



SureMotion[®] XYZ Gantries

SureMotion[®] XYZ Gantry Features

The SureMotion[®] XYZ Gantry offers high-performance linear positioning at an economical price. This system uses recirculating ball linear guides which offer smooth motion and high load capacity. A ball screw version is available for higher speeds and duty cycles.

- Rigid linear bearings
- Lightweight precision aluminum base
- Stackable and easy to assemble
- High-Precision
- Customizable
- Lead or ball screw options
- Wide base available for maximum stiffness
- Up to 910mm stroke
- Anti-backlash leadscrew nut
- Proximity or photoelectric sensor kits available
- Motor mounts available for SureServo[®] servo motors and SureStep[®] stepper motors





SureMotion[®] XYZ Gantries

| LAHP-25 Series Linear Actuators | | | | | | | | | |
|----------------------------------|------------|--------|------------|------------|--------|------------------|--------------------------|-------------------------------|---------------------|
| Part Number | Price | Stroke | Type | Efficiency | Pitch | Max Linear Speed | Linear Position Accuracy | Linear Position Repeatability | Drawing Links |
| LAHP-25TM52B3M | \$1,302.00 | 52mm | ball screw | 90% | 3mm | 0.150 m/s | ±0.039 mm | ±0.05 mm | PDF |
| LAHP-25TM52LP25 | \$1,050.00 | 52mm | lead screw | 60% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-25TM102B3M | \$1,416.00 | 102mm | ball screw | 90% | 3mm | 0.150 m/s | ±0.0765 mm | ±0.05 mm | PDF |
| LAHP-25TM102LP25 | \$1,164.00 | 102mm | lead screw | 60% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-25TM152B3M | \$1,485.00 | 152mm | ball screw | 90% | 3mm | 0.150 m/s | ±0.114 mm | ±0.05 mm | PDF |
| LAHP-25TM152LP25 | \$1,235.00 | 152mm | lead screw | 60% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-25TM220B3M | \$1,524.00 | 220mm | ball screw | 90% | 3mm | 0.150 m/s | ±0.165 mm | ±0.05 mm | PDF |
| LAHP-25TM220LP25 | \$1,273.00 | 220mm | lead screw | 60% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-25TM304B3M | \$1,622.00 | 304mm | ball screw | 90% | 3mm | 0.140 m/s | ±0.228 mm | ±0.05 mm | PDF |
| LAHP-25TM304LP25 | \$1,374.00 | 304mm | lead screw | 60% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-25TM404B3M | \$1,914.00 | 404mm | ball screw | 90% | 3mm | 0.085 m/s | ±0.303 mm | ±0.05 mm | PDF |
| LAHP-25TM404LP25 | \$1,665.00 | 404mm | lead screw | 60% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-25TM504B3M | \$2,041.00 | 504mm | ball screw | 90% | 3mm | 0.060 m/s | ±0.378 mm | ±0.05 mm | PDF |
| LAHP-25TM504LP25 | \$1,789.00 | 504mm | lead screw | 60% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |

| LAHP 25 Series Linear Slides | | | | |
|--------------------------------|------------|--------|------------------|---------------------|
| Part Number | Price | Stroke | Max Linear Speed | Drawing Links |
| LAHP-25TM52SF | \$652.00 | 52mm | 1.5 m/s | PDF |
| LAHP-25TM102SF | \$756.00 | 102mm | | PDF |
| LAHP-25TM152SF | \$802.00 | 152mm | | PDF |
| LAHP-25TM220SF | \$816.00 | 220mm | | PDF |
| LAHP-25TM304SF | \$895.00 | 304mm | | PDF |
| LAHP-25TM404SF | \$1,146.00 | 404mm | | PDF |
| LAHP-25TM504SF | \$1,239.00 | 504mm | | PDF |

| LAHP 25 Series Linear Actuators Specifications | | |
|--|-------|------------|
| Max Lateral Load, L_T | 480N | 108 lbf |
| Max Axial Load, L_A | 350N | 78.7 lbf |
| Roll Moment Rating, M_R | 36N-m | 26.6 lb-ft |
| Pitch Moment Rating, M_P | 48N-m | 35.4 lb-ft |
| Yaw Moment Rating, M_Y | 20N-m | 14.6 lb-ft |
| Static Radial Load Rating, C_0 | 5060N | 1138 lbf |
| Reverse Static Radial Load Rating, $-C_0$ | 5060N | 1138 lbf |
| Dynamic Load Rating, C | 3420N | 769 lbf |

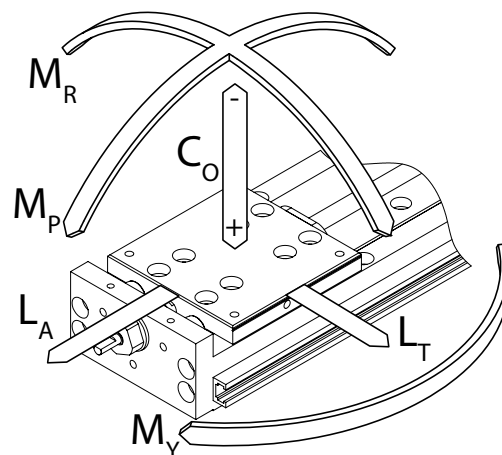


Linear Actuator
[LAHP-25TM52B3M](#)



Linear Slide
[LAHP-25TM52SF](#)

*Same mechanical design as Linear Actuator, not driven





SureMotion[®] XYZ Gantries

| LAHP 33 Series Linear Actuators | | | | | | | | | |
|----------------------------------|------------|--------|------------|------------|--------|------------------|--------------------------|-------------------------------|---------------------|
| Part Number | Price | Stroke | Type | Efficiency | Pitch | Max Linear Speed | Linear Position Accuracy | Linear Position Repeatability | Drawing Links |
| LAHP-33TM210B10M | \$1,607.00 | 210mm | ball screw | 90% | 10mm | 0.500 m/s | ±0.158 mm | ±0.05 mm | PDF |
| LAHP-33TM210LP25 | \$1,427.00 | 210mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33TM310B10M | \$1,815.00 | 310mm | ball screw | 90% | 10mm | 0.500 m/s | ±0.233 mm | ±0.05 mm | PDF |
| LAHP-33TM310LP25 | \$1,634.00 | 310mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33TM410B10M | \$2,049.00 | 410mm | ball screw | 90% | 10mm | 0.467 m/s | ±0.308 mm | ±0.05 mm | PDF |
| LAHP-33TM410LP25 | \$1,869.00 | 410mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33TM510B10M | \$2,297.00 | 510mm | ball screw | 90% | 10mm | 0.333 m/s | ±0.383 mm | ±0.05 mm | PDF |
| LAHP-33TM510LP25 | \$2,116.00 | 510mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33TM610B10M | \$2,726.00 | 610mm | ball screw | 90% | 10mm | 0.250 m/s | ±0.458 mm | ±0.05 mm | PDF |
| LAHP-33TM610LP25 | \$2,547.00 | 610mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33TM810B10M | \$3,154.00 | 810mm | ball screw | 90% | 10mm | 0.133 m/s | ±0.608 mm | ±0.05 mm | PDF |
| LAHP-33TM810LP25 | \$2,974.00 | 810mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33TM910B10M | \$3,403.00 | 910mm | ball screw | 90% | 10mm | 0.122 m/s | ±0.683 mm | ±0.05 mm | PDF |
| LAHP-33TM910LP25 | \$3,224.00 | 910mm | lead screw | 58% | 0.25in | 0.077 m/s | | ±0.013 mm | PDF |

| LAHP 33 Series Linear Slides | | | | |
|--------------------------------|------------|--------|------------------|---------------------|
| Part Number | Price | Stroke | Max Linear Speed | Drawing Links |
| LAHP-33TM210SF | \$979.00 | 210mm | 1.5 m/s | PDF |
| LAHP-33TM310SF | \$1,159.00 | 310mm | | PDF |
| LAHP-33TM410SF | \$1,359.00 | 410mm | | PDF |
| LAHP-33TM510SF | \$1,588.00 | 510mm | | PDF |
| LAHP-33TM610SF | \$1,987.00 | 610mm | | PDF |
| LAHP-33TM810SF | \$2,366.00 | 810mm | | PDF |
| LAHP-33TM910SF | \$2,567.00 | 910mm | | PDF |

| LAHP 33 Series Linear Actuators Specifications | | |
|--|--------|------------|
| Max Lateral Load, L_T | 480N | 108 lbf |
| Max Axial Load, L_A | 890N | 200 lbf |
| Roll Moment Rating, M_R | 109N-m | 80.4 lb-ft |
| Pitch Moment Rating, M_P | 133N-m | 98.1 lb-ft |
| Yaw Moment Rating, M_Y | 25N-m | 18.4 lb-ft |
| Static Radial Load Rating, C_0 | 6760N | 1520 lbf |
| Reverse Static Radial Load Rating, $-C_0$ | 6760N | 1520 lbf |
| Dynamic Load Rating, C | 5120N | 1151 lbf |

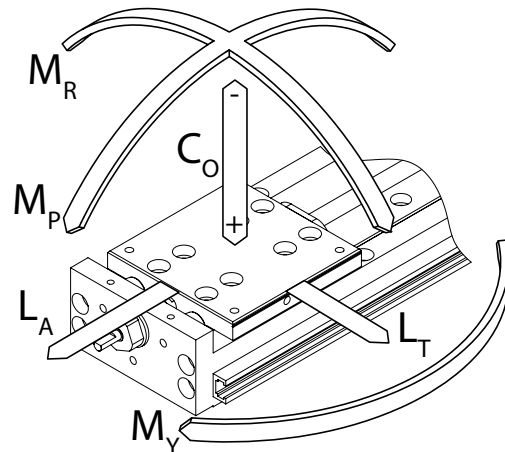


Linear Actuator
[LAHP-33TM210B10M](#)



Linear Slide*
[LAHP-33TM210SF](#)

*Same mechanical design as Linear Actuator, not driven

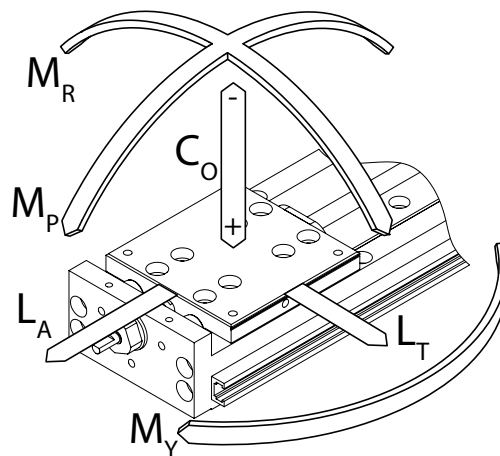




SureMotion[®] XYZ Gantries

| LAHP 33W (Wide) Series Linear Actuators | | | | | | | | | |
|---|------------|--------|------------|------------|--------|------------------|--------------------------|-------------------------------|---------------------|
| Part Number | Price | Stroke | Type | Efficiency | Pitch | Max Linear Speed | Linear Position Accuracy | Linear Position Repeatability | Drawing Links |
| LAHP-33WTM210B10M | \$1,843.00 | 210mm | ball screw | 90% | 10mm | 0.500 m/s | ±0.158 mm | ±0.05 mm | PDF |
| LAHP-33WTM210LP25 | \$1,664.00 | 210mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33WTM310B10M | \$2,072.00 | 310mm | ball screw | 90% | 10mm | 0.500 m/s | ±0.233 mm | ±0.05 mm | PDF |
| LAHP-33WTM310LP25 | \$1,893.00 | 310mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33WTM410B10M | \$2,261.00 | 410mm | ball screw | 90% | 10mm | 0.467 m/s | ±0.308 mm | ±0.05 mm | PDF |
| LAHP-33WTM410LP25 | \$2,081.00 | 410mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33WTM510B10M | \$2,795.00 | 510mm | ball screw | 90% | 10mm | 0.333 m/s | ±0.383 mm | ±0.05 mm | PDF |
| LAHP-33WTM510LP25 | \$2,616.00 | 510mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33WTM610B10M | \$2,985.00 | 610mm | ball screw | 90% | 10mm | 0.250 m/s | ±0.458 mm | ±0.05 mm | PDF |
| LAHP-33WTM610LP25 | \$2,805.00 | 610mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33WTM810B10M | \$3,567.00 | 810mm | ball screw | 90% | 10mm | 0.133 m/s | ±0.608 mm | ±0.05 mm | PDF |
| LAHP-33WTM810LP25 | \$3,389.00 | 810mm | lead screw | 58% | 0.25in | 0.085 m/s | | ±0.013 mm | PDF |
| LAHP-33WTM910B10M | \$3,835.00 | 910mm | ball screw | 90% | 10mm | 0.122 m/s | ±0.683 mm | ±0.05 mm | PDF |
| LAHP-33WTM910LP25 | \$3,655.00 | 910mm | lead screw | 58% | 0.25in | 0.077 m/s | | ±0.013 mm | PDF |

| LAHP 33W Series Linear Actuators Specifications | | |
|---|--------|-------------|
| Max Lateral Load, L_T | 480N | 108 lbf |
| Max Axial Load, L_A | 890N | 200 lbf |
| Roll Moment Rating, M_R | 218N-m | 160.8 lb-ft |
| Pitch Moment Rating, M_P | 133N-m | 98.1 lb-ft |
| Yaw Moment Rating, M_Y | 25N-m | 18.4 lb-ft |
| Static Radial Load Rating, C_0 | 6760N | 1520 lbf |
| Reverse Static Radial Load Rating, $-C_0$ | 6760N | 1520 lbf |
| Dynamic Load Rating, C | 5120N | 1151 lbf |



Linear Actuator (Wide)
[LAHP-33WTM210B10M](#)



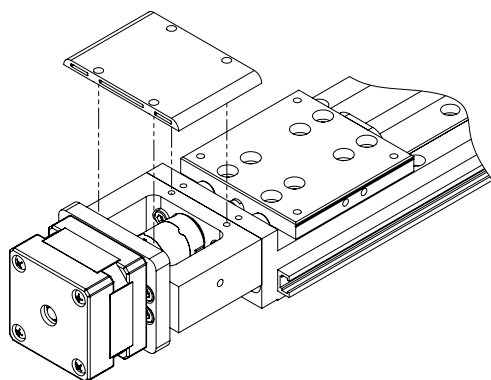
Lead Screw Actuator (Wide)
[LAHP-33WTM210LP25](#)

| LHP Series Motor Brackets | | | | | |
|-----------------------------------|----------|--------------|------------------------|--|---------------------|
| Part Number | Price | Bracket Type | Actuator Compatibility | Motor Compatibility | Drawing Links |
| LAHP-201-25MTRBKT | \$286.00 | axial | LAHP-25 | SureServo [®] SV2L-201B and SV2L-201N | PDF |
| LAHP-201-33MTRBKT | \$287.00 | axial | LAHP-33/33W | SureServo [®] SV2L-201B and SV2L-201N | PDF |
| LAHP-202-33MTRBKT | \$339.00 | axial | LAHP-33/33W | SureServo [®] SV2L-202B , SV2L-202N , SV2L-204B , and SV2L-204N | PDF |
| LAHP-N14-25MTRBKT | \$216.00 | axial | LAHP-25 | SureStep [®] NEMA 14 stepper motors | PDF |
| LAHP-N14-25WRPBKT | \$233.00 | parallel | LAHP-25 | SureStep [®] NEMA 14 stepper motors | PDF |
| LAHP-N17-25MTRBKT | \$218.00 | axial | LAHP-25 | SureStep [®] NEMA 17 stepper motors | PDF |
| LAHP-N17-25WRPBKT | \$310.00 | parallel | LAHP-25 | SureStep [®] NEMA 17 stepper motors | PDF |
| LAHP-N17-33MTRBKT | \$244.00 | axial | LAHP-33/33W | SureStep [®] NEMA 17 stepper motors | PDF |
| LAHP-N17-33WRPBKT | \$188.00 | parallel | LAHP-33/33W | SureStep [®] NEMA 17 stepper motors | PDF |
| LAHP-N23-33MTRBKT | \$244.00 | axial | LAHP-33/33W | SureStep [®] NEMA 23 stepper motors | PDF |
| LAHP-N23-33WRPBKT | \$248.00 | parallel | LAHP-33/33W | SureStep [®] NEMA 23 stepper motors | PDF |

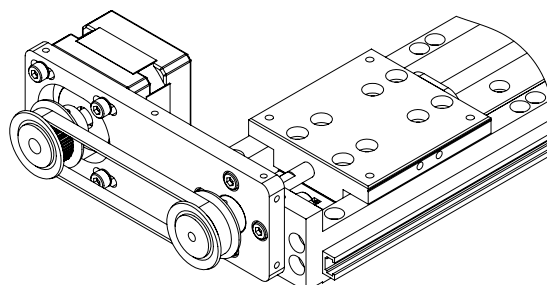


NEMA 14 Axial Motor Bracket*
[LAHP-N14-25MTRBKT](#)

*Coupling Sold Separately



NEMA 14 Parallel Motor Bracket
[LAHP-N14-25WRPBKT](#)





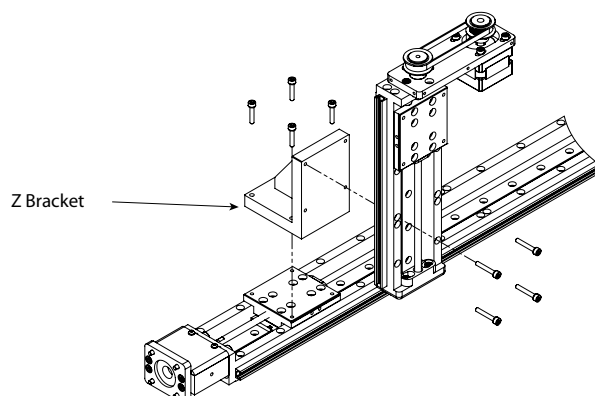
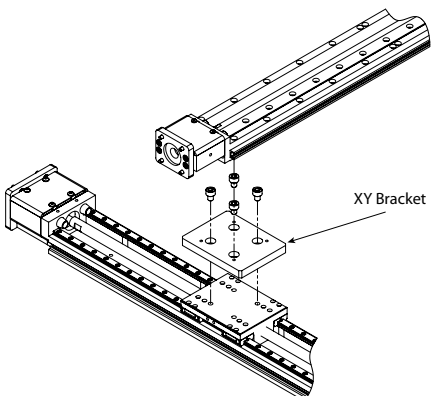
SureMotion[®] XYZ Gantries

| LAHP Series Drive Couplings | | | | | | |
|-----------------------------------|---------|--------------------|-----------------|------------------------|---|---------------------|
| Part Number | Price | Actuator Side Bore | Motor Side Bore | Actuator Compatibility | Motor Compatibility | Drawing Links |
| LAHP-25-CPL-201 | \$44.50 | 3mm | 8mm | LAHP-25 | SureServo [®] SV2L-201B and SV2L-201N | PDF |
| LAHP-25-CPL-N1417 | \$62.00 | 3mm | 5mm | LAHP-25 | SureStep [®] NEMA 14/17 | PDF |
| LAHP-33-CPL-201 | \$89.00 | 5mm | 8mm | LAHP-33/33W | SureServo [®] SV2L-201B and SV2L-201N | PDF |
| LAHP-33-CPL-202 | \$66.00 | 5mm | 14mm | LAHP-33/33W | SureServo [®] SV2L-202B, SV2L-202N, SV2L-204B, and SV2L-204N | PDF |
| LAHP-33-CPL-N17 | \$67.00 | 5mm | 5mm | LAHP-33/33W | SureStep [®] NEMA 17 | PDF |
| LAHP-33CPL-N23 | \$89.00 | 5mm | 1/4in | LAHP-33/33W | SureStep [®] NEMA 23 | PDF |



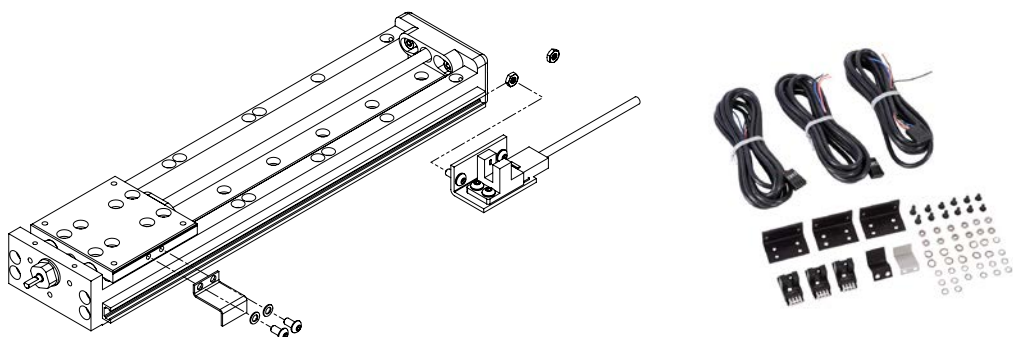
Stepper Motor Coupling (NEMA 14 & 17)
[LAHP-25-CPL-N1417](#)

| LAHP Series XY and Z Brackets | | | | |
|---------------------------------|----------|--------------|---|---------------------|
| Part Number | Price | Bracket Type | Description | Drawing Links |
| LAHP-XYB-25-33 | \$108.00 | XY bracket | SureMotion [®] mounting bracket, anodized aluminum, XY bracket. For use with LAHP-25 to LAHP-33 series actuators. | PDF |
| LAHP-XYB-25-33W | \$125.00 | XY bracket | SureMotion [®] mounting bracket, anodized aluminum, XY bracket. For use with LAHP-25 to LAHP-33W series actuators. | PDF |
| LAHP-XYB-33-33W | \$125.00 | XY bracket | SureMotion [®] mounting bracket, anodized aluminum, XY bracket. For use with LAHP-33 to LAHP-33W series actuators. | PDF |
| LAHP-ZB-25-25 | \$436.00 | Z bracket | SureMotion [®] mounting bracket, anodized aluminum, Z bracket. For use with LAHP-25 to LAHP-25 series actuators. | PDF |
| LAHP-ZB-25-33 | \$436.00 | Z bracket | SureMotion [®] mounting bracket, anodized aluminum, Z bracket. For use with LAHP-25 to LAHP-33 series actuators. | PDF |
| LAHP-ZB-25-33W | \$433.00 | Z bracket | SureMotion [®] mounting bracket, anodized aluminum, Z bracket. For use with LAHP-25 to LAHP-33W series actuators. | PDF |
| LAHP-ZB-33-33 | \$491.00 | Z bracket | SureMotion [®] mounting bracket, anodized aluminum, Z bracket. For use with LAHP-33 to LAHP-33 series actuators. | PDF |
| LAHP-ZB-33-33W | \$510.00 | Z bracket | SureMotion [®] mounting bracket, anodized aluminum, Z bracket. For use with LAHP-33 to LAHP-33W series actuators. | PDF |

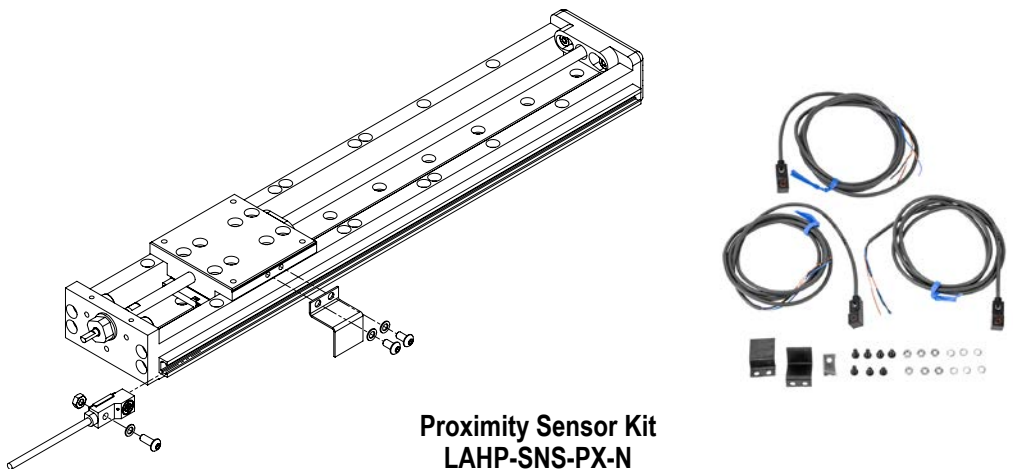


| LAHP Series Sensors | | | | |
|--------------------------------------|----------|----------------------|--------|---------------------|
| Part Number | Price | Sensor Type | Output | Drawing Links |
| LAHP-SNS-PH-N | \$351.00 | photoelectric sensor | NPN | PDF |
| LAHP-SNS-PH-P | \$351.00 | photoelectric sensor | PNP | PDF |
| LAHP-SNS-PX-N | \$401.00 | proximity sensor | NPN | PDF |
| LAHP-SNS-PX-P | \$401.00 | proximity sensor | PNP | PDF |

NOTE: 3 Sensors included in each kit



Photoelectric Sensor Kit
[LAHP-SNS-PH-N](#)



Proximity Sensor Kit
[LAHP-SNS-PX-N](#)

| LAHP Lead Nut Replacement Kit | | |
|---|----------|---|
| Part Number | Price | Description |
| LAHP-25-NUT-LP25 | \$150.00 | SureMotion [®] lead nut, replacement, 0.25in pitch. For use with LAHP-25 series actuators. |
| LAHP-33-NUT-LP25 | \$167.00 | SureMotion [®] lead nut, replacement, 0.25in pitch. For use with LAHP-33 series actuators. |