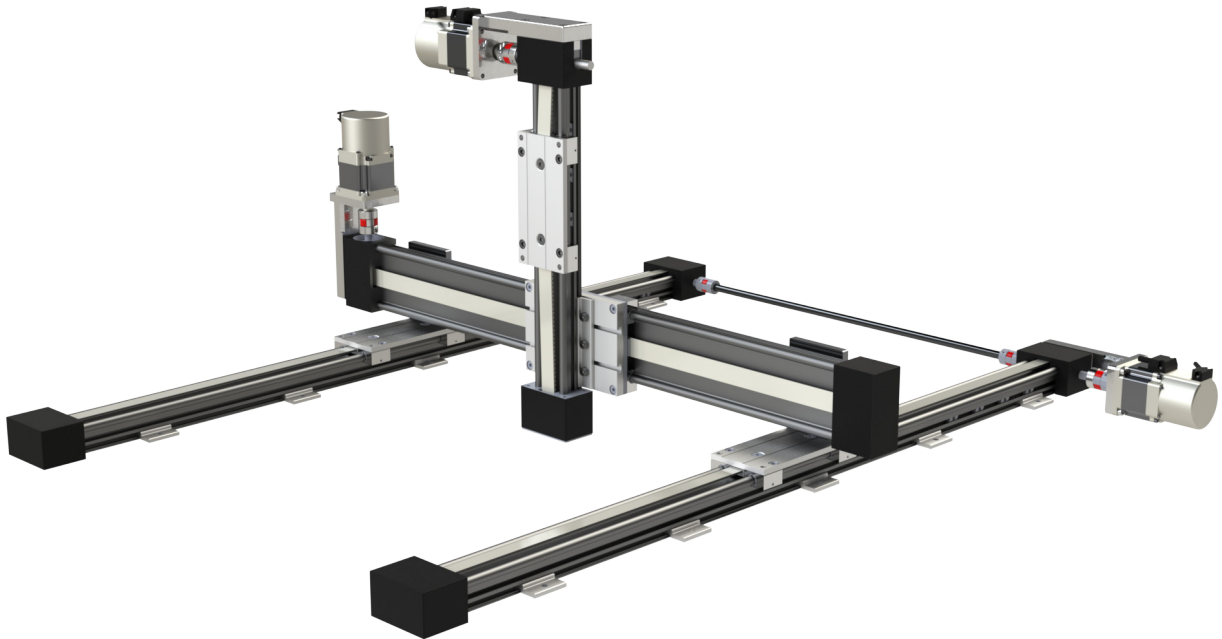




# igus XYZ Gantries Overview

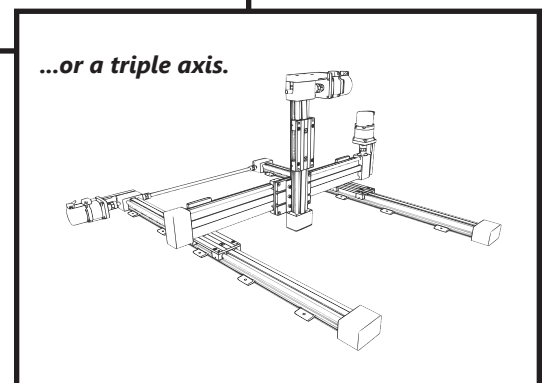
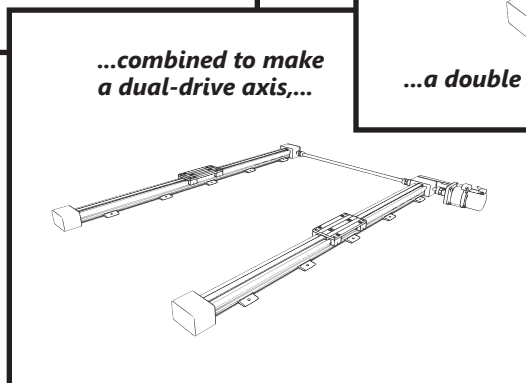
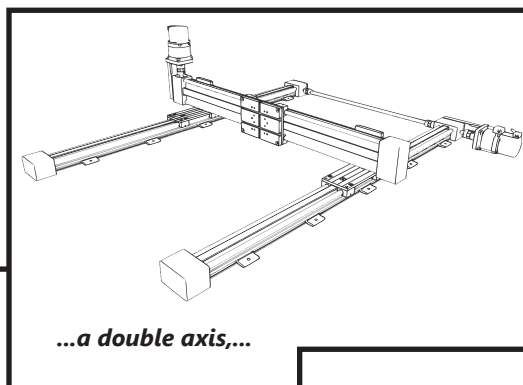
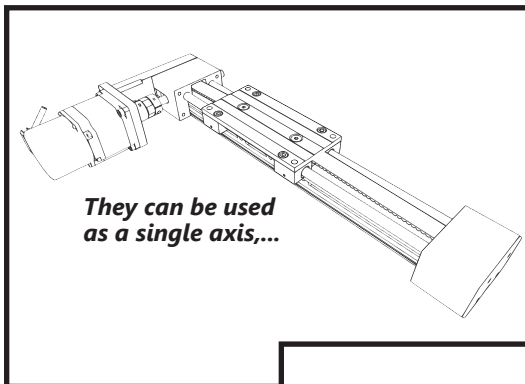
## Features:

- Maintenance and Lubrication free
- Base/Rail material: 6061-T6 Aluminum with hard anodize finish
- Carriage Block Bushing Material: Drylin® iglide®-J
- Drive Type: Belt Drive or Lead Screw
- Adjustable Carriage Block Clearance
- Stackable and easy to assemble
- T-slots enable limit switches to be positioned anywhere
- Up to 1,000 mm Stroke
- Motor mounts for SureServo servo motors and SureStep stepper motors



## Configurations

igus linear actuators can be mounted in any orientation. However, overhead provides the best protection against contamination.

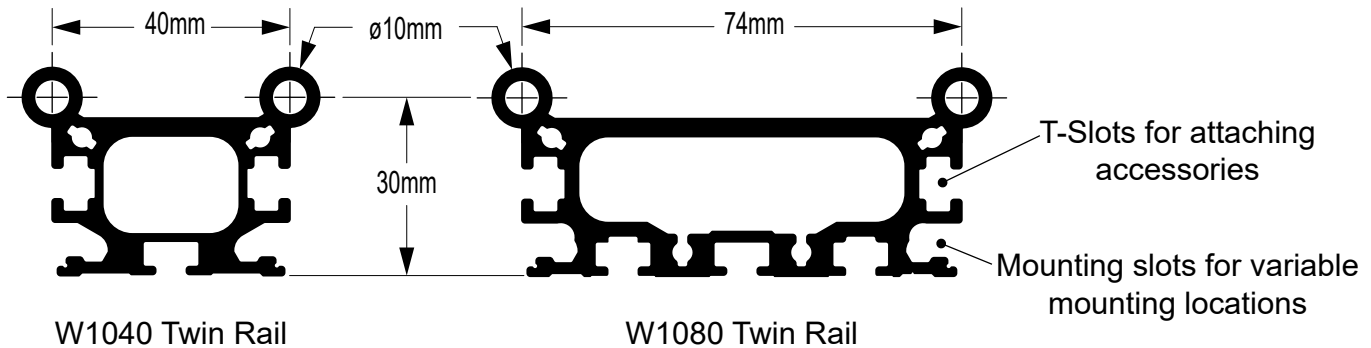




# igus XYZ Gantries Overview

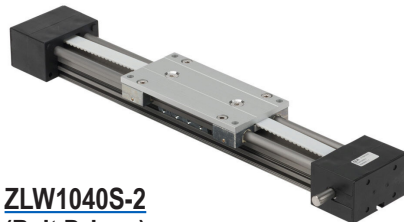
## Rail Sizes

igus linear actuators are available in 2 rail sizes: W1040 and W1080.



## Drive Types

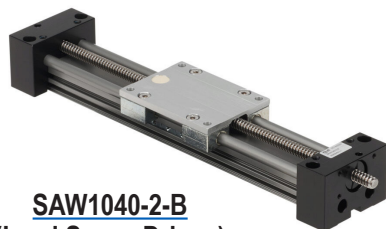
igus linear actuators are available in 2 drive types: ZLW (Belt Driven) and SAW (Lead Screw Driven).



**ZLW1040S-2**  
(Belt Driven)

### **ZLW1040 & ZLW1080**

- Belt Drive
- Max Linear Speed: 1.5 m/s [4.92 ft/s]
- Max Stroke: 1000mm
- Available Accessories
  - Servo Motor Brackets
  - Stepper Motor Brackets
  - XY Plate
  - YZ Plate
  - Dual X connecting Drive Shaft
  - Sensor Bracket
  - Replacement Carriage Block Liners



**SAW1040-2-B**  
(Lead Screw Driven)

### **SAW1040 & SAW1080**

- Lead Screw Drive
- Max Linear Speed: 0.15 m/s [0.49 ft/s]
- Max Stroke: 750mm
- Available Accessories
  - Servo Motor Brackets
  - Stepper Motor Brackets
  - XY Plate
  - YZ Plate
  - Sensor Bracket
  - Replacement Carriage Block Liners
  - Replacement Lead Nut

# igus XYZ Gantries

## ZLW Series (Belt Driven)

- Rail Material: 6061-T6 Aluminum, with Hard Anodize coating
- Carriage Block Bearing Material: iglide® J
- Belt Material: Polyurethane with steel cords, AT5 x 16mm wide
- ZLW1040 has Dual Input shafts, Ø10 mm
- ZLW1080 has Single Input shaft, Ø10 mm
- Adjustable clearance carriage blocks
- 8 T-slot nuts pre-installed, M5-0.8
- Mounting Clamps included



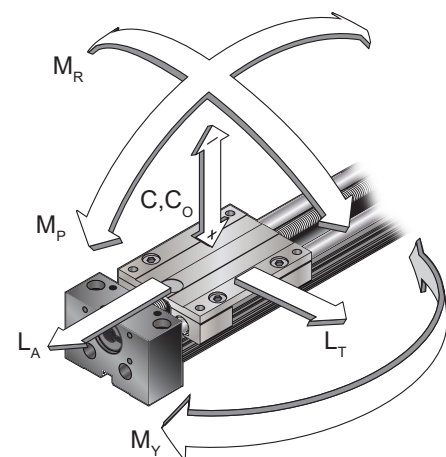
**ZLW1040S-2**

**ZLW1080S-2**

| ZLW Series Linear Actuators (Belt Driven) |          |             |           |                     |            |                         |                                   |                                    |   |                  |                     |
|---|----------|-------------|-----------|---------------------|------------|-------------------------|-----------------------------------|------------------------------------|---|------------------|---------------------|
| Part Number                               | Price    | Stroke (mm) | Mass (kg) | Backlash (in [mm])  | Efficiency | Pitch (in/rev [mm/rev]) | Max Linear Speed (ft/sec [m/sec]) | Linear Position Accuracy (in [mm]) | Linear Position Repeatability (in [mm]) | Idle Torque (Nm) | Drawing Links       |
| <a href="#">ZLW1040S-10</a>               | \$500.00 | 1,000       | 1.8       | 0.008 [0.2]         | 83%        | 2.76 [70]               | 4.92 [1.5]                        | 0.008 [0.2]                        | 0.008 [0.2]                             | 0.3              | <a href="#">PDF</a> |
| <a href="#">ZLW1040S-2</a>                | \$422.00 | 200         | 1.54      |                     |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">ZLW1040S-3</a>                | \$450.00 | 300         | 1.68      |                     |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">ZLW1040S-4</a>                | \$476.00 | 400         | 1.82      |                     |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">ZLW1040S-5</a>                | \$450.00 | 500         | 1.96      |                     |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">ZLW1040S-6</a>                | \$465.00 | 600         | 2.24      |                     |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">ZLW1040S-8</a>                | \$480.00 | 800         | 2.52      |                     |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">ZLW1080S-10</a>               | \$665.00 | 1,000       | 1.05      |                     |            |                         |                                   |                                    |   |                  | 0.008 [0.2]         |
| <a href="#">ZLW1080S-2</a>                | \$620.00 | 200         | 2.01      | <a href="#">PDF</a> |            |                         |                                   |                                    |   |                  |                     |
| <a href="#">ZLW1080S-3</a>                | \$630.00 | 300         | 2.22      | <a href="#">PDF</a> |            |                         |                                   |                                    |   |                  |                     |
| <a href="#">ZLW1080S-4</a>                | \$635.00 | 400         | 2.43      | <a href="#">PDF</a> |            |                         |                                   |                                    |   |                  |                     |
| <a href="#">ZLW1080S-5</a>                | \$640.00 | 500         | 2.64      | <a href="#">PDF</a> |            |                         |                                   |                                    |   |                  |                     |
| <a href="#">ZLW1080S-6</a>                | \$650.00 | 600         | 3.06      | <a href="#">PDF</a> |            |                         |                                   |                                    |   |                  |                     |
| <a href="#">ZLW1080S-8</a>                | \$660.00 | 800         | 3.48      | <a href="#">PDF</a> |            |                         |                                   |                                    |   |                  |                     |

| ZLW Series Linear Actuators (Belt Driven) Load Ratings |                |              |
|--|----------------|--------------|
| Part Number  | ZLW1040S-xx    | ZLW1080S-xx  |
| Dynamic Load Rating, C (lbf [N])                       | 112.41 [500]   |              |
| Static Load Rating, C <sub>0</sub> (lbf [N])           | 1079.14 [4800] |              |
| Reverse Static Load Rating, -C <sub>0</sub> (lbf [N])  | 224.82 [1000]  |              |
| Lateral Load Rating, L <sub>T</sub> (lbf [N])          | 1079.14 [4800] |              |
| Axial Load Rating, L <sub>A</sub> (lbf [N])            | 16.86 [75]     |              |
| Pitch Moment Rating, M <sub>P</sub> (lb-ft [N-m])      | 213.86 [290]   |              |
| Yaw Moment Rating, M <sub>Y</sub> (lb-ft [N-m])        | 125.37 [170]   | 213.86 [290] |
| Roll Moment Rating, M <sub>R</sub> (lb-ft [N-m])       | 70.8 [96]      | 131.27 [178] |

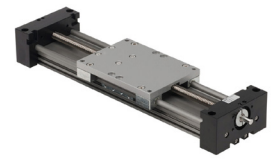
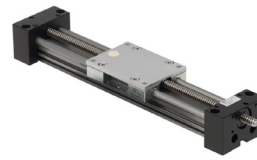
Note: The end blocks should not be used as a mechanical stop. A buffer distance of 1 motor shaft revolution is recommended.



# igus XYZ Gantries

## SAW Series (Lead Screw Driven)

- Rail Material: 6061-T6 Aluminum, with Hard Anodize coating
- Carriage Block Bearing Material: iglide® J
- Lead Screw Material: 300 series Stainless Steel
- Lead Nut Material: iglide® J
- Adjustable clearance carriage blocks
- 8 T-slot nuts pre-installed, M5-0.8
- Mounting Clamps included



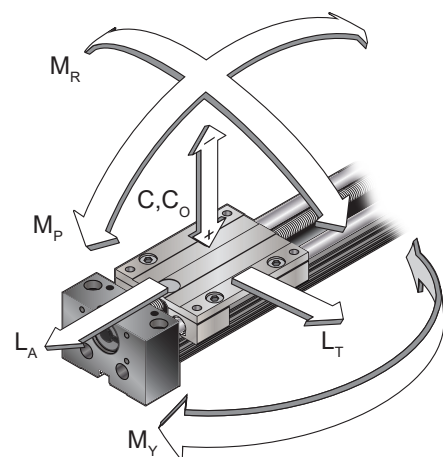
**SAW1040-2-B**

**SAW1080-2-A**

| SAW Series Linear Actuators (Lead Screw Driven) |          |             |           |                    |            |                         |                                   |                                    |   |                  |                     |
|---|----------|-------------|-----------|--------------------|------------|-------------------------|-----------------------------------|------------------------------------|---|------------------|---------------------|
| Part Number                                     | Price    | Stroke (mm) | Mass (kg) | Backlash (in [mm]) | Efficiency | Pitch (in/rev [mm/rev]) | Max Linear Speed (ft/sec [m/sec]) | Linear Position Accuracy (in [mm]) | Linear Position Repeatability (in [mm]) | Idle Torque (Nm) | Drawing Links       |
| <a href="#">SAW1040-05-B</a>                    | \$355.00 | 50          | 1.1       | 0.004 [0.1]        | 67%        | 0.98 [25]               | 1.15 [0.35]                       | 0.004 [0.1]                        | 0.004 [0.1]                             | 0.2              | <a href="#">PDF</a> |
| <a href="#">SAW1040-1.5-B</a>                   | \$370.00 | 150         | 1.2       |                    |            |                         | 1.31 [0.4]                        |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1040-1-B</a>                     | \$360.00 | 100         | 1.15      |                    |            |                         | 0.49 [0.15]                       |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1040-2-B</a>                     | \$375.00 | 200         | 1.3       |                    |            |                         | <a href="#">PDF</a>               |                                    |   |                  |                     |
| <a href="#">SAW1040-3-B</a>                     | \$385.00 | 300         | 2.9       |                    |            |                         | <a href="#">PDF</a>               |                                    |   |                  |                     |
| <a href="#">SAW1080-1.5-A</a>                   | \$638.00 | 150         | 3.1       | 0.004 [0.1]        | 67%        | 0.98 [25]               | 0.49 [0.15]                       | 0.004 [0.1]                        | 0.004 [0.1]                             | 0.3              | <a href="#">PDF</a> |
| <a href="#">SAW1080-1-A</a>                     | \$630.00 | 100         | 3         |                    |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1080-2-A</a>                     | \$637.00 | 200         | 3.3       |                    |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1080-3-A</a>                     | \$651.00 | 300         | 3.5       |                    |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1080-4-A</a>                     | \$675.00 | 400         | 3.7       |                    |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1080-5-A</a>                     | \$700.00 | 500         | 3.9       |                    |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1080-6-A</a>                     | \$725.00 | 600         | 4.1       |                    |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |
| <a href="#">SAW1080-7.5-A</a>                   | \$750.00 | 750         | 4.5       |                    |            |                         |                                   |                                    |   |                  | <a href="#">PDF</a> |

| SAW Series Linear Actuators (Lead Screw Driven) Load Ratings |                |              |
|--|----------------|--------------|
| Part Number  | SAW1080-xx     | SAW1040-xx   |
| Dynamic Load Rating, $C$ (lbf [N])                           | 168.62 [750]   |              |
| Static Load Rating, $C_o$ (lbf [N])                          | 1079.14 [4800] |              |
| Reverse Static Load Rating, $-C_o$ (lbf [N])                 | 224.82 [1000]  |              |
| Lateral Load Rating, $L_T$ (lbf [N])                         | 1079.14 [4800] |              |
| Axial Load Rating, $L_A$ (lbf [N])                           | 44.96 [200]    | 56.21 [250]  |
| Pitch Moment Rating, $M_P$ (lb-ft [N-m])                     | 213.86 [290]   | 125.37 [170] |
| Yaw Moment Rating, $M_Y$ (lb-ft [N-m])                       | 213.86 [290]   | 125.37 [170] |
| Roll Moment Rating, $M_R$ (lb-ft [N-m])                      | 131.27 [178]   | 70.8 [96]    |

Note: The end blocks should not be used as a mechanical stop. A buffer distance of 1 motor shaft revolution is recommended.



# igus XYZ Gantries

## Motor Brackets

- Material: Aluminum
- Open frame for ease of assembly
- Available sizes for Stepper and Server motors

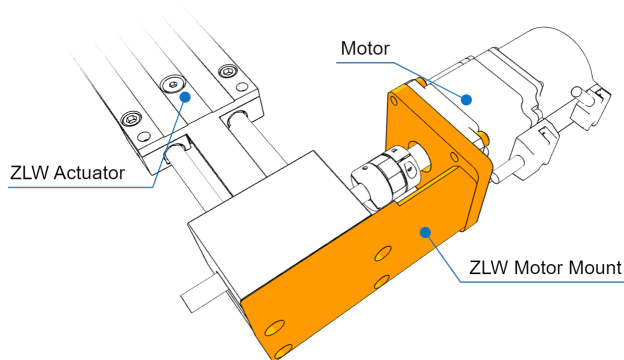
| igus ZLW Motor Brackets    |          |   |  |      |                     |
|----------------------------|----------|---|--|------|---------------------|
| Part Number                | Price    | Fits Motor  | Recommended ADC Coupling Parts*  |      | Drawing Links       |
|                            |          |   | 1040   | 1080 |                     |
| <a href="#">STP17-ZLW</a>  | \$145.00 | NEMA 17 stepper motors<br>(Click here for applicable Stepper Motors)  | <a href="#">SJCA-30C-5</a><br><a href="#">SJCA-30C-10</a><br><a href="#">SJC-30-RD-SLEEVE</a>    |      | <a href="#">PDF</a> |
| <a href="#">STP23-ZLW</a>  | \$145.00 | NEMA 23 stepper motors<br>(Click here for applicable Stepper Motors)  | <a href="#">SJCA-30C-6.35</a><br><a href="#">SJCA-30C-10</a><br><a href="#">SJC-30-RD-SLEEVE</a> |      | <a href="#">PDF</a> |
| <a href="#">SVL201-ZLW</a> | \$175.00 | <a href="#">SVL-201</a><br><a href="#">SVL-201B</a><br><a href="#">SV2L-201B</a><br><a href="#">SV2L-201N</a> | <a href="#">SJCA-30C-8</a><br><a href="#">SJCA-30C-10</a><br><a href="#">SJC-30-RD-SLEEVE</a>    |      | <a href="#">PDF</a> |
| <a href="#">SVL202-ZLW</a> | \$250.00 | <a href="#">SVL-202</a><br><a href="#">SVL-202B</a><br><a href="#">SV2L-202B</a><br><a href="#">SV2L-202N</a> | <a href="#">SJCA-30C-14</a><br><a href="#">SJCA-30C-10</a><br><a href="#">SJC-30-RD-SLEEVE</a>   |      | <a href="#">PDF</a> |

Includes Mounting Hardware.

\*Drive coupling parts sold separately. 2 coupling jaws and 1 spider required for complete coupling subassembly.



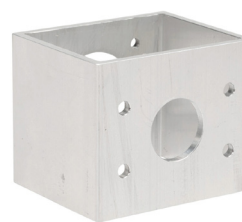
**SVL201-ZLW**



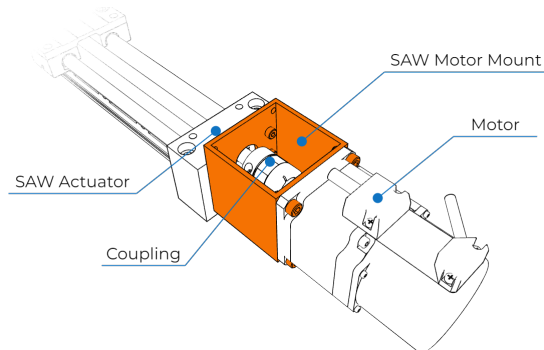
| igus SAW Motor Brackets    |          |   |  |   |                     |
|----------------------------|----------|---|--|---|---------------------|
| Part Number                | Price    | Fits Motor  | Recommended ADC Coupling Parts*  |   | Drawing Links       |
|                            |          |   | 1040   | 1080  |                     |
| <a href="#">STP17-SAW</a>  | \$115.00 | NEMA 17 stepper motors<br>(Click here for applicable Stepper Motors)  | <a href="#">SJCA-30C-5</a><br><a href="#">SJCA-30C-10</a><br><a href="#">SJC-30-RD-SLEEVE</a>    | <a href="#">SJCA-30C-5</a><br><a href="#">SJCA-30C-8</a><br><a href="#">SJC-30-RD-SLEEVE</a>    | <a href="#">PDF</a> |
| <a href="#">STP23-SAW</a>  | \$115.00 | NEMA 23 stepper motors<br>(Click here for applicable Stepper Motors)  | <a href="#">SJCA-30C-6.35</a><br><a href="#">SJCA-30C-10</a><br><a href="#">SJC-30-RD-SLEEVE</a> | <a href="#">SJCA-30C-6.35</a><br><a href="#">SJCA-30C-8</a><br><a href="#">SJC-30-RD-SLEEVE</a> | <a href="#">PDF</a> |
| <a href="#">SVL201-SAW</a> | \$140.00 | <a href="#">SVL-201</a><br><a href="#">SVL-201B</a><br><a href="#">SV2L-201B</a><br><a href="#">SV2L-201N</a> | <a href="#">SJCA-30C-8</a><br><a href="#">SJCA-30C-10</a><br><a href="#">SJC-30-RD-SLEEVE</a>    | <a href="#">SJCA-30C-8 (x2)</a><br><a href="#">SJC-30-RD-SLEEVE</a>                             | <a href="#">PDF</a> |
| <a href="#">SVL202-SAW</a> | \$125.00 | <a href="#">SVL-202</a><br><a href="#">SVL-202B</a><br><a href="#">SV2L-202B</a><br><a href="#">SV2L-202N</a> | <a href="#">SJCA-30C-10</a><br><a href="#">SJCA-30C-14</a><br><a href="#">SJC-30-RD-SLEEVE</a>   | <a href="#">SJCA-30C-14</a><br><a href="#">SJCA-30C-8</a><br><a href="#">SJC-30-RD-SLEEVE</a>   | <a href="#">PDF</a> |

Includes Mounting Hardware.

\*Drive coupling parts sold separately. 2 coupling jaws and 1 spider required for complete coupling subassembly.



**SVL201-SAW**



## Mounting Brackets

- Material: Aluminum
- Mounts directly to Carriage Plate

| igus Mounting Brackets |          |                               |                                   |                                       |                     |
|------------------------|----------|-------------------------------|-----------------------------------|---------------------------------------|---------------------|
| Part Number            | Price    | Description                   | Holds Linear Actuator             | Fits Linear Actuator Carriage Plate   | Drawing Links       |
| <b>A-SWY108003150</b>  | \$136.00 | Y or Z Adapter Plate (Qty. 2) | ZLW1040 and SAW1040               | ZLW1080 and SAW1080 series actuators. | <a href="#">PDF</a> |
| <b>A-AK-0026</b>       | \$155.00 | Y Mounting Bracket (Qty. 2)   | ZLW080 and SAW1080                | ZLW1040 and SAW1040 series actuators. | <a href="#">PDF</a> |
| <b>A-ZSY-104026</b>    | \$3.50   | Mounting Clamp (Qty. 2)*      | All ZLW and SAW series actuators. | All ZLW and SAW series actuators.     | <a href="#">PDF</a> |

Includes Mounting Hardware.  
\*Mounts to Y or Z Adapter Plate.



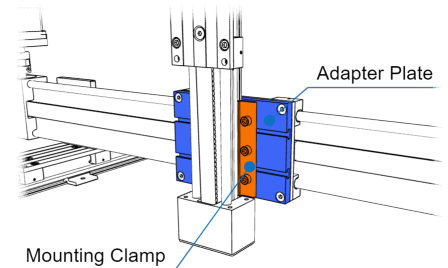
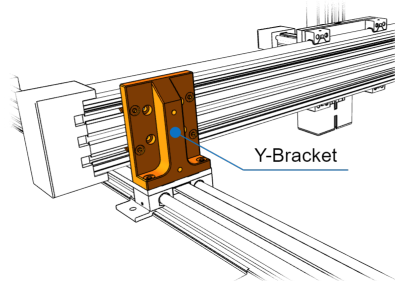
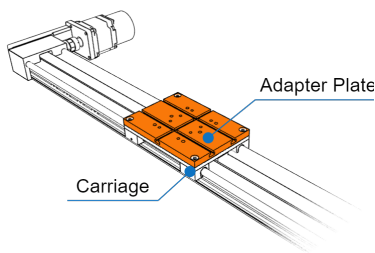
**A-SWY108003150**



**A-AK-0026**



**A-ZSY-104026**





# igus XYZ Gantries

## Accessories

| igus Accessories                     |         |   |                                     |   |     |   |                            |
|--------------------------------------|---------|---|-------------------------------------|---|-----|---|----------------------------|
| Part Number                          | Price   | Description   | Material                            | For Use With  | Qty | Photo   | Drawing Links              |
| <a href="#"><u>A-AWM-10-1000</u></a> | \$33.00 | Drylin R Series Shaft: round connecting, 10mm diameter, 1000mm length         | 6060/6061 aluminum                  | All ZLW series actuators  | 1   |    | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>A-AWM-10-500</u></a>  | \$15.00 | Drylin R Series Shaft: round connecting, 10mm diameter, 500mm length          | 6060/6061 aluminum                  | All ZLW series actuators  | 1   |    | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>A-KSTM-10</u></a>     | \$6.00  | Igubal K Series Mounted Spherical Bearing: 10mm inside diameter, pillow block | Ball: Type L280 polymer<br>Housing: | Drylin R series 10mm shafts   | 1   |    | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>A-JUME-01-10</u></a>  | \$4.50  | Bearing Liner: for ZLW1040 and ZLW1080 series actuators                       | iglide® J                           | ZLW1040 and ZLW1080 series actuators  | 4   |    | N/A                        |
| <a href="#"><u>A-NOR-20634</u></a>   | \$2.50  | M5 Slot Nut: for all ZLW and SAW series actuators                             | zinc plated steel                   | All ZLW and SAW series actuators  | 8   |    | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>IGUS-SENSBKT</u></a>  | \$25.00 | Sensor Bracket: for all ZLW and SAW series actuators                          | anodized aluminum                   | All ZLW and SAW series actuators<br><br>Compatible Sensors: <a href="#"><u>P8-AN-2A</u></a> , <a href="#"><u>P8-AP-2F</u></a> , <a href="#"><u>P8-CP-2E</u></a> | 1   |   | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>NUT1040-25</u></a>    | \$27.00 | Lead Nut: for SAW1040 series actuators  | iglide® J                           | SAW1040 series actuators  | 1   |  | N/A                        |
| <a href="#"><u>NUT1080-25</u></a>    | \$65.00 | Lead Nut: for SAW1080 series actuators  | iglide® J                           | SAW1080 series actuators  | 1   |  | N/A                        |

Includes Mounting Hardware.

