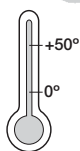




DryLin® ZLW | Belt Drive

DryLin® toothed belt drives have been developed for the fast positioning of small loads. The linear units with toothed belt drive are corrosion resistant, light and compact, besides having a low mass inertia due to low deadweight of guide and sliding carriage.



Special properties

- Lubricant-free version with plain bearings
- Multi-purpose and simple assembly
- Freely variable stroke length
- Flat and sturdy
- Light and corrosion resistant
- Two installation sizes in 2 versions (Basic and standard series)
- Delivered off the shelf



Technical Data

Material, slider:

- iglidur® J ▶ P. 3.2

Radial bearing:

- Version 01:
igidur® L250 ▶ P. 16.1
- Version 02:
grooved ball bearing

Axial bearing:

- iglidur® J ▶ P. 3.2

Drive belt:

- Basic:
Neoprene with GF
- Standard:
PU toothed belt with steel cord
- up to 5 m/s

The use of polymer plain bearings on all moving parts makes the toothed belt drive 100% free of maintenance and lubricants. The avoidance of lubricants means a high insensitivity to dirt as particles do not get stuck on the moving parts. Consequently the drive offers a high degree of robustness in many applications. You can choose which type according to the application area and requirement:

Basic series – Version 02

This linear system is driven by a black neoprene glass fibre reinforced toothed belt, and is totally free from lubrication. The square pulley shafts are stainless steel, and the high performance polymer gear wheel is fitted onto two deep groove ball bearings. The square drive shaft is also stainless steel, and measures 6mm across flats. A plastic adapter is supplied with the unit which fits onto the square drive shaft, and has an outside diameter of 10mm.

Standard series – Version 02

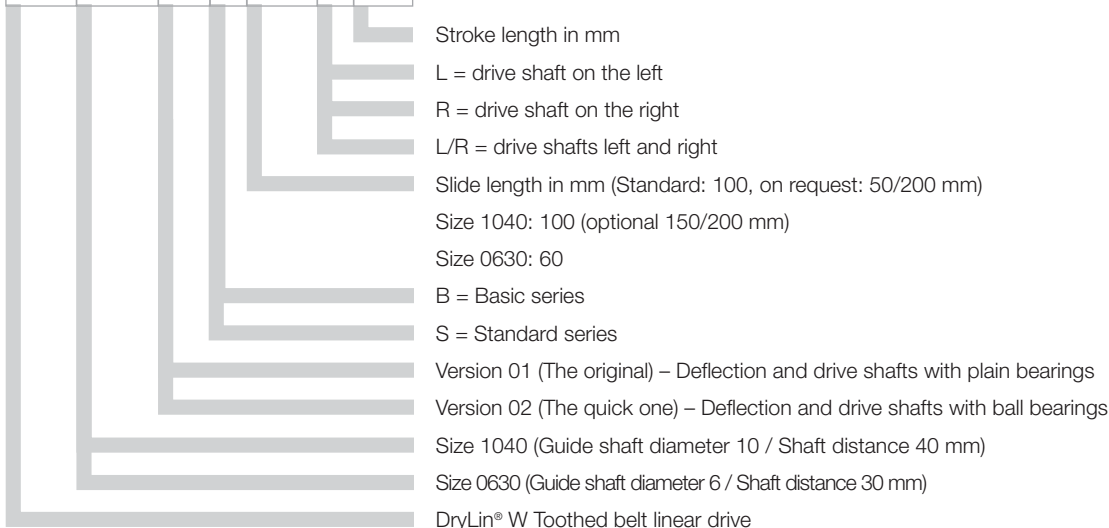
This linear system is driven by a white polyurethane steel reinforced toothed belt, and is also totally free from lubrication. The pulley shafts and pulleys are made of plated steel, with an option to change to stainless steel, and are fitted onto two deep groove ball bearings.

Both types are available upon request as Version 01, which means that the deep groove ball bearings are replaced by iglidur® plastic bearings, making the system 100% free from lubrication.



Assembly of the part number

ZLW	-1040	-01	-B	-100	L	XX
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mm

DryLin® ZLW

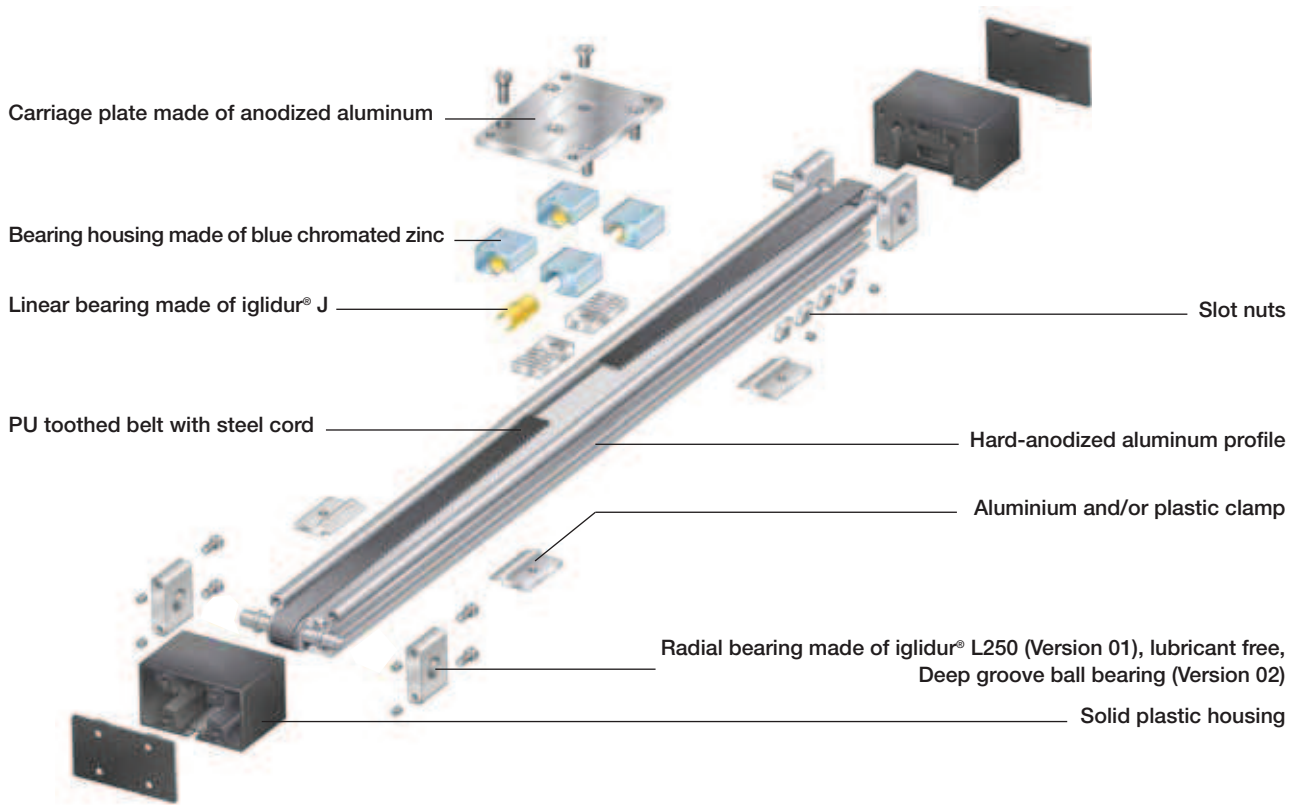
Phone +49 - 22 03 - 96 49-145
Fax +49 - 22 03 - 96 49-334

igus® GmbH
51147 Cologne

Internet www.igus.de
E-mail info@igus.de

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Lifetime calculation, CAD files and much more support ▶ www.igus.de/en/ZLW



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mm

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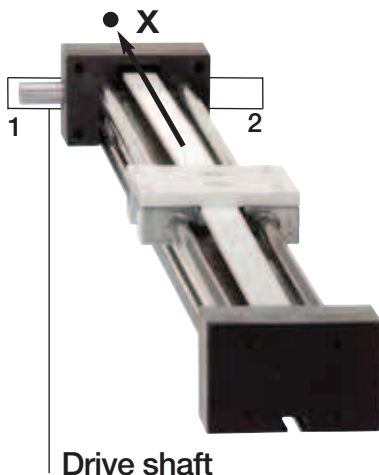
Technical Data

ZLW-1040	Weight without stroke [kg]	Weight 100 mm stroke [kg]	max. stroke length* [mm]	Trans-mission [mm/U]	Gear-teeth	Toothed belt- -material	-width [mm]	-tension [N]	max. radial stress [N]	Guide-bearing	max. speed at 60% on-time [m/s]	Max. position variations of the carriage, load dependent.**
Basic 02	0,9	0,14	2.000	66	RPP 3M	Neoprene with GF	15	150	200	ball bearing	3	±0,35
Standard 02	1,0	0,14	2.000	70	AT 5	PU + steel cord	16	200	300	ball bearing	5	±0,2

ZLW-0630	Weight without stroke [kg]	Weight 100 mm stroke [kg]	max. stroke length* [mm]	Trans-mission [mm/U]	Gear-teeth	Toothed belt- -material	-width [mm]	-tension [N]	max. radial stress [N]	Guide-bearing	max. speed at 60% on-time [m/s]	Max. position variations of the carriage, load dependent.**
Basic 02	0,38	0,08	1.000	54	AT 5	Neoprene with GF	9	75	100	ball bearing	2,5	±0,2
Standard 02	0,43	0,08	1.000	54	AT 5	Neoprene with GF	9	70	150	ball bearing	2,5	±0,2

* Larger stroke lengths upon request.

** these values were measured with maximum load in horizontal orientation



Right or left positioning for drive shaft.
Position determined by view towards x!
1 = Left drive shaft
2 = Right drive shaft
x = Line of vision





DryLin® ZLW 0630 | Belt Drive

The DryLin® ZLW-0630 Belt Drive is the perfect solution for easy positioning in limited design space. The overall height is only 31 mm, the stroke length is variable up to 1000mm (longer strokes potentially possible upon request).

DryLin® ZLW-0630 is available as "Basic 02" and "Standard 02".

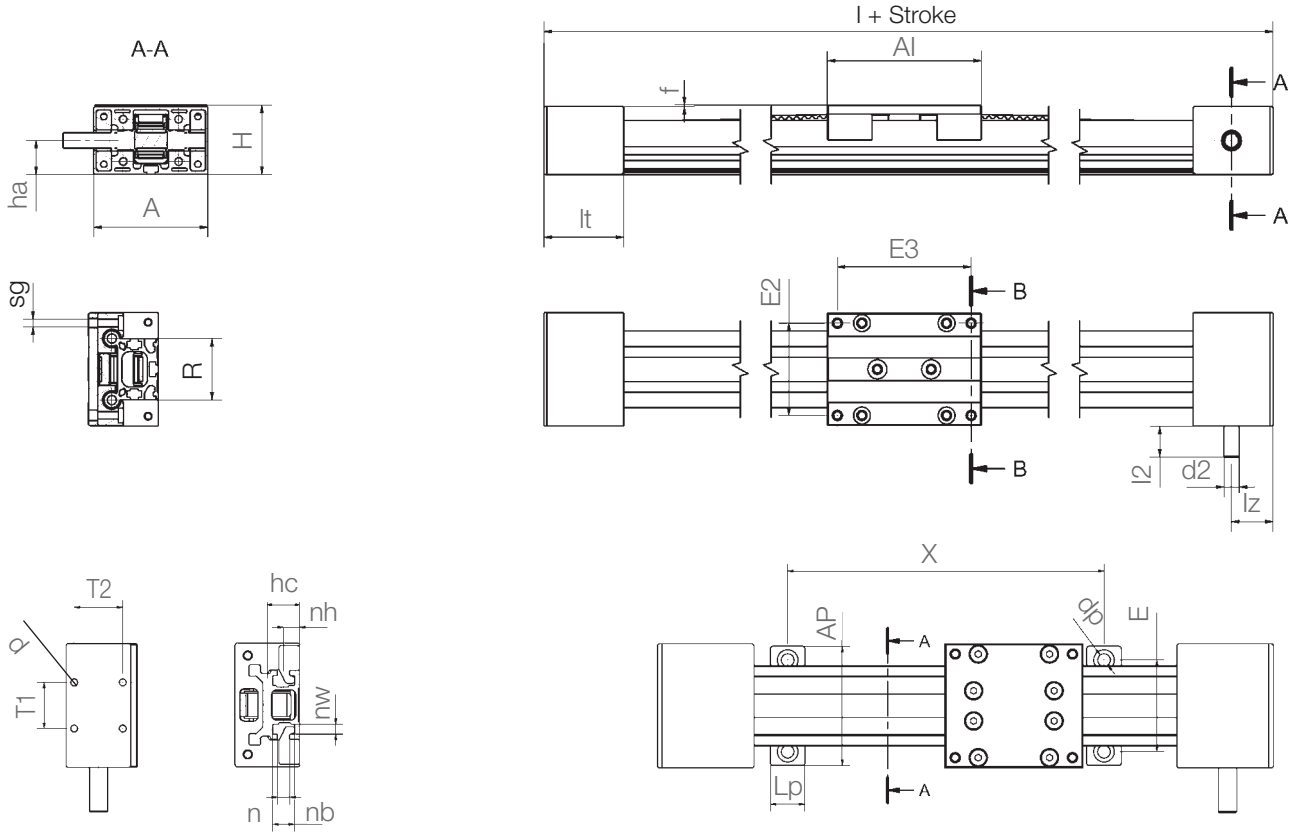


mm

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Dimensions [mm]

Part No.	A	AI	H	E2	I	hc	E3	R	f	lt	sg	ha	lz	l2	d2
	-0,3			±0,15			±0,15	±0,15		±0,3					
ZLW-0630-02-...	54	60	31	45	144	13,5	51	30	3	42	M4	14	22	20	8

* Basic version: square ("4-Kant") or ø 10 mm

Connecting dimensions	X	E	AP	LP	dp	n	nb	nw	nh	T1	T2	d
Part No.		±0,2	-1							±0,25	±0,25	
ZLW-0630-02-...	variable	40	52	15	5,5	5,2	9,5	4,3	7	20	21	3,2

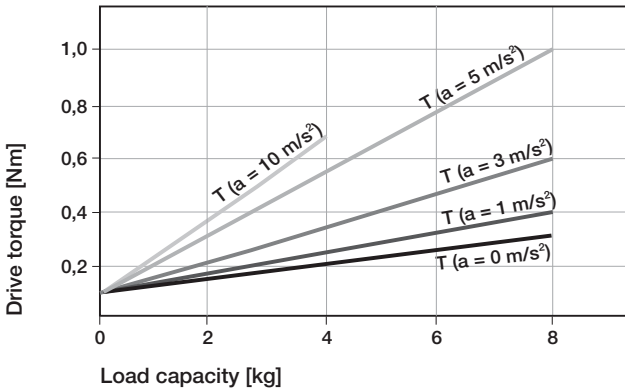
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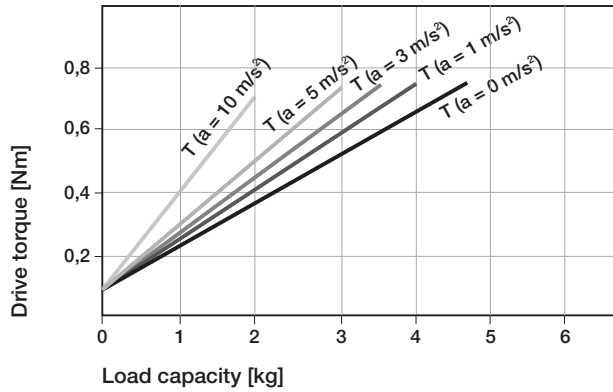
Lifetime calculation, CAD files and much more support ► www.igus.de/en/ZLW



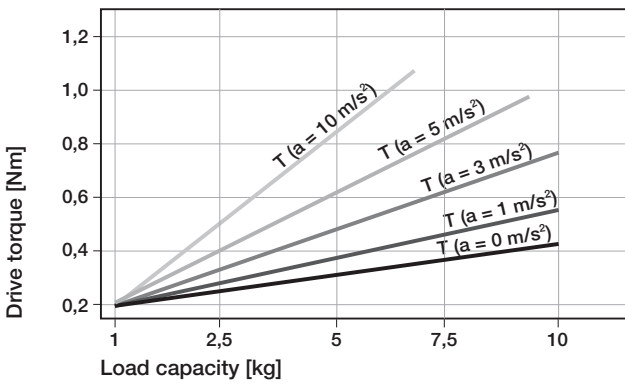
Required drive torque*; horizontal orientation – ZLW-0630, basic series – version 02



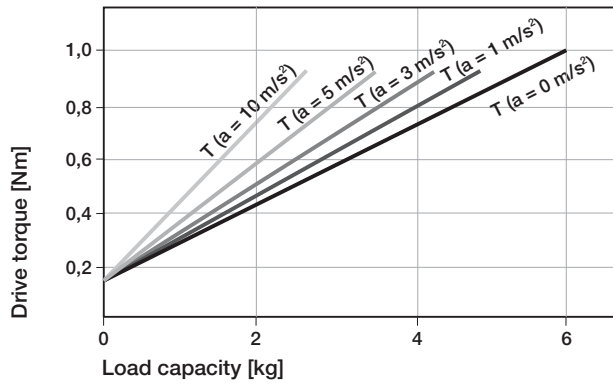
Required drive torque*; vertical orientation – ZLW-0630, basic series – version 02



Required drive torque*; horizontal orientation – ZLW-0630, standard series – version 02

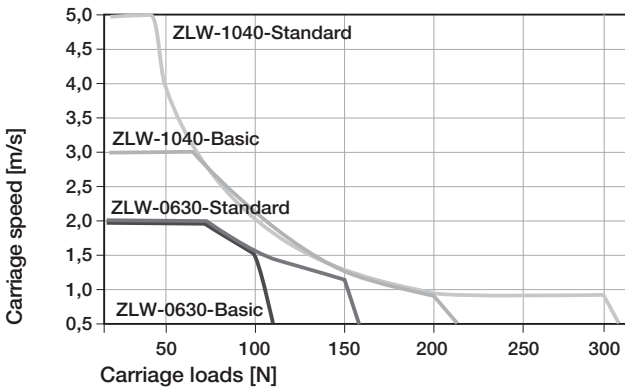


Required drive torque*; vertical orientation – ZLW-0630, standard series – version 02



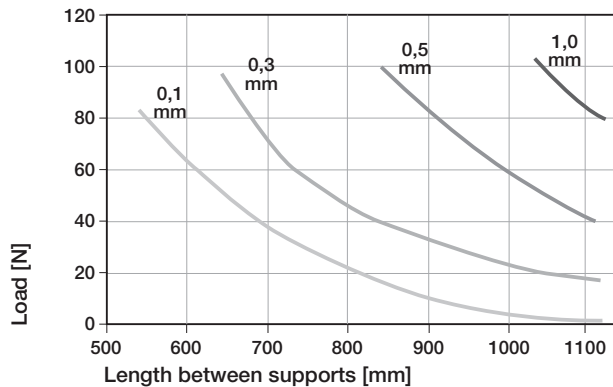
* Assumption: The moving mass is located in a circumscribed circle with a max. R = 100 mm to the middle of the guiding rail, max. permissible torque version 01: 1.3 Nm, a = 0 m/s²; version 02: 2,4 Nm, a = 0 m/s²; constant drive without nominal value acceleration

Maximum load compared: ZLW-0630 and ZLW-1040, ED 100%



The diagram accounts for the sum of all forces active on the carriage. OT = On-time

Sag between unsupported end blocks ZLW-0630, version basic 02 and standard 02



Sag permissible up to maximum 2 mm.

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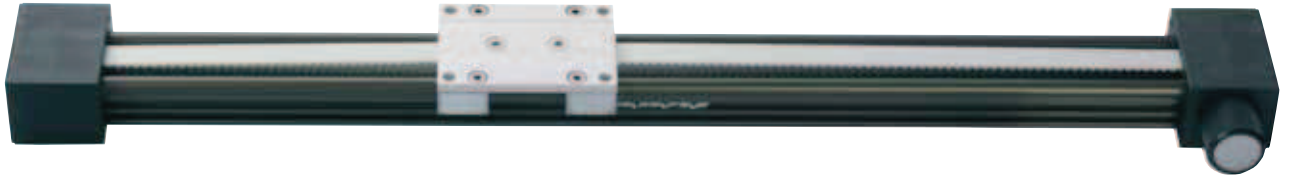




DryLin® ZLW 1040 | Belt Drive

The DryLin® ZLW 1040 belt drive is the perfect solution for high speed positioning applications. The stroke length is variable up to 2000 mm (longer strokes potentially possible upon request). The carriage is available in three lengths.

DryLin® ZLW-1040 is available as "Basic 02" and "Standard 02".

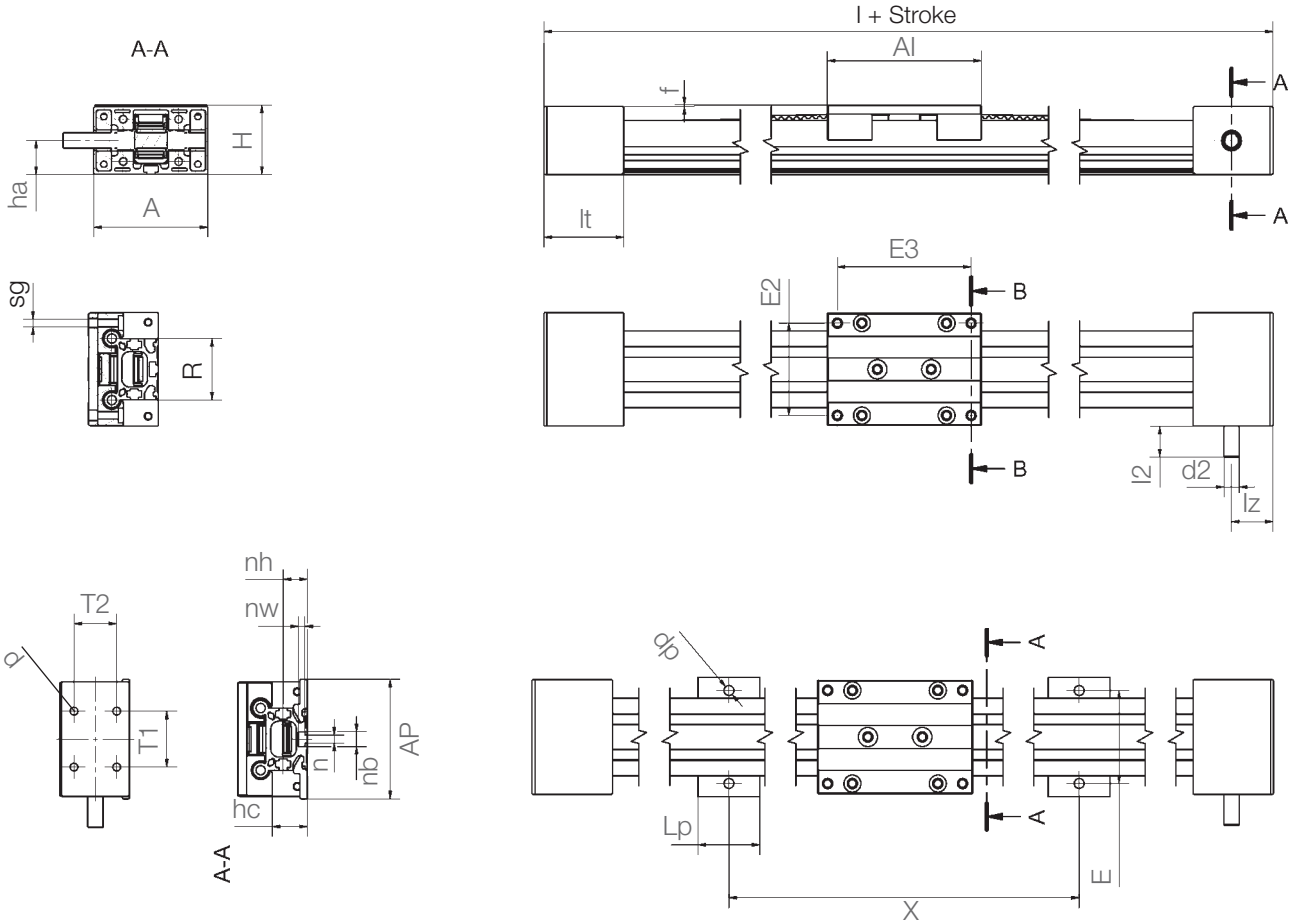


mm

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Dimensions [mm]

Part No.	A	AI	H	E2	I	hc	E3	R	f	lt	sg	ha	lz	I2	d2*
	-0,3			±0,15			±0,15	±0,15		±0,3					
ZLW-1040-02-...	74	100	45	60	204	22,5	87	40	1	52	M6	22	27	20	10

* Basic version: square ("4-Kant")

Connecting dimensions	X	E	AP	LP	dp	n	nb	nw	nh	T1	T2	d
Part No.		±0,2	-1							±0,25	±0,25	
ZLW-1040-02-...	variable	60	78	40	6,4	5,2	9,5	4,3	15,5	36	26,5	5,0

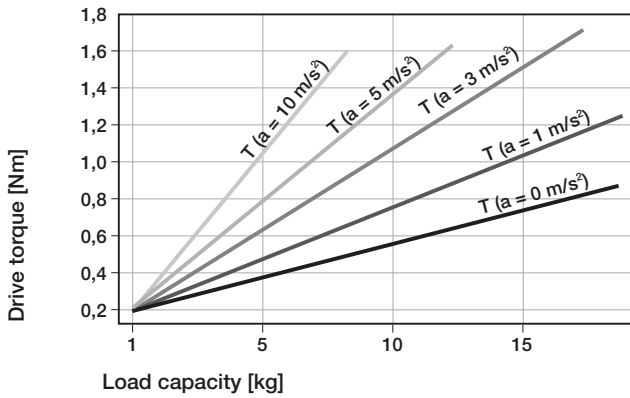
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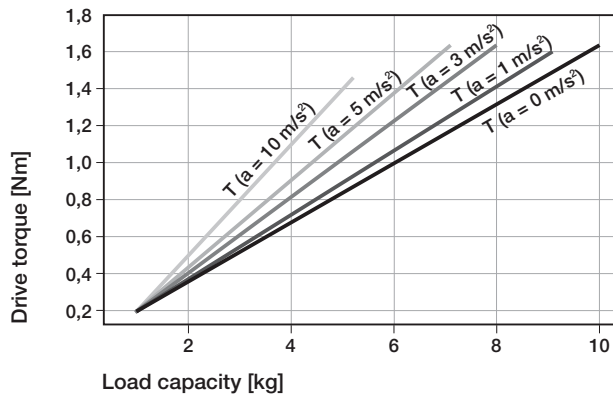
Lifetime calculation, CAD files and much more support ► www.igus.de/en/ZLW



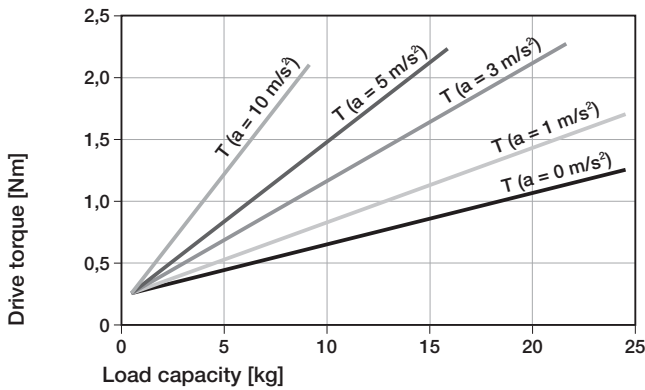
Required drive torque*; horizontal orientation – ZLW-1040, basic series – version 02



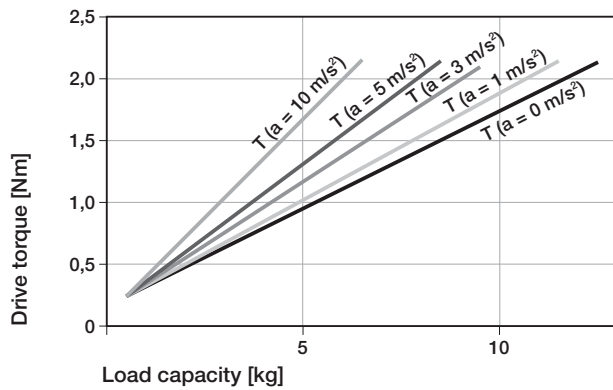
Required drive torque*; vertical orientation – ZLW-1040, basic series – version 02



Required drive torque*; horizontal orientation – ZLW-1040, standard series – version 02

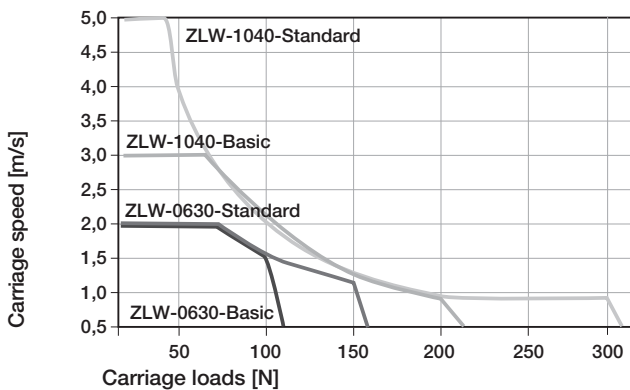


Required drive torque*; vertical orientation – ZLW-1040, standard series – version 02



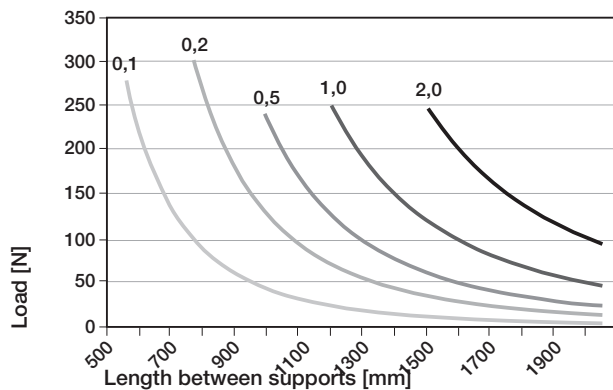
* Assumption: The moving mass is located in a circumscribed circle with a max. R = 100 mm to the middle of the guiding rail, max. permissible torque version 01: 1.3 Nm, a = 0 m/s²; version 02: 2,4 Nm, a = 0 m/s²; constant drive without nominal value acceleration

Maximum load compared: ZLW-0630 and ZLW-1040, ED 100%



The diagram accounts for the sum of all forces active on the carriage. OT = On-time

Sag between unsupported end blocks ZLW-1040, version basic 02 and standard 02



Sag permissible up to maximum 2 mm.

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