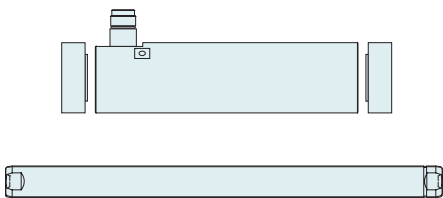
**P01-48x150G/290x290-HP-EX-E**

**Max. Stroke:** 290 mm  
**Peak Force:** 310 N



Dimensions in mm

| Technical Data P01-48x150G/290x290-HP-EX-E            |  |                |                   |
|---|--|----------------|-------------------|
| <b>Stroke</b>   |  |                |                   |
| Max. Stroke   | mm (in)                                  | 290            | (11.4)            |
| <b>Force</b>  |  |                |                   |
| Max. Force @ 48VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N (lbf)                                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %  | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |  |                |                   |
| Max. Velocity @ 48VDC                                 | m/s (in/s)                               | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s (in/s)                               | 4.8            | (188)             |
| <b>Position Detection</b>                             |  |                |                   |
| Repeatability   | mm (in)                                  | ±0.05          | (±0.002)          |
| Linearity   | %  | ± 0.35         |                   |
| <b>Electrical Data</b>                                |  |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>                          | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |  |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                                       | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W                                     | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s  | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |  |                |                   |
| Slider Length   | mm (in)                                  | 620            | (24.41)           |
| Slider Mass   | g (lb)                                   | 2530           | (5.58)            |



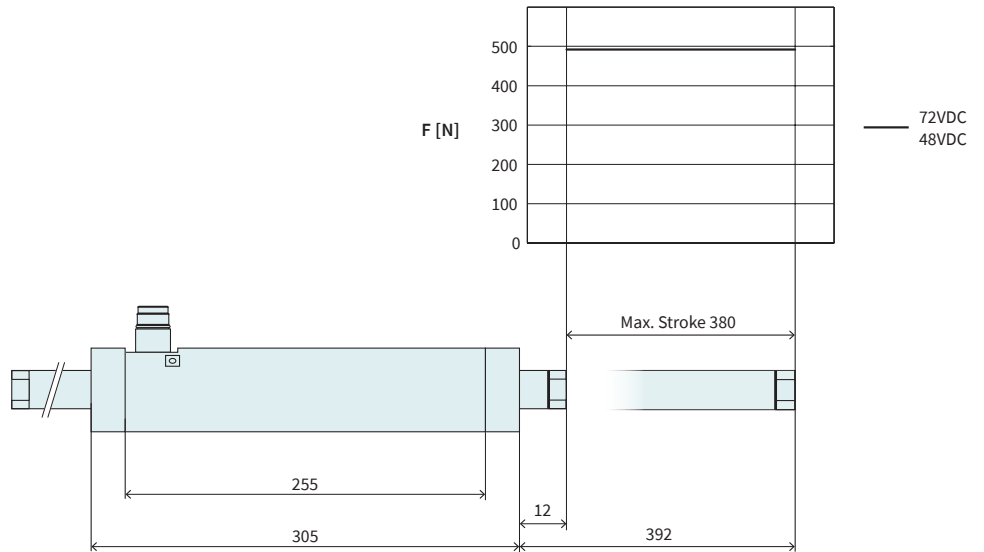
| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x620/540</b>         | Slider 'High Clearance'                 | <a href="#">0150-1470</a> |

\* 2 Bearings or bearing flanges must be ordered separately.



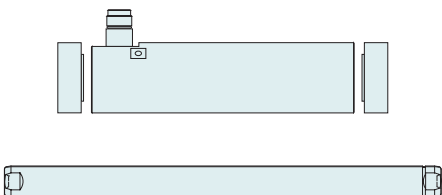
**P01-48x150G/380x380-HP-EX-E**

**Max. Stroke:** 380 mm  
**Peak Force:** 310 N



Dimensions in mm

| Technical Data P01-48x150G/380x380-HP-EX-E            |                   |                        |                |                   |
|---|-------------------|------------------------|----------------|-------------------|
| <b>Stroke</b>   |                   |                        |                |                   |
| Max. Stroke   | mm                | (in)                   | 380            | (14.99)           |
| <b>Force</b>  |                   |                        |                |                   |
| Max. Force @ 48VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N                 | (lbf)                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %                 |                        | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> | (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |                   |                        |                |                   |
| Max. Velocity @ 48VDC                                 | m/s               | (in/s)                 | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s               | (in/s)                 | 4.8            | (188)             |
| <b>Position Detection</b>                             |                   |                        |                |                   |
| Repeatability   | mm                | (in)                   | ±0.05          | (±0.002)          |
| Linearity   | %                 |                        | ± 0.3          |                   |
| <b>Electrical Data</b>                                |                   |                        |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>   |                        | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |                   |                        |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                |                        | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W              |                        | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s                 |                        | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |                   |                        |                |                   |
| Slider Length   | mm                | (in)                   | 710            | (27.95)           |
| Slider Mass   | g                 | (lb)                   | 2920           | (6.44)            |

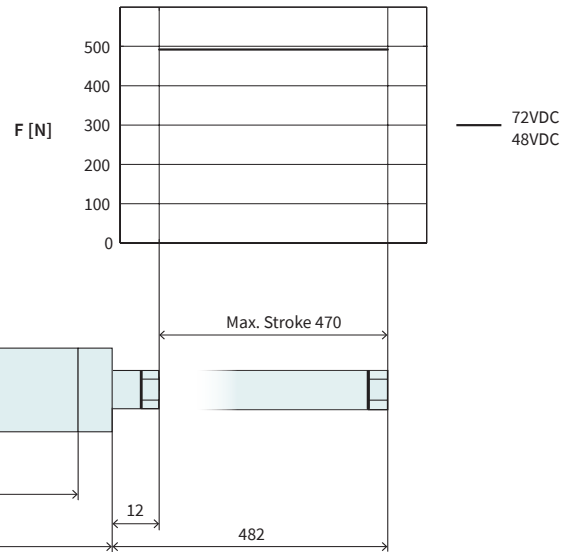


| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x710/630</b>         | Slider 'High Clearance'                 | <a href="#">0150-1471</a> |

\* 2 Bearings or bearing flanges must be ordered separately.

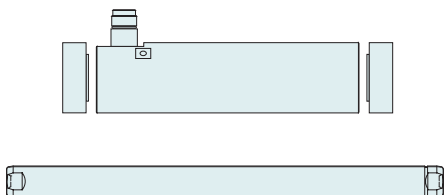
**P01-48x150G/470x470-HP-EX-E**

**Max. Stroke:** 470 mm  
**Peak Force:** 310 N



Dimensions in mm

| Technical Data P01-48x150G/470x470-HP-EX-E            |  |                |                   |
|---|--|----------------|-------------------|
| <b>Stroke</b>   |  |                |                   |
| Max. Stroke   | mm (in)                                  | 470            | (19.69)           |
| <b>Force</b>  |  |                |                   |
| Max. Force @ 48VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N (lbf)                                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %  | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |  |                |                   |
| Max. Velocity @ 48VDC                                 | m/s (in/s)                               | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s (in/s)                               | 4.8            | (188)             |
| <b>Position Detection</b>                             |  |                |                   |
| Repeatability   | mm (in)                                  | ±0.05          | (±0.002)          |
| Linearity   | %  | ± 0.25         |                   |
| <b>Electrical Data</b>                                |  |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>                          | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |  |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                                       | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W                                     | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s  | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |  |                |                   |
| Slider Length   | mm (in)                                  | 800            | (31.5)            |
| Slider Mass   | g (lb)                                   | 3310           | (7.30)            |

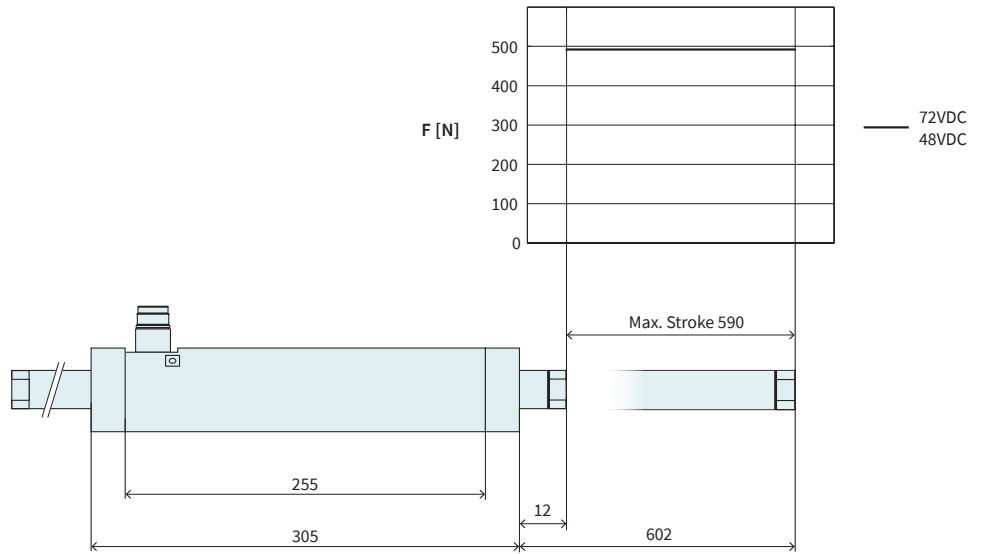


| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x800/720</b>         | Slider 'High Clearance'                 | <a href="#">0150-1472</a> |

\* 2 Bearings or bearing flanges must be ordered separately.

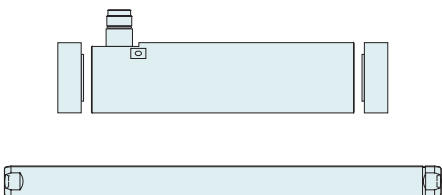
**P01-48x150G/590x590-HP-EX-E**

**Max. Stroke:** 590 mm  
**Peak Force:** 310 N



Dimensions in mm

| Technical Data P01-48x150G/590x590-HP-EX-E            |                   |                        |                |                   |
|---|-------------------|------------------------|----------------|-------------------|
| <b>Stroke</b>   |                   |                        |                |                   |
| Max. Stroke   | mm                | (in)                   | 590            | (23.19)           |
| <b>Force</b>  |                   |                        |                |                   |
| Max. Force @ 48VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N                 | (lbf)                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %                 |                        | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> | (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |                   |                        |                |                   |
| Max. Velocity @ 48VDC                                 | m/s               | (in/s)                 | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s               | (in/s)                 | 4.8            | (188)             |
| <b>Position Detection</b>                             |                   |                        |                |                   |
| Repeatability   | mm                | (in)                   | ±0.05          | (±0.002)          |
| Linearity   | %                 |                        | ± 0.25         |                   |
| <b>Electrical Data</b>                                |                   |                        |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>   |                        | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |                   |                        |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                |                        | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W              |                        | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s                 |                        | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |                   |                        |                |                   |
| Slider Length   | mm                | (in)                   | 920            | (36.22)           |
| Slider Mass   | g                 | (lb)                   | 3830           | (8.44)            |

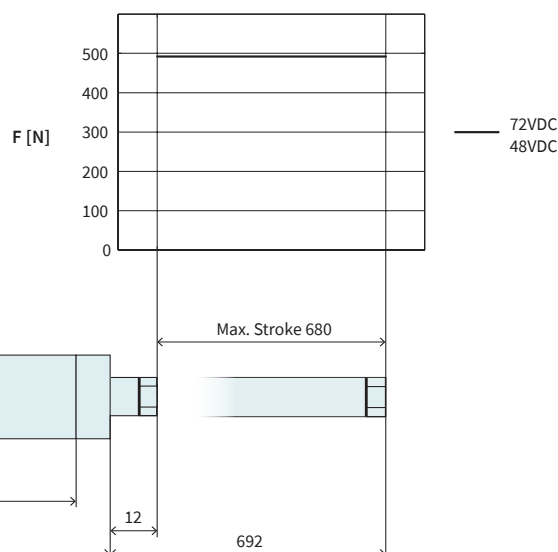


| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x920/840</b>         | Slider 'High Clearance'                 | <a href="#">0150-1447</a> |

\* 2 Bearings or bearing flanges must be ordered separately.

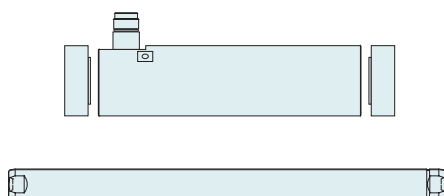
**P01-48x150G/680x680-HP-EX-E**

**Max. Stroke:** 680 mm  
**Peak Force:** 310 N



Dimensions in mm

| Technical Data P01-48x150G/680x680-HP-EX-E            |  |                |                   |
|---|--|----------------|-------------------|
| <b>Stroke</b>   |  |                |                   |
| Max. Stroke   | mm (in)                                  | 680            | (26.8)            |
| <b>Force</b>  |  |                |                   |
| Max. Force @ 48VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N (lbf)                                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %  | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |  |                |                   |
| Max. Velocity @ 48VDC                                 | m/s (in/s)                               | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s (in/s)                               | 4.8            | (188)             |
| <b>Position Detection</b>                             |  |                |                   |
| Repeatability   | mm (in)                                  | ±0.05          | (±0.002)          |
| Linearity   | %  | ± 0.2          |                   |
| <b>Electrical Data</b>                                |  |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>                          | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |  |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                                       | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W                                     | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s  | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |  |                |                   |
| Slider Length   | mm (in)                                  | 1010           | (39.76)           |
| Slider Mass   | g (lb)                                   | 4220           | (9.30)            |

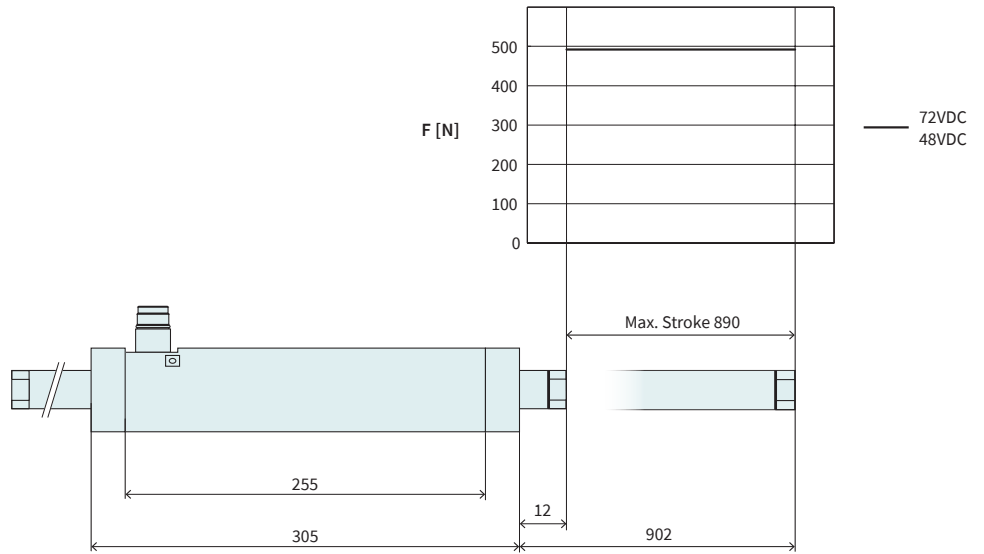


| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x1010/930</b>        | Slider 'High Clearance'                 | <a href="#">0150-1473</a> |

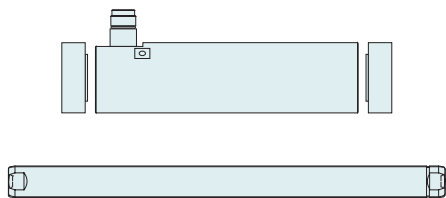
\* 2 Bearings or bearing flanges must be ordered separately.

**P01-48x150G/890x890-HP-EX-E**

**Max. Stroke:** 890 mm  
**Peak Force:** 310 N



| Technical Data P01-48x150G/890x890-HP-EX-E            |                   |                        |                |                   |
|---|-------------------|------------------------|----------------|-------------------|
| <b>Stroke</b>   |                   |                        |                |                   |
| Max. Stroke   | mm                | (in)                   | 890            | (35.0)            |
| <b>Force</b>  |                   |                        |                |                   |
| Max. Force @ 48VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N                 | (lbf)                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N                 | (lbf)                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %                 |                        | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> | (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |                   |                        |                |                   |
| Max. Velocity @ 48VDC                                 | m/s               | (in/s)                 | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s               | (in/s)                 | 4.8            | (188)             |
| <b>Position Detection</b>                             |                   |                        |                |                   |
| Repeatability   | mm                | (in)                   | ±0.05          | (±0.002)          |
| Linearity   | %                 |                        | ± 0.2          |                   |
| <b>Electrical Data</b>                                |                   |                        |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>   |                        | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>   |                        | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |                   |                        |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                |                        | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W              |                        | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s                 |                        | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |                   |                        |                |                   |
| Slider Length   | mm                | (in)                   | 1220           | (48.03)           |
| Slider Mass   | g                 | (lb)                   | 5130           | (11.31)           |

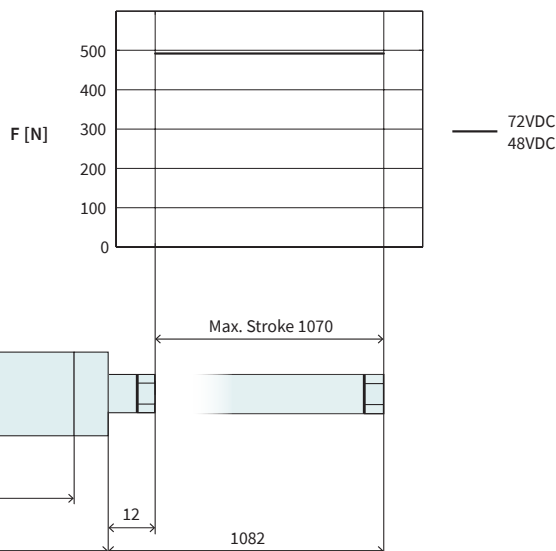


| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x1220/1140**</b>     | Slider 'High Clearance'                 | <a href="#">0150-1587</a> |

\* 2 Bearings or bearing flanges must be ordered separately.  
 \*\* on request

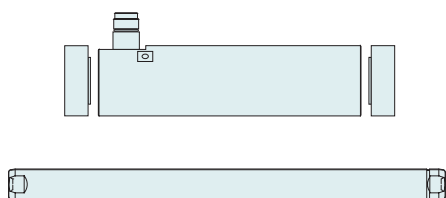
**P01-48x150G/1070x1070-HP-EX-E**

**Max. Stroke:** 1070 mm  
**Peak Force:** 310 N



Dimensions in mm

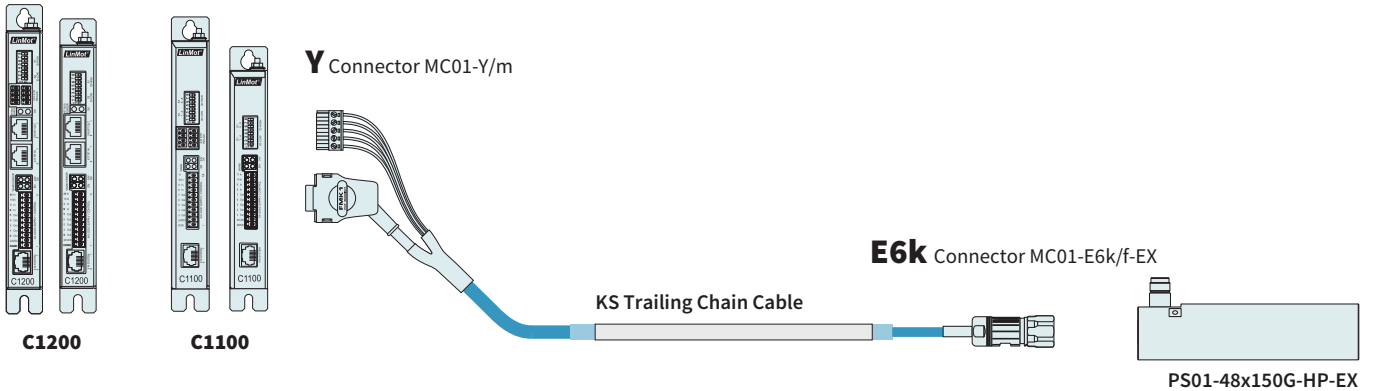
| Technical Data P01-48x150G/1070x1070-HP-EX-E          |  |                |                   |
|---|--|----------------|-------------------|
| <b>Stroke</b>   |  |                |                   |
| Max. Stroke   | mm (in)                                  | 1070           | (42.1)            |
| <b>Force</b>  |  |                |                   |
| Max. Force @ 48VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Force @ 72VDC                                    | N (lbf)                                  | 312            | (70.2)            |
| Max. Cont. Force [Passive cooling / Fan / Fluid]      | N (lbf)                                  | 59 / - / 162   | (13.3 / - / 36.4) |
| Max. Border Force relative                            | %  | 100            |                   |
| Force Constant  | N/A <sub>pk</sub> (lbf/A <sub>pk</sub> ) | 13.6           | (3.1)             |
| <b>Velocity</b>                                       |  |                |                   |
| Max. Velocity @ 48VDC                                 | m/s (in/s)                               | 3.2            | (125)             |
| Max. Velocity @ 72VDC                                 | m/s (in/s)                               | 4.8            | (188)             |
| <b>Position Detection</b>                             |  |                |                   |
| Repeatability   | mm (in)                                  | ±0.05          | (±0.002)          |
| Linearity   | %  | ± 0.2          |                   |
| <b>Electrical Data</b>                                |  |                |                   |
| Max. Current @ 48VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Current @ 72VDC                                  | A <sub>pk</sub>                          | 23             |                   |
| Max. Cont. Current [Passive cooling / Fan / Fluid]    | A <sub>pk</sub>                          | 4.4 / - / 11.9 |                   |
| <b>Thermal Data</b>                                   |  |                |                   |
| Max. Winding Temperature (Sensor)                     | °C                                       | 100            |                   |
| Thermal Resistance [Passive cooling / Fan / Fluid]    | °K/W                                     | 3 / - / 0.4    |                   |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s  | 2100 / - / 260 |                   |
| <b>Mechanical Data</b>                                |  |                |                   |
| Slider Length   | mm (in)                                  | 1400           | (55.12)           |
| Slider Mass   | g (lb)                                   | 5910           | (13.03)           |



| Item                           | Description                             | Item-No.                  |
|--------------------------------|---|---------------------------|
| <b>PS01-48x150G-HP-EX-E</b>    | Stator HP EX, IP67                      | <a href="#">0150-4370</a> |
| <b>PS01-48x150G-HP-EX-E-FC</b> | Stator HP EX, IP67, Fluid Cooling       | <a href="#">0150-4371</a> |
| <b>PB01-48x25-80-E-SSC*</b>    | Bearing for PS01-48x...-SSC / EX        | <a href="#">0150-4190</a> |
| <b>PB03-48x25-80-E-SSC*</b>    | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |
| <b>PL01-27x1400/1320**</b>     | Slider 'High Clearance'                 | <a href="#">0150-1588</a> |

\* 2 Bearings or bearing flanges must be ordered separately.  
 \*\* on request

**Motor Cable**



**ORDERING INFORMATION**

| TRAILING CHAIN CABLE     |   |                           |
|--------------------------|---|---------------------------|
| Item                     | Description   | Item-No.                  |
| <b>KS10-EX-Y-Fe/E6k-</b> | Trailing Chain Cable KS10-EX-Y-Fe/E6k-, Custom length | <a href="#">0150-3642</a> |

| CONNECTOR & CABLE (INDIVIDUAL) |                                       |                           |
|--------------------------------|---------------------------------------|---------------------------|
| Item                           | Description                           | Item-No.                  |
| <b>MC01-Y-Fe/m</b>             | Motor Connector Y-Fe/m                | <a href="#">0150-3289</a> |
| <b>MC01-E6k/f-EX</b>           | Connerctor with hexagonal union nut   | <a href="#">0150-3538</a> |
| <b>KS10-05/05/04-EX</b>        | Motor cable for EX applications per m | <a href="#">0150-9010</a> |

**SLIDER MOUNTING**



| Item               | Description   | Item-No.                  |
|--------------------|---|---------------------------|
| <b>PLF01-28-SS</b> | Fixed Bearing Set for 27/28 mm sliders, stainless steel | <a href="#">0150-3297</a> |
| <b>PLL01-27</b>    | Floating Bearing for 27 mm sliders                      | <a href="#">0150-3294</a> |

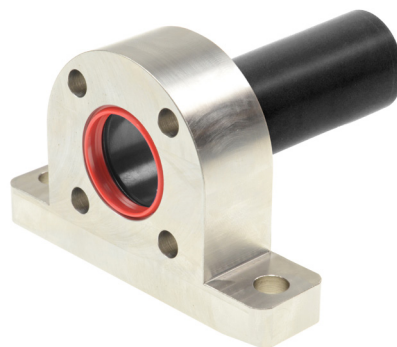
FIND MORE PRODUCT DETAILS IN THE CHAPTER „ACCESSORIES“.

**BEARING**



| Item                       | Description                      | Item-No.                  |
|----------------------------|----------------------------------|---------------------------|
| <b>PB01-48x25-80-E-SSC</b> | Bearing for PS01-48x...-SSC / EX | <a href="#">0150-4190</a> |

FIND MORE PRODUCT DETAILS IN THE CHAPTER „ACCESSORIES“.



| Item                       | Description                             | Item-No.                  |
|----------------------------|---|---------------------------|
| <b>PB03-48x25-80-E-SSC</b> | Bearing Flange for PS01-48x...-SSC / EX | <a href="#">0150-4191</a> |

FIND MORE PRODUCT DETAILS IN THE CHAPTER „ACCESSORIES“.