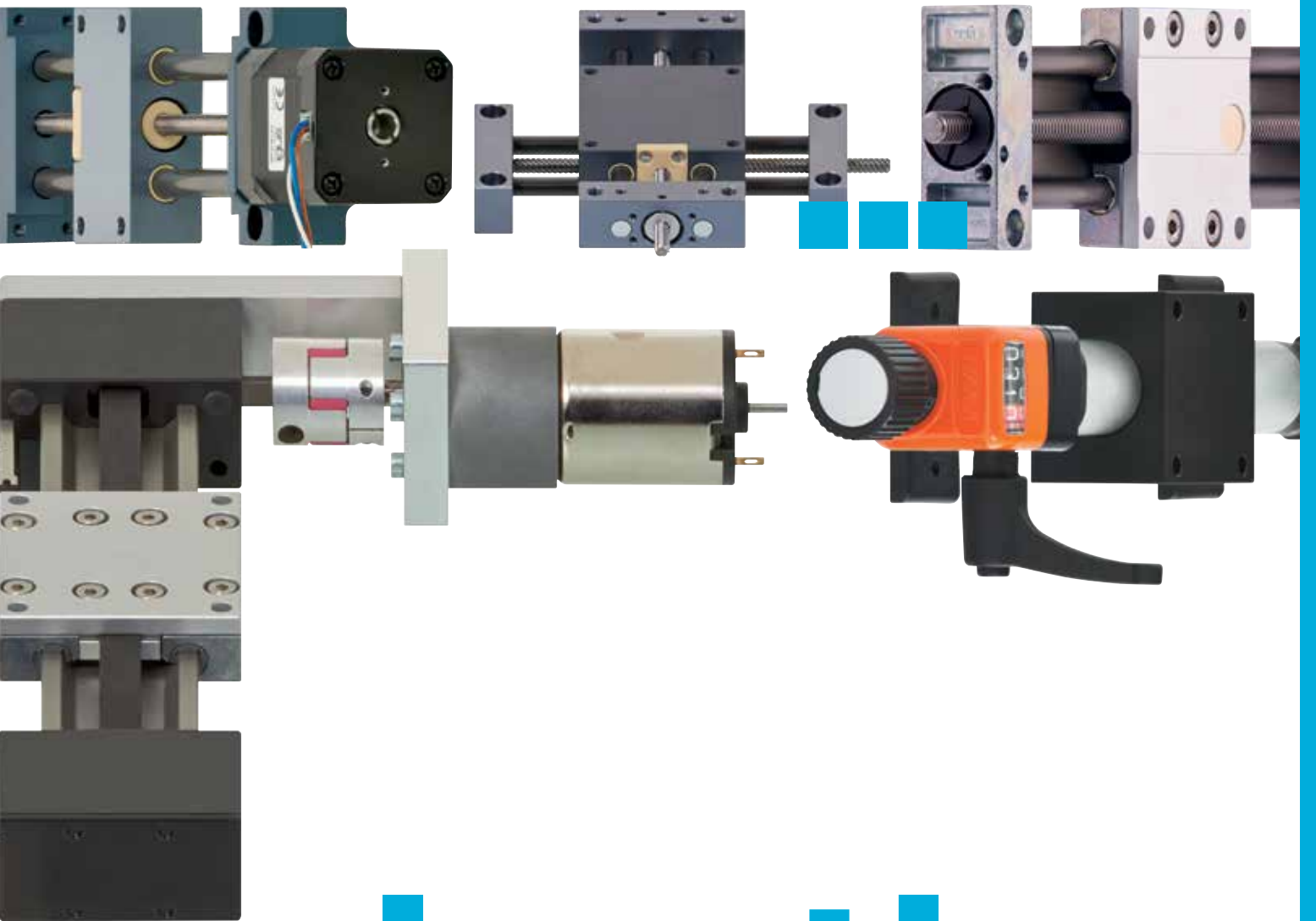


drylin®

drive and actuator
technology



...plastics

Camera/laser adjustment in labeling system

This labeling system uses drylin® SHT and SLW lead screw tables for camera and sensor positioning





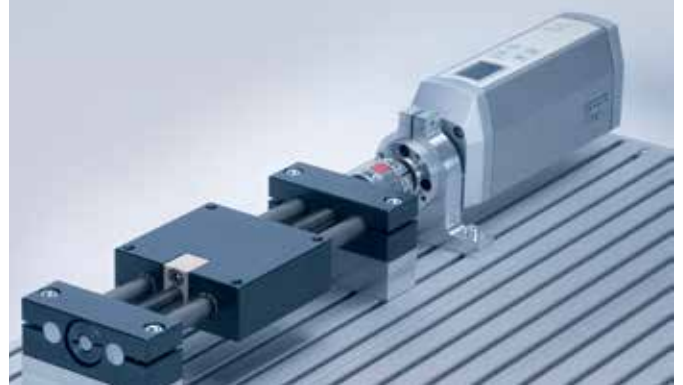
Milling head positioning
drylin® lead screw tables work well in environments with metal shavings due to the lack of wet lubricants.



Height adjustment of coding device
The drylin® linear actuators give variable and precise adjustment, free from any maintenance or lubrication. (Filtec Europe GmbH)



Pick and place
Quick and maintenance-free handling with drylin® belt driven actuators in this gantry application



Electric actuator
drylin® linear actuators combined with an electric actuator for use in a variety of format adjustments. (Festo AG & Co. KG)



Adjustment of inspection camera
drylin® ZLW toothed belt axis in an inspection camera adjustment for checking the position of sealing rings. (OLPE Jena GmbH)



Train ticket detection
The drylin® SLW linear actuators with position indicator and hand wheel adjusts the sensors which detect the edges of the train ticket and any print marks.

SHT linear actuators



Standard version

SHT

► Page 1568



Preloaded version

SHT-PL

► Page 1569



Compact version

SHTC

► Page 1570



With high helix thread

SHTS

► Page 1571

SHT linear actuators



Fast forward
quick release nut
SHT-FF

► Page 1576



XY-table

SHT-XY1578

► Page 1578



Compact

SLW

► Page 1584



Preloaded

SLWE-PL

► Page 1586

SLW linear actuators

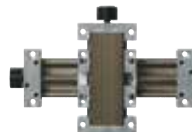
SLW linear actuators



Stainless steel

SLW-ES

► Page 1594



XY-table

SLW-XY

► Page 1596



XY-tables
stainless steel
SLW-XY-ES

► Page 1597

SET easytube linear unit



Single tube linear unit
easytube
SET

► Page 1610



easytube
with double flange
SET-F

► Page 1611



easytube
with single flange
SETB

► Page 1612



easytube
with measurement scale
SETM-SC

► Page 1613

Miniature linear actuators



Preloaded miniature
linear actuator
SLN-27

► Page 1621



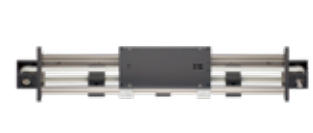
Prism actuator for
precise adjustment
SLNV

► Page 1622



Standard Series
toothed belt actuator
ZLW

► Page 1634



High performance Series
toothed belt actuator
ZLW-AL/-ES

► Page 1636

ZLW belt-driven actuators



For motorized applications
SHT-BB

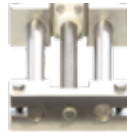
► Page 1572



Stainless steel

SHT-ESJ

► Page 1574



Hygienic design

SHTC-HYD

► Page 1575



Fast forward
quick release nut
SHTC-FF

► Page 1576



For motorized applications
(BB version)
SLWE-BB

► Page 1588



Compact with
high helix thread
SLWS

► Page 1590



With protected
lead screw
SLW-PT

► Page 1592



Dual action
linear system
SLWT

► Page 1593

SAW high-profile actuators



Standard series

SAW

► Page 1602



Direct drive in
short design
SAWC

► Page 1604



With motor
available from stock
DLE-SA

► Page 1605

Flat linear actuators



easytube "light"

SETC

► Page 1614



Ball bearing supported lead
screws based on drylin® T
SLT-BB

► Page 1617



Opposite drive
belt-driven actuator
ZLW-OD

► Page 1638



Twin belt-driven actuator

ZLWT

► Page 1640



Stock length actuator

DLE-SA

► Page 1641



Low-cost econ
belt-driven actuator
ZLN econ

► Page 1642

drylin® drive & actuator technology | Product overview

drylin® electric drive technology - cantilever axes



Dynamic z-axis for linear robot structures
GRW

► Page 1644



Lightweight pick & place actuator
GRQ

► Page 1645



Lightweight z-axis with direct rack drive
GRR

► Page 1646



Z-axis belt-driven actuator

ZAW

► Page 1647

econ entry level series



Mini SHT
Low-cost
SHTP-AWM

► Page 1658



SHTP econ
Low-cost
SHTP

► Page 1659



SHT econ
Low-cost
SHTP-AWM

► Page 1660



Fast Forward with quick release mechanism
SHT-AWM-FF

► Page 1661

drylin® gantry systems



2-axis XY gantry

DLE-LG

► Page 1670



2-axis XXY gantry

DLE-FG

► Page 1672



3-axis XXY gantry

DLE-RG

► Page 1674



roboLink® robot arms

► Page 1681

drylin® accessories - manual components



Accessories for manual positioning and format adjustment

► Page 1703

drylin® accessories - electrical



Motor control systems

► Page 1717

Lead screw motors



Lead screw motors

► Page 1651



Lead screw with precision machined ends

► Page 1652



SLW econ
Low-cost
SLWP-E

► Page 1656



SLT econ
low-cost model
SLTP-E

► Page 1657



Miniature linear actuators

SLN basic

► Page 1662



ZLW econ
Low-cost
ZLW-E

► Page 1663



econ gantry
Low-cost linear robot
DLE-FG-0003

► Page 1664



roboink® rotary axis

► Page 1684

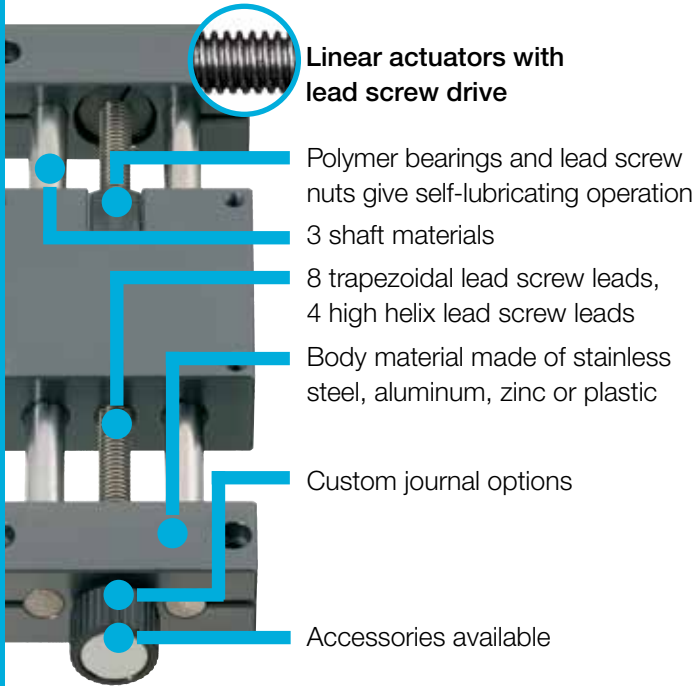


roboink Apero®

► Page 1695

drylin® drive & actuator technology | linear actuators

The drylin® product portfolio provides self-lubricating linear actuators that are driven either by a lead screws, belts, or rack-and-pinion systems. The systems are available in several materials, are modular, and easy to customize to with many motors and manual accessories. They are made to your stroke and application requirements.



Linear actuators with lead screw drive

- Polymer bearings and lead screw nuts give self-lubricating operation
- 3 shaft materials
- 8 trapezoidal lead screw leads, 4 high helix lead screw leads
- Body material made of stainless steel, aluminum, zinc or plastic
- Custom journal options
- Accessories available



When to use it?

- For format adjustments
- In extreme environments
- When a cost-effective, ready-to-fit solution is required
- When corrosion resistance is required
- When a quiet operation is required

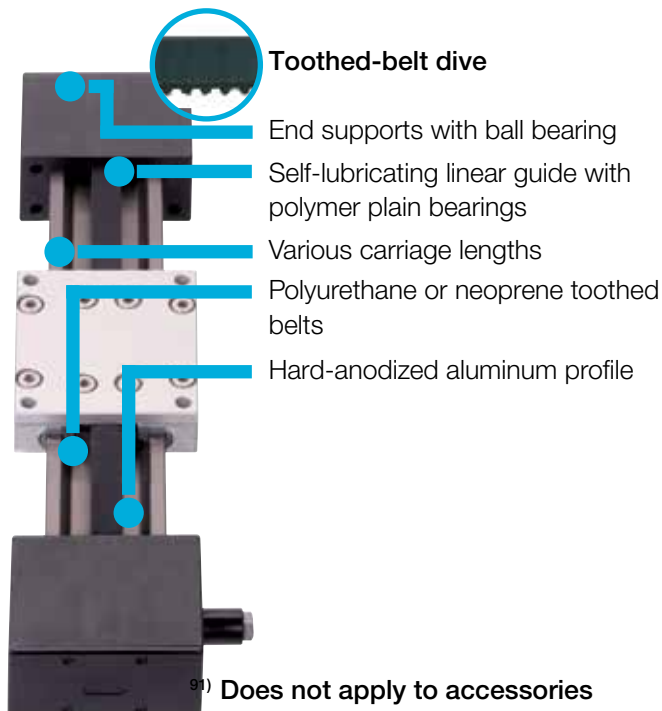


When not to use it?

- When high loads need to travel at highly dynamic forces
- When positioning accuracy <0.1mm is required
- When high running performance is required in continuous operation



Standard **Min. 32°F (0°C)**
Max. +140°F (+60°C)
Stainless steel version with iglide® X
Min. 32°F (0°C)
Max. +356°F (180°C)



Toothed-belt drive

- End supports with ball bearing
- Self-lubricating linear guide with polymer plain bearings
- Various carriage lengths
- Polyurethane or neoprene toothed belts
- Hard-anodized aluminum profile

⁹¹⁾ Does not apply to accessories



When to use it?

- Fast positioning of small loads
- Quiet operation
- Slim design
- Underwater use with UW belt
- Cost-effective solution as basic version
- Continuous operation

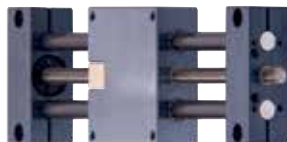


When not to use it?

- When high loads need to travel at highly dynamic forces
- When positioning accuracy <0.1mm is required



Standard⁹¹⁾ **Min. 32°F (0°C)**
Max. +140°F (+60°C)
LT version **min. -22°F (-30°C)**
Max. +140°F (+60°C)



SHT linear actuators

- Drive: Trapezoidal or high-helix lead screw
- Ball-bearing mounted lead screw drives for higher speeds
- Carriage in either quad block or compact design

► Page 1565



SAW linear actuators

- Drive: ball bearing supported lead screw
- Rail height optimized for motor connection
- Extremely torsion-resistant

► Page 1599



SLT linear actuators

- Multiple lead screw options
- Adjustable drylin® T miniature carriage
- Lead screw arrangement can be selected either left or right

► Page 1615



ZLW toothed belt axes

- Versions basic, standard and low-cost econ
- For fast positioning
- End supports with ball bearing

► Page 1623



drylin® automation

- Self-lubricating linear actuator with motor
- Ready to install with motor, cable and initiator
- Drive: Lead screw, toothed belt or rack

► Page 1665



SLW linear actuators

- Based on drylin® W
- Drive: Trapezoidal or high-helix lead screw
- Torsion-resistant double shaft systems

► Page 1581



SET easytube linear actuators

- Corrosion-resistant
- Lightweight due to aluminum and plastic
- Simple, smooth design, protected lead screw

► Page 1607



SLN miniature linear actuators

- Based on drylin® N, low installation height
- Basic, adjustable and preload versions

► Page 1619



econ entry-level series

- Lightweight
- Cost-effective
- Corrosion-resistant

► Page 1653



GRW Gear rack drive

- Rack-and-pinion
- Ideal for vertical z-axes

► Page 1644



Accessories for linear actuators

- Position indicator, hand wheels, lead screw clamps, angular drives and more

► Page 1703

Linear actuator						
Linear actuator	Shaft Ø	Thread	Lead screw OD x Lead [mm]	Lead screw Self-locking	Carriage length [mm]	Motor connection possible
	[mm]					
SHT(C)-08	8	TR	6x2	+	35 / 65	+
		DS	6.35x2.54	+	35 / 65	+
		DS	6.35x5.08	-	35 / 65	+
		DS	6.35x12.7	-	35 / 65	+
		DS	6.35x25.4	-	35 / 65	+
SHT(C)-12	10	TR	10x2	+	30 / 85	+
		TR	10x3	+	30 / 85	+
		DS	10x12	-	30 / 85	+
		DS	10x25	-	30 / 85	+
		DS	10x50	-	30 / 85	+
SHT(C)-20	20	TR	18x4	+	36 / 130	+
		TR	18x8	+	36 / 130	+
		DS	18x24	-	36 / 130	+
		DS	18x40	-	36 / 130	+
		DS	18x80	-	36 / 130	+
		DS	18x100	-	36 / 130	+
SHT(C)-30	30	TR	25x4	+	50 / 180	+
SHTC-40	40	TR	26x5	+	70	-
SHTC-50	50	TR	30x6	+	80	-
SLW-0630 SLW-0660	5	TR	8x1.5	+	60 / 100	+(121)
		DS	8x10	-	60 / 100	+(121)
		DS	8x15	-	60 / 100	+(121)
SLW-1040 SLW-1080 SLW-10120	10	TR	10x2	+	69 / 100 / 150	+(121)
		TR	10x3	+	69 / 100 / 150	+(121)
		DS	10x12	-	69 / 100 / 150	+(121)
		DS	10x25	-	69 / 100 / 150	+(121)
		DS	10x50	-	69 / 100 / 150	+(121)
SLW-1660	16	TR	14x4	+	100 / 150 / 200	+
		DS	14x25	-	100 / 150 / 200	+
		DS	14x30	-	100 / 150 / 200	+
		DS	14x40.6	-	100 / 150 / 200	+
SLW-2080	20	TR	18x4	+	150 / 200 / 250	+
		TR	18x8	+	150 / 200 / 250	+
		DS	18x24	-	150 / 200 / 250	+
		DS	18x40	-	150 / 200 / 250	+
		DS	18x80	-	150 / 200 / 250	+
		DS	18x100	-	150 / 200 / 250	+
SLW-25120	25	TR	25x4	+	150 / 200 / 250	+

¹²⁰⁾ When configuring your linear actuator, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

drylin® drive & actuator technology | Technical data

Lead screw with plain bearing support ¹²¹⁾					Ball bearing supported lead screws				
Max. stroke length ¹²⁰⁾	Max. static, axial load capacity	Max. static, radial load capacity	Max. speed	Max. linear feed rate	Max. stroke length ¹²⁰⁾	Max. static, axial load capacity	Max. static, radial load capacity	Max. speed	Max. linear feed rate
[mm]	[N]	[N]	[rpm]	[m/min]	[mm]	[N]	[N]	[rpm]	[m/min]
300	100	400	100	0.2	300	100	400	1,000	2.0
300	100	400	100	0.254	300	100	400	1,000	2.54
300	70	280	100	0.508	300	70	280	750	3.81
300	35	140	100	1.27	300	35	140	600	7.62
300	18	72	100	2.54	300	18	72	500	12.7
750	700	2,800	100	0.2	500	500	2,000	1,500	3.0
750	500	2,000	100	0.3	500	500	2,000	1,000	3.0
750	400	1,600	100	1.2	500	300	1,200	400	4.8
750	250	1,000	100	2.5	500	250	1,000	300	7.5
750	100	400	100	5.0	500	100	400	200	10.0
1,000	1,600	6,400	100	0.4	900	1,250	5,000	1,500	6.0
1,000	1,200	4,800	100	0.8	900	1,200	4,800	1,000	8.0
1,000	800	3,200	100	2.4	900	800	3,200	1,000	24.0
1,000	500	2,000	100	4.0	900	500	2,000	500	20.0
1,000	250	1,000	100	8.0	900	250	1,000	300	24.0
1,000	200	800	100	10.0	900	200	800	300	30.0
1,250	2,500	10,000	100	0.5	1,000	1,500	6,000	1,200	6.0
1,500	4,000	16,000	100	0.5	–	–	–	–	–
1,500	6,250	25,000	100	0.6	–	–	–	–	–
300	100	400	100	0.15	300	100	400	1,000	1.5
300	100	400	100	1.0	300	100	400	600	6.0
300	100	400	100	1.5	300	100	400	600	9.0
750	700	2,800	100	0.2	500	500	2,000	1,500	3.0
750	500	2,000	100	0.3	500	500	2,000	1,000	3.0
750	400	1,600	100	1.2	500	300	1,200	400	4.8
750	250	1,000	100	2.5	500	250	1,000	300	7.5
750	100	400	100	5.0	500	100	400	200	10.0
750	1,200	4,800	100	0.4	750	700	2800	1,500	6.0
750	1,200	4,800	100	2.5	750	350	1,400	500	12.5
750	400	1,600	100	3.0	750	350	1,400	500	15.0
750	250	1,000	100	4.06	750	250	1,000	500	20.3
1,000	1,600	6,400	100	0.4	900	1,250	5,000	1,500	6.0
1,000	1,200	4,800	100	0.8	900	1,200	4,800	1,000	8.0
1,000	800	3,200	100	2.4	900	800	3,200	1,000	24.0
1,000	500	2,000	100	4.0	900	500	2,000	500	20.0
1,000	250	1,000	100	8.0	900	250	1,000	300	24.0
1,000	200	800	100	10.0	900	200	800	300	30.0
1,250	2,500	10,000	100	0.5	1,000	1,500	6,000	1,200	6.0

¹²¹⁾ Linear actuator on plain bearings require an aluminum shaft end support when connected to a motor. The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under consideration of the individual parameters for usage can be checked online at www.igus.com/linearmodule-finder.

Linear actuator						
Linear actuator	Shaft Ø	Thread	Lead screw OD x Lead [mm]	Lead screw Self-locking	Carriage length	Motor connection possible
	[mm]				[mm]	
SAW-0630	8	TR	8x1.5	+	60 / 100	+
		DS	8x10	-	60 / 100	+
		DS	8x15	-	60 / 100	+
SAW-0660	6	TR	10x2	+	100	+
		DS	10x12	-	100	+
		DS	10x25	-	100	+
		DS	10x50	-	100	+
SAW-1040	10	TR	10x2	+	69 / 100 / 150	+
		DS	10x12	-	69 / 100 / 150	+
		DS	10x25	-	69 / 100 / 150	+
		DS	10x50	-	69 / 100 / 150	+
SAW-1080	10	TR	12x3	+	100 / 150	+
		TR	12x6P3	+	100 / 150	+
		DS	12x5	+	100 / 150	+
		DS	12x25	-	100 / 150	+
SAW-1660	16	TR	14x4	+	100 / 150 / 200	+
		DS	14x25	-	100 / 150 / 200	+
		DS	14x30	-	100 / 150 / 200	+
		DS	14x40.6	-	100 / 150 / 200	+
SLT-0412	5	TR	8x1.5	+	38	+
		DS	8x10	-	38	+
		DS	8x15	-	38	+
SLT-0415	10	TR	12x3	+	45	+
		TR	12x6P3	+	45	+
		DS	12x5	+	45	+
SLN(V)-27	27	DS	12x25	-	45	+
		M	M5x0.8	+	35	-
		DS	6.35x2.54	+	35	+
		DS	6.35x5.08	-	35	+
		DS	6.35x12.7	-	35	+
SHTP-01-06	6	DS	6.35x25.4	-	35	+
		M	M8x1.25	+	45	-
		TR	6x2	+	36	-
		TR	10x2	+	55	-
		TR	10x2	+	55	-
SET-12	12	M	M4x0.7	+	45	-
SET-25	25	TR	10x2	+	36	-
SET-30	30	TR	12x3	+	55	-

¹²⁰⁾ When configuring your linear actuator, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

drylin® drive & actuator technology | Technical data

Lead screw with plain bearing support ¹²¹⁾					Ball bearing supported lead screws				
Max. stroke length ¹²⁰⁾	Max. static, axial load capacity	Max. static, radial load capacity	Max. speed	Max. linear feed rate	Max. stroke length ¹²⁰⁾	Max. static, axial load capacity	Max. static, radial load capacity	Max. speed	Max. linear feed rate
[mm]	[N]	[N]	[rpm]	[m/min]	[mm]	[N]	[N]	[rpm]	[m/min]
-	-	-	-	-	300	100	400	1,000	1.5
-	-	-	-	-	300	100	400	600	6.0
-	-	-	-	-	300	100	400	600	9.0
-	-	-	-	-	500	100	400	1,000	0.7
-	-	-	-	-	500	100	400	400	4.8
-	-	-	-	-	500	100	400	300	7.5
-	-	-	-	-	500	100	400	200	10.0
-	-	-	-	-	500	500	2,000	1,500	3.0
-	-	-	-	-	500	300	1,200	400	4.8
-	-	-	-	-	500	250	1,000	300	7.5
-	-	-	-	-	500	100	400	200	10.0
-	-	-	-	-	750	750	3,000	1,500	4.5
-	-	-	-	-	750	400	1,600	1,000	6.0
-	-	-	-	-	750	200	800	300	1.5
-	-	-	-	-	750	200	800	300	7.5
-	-	-	-	-	750	700	2,800	1,500	6.0
-	-	-	-	-	750	350	1,400	500	12.5
-	-	-	-	-	750	350	1,400	500	15.0
-	-	-	-	-	750	250	1,000	500	20.3
-	-	-	-	-	300	100	400	1,000	1.5
-	-	-	-	-	300	25	100	600	6.0
-	-	-	-	-	300	25	100	600	9.0
-	-	-	-	-	600	200	800	1,500	4.5
-	-	-	-	-	600	100	400	750	4.5
-	-	-	-	-	600	100	400	750	3.75
-	-	-	-	-	600	100	400	750	18.75
250	10	40	100	0.08	250	10	40	250	0.2
250	10	40	100	0.254	250	10	40	500	1.27
250	10	40	100	0.508	250	10	40	500	2.54
250	10	40	100	1.27	250	10	40	500	6.35
250	10	40	100	2.54	250	10	40	500	12.7
300	50	200	100	0.1	-	-	-	-	-
350	100	400	100	0.2	-	-	-	-	-
500	200	800	100	0.2	-	-	-	-	-
500	200	800	100	0.2	-	-	-	-	-
200	10	40	100	0.1	-	-	-	-	-
750	150	600	100	0.2	-	-	-	-	-
850	200	800	100	0.3	-	-	-	-	-

¹²¹⁾ Linear actuator on plain bearings require an aluminum shaft end support when connected to a motor. The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under consideration of the individual parameters for usage can be checked online at www.igus.com/linearmodule-finder.

The following options can be configured online with the SHT configurator:
www.igus.com/drylinHTSconfigurator

Pre-load (PL)

The axial pre-load reduces the backlash of the system. Positioning and repeatability can be optimized. The required drive torque increases only slightly.



For SHT, SLW and SAW linear modules

Zero-backlash (ZB)

Self-adjusting zero-backlash lead screw nuts are available for SHT modules in sizes 08 and 12. For movements that require repeatability and which use through high helix thread, the ZB function provides a minimal lifelong backlash.



Linear modules with ball-bearing mounted lead screw

The SHT and SLW linear modules with ball bearing supported lead screws give reduced vibration, and increased dynamic speed capability. These are also suitable for applications with motor drives. Ball bearings are recommended when RPM's exceed 100.



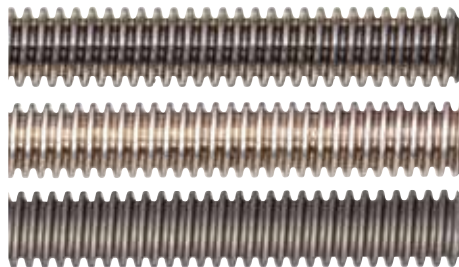
Shaft materials

When using linear modules of the SHT series, you can choose a shaft material from steel, stainless steel, or hard-anodized aluminum (standard).



Lead screw materials

All drylin® linear modules can be delivered with self-locking trapezoidal steel and stainless steel lead screws; upon request, these can also be made from hard-anodized aluminum. The SHT and SLW series can also be configured with stainless steel high helix lead screws. This allows for much higher leads and drive speeds, but without the self-locking feature.



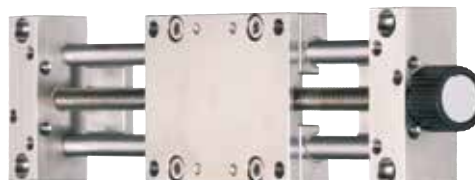
Bearing materials

The bearing surfaces of the drylin® drive units are equipped with lubrication and maintenance-free igus® high performance polymers. Options include materials for high temperature application up to +356°F (+180°C) (iglide® X, SHT-ES series), and also for FDA-compliant environments (iglide® A160).



Complete solutions made of stainless steel

The use of AISI 316Ti and AISI 304 makes of the guides resistant to seawater and chemical contact corrosion. The guide shafts are also made from AISI 316Ti.



drylin® drive & actuator technology | Technical options

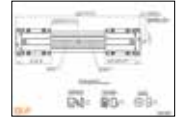
Linear modules with several carriages

All drylin® linear modules can be configured with multiple carriages. The short carriages from the SHTC series are ideally suited for this.



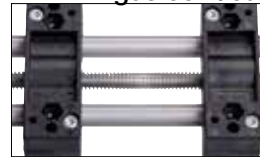
Online customer drawing

► www.igus.com/customerdrawing



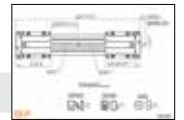
Right/left opposite drive

Self-centering left/right screws and carriages are available for most series.



Online customer drawing

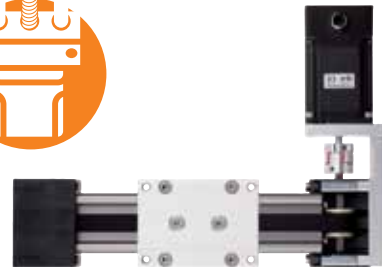
► www.igus.com/customerdrawing



Linear axes with motor: www.igus.com/drylinE-finder

Linear actuators with motor

Several drylin® drive units are compatible with the drylin® E motor kits and assemblies. As linear actuators, they can be easily and quickly configured directly to the matching igus® stepper motors, power cables and proximity switches – assembled and tested from one source.



More options:

Adjustable radial clearance

The "turn to fit" feature allows individual clearance adjustment by hand. The adjustment is done in 0.01-mm increments and cannot be triggered unintentionally during the operation (SLW series 10-20).



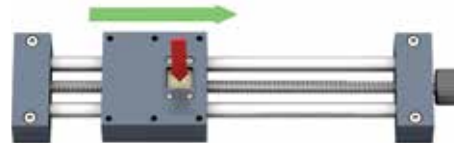
For SLW and SAW linear modules



For SHT linear modules

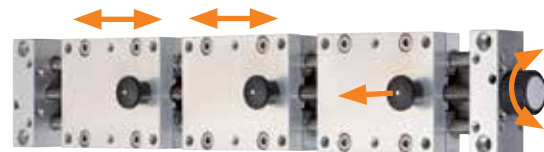
Fast Forward (FF)

SHT linear modules and SHTP plastic linear modules with quick-release mechanism offer a combination of accurate positioning and fast manual adjustment.



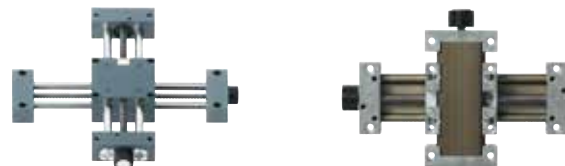
drylin® SLW "Stop and Go"

This additional function for linear carriages enables the use of an unlimited number of carriages on one guide – controlled by only one lead screw. The connection to the lead screw is engaged or released via the button.



XY-tables

The SHT and SLW linear modules can also be configured as XY-tables. XY adjustments can therefore be given with a single unit.



drylin® drive & actuator technology | Design & calculation

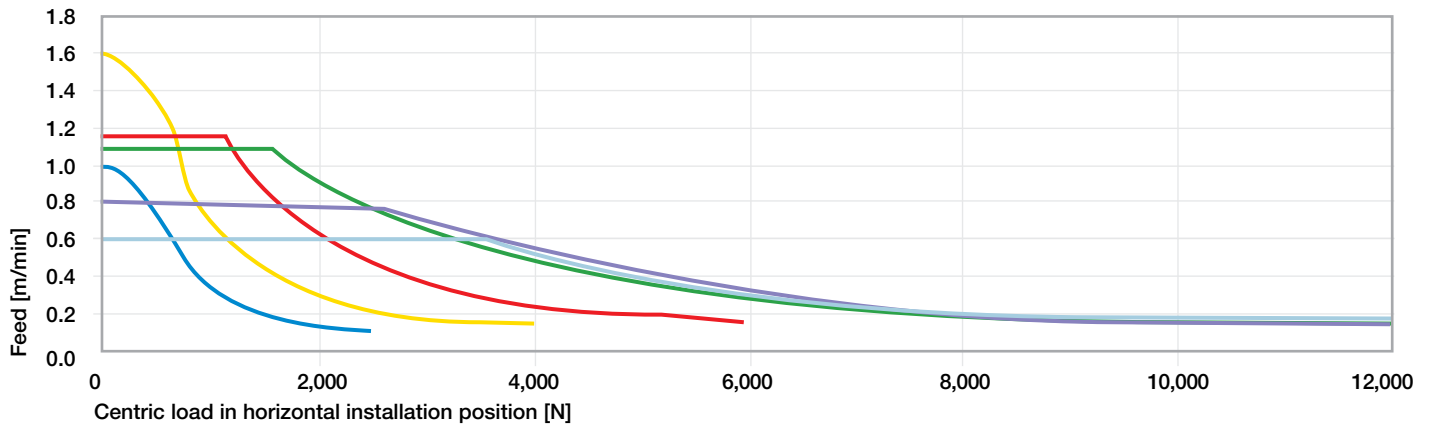
drylin® linear modules have been developed for position settings of all types. The linear setting is achieved by means of trapezoidal lead screws that can be operated manually or by motor. The maximum linear continuous speed is 1.6m/min depending on thread pitch and load. The suitability of the lead screw linear units for an application can be checked using the graphs below.

HORIZONTAL

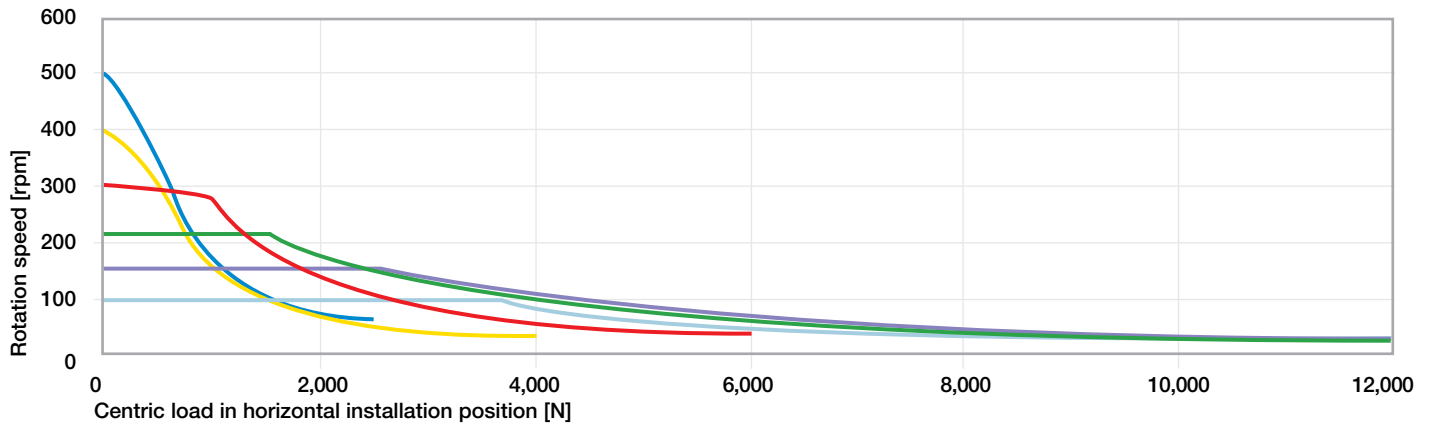


HORIZONTAL

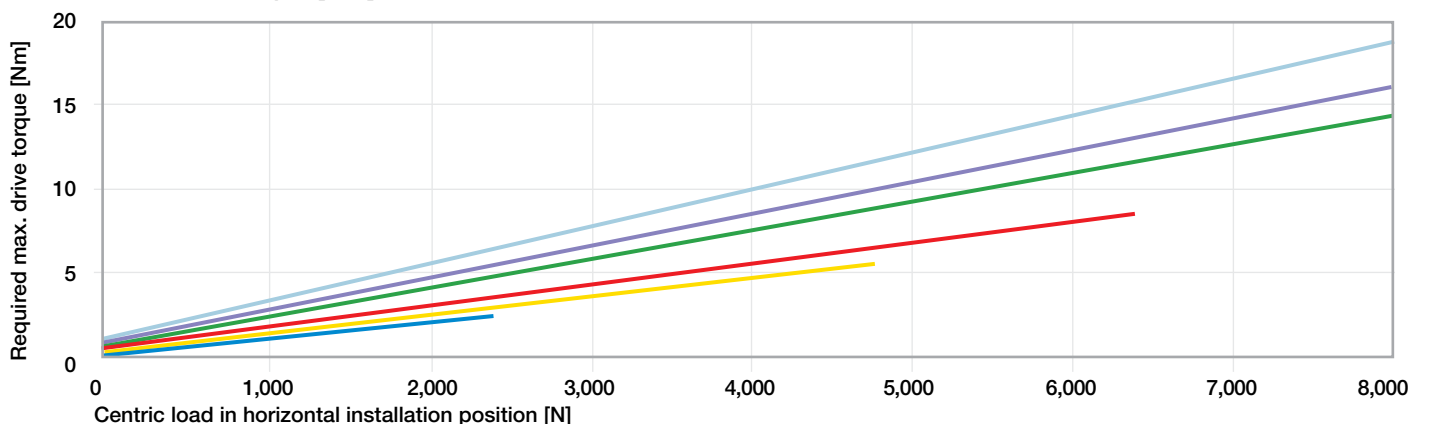
Maximum feed [m/min.]



Max. rotation speed [rpm]



Max. drive torque [Nm]



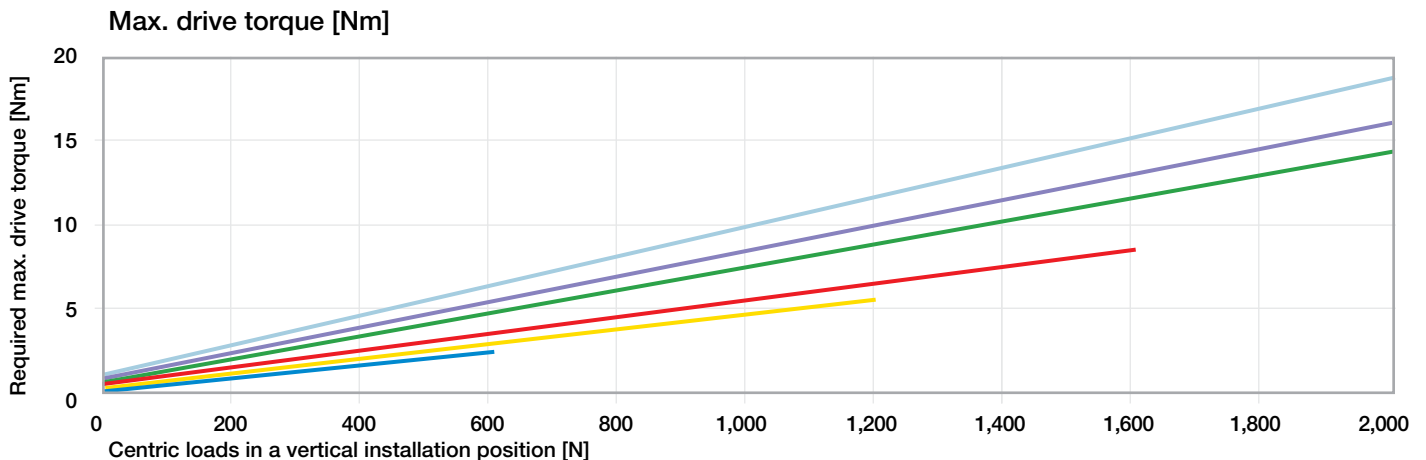
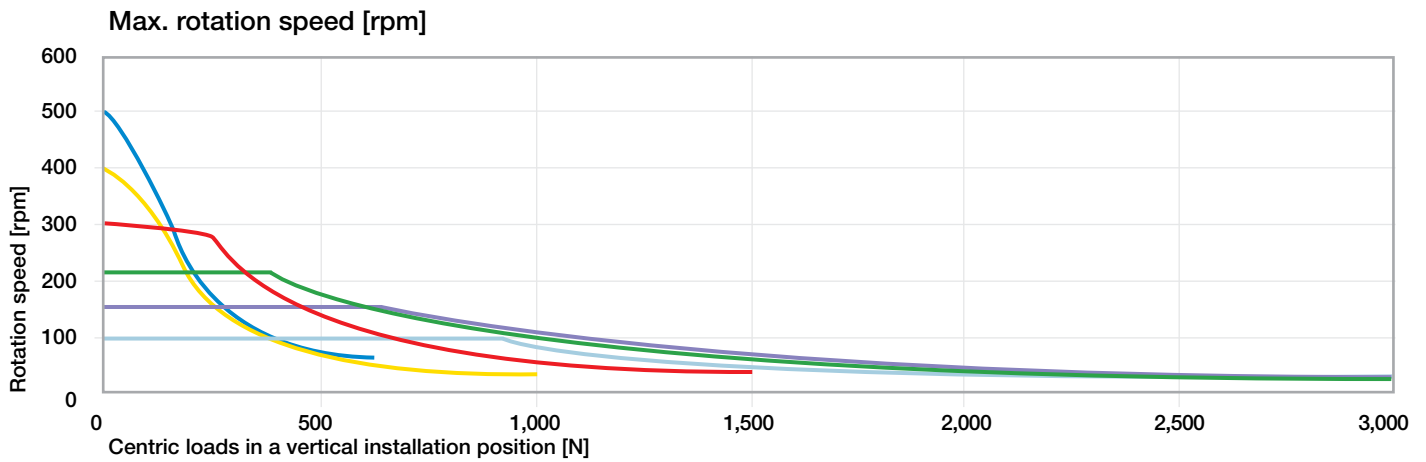
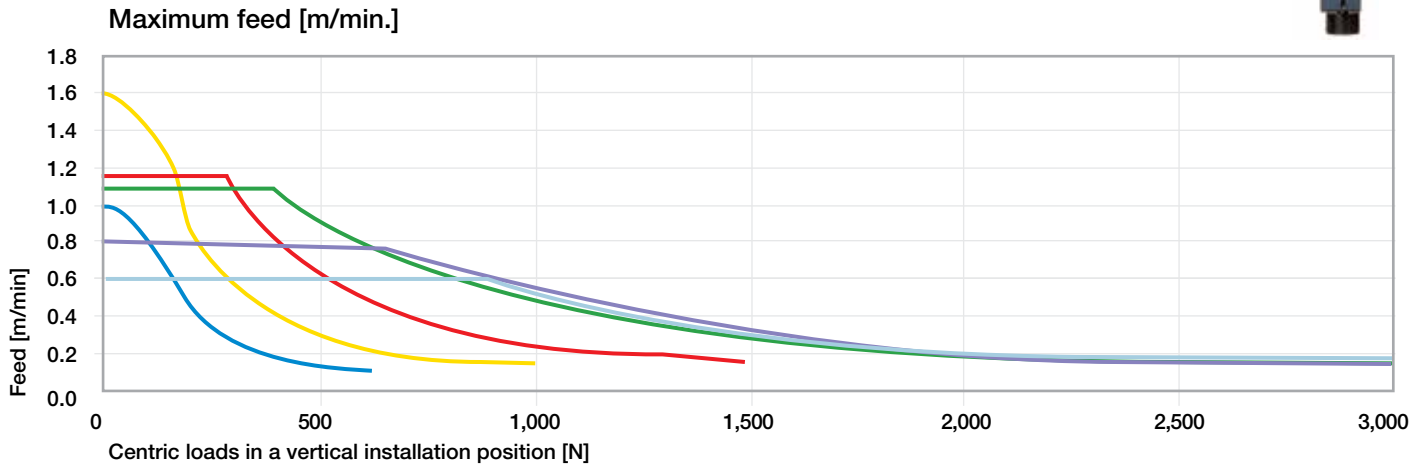
drylin® drive & actuator technology | Design & calculation

The following trapezoidal lead screw drive sizes are used in SHT, SLW and SET linear modules:

- **Tr10x2:** SHT-12, SHTC-12, SHTP-12, SLW-1040,
- **Tr18x4:** SHT-20, SHTC-20, SLW-2080
- **Tr24x5:** SHT-30, SHTC-30, SLW-25120
- **Tr26x5:** SHTC-40
- **Tr14x4:** SLW-1660
- **Tr30x6:** SHTC-50



VERTICAL



drylin® drive & actuator technology | Online product finder

Online configuration of linear units

DryLinS linear tables product finder Reset

Case of application: Horizontal Vertical

Load: kg

Feed rate: mm/s

Stroke length: mm

Temperature: °C

Precision class:

Dead weight:

Robotized:

Corrosion resistant Cross slide arrangement Reverse Stainless steel FDA compatible Underwater

Result: 60 Part Compare

Delivery 24 - 48 hours
 Delivery 2-4 working days
 Delivery times of special requests 2 - 3 weeks
* Minimum price per unit for order of individual parts

Complete drive technology configurable with or without motor

After you have selected your application parameters, the product finder shows an overview of the linear systems and the motors that are suitable. The product finder calculates the individual price of the linear axis as well as the utilization rate of the motors and the service life in strokes. With just a few clicks, you can put together a complete linear axis incl. motor, connection cables and built-on parts.



► www.igus.com/linearmodule-configurator

drylinS - drive technology configurator Reset

Input Result Configuration

Linear table
Stroke length: 100 mm
Shaft end length: 17 mm
Order number: SHTC-12-AWM 126 EUR

Motor kit (motor, motor flange, coupling, screws)
Motor type: DC-MotorD1-03 Voltage: 24V
Connection: Low profile connectors
Order number: MK-0022 126,63 EUR

Assembly / alignment, electrical connection / function test
Motor view from the back, with horizontal axis
 0° (Standard) 90° 180° 270°
Order number: MON70030000 34,8 EUR

InitiatorKit (End- and reference switch, bracket, screws, spacers)
Version: Proximity switch: Yes No
Place: Cable length: m
Order number: WK-6011-BG-10 81,31 EUR Total: 81,31 EUR

Total price: 368,04 EUR

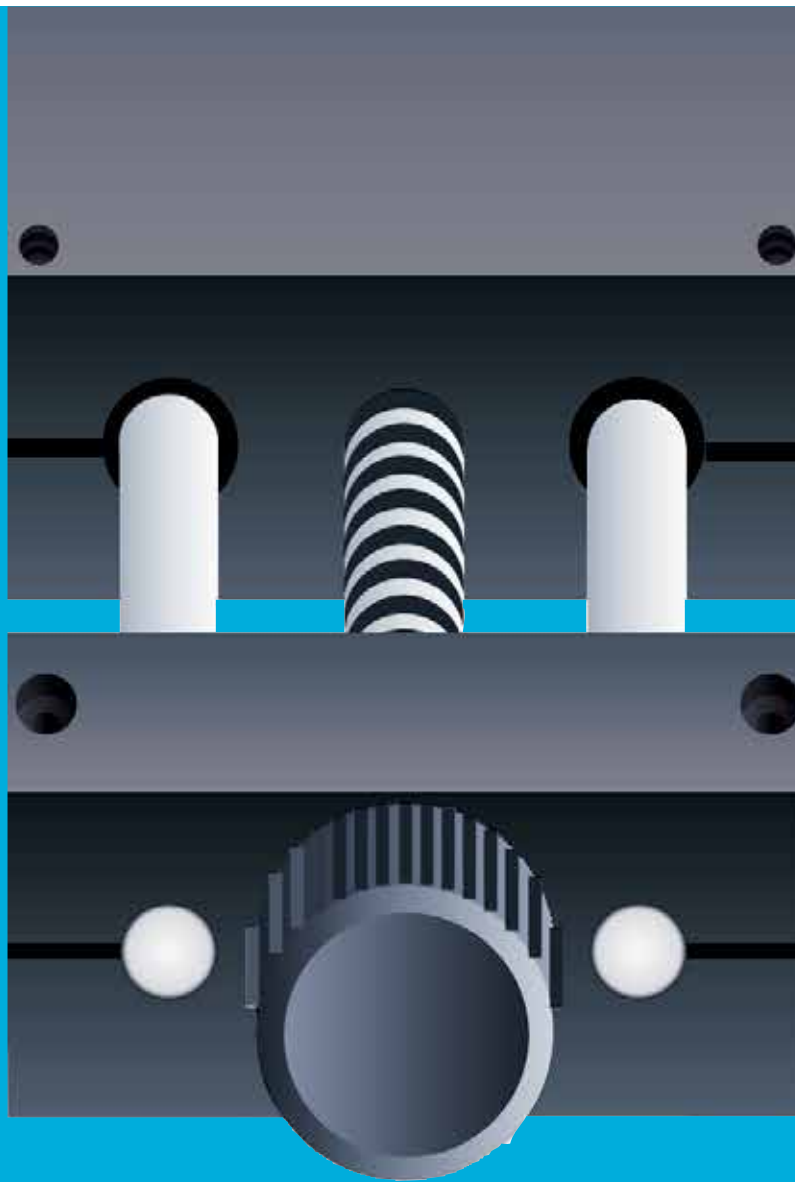
Back Parts list (PDF) 1 Place Add to shopping basket

drylinS - drive technology configurator Reset

Input Result Configuration

To sort, please click on the column heading

Type	Dive	Installation size Ø	Shaft shaft end support	Features	Vmax [mm/s]	rpm max. [1/min]	Total price from EUR*		
<input checked="" type="checkbox"/> SHTP Mini	M6	8	Aluminium Plastic	Mini	2	0.2	100	0.1	42.00
<input checked="" type="checkbox"/> SHTP	10x2	12	Aluminium Plastic		1	1	800	0.18	48.48
<input checked="" type="checkbox"/> SET	M4	12	Plastic		1	0.1	143	0	49.90
<input checked="" type="checkbox"/> SHTP	10x2	12	Aluminium Plastic		2	1	800	0.18	83.78
<input checked="" type="checkbox"/> SET	10x2	25	Plastic		1	0.2	100	0.18	93.00
<input checked="" type="checkbox"/> SET-P	10x2	25	Plastic		1	0.2	100	0.18	93.00
<input checked="" type="checkbox"/> SUIV	8x1.8	8	Aluminium Aluminium		2	0.2	133	0.1	98.80
<input checked="" type="checkbox"/> SUIV	10x2	10	Aluminium Zinc die-casting		2	1	800	0.28	110.28
<input checked="" type="checkbox"/> SET-P	12x2	30	Plastic		1	0.3	100	0.15	120.00



drylin[®] general drive technology – SHT linear actuators

Drive: Trapezoidal or high-helix lead screw

Ball-bearing mounted lead screw drives for
higher dynamic forces

Lead screws made from steel, stainless steel or
aluminum

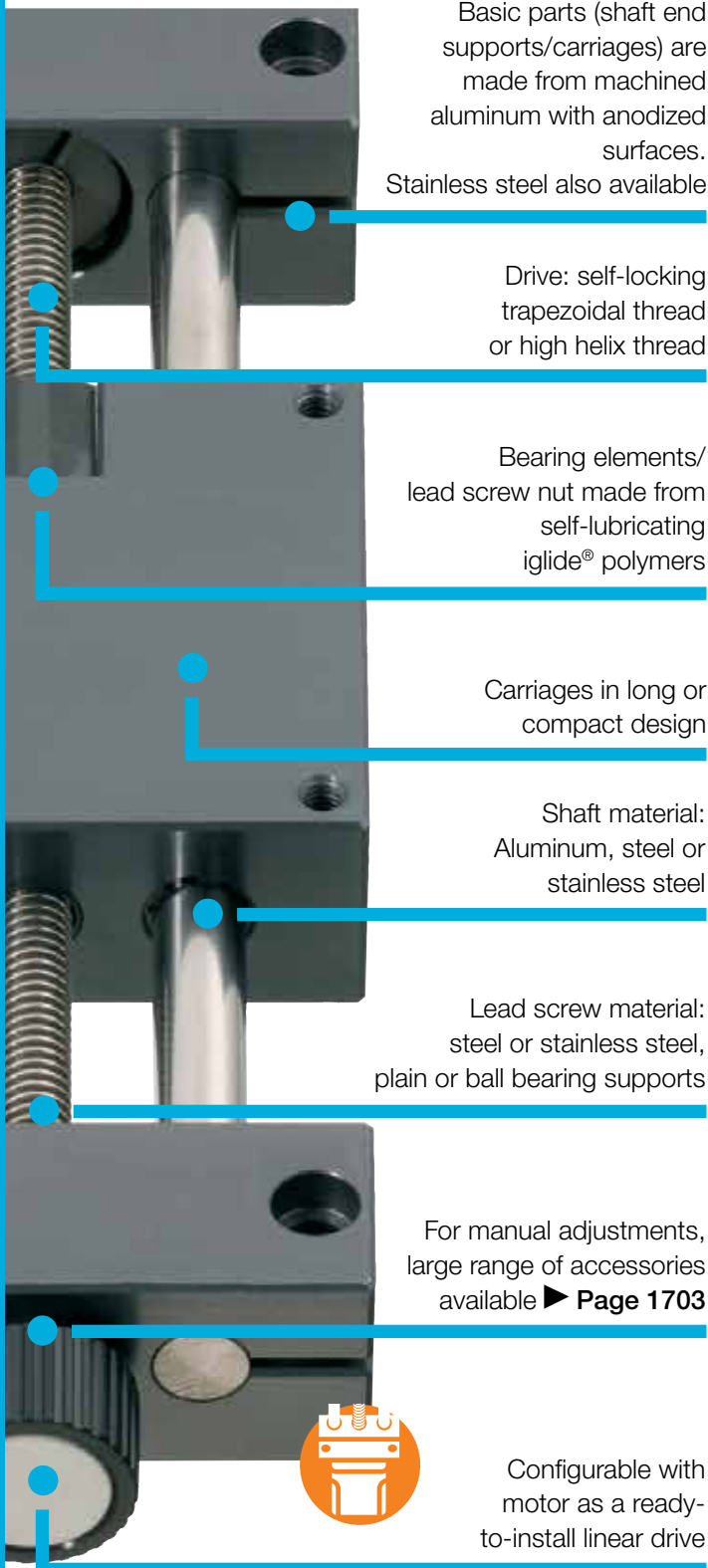
Carriage in either quad block or compact design

Configure online



drylin® SHT | linear actuators | Advantages

Durable and precise



Basic parts (shaft end supports/carriages) are made from machined aluminum with anodized surfaces. Stainless steel also available

Drive: self-locking trapezoidal thread or high helix thread

Bearing elements/lead screw nut made from self-lubricating iglide® polymers

Carriages in long or compact design

Shaft material: Aluminum, steel or stainless steel

Lead screw material: steel or stainless steel, plain or ball bearing supports

For manual adjustments, large range of accessories available ► **Page 1703**



Configurable with motor as a ready-to-install linear drive

Self-lubricating linear actuators – drylin® SHT

The drylin® SHT linear actuators are self-lubricating, while offering high precision and robust components. The units can be customized with various shaft and lead screw materials, carriage lengths and additional options. The SHT series is suitable for manual and motorized operation and is ready to connect to drylin® E motor kits and accessories.

- All bearing positions are completely self-lubricating
- Easily customized stroke lengths
- High temperature version available
- SHT linear actuators can be configured as a multi-carriage system or with right/left opposite drive

Typical application areas

- Format adjustment
- Actuators
- Sensor adjustment
- Marking and engraving technology
- Laboratory equipment



Available in 3-8 days

Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Carriage lengths: 30-180 mm

Pitch: 2-100mm/rotation

Stroke lengths: up to 1,500mm



Product finder

► www.igus.com/info/linear-actuators

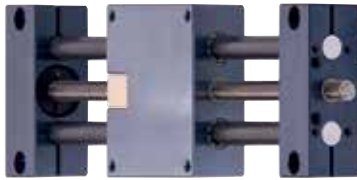


Configure SHT actuators quickly and easily online

► www.igus.com/drylinHTSConfigurator

drylin® SHT | linear actuators | Product overview

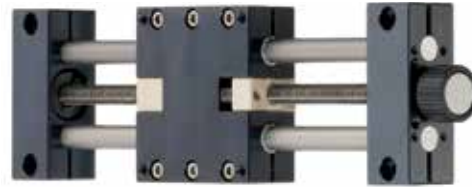
100% self-lubricating and maintenance-free



SHT linear actuator – standard

- Durable design
- Three different sizes
- Various materials for shaft and lead screw
- Maintenance-free and optionally corrosion-resistant

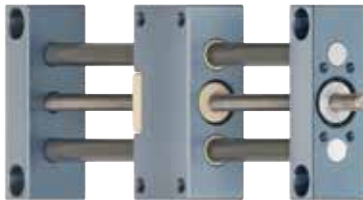
► Page 1568



SHT-PL linear actuator, preload

- Preloaded trapezoidal lead screw nuts, preload force: 50N
- Manually and continuously adjustable radial clearance
- Lightweight due to aluminum and plastic

► Page 1569



SHTC linear actuator – compact carriage

- Design flexibility due to short carriages
- Ideal for 2 carriages
- 5 sizes from Ø 12 up to 50mm

► Page 1570



SHTS linear actuator – high helix thread

- With high helix lead screw
- High-speed solution for fast positioning
- Up to 100mm travel/rotation

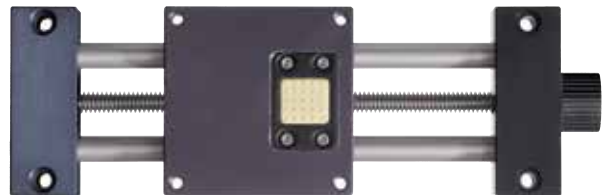
► Page 1571



SHT-BB linear actuator – for motorized applications

- Higher rotation speed and higher precision
- Belt drive permits radial loads
- Constant drive torque
- Less axial clearance

► Page 1572



SHT-FF linear actuator – "Fast-Forward"

- With quick-release mechanism
- Precise and fast positioning
- Self-locking lead screw and nut
- Only recommended for horizontal applications

► Page 1576



SHT linear actuator made from stainless steel

- All components (shaft end supports, carriages, shafts, lead screws) made of corrosion-resistant stainless steel
- Select bearings from three different iglide® materials

► Page 1574



XY-tables

- XY-tables standard and preload

► Page 1578

Standard



- Durable design
- Various materials for shaft and lead screw
- Maintenance-free and optionally corrosion-resistant
- TR10x2, TR18x4, TR24x5
- Temperature-resistant up to +140°F (60°C)
- Available accessories ► Page 1703
- Lead screw nuts are available separately ► Page 1510
- Available with motor



Configure online
► www.igus.com/drylinHTSconfigurator



Order key

Order example

SHT-12-AWM

Standard

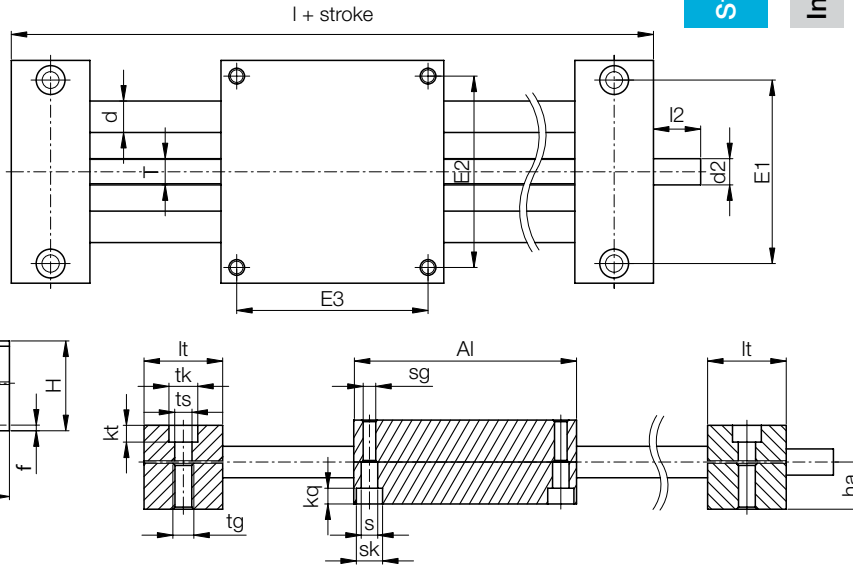
Installation size

Shaft material

See table below for lead options



reddot design award
winner 2006



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	I	R	f	lt	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15						
SHT-08-AWM	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-12-AWM	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-20-AWM	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-30-AWM	180	180	68	150	158	158	280	96	4	50	20	13.5

Part No.	tg	kt	s	sk	sg	kq	d	T	l2	d2	ha
		±0.1						Lead		Standard	
SHT-08-AWM	M6	7	4.2	8	M5	4.6	8		17	Tr6x2	13
SHT-12-AWM	M8	6.4	6.3	10	M6	6.0	12	See table for lead options	17	Tr10x2 ⁹²⁾ 157)	18
SHT-20-AWM	M10	8.6	6.4	11	M8	7.0	20		26	12h9	23
SHT-30-AWM	M16	12.6	11.0	18	M12	10.6	30		38	14h9	36

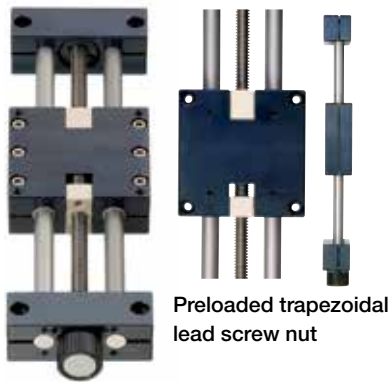
Lead Options SHT	
Actuator	Leads (T)
-08	TR 6x2P1
	DS 6.35x2.54
	DS 6.35x5.08
	DS 6.35x12.7
	DS 6.35x25.4
-12	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
	R/L DS 10x25
R/L DS 10x50	
-20	TR 18x4
	TR 18x8
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
-30	R/L TR 18x4
	R/L TR 18x24
	R/L TR 18x40
	R/L TR 18x80
-30	TR 24x5
	R/L TR 24x5

Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		Steel shaft		Max. static load capacity	
		Weight [kg]	Additional (per 100mm) [kg]	Weight [kg]	Additional (per 100mm) [kg]	axial [N]	radial [N]
SHT-08-AWM	300	0.24	0.05	0.27	0.1	100	360
SHT-12-AWM	750	1.1	0.1	1.3	0.2	700	2,800
SHT-20-AWM	1,000	3.2	0.3	3.9	0.6	1,600	6,400
SHT-30-AWM	1,250	8.6	0.6	10.9	1.4	2,500	10,000

⁹²⁾ Lead screw end unmachined; ¹⁵⁷⁾ Also available with with Tr10x3

Preload version



Preloaded trapezoidal lead screw nut

- Preloaded trapezoidal lead screw nuts, preload force: 50N
- Manually and continuously adjustable radial clearance
- Lightweight due to aluminum and plastic
- Lead screw end unmachined
- Temperature-resistant up to +140°F (60°C)
- Available accessories ► **Page 1703**
- Lead screw nuts are available separately ► **Page 1510**
- Available with motor



Order key

Order example



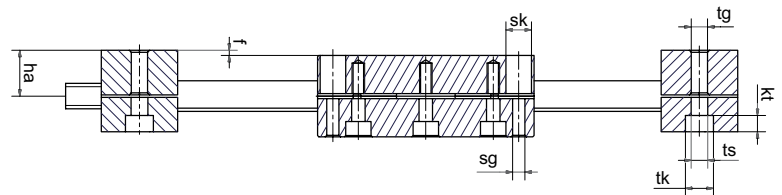
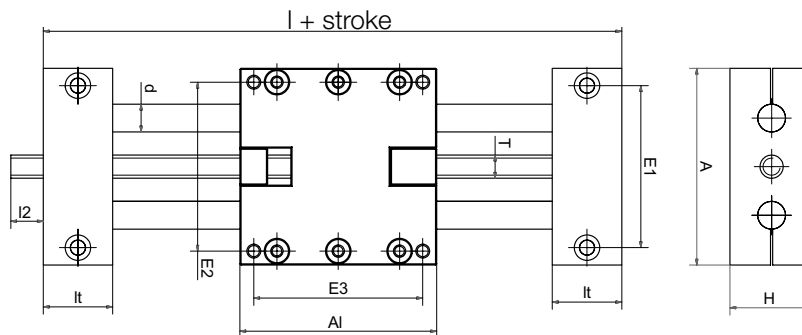
SHT- 12 -AWM- PL

Standard

Installation size

Shaft material

Clearance-free, preloaded



Configure online

► www.igus.com/drylinHTSConfigurator

Dimensions [mm]

Part No.	A	A1	H	E1	E2	E3	l	R	f	lt	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15						
SHT-12-AWM-PL	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-20-AWM-PL	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-30-AWM-PL	180	180	68	150	158	158	280	96	4	50	20	13.5

Part No.	tg	kt	sk	sg	d	T	l2	d2	ha
		±0.1						Standard	
SHT-12-AWM-PL	M8	6.4	10	M6	12	Tr10x2 ¹⁵⁷⁾	17	Tr10x2 ^{92) 157)}	18
SHT-20-AWM-PL	M10	8.6	11	M8	20	Tr18x4	26	12h9	23
SHT-30-AWM-PL	M16	12.6	18	M12	30	Tr24x5	38	14h9	36

Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft			Steel shaft		Max. static load capacity	
		Weight [kg]	Additional (per 100mm) [kg]	Weight [kg]	Additional (per 100mm) [kg]	axial [N]	radial [N]	
SHT-12-AWM-PL	750	1.1	0.1	1.3	0.2	700	2,800	
SHT-20-AWM-PL	1,000	3.2	0.3	3.9	0.6	1,600	6,400	
SHT-30-AWM-PL	1,250	8.6	0.6	10.9	1.4	2,500	10,000	

⁹²⁾ Lead screw end unmachined; ¹⁵⁷⁾ Also available with with Tr10x3

Compact carriage



- Design flexibility
- Ideal for 2 carriages
- Adjustable bearing clearance
- Temperature-resistant up to +140°F (60°C)
- Available accessories ▶ Page 1703
- Lead screw nuts are available separately ▶ Page 1510
- Available with motor



Order key



Order example

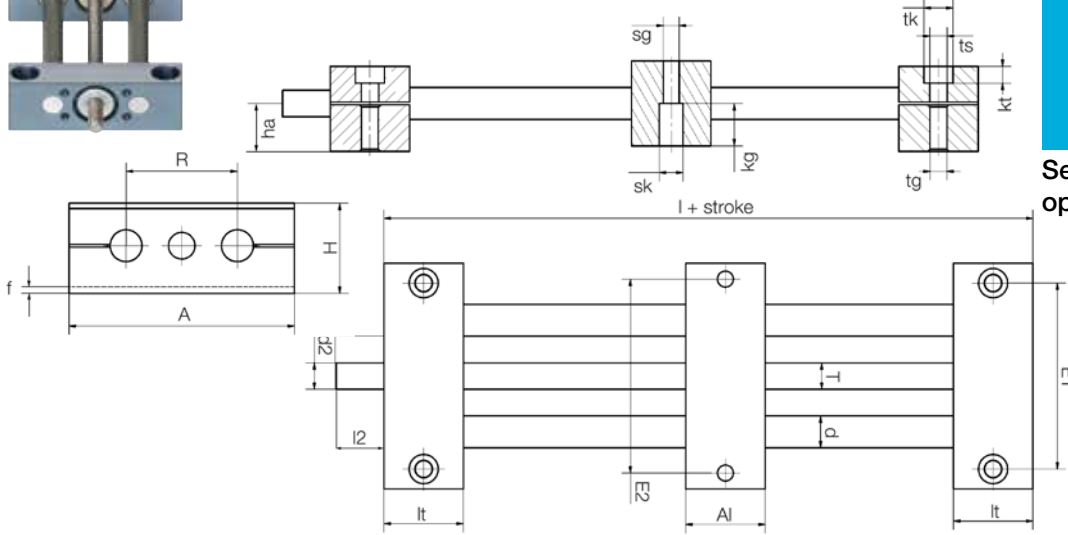
SHTC - 12 - AWM

Compact

Installation size

Shaft material

See table below for lead options



Configure online

▶ www.igus.com/drylinHTSConfigurator

Dimensions [mm]

Part No.	A	Al	H	E1	E2	l	R	f	lt	tk	ts	tg
	-0.3	-0.3		±0.15	±0.15							
SHTC-08-AWM	65	38	52	55	55	96	32	1.5	15.5	10	5.5	M6
SHTC-12-AWM	85	30	34	70	73	90	42	2	30	11	6.6	M8
SHTC-20-AWM	130	36	48	108	115	108	72	2	36	15	9.0	M10
SHTC-30-AWM	180	50	68	150	158	150	96	4	50	20	13.5	M16
SHTC-40-SWMH	230	70	84	202	202	210	122	4	70	20	13.5	M16
SHTC-50-SWMH	280	80	100	250	250	240	152	4	80	20	13.5	M16

Part No.	kt	sk	sg	kq	d	T	l2	d2	ha
	±0.1					Lead	Standard		
SHTC-08-AWM	7	8	M5	4.6	8		17	Tr6x2	13
SHTC-12-AWM	6.4	10	M6	6.0	12		17	Tr10x2 ⁹²⁾ 157)	18
SHTC-20-AWM	8.6	11	M8	7.0	20	See table for lead options	26	12h9	23
SHTC-30-AWM	12.6	18	M12	10.6	30		38	14h9	36
SHTC-40-SWMH	12.6	20	M16	39	40		45	16h9	44
SHTC-50-SWMH	12.6	20	M16	49	50		50	20h9	52

Lead Options SHTC	
Actuator	Leads (T)
-08	TR 6x2P1
	DS 6.35x2.54
	DS 6.35x5.08
	DS 6.35x12.7
	DS 6.35x25.4
-12	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
-20	R/L TR 10x2
	R/L DS 10x12
	R/L DS 10x25
	R/L DS 10x50
	TR 18x4
-30	TR 18x8
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
-40	R/L TR 18x4
	R/L DS 18x24
-50	R/L DS 18x40
	R/L DS 18x80
-30	TR 24x5
	R/L TR 24x5
-40	TR 26x5
-50	TR 30x6

Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		Steel shaft		Max. static load capacity	
		Weight [kg]	Additional (per 100mm) [kg]	Weight [kg]	Additional (per 100mm) [kg]	axial [N]	radial [N]
SHTC-08-AWM	300	0.2	0.05	0.23	0.1	100	360
SHTC-12-AWM	750	0.7	0.1	0.8	0.2	700	2,800
SHTC-20-AWM	1,000	1.9	0.3	2.3	0.6	1,600	6,400
SHTC-30-AWM	1,250	4.6	0.6	5.8	1.4	2,500	10,000
SHTC-40-SWMH	1,500	11.0	0.9	16.0	2.4	4,000	16,000
SHTC-50-SWMH	1,500	17.0	1.2	26.3	3.5	6,250	25,000

⁹²⁾ Lead screw end unmachined; ¹⁵⁷⁾ Also available with with Tr10x3

drylin® SHT | linear actuators | Product range

drylin®
SHT linear
actuators

High helix thread



- Available lead (OD x Lead)
10x12, 10x50, 18x100
- High-speed solution
- Available accessories ► Page 1703
- Lead screw nuts are available separately ► Page 1510
- Available with motor



reddot design award
winner 2006



Order key

Order example

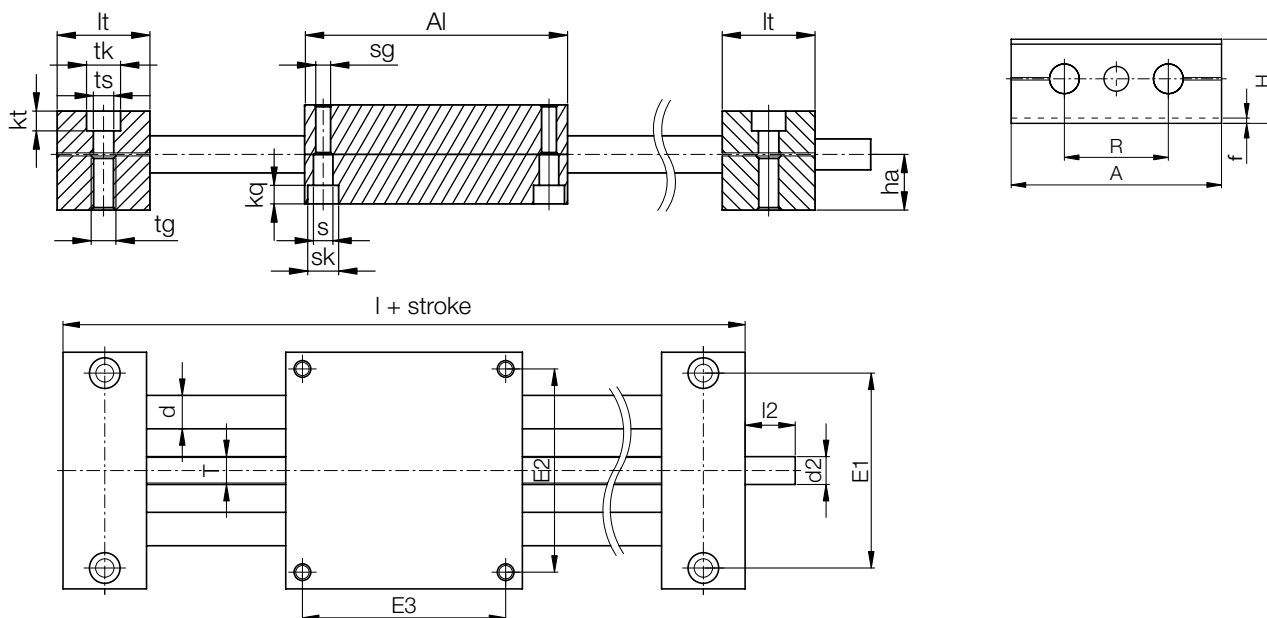
Options

SHT S-12-AWM-



See table below
for lead options

Standard	High helix thread	Dimension	Shaft material	Lead
----------	-------------------	-----------	----------------	------



Configure online

► www.igus.com/drylinHTSConfigurator

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	l	R	f	l _t	t _k	t _s	t _g
SHTS-12-AWM- <input type="text"/>	85	85	34	70	73	73	145	42	2	30	11	6.6	M8
SHTS-20-AWM- <input type="text"/>	130	130	48	108	115	115	202	72	2	36	15	9.0	M10

Part No.	k _t	s	s _k	s _g	k _q	d	l ₂	d ₂	h _a	T
SHTS-12-AWM- <input type="text"/>	±0.1	6.4	6.3	10	M6	6.0	12	17	18	See table for lead options
SHTS-20-AWM- <input type="text"/>	±0.1	8.6	6.4	11	M8	7.0	20	26	23	See table for lead options

Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		Max. static load capacity	
		Weight [kg]	additional (per 100mm) [kg]	axial [N]	radial [N]
SHTS-12-AWM- <input type="text"/>	750	1.1	0.1	100	400
SHTS-20-AWM- <input type="text"/>	1,000	3.2	0.3	400	1,600

Lead Options SHTS	
Actuator	Leads (T)
-12	DS 10x12
	DS 10x25
	DS 10x50
	DS R/L 10x12
	DS R/L 10x25
-20	DS R/L 10x50
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
	R/L DS 18x24
	R/L DS 18x40
	R/L DS 18x80

⁹²⁾ Lead screw end unmachined

drylin® SHT | linear actuators | Product range

For motorized applications



- Zero-backlash for reduced axial clearance
- Ball bearing lead screw support for high rpm
- Zero-backlash function available for sizes 08 and 12
- Available accessories ► **Page 1703**
- Lead screw nuts are available separately ► **Page 1510**
- Available with motor



Order key



Order example

SHT - BB - 12 - AWM

Standard	Ball bearing	Installation Size	Shaft material
----------	--------------	-------------------	----------------

See table below for lead options



Order key

Order example

Options

SHT - 08 - ZB - AWM -

Standard	Installation size	Ball bearing, zero-backlash	Shaft material	Lead
----------	-------------------	-----------------------------	----------------	------

See table below for lead options

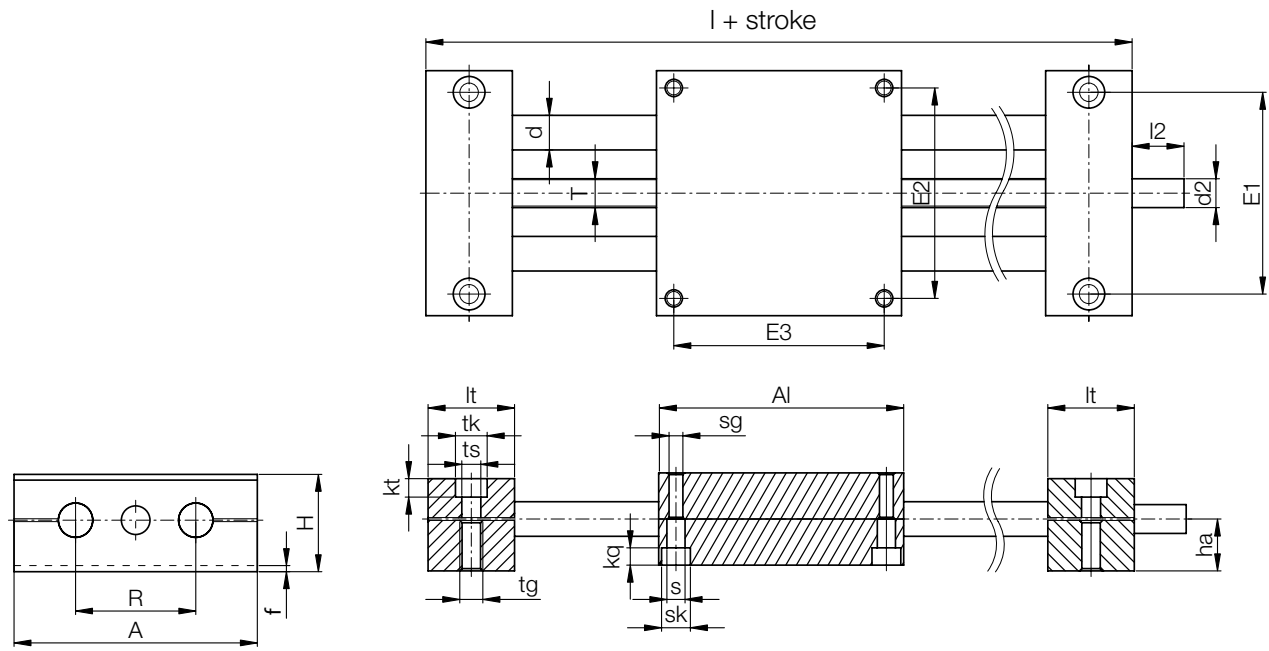
Technical data

Part No.	Max. stroke length	Aluminum shaft		Steel shaft		Max. static load capacity	
		Weight	Additional (per 100mm)	Weight	Additional (per 100mm)	axial	radial
		[kg]	[kg]	[kg]	[kg]	[N]	[N]
SHTC-08-ZB	300	0.240	0.05	0.270	0.094	100	360
SHT-08-ZB-AWM- <input type="text"/>	300	0.205	0.05	0.228	0.103	100	400
SHT-12-ZB-AWM- <input type="text"/>	500	1.1	0.1	1.3	0.2	150	600
SHT-BB-12-AWM	500	1.1	0.1	1.3	0.2	350	1,400
SHT-BB-20-AWM	900	3.2	0.3	3.9	0.6	1,000	4,000
SHT-BB-30-AWM	1,000	8.6	0.6	10.9	1.4	1,500	6,000

Lead Options SHT	
Actuator	Leads (T)
-12	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
-20	R/L DS 10x12
	R/L DS 10x25
	R/L DS 10x50
	TR 18x4
	TR 18x8
	DS 18x24
-30	DS 18x40
	DS 18x80
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18x40
-30	R/L DS 18x80
	TR 24x5

Lead Options	
Actuator	Leads (T)
SHTC-08-ZB	6X2P1
	6X2P1
	6.35x5.08
	6.35x12.7
	6.35x25.4

Lead Options	
Actuator	Leads (T)
SHT-12-ZB-AWM	10x12
	10x25
	10x50
	DS R/L 10x12
	DS R/L 10x25
	DS R/L 10x50



Configure online

► www.igus.com/drylinHTSConfigurator

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	l	R	f	lt	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15						
SHTC-08-ZB	65	38	23	52	55	26	96	32	1.5	15.5	10	5.5
SHT-08-ZB-AWM- <input type="text"/>	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-12-ZB-AWM- <input type="text"/>	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-BB-12-AWM	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-BB-20-AWM	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-BB-30-AWM	180	180	68	150	158	158	280	96	4	50	20	13.5

Part No.	tg	kt	s	sk	sg	kq	d	T (lead)	l2	d2 Standard	ha
		±0.1									
SHTC-08-ZB	M6	7	4.2	8	M5	4.6	8		15	6 / 6.35	13
SHT-08-ZB-AWM- <input type="text"/>	M6	7	4.2	8	M5	4.6	8		15	6.35 ⁹²⁾	13
SHT-12-ZB-AWM- <input type="text"/>	M8	6.4	6.3	10	M6	6.0	12	See table for lead options	17	10x12 ⁹²⁾	18
SHT-BB-12-AWM	M8	6.4	6.3	10	M6	6.0	12		17	Tr10x2 ⁹²⁾	18
SHT-BB-20-AWM	M10	8.6	6.4	11	M8	7.0	20		26	12h9	23
SHT-BB-30-AWM	M16	12.6	11.0	18	M12	10.6	30		38	14h9	36

⁹²⁾ Lead screw end unmachined

drylin® SHT | linear actuators | Product range

Stainless steel



- Corrosion-resistant carriages and shaft end supports made of stainless steel
- High grade stainless steel shafts
- Stainless steel lead screw
- Standard bearing and nut material iglide® J
- Available with high temperature iglide® X material 356°F (+180°C)
- Available with FDA compliant iglide® A180
- Configure online as SHTC version with short carriages and ball bearings
- High helix lead screw options

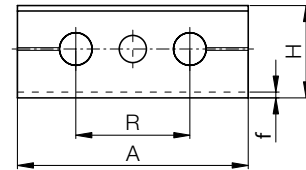
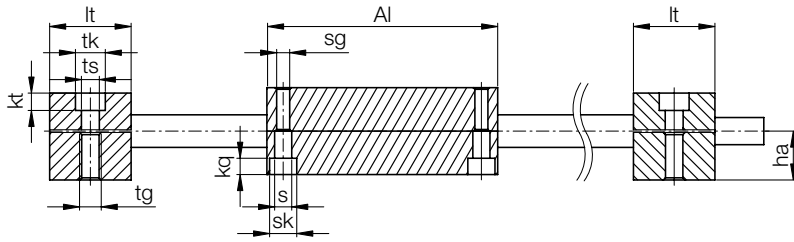
Order key

Order example

SHT - ES J - 08



See table below for lead options

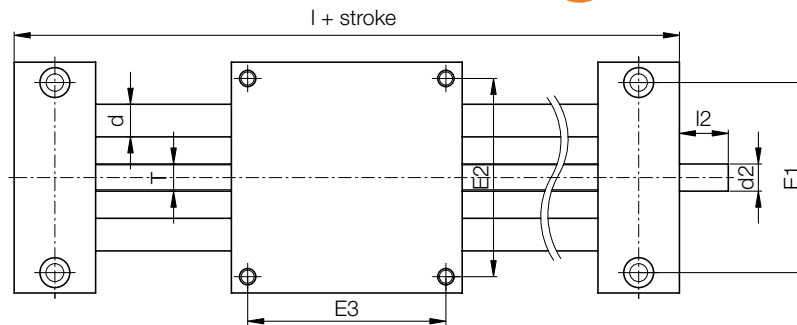


Configure online

► www.igus.com/drylinHTSConfigurator



reddot design award
winner 2006



Technical data

Part No.	Max. stroke length [mm]	Steel shaft		Max. static load capacity	
		Weight [kg]	Additional (per 100mm) [kg]	axial [N]	radial [N]
SHT-ESJ-08	300	1.01	0.1	100	360
SHT-ESJ-12	750	2.81	0.24	700	2,800
SHT-ESJ-20	1,000	8.72	0.7	1,600	6,400
SHT-ESJ-30	1,250	24.11	1.47	2,500	10,000

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	I	R	f	lt	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15						
SHT-ESJ-08	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-ESJ-12	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-ESJ-20	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-ESJ-30	180	180	68	150	158	158	280	96	4	50	20	13.5

Part No.	tg	kt	s	sk	sg	kq	d	T	l2	d2	ha
		±0.1						Lead		Standard	
SHT-ESJ-08	M6	7	4.2	8	M5	4.6	8	See table for lead options	17	Tr6x2	13
SHT-ESJ-12	M8	6.4	6.3	10	M6	6.0	12		17	Tr10x2 ⁹²⁾	18
SHT-ESJ-20	M10	8.6	6.4	11	M8	7.0	20		26	12h9	23
SHT-ESJ-30	M16	12.6	11.0	18	M12	10.6	30		38	14h9	36

⁹²⁾ Lead screw end unmachined

Lead Options SHT	
Actuator	Leads (T)
-08	TR 6x2P1
	DS 6.35x2.54
	DS 6.35x5.08
	DS 6.35x12.7
	DS 6.35x25.4
-12	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
	R/L DS 10x25
	R/L DS 10x50
	-20
TR 18x8	
DS 18x24	
DS 18x40	
DS 18x80	
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18x40
	R/L DS 18x80
-30	TR 24x5
	R/L TR 24x5

drylin® SHT | linear actuators | Product range

drylin®
SHT linear
actuators

Hygienic design



- High helix lead screw options
- Hygienic design for wash-down applications
- Materials: plastic and stainless steel
- Lead screw nuts made of FDA-compliant iglide® A180
- Available accessories ► Page 1703



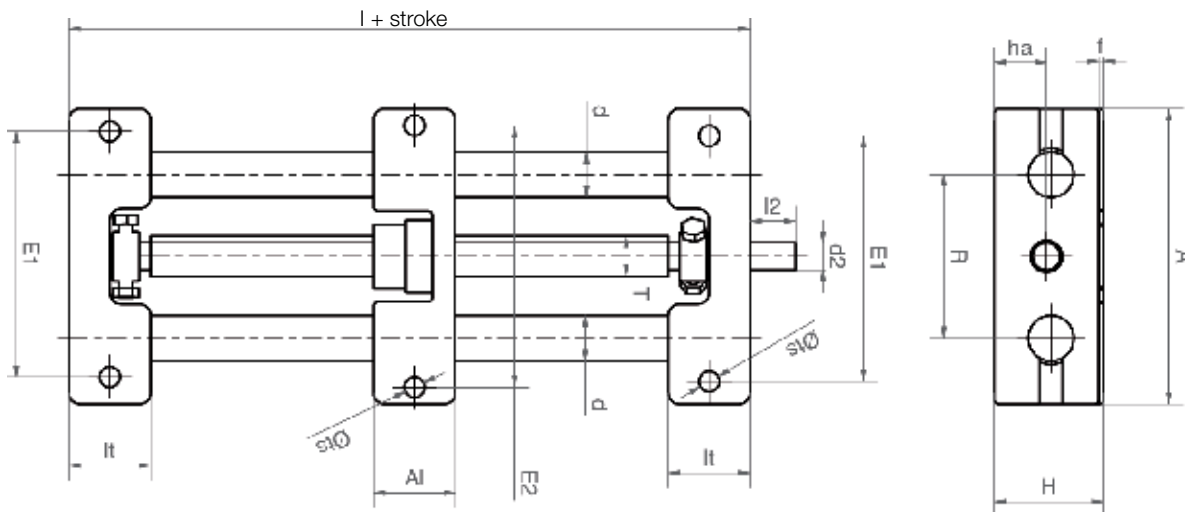
Order key

Order example



SHTC - 20 - EWM - HYD

Compact	Dimension	Shaft material	Hygienic design
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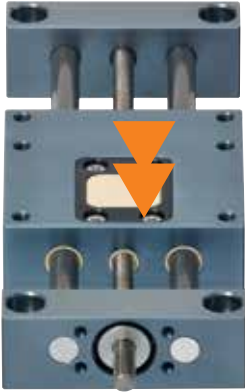
Dimensions [mm]

Part No.	A	A1	H	E1	E2	l	R	f	l _t	ts	d	T	l ₂	d ₂	ha
	-0.3	-0.3		±0.15	±0.15							Lead			
SHTC-20-EWM-HYD	130	35	48	108	115	108	72	2	36	9.0	20	See table	26	12 h9	23

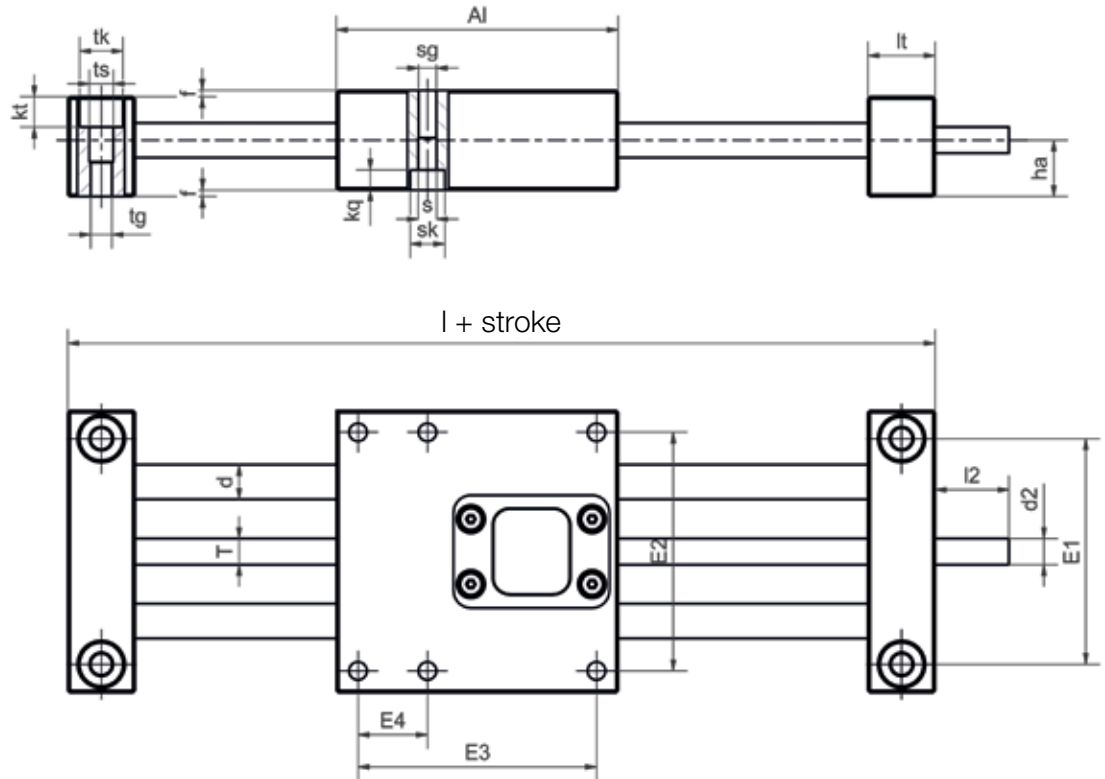
Lead Options SHT	
Actuator	Leads (T)
-20	TR 18x4
	TR 18x8
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18x40
	R/L DS 18x80

drylin® SHT | linear actuators | Product range

With “Fast-Forward” quick release mechanism



- Fast manual format adjustments
- Recommended only for horizontal applications
- Available accessories ► **Page 1703**
- Available with motor



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E4	l	R	It	l2	d2
SHTC-08-AWM-FF	65	65	23	52	55	55	16	96	32	15.5	17	6
SHT-12-AWM-FF	85	85	34	70	73	73		145	42	30	17	Tr10x2 ⁹²⁾

Part No.	f	tk	ts	tg	kt	s	sk	sg	kg	d	T	ha
		±0.1								Standard		
SHTC-08-AWM-FF	1.5	10	5.5	M6	7	4.2	8	M5	4.6	8	6	13
SHT-12-AWM-FF	2	11	6.6	M8	6.4	6.3	10	M6	6.0	12	Tr10x2	18

Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		Max. static load capacity radial [N]
		Weight [kg]	Additional (per 100mm) [kg]	
SHTC-08-AWM-FF	300	0.35	0.04	100
SHT-12-AWM-FF	750	1.1	0.1	2,800

⁹²⁾ Lead screw end unmachined

drylin® SHT | linear actuators | Product range

drylin®
SHT linear
actuators

With “Fast-Forward” quick release mechanism



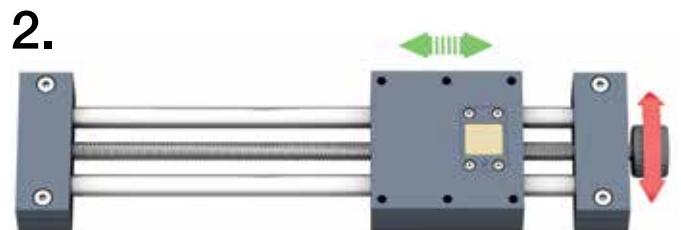
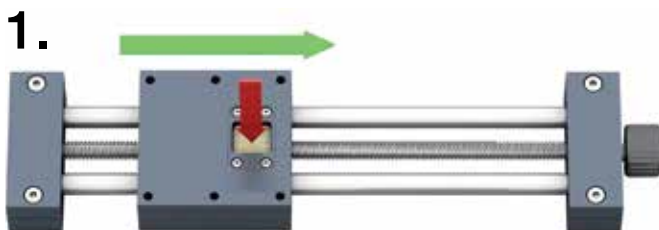
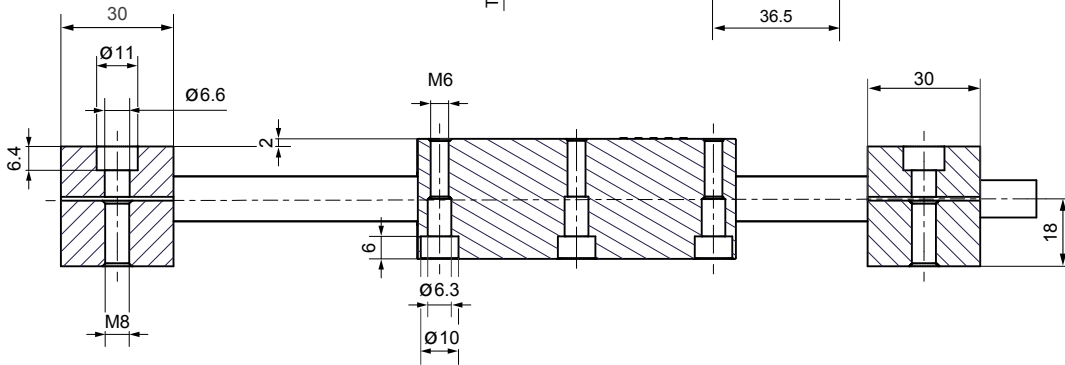
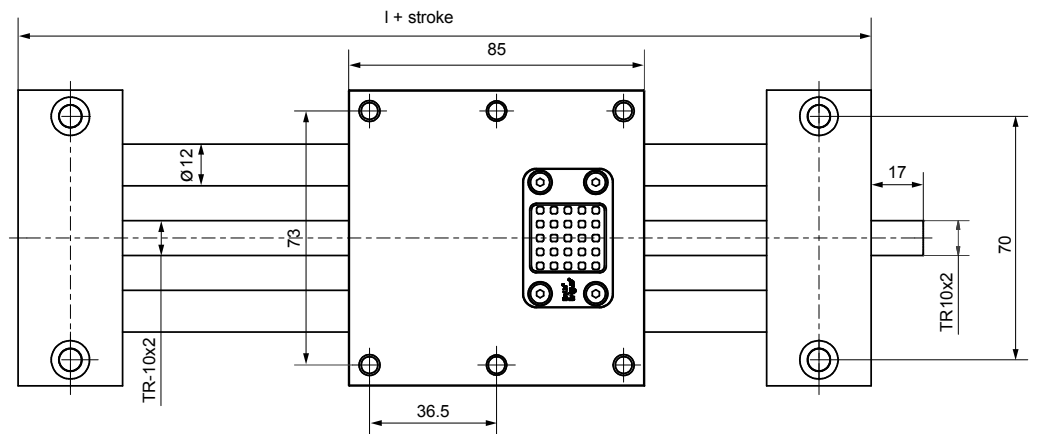
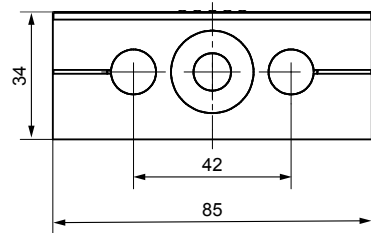
- Fast manual format adjustments
- Self-locking lead screw
- Only recommended for horizontal applications
- Max. stat. axial load 200N (horizontal mounting position)
- Max. dynamic. axial load 50N
- Available accessories ► Page 1703

 **Order key**

Order example 

SHT - 12 - AWM - FF

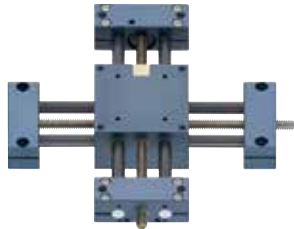
Standard	Installation size	Shaft material	Fast forward
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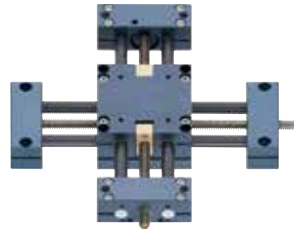
press > disengage > move manually > click into place > fine-tuning

drylin® SHT | XY-tables | Product range

XY-table standard/pre-load

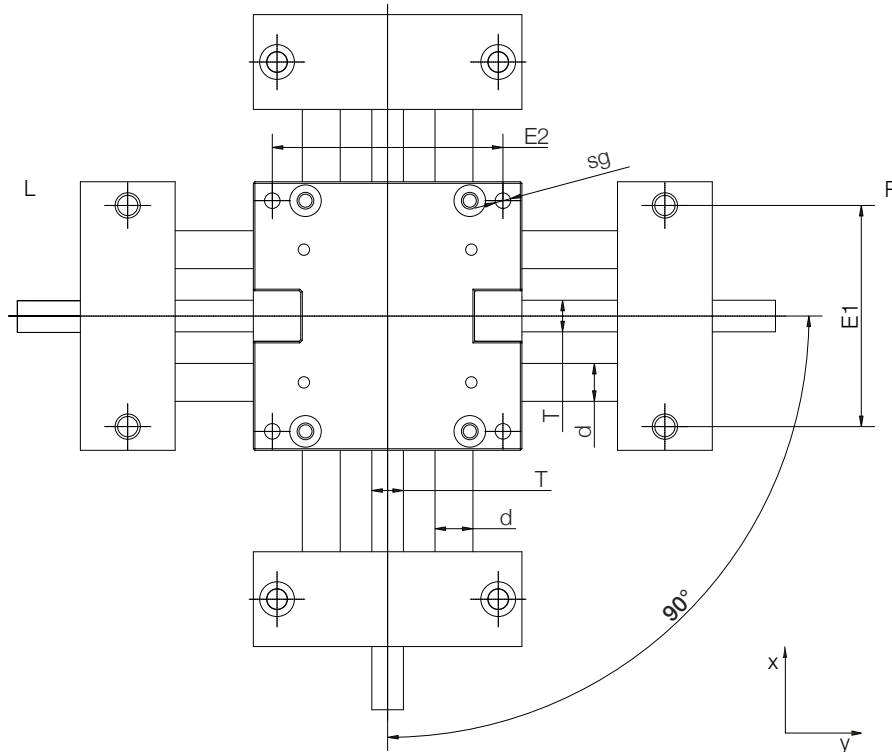


drylin® SHT



drylin® SHT-PL

- Available as standard or preload version
- Precise with good rigidity due to the single-piece carriage design
- Adjustments by trapezoidal or high helix lead screw
- Assembly designation either right or left
- Available accessories ► **Page 1703**



Dimensions [mm]

Part No.	Max. stroke length [mm]	A	H	E1	E2	Base length	Base length	R	f	lt	tk	ts	tg	kt
		-0.3		±0.15	±0.15	lx	ly							
SHT-XY-08-AWM	150	65	42	52	56	96	96	32	1.5	15.5	10	5.5	M6	7
SHT-XY-12-AWM	350	85	56	70	73	145	145	42	2	30	11	6.6	M8	6.4
SHT-XY-12-AWM-PL	350	85	56	70	73	145	145	42	2	30	11	6.6	M8	6.4
SHT-XY-20-EWM-PL ⁹³⁾	500	130	86	108	115	202	202	72	2	36	15	9.0	M10	8.6

Part No.	sg	d	T	l1	d1	d1	l2	d2	d2	ha1	ha2	W
			Lead	Standard	Alternative	Standard	Alternative	Standard	Alternative	ha2-ha1		
SHT-XY-08-AWM	M5	8		15	5	-	15	5	-	13	29	16
SHT-XY-12-AWM	M6	12	See table for lead options	17	Tr10x2	6 h9	17	Tr10x2	6 h9	18	38	20
SHT-XY-12-AWM-PL	M6	12		17	Tr10x2	6 h9	17	Tr10x2	6 h9	18	38	20
SHT-XY-20-EWM-PL ⁹³⁾	M8	20		26	TR18x4	12 h9	26	12 h9	-	23	63	40

Required accessories (e.g. hand wheel) can be ordered left- or right-mounted in the y-direction.

Order example for SHT-XY-12-AWM-L-200-300-HR, left adjustment, stroke 200/300mm, two hand wheels

⁹³⁾ For size 20 we recommend stainless steel shafts (EWM), AWM also available

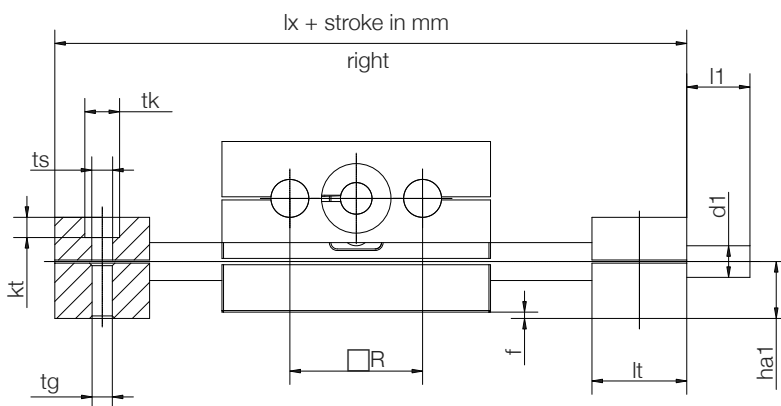
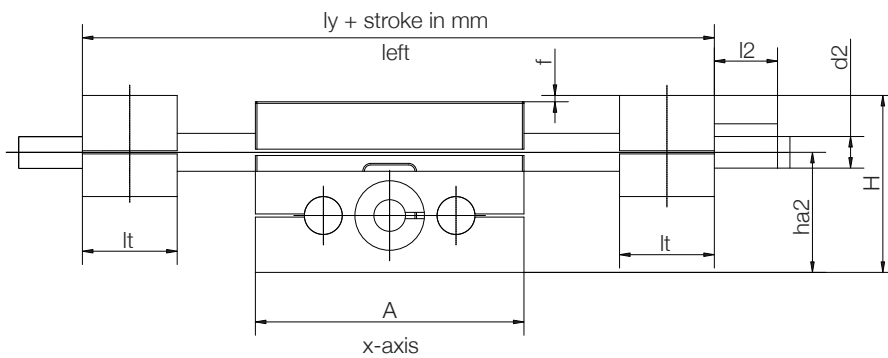
 **Order key**

Order example



SHT - XY - 12 - AWM - PL - R

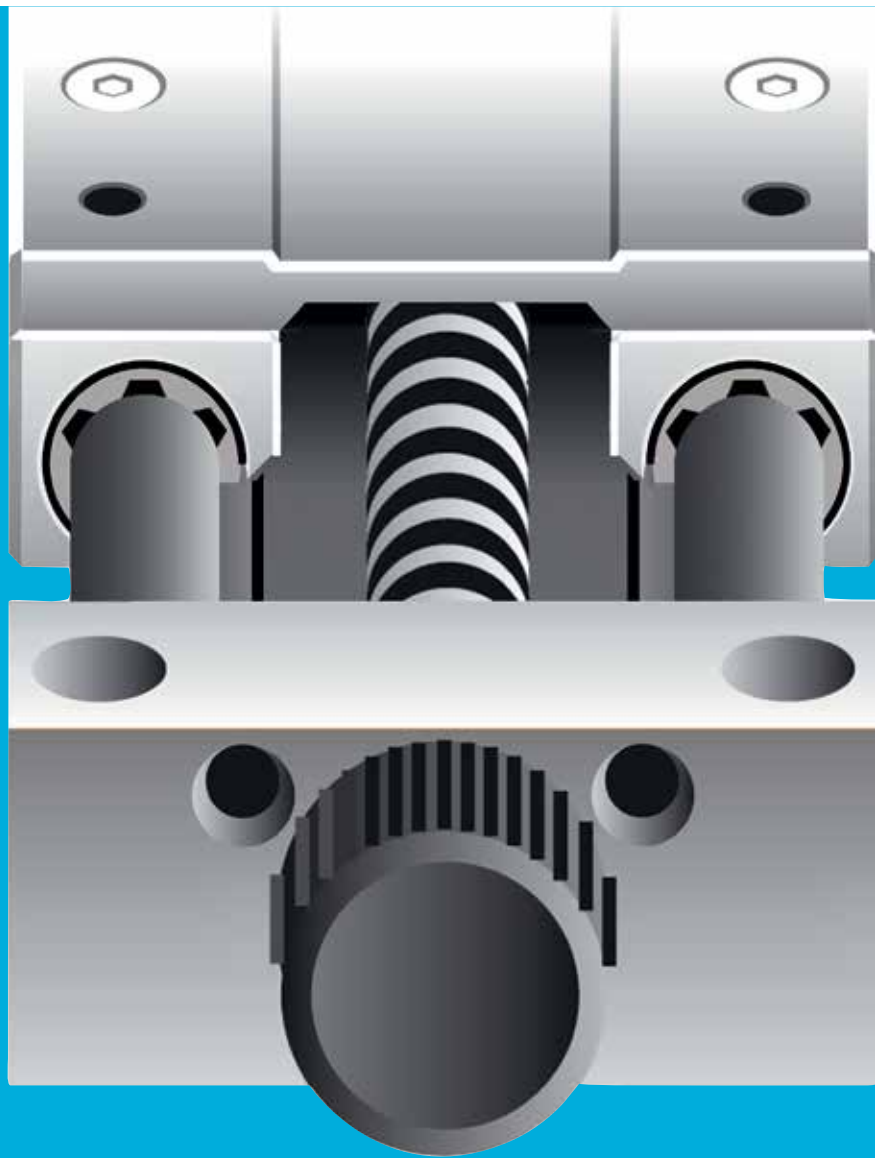
Standard	XY table	Dimension	Shaft material	Preload (optional)	y-unit L: left adjustment R: right adjustment
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Lead Options SHT	
Actuator	Leads (T)
-08	TR 6x2P1
	DS 6.35x2.54
	DS 6.35x5.08
	DS 6.35x12.7
	DS 6.35x25.4
-12	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
R/L DS 10x25	
R/L DS 10x50	
-20	TR 18x4
	TR 18x8
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18x40
R/L DS 18x80	

Notes

A large grid area for taking notes, consisting of a 30x30 grid of small squares. The grid is empty and occupies the majority of the page.



drylin[®] general drive technology – SLW linear actuators

Self-lubricating linear actuators based on
drylin[®] W guides

Drive: Trapezoidal or high helix lead screw

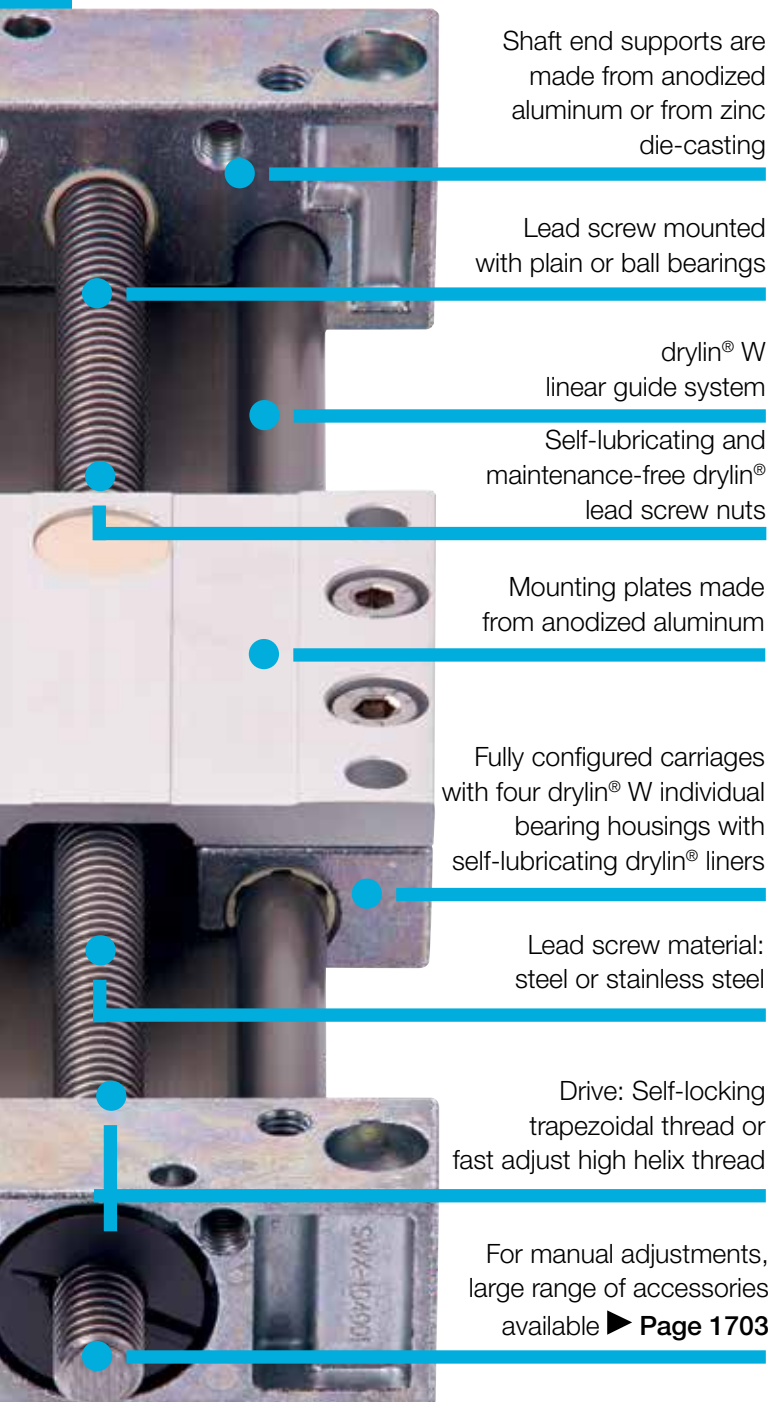
Torsion-resistant double shaft systems

Multiple carriage and rail options

Suitable for manual and motor-operated
adjustments



Modular design



Shaft end supports are made from anodized aluminum or from zinc die-casting

Lead screw mounted with plain or ball bearings

drylin® W linear guide system

Self-lubricating and maintenance-free drylin® lead screw nuts

Mounting plates made from anodized aluminum

Fully configured carriages with four drylin® W individual bearing housings with self-lubricating drylin® liners

Lead screw material: steel or stainless steel

Drive: Self-locking trapezoidal thread or fast adjust high helix thread

For manual adjustments, large range of accessories available ► **Page 1703**



Configurable with motor as a ready-to-install linear drive

Self-lubricating linear actuators – drylin® SLW

Torsion-resistant aluminum double shaft rails with many carriage versions characterize the drylin® W product range, and form a well rounded modular kit for the drylin® SLW linear actuators. The actuators are low profile, as well as robust. The drylin® SLW linear actuators are ideal for manual adjustments, but can also be fitted with a motor to make an electrical linear actuator.

- Variable carriage widths and lengths
- Flat drylin® guide rails or high profile
- Corrosion-resistant option made of stainless steel available

Typical application areas

- Format and lane adjustments
- Packaging technology
- Height adjustments
- 3D printers
- Camera adjustment



Available in 3-8 days

Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Carriage lengths: 60-250mm

Carriage widths: 54-195mm

Stroke lengths: up to 1,250mm



Product finder

► www.igus.com/info/linear-actuators

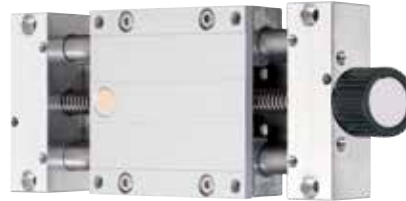
Flat and torsion-resistant



SLW linear actuator – compact

- High torsional stability, fully supported
- Cost-effective
- Shaft end supports made from zinc, anodized aluminum or plastic (depending on installation size)

► Page 1584



SLWE-PL linear actuator, preload

- Self-lubricating and precise
- Preloaded trapezoidal lead screw nut (preload force: 50N)
- Manually adjustable radial clearance, reduction of the axial clearance

► Page 1586



SLWE-BB linear actuator, ball bearing

- Efficient and dynamic
- Quiet, reduced clearance
- Up to 1,500rpm (depending on length and load)

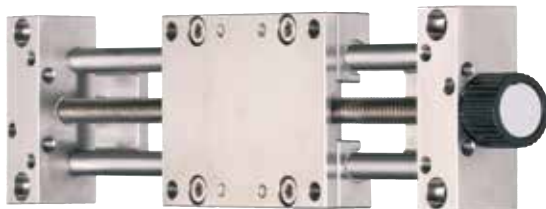
► Page 1588



SLWS linear actuator with high helix thread

- Fast positioning
- High-helix lead screw drives
- Up to 100mm stroke per rotation

► Page 1590



SLW-ES linear actuator – stainless steel version

- With corrosion-resistant steel components
- Choice of bearing material: iglide® J (standard), iglide® A180 (FDA-compliant), iglide® X
- High temperature up to 302°F (+150 °C)
- For environments involving contact with water and chemicals

► Page 1594



Linear actuator special designs

- SLW with protect mechanism for applications with high levels of dirt
- High flexibility through SLWT with double lead screw
- XY-table solutions

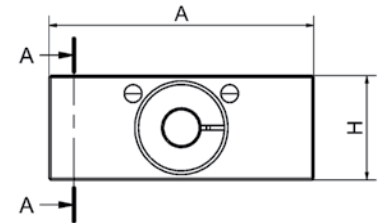
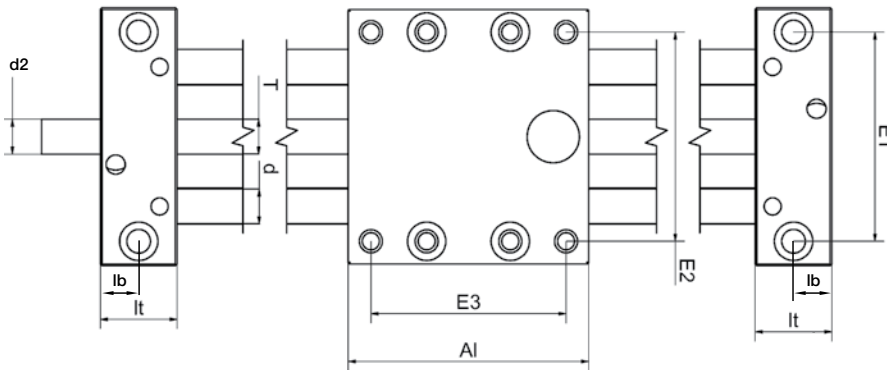
► Page 1596

drylin® SLW | linear actuators | Product range

Compact



- Flat and compact
- High torsional stability
- Fully supported
- drylin® W guide rails, hard-anodized aluminum
- Available accessories ► **Page 1703**
- Lead screw nuts are available separately ► **Page 1510**
- Available with motor



Dimensions [mm]


Part No.	A	A1 ⁹⁴⁾	H	E1	E2	E3	I	hw	f	lt	lb	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15							
SLW-0630	54	60	20	40	45	51	100	18	1.2	20	8	11	6.6
SLW-1040	74	69	29	60	60	56	113	24	1.5	22	11	11	6.8
SLW-1080	108	100	29	94	94	87	144	24	1.5	22	11	11	6.8
SLW-10120	154	100	29	140	140	87	144	24	1.5	22	11	11	6.8
SLW-1660	104	100	37	84	86	82	150	35	1.5	25	12.5	15	9.0
SLW-2080	134	150	46	116	116	132	206	44	1.5	28	14	15	8.6
SLW-25120	200	150	60	173	173	128	220	55	2.5	35	17.5	20	13.5

Part No.	tg	kt	s	sk	sg	kq	d	T	I2	d2	ha
	±0.1							Lead	Standard		
SLW-0630	-	8.0	4.5	7.0	M4	2.0	6		15	M8	9.5
SLW-1040	M8	6.4	6.6	9.5	M6	4.4	10		17	Tr10x2 ⁹²⁾	14.5
SLW-1080	M8	6.4	6.6	9.5	M6	4.4	10	See table for lead options	17	Tr10x2 ⁹²⁾	14.5
SLW-10120	M8	M8	6.4	9.5	M6	4.4	10		17	Tr10x2 ⁹²⁾	14.50
SLW-1660	M10	8.6	9.0	11	M8	5.5	16		20	Tr14x4 ⁹²⁾	18.5
SLW-2080	M10	8.6	9.0	14	M8	5.5	20		26	12h9	23.0
SLW-25120	M16	12.6	11.0	15	M10	5.0	25		38	14h9	30.0

Lead Options	
Actuator	Leads (T)
-0630	TR 8x1.5
	DS 8x10
	DS 8X15
	R/L 8x1.5
	R/L TR 10x2
-1040, 1080 & 10120	TR 10x12
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
-1660	R/L DS 10x25
	R/L DS 10x50
	TR 14x4
	DS 14X25
	DS 14X30
-2080	R/L TR 14x4
	TR 18x4
	TR 18x8
	DS 18x24
	DS 18x40
-25120	DS 18x80
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18X40
-25120	R/L DS 18X80
	R/L TR 24x5
	R/L TR 24x5

⁹²⁾ Lead screw end unmachined; ⁹⁴⁾ Carriages also in 100, 150, 200 and 250mm lengths available upon request

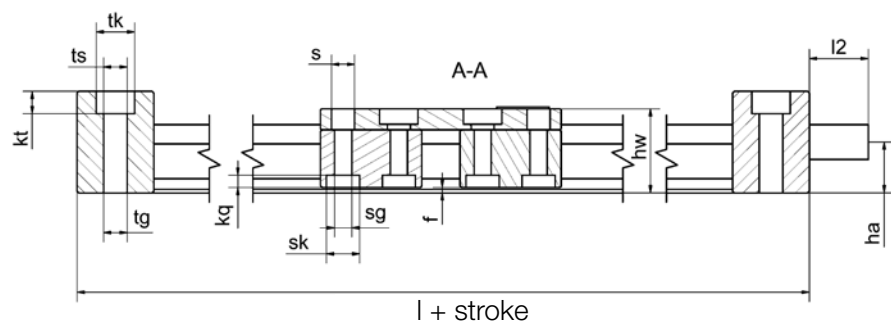
 Order key

Order example 








SLW - 1040

Compact

Dimension



Technical data

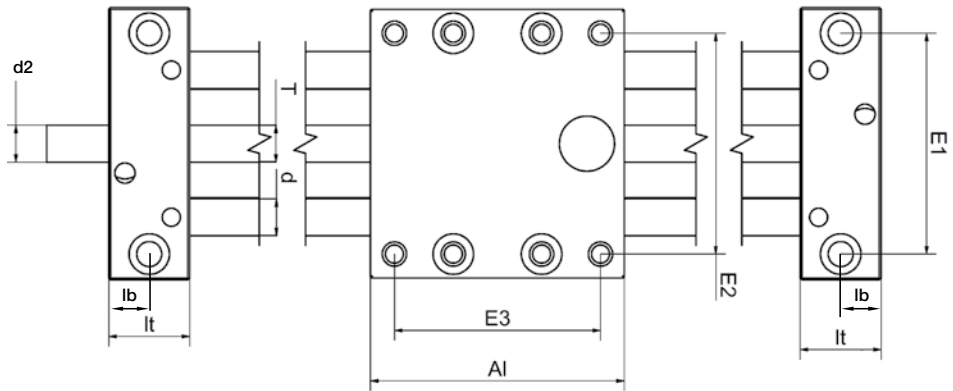
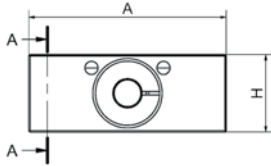
Part No.	Design	Max. stroke length	Weight	additional (per 100mm)	Max. static load capacity		Shaft end support material
		[mm]			[kg]	axial [N]	
SLW-0630		300	0.2	0.08	50	200	Plastic
SLW-1040		750	0.7	0.10	700	2,800	Zinc die-casting
SLW-1080		750	0.9	0.20	700	2,800	Aluminum
SLW-10120		750	1.6	0.25	700	2,800	Aluminum
SLW-1660		750	1.5	0.30	1,200	4,600	Aluminum
SLW-2080		1,000	3.0	0.40	1,600	6,400	Aluminum
SLW-25120		1,250	5.9	0.90	2,500	10,000	Aluminum

drylin® SLW | linear actuators | Product range

Preload version



- Radial and axial preload
- Manual adjustable clearance
- High torsional stability
- Fully supported
- drylin® W guide rails, hard-anodized aluminum
- Available accessories ► **Page 1703**
- Lead screw nuts are available separately ► **Page 1510**
- Available with motor




Dimensions [mm]

Part No.	A	A ⁹⁴⁾	H	E1	E2	E3	l	hw	f	lt	lb	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15							
SLWE-1040-PL	74	69	29	60	60	56	113	24	1.5	22	11	11	6.8
SLWE-1080-PL	108	100	29	94	94	87	144	24	1.5	22	11	11	6.8
SLWE-1660-PL	104	100	37	84	86	82	150	35	1.5	25	12.5	15	9.0
SLWE-2080-PL	134	150	46	116	116	132	206	44	1.5	28	14	15	8.6

Part No.	tg	kt	s	sk	sg	kq	d	T	l2	d2	ha
		±0.1								Standard	
SLWE-1040-PL	M8	6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2 ⁹²⁾	14.5
SLWE-1080-PL	M8	6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2 ⁹²⁾	14.5
SLWE-1660-PL	M10	8.6	9.0	11.0	M8	5.5	16	Tr14x4	20	Tr14x4 ⁹²⁾	18.5
SLWE-2080-PL	M10	8.6	9.0	14.0	M8	5.5	20	Tr18x4	26	12h9	23.0

⁹²⁾ Lead screw end unmachined; ⁹⁴⁾ Carriages also in 100, 150, 200 and 250mm lengths available upon request

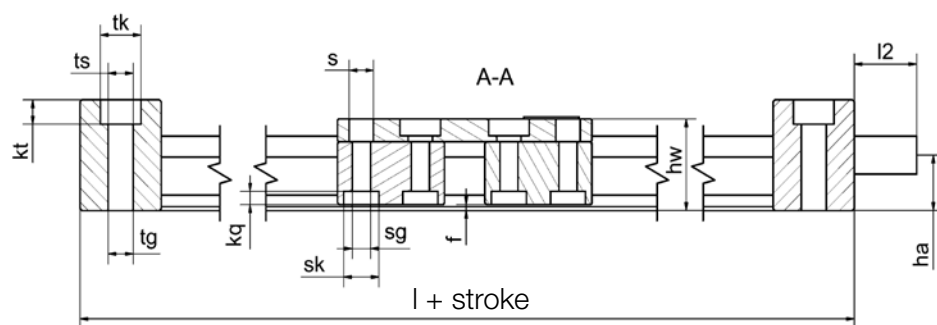
 Order key

Order example









SLW E - 1040 - PL

Compact	Dimension	Clearance-free, preloaded
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Technical data

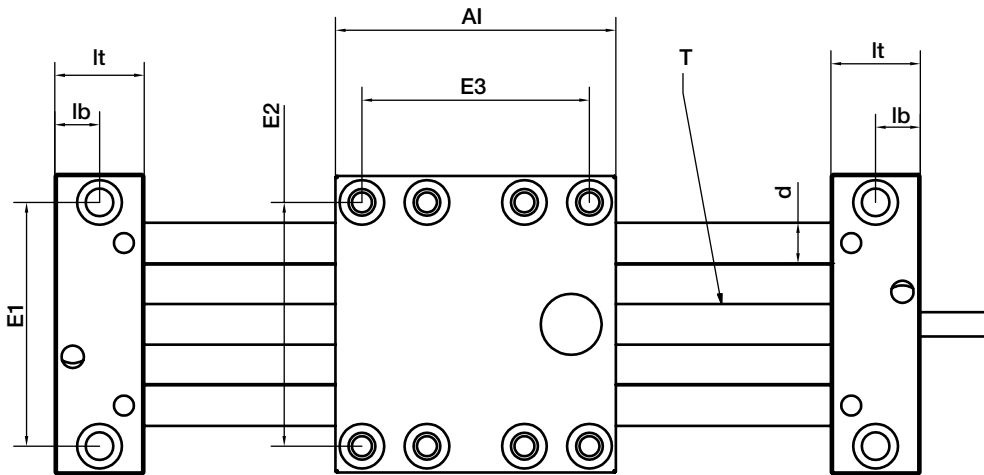
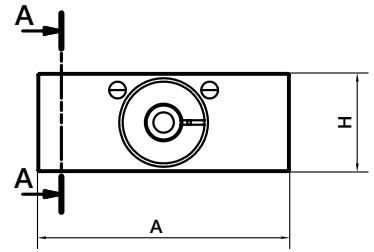
Part No.	Design	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. static load capacity		Shaft end support material
					axial [N]	radial [N]	
SLW-0630-PL		300	0.2	0.08	50	200	Plastic
SLW-1040-PL		750	0.7	0.10	700	2,800	Zinc die-casting
SLW-1080-PL		750	0.9	0.20	700	2,800	Aluminum
SLW-10120-PL		750	1.6	0.25	700	2,800	Aluminum
SLW-1660-PL		750	1.5	0.30	1,200	4,600	Aluminum
SLW-2080-PL		1,000	3.0	0.40	1,600	6,400	Aluminum
SLW-25120-PL		1,250	5.9	0.90	2,500	10,000	Aluminum

drylin® SLW | linear actuators | Product range

With ball bearing supported lead screw



- Lower drive force
- Optimized clearance
- Up to 1,500rpm (depending on length and load)
- Aluminum drylin® W guide rails, hard-anodized
- Quiet operation – reduced vibration of the overall system
- Ball bearings in both shaft end supports
- Available accessories ► **Page 1703**
- Lead screw nuts are available separately ► **Page 1510**
- Available with motor



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	I	hw	f	lt	lb	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15							
SLW-BB-0630	54	60	20	40	45	51	112	18	1.2	26	14	11	6.8
SLWE-BB-1040	74	69	29	60	60	56	129	24	1.5	30	19	11	6.8
SLWE-BB-1080	108	100	29	94	94	87	160	24	1.5	30	19	11	6.8
SLWE-BB-1660	104	100	37	84	86	82	170	35	1.5	35	22.5	15	9.0
SLWE-BB-2080	134	150	46	116	116	132	230	44	1.5	40	26	15	8.6
SLW-BB-25120	200	150	60	173	173	128	220	55	2.5	35	17.5	20	13.5

Part No.	tg	kt	sk	sg	kq	s	d	T	l2	d2	d2 ⁹⁵⁾	ha
	±0.1							(lead)		Standard		
SLW-BB-0630	M8	8.0	7.0	M4	2.0	4.5	6		15	Tr08x1.5	-	9.5
SLWE-BB-1040	M8	6.4	9.5	M6	4.4	6.6	10		17	Tr10x2	6 h9	14.5
SLWE-BB-1080	M8	6.4	9.5	M6	4.4	6.6	10	See table for lead options	17	Tr10x2	6 h9	14.5
SLWE-BB-1660	M10	8.6	11.0	M8	5.5	9.0	16		20	Tr14x4	8 h9	18.5
SLWE-BB-2080	M10	8.6	14.0	M8	5.5	9.0	20		26	12 h9	-	23.0
SLW-BB-25120	M16	12.6	15	M10	5.0	11.0	25		38	14 h9	-	30.0

Lead Options	
Actuator	Leads (T)
-0630	TR 8x1.5
	DS 8x10
	DS 8X15
	R/L 8x1.5
	TR 10x2
	TR 10x3
-1040, 1080 & 10120	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
	R/L DS 10x25
-1660	R/L DS 10x50
	TR 14x4
	DS 14X25
	DS 14x30
-2080	R/L TR 14x4
	TR 18x4
	TR 18x8
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18X40
	R/L DS 18X80

⁹⁵⁾ Optional machined lead screw end ⁹⁶⁾ Double rails, square ► Page 1120, round ► Page 1125

 Order key

Order example



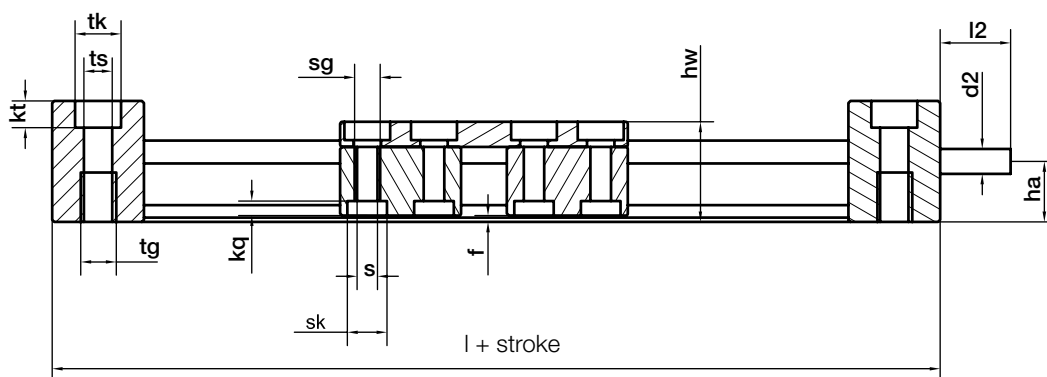
SLW E - BB - 1040

Compact

Adjustable clearance

Ball bearing

Dimension



Technical data

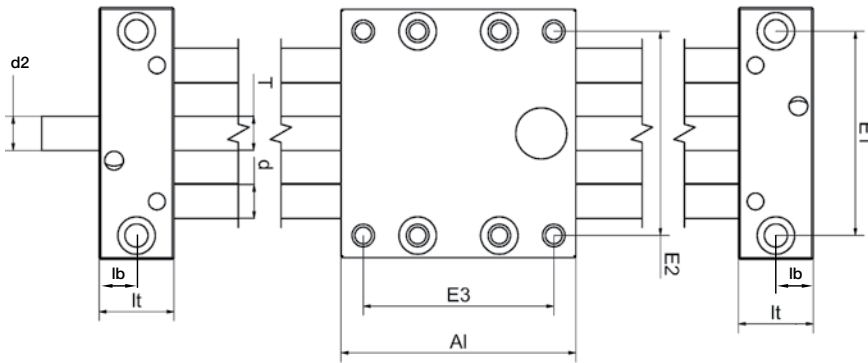
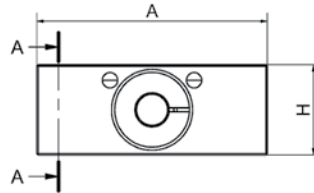
Part No.	Design ⁹⁶⁾	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. static load capacity		Max. speed [1/min]	Max. feed rate [m/min]
					axial [N]	radial [N]		
SLW-BB-0630	■	300	0.25	0.08	100	200	1,000	1.5
SLWE-BB-1040	●	500	0.90	0.10	500	2,000	1,500	3.0
SLWE-BB-1080	●	500	1.10	0.20	500	2,000	1,500	3.0
SLWE-BB-1660	●	750	1.80	0.30	700	2,800	1,500	6.0
SLWE-BB-2080	●	900	3.30	0.40	1,250	5,000	1,500	6.0
SLW-BB-25120	●	1,000	3.30	0.40	1,500	6,000	1,200	6.0

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Compact with high helix thread



- High torsional stability
- drylin® W guide rails, hard-anodized aluminum
- BB-version with ball bearing supported lead screw available
- Available accessories ► **Page 1703**
- Lead screw nuts are available separately ► **Page 1510**



Dimensions [mm]

Part No.	A	A1	H	E1	E2	E3	I	hw	f	lt	lb	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15							
SLWS-0630-08x15	54	60	20	40	45	51	100	17.5	1.2	20	10	11	6.6
SLWS-1040-10x12	74	69	29	60	60	56	113	24	1.5	22	11	11	6.8
SLWS-1040-10x50	74	69	29	60	60	56	113	24	1.5	22	11	11	6.8
SLWS-1080-10x12	108	100	29	94	94	87	144	24	1.5	22	11	11	6.8
SLWS-1080-10x50	108	100	29	94	94	87	144	24	1.5	22	11	11	6.8
SLWS-2080-18x100	134	150	46	116	116	132	206	44	1.5	28	14	15	8.6

Part No.	tg	kt	s	sk	sg	kq	d	T	I2	d2	ha
	±0.1							(lead)			
SLWS-0630-08x15	-	8.0	4.5	7.0	M4	2.0	6		15	Sg8x15 ⁹²⁾	9.5
SLWS-1040-10x12	M8	6.4	6.6	9.5	M6	4.4	10	See table for lead options	17	Sg10x12 ⁹²⁾	14.5
SLWS-1040-10x50	M8	6.4	6.6	9.5	M6	4.4	10		17	Sg10x50 ⁹²⁾	14.5
SLWS-1080-10x12	M8	6.4	6.6	9.5	M6	4.4	10		17	Sg10x12 ⁹²⁾	14.5
SLWS-1080-10x50	M8	6.4	6.6	9.5	M6	4.4	10		17	Sg10x50 ⁹²⁾	14.5
SLWS-2080-18x100	M10	12.6	11.0	15	M8	5.0	25		38	14h9	30.0

Lead Options	
Actuator	Leads (T)
-0630	DS 8x10
	DS 8x15
-1040, 1080 & 10120	DS 10x12
	DS 10x25
	DS 10x50
	R/L DS 10x12
-1660	R/L DS 10x25
	R/L DS 10x50
	DS 14x25
-2080	DS 14x30
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
	R/L DS 18x24
	R/L DS 18x40
	R/L DS 18x80

⁹²⁾ Lead screw end unmachined ⁹⁶⁾ Double rails, square ► Page 1120, round ► Page 1125



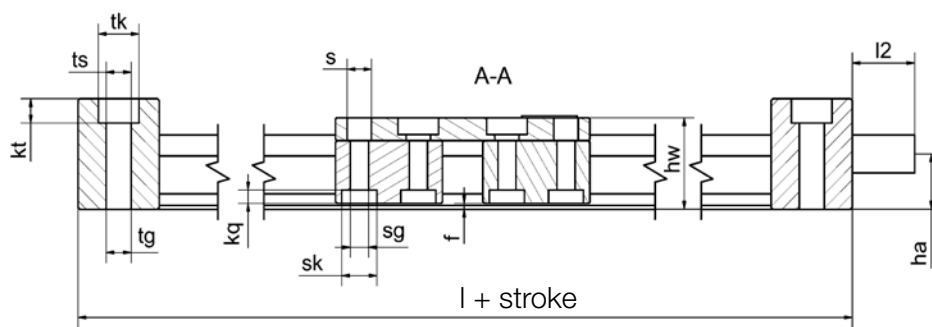
Order key

Order example



SLW S -0630 - 08x15

Compact	High helix thread	Dimension	Lead
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Technical data

Part No.	Design ⁹⁶⁾	Max. stroke length	Weight [kg]	additional (per 100mm) [kg]	Max. static load capacity	
					axial [N]	radial [N]
SLWS-0630-08x15	■	300	0.2	0.08	50	200
SLWS-1040-10x12	●	750	0.7	0.10	100	400
SLWS-1040-10x50	●	750	0.7	0.10	100	400
SLWS-1080-10x12	●	750	0.9	0.20	100	400
SLWS-1080-10x50	●	750	0.9	0.20	100	400
SLWS-2080-18x100	●	750	0.9	0.20	400	1,600

With protected lead screw



Order key



Order example

SLW - BB - PT - 1040

Compact

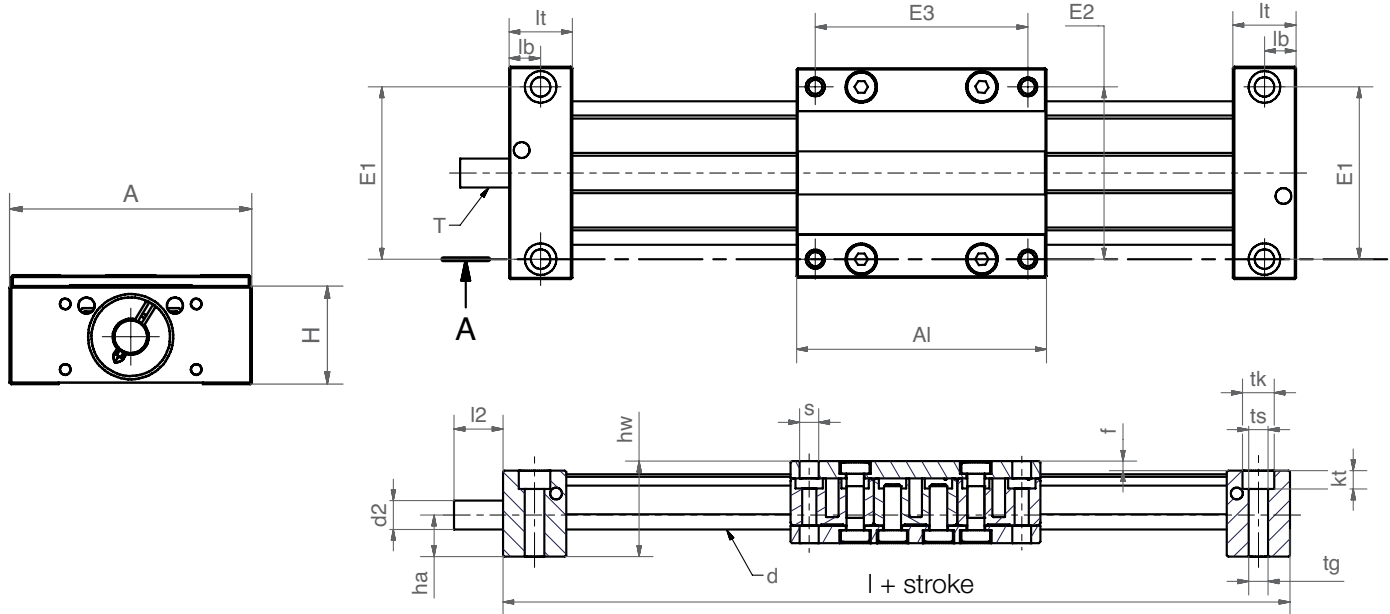
Ball bearing

Protect

Dimension



- drylin® W profile rail as a protective mechanism
- Low profile design
- Available with motor



Dimensions [mm]

Part No.	A	A1	H	E1/E2	E3	I	h _w	f	I _t	I _b	t _k
	-0.3	-0.3		±0.15	±0.15						
SLW-PT-1040	74	87	29	60	74	131	33.25	3.25	22	11	11
SLW-BB-PT-1040	74	87	29	60	74	147	33.25	3.25	30	19	11

Part No.	t _s	t _g	k _t	d	T (lead)	I ₂	d ₂	d ₂ ⁹⁸⁾	h _a
			±0.1						
SLW-PT-1040	6.8	M8	6.4	10	See table for lead options	17	Tr10x2	6 h9	14.50
SLW-BB-PT-1040	6.8	M8	6.4	10	See table for lead options	17	Tr10x2	6 h9	14.50

Lead Options	
Actuator	Leads (T)
-1040	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
	R/L DS 10x25
	R/L DS 10x50

Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. static load capacity		Shaft end support material
				axial [N]	radial ⁹⁷⁾ [N]	
SLW-PT-1040	750	0.75	0.20	700	2,000	Aluminum
SLW-BB-PT-1040	750	1.10	0.20	500	2,000	Aluminum

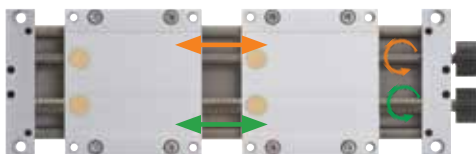
⁹⁷⁾ Depends on load and rotation speed ⁹⁸⁾ Thread/remaining thread visible

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Dual action linear system



- Carriages can be controlled separately
- Different lead screw pitches can be applied
- Separate manual adjustment of carriages
- Design flexibility
- Clearance adjustment (optional)



Order key

Order example

Options

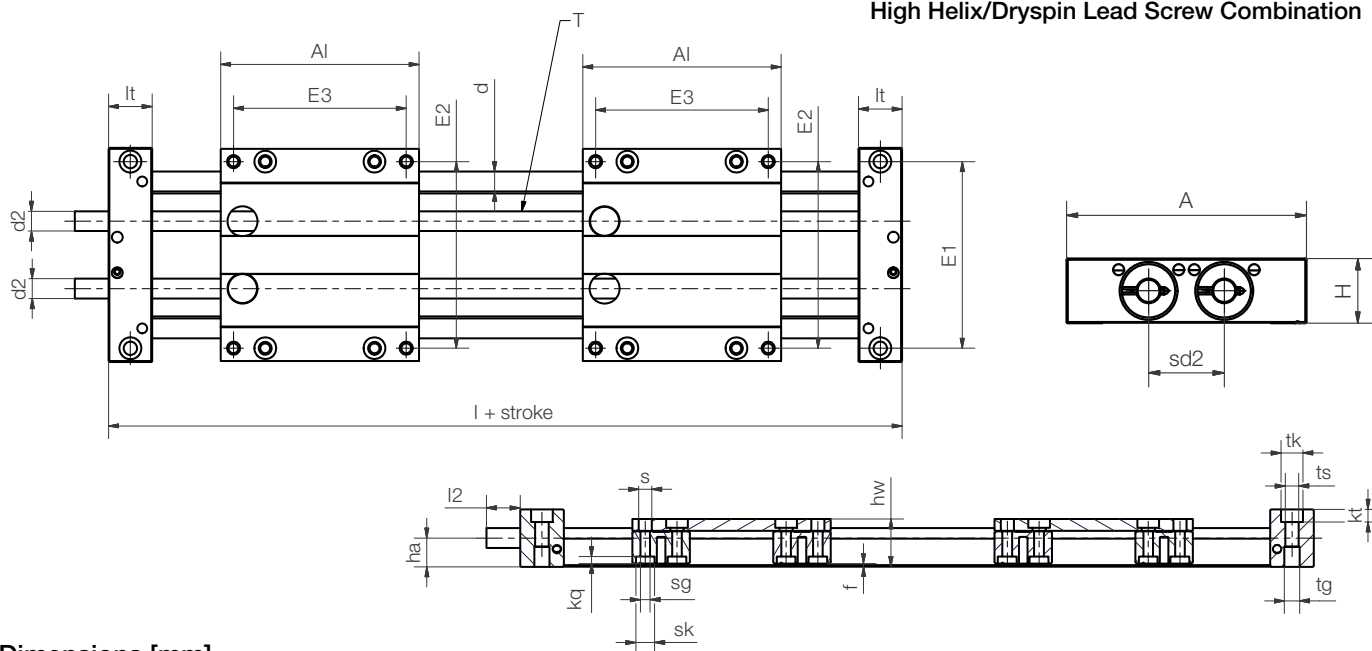


SLW T -1080



Options:
BB = Ball bearings

Trapezoidal Lead Screw & Nut Combination
High Helix/Dryspin Lead Screw Combination



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	l	hw	f	lt	tk	ts	tg	lb	kt	sk	s	sg
	-0.3	-0.3		±0.15	±0.15	±0.15			±0.1				±0.1					
SLWT-1080	108	100	29	94	94	87	244	24	1.5	22	11	6.8	M8	11	6.4	9.5	6.6	M6
SLWT-BB-1080	108	100	29	94	94	87	244	24	1.5	30	11	6.8	M8	19	6.4	9.5	6.6	M6

Part No.	kq		d	T (lead)	l2	d2		ha	sd2
	Standard	Alternative				Standard	Alternative		
SLWT-1080	4.4		10	See table for lead options	17	Tr10x2	6 h9	14.50	34
SLWT-BB-1080	4.4		10		17	Tr10x2	6 h9	14.50	34

Lead Options	
Actuator	Leads (T)
-1080	TR 10x2
	DS 10x12
	DS 10x25
	DS 10x50

Technical data

Part No.	Max.	Weight	additional (per 100mm)	Max. static load capacity		Shaft end support material
	stroke length			axial	radial	
	[mm]			[N]	[N]	
SLWT-1080	750	1.6	0.25	700	2,800	Aluminum
SLWT-BB-1080	750	1.6	0.25	700	2,800	Aluminum

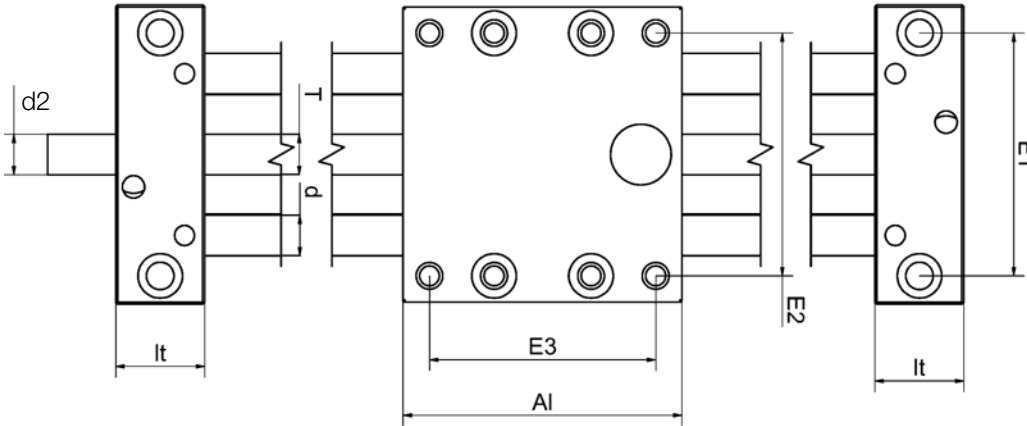
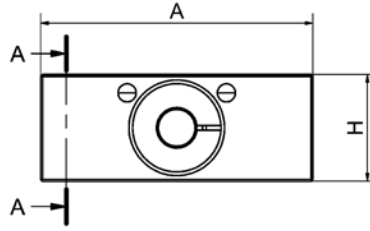
⁹²⁾ Lead screw end unmachined

drylin® SLW | linear actuators | Product range

Stainless steel



- Stainless steel version with corrosion-resistant steel components (AISI 303, AISI 316 and AISI 316Ti)
- Choice of bearing material:
 iglide® J = Standard
 iglide® A180 = FDA-compliant
 iglide® X = High temperature up to 302°F (+150°C)¹¹⁷⁾
- Available accessories ► Page 1703



Dimensions [mm]


Part No.	A	A1	H	E1	E2	E3	I	hw	f	lt	lb	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15							
SLW-ES-1040	74	100	29	60	60	87	144	24	1.5	22	11	11	6.8
SLW-ES-2080	134	150	46	116	116	132	206	44	1.5	28	14	15	8.6

Part No.	tg	kt	s	sk	sg	kq	d	T (lead)	l2	d2 Standard	ha
		±0.1									
SLW-ES-1040	M8	6.4	6.6	9.5	M6	4.4	10	See table for lead options	17	Tr10x2 ⁹²⁾	14.5
SLW-ES-2080	M10	8.6	9.0	14	M8	5.5	20		26	12h9	23.0

⁹²⁾ Lead screw end unmachined

¹¹⁷⁾ In the event of severe temperature fluctuations during transport, storage and use, thermal expansion effects cannot be ruled out

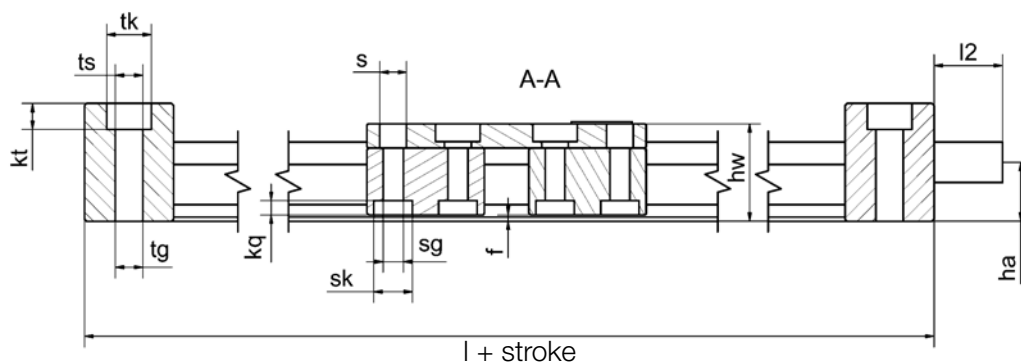
Lead Options	
Actuator	Leads (T)
-1040	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
-2080	R/L DS 10x25
	R/L DS 10x50
	TR 18x4
	TR 18x8
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18x40

 Order key

Order example

SLW-ES J - 1040

Compact	Stainless steel	Bearing material	Dimension
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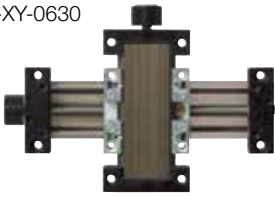
Technical data

Part No.	Shafts Ø	Max. stroke length	Weight	additional (per 100mm)	Max. stat. load capacity	
	[mm]	[mm]	[kg]	[kg]	axial [N]	radial [N]
SLW-ESJ-1040	10	750	1.4	0.2	700	2,800
SLW-ESX-1040	10	750	1.4	0.2	700	2,800
SLW-ESA180-1040	10	750	1.4	0.2	700	2,800
SLW-ESJ-2080	20	1,000	5.7	0.64	1,600	6,400
SLW-ESA180-2080	20	1,000	5.7	0.64	1,600	6,400

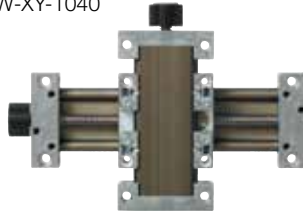
drylin® SLW | XY-tables | Product range

Compact XY-tables for manual adjustments

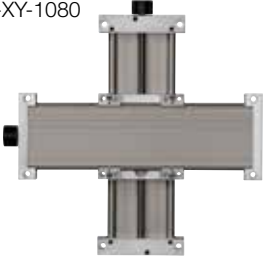
SLW-XY-0630



SLW-XY-1040

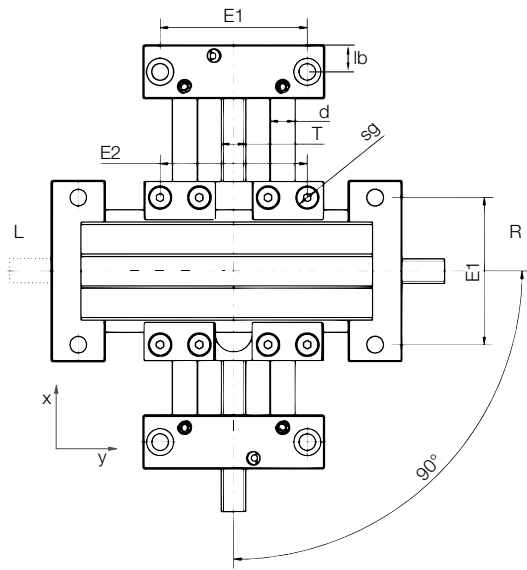


SLW-XY-1080



- Aluminum drylin® W guide rails, hard-anodized
- Preload SLWE-XY-PL version also available (optional, sizes: 1040/1080)
- Available accessories

► Page 1703



Order key

Order example

Options

SLW-XY-1040-PL

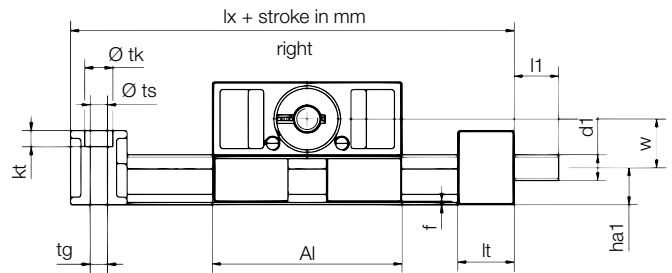
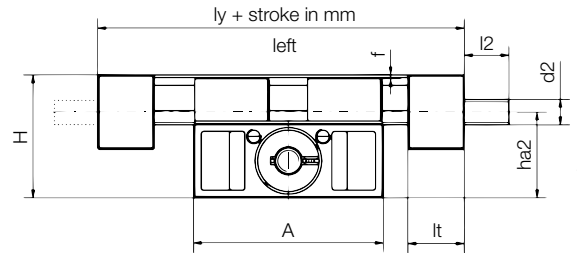
Compact

XY table

Dimension

Preload

Options:
Preload
optional with
sizes 1040
and 1080



Dimensions [mm]

Part No.	Max. stroke length [mm]	A	Al	H	E1	E2	Base length lx	Base length ly	f	lt	lb	tk	ts	tg
SLW-XY-0630	150	54	54	38	40	45	94	94	1.5	20	10	11	6.6	-
SLW-XY-1040	300	74	73	48	60	60	117	117	1.5	22	11	11	6.8	M8
SLW-XY-1080	300	108	107	48	94	94	151	151	1.5	22	11	11	6.8	M8

Part No.	kt	sg	d	T (lead)	l1	d1		l2	d2		ha1	ha2	W
						Std	Alt		Std	Alt			
SLW-XY-0630	8	M4	5	M8	15	M8	-	15	M8	-	9.5	28.5	18.4
SLW-XY-1040	6.4	M6	10	Tr10x2	17	Tr10x2	6 h9	17	Tr10x2	6 h9	14.5	33.5	20
SLW-XY-1080	6.4	M6	10	Tr10x2	17	Tr10x2	6 h9	17	Tr10x2	6 h9	14.5	33.5	19

Lead Options	
Actuator	Leads (T)
-0630	TR 8x1.5
	DS 8x10
	DS 8x15
	R/L 8x1.5
-1040, 1080	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
-1080	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
	R/L DS 10x25
	R/L DS 10x50

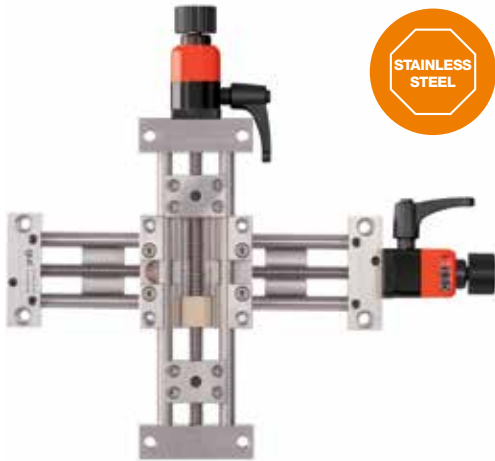
The hand wheel can be ordered left or right-mounted in the y-direction.

Left: SLW-XY-1040-L-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis

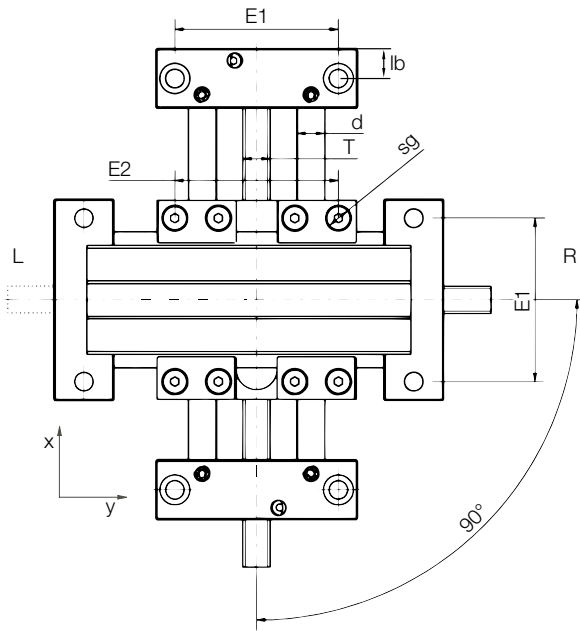
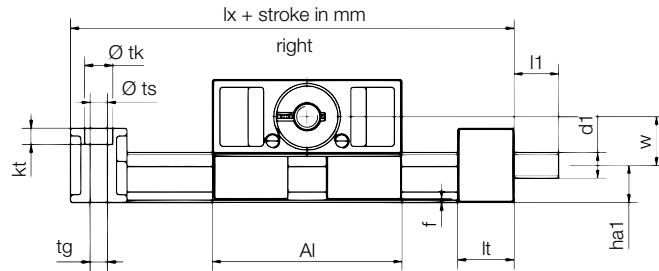
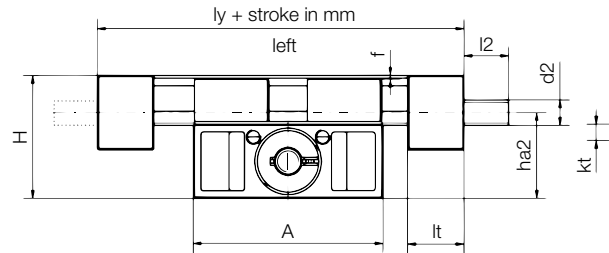
Right: SLW-XY-1040-R-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis

drylin® SLW | XY-tables | Product range

XY-table stainless steel version



- For manual adjustments
- High torsional stability
- Structure entirely made from 316 stainless steel materials
- Chemical and corrosion-resistant
- Available accessories ► **Page 1703**



Lead Options	
Actuator	Leads (T)
-1040	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	R/L TR 10x2
	R/L DS 10x12
-1660	R/L DS 10x25
	R/L DS 10x50
	TR 14x4
	DS 14x25
-2080	DS 14x30
	R/L TR 14x4
	TR 18x4
	TR 18x8
	DS 18x24
	DS 18x40
	DS 18x80
	DS 18x100
	R/L TR 18x4
	R/L DS 18x24
	R/L DS 18x40
	R/L DS 18x80

Dimensions [mm]

Part No.	Max. stroke length [mm]	A	Al	H	E1	E2	Base length lx	Base length ly	f	lt	lb	tk	ts
SLW-XY-ESJ-1040	300	-0.3		48	±0.15	±0.15	117	117	1.5	22	11	±0.1	6.8

Part No.	tg	kt	sg	d	T (lead)	l1	d1 Std	d1 Alt	l2	d2 Std	d2 Alt	ha1	ha2	W ha2-ha1
SLW-XY-ESJ-1040	M8	6.4	M6	10	Tr10x2	17	Tr10x2	6 h9	17	Tr10x2	6 h9	14.5	33.5	19

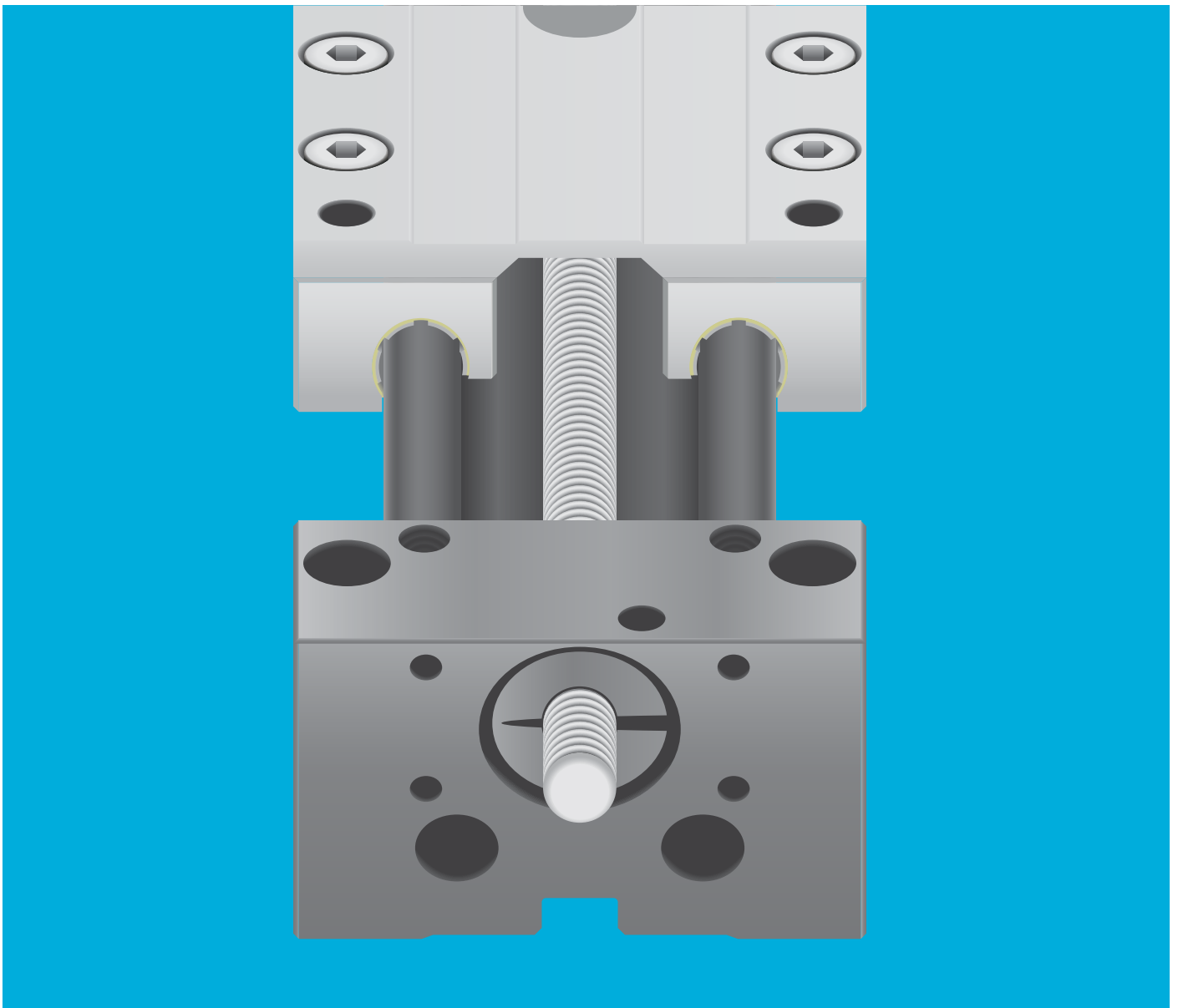
The hand wheel can be ordered left or right-mounted in the y-direction.

Left: SLW-XY-ESJ-1040-L-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis

Right: SLW-XY-ESJ-1040-R-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis

Notes

A large grid area for taking notes, consisting of a 30x30 grid of small squares. The grid is empty and occupies the majority of the page.



drylin[®] general drive technology – SAW linear actuators

Self-lubricating linear actuators based on
drylin[®] W guides

Drive: Trapezoidal or high helix lead screw

Durable design

Ready-to-install stepper or DC motors

Ball bearing



Compact high design

Shaft end supports made from black anodized aluminum

Lead screw drive with ball bearing as standard

Extremely torsion-resistant drylin® W high profile rail made from hard-anodized aluminum

Self-lubricating and maintenance-free drylin® lead screw nuts

The carriages consist of four drylin® W individual bearing housings equipped with self-lubricating drylin® liners

Mounting plates made from anodized aluminum, available in different lengths

Adapter plates for linear robot solutions available

Lead screw material: steel/stainless steel/aluminum

Drive: self-locking trapezoidal thread or fast adjust high helix thread



Configurable with motor as a ready-to-install linear drive

Self-lubricating linear actuators – drylin® SAW

The drylin® W high profile provides the torsion-resistant base for the linear axes of the SAW series. Thanks to the ball bearing supported lead screw and high profile design, the SAW linear actuators are perfectly suitable for the direct connection to stepper or DC motors. Slots in profile sections enable initiators to be freely positioned and, at the same time, enable set-up as a multi-axis linear robot by means of suitable adapter plates.

- Optimized unit for motor connection
- drylin® W high profile with variable mounting options using clamping elements or slot nuts
- For manual or electrical adjustments
- Ideal for single and/or multi-axial constructions

Typical application areas

- Positioning functions
- 3D scanner
- Format adjustments
- Linear robot structures
- Height adjustments



Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Carriage lengths: 60-250mm

Carriage widths: 54-107mm

Stroke lengths: up to 750mm



Product finder

► www.igus.com/info/linear-actuators

Ball bearing



SAW linear actuator

- Durable high design in 4 sizes
- Drive: Trapezoidal or high helix lead screw
- For manual positioning or motorized operation

► Page 1602



SAWC linear actuator

- Compact short design
- With integrated drylin® E lead screw motor
- Optimized ratio of useful length to total length

► Page 1604



DLE linear actuator

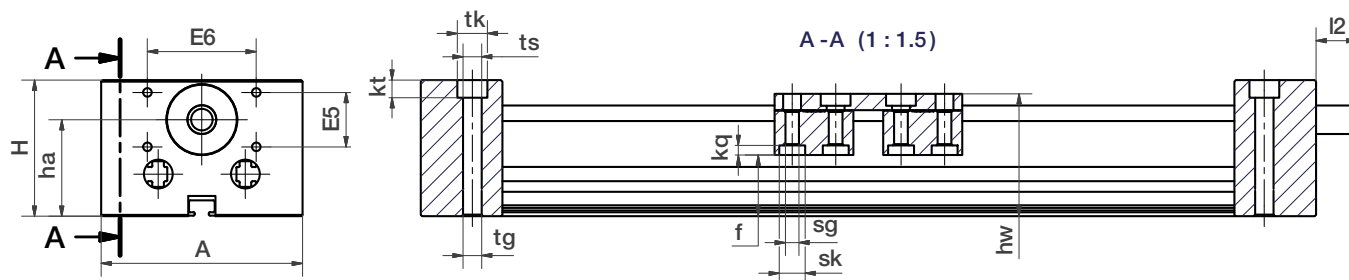
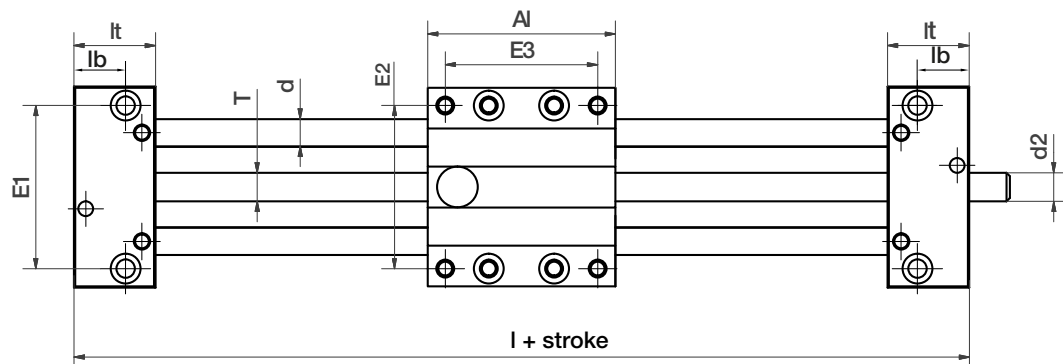
- Configured linear actuators with NEMA stepper motors
- Available in 24 hours
- Pre-assembled and tested

► Page 1605

Durable design



- Trapezoidal or high helix threads
- Ball bearing supported lead screw
- Rail profile in high design, extremely torsion-resistant
- Aluminum drylin® W guide rails, hard-anodized
- High stability
- Cost-effective and 100% self-lubricating
- Available accessories ► **Page 1703**
- Lead screw nuts are available separately ► **Page 1510**



Dimensions [mm]

Part No.	A	A1	H	E1	E2	E3	E5	E6	l	lc	hw	f	l1
	-0.3	-0.3		+0.15	+0.15	+0.15							
SAW-0630	54	60/100	32	40	45	51/91	11	23	112/152	92	30	13.5	26
SAW-1040	74	69/100/150	50	60	60	56/87/137	20	40	129/160/210	91	45	22.5	30
SAW-1080	108	100	58	94	94	87	-	-	163	131.5	49	22.5	31.5
SAW-1660	104	150	77	84	86	132	20	40	220	175	72	38.5	35

Part No.	lb	tk	ts	tg	kt	sk	sg	kq	d	T (Lead)	l2	d2	ha
					±0.1					Ø			
SAW-0630	10	11	6.6	-	20	-	M4	10	5		15	Tr8x1.5	21.5
SAW-1040	19	11	6.8	M8	6.4	9.5	M6	3.5	10	See options in table	17	Tr10x2 Ø6 h9 ¹¹³⁾	35.5
SAW-1080	15.75	11	6.8	M8	18	9.5	M6	3.5	10		17	Tr12x3 Ø8 h9 ¹¹³⁾	37.5
SAW-1660	22.5	15	9.0	M10	8.6	11	M8	5.5	16		20	Tr14x4 Ø8 h9 ¹¹³⁾	59.0

Lead Options	
Actuator	Leads (T)
SAW-0630	TR 8x1.5
	DS 8x10
	DS 8x15
SAW-1040	R/L 8x1.5
	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
SAW-1080	DS 10x50
	TR R/L 10x2
	DS R/L 10x12
	DS R/L 10x25
	DS R/L 10x50
SAW-1660	TR 12x3
	TR 12x6
	DS 12x5
	DS 12x25
SAW-1660	14x4
	DS 14x25
	DS 14x30
	RL TR 14x4

Technical data

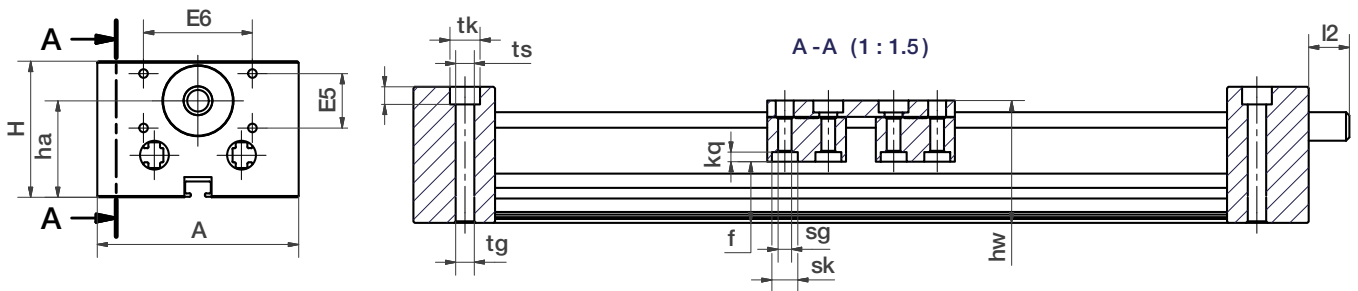
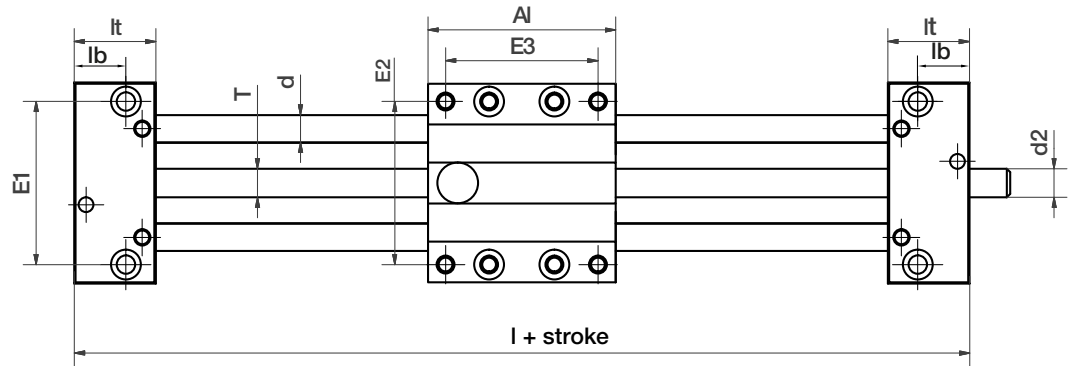
Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity axial [N]	Max. static load capacity radial [N]
SAW-0630	300	0.5	0.1	1,000	100	400
SAW-1040	500	1.0	0.1	1,500	500	2,000
SAW-1080	750	1.9	0.2	1,500	750	2,000
SAW-1660	750	2.8	0.5	1,500	750	3,000

¹¹³⁾ Lead screw end unmachined, also available with machined end

Reduced clearance with pretension in lead screw support and lead screw nut



- Self-lubricating and maintenance-free
- Quiet, reduced backlash
- Trapezoidal or high helix threads
- 3 carriage lengths (100/150/200mm) with spring-loaded second lead screw nut
- Liners made from wear-resistant high-performance polymers
- For manual and electric adjustment even in multi-axis linear robots



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E5	E6	I	Ic	hw	f	It	lb
	-0.3	-0.3		+0.15	+0.15	+0.15								
SAW-1080-PL	108	100	58	94	94	87	-	-	163	131.5	49	22.5	31.5	15.75

Part No.	tk	ts	tg	kt	sk	sg	kq	d	T	I2	d2	ha
				±0.1					∅			
SAW-1080-PL	11	6.8	M8	18	9.5	M6	3.5	10	Tr12x3	17	Tr12x3 ∅ 8 h9 ¹¹³⁾	37.5

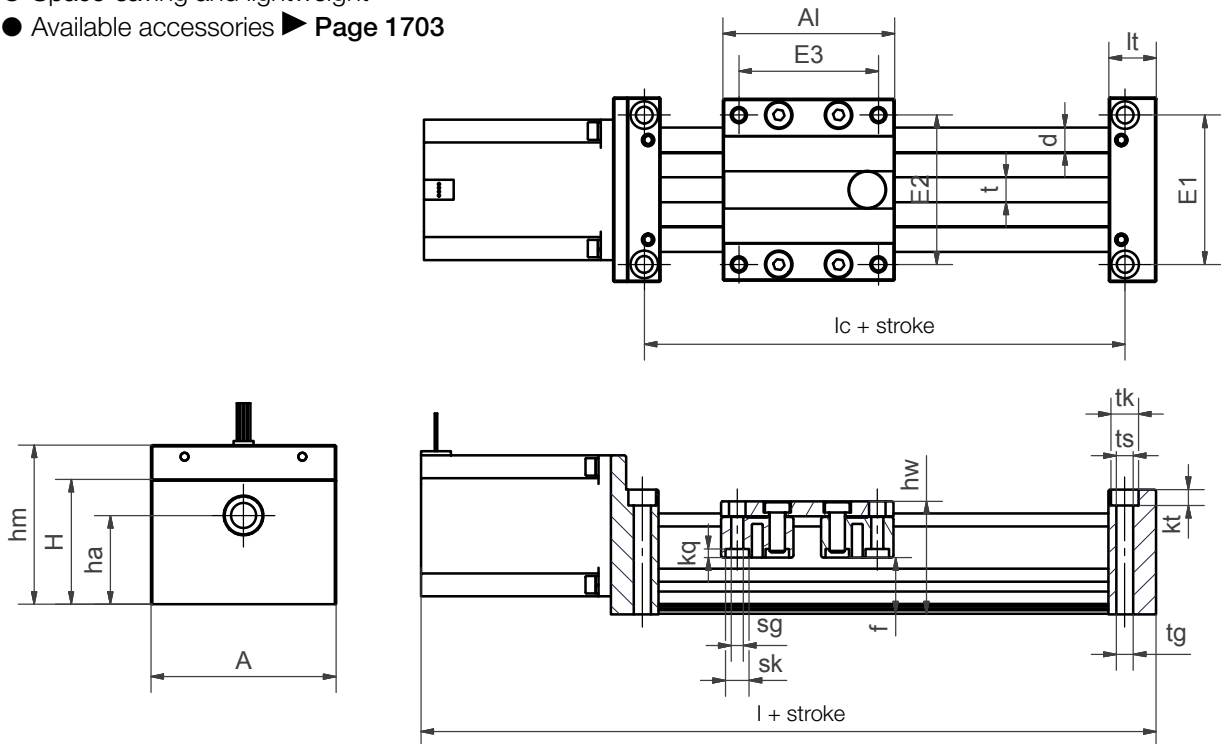
Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity axial [N]	Max. static load capacity radial [N]
SAW-1080-PL	750	1.9	0.2	1,500	750	2,000

¹¹³⁾ Lead screw end unmachined, also available with machined end

Direct drive in short design

- Smaller installation space and more stroke
- Compact short design due to the use of drylin® E lead screw motors
- Optimized ratio of useful length to total length (compared to the SAW series, up to 70mm)
- Improved operating characteristics
- Space-saving and lightweight
- Available accessories ► **Page 1703**



Dimensions [mm]

Part No.	A	A1	H	E1	E2	E3	l	lc	hw	f	lt	lb
	-0.3	-0.3		+0.15	+0.15	+0.15						
SAWC-0630	54	50	42.5	40	45	51	139	75	30	13.5	15	7.5
SAWC-1040	74	69	50	60	60	56	183	82	45	22.5	19	9.5

Part No.	tk	ts	tg	kt	sk	sg	kq	d	T (Lead)	ha
				±0.1					Ø	
SAWC-0630	8	4.2	M5	20	7	M4	2	5	See options in table	21.5
SAWC-1040	11	6.8	M8	6.4	9.5	M6	3.5	10	See options in table	35.5

Lead Options	
Actuator	Leads (T)
SAWC-0630	8X1.5
	8x10
	8X15
SAWC-1040	R/L 8x1.5
	TR 10x2
	TR 10x3
	DS 10x12
	DS 10x25
	DS 10x50
	TR R/L 10x2
	DS R/L 10x12
	DS R/L 10x25
DS R/L 10x50	

Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity	
					axial [N]	radial [N]
SAWC-0630	300	0.5	0.1	1,000	100	200
SAWC-1040	500	1.0	0.1	1,500	500	2,000

⁹²⁾ Lead screw end unmachined

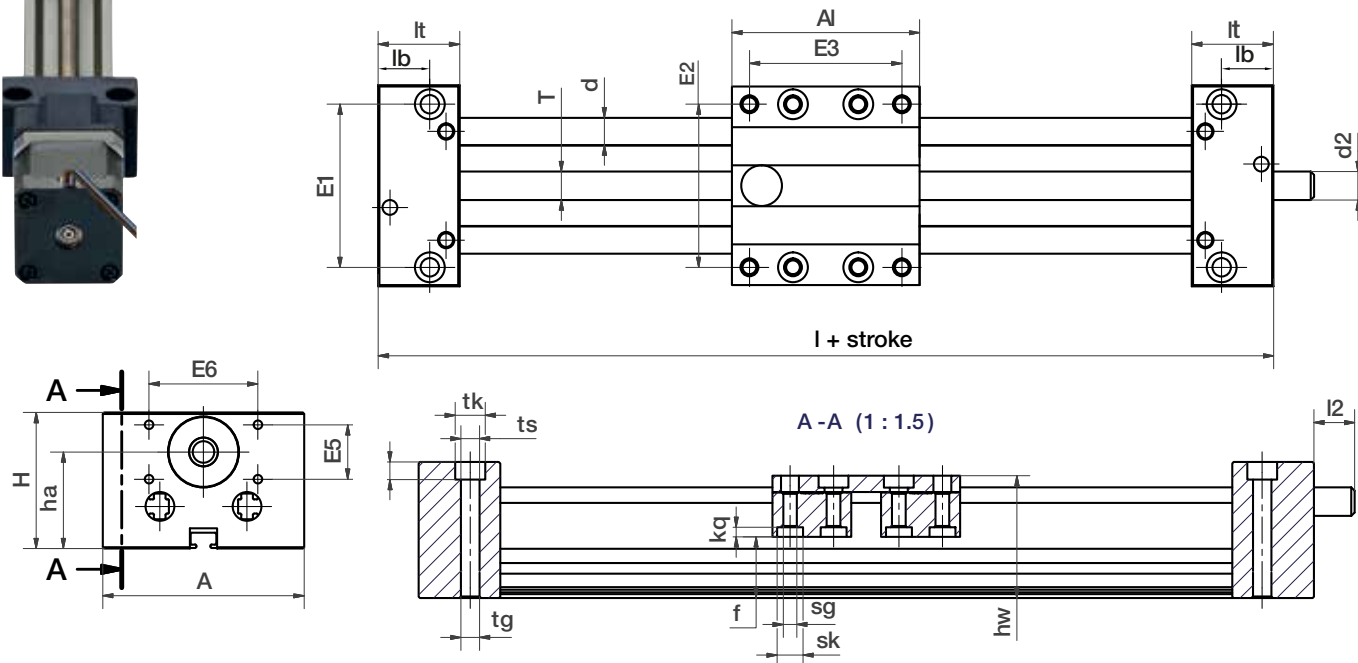
Linear actuator with motor



igus® delivers ready-to-install, preconfigured linear actuators (drive: lead screw or toothed belt) from stock within 24 hours. You simply choose between 3 sizes, 3 stroke lengths and 3 stepper motors ... and the system is delivered in 24 hours after you place your order.

- drylin® linear actuators with motor
- Available from stock
- Ready-to-install and pre-assembled
- NEMA stepper motors with stranded wires
- Basis drylin® ZLW and SAW linear axes
- Available accessories ► **Page 1703**

i Further information about the motors ► **Page 1720**



Dimensions [mm]

Part No.	A	A1	H	E1	E2	E3	E5	E6	I	lc	hw	f	lt	lb
	-0.3	-0.3		+0.15	+0.15	+0.15								
DLE-SA-0004	54	60/100	32	40	45	51/91	11	23	112/152	92	30	13.5	26	10
DLE-SA-0005	74	69/100/150	50	60	60	56/87/137	20	40	129/160/210	91	45	22.5	30	19
DLE-SA-0006	108	100	58	94	94	87	-	-	163	131.5	49	22.5	31.5	15.75

Part No.	tk	ts	tg	kt	sk	sg	kq	d	T	I2	d2	ha
				±0.1					Ø			
DLE-SA-0004	11	6.6	-	20	-	5	10	5	Tr8x1.5	15	Tr8x1.5	21.5
DLE-SA-0005	11	6.8	M8	6.4	9.5	M6	3.5	10	Tr10x2	17	Tr10x2 Ø 6 h9 ¹¹³⁾	35.5
DLE-SA-0006	11	6.8	M8	18	9.5	M6	3.5	10	Tr12x3	17	Tr12x3 Ø 8 h9 ¹¹³⁾	37.5

Technical data

Part No.	Installation size	Carriage length	Stroke length	Motor type
DLE-SA-0004	SAW-0630 Tr08x1.5	60	250	NEMA17 stranded wires
DLE-SA-0005	SAW-1040 Tr10x2	69	500	NEMA23 stranded wires
DLE-SA-0006	SAW-1080 Tr12x3	100	500	NEMA23XL stranded wires

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity axial [N]	Max. static load capacity radial [N]
DLE-SA-0004	300	0.5	0.1	1,000	100	400
DLE-SA-0005	500	1.0	0.1	1,500	500	2,000
DLE-SA-0006	750	1.9	0.2	1,500	750	2,000

¹¹³⁾ Lead screw end unmachined, also available with machined end

Notes

A large grid area for taking notes, consisting of a 20x30 grid of small squares. The grid is empty and occupies the majority of the page.



drylin[®] general drive technology – SET linear actuators

Self-lubricating single-tube adjustment

Drive: lead screw drive

Simple design

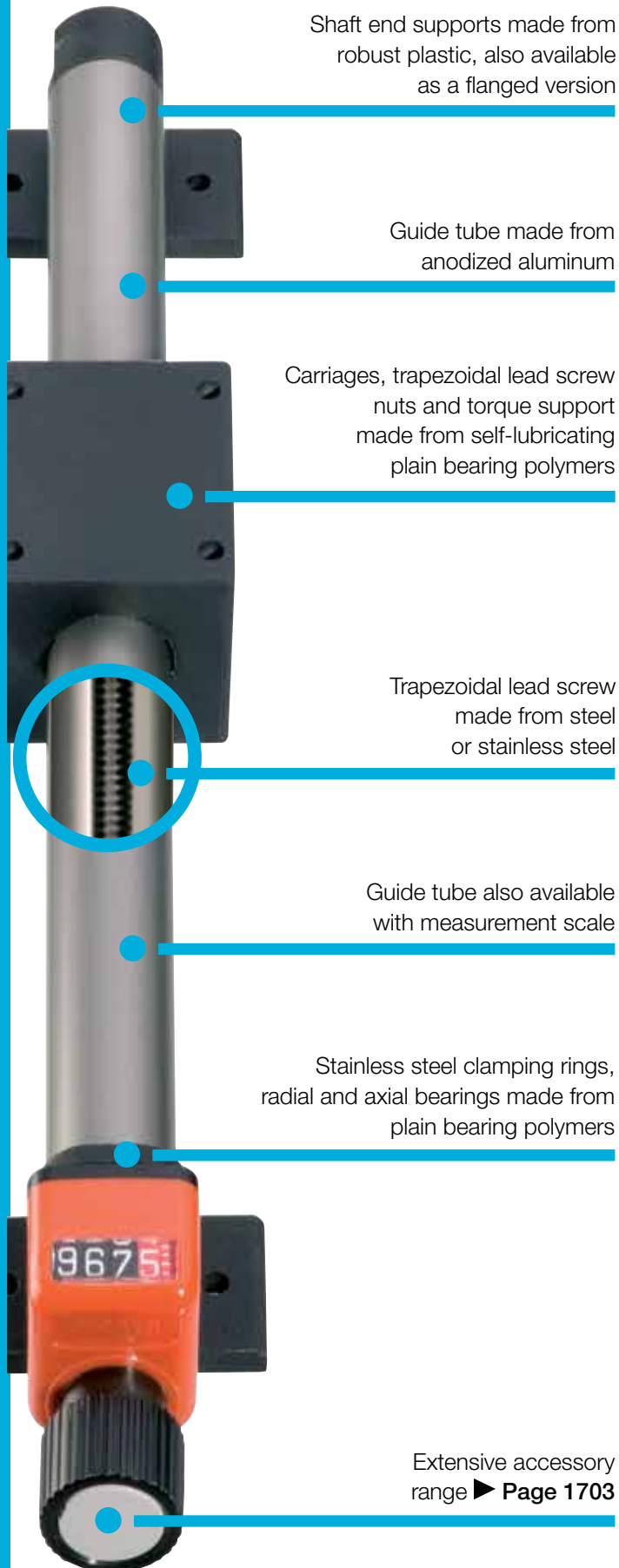
Lightweight

Temperature resistance up to +122°F (+50°C)



drylin® SET | easytube | Advantages

Single-tube adjustment



Shaft end supports made from robust plastic, also available as a flanged version

Guide tube made from anodized aluminum

Carriages, trapezoidal lead screw nuts and torque support made from self-lubricating plain bearing polymers

Trapezoidal lead screw made from steel or stainless steel

Guide tube also available with measurement scale

Stainless steel clamping rings, radial and axial bearings made from plain bearing polymers

Extensive accessory range ► **Page 1703**

Self-lubricating "easytube"

The SET... for easy adjustments benefits by a simple and effective design. The outer anodized aluminum tube guides the carriage/s and at the same time protects the trapezoidal lead screw and lead screw nut from external influences. Carriage, torque support and trapezoidal lead screw nut are in one component and are made from a special plain bearing high-performance polymer.

- Protected lead screw
- Effective design
- Available with measurement scale
- Flanged version for axial mounting in surfaces and profiles

Typical application areas

- Sensor and camera positioning
- Format adjustment



Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Carriage lengths: 30-55mm

Stroke lengths: up to 850mm



Product finder

► www.igus.com/info/linear-actuators

drylin® SET | easytube | Product overview

Efficient design with protected lead screw and variable mounting



easytube single tube linear unit

- For light format adjustments
 - Protected lead screw, torque-resistant
 - Drive: Trapezoidal or high-helix lead screw
- Page 1610



easytube with double flange

- For axial mounting
 - Simple design
- Page 1611



easytube with single flange

- Single aluminum flange
 - Space-saving design
- Page 1612



easytube with measurement scale

- With laser-printed scale
 - Carriage with clamp
 - Available with/without lead screw
- Page 1613



easytube "light"

- Lightweight linear carriage
 - Compact structure
 - Also available as flanged version
- Page 1614



Accessories for linear actuators

- Position indicator, hand wheels, lead screw clamps, angular drives and more
- From page 1703



- For simple adjustments
- With protected lead screw
- Corrosion-free with stainless steel lead screw
- Lightweight
- Temperature-resistant up to +140°F (60°C)
- Available accessories ► Page 1703

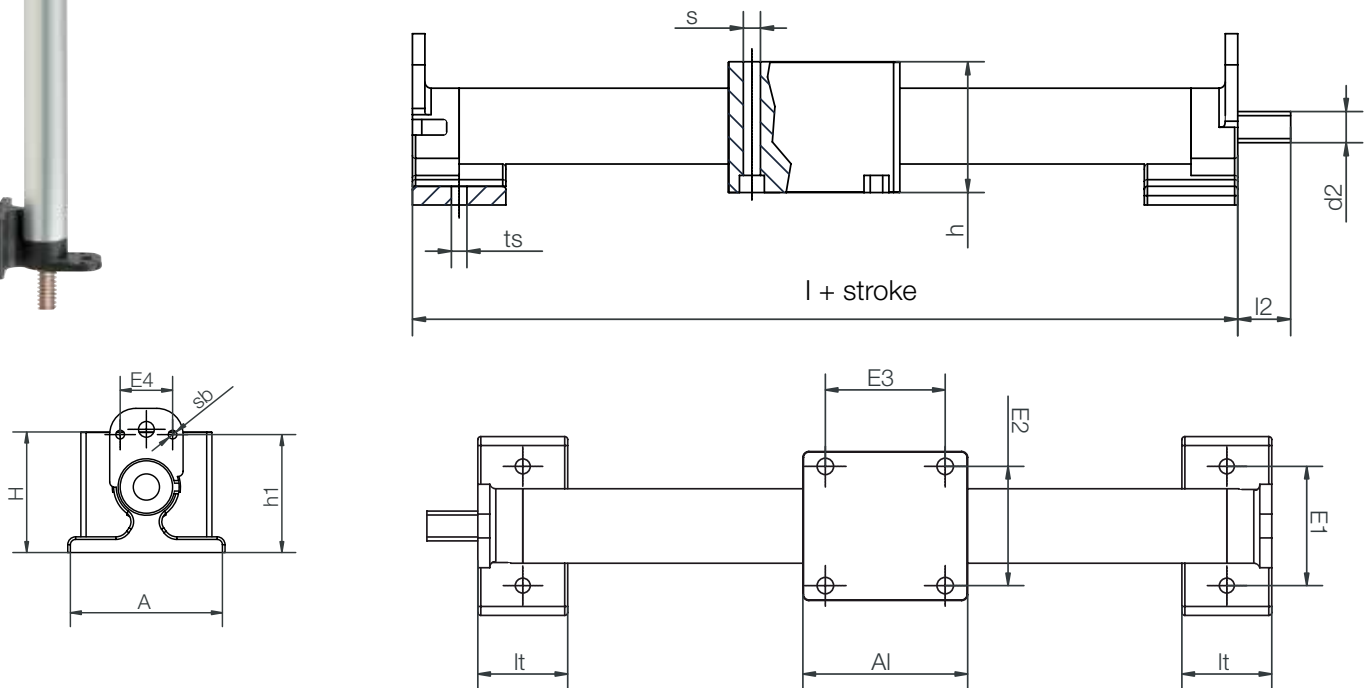


Order key

Order example

SET - 12 - AWM

easytube	Dimension	Shaft material
----------	-----------	----------------



Dimensions [mm]

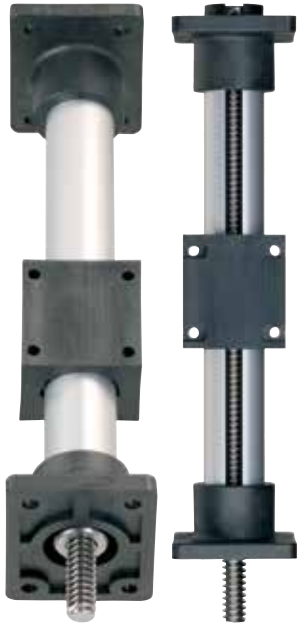
Part No.	A	Al	H	E1	E2	E3	E4	l	h	h1	lt	ts	s	sb	l2	d2 ⁹²⁾ (screw OD x lead)
SET-12-AWM	30	30	23.5	20	20	20	-	60	22	-	15	3.3	4.2	-	10	M4
SET-25-AWM	60	55	44	40	40	40	20	115	39	45	30	5.2	5.2	M4	17	Tr10x2
SET-30-AWM	80	55	49	60	40	40	20	125	39	50	35	6.5	5.2	M4	20	Tr12x3

Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		Max. static load capacity	
		Weight shaft end supports and guide carriage [kg]	Additional (per 100mm) [kg]	Axial [N]	radial [N]
SET-12-AWM	200	0.05	0.03	10	20
SET-25-AWM	750	0.15	0.12	150	300
SET-30-AWM	850	0.20	0.21	200	400

⁹²⁾ Lead screw end unmachined

With flange



- Flanged version for axial mounting
- Simple, smooth design
- Available accessories ► Page 1703

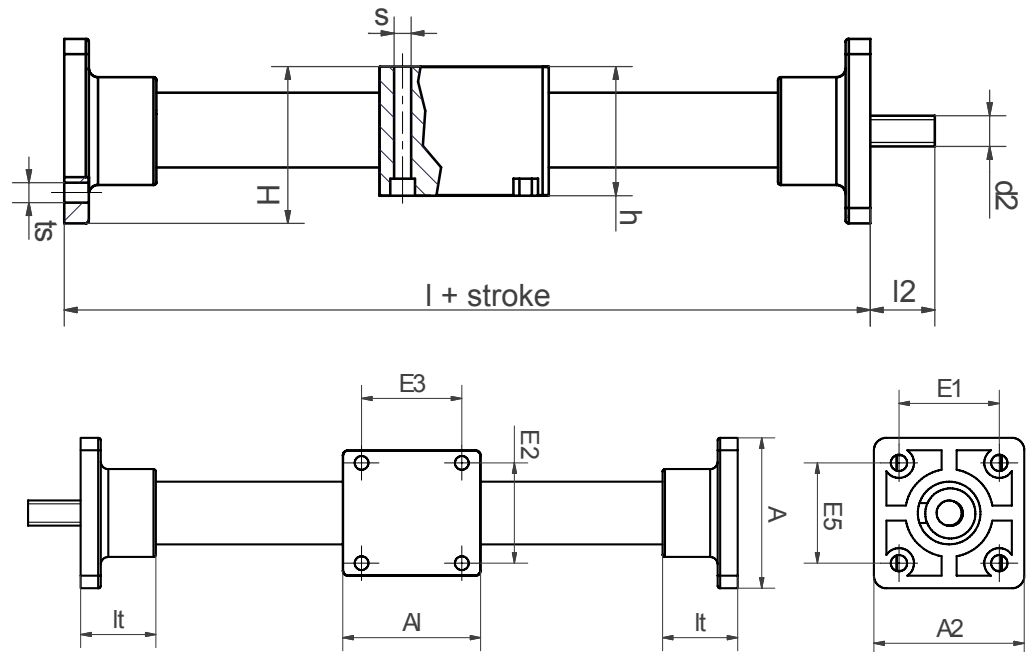


Order key

Order example

SET- 12 -AWM- F

easytube	Dimension	Shaft material	With flange
----------	-----------	----------------	-------------



Dimensions [mm]

Part No.	A1	A	A2	H	E1	E2	E3	E5	l	h	lt	ts	s	l2	d2 ⁹²⁾ (screw OD x lead)
SET-25-AWM-F	55	60	60	49	40	40	40	40	115	39	30	5.2	5.2	27	Tr10x2
SET-30-AWM-F	55	60	80	59	60	40	40	40	125	39	35	6.5	5.2	30	Tr12x3

⁹²⁾ Lead screw end unmachined

Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft			Max. static load capacity	
		Weight shaft end supports and guide carriage [kg]		Additional (per 100mm) [kg]	Axial [N]	radial [N]
SET-25-AWM-F	750	0.15		0.12	150	300
SET-30-AWM-F	850	0.20		0.21	200	400

Preloaded on one side



- Horizontal and vertical installation at one end
- Ideal for the positioning of sensors and cameras in format adjustments
- Easy assembly
- Flexible installation
- Space-saving
- Protected lead screw

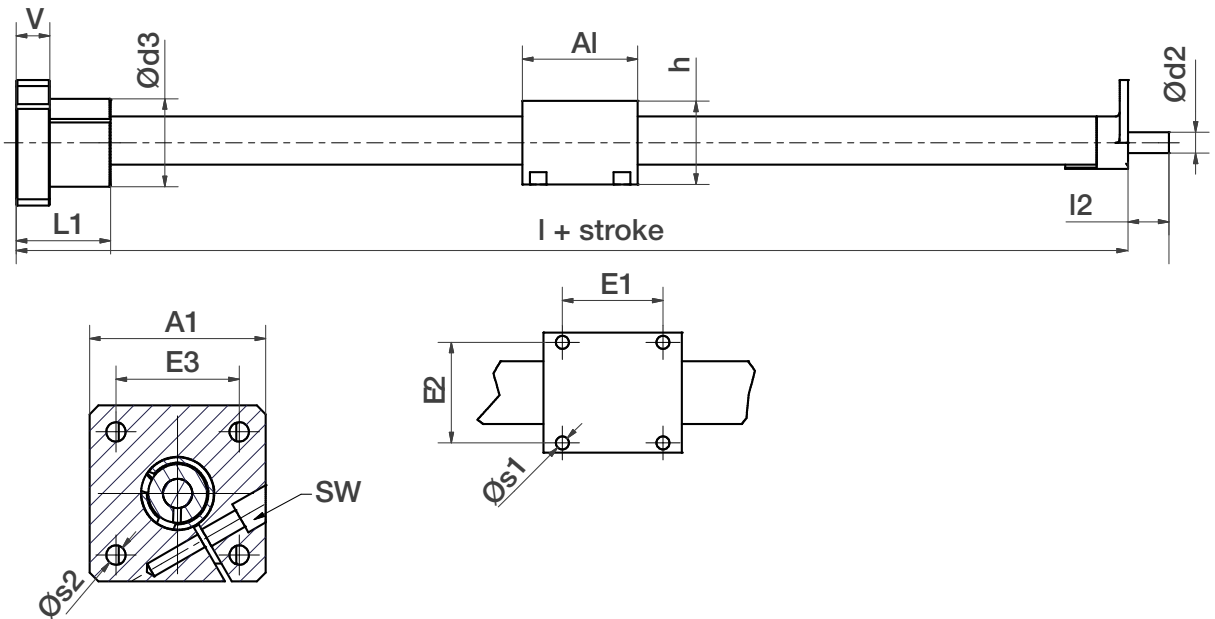


Order key

Order example

SETB - 25 - AWM

easytube	Dimension	Shaft material
----------	-----------	----------------



Dimensions [mm]

Part No.	A1	A1	h	E1	E2	E3	V	L1	I2	d2 ⁹²⁾ (screw OD x lead)	d3	l	s1	s2	SW
SETB-25-AWM	60	55	39	40	40	42	16	45	17	Tr10x2	42	130	5.2	6.6	5

⁹²⁾ Lead screw end unmachined

More dimensions upon request

¹²⁸⁾ The supporting torque at the clamping flange must not exceed 10Nm

Technical data

Part No.	Max. stroke length [mm]	Max. static load capacity	
		Axial [N]	radial ¹²⁸⁾ [N]
SETB-25-AWM	300	150	12.5

With measurement scale



Order key

Order example

SET M - 25 -AWM-200- SC

easytube	Manual without lead screw (optional)	Dimension	Shaft material	Stroke length	Scaling
----------	--------------------------------------	-----------	----------------	---------------	---------

- Laser printed, wash-proof scale
- Corrosion-resistant
- Multi-position clamp
- Available with/without lead screw
- 3 stroke lengths available from stock

Dimensions [mm]

Part no. measurement scale without lead screw	Part no. measurement scale with trapezoidal 10x2 lead screw (OD x lead)	Stroke length [mm]
SETM-25-AWM-200-SC	SET-25-AWM-200-SC	200
SETM-25-AWM-400-SC	SET-25-AWM-400-SC	400
SETM-25-AWM-600-SC	SET-25-AWM-600-SC	600

More dimensions see SET ► Page 1610

Technical data

F radial	[N]	300
Max. extension at maximum load	[mm]	66
Max. extension at 100N nominal load	[mm]	200
Max. drive force without load	[N]	10
Max. holding force	[N]	100
Max. stroke length	[mm]	600

Lightweight carriage option



- Lightweight
- Cost-effective
- Simplified assembly
- Light, clean and quiet

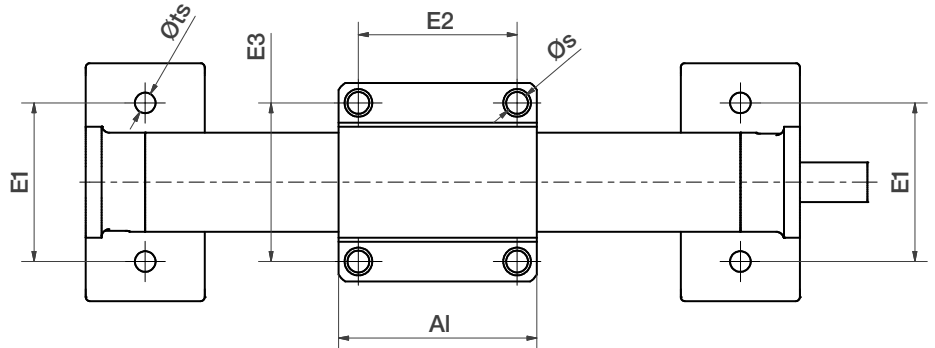
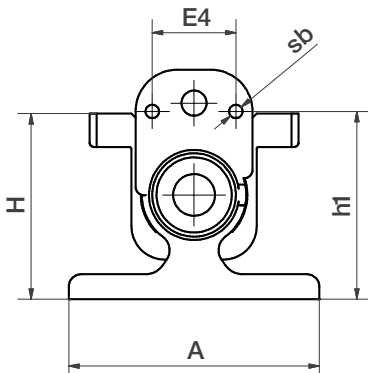
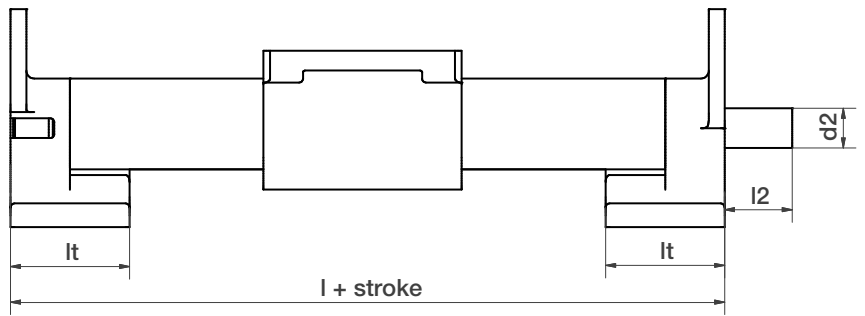


Order key

Order example

SETC - 25 - AWM

easytube	Dimension	Shaft material
----------	-----------	----------------



Dimensions [mm]

Part No.	A	A1	H	E1	E2	E3	E4	I	h1	l _t	ts	s	sb	l ₂	d ₂ ⁹²⁾ (screw OD x lead)
SETC-25-AWM	60	55	44	40	40	40	20	115	45	30	5.2	5.2	M4	17	Tr10x2

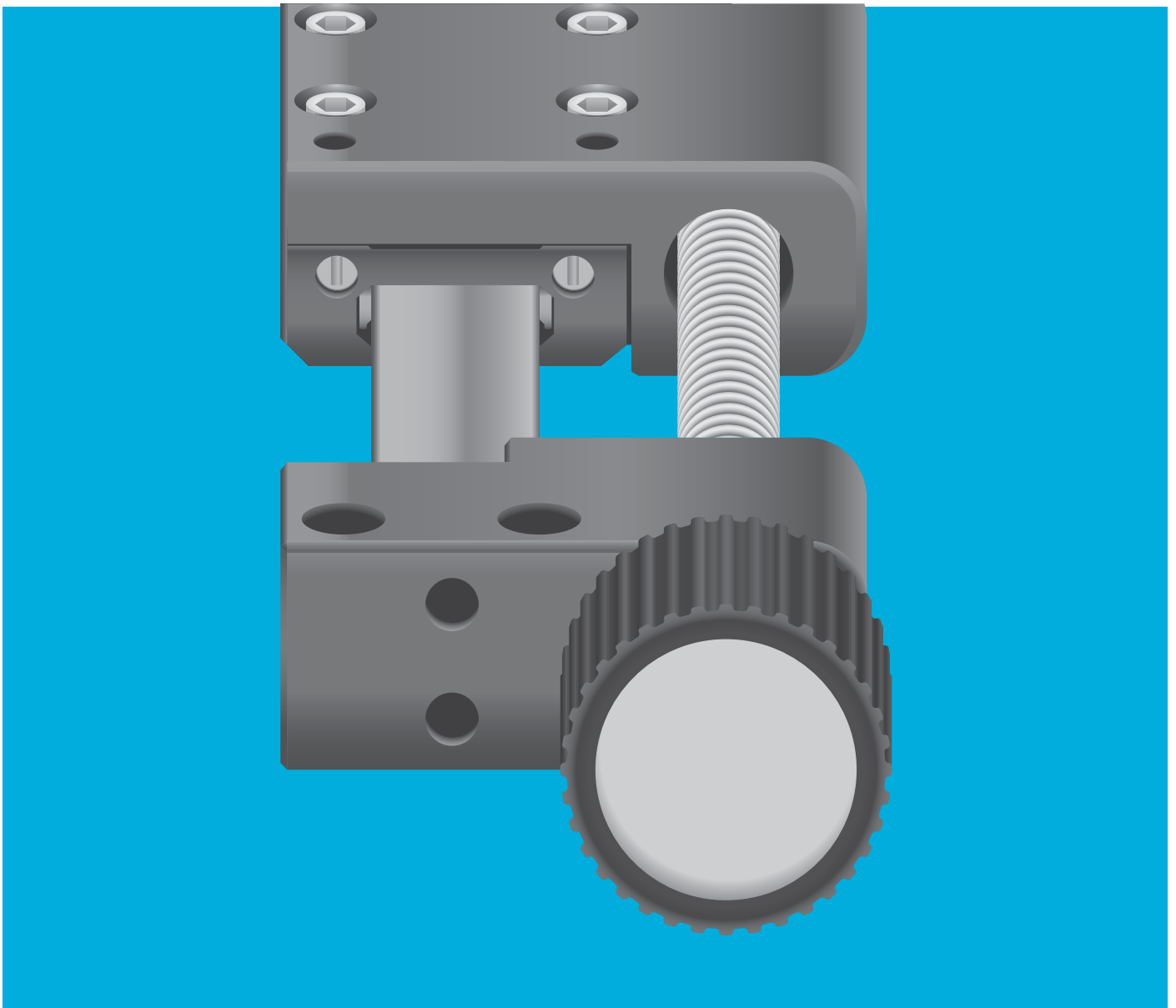
⁹²⁾ Lead screw end unmachined

Technical data

Part No.	Weight [kg]	Max. stroke length [mm]	Max. static load capacity	
			Axial [N]	radial [N]
SETC-25-AWM	0.15	750	150	300



More dimensions upon request



drylin[®] general drive technology – SLT linear actuators

Based on self-lubricating drylin[®] T miniature guide

Drive: Trapezoidal or high helix lead screw

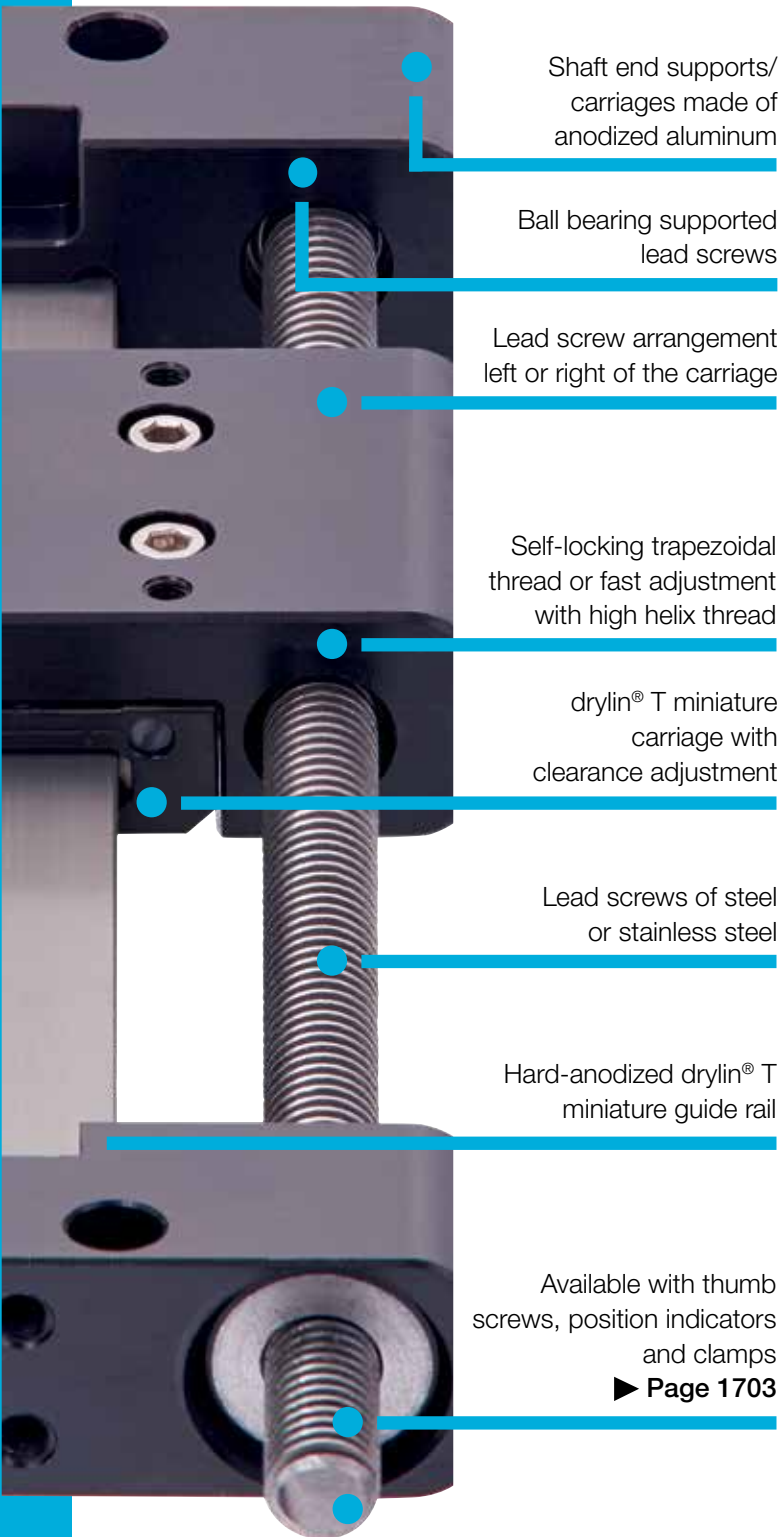
Flat and compact design

Carriages with adjustable clearance



drylin® SLT | linear actuators | Advantages

Flat, lightweight and self-lubricating



Shaft end supports/
carriages made of
anodized aluminum

Ball bearing supported
lead screws

Lead screw arrangement
left or right of the carriage

Self-locking trapezoidal
thread or fast adjustment
with high helix thread

drylin® T miniature
carriage with
clearance adjustment

Lead screws of steel
or stainless steel

Hard-anodized drylin® T
miniature guide rail

Available with thumb
screws, position indicators
and clamps
▶ **Page 1703**

Self-lubricating linear actuators – drylin® SLT

The low profile, lateral lead screw arrangement and a striking design, are just some of the reasons why the drylin® SLT linear actuator was honoured with the 2014 IF Award. Technically, the system impresses with ball bearing mounted trapezoidal or high helix thread lead screws for motorized or manual operation. The basis of the SLT series is the drylin® T miniature guide in sizes 12 and 15.

- Low-profile
- Self-lubricating, corrosion-resistant, lightweight
- Adjustable drylin® T miniature carriage
- Lead screw arrangement can be selected either left or right

Typical application areas

- Format adjustments
- Laboratory and medical technology
- Optical equipment



Detailed information about delivery time online.



max. +140°F (60°C)
Min. -40°F (-40°C)



Stroke lengths 300mm-600mm



Product finder
▶ www.igus.com/info/linear-actuators



In accordance with EU Directive 2011/65/EU (RoHS 2)
Restriction (of the use of certain) hazardous substances



product
design award

2013



Can be configured
ready-to-connect with
motor and initiators

▶ www.igus.com/drylinE

drylin® SLT | linear actuators | Product range

With ball bearing supported lead screw



Order key

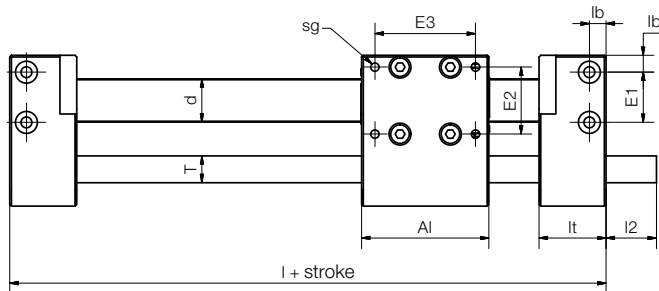
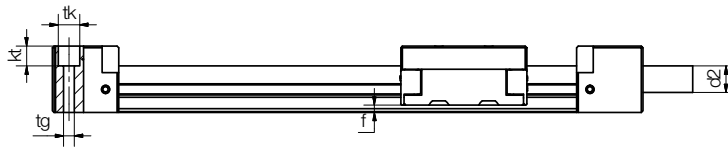
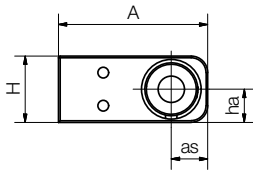
Order example

SLT-BB- 0412 - E R - S 0015 R G - □

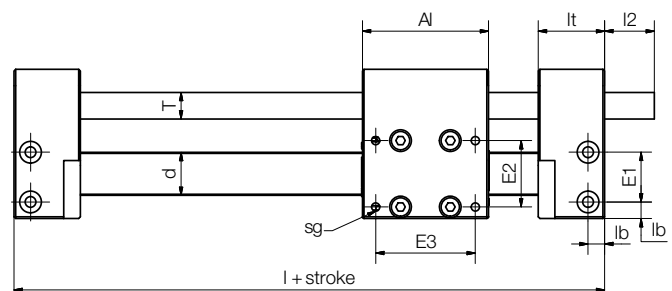
Type	Design - ball bearing	Installation size	Adjustable carriage TWE	Lead screw alignment	Lead screw	Lead	Thread - right	Lead screw end - Threaded	Stroke length in mm
-------------	------------------------------	--------------------------	--------------------------------	-----------------------------	-------------------	-------------	-----------------------	----------------------------------	----------------------------

Options:
Lead screw alignment
R = Right (standard)
L = Left

Lead screw
S = Steel
ES = Stainless steel



Lead screw alignment left



Lead screw alignment right

Technical data and dimensions [mm]

Part No.	Lead screw (OD x lead)	Max. stroke length	Weight		Max. static load capacity		Max. rpm	Max. speed
			Additional (per 100mm)		Axial	radial		
			[kg]	[kg]				
SLT-BB-0412	0015 = 8x1.5	300	0.15	0.06	100	200	1,000	1.5
	0150 = 8x15	300	0.15	0.06	25	100	600	9.0
SLT-BB-0415	0030 = 12x3	600	0.40	0.12	200	400	1,000	4.5
	0060 = 12x6	600	0.40	0.12	100	400	750	4.5
	0250 = 12x25	600	0.40	0.12	50	200	300	7.5

Part No.	A	Al	H	E1	E2	E3	l	l2	d2	ha	sg	tk	kt	tg	f	lb	lt	d	T	as
SLT-BB-0412	45	38	20	15	20	30	78	15	-	10	M3-7	6.5	6	M4	2.2	5	20	13	Tr08x1.5	11
SLT-BB-0415	58	45	30	19	25	35	89	17	12	15	M3-13	8	4.5	M5-15	2.8	6.5	22	17	Tr12x3	16

Also see econ chapter ► Page 1653

Notes

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.



drylin[®] general drive technology – SLN/SLNV miniature linear actuators

Based on self-lubricating drylin[®] N low-profile
linear guide

Drive: Trapezoidal or high helix lead screw

Compact design

Clearance adjustment on carriage

Precise with preload



drylin® SLN | miniature linear actuators | Advantages

Compact, precise and self-lubricating

Self-lubricating miniature linear actuators – drylin® SLN

drylin® SLN linear actuator is designed for small spaces with stroke lengths up to 250mm.

Based on the low-profile drylin N linear bearing system it is quiet and very light. The drylin® SLN can be moved manually with a thumbscrew or used with the drylin® E stepper and DC motors.

- Ultra-compact
- Three carriage types
- Self-lubricating

Typical application areas

- Sensors
- Inspection technology
- Laboratory technology
- Medical technology

Shaft end supports made from corrosion-resistant, robust plastic

Lead screw mounted with plain or ball bearings

Many carriage options

Threaded metal inserts for secure fastening

Minimal backlash with pre-load (preload series 05)

Rail made from anodized aluminum

stainless steel lead screws

Hand wheel available
▶ Page 1713

Configurable with motor as a ready-to-install linear drive



Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Carriage length: 35mm

Stroke lengths: up to 250mm



Product finder

▶ www.igus.com/info/linear-actuators

Miniature linear actuator, preload version



- Based on maintenance-free drylin® N low-profile linear guides size 27
- BB version (ball bearing) available for motorized applications and all applications over 75 rpm
- Available accessories ► **Page 1703**
- Low-cost econ chapter ► **Page 1653**
- Available with motor

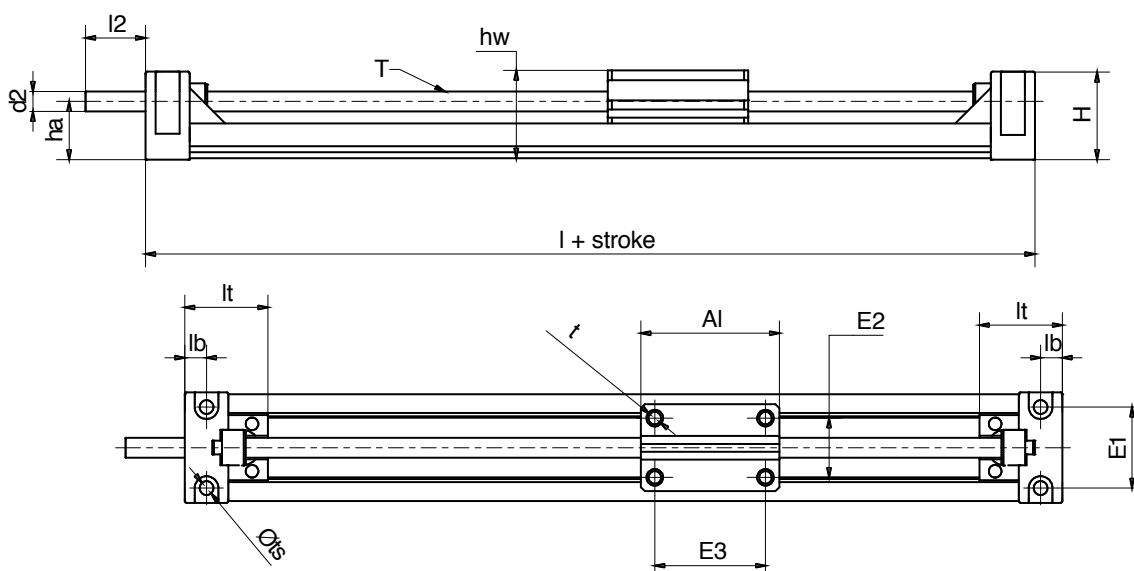
Order key

Order example

SLN- 27 - 1 4 - 0008



Options:
 Shaft end support design
 0 = Plain bearing
 1 = Ball bearing
 Carriage version
 4 = Standard, adjustable
 5 = Standard, preload
 Available lead screws
 Part OD x lead
 0008 = M5x0.8
 0025 = 6.35x2.54
 0051 = 6.35x5.08
 0127 = 6.35x12.7
 0254 = 6.35x25.4



Dimensions [mm]

Part No.	A	AI	H	E1	E2	E3	E11 ¹⁰²⁾	l	hw	lt	lb	ts	d2 ⁹⁸⁾	l2	ha
	±0.2	-0.1	±0.2	±0.15	±0.15	±0.15			±0.2	±0.2			Ø		
SLN-27-04	28	35	21.5	15	15	28	15	77	22	20.2	5	3.5	5	15	14
SLN-27-05	28	35	21.5	15	15	28	15	77	22	20.2	5	3.5	5	15	14
SLN-27-14	28	35	21.5	15	15	28	15	77	22	20.2	5	3.5	Ø4h9 ⁹⁸⁾	15	14
SLN-27-15	28	35	21.5	15	15	28	15	77	22	20.2	5	3.5	Ø4h9 ⁹⁸⁾	15	14

Technical data

Part No.	Max. stroke length ¹⁰¹⁾	Weight	additional	Max. static load capacity		Max. speed	Max. drive torque
	[mm]			[kg]	[kg]		
			[kg]	[N]	[N]		
SLN-27-04	250	0.06	0.04	10	40	100	0.1
SLN-27-05	250	0.06	0.04	10	40	100	0.1
SLN-27-14	250	0.06	0.04	10	40	300	0.1
SLN-27-15	250	0.06	0.04	10	40	300	0.1

¹⁰¹⁾ Fixed stroke lengths for SLN option with ball bearings: 100/150/200/250mm

¹⁰²⁾ The dimension E11 can only be found in conjunction with the igus® motor connection ⁹⁸⁾ Thread/ remaining thread visible

drylin® SLN | miniature linear actuators | Product range

drylin® SLNV prism actuator for precise adjustment



- For stroke lengths up to 250mm
- High precision due to stop motion preload prism slide
- Clearance reduction in z and y directions due to preload
- Lead screw with plain or ball bearing

Typical application areas:

- Medical technology
- Dental equipment
- Research and development
- Measuring technology

Options:

Shaft end support design

0 = Plain bearing

1 = Ball bearing

Carriage version

4 = Standard, adjustable

5 = Standard, preload

Available lead screws

Part OD x lead

0008 = M5x0.8

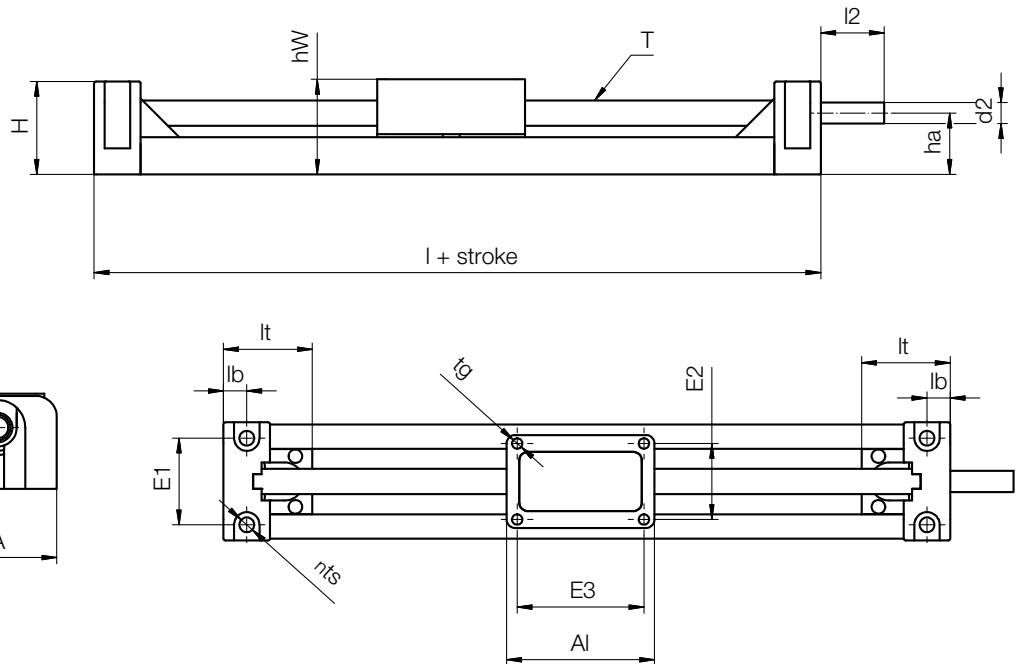
0025 = 6.35x2.54

0050 = DS 5x5

0051 = 6.35x5.08

0127 = 6.35x12.7

0254 = 6.35x25.4



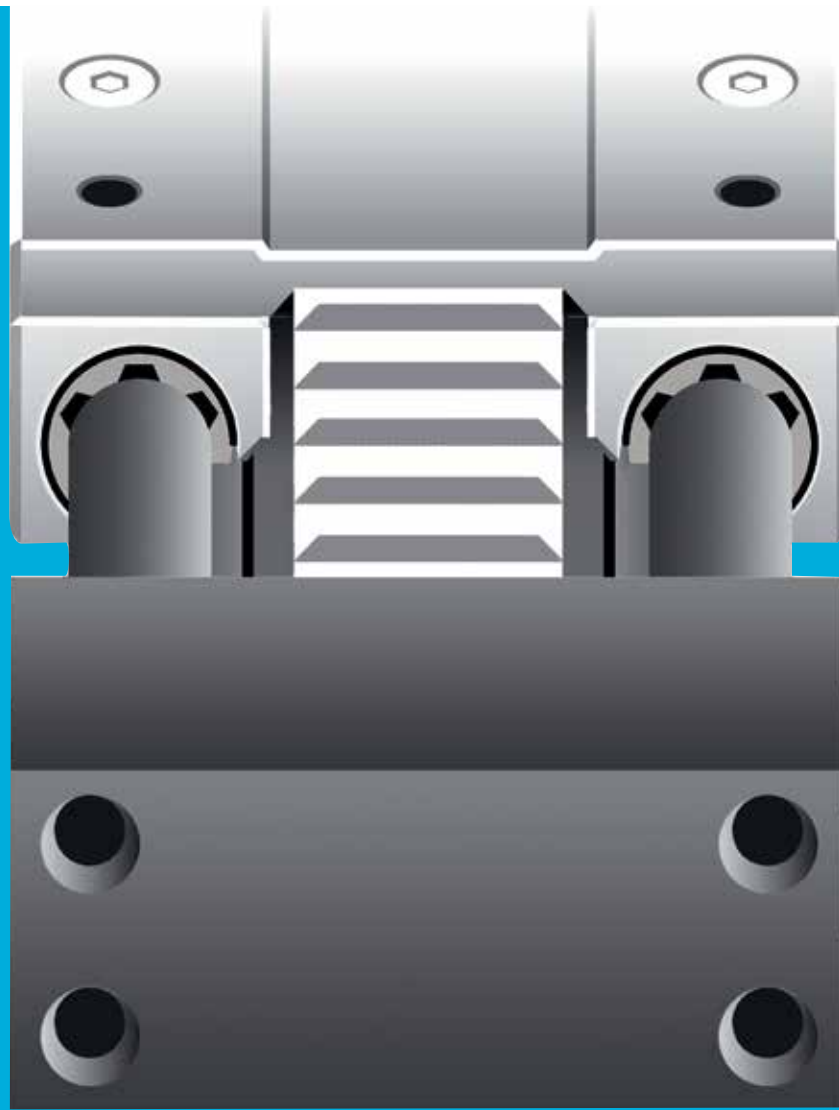
Dimensions [mm]

Part No.	A	A1	H	E1	E2	E3	l	hw	lt	lb	ts	tg	d2 ⁹⁸⁾	l2	ha	T
	±0.2	-0.1	±0.2	±0.15	±0.15	±0.15		±0.2	±0.2				Ø			
SLNV-27	28	35	21.5	15	15	30	76	22.5	20.5	5	3.5	M3	5	15	14	6.35x2.54 6.35x5.08 M5x0.8 6.35x12.7 6.35x25.4 DS 5x5

Technical data

Part No.	Max. stroke length	Weight	additional	Max. static load capacity		Max. speed	Max. drive torque
				axial	radial		
	[mm]	[kg]	[kg]	[kg]	[N]	[N]	[rpm]
SLNV-27	250	80	56	10	40	300	0.1

⁹⁸⁾ Thread/remaining thread visible



drylin[®] general drive technology – ZLW belt-driven actuators

Self-lubricating linear actuators based on
drylin[®] W guides

Drive: Timing belt

For fast positioning

End supports with deep groove ball bearings

As single-axis or for multi-axis linear robots



drylin® ZLW | toothed belt axes | Advantages

Fast and powerful

Shaft end supports made from robust plastic with integrated deep groove ball bearing, aluminum is also available

Pulley systems run on sealed bearings for high RPM's

Multiple drylin® W carriage options including quick-change liners and various material options

Carriages available in 3 different lengths

High-profile, torsion-resistant drylin® W double shaft profile, made from hard-anodized aluminum

Abrasion-resistant PU toothed belts with steel reinforcement or Neoprene with fiberglass

Profile grooves for mounting with slot nuts or mounting clamps the slot nuts or the clamping elements

Drive shaft can be either on the left or right side, or both side



Configurable with motor as a ready-to-install linear drive

Self-lubricating belt-driven actuators – drylin® ZLW

The drylin® belt-driven actuators in the ZLW series are suitable for many different positioning and adjustment tasks. The self-lubricating drylin® W profile guide acts as a linear guide and a toothed belt acts as a drive. Thanks to the lightweight design using plastic and aluminum, drylin® ZLW belt-driven actuators have a low mass inertia, making them highly efficient. Whether as an individual system or a linear robot structure, the ZLW series offers the ideal solution in both confined spaces and applications that require a high level of support. All drylin® ZLW belt-driven actuators can be ordered ready for connection and configured with drylin® E stepper and DC motors. It is also possible to integrate other motor components.

- Completely self-lubricating operation
- 3 types: econ/basic/standard
- Variable carriage lengths
- Many motor kits available

Typical application areas

- Medical and laboratory technology
- Handling
- Positioning tasks (pick & place)
- Camera/sensor adjustment
- Machine construction



Available in 3-8 days

Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Carriage lengths: 60-250mm

Carriage widths: 54-107mm

Stroke lengths: up to 3,000mm



Product finder

► www.igus.com/info/linear-actuators

drylin® ZLW | toothed belt axes | Product overview

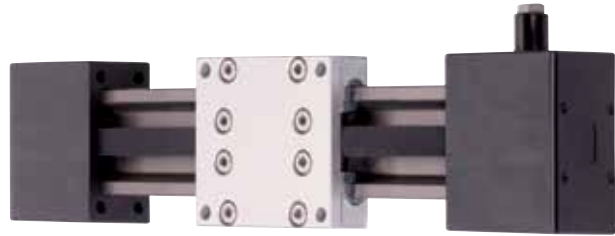
Positioning with self-lubricating toothed belt drive



ZLW econ series

- Ultra low cost
- Lightweight
- Carriage and deflection housing made of plastic
- Anodized drylin® W aluminum profile section

► Page 1634



ZLW basic series

- Cost-effective deflection axis consisting of stainless-steel square section and high-performance polymer
- Neoprene toothed belts with fiberglass reinforcement
- Hard-anodized drylin® W aluminum profile
- For installation sizes 0630 and 1040

► Page 1634



ZLW standard series

- Effective PU toothed belt with steel belting
- Single-section deflection axis made of stainless steel (shaft and tooth rim)
- Hard-anodized drylin® W aluminum profile
- For installation sizes 0630/1040/1080/1660

► Page 1634



ZLW specialists

- Deep-freeze LT version for applications down to -22°F
- UW version for underwater use
- SW version for splash water applications
- For installation size 1040

► Page 1634



ZLW – open design in installation size 20

- Variable shaft width of 120/160/200mm
- Open design
- Lightweight aluminum version available
- Corrosion-resistant stainless steel version

► Page 1636



ZLW-OD reverse

- For quick reverse positioning
- Fast right/left adjustment
- Compact due to flat drylin® W double rails
- With angle flange

► Page 1638



ZAW – for z-axis applications

- Ideal for vertical z-axis applications
- Motor and carriage stationary
- End blocks machined for customer
- Tooling attachment

► Page 1647



Motors and mounting accessories

► Page 1703

drylin® ZLW | toothed belt axes | Technical data

Toothed belt axis	Type	Shaft Ø [mm]	Weight		Max. stroke length ¹²⁰⁾ [mm]	Linear travel/rev [mm/rev]	Tooth profile	Carriage length [mm]
			without stroke [kg]	100mm stroke [kg]				
ZLN-40	–	40	0.24	0.05	750	60	T2.5	50
ZLW-0630-...								
...-02-E	econ	□5	0.30	0.08	500	54	HTD 3M	60
...-02-B	Basic	□5	0.38	0.08	1,000	54	HTD 3M	60/100
...-02-S	Standard	□5	0.43	0.08	1,000	54	MTD3	60/100
...-OD-B	Reverse basic	□5	0.40	0.1	1,000	54	HTD 3M	60/100
...-OD-S	Reverse standard	□5	0.45	0.1	1,000	54	HTD 3M	60/100
ZLW-0660-S-02-	Standard	5	0.88	0.15	1,000	54	HTD 3M	100/150/200
ZLW-1040-...								
...-02-E	econ	10	0.70	0.14	1,000	66	RPP 3M	100/150/200
...-02-B	Basic	10	0.90	0.14	2,000	66	RPP 3M	100/150/200
...-02-S	Standard	10	1.00	0.14	2,000	70	AT5	100/150/200
...-02-LT	Deep-freeze	10	1.00	0.14	2,000	70	AT5	100/150/200
...-02-UW	Underwater	10	1.00	0.14	1,000	70	AT5	100/150/200
...-02-SW	Splash water	10	1.00	0.14	2,000	70	AT5	100/150/200
...-OD-B	Reverse basic	10	1.00	0.17	1,500	66	RPP 3M	100/150/200
...-OD-S	Reverse standard	10	1.00	0.17	1,500	70	AT5	100/150/200
ZLW-1080-...								
...-02-S	Standard	10	1.30	0.21	2,000	70	AT5	100/150/200
ZLW-10120	Standard	10	2.03	0.16	2,000	75	3M	150/200/250
ZLW-10160	Standard	10	2.28	0.17	2,000	75	3M	151/200/250
ZLW-10200	Standard	10	2.54	0.19	2,000	75	3M	152/200/250
ZLW-1660-...								
...-02-S	Standard	16	4.00	0.5	3,000	120	AT5	100/150/200/250
ZLW-20...								
...120	Standard	20	5.36	0.386	3,000	144	20 RPP8	200/250/300
...160	Standard	20	5.78	0.426	3,000	144	20 RPP8	200/250/300
...200	Standard	20	62	0.466	3,000	144	20 RPP8	200/250/300

¹²⁰⁾ When configuring your linear actuator, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

Tightening torque for drylin® connections between metal parts

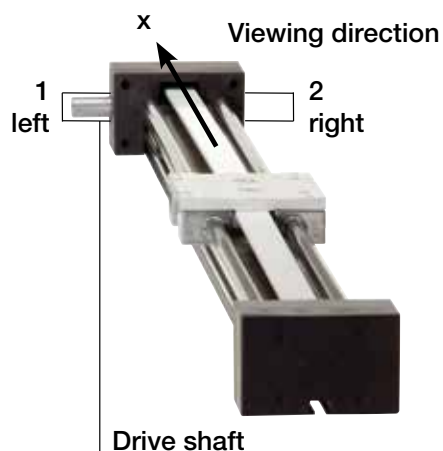
Metric thread (Da)	Tightening torque	Recommended tightening torque
	[Nm]	[Nm]
M3	0.5–1.1	0.7
M4	1.0–2.8	1.5
M5	2.0–5.5	3.0
M6	4.0–10.0	6.0
M8	8.0–23.0	15.0
M10	22.0–46.0	30.0

Please be aware of the minimal screw-in depth for aluminum and zinc die-casting parts: 1.5 x Da

Max. radial load	Toothed belt material	Toothed belt width	Toothed belt tension	Guide bearing	Max. speed	Max. position accuracy	Idle torque	Max. drive torque
[N]		[mm]	[N]		[m/s]	[mm]	[Nm]	[Nm]
45	PU with steel	6	30	Deep groove ball bearing	2.0	± 0.30	0.15	0.4
30	Neoprene with fiberglass	9	20	Deep groove ball bearing	1.0	± 0.40	0.10	0.30
100	Neoprene with fiberglass	9	75	Deep groove ball bearing	2.0	± 0.35	0.10	0.75
150	PU with steel	9	100	Deep groove ball bearing	2.0	± 0.30	0.15	1.00
50	Neoprene with fiberglass	9	75	Deep groove ball bearing	1.0	± 0.35	0.10	0.75
75	PU with steel	9	100	Deep groove ball bearing	1.0	± 0.30	0.15	1.00
150	PU with steel	15	100	Deep groove ball bearing	5.0	± 0.30	0.15	1.25
100	Neoprene with fiberglass	15	50	Deep groove ball bearing	2.0	± 0.35	0.1	0.5
200	Neoprene with fiberglass	16	150	Deep groove ball bearing	3.0	± 0.30	0.2	1.75
300	PU with steel	16	200	Deep groove ball bearing	5.0	± 0.20	0.3	2.40
300	TPUKF2	16	200	Cold ball bearing	5.0	± 0.20	0.3	2.40
100	PU + Aramid	16	50	xiros® ball bearings	1.0	± 0.50	0.15	0.50
200	PU + stainless steel	16	200	Stainless steel ball bearing	5.0	± 0.20	0.30	2.40
100	Neoprene with fiberglass	16	150	Deep groove ball bearing	1.5	± 0.30	0.15	1.75
150	PU with steel	16	200	Deep groove ball bearing	2.5	± 0.20	0.25	2.40
300	PU with steel	16	200	Deep groove ball bearing	5.0	± 0.20	0.25	2.40
300	Neoprene with GF	15	200	Deep groove ball bearing	5.0	± 0.20	0.35	2.50
300	Neoprene with GF	15	200	Deep groove ball bearing	5.0	± 0.20	0.35	2.50
300	Neoprene with GF	15	200	Deep groove ball bearing	5.0	± 0.20	0.35	2.50
2,000	PU with steel	32	500	Deep groove ball bearing	5.0	± 0.20	0.4	10.00
3,000	PU with stainless steel	20	750	Deep groove ball bearing	5.0	± 0.20	1.0	15.00
3,000	PU with stainless steel	20	750	Deep groove ball bearing	5.0	± 0.20	1.0	15.00
3,000	PU with stainless steel	20	750	Deep groove ball bearing	5.0	± 0.20	1.0	15.00

The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under specific parameters can be checked online at www.igus.com/drylinHTSconfigurator.

Drive shaft alignment for all ZLW toothed belt axis



Drive shaft

L: Drive shaft left

R: Drive shaft right

L/R: Drive shaft, both sides

drylin® ZLW | toothed belt axes | Technical data

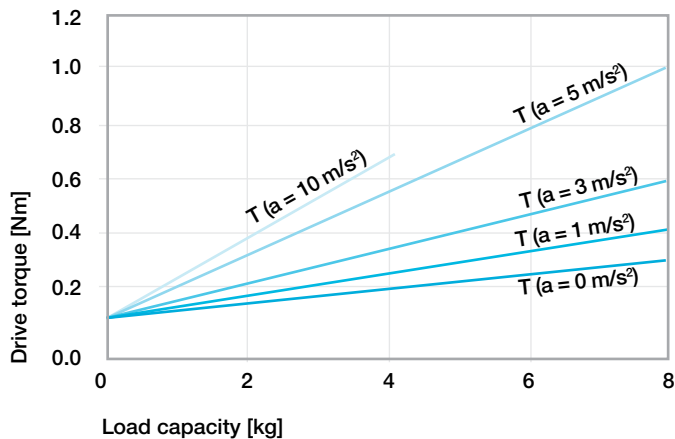


Diagram 01: Required drive torque ¹³⁸⁾; horizontal orientation – ZLW-0630, basic 02 version

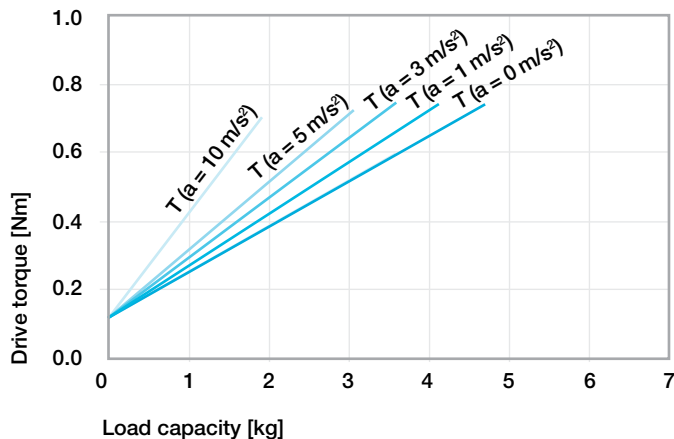


Diagram 02: Required drive torque ¹³⁸⁾; vertical orientation – ZLW-0630, basic 02 version

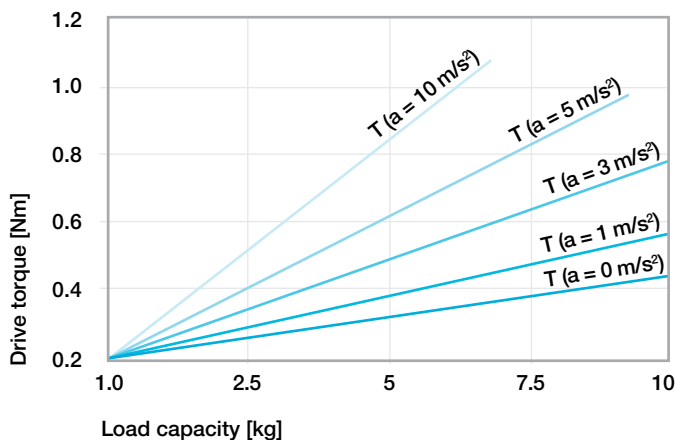


Diagram 03: Required drive torque ¹³⁸⁾; horizontal orientation – ZLW-0630, standard 02 version

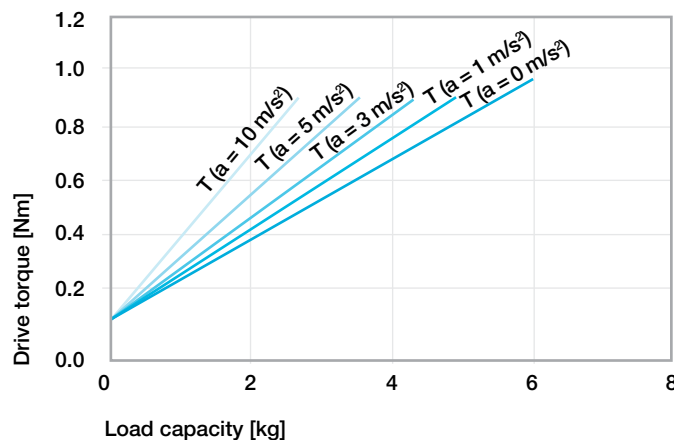


Diagram 04: Required drive torque ¹³⁸⁾ vertical orientation – ZLW-0630, standard 02 version

¹³⁸⁾ Assumption: the moving mass is located in a circumscribed circle with a max. $R = 100\text{mm}$ to the middle of the guiding rail, max. permissible torque ZLW-0630 basic 02: 0.75Nm , $a = 0\text{m/s}^2$, ZLW-0630 standard 02: 1Nm , $a = 0\text{m/s}^2$, constant drive without nominal acceleration value

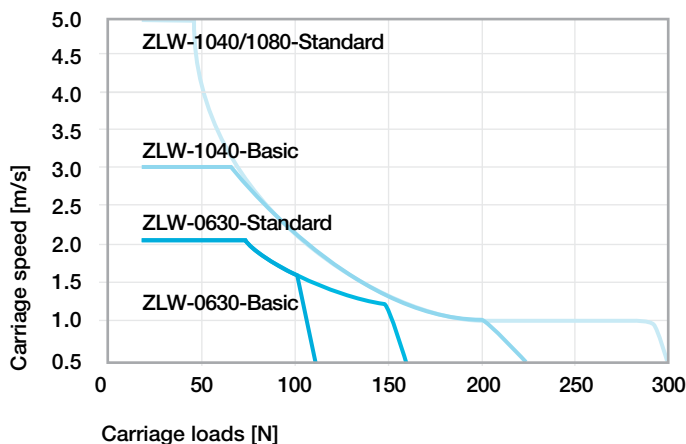


Diagram 05: Maximum load compared: ZLW-0630 and ZLW-1040/1080, 100% OT (On-time). The graph accounts for the sum of all forces active on the carriage.

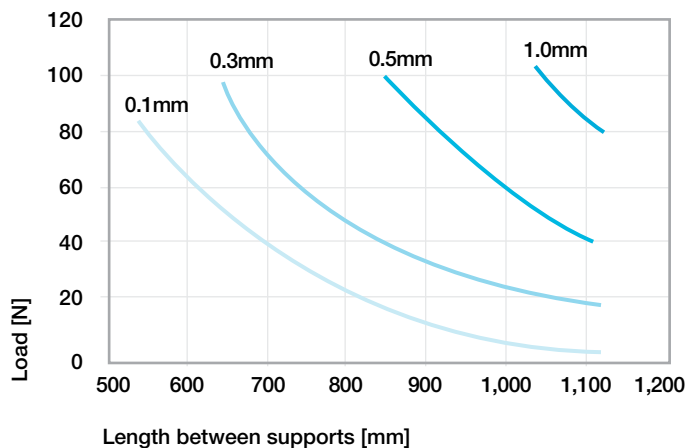


Diagram 06: Sag between unsupported end blocks ZLW-0630, basic 02 and standard 02 version. Sag permissible up to 2mm maximum.

drylin® ZLW | toothed belt axes | Technical data

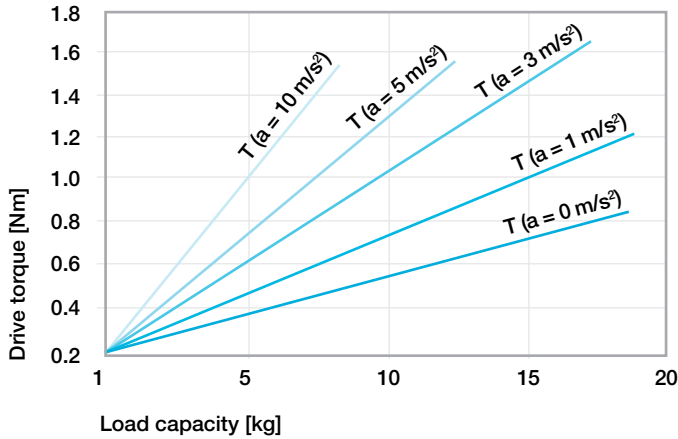


Diagram 07: Required drive torque¹³⁹⁾; horizontal orientation – ZLW-1040, basic 02 version

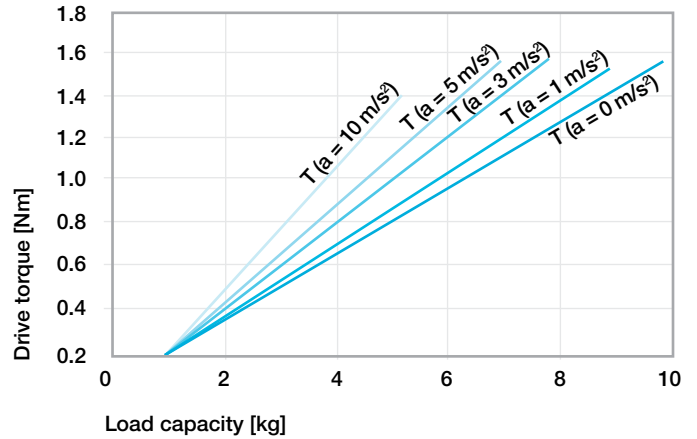


Diagram 08: Required drive torque¹³⁹⁾; vertical orientation – ZLW-1040, basic 02 version

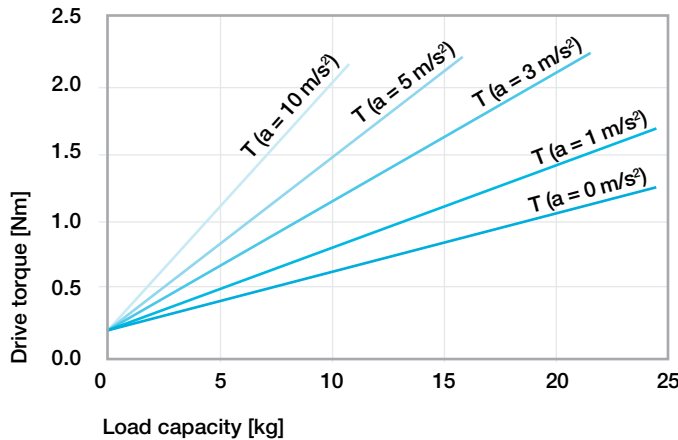


Diagram 09: Required drive torque¹³⁹⁾; horizontal orientation – ZLW-1040/1080, standard 02 version

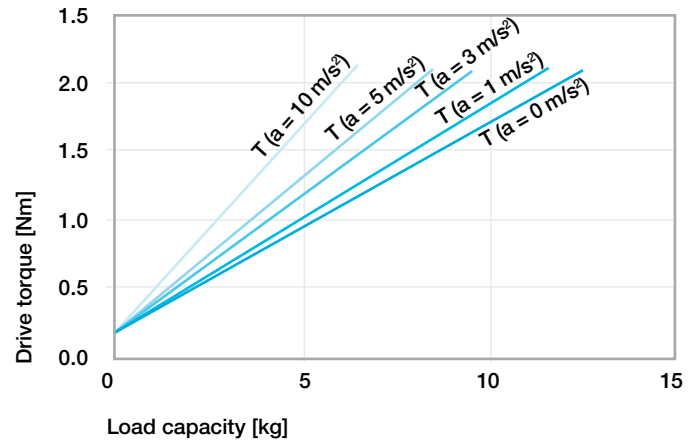


Diagram 10: Required drive torque¹³⁹⁾; vertical orientation – ZLW-1040/1080, standard 02 version

¹³⁹⁾ Assumption: The moving mass is located in a circumscribed circle with a max. $R = 100\text{mm}$ to the middle of the guiding rail, max. permissible torque ZLW-1040/1080 basic 02: 1.75Nm , $a = 0\text{m/s}^2$, ZLW-1040/1080 standard 02: 2.4Nm , $a = 0\text{m/s}^2$, constant drive without nominal acceleration value



Diagram 11: Maximum load compared: ZLW-0630 and ZLW-1040/1080, 100% OT (On-time). The graph accounts for the sum of all forces active on the carriage.

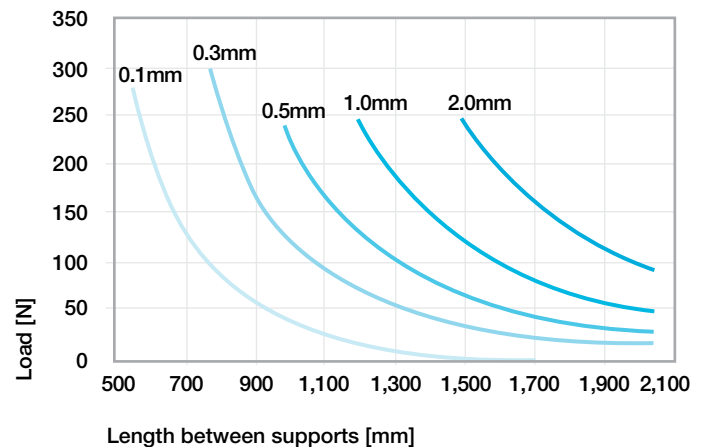


Diagram 12: Sag between unsupported end blocks ZLW-1040, basic version and ZLW-1040/1080 standard 02 version. Sag permissible up to 2mm maximum – horizontal orientation

drylin® ZLW | toothed belt axes | Technical data

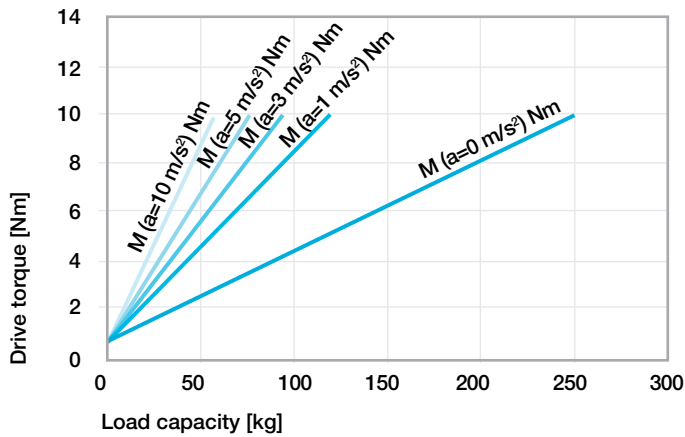


Diagram 13: Required drive torque ¹⁴⁰⁾; horizontal orientation – ZLW-1660, standard 02 version

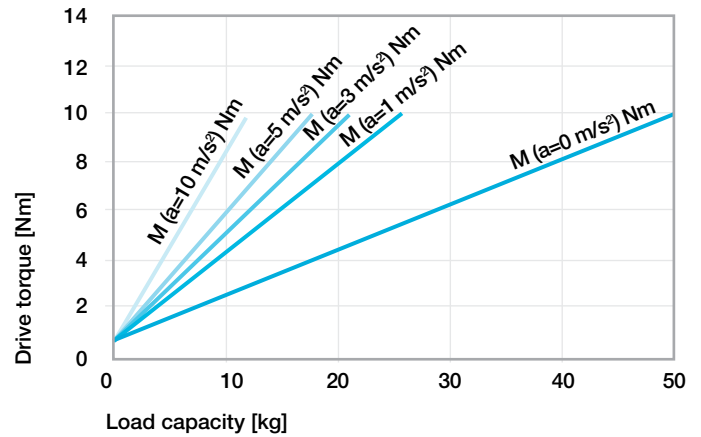


Diagram 14: Required drive torque ¹⁴⁰⁾ vertical orientation – ZLW-1660, standard 02 version

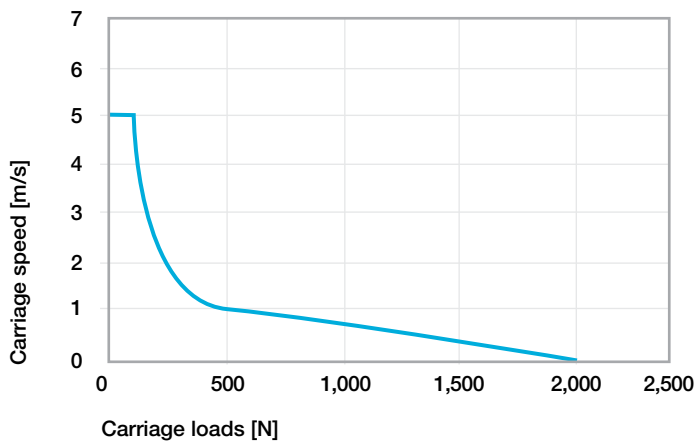


Diagram 15: Maximal load, horizontal installation; the graph accounts for the sum of all forces active on the carriage.

¹⁴⁰⁾ Assumption: The moving mass is located in a circumscribed circle with $R = 100\text{mm}$ to the middle of the guiding rail, max. permissible torque ZLW-1660 standard 02: 10Nm , $a = 0\text{m/s}^2$, constant drive without nominal acceleration value

Technical data

Part No.	Geometrical moment of inertia		Moment of resistance	
	I_y	I_z	W_{by}	W_{bz}
ZLW-0630	30,391	11,674	1,736	845
ZLW-0660	212,826	17,018	6,448	1,398
ZLW-1040	97,560	54,910	3,902	3,076
ZLW-1080	483,653	486,613	11,515	4,684
ZLW-1660	540,876	4,773,489	14,618	24,586

drylin® ZLW | toothed belt axes | Technical data

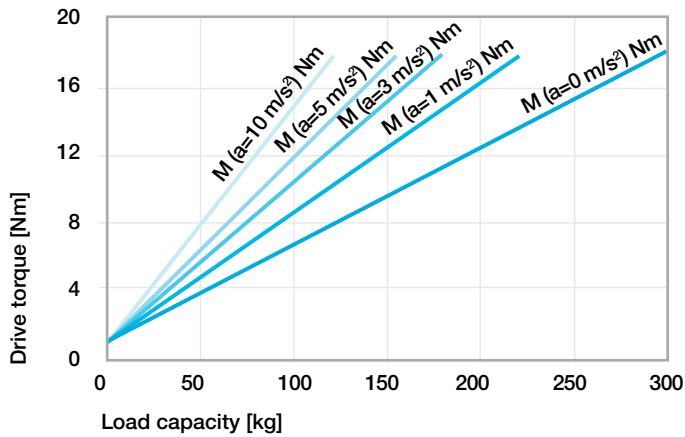


Diagram 16: Required drive torque ¹⁴⁰⁾; horizontal orientation – ZLW-20120, standard 02 version

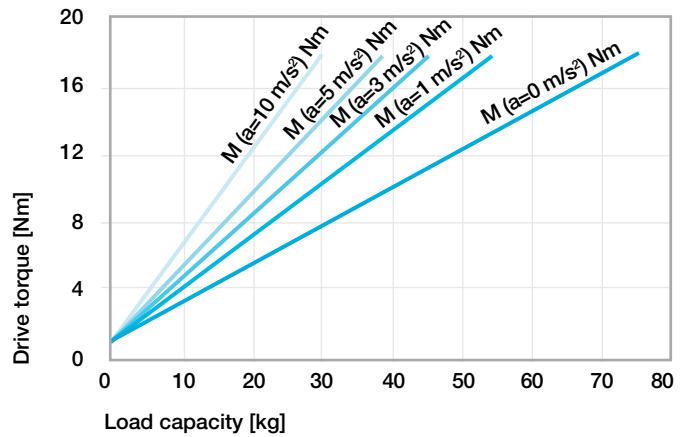


Diagram 17: Required drive torque ¹⁴⁰⁾; vertical orientation – ZLW-20120, standard 02 version

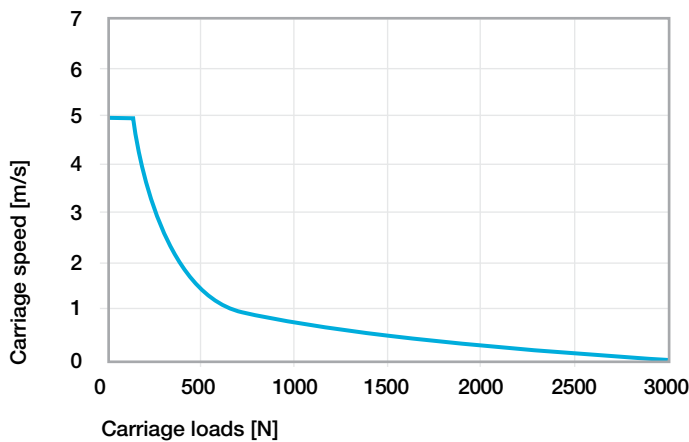


Diagram 18: Maximal load, horizontal installation; the graph accounts for the sum of all forces active on the carriage.

¹⁴⁰⁾ Assumption: The moving mass is located in a circumscribed circle with $R = 100\text{mm}$ to the middle of the guiding rail, max. permissible torque: 20Nm , $a = 0\text{m/s}^2$, constant drive without nominal acceleration value

drylin® ZLW | toothed belt axes | Product overview



econ series

Many movements require cost-effective linear axes that focus on pure adjustment tasks. This econ series with toothed belt was developed for the fast positioning of light loads. By the compact design and low weight due to aluminum and plastic, the ZLW econ is the perfect alternative.



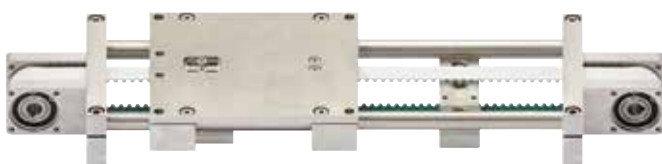
Basic series

Lubrication-free linear guide also driven by a toothed belt made from fiberglass reinforced neoprene (black). The drive shaft, consisting of a square stainless steel and toothed pulley made of high-performance polymer, rests on 2 deep groove ball bearings. The drive pin is 6x6mm square and made of stainless steel. The scope of supply includes a plastic adapter for a pin diameter of 10mm.



Standard series

The lubrication-free linear guide is also driven by a toothed belt made from steel reinforced polyurethane (white). Deflection shaft and drive pulley (single-piece) are made from plated steel or stainless steel. The pulley shafts are mounted in two deep groove ball bearings.



Modular kit series

A high degree of flexibility characterizes the ZLW modular system series. A modular construction system based on individual rails from the drylin® W linear system. 3 widths up to 200mm, 8M PU with stainless steel reinforcement for smooth running, either in aluminum or stainless steel.

The ZLW specialists



LT

For use at temperatures down to -30°C , the drive and deflection shaft end supports are fitted with ball bearings. Drive is a toothed belt suitable for low temperatures.



SW

The SW ZLW version is suitable for applications where there is contact with spray water. Corrosion-resistant due to PU toothed belt with stainless steel tie beams and stainless steel ball bearings, as well as shaft end support housing made of anodized aluminum.



UW

Maximum protection against corrosion is provided by the UW toothed belt axis; for underwater applications. Linear carriages, drive and deflection shaft end supports made of anodized aluminum, incl. lubrication-free xiros® ball bearings. A flexible toothed belt with aramid reinforcing serves as the belt.



Stainless steel

The ZLW modular axis made of stainless steel offers maximum corrosion protection. All components are manufactured in stainless steel, driven by 8M PU toothed belt with stainless steel reinforcing.



More Information online

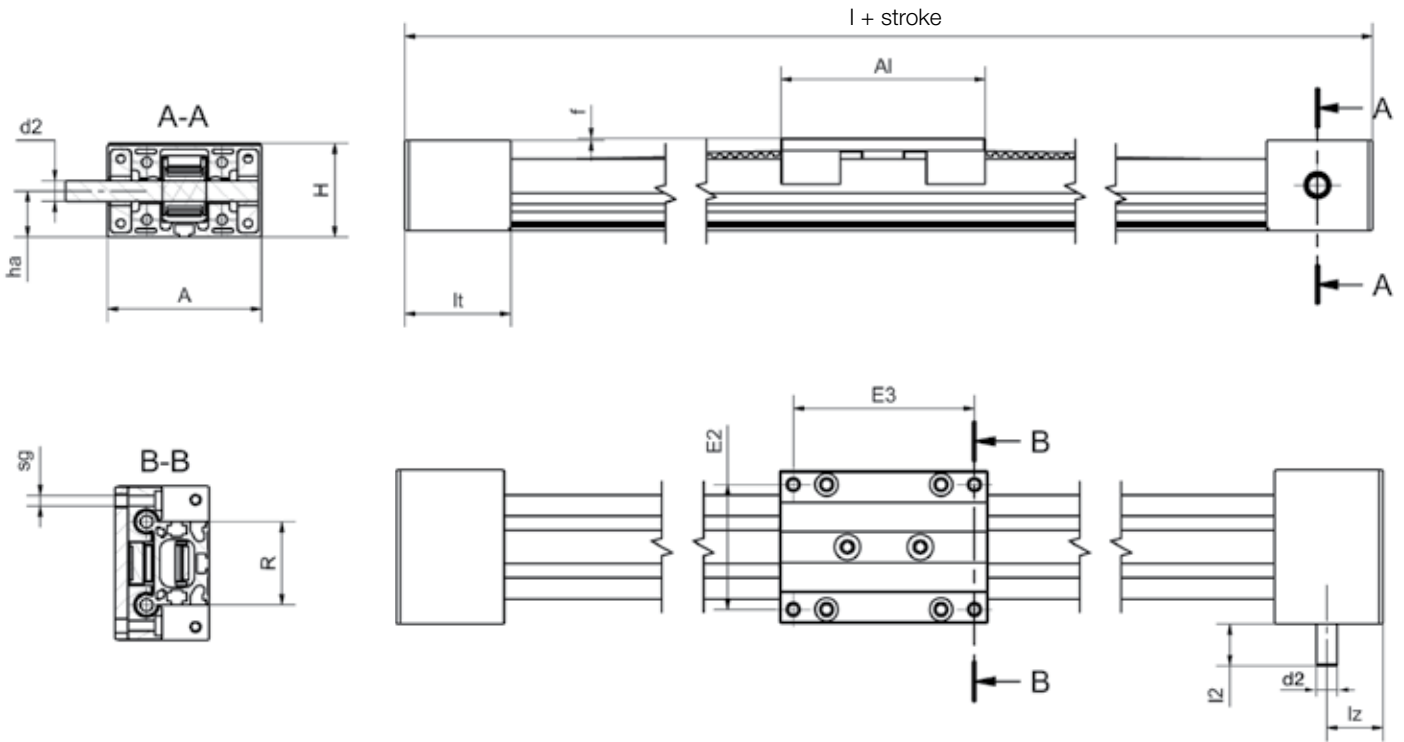
► www.igus.com/drylin-zlw

drylin® ZLW | belt-driven actuators | Product range

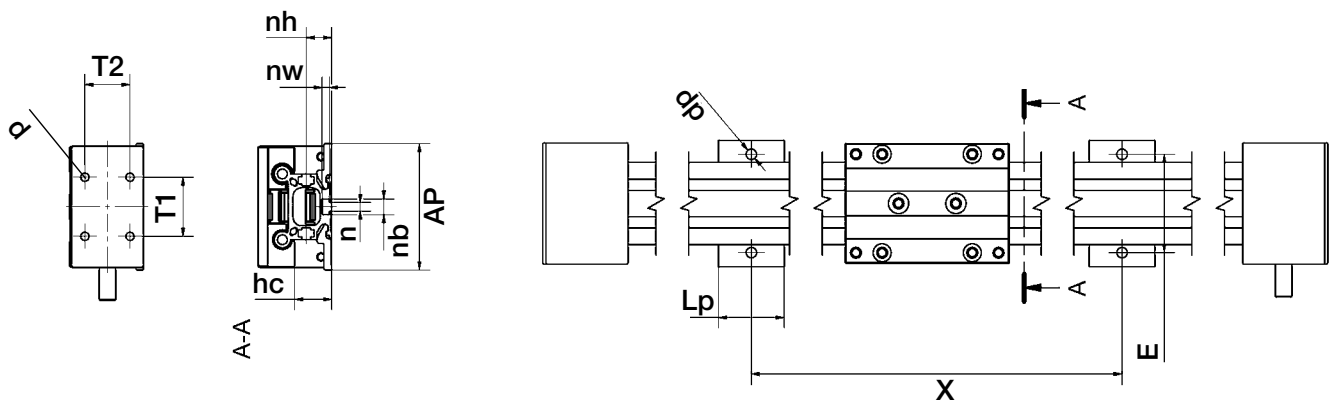
Toothed belt axis in econ, basic and standard version



- Fast positioning of small loads
- Quiet operation and flat design
- Drive shaft on one or both sides
- Linear carriages available in different lengths (except for econ version)
- Configurable with motor as a ready-to-install linear drive
- Specialist in deep-freeze, underwater and spray-water areas ► **Page 1633**



Connecting dimensions





Order key

Order example

ZLW-0630-02-B



Options:

Design

E = econ series (0630/1040)

B = Basic series (0630/1040)

S = Standard series (all sizes)

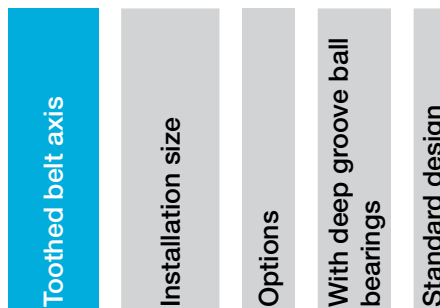


Order key specialists



Order example

ZLW-1040-LT-02-S



Options:

Variation

LT = For deep-freeze applications down to -22°F

UW = For underwater applications

SW = For spray-water applications

Dimensions [mm]

Part No.	A	AI	H	E2	E3	I	R	f	lt	sg	ha	hc	lz	l2	d2
	-0.3			±0.15	±0.15		±0.15		±0.3						h9
ZLW-0630-02	54	60	31	45	51	144	30	3	42	M4	14	22.5	20.5	20	8
ZLW-0660	85	100	31	76	91	184	61	3	42	M4	14	22.5	20.5	19.5	8
ZLW-1040-02	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1040-LT-02-S	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1040-UW-02-S	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1040-SW-02-S	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1080-02	90	100	44	94	87	204	74	1	52	M6	22	22.5	24.5	12	10
ZLW-1660-02	104	100	72	86	82	252	60	2	76	M8	43	22.5	38	20	14

Connecting dimensions [mm]

Part No.	X	E	AP	Lp	dp	n	nb	nw	nh	T1	T2	d
		±0.2	-1.0							±0.25	±0.25	
ZLW-0630-02	variable	40	52	15	5.5	-	-	4.3	7	20	21	3.2
ZLW-0660	variable	40	52	15	5.5	5.2	9.5	4.3	7	20	21	3.2
ZLW-1040-02	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1040-LT-02-S	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1040-UW-02-S	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1040-SW-02-S	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1080-02	variable	94	111	40	6.4	5.2	9.5	4.36	15.5	36	27	M6
ZLW-1660-02	variable	100	122	40	9	10	15.4	13	27.6	65	60	M5

¹⁰⁹⁾ Basic version: 6mm square, plastic adapter for pin diameter 10mm included



Aluminum version

- High speed with ball bearing supported drive shaft
- Robust wide round belt
- Central belt adjustment at the carriage
- Based on self-lubricating drylin® W linear guide
- Variable motor connection due to solid and hollow shafts

Stainless steel version



ZLWA design with exchangeable liners

Dimensions [mm]

Part No.	A	AI	H	E2	E3	E4	C4	f	lt	ha	lz	l	d2 h7
ZLW-10120	153	150	40	140	137	40	240	1	74	18.0	18	198	10
ZLW-10160	193	150	40	180	177	90	240	1	74	18.0	18	198	10
ZLW-10200	233	150	40	220	217	120	240	1	74	18.0	18	198	10
ZLW-20120	172	200	63	154	182	40	240	–	98	28.5	27	396	14
ZLW-20160	212	200	63	194	182	80	240	–	98	28.5	27	396	14
ZLW-20200	252	200	63	234	182	120	240	–	98	28.5	27	396	14

Part No.	d3	g3	D	K	at	lt2	lu	V
				For DIN912 - M6				[mm/rev]
ZLW-10120	38	M4	10	M6 ¹⁵⁸⁾	43	59	20	75
ZLW-10160	38	M4	10	M6 ¹⁵⁸⁾	43	59	20	75
ZLW-10200	38	M4	10	M6 ¹⁵⁸⁾	43	59	20	75
ZLW-20120	60	M5	20	M8	61	78	40	144
ZLW-20160	60	M5	20	M8	61	78	40	144
ZLW-20200	60	M5	20	M8	61	78	40	144

¹⁵⁸⁾ For DIN912 - M5

Technical data

Part No.	Max. stroke length [mm]	Transmission [mm/U]	Tooth profile	Toothed belt	
				Material	Tension [N]
ZLW-10120	2,000	75	3M	Neoprene with fiberglass	200
ZLW-10160	2,000	75	3M	Neoprene with fiberglass	200
ZLW-10200	2,000	75	3M	Neoprene with fiberglass	200
ZLW-20120	3,000	144	8M	PU with stainless steel reinforcement	750
ZLW-20160	3,000	144	8M	PU with stainless steel reinforcement	750
ZLW-20200	3,000	144	8M	PU with stainless steel reinforcement	750

¹⁶⁶⁾ Option for WJ200UMA pillow blocks with exchangeable liners, ZLWA-□

 Order key

Order example



ZLW A - 20 120

- Toothed belt axis
- Replaceable
- Installation size
- Shaft spacing

Options:

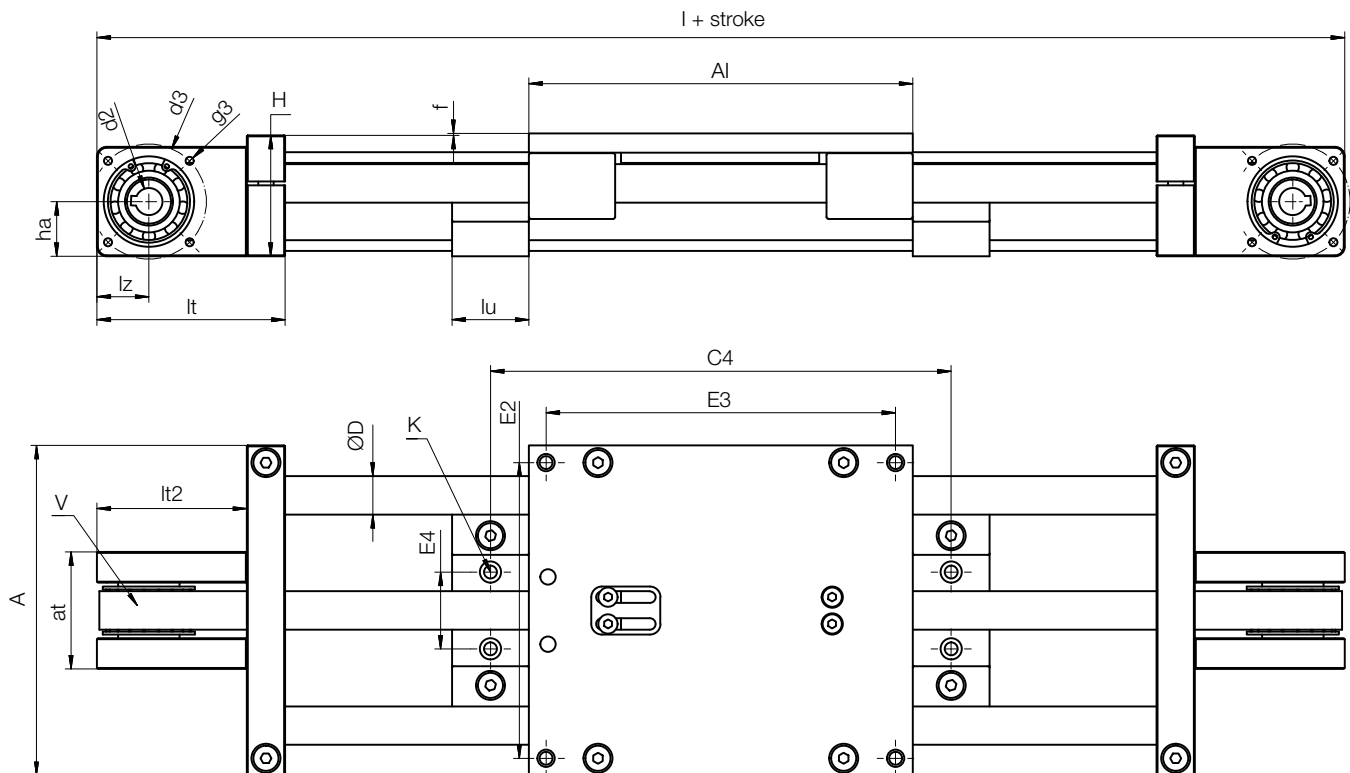
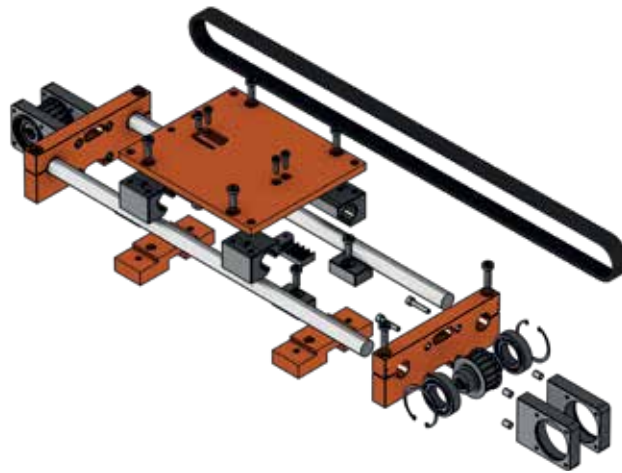
Shaft spacing
120 = 120mm
160 = 160mm
200 = 200mm

Design
AL = Aluminum
ES = Stainless steel

Carriage length
200 = 200mm

Drive pin
Hollow shaft

Stroke length
max. 3,000mm (AL)
max. 2,500mm (SS)



drylin® ZLW | belt-driven actuators | Product range

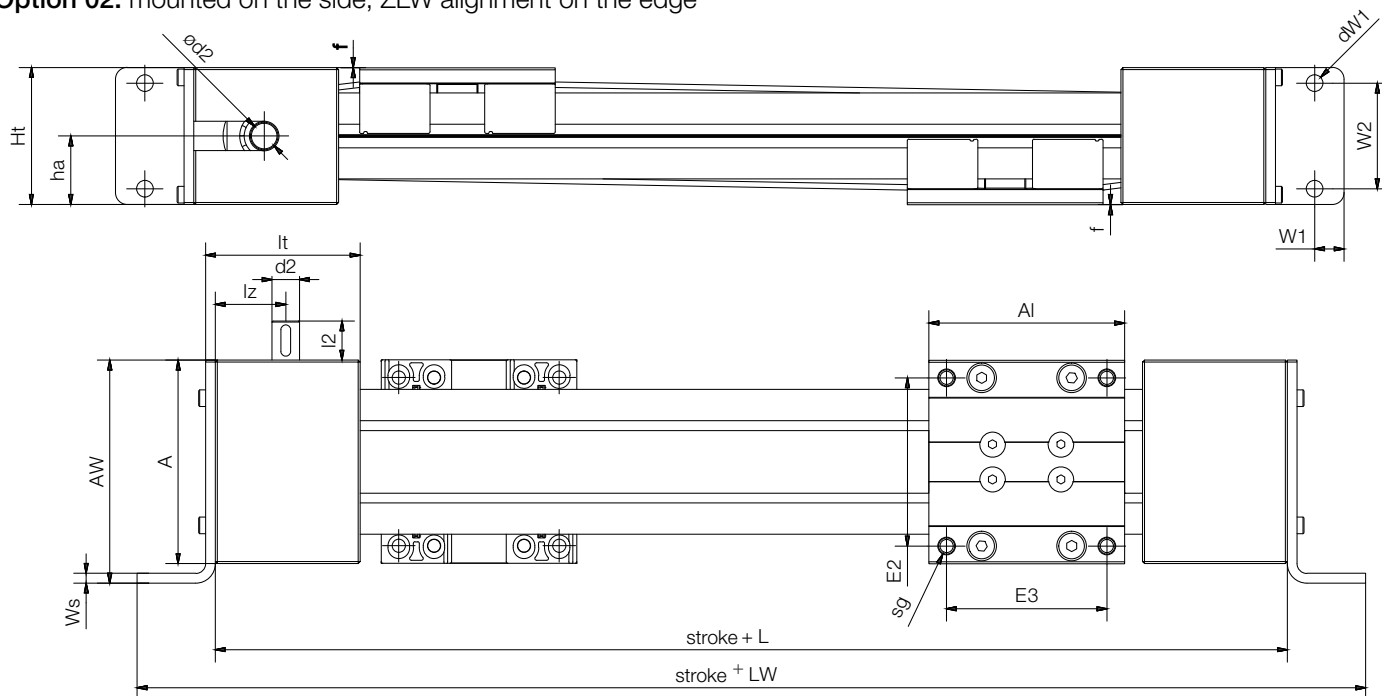
Opposite drive toothed belt with angle flange



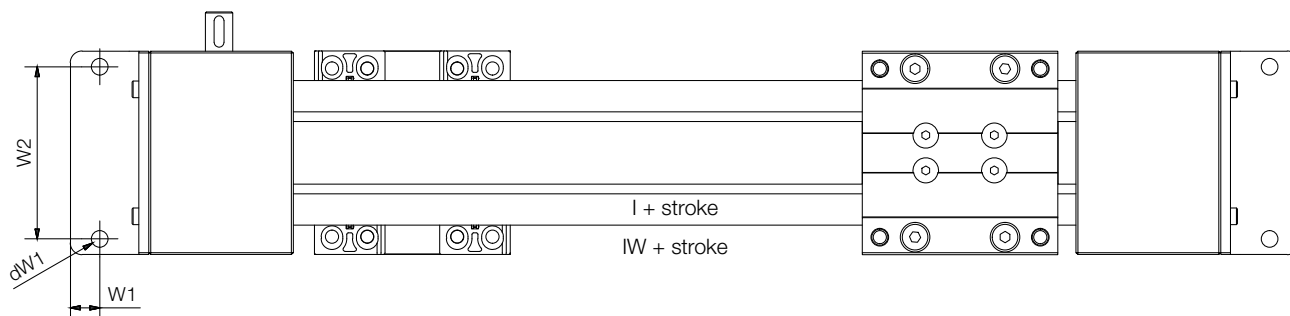
- Quick reverse positioning
- Fast right/left adjustment
- Available as standard and basic version
- Incl. angle flange for mounting
- Individual stroke lengths up to max. 3,000mm
- Radial loads up to 200N

Angle flange alignment:

Option 02: mounted on the side, ZLW alignment on the edge



Option 04: mounted horizontally, ZLW alignment horizontal





Order key

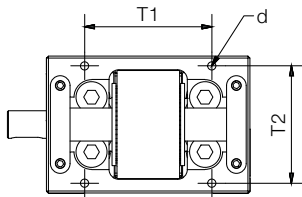
Order example

Option



ZLW-1660-OD- 02

Toothed belt axis	Installation size	Right/left opposite drive	Mounting configuration
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Dimensions [mm]

Part No.	A	Al	H	Ht	E2	E3	L	R	f	lt	sg	ha	lz	Max. stroke length
	-0.3				±0.15	±0.15		±0.15		±0.3				[mm]
ZLW-0630-OD ¹⁰⁹⁾	54	60	31	28	45	51	144	30	3	42	M4	14	20	1,000
ZLW-1040-OD	74	100	45	44	60	87	204	40	1	52	M6	22	27	1,500
ZLW-1660-OD-02	104	100	70	70	86	82	248	58	0	79	M8	35	36	3,000
ZLW-1660-OD-04	104	100	70	70	86	82	248	58	0	74	M8	35	36	3,000

Part No.	l2	d2	d	T1	T2	Ws	W1	W2	dw1	IW	AW
		h9		±0.25	±0.25						
ZLW-0630-OD ¹⁰⁹⁾	20	8	4	20	21	2	20	2	5.5	260	60
ZLW-1040-OD	20	10	5	36	26.5	3	25	3	6.6	296	80
ZLW-1660-OD-02	20	14	M5-10 deep	65	60	5	15	54	8.5	328	114
ZLW-1660-OD-04	20	14	M5-10 deep	65	60	5	-	-	-	248	70

¹⁰⁹⁾ Basic version: 6mm square, plastic adapter for pin diameter 10mm included

Twin belt



Order key

Order example

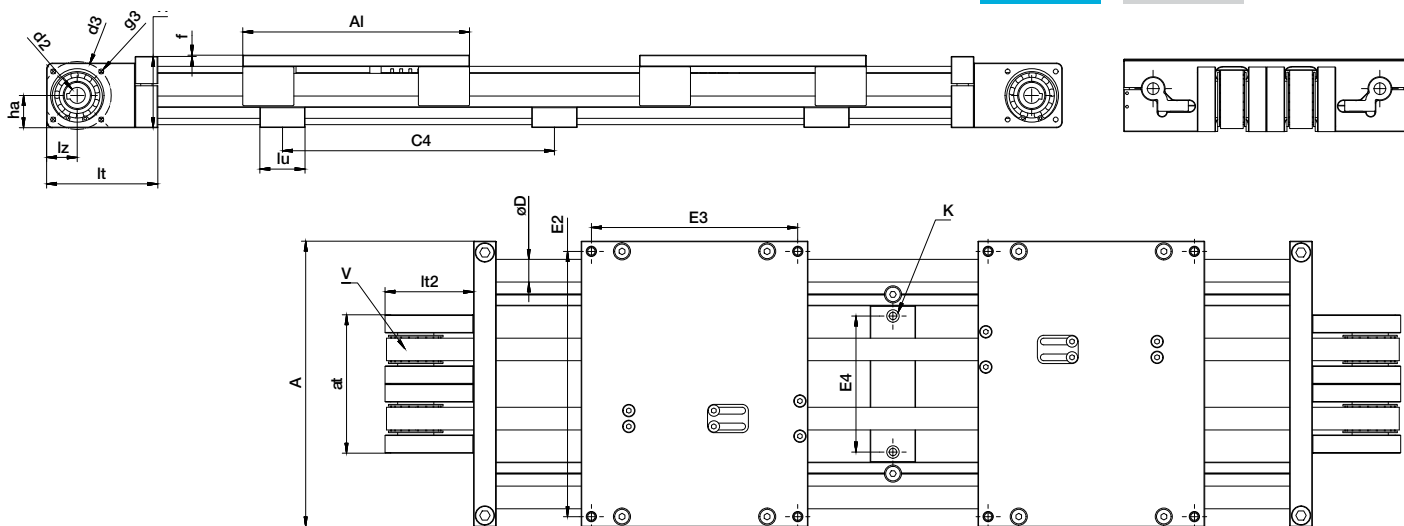


ZLWT-10160

Belt-driven
actuator

Installation
size

- Addition to the tandem toothed belt axis installation size 10/20
- Compact tandem toothed belt axis with two drive belts in one unit
- Two carriages can be controlled synchronously or independently
- With drylin® W exchange bearings for fast bearing exchange on the rail
- Can be supplied ready-to-connect with igus® motors and drylin® D1 drive motor control system



Dimensions [mm]

Part No.	A	AI	H	E2	E3	E4	C4	f	lt	ha	lz	l	d2 h7
ZLWT-10160	193	150/200/250	40	180	AI-13	90	240	1	74	18.0	18	448	10
ZLWT-10200	233	150/200/250	40	220	AI-13	120	240	1	74	18.0	18	448	10
ZLWT-20200	252	200/250/300/350	63	234	AI-18	120	240	1	98	28.5	27	596	14
ZLWT-20300	352	200/250/300/350	63	334	AI-18	200	240	1	98	28.5	27	596	14

Part No.	d3	g3	D	K	at	lt2	lu	V
For DIN912 – M6								[mm/rev]
ZLWT-10160	38	M4	10	M6	107	59	20	75
ZLWT-10200	38	M4	10	M6	107	59	20	75
ZLWT-20200	60	M5	20	M8	122	78	40	144
ZLWT-20300	60	M5	20	M8	122	78	40	144

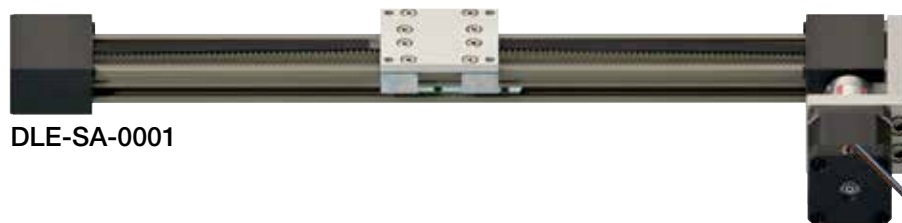
Technical data

Part No.	Max. stroke length [mm]	Trans- mission [mm/U]	Tooth profile	Drive belt		Weight [kg]	Additional (per 100mm) [kg]
				Material	Tension [N]		
ZLWT-10160	2,000	75	3M	Neoprene with fiberglass	200	4.0	0.25
ZLWT-10200	2,000	75	3M	Neoprene with fiberglass	200	4.5	0.30
ZLWT-20200	3,000	144	8M	PU with stainless steel reinforcement	750	11.0	0.50
ZLWT-20300	3,000	144	8M	PU with stainless steel reinforcement	750	12.5	0.65

drylin® ZLW | belt-driven actuators | Product range

Linear axes with motor from stock - available in 24 hours

drylin® ZLW
toothed
belt axis



DLE-SA-0001



DLE-SA-0002



DLE-SA-0003

Available in 24 hours: drylin® linear axes with motor

igus® delivers ready-to-install, preconfigured linear actuators (drive: lead screw or toothed belt) from stock within 24 hours. You simply choose between 3 sizes, 3 stroke lengths and 3 stepper motors ... and the system is delivered in 24 hours after you place your order.

- Drive: Lead screw or toothed belt
- Completely lubrication-free
- Stepper motors with stranded wires
- Pre-assembled and tested
- Basis drylin® ZLW and SAW linear axes

Technical data

Part No.	Installation size	Carriage length	Stroke length	Motor type	Max. static load capacity	
					axial [N]	radial [N]
DLE-SA-0001	ZLW-0630 basic	60	300	NEMA17 stranded wires	35	140
DLE-SA-0002	ZLW-1040 basic	100	500	NEMA23 stranded wires	100	400
DLE-SA-0003	ZLW-1080 standard	100	1,000	NEMA23XL stranded wires	150	600



Further information about the motors

► Page 1720



- Motor can now be mounted on the bottom as well as on top
- Low-profile, 27mm height
- Vertical load from 30N
- Ready-to-install with NEMA stepper motors or BLDC/DC motors



Order key

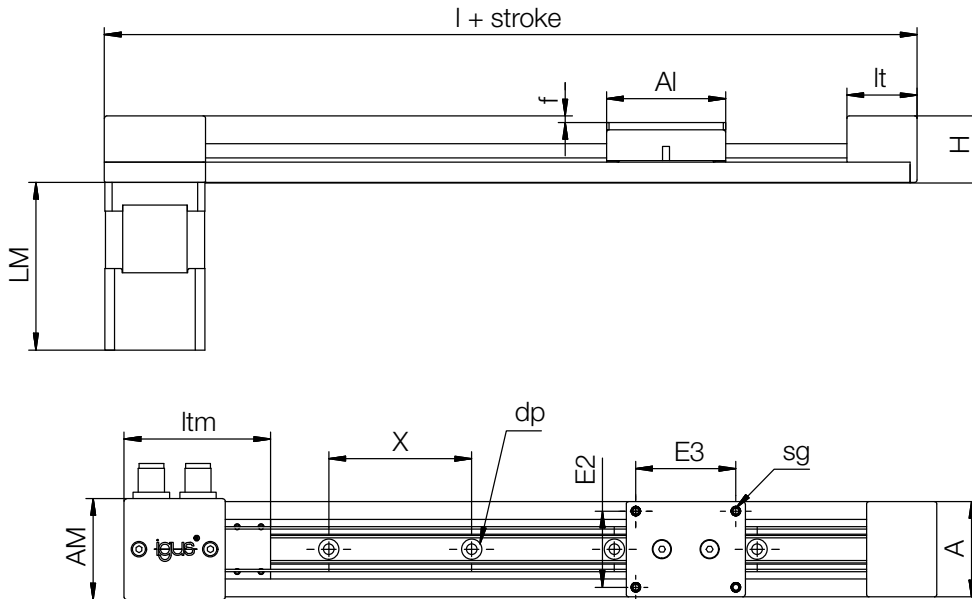


Order example

ZLN-40

Toothed belt axis

Installation size

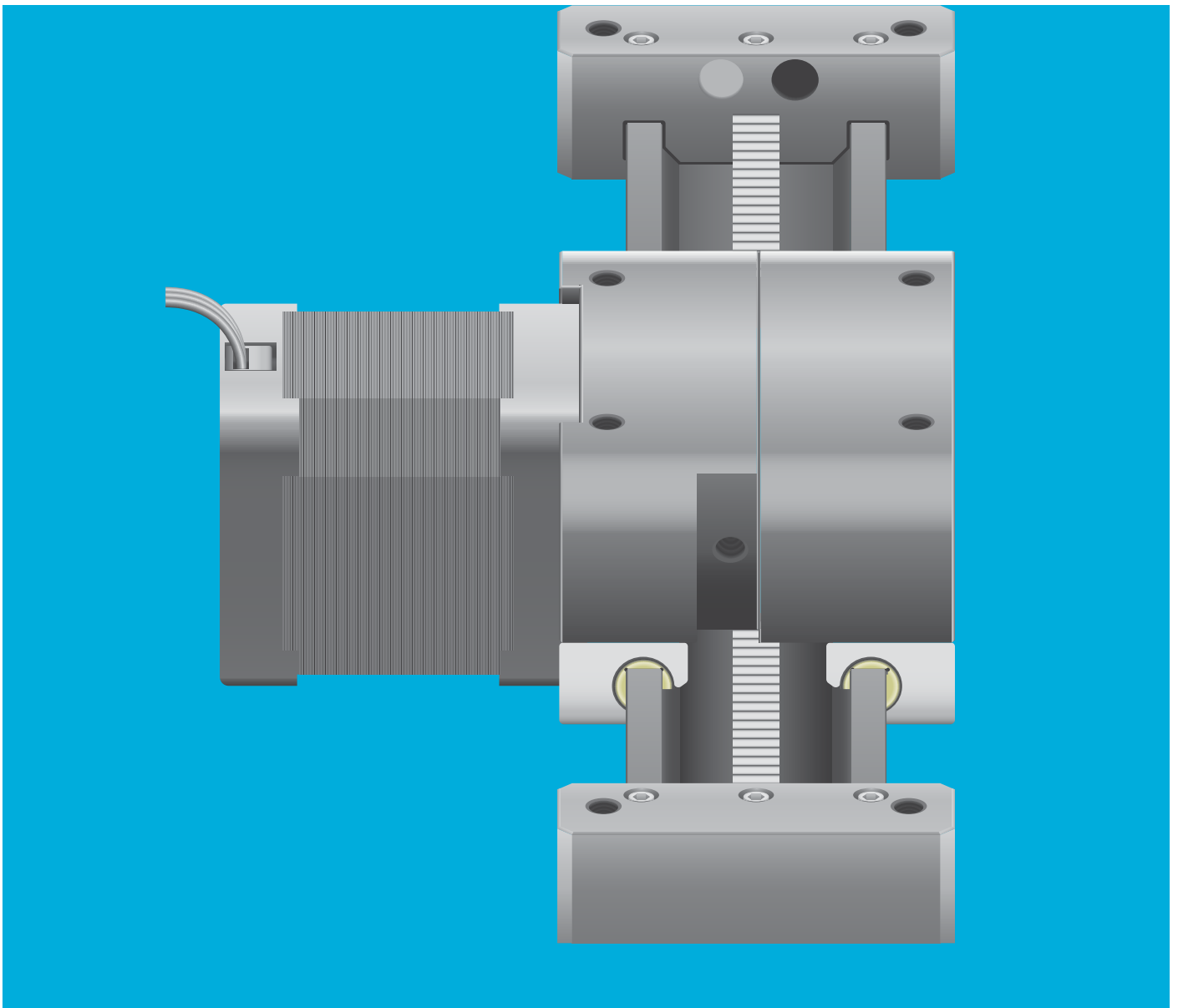


Dimensions [mm]

Part No.	A	AI	H	X	E2	E3	AM	LM	lt	ltm	dp	sg	l	v	f
ZLN-40	40	50	28	60	32	42	42.5	70	30	61.5	4.5	M3	141.5	60	2.8

Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional [kg] (per 100mm)	Max. static load capacity		Shaft end support material [Nm]
				Axial [N]	radial [N]	
ZLN-40	750	0.24	0.05	30	80	0.15



drylin[®] electric drive technology – for z-axis

Cantilevered for vertical axis

Static motor reduces moments

Drive: Rack or timing belt

Lightweight design

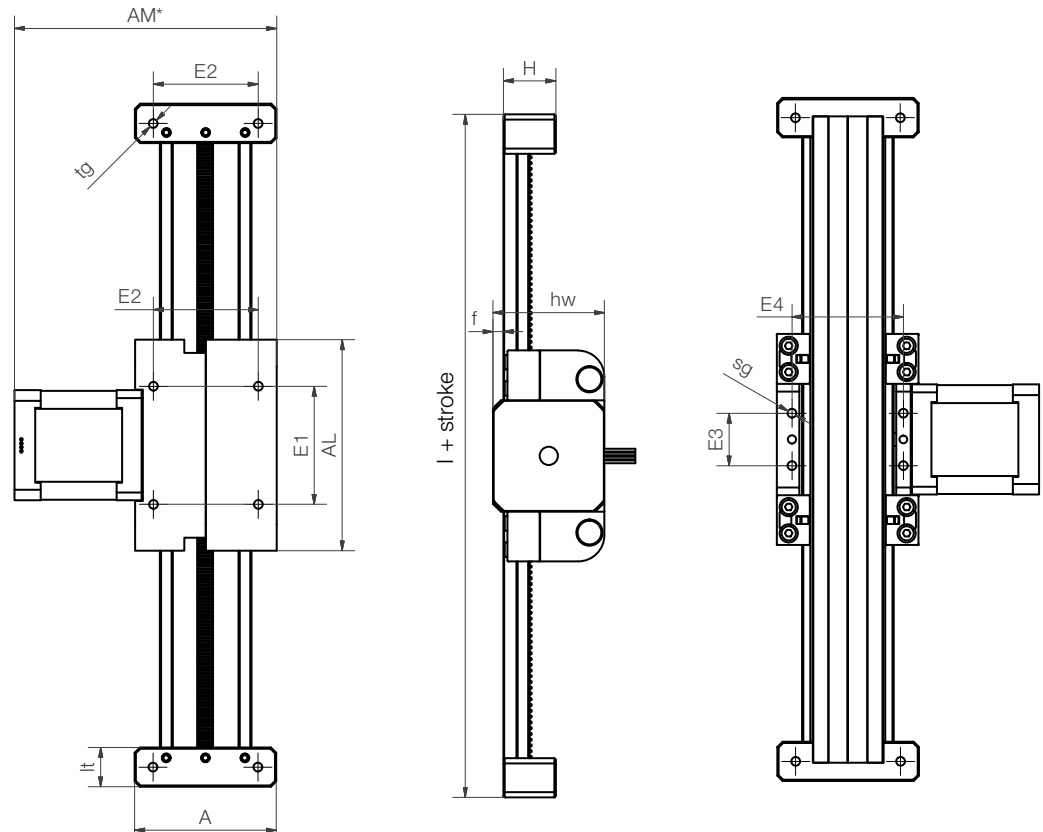
Self-lubricating and maintenance-free



drylin® GRW | belt-driven actuators | Product range

Dynamic z-axis for linear robot structures

- Direct force transfer via rack
- Compact design
- Handling for loads up to 10N
- Available accessories ► **Page 1703**
- Available with motor



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E4	l	lt	hw	f	AM ¹³¹⁾	tg	sg
	-0.3			+0.15	+0.15									
GRW-0630-A	54	80.5	20	45	40	20	42.5	110.5	15	42.5	4	100.0	M4	M4-8
GRW-0630-B	54	80.5	20	45	40	20	42.5	110.5	15	42.5	4	121.4	M4	M4-8

Technical data

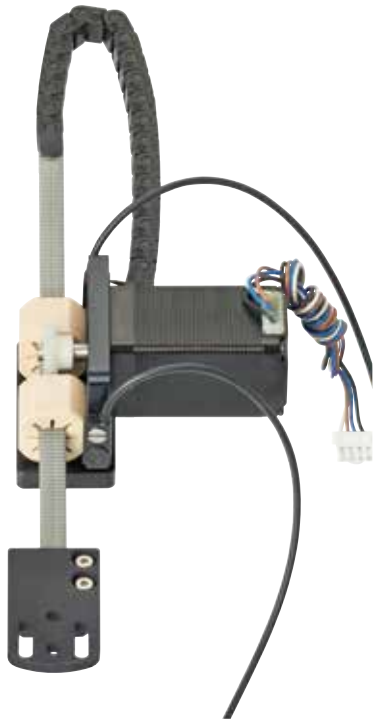
Part No.	Stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. feed rate [mm/rev]	Max. load axial [N]
GRW-0630-A	150	0.5	0.1	44	10
GRW-0630-B	300	0.5	0.1	44	10

¹³¹⁾ Depending on the type of motor

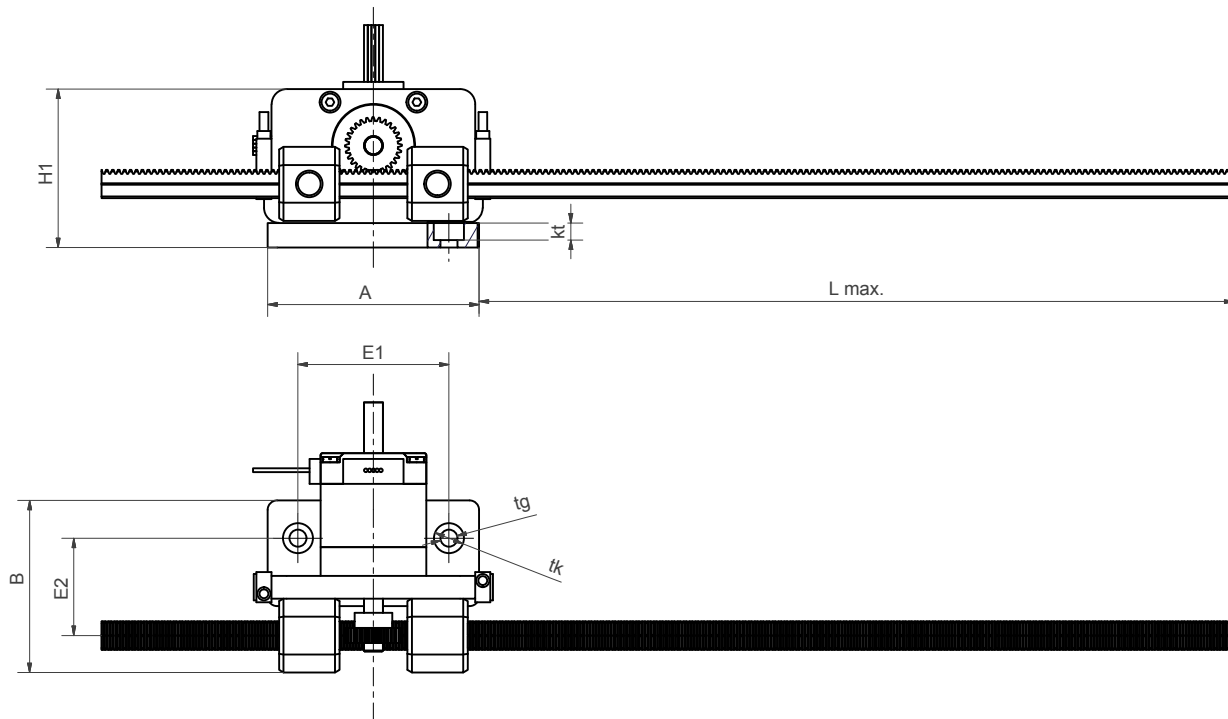
drylin® GRQ | belt-driven actuators | Product range

Extremely light axis for Pick & Place

drylin®
cantilever
axis



- Hard-anodized guide rail with gear rack
- Loads up to 500g with a speed of up to 0.7m/s
- iglide® J linear bearings
- Drive: NEMA11 stepper motor with gear wheel



Dimensions [mm]

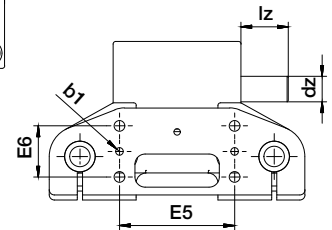
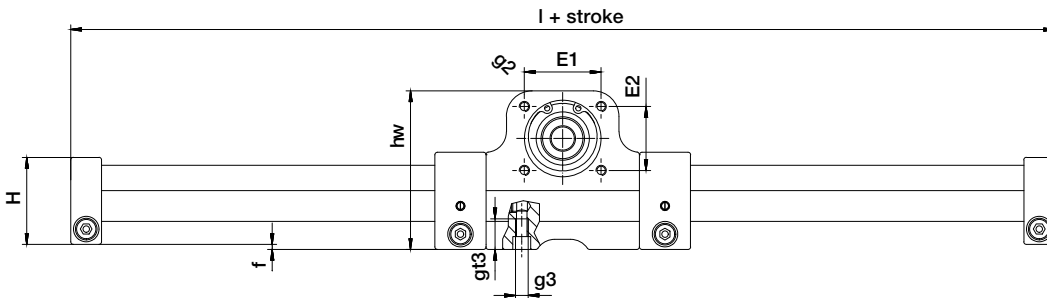
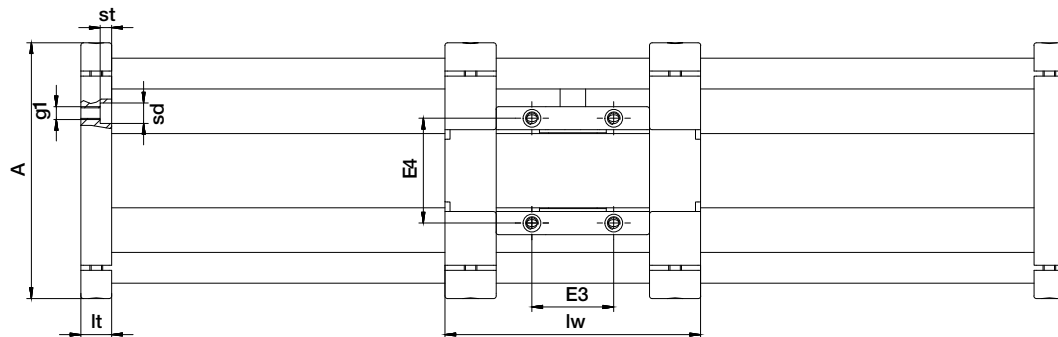
Part No.	F	v	L	A	H1	E1	E2	B	tg	tk	kt	B	Q	D2
	[N]	[m/s]	Max.											
GRQ-10-A-56-120-11-L-01-000	5	0.7	200	56	42	40	26	46	4.5	8	4.5	52	7.5	22

drylin® GRR | belt-driven actuators | Product range

drylin® GRR lightweight z-axis with direct rack drive



- Light z-axis for strokes up to 500mm
- Weight of only 1.45kg with 500mm stroke
- Made from aluminum and plastic
- Dynamic mass of only 0.9kg enables fast operation
- Ideal for linear robots
- Direct rack drive
- Torsionally rigid due to drylin® AWMR aluminum hollow shafts
- Self-lubricating and maintenance-free due to drylin® R liners



Dimensions [mm]

Part No.	L	A	H	lw	hw	lz	dz	f	lt	E1	E2	g2
GRR-1280	124	100	34	100	62	18	10	2	12	30	25	M4-10
Part No.	E3	E4	g3	gt3	E5	E6	g1	sd	st	b1	h7	
GRR-1280	32	41	M5	12	45	20	M5	8	4.5	3		

Technical data

Part No.	Max. stroke length [mm]	Transmission [mm/rev]	Tooth profile	Weight without stroke [kg]	Max. load [kg]
GRR-1280	750	72.26	Module 1	0.86	0.12

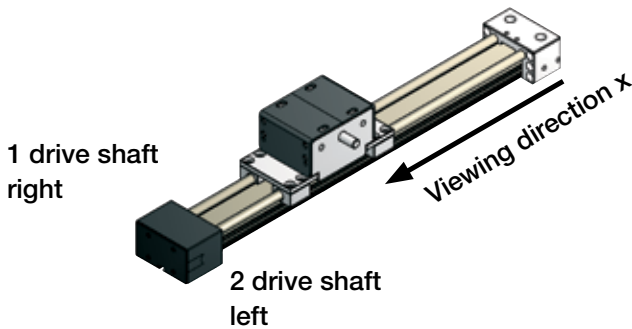
drylin® ZAW | belt-driven actuators | Product range

Cantilevered actuator

drylin®
cantilever
axis



- Fixed drive unit
- Hard-anodized aluminum axis profile
- Lightweight
- Max. stroke 1,000mm
- Max. axial load 50N
- Permissible load for carriage $M_{y \max}$: 15Nm



Order key

Cantilever axis with ball bearings

ZAW- 1040 - 02 - S - 150 - L - 500

Cantilever axis	Installation size	Type	Standard design	Carriage length [mm]	Drive shaft	Stroke length: Max. 1,000mm
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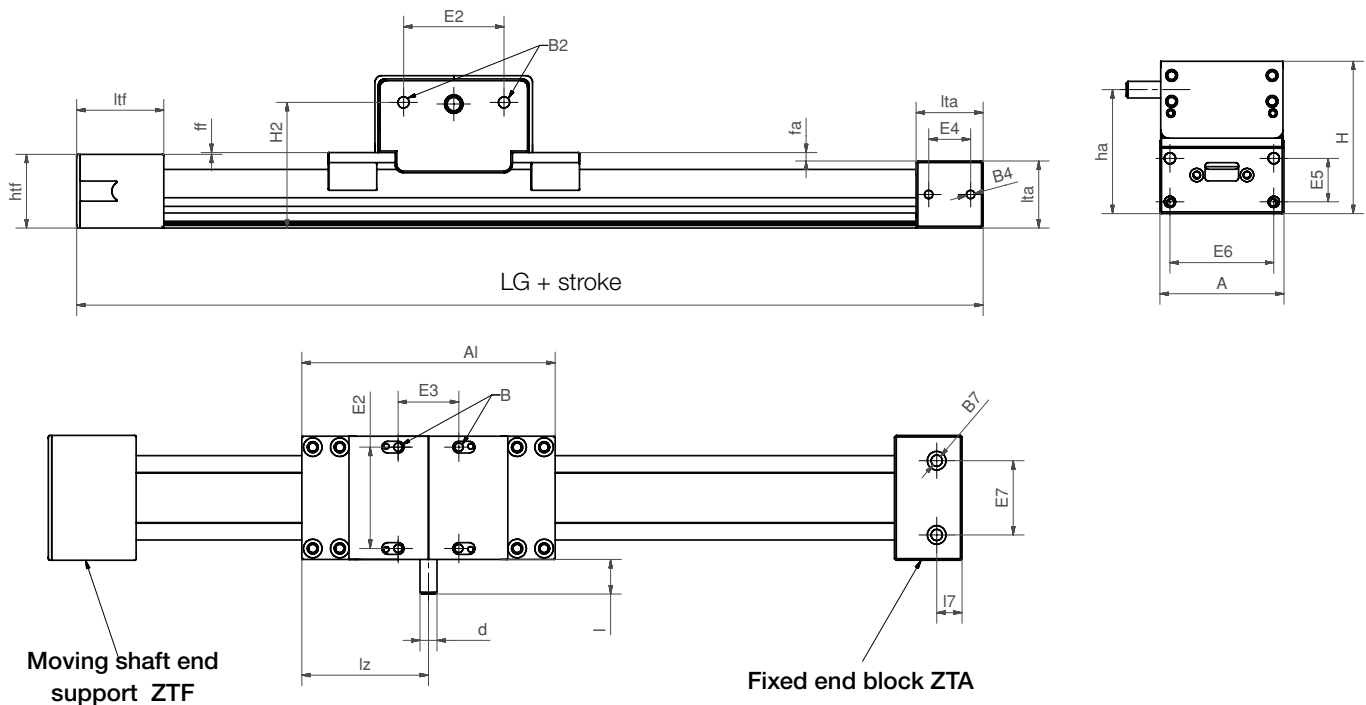
Options:

Drive shaft

L = Drive shaft left

R = Drive shaft right

L/R = Drive shaft on both sides



Dimensions [mm]

Part No.	A	H	H2	LG	A1	ha	d	l	l7	lz	E2	E3	
	-0.3				±0.3	±0.1	h9	+1			±0.15	±0.15	
ZAW-1040	74	91	75	242	150	74	10	20	15	75	60	60	
Part No.	B	B2	htf	ltf	ff	fa	lta	E4	B4	B7	E5	E6	E7
Connecting dimensions	-0.3			±0.3	±0.1	h9	±0.1		±0.15		±0.15		
ZAW-1040	M6	M8	44	52	2	5	40	20	M6	M6	26	62	44

Notes

A large grid area for taking notes, consisting of a 20x30 grid of small squares. The grid is empty and occupies the majority of the page.



drylin[®] electric drive technology – Lead screw motors

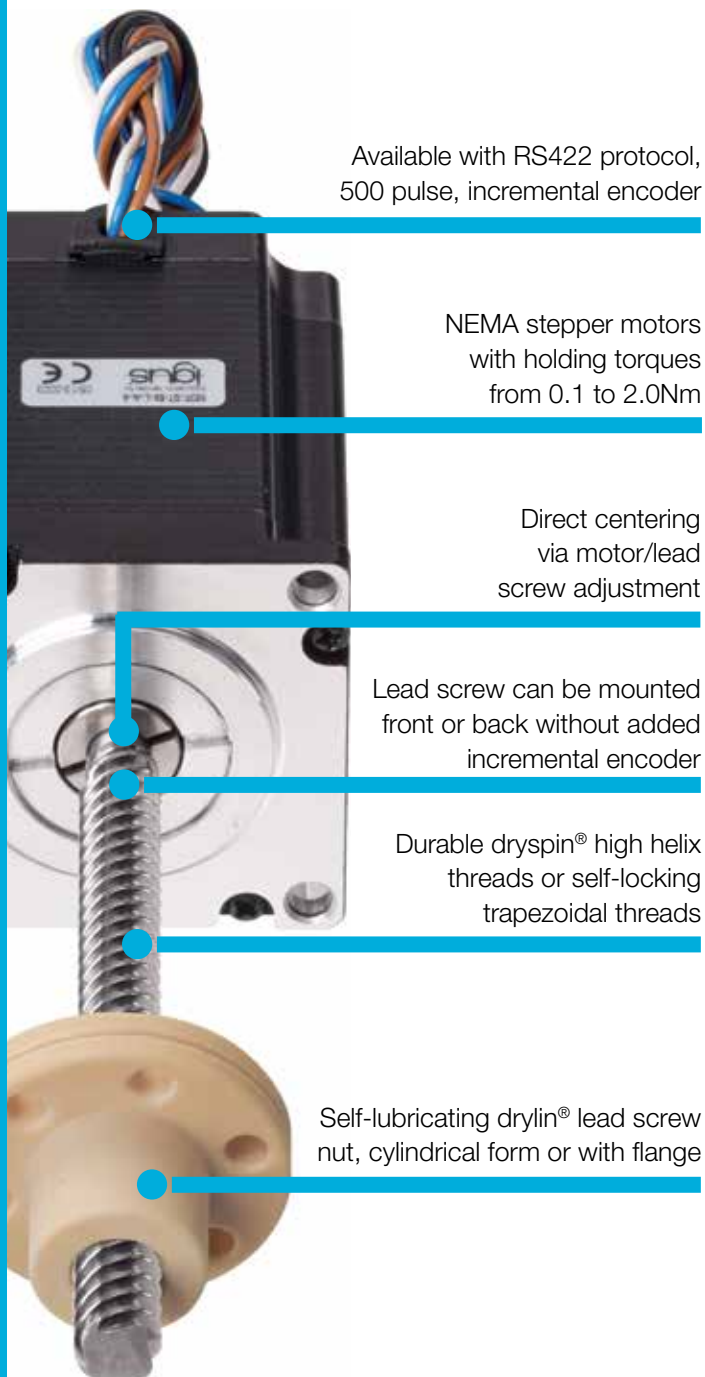
Multiple lead screw types with 0.8–50mm lead

The lead screw can be mounted front or back
without added incremental encoder

Space-saving, versatile

Motors can be used with igus[®] SAWC and SLN
actuators to minimize overall stage length





Available with RS422 protocol,
500 pulse, incremental encoder

NEMA stepper motors
with holding torques
from 0.1 to 2.0Nm

Direct centering
via motor/lead
screw adjustment

Lead screw can be mounted
front or back without added
incremental encoder

Durable dryspin® high helix
threads or self-locking
trapezoidal threads

Self-lubricating drylin® lead screw
nut, cylindrical form or with flange

Efficient, precise and compact – drylin® lead screw motors

drylin® with the lead screw motor range is the optimum solution for systems that need a stepper motor and integrated lead screw. The stand-alone versions have a compact design and are available with NEMA stepper motors with or without an encoder. The lead screw is centered and, in combination with igus® thermoplastic lead screw nuts and screw solutions provide long running, low wear performance.

- 3 stepper motor sizes
- Self-lubricating drylin® lead screw technology
- Available ready to connect

Typical application areas

- Medical technology
- Tool building
- Laboratory technology



Available from stock

Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Product finder

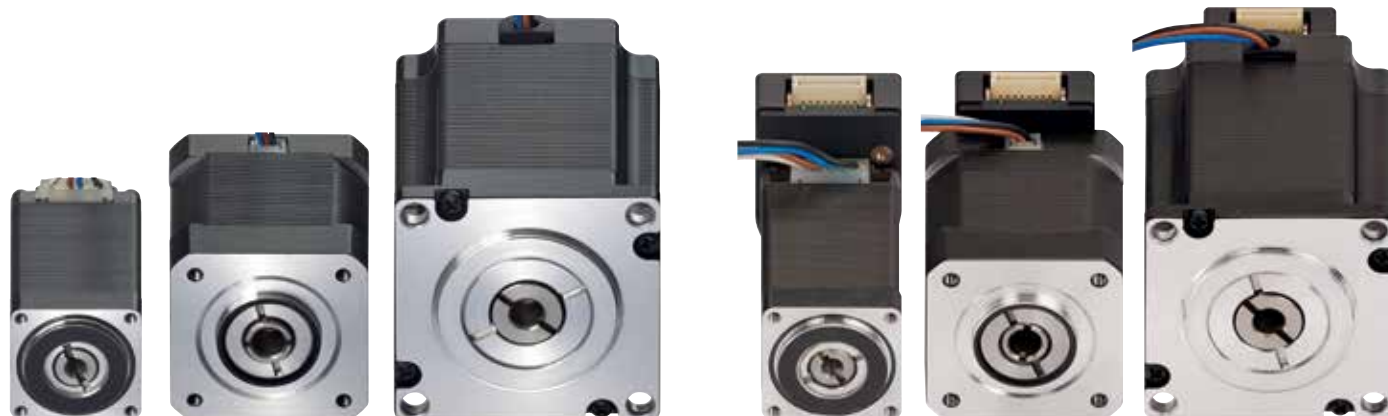
► www.igus.com/drylinE



Data sheets

► downloads.igus.com

Stand-alone solution for customer requirements - with or without encoder



- Stepper motors in three different sizes with stranded wire and 0.1–2Nm holding torque
- Multiple lead screw types with 0.8–50mm pitch
- Maximum precision by centering the lead screw with a motor/lead screw fit
- Matching lead screw nuts in the drylin® product range
- When using a stepper motor without an encoder the lead screw can be attached on either side
- Space-saving, versatile
- Motors can be used with igus® SAWC and SLN actuators to minimize overall stage length

Technical data and dimensions [mm] – lead screw motors

Part No.	Motor size	Distance over hubs [mm]	Holding torque [Nm]	Shaft load axial [N]	Encoder Optional
MOT-ST-28-L-A-A	NEMA11	28	0.1	50	No
MOT-ST-28-L-A-B	NEMA11	28	0.06	50	No
MOT-ST-28-L-C-A	NEMA11	28	0.1	50	Yes
MOT-ST-28-L-C-B	NEMA11	28	0.06	50	Yes
MOT-ST-42-L-A-A	NEMA17	42	0.5	100	No
MOT-ST-42-L-A-B	NEMA17	42	0.2	100	No
MOT-ST-42-L-C-A	NEMA17	42	0.5	100	Yes
MOT-ST-42-L-C-B	NEMA17	42	0.2	100	Yes
MOT-ST-56-L-A-A	NEMA23	56	2.0	500	No
MOT-ST-56-L-A-B	NEMA23	56	1.0	500	No
MOT-ST-56-L-C-A	NEMA23	56	2.0	500	Yes
MOT-ST-56-L-C-B	NEMA23	56	1.0	500	Yes

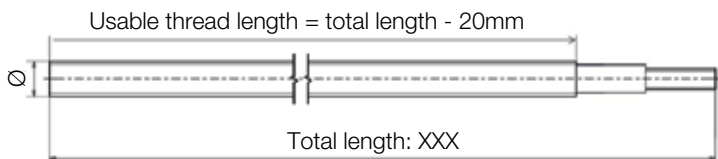
Part No.	Installation size	B1	B2	D2 Ø	D3 Ø	D4 Ø	D5 Ø	L2	L3	L4
Without encoder			±0.2	±0.025						
MOT-ST-28-L-A-B	short (S)	28.2	23.00	22.00	M2.5	–	–	31.5	2.0	0
MOT-ST-28-L-A-A	medium (M)	28.2	23.00	22.00	M2.5	19.05	2 x M2.5–2	51.0	2.0	0
MOT-ST-42-L-A-B	short (S)	42.3	31.00	22.00	M3	–	–	30.5	2.0	0
MOT-ST-42-L-A-A	medium (M)	42.3	31.00	22.00	M3	19.05	2 x M2.5–2	49.0	2.0	0
MOT-ST-56-L-A-B	short (S)	56.4	47.14	38.10	5	–	–	50.0	1.6	5
MOT-ST-56-L-A-A	medium (M)	56.4	47.14	38.10	5	20.9	6 x M2–2	76.0	1.6	5
With encoder										
MOT-ST-28-L-C-B	short (S)	28.2	23.00	22.00	M2.5	–	–	47.2	2.0	0
MOT-ST-28-L-C-A	medium (M)	28.2	23.00	22.00	M2.5	–	–	66.2	2.0	0
MOT-ST-42-L-C-B	short (S)	42.3	31.00	22.00	M3	–	–	46.2	2.0	0
MOT-ST-42-L-C-A	medium (M)	42.3	31.00	22.00	M3	–	–	65.0	2.0	0
MOT-ST-56-L-C-B	short (S)	56.4	47.14	38.10	5	–	–	65.7	1.6	5
MOT-ST-56-L-C-A	medium (M)	56.4	47.14	38.10	5	–	–	92.0	1.6	5

drylin® | Lead screw motors | Product range

Lead screw with precision machined ends



- Material: stainless steel
- Lead screw needs to be secured with an adhesive
- Ready to fit



Technical data – high helix thread with dryspin® technology

Part No.	Motor size	Distance over hubs [mm]	Thread type	Lead screw Ø [mm]	Lead P	Max. Length
DST-LS-MOT-6.35X2.54-R-XXX-ES	NEMA11	28	DST	6.35	2.54	300
DST-LS-MOT-6.35X25.4-R-XXX-ES	NEMA11	28	DST	6.35	25.4	300
DST-LS-MOT-10X12-R-XXX-ES	NEMA17/23	42 / 56	DST	10	12	500
DST-LS-MOT-10X25-R-XXX-ES	NEMA17/23	42 / 56	DST	10	25	500
DST-LS-MOT-10X50-R-XXX-ES	NEMA17/23	42 / 56	DST	10	50	500
DST-LS-MOT-14X25-R-1000-ES	NEMA17/23	42 / 56	DST	14	25	500

Technical data – trapezoidal lead screw

Part No.	Motor size	Distance over hubs [mm]	Thread type	Lead screw Ø [mm]	Lead P	Max. Length
PTGSG-MOT-M5X0,8-R-XXX-ES	NEMA11	28	M5	5	0.8	250
PTGSG-MOT-08X1,5-R-XXX-ES	NEMA17/23	42 / 56	Tr	8	1.5	300
PTGSG-MOT-10X2-R-XXX-ES	NEMA17/23	42 / 56	Tr	10	2	500
PTGSG-MOT-12X3-R-XXX-ES	NEMA17/23	42 / 56	Tr	12	3	500
PTGSG-MOT-12X6P3-R-XXX-ES	NEMA17/23	42 / 56	Tr	12	6P3	500

XXX: Lead screw length

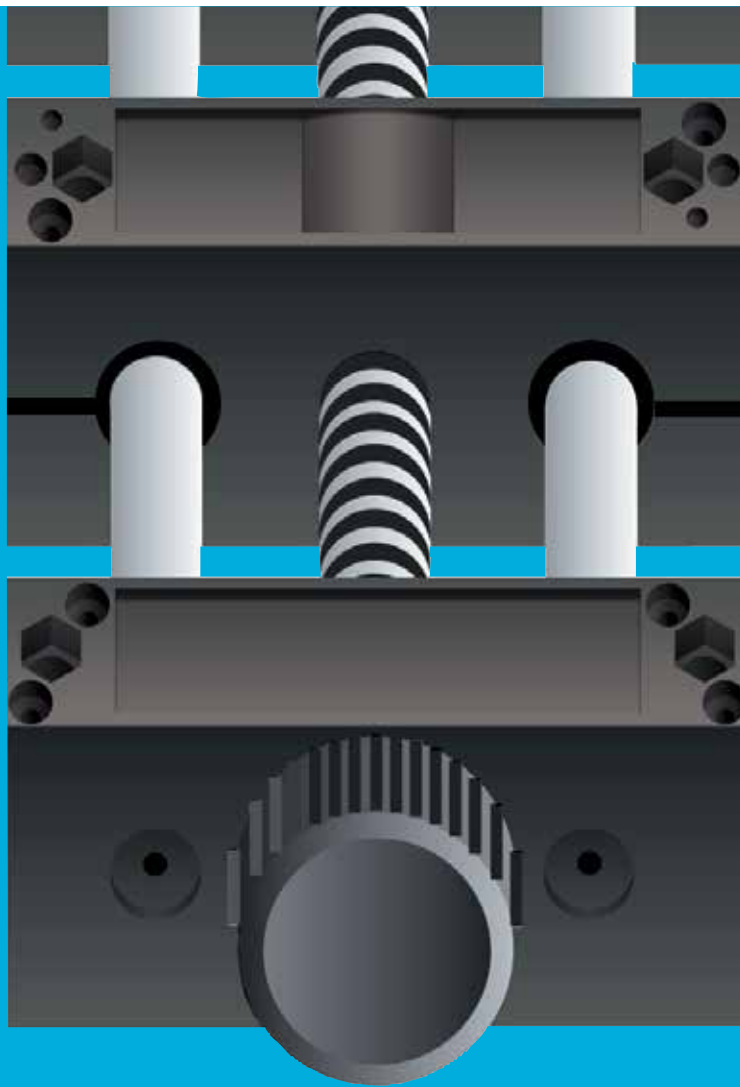


If desired by the factory, please order using the following assembly number:
 Assembly front: MONT004F000 (flange side)
 Assembly back: MONT004B000 (assembly not possible with a motor with an encoder)



Lead screw needs to be secured with an adhesive (Loctite® 648)

Curing time: after 6 hours approximately 50%
 after 24 hours 100%



drylin[®] econ ultra low-cost series

Cost-effective linear actuators

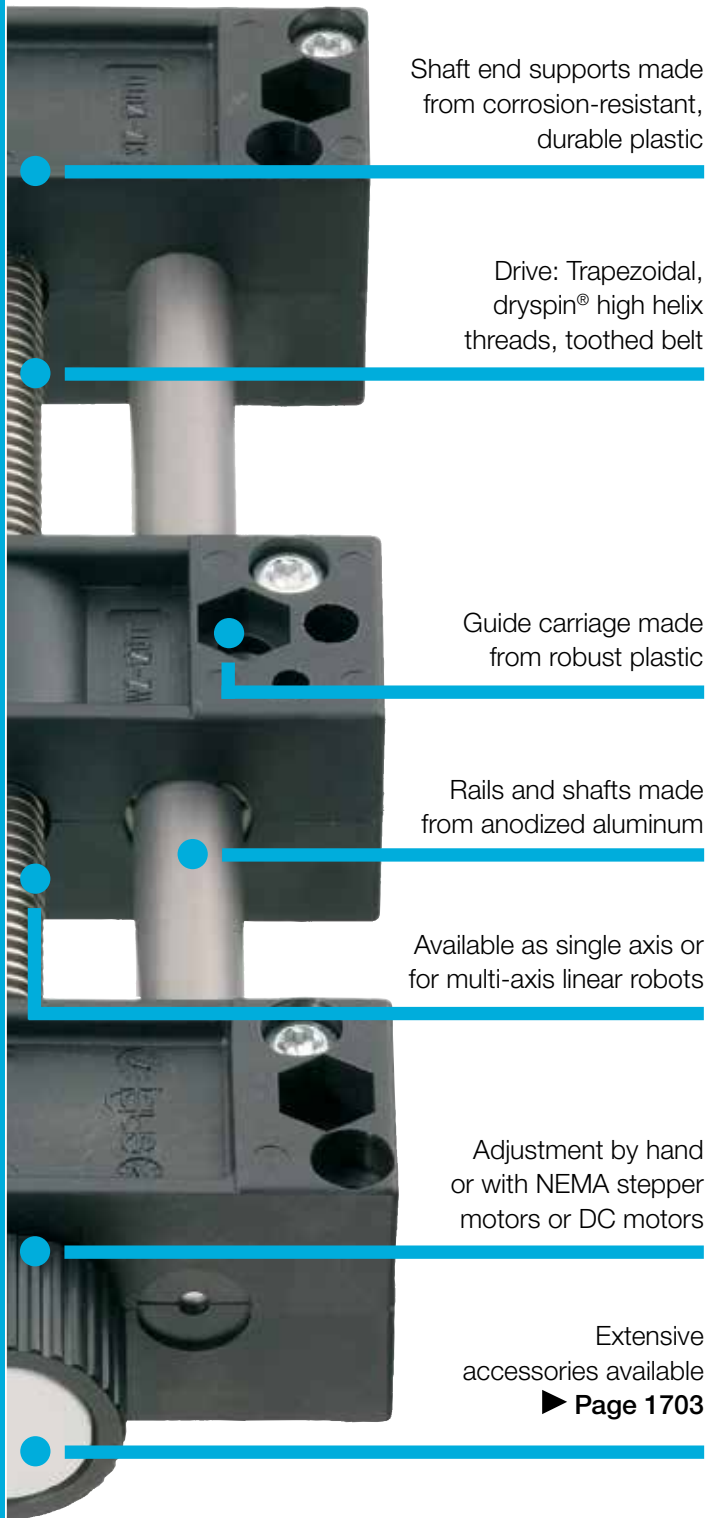
Drive: Trapezoidal and high helix lead screw
and belt-drive systems

Lightweight construction

Corrosion-resistant

For simpler applications





Shaft end supports made from corrosion-resistant, durable plastic

Drive: Trapezoidal, dryspin® high helix threads, toothed belt

Guide carriage made from robust plastic

Rails and shafts made from anodized aluminum

Available as single axis or for multi-axis linear robots

Adjustment by hand or with NEMA stepper motors or DC motors

Extensive accessories available
▶ Page 1703

Self-lubricating linear actuators – drylin® econ

econ defines the most cost-effective drylin® actuator series from igus®. drylin® econ models are configured and delivered so that they are ready to install and are thus the perfect alternative to complex in-house solutions for simple adjustment tasks.

- Lightweight construction due to combination of plastic and aluminum
- Ideal for high-volume applications
- Cost-effective due to injection molding and clear anodized surface

Typical application areas

- Kiosks / vending machines
- Format adjustments
- Sensor adjustments



Detailed information about delivery time online.



Price breaks online

No minimum order value. No minimum order quantity.



Carriage lengths: 26-45mm

Stroke lengths: up to 500mm



Product finder

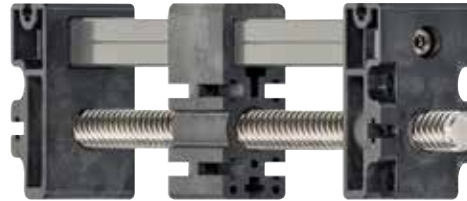
▶ www.igus.com/info/linear-actuators



drylin® econ SLWP linear actuator – durable in 2 sizes

- Compact and torsion-resistant due to drylin® W double shaft profiles
- Lead screw with self-locking trapezoidal or metric thread
- Fast adjustment due to dryspin® high helix thread

► Page 1656



drylin® econ SLTP linear system – low-cost through us of injection-molded parts

- Easy to assemble
- Carriage with multiple fastening options

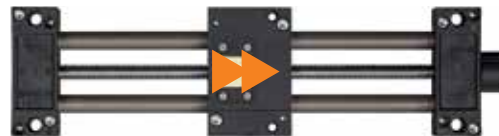
► Page 1657



drylin® econ SHTP linear actuator

- Lead screws made from aluminum, carbon fiber, steel, stainless steel
- Carriage with integrated lead screw nuts and drylin® R liner
- With trapezoidal or high helix lead screws

► Page 1658



drylin® econ SHTP-FF linear actuator – Fast-Forward

- With quick-release mechanism
- For fast adjustment
- Self-locking
- Variable stroke lengths

► Page 1661



drylin® econ SLN miniature actuator – small and fast

- Slim, narrow design
- Multiple lead screw options
- Preloaded version available

► Page 1662



drylin® econ ZLW toothed belt axis – light and fast

- Lightweight due to use of plastic and aluminum
- Flexible mounting options
- Easily customizable stroke lengths

► Page 1663



drylin® econ DLE-FG flat linear robot – for predefined surfaces

- Linear robot based on econ belt-driven actuators
- For a workspace of 500 x 500mm
- Ready to connect with NEMA stepper motors

► Page 1664

Low-cost SLW model



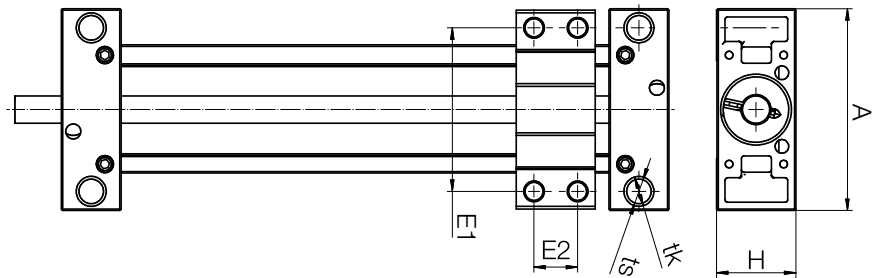
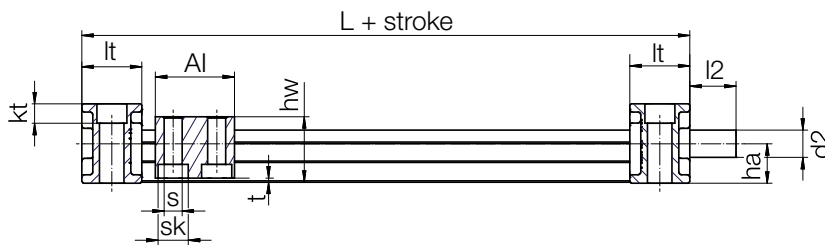
- Based on drylin® W profile guides
- Clear anodized guide rails
- Torsion-resistant double shaft systems
- Self-locking fine-pitch and high-helix lead screws available
- Available accessories ► **Page 1703**



Order key

Order example

SLWP-0630-E



Technical data

Part No.	Max. stroke length	Weight	additional (per 100mm)	Max. stat. load capacity	
	[mm]			[kg]	axial [N]
SLWP-0630-E	300	0.15	0.08	50	50
SLWP-1040-E	500	0.30	0.10	50	50

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	I	hw	f	lt	tk	ts
	-0.3	-0.3		±0.2	±0.2	±0.15				±0.1		
SLWP-0630-E	54	60	20	40	45	51	100	18.0	1.5	20	11	6.6
SLWP-1040-E	74	29	29	60	16	-	73	23.5	1.5	22	11	6.8

Part No.	kt	s	sk	d	T	l2	d2	ha
	±0.1						Standard	
SLWP-0630-E	8.0	5.0	6Kt M4	5.0	Tr8x1.5	15	Tr8x1.5 ¹⁶⁰⁾	9.5
SLWP-1040-E	9.0	6.3	6Kt M6	7.5	Tr10x2	17	Tr10x2 ¹⁶¹⁾	14.5

¹⁶⁰⁾ Alternative lead screws (OD x lead): M8, Tr8x1.5, Ds8x10, Ds8x15

¹⁶¹⁾ Alternative lead screws (OD x lead): Tr10x2, Tr10x3, Ds10x12, Ds10x25, Ds10x50

Low-cost SLT model



- Extremely cost-effective
- Torque-resistant due to AWMQ aluminum square profile
- Multiple lead screw options



Order key

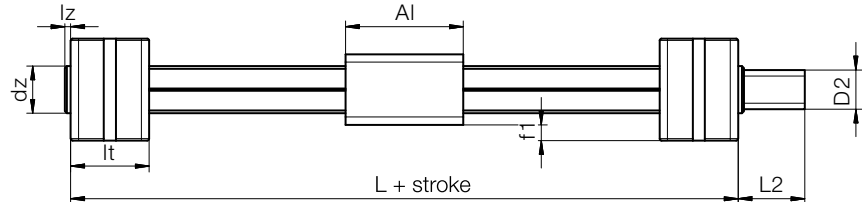
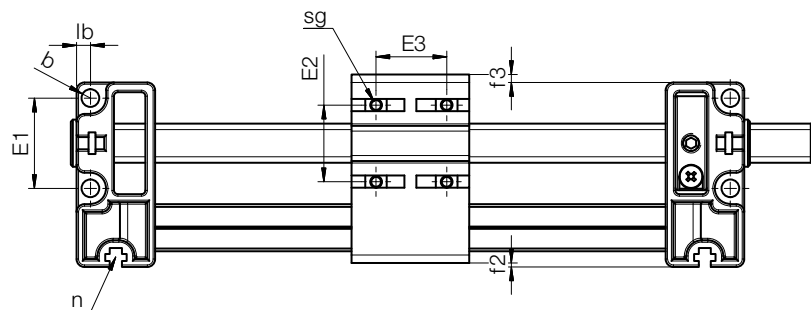
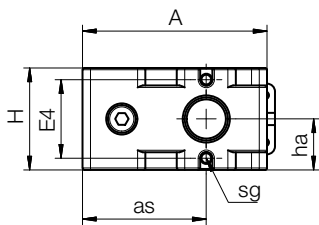
Order example

SLTP - 1012 - E

Compact

Dimension

econ series



Technical data

Part No.	Max. stroke length	Weight	additional (per 100mm)	Max. stat. load capacity		Max. rpm	Max. speed
	[mm]			[kg]	[kg]		
SLTP-1012-E	300	0.147	0.081	50	100	250	0.5

Dimensions [mm]

Part No.	A	H	L + stroke	Al	L2	D2	E1	E2	E3	E4	T ¹⁵²⁾
SLTP-1012-E	47	26	70	30	17	10	23	19.5	8.5-24.5	20	Tr10x2

Part No.	lt	dz	lz	b	lb	sg ¹⁵³⁾	ha	as	n	f1	f2	f3
SLTP-1012-E	20	12	1.5	4.5	3.5	M3	13	31.5	M3	4	1	2

¹⁵²⁾ Alternative lead screws (OD x lead): Tr10x3, Tr10x4P2, Ds10x12, Ds10x25, Ds10x50

¹⁵³⁾ 6 pieces of M3-DIN562 screws included in delivery

Low-cost miniature SHT model



- Miniature version
- Lightweight
- Cost-effective
- Corrosion-resistant
- Carriages and shaft end supports made from high-performance polymers
- Available accessories ► **Page 1703**

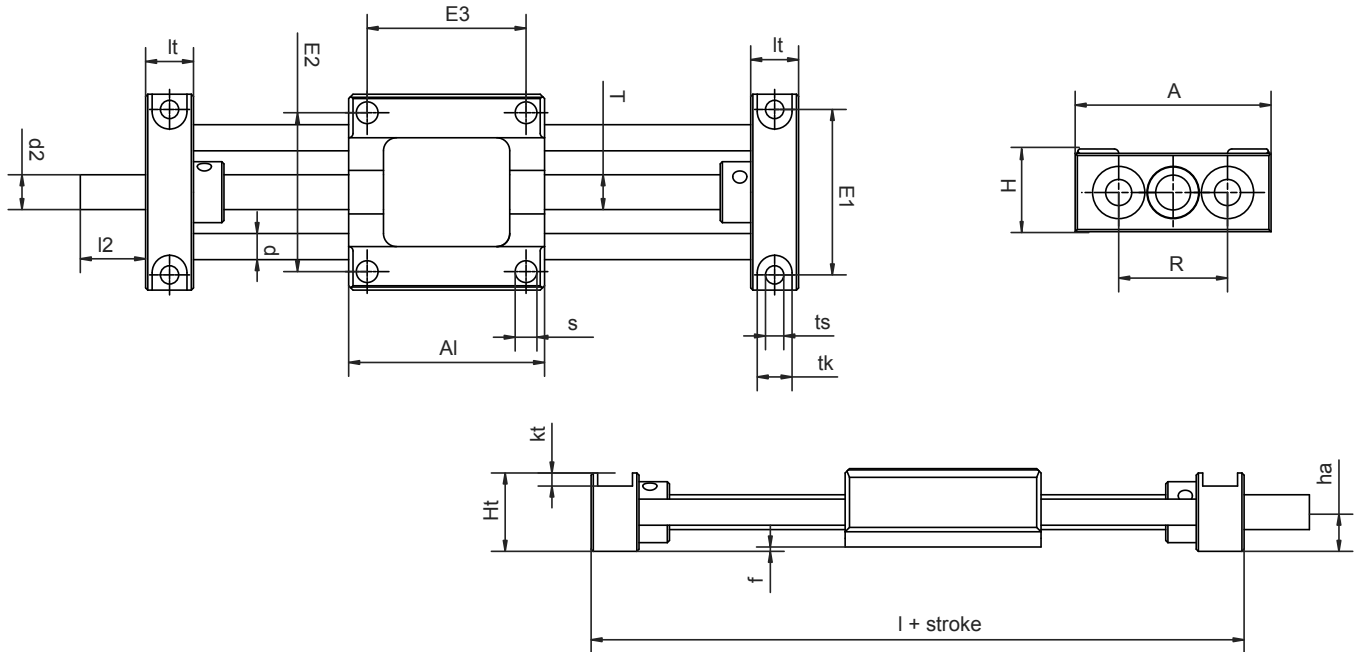


Order key

Order example

SHTP-01-06-AWM

SHT polymer	Design	Dimension	Shaft material
-------------	--------	-----------	----------------



Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		Max. static load capacity		More Information
		Weight [kg]	additional [kg] (per 100mm)	axial [N]	radial [N]	
SHTP-01-06-AWM	300	0.11	0.06	50	50	Carriage, square, with 4 symmetrical mounting holes

Dimensions [mm]

Part No.	A	A1	H	Ht	E1	E2	E3	I	R	f	kt	lt	tk	ts
SHTP-01-06-AWM	45	45	19	18	38	36.5	36.5	67	25	1	3	11	8	4.2
Part No.	s		d		T		l2		d2 ⁹⁹⁾		ha			
SHTP-01-06-AWM	5.1		6		M8		15		M8		9			

⁹⁹⁾ Lead screw end unmachined (standard)

Low-cost SHT model



- Lightweight
- Corrosion-resistant
- Low-profile design
- Ideal for multi-carriage solutions
- Available accessories ► **Page 1703**



Order key

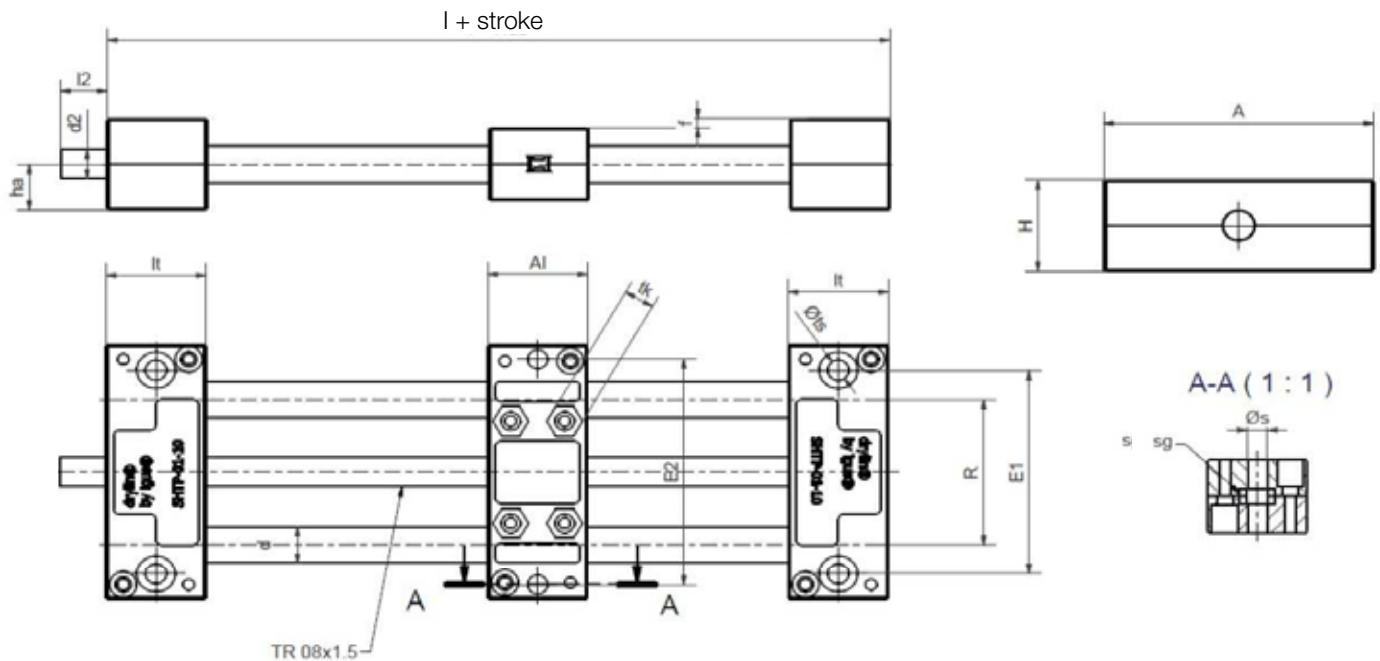
Order example

SHTP-01-10

SHT polymer

Design

Dimension



Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		More Information
		Weight [kg]	additional [kg] (per 100mm)	
SHTP-01-10	350	0.2	0.08	Liners and nuts made from iglide® J

Dimensions [mm]

Part No.	A	A1	H	E1	E2	l	R	f	lt	tk	ts
SHTP-01-10	70	26	25	56	62	78	40	2.5	26	8	5.5

Part No.	s	sg	d	T	l2	d2 ⁹⁹⁾	ha	Max. static load capacity	
								axial [N]	radial [N]
SHTP-01-10	5.2	M5	10	Tr08x1.5	15	Tr08x1.5	12.5	100	400

⁹⁹⁾ Lead screw end unmachined (standard)

Low-cost SHT model



- Solid polymer design
- Lightweight
- Cost-effective
- Corrosion-resistant
- Available accessories ▶ Page 1703
- Available with motor

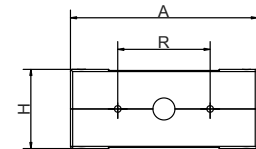
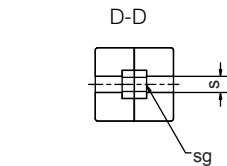
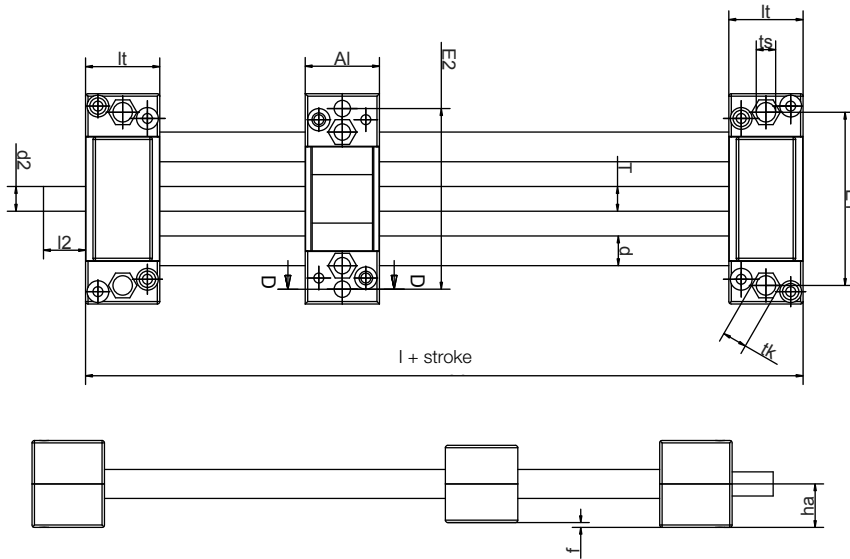


Order key

Order example

SHTP-01-12-AWM

SHT polymer	Design	Dimension	Shaft material
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Technical data

Part No.	Max. stroke length [mm]	Aluminum shaft		More Information
		Weight [kg]	additional [kg] (per 100mm)	
SHTP-01-12	500	0.35	0.11	Liners and nuts made from iglide® J
SHTP-02-12	500	0.35	0.11	Bearing and nut integrated into the carriage

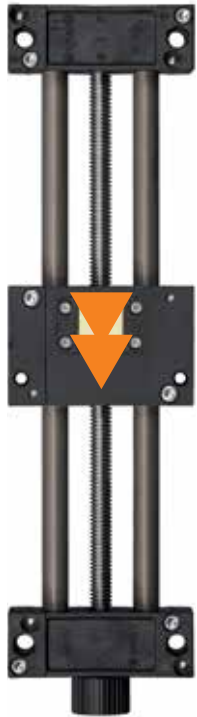
Dimensions [mm]

Part No.	A	A1	H	E1	E2	I	R	f	l1	tk	ts
									±0.1		+0.15
SHTP-01-12	85	30	36	70	73	90	42	2	30	10	6.0
SHTP-02-12	85	30	36	70	73	90	42	2	30	10	6.0

Part No.	s	sg	d	T	l2	d2 ⁹⁹⁾	ha	Max. static load capacity	
								axial [N]	radial [N]
SHTP-01-12	6.3	M6	12	Tr10x2	17	Tr10x2	18	200	400
SHTP-02-12	6.3	M6	12	Tr10x2	17	Tr10x2	18	200	400

⁹⁹⁾ Lead screw end unmachined (standard)

With “Fast-Forward” quick release mechanism



- Light solid polymer model
- For fast format adjustments
- Self-locking
- Max. stat. axial load 200N
- Max. dynamic. axial load 50N
- Only recommended for horizontal applications
- Available accessories ► **Page 1703**

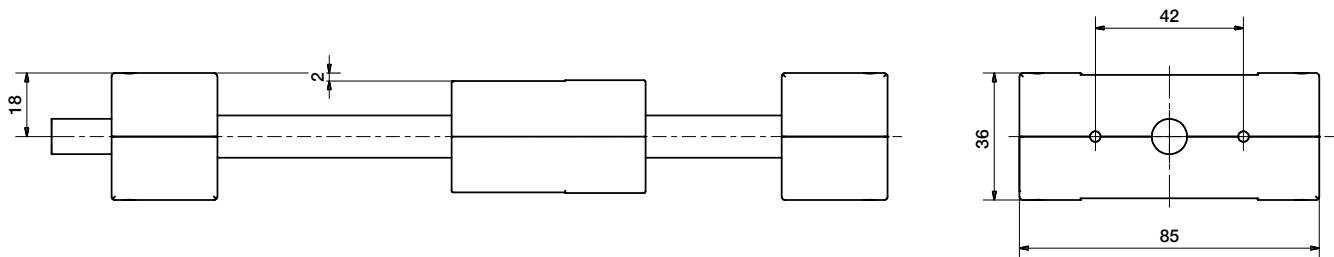
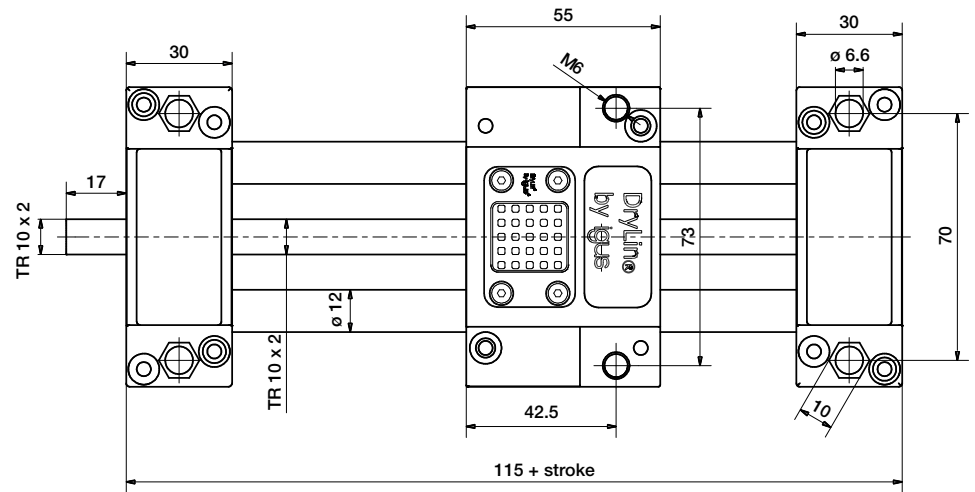


Order key

Order example

SHTP-01-12-AWM-FF

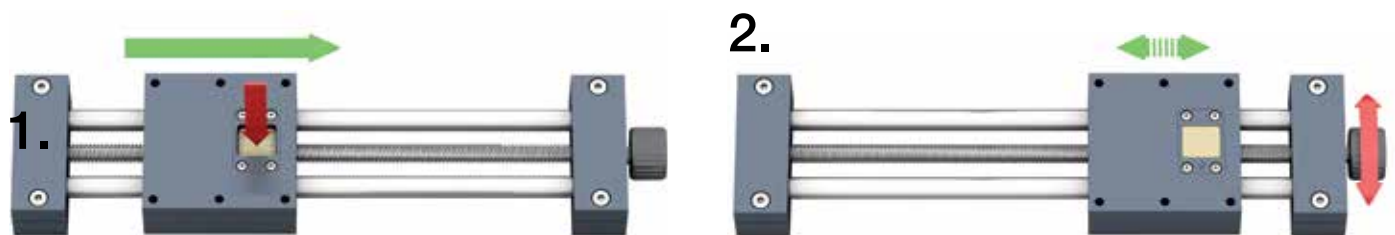
SHT polymer	Design	Dimension	Shaft material	Fast Forward
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Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional weight (per 100mm)
SHTP-01-12-AWM-FF ¹⁰⁰⁾	500	0.35	0.11

¹⁰⁰⁾ Liners and lead screw nuts made from iglide® J



press > disengage > move manually > click into place > fine-tuning

Low-cost, low-profile SLN linear actuator



- Plastic end blocks for cost-reduction
- Low-profile, slim design
- Multiple lead screw options
- Available accessories ► Page 1703
- Available with motor



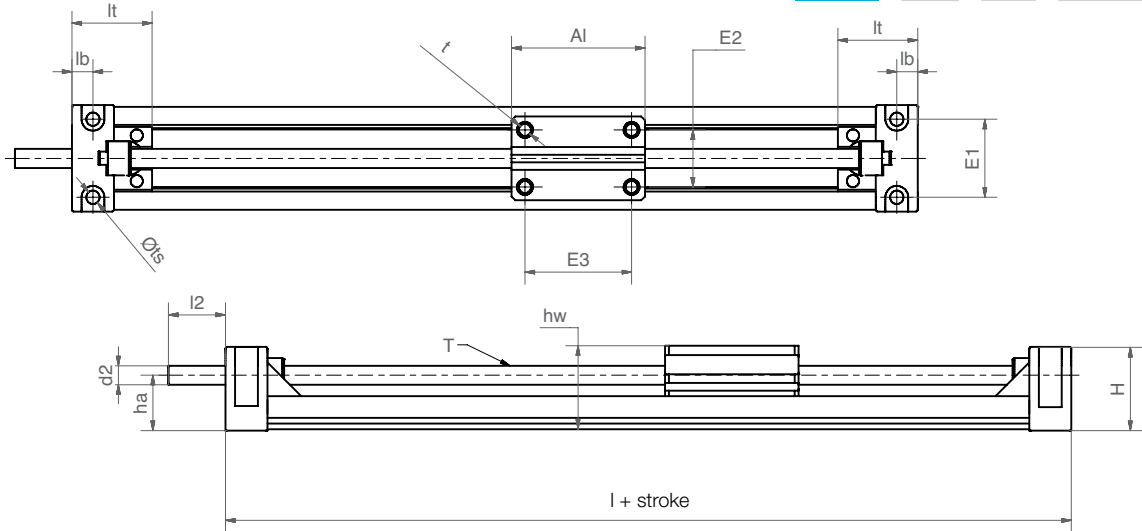
Order key



Order example

SLN-27-03-0008

Standard	Dimension	Carriage version	Pitch
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Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	additional [kg] (per 100mm)	Max. static load capacity		Max. speed [rpm]	Max. drive torque [Nm]
				axial [N]	radial [N]		
SLN-27-03-0008	250	0.06	0.04	10	40	100	0.10
SLN-27-03-0025	250	0.06	0.04	10	40	100	0.15
SLN-27-03-0051	250	0.06	0.04	10	40	100	0.20
SLN-27-03-0127	250	0.06	0.04	10	40	100	0.30
SLN-27-03-0254	250	0.06	0.04	10	40	100	0.40

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E11 ¹⁰²⁾	I	hw	lt	lb	ts	t	T	d2 ⁹⁸⁾	l2	ha
	±0.2	-0.1	±0.2	±0.15	±0.15	±0.15			±0.2	±0.2							
SLN-27-03-0008	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	M5	4	15	14.5
SLN-27-03-0025	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x2.54	5	15	14.5
SLN-27-03-0051	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x5.08	5	15	14.5
SLN-27-03-0127	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x12.7	5	15	14.5
SLN-27-03-0254	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x25.4	5	15	14.5

¹⁰²⁾ The dimension E11 can only be found in conjunction with the igus® motor flange

⁹⁸⁾ Thread/remaining thread visible

With manual clamp (optional): Part No. SLN-27-HK-...

ZLW belt-drive, low-cost model



- Fast positioning of small loads
- Quiet operation and compact design
- Drive shaft on one or both sides
- Plastic linear carriage
- Lightweight due to combination of plastic and aluminum
- Technical data ► [Page 1626](#)



Order key

Order example



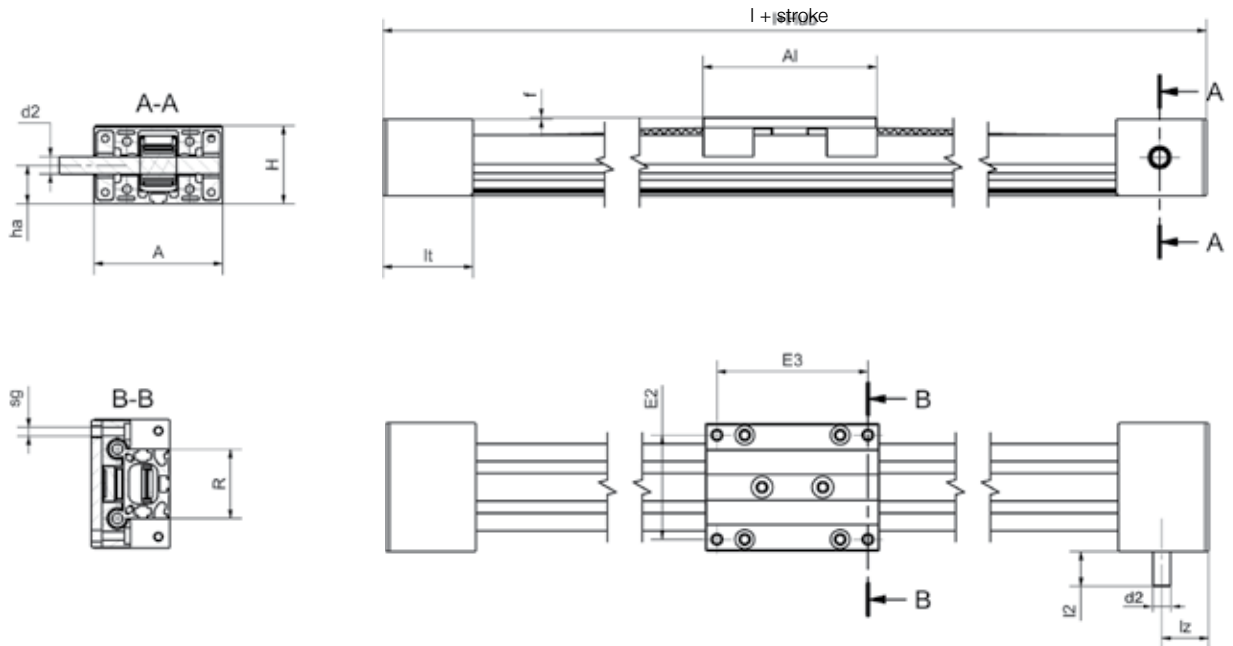
ZLW-0630-02-E

Toothed belt axis

Installation size

With deep groove ball bearings

econ series



Dimensions [mm]

Part No.	A	A1	H	E2	E3	I	R	f	lt	sg	ha	hc	lz	l2	d2
	-0.3			±0.15	±0.15	±0.15			±0.3						h9
ZLW-0630-02	54	60	31	45	51	144	30	3	42	M4	14	22.5	20.5	20	8
ZLW-1040-02	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10

Connecting dimensions [mm]

Part No.	X	E	AP	Lp	dp	n	nb	nw	nh	T1	T2	d
		±0.2	-1.0							±0.25	±0.25	
ZLW-0630-02 ¹⁰⁹⁾	variable	40	52	15	5.5	-	-	4.3	7	20	21	3.2
ZLW-1040-02	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0

¹⁰⁹⁾ Basic version: 6mm square, plastic adapter for pin diameter 10mm included

Low-cost gantry system



DLE-FG-0003

- **x-axis:** drylin® ZLW-1040 econ belt-drive with NEMA23 stepper motor with stranded wire
- **y-axis:** drylin® ZLW-1040 econ belt-drive with NEMA17 stepper motor with stranded wire
- Proximity switches available

Technical data

Workspace:	500 x 500mm
Max. speed:	0.5m/s
Max. acceleration:	1m/s ²
Repeatability:	1mm
Load capacity:	10N



Part No.

DLE-FG-0003 econ version

