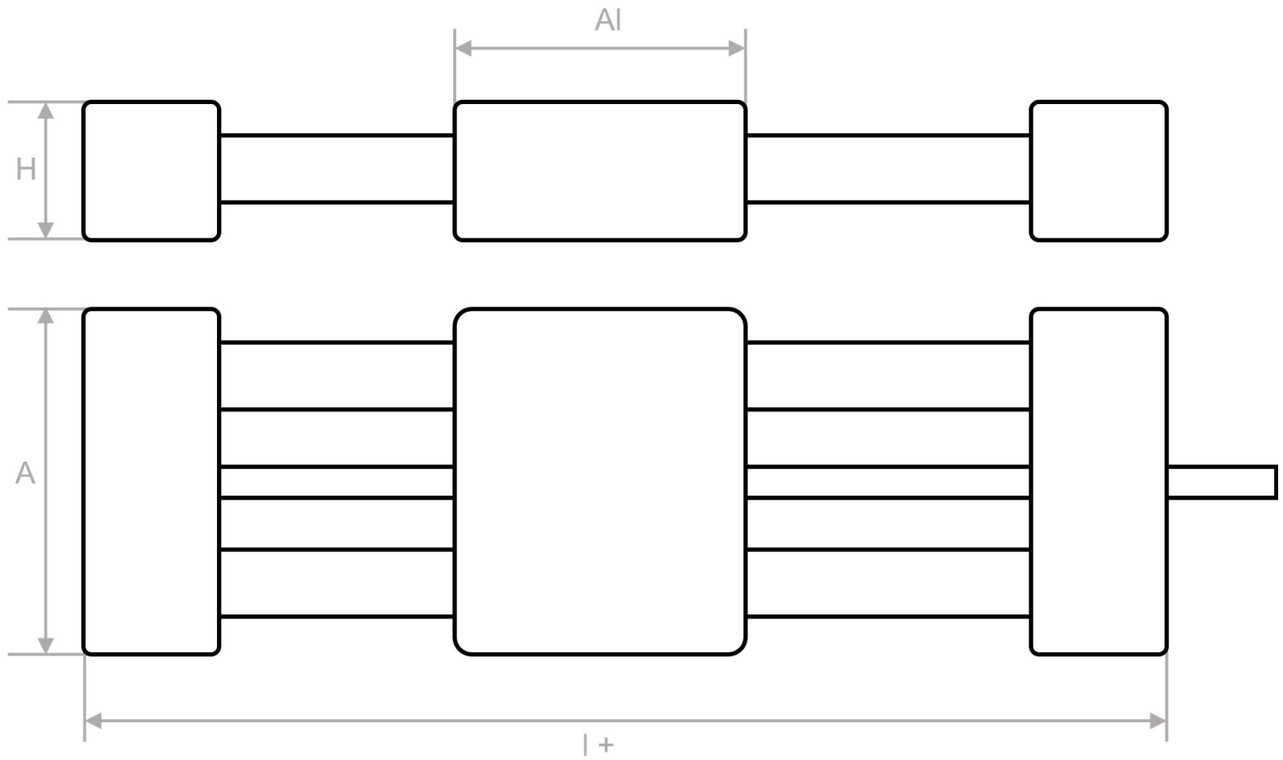
Data sheet drylin® drive technology

Content:



drawing without dimensions
exemplary illustration

Linear Module SLW-25120
SLW-25120-DS20X5

Diagram 2: Axial force / speed

Thread size: DS20X5
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. drive torque [Nm]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]
DS20x5	0.70	0.70	0.50

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1000	6.14	0.93
200	200 x 60 x 270	950	7.50	0.93
250	200 x 60 x 320	900	8.90	0.93

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

Further information on travel speeds, accelerations, service life etc. can be found in the online tool: igus.eu/DDX

Linear Module SLW-25120
SLW-25120-DS20X10

Diagram 2: Axial force / speed

Thread size: DS20X10
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. drive torque [Nm]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]
DS20x10	0.70	0.70	0.50

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1000	6.14	0.93
200	200 x 60 x 270	950	7.50	0.93
250	200 x 60 x 320	900	8.90	0.93

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Linear Module SLW-25120
SLW-25120-DS20X20

Diagram 2: Axial force / speed

Thread size: DS20X20
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. drive torque [Nm]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]
DS20x20	0.70	0.70	0.50

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1000	6.14	0.93
200	200 x 60 x 270	950	7.50	0.93
250	200 x 60 x 320	900	8.90	0.93

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
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Linear Module SLW-25120
SLW-25120-DS20X50

Diagram 2: Axial force / speed

Thread size: DS20X50
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. drive torque [Nm]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]
DS20x50	0.70	0.70	0.50

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1000	6.14	0.93
200	200 x 60 x 270	950	7.50	0.93
250	200 x 60 x 320	900	8.90	0.93

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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Linear Module SLW-25120
SLW-25120-DS20X60

Diagram 2: Axial force / speed

Thread size: DS20X60
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. drive torque [Nm]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]
DS20x60	0.70	0.70	0.50

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1000	6.14	0.93
200	200 x 60 x 270	950	7.50	0.93
250	200 x 60 x 320	900	8.90	0.93

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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Linear Module SLW-25120
SLW-25120-DS20X80

Diagram 2: Axial force / speed

Thread size: DS20X80
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. drive torque [Nm]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]
DS20x80	0.70	0.70	0.50

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1000	6.14	0.93
200	200 x 60 x 270	950	7.50	0.93
250	200 x 60 x 320	900	8.90	0.93

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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Linear Module SLW-25120
SLW-25120-DS20X90

Diagram 2: Axial force / speed

Thread size: DS20X90
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. drive torque [Nm]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]
DS20x90	0.70	0.70	0.50

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1000	6.14	0.93
200	200 x 60 x 270	950	7.50	0.93
250	200 x 60 x 320	900	8.90	0.93

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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Linear Module SLW-25120
SLW-25120-TR24X5

Diagram 1: Stroke / speed

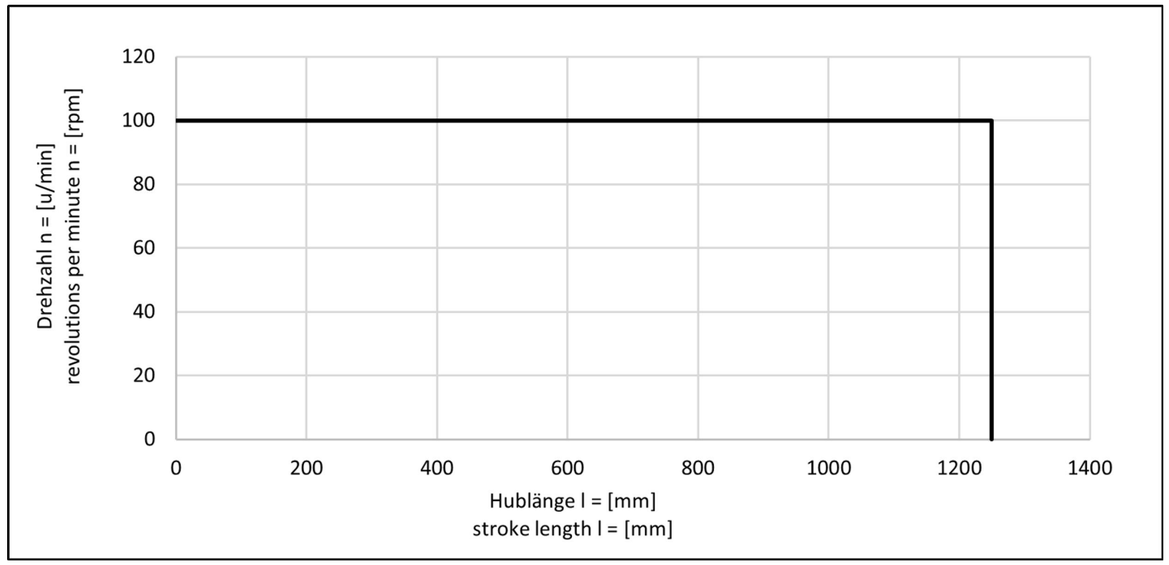
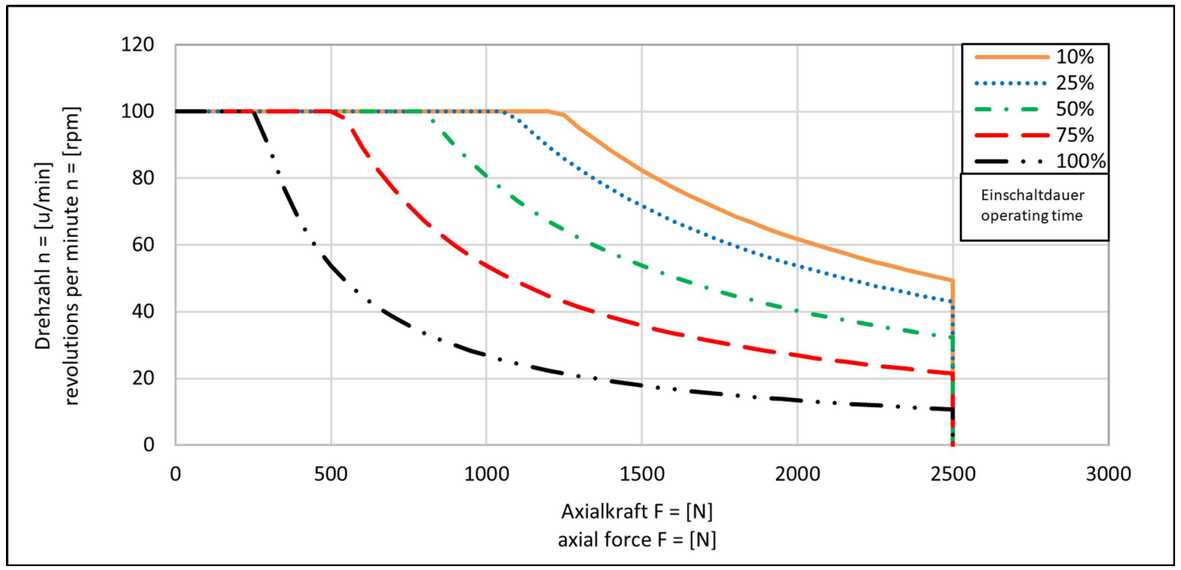


Diagram 2: Axial force / speed



Thread size: TR24X5
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 40 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
TR24X5	100	16.2	10000	2500	0.7	0.5	0.83

Dimensions and weight

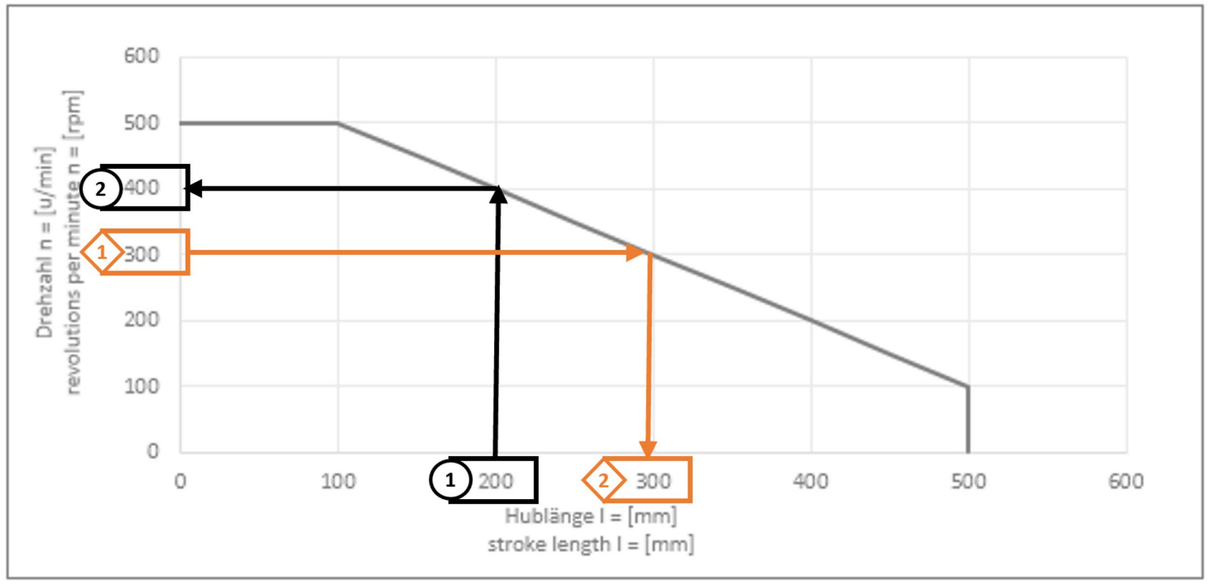
Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]
150	200 x 60 x 220	1250	6.14	0.93
200	200 x 60 x 270	1200	7.5	0.93
250	200 x 60 x 320	1150	8.9	0.93

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

Further information on travel speeds, accelerations, service life etc. can be found in the online tool: igus.eu/DDX

Reading example
Linear Module SLW-25120

Reading example diagram 1: Stroke / speed



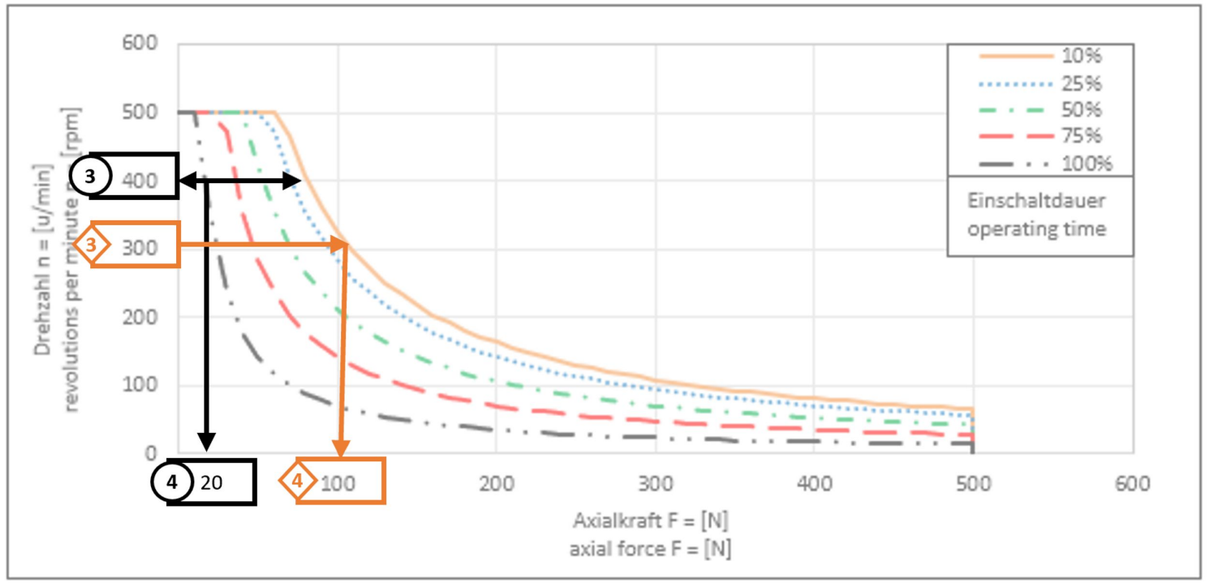
Example 1 (black): available stroke = 200 mm

Based on the existing stroke length (1) the permissible speed can be determined. (2)

At **200** mm stroke (1) a permissible speed of **400** U/min (2) can be determined.

Based on the permissible rotational speed (3), the permissible axial force (4) can be read as a function of the duty cycle (diagram legend). abgelesen werden. With a duty cycle of 100% and a speed of **400** U/min (3) a permissible axial force of **20 N** (4) can be determined.

Reading example diagram 2: Axial force / speed



Example 2 (orange): rotational speed = **300** rpm

Dependent on the required speed ◇1 the permissible stroke ◇2 can be determined. At a speed of **300** rpm ◇1 a permissible stroke length of **300** mm ◇2 can be determined.

Based on the speed ◇3 the permissible axial force ◇4 can be read as a function of the duty cycle (diagram legend). With a duty cycle of 10% and a speed of **300** rpm ◇3 a permissible axial force of **100 N** ◇4 can be determined.

Hint!

The diagram 2: Axial force / speed only refers to stroke lengths ≤ 100mm. For stroke lengths > 100mm, the max. permissible axial force can be increased with a correction factor. The limit values from the table of technical data must not be exceeded.

$$F_k = F_{zul} * (0.008 * \text{stroke length} + 0.2)$$

Calculation example:

$$F_k = 20\ N * (0.008 * 200 + 0.2) = 36\ N$$

The corrected force can be used with the previously determined stroke-dependent speed.

Disclaimer