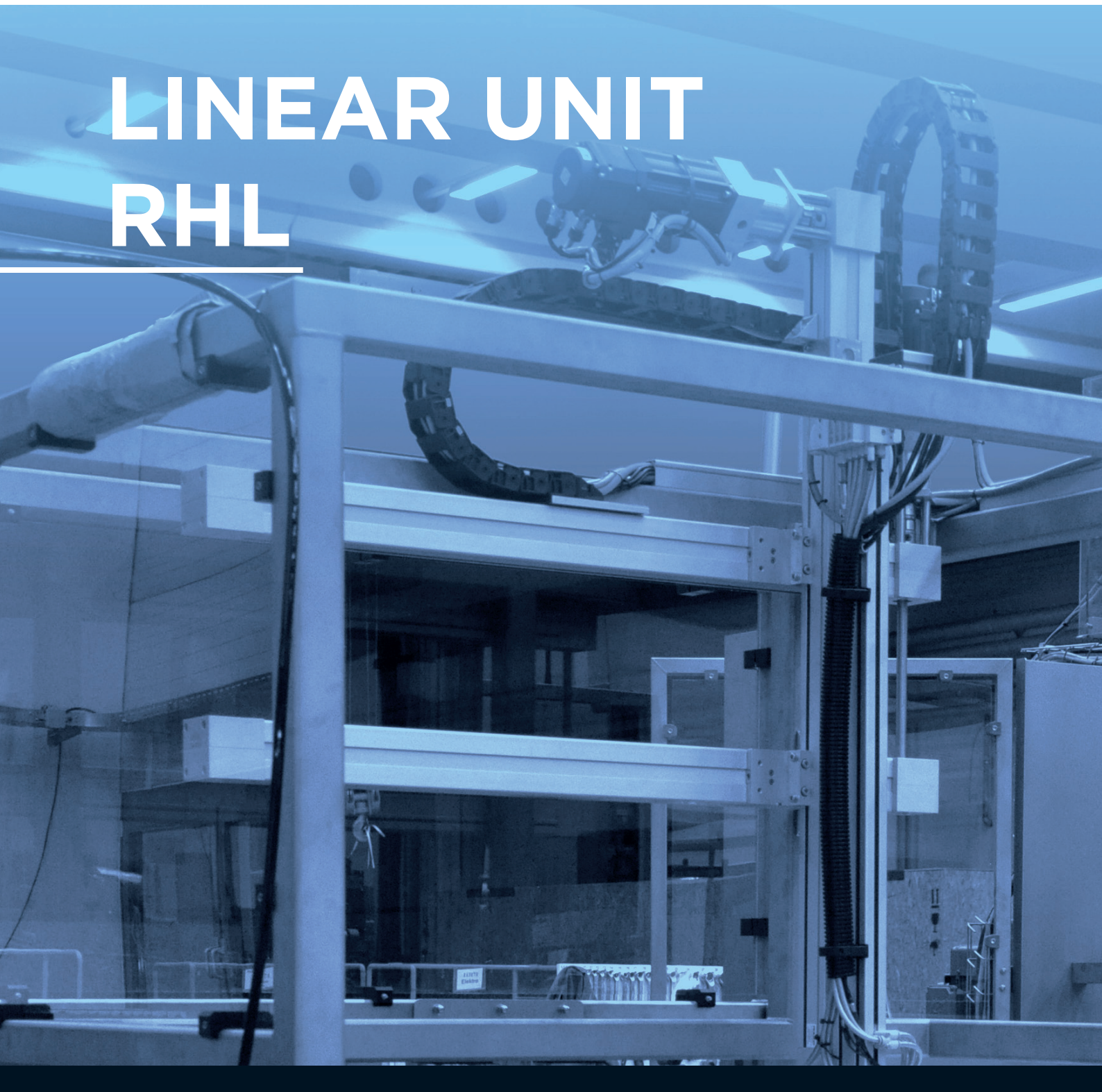


LINEAR UNIT RHL



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Product Overview



The Linear Unit RHL

RHL is a complete linear unit with rail guide and toothed belt. The unit is delivered ready to mount and thereby saves both design and assembly time.

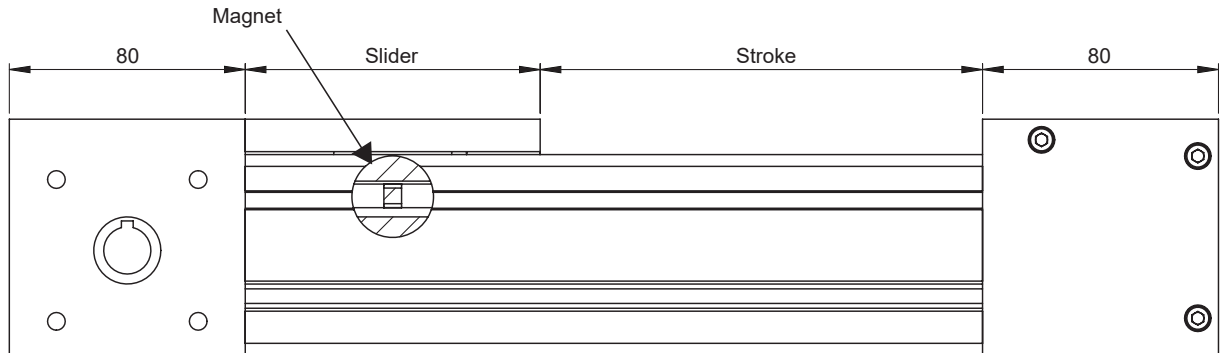
Linear Unit RHL is available in two sizes, RHL80 and RHL110. The units are based on aluminium profile and equipped with monorail, belt and pulleys. The stroke length is selectable per millimetre from zero up to 10 metres.

We cut and assemble everything in our own workshop, which enables very short delivery times. We have various accessories such as T-slots, angles and mounting plates in stock. We can also manufacture motor flanges and make other adjustments according to customer specifications.

Product characteristics

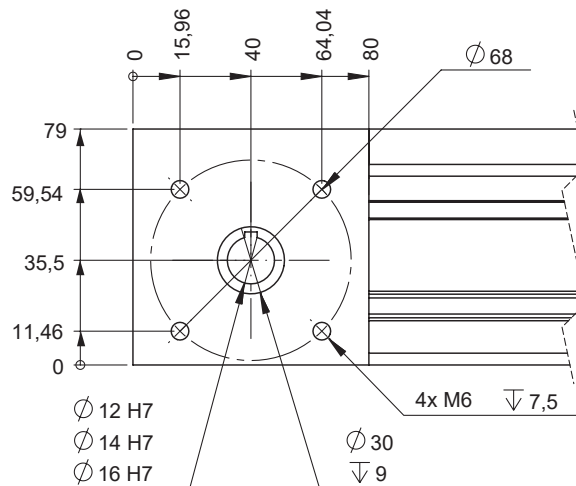
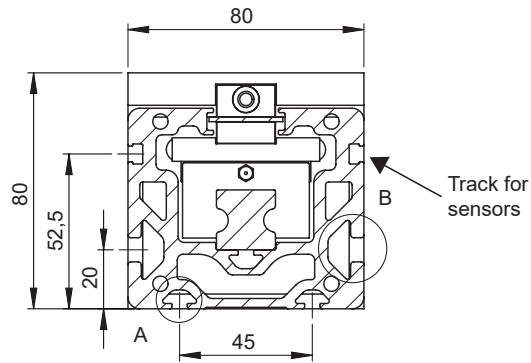
- Compact unit
- Compatible with structural systems
- Possible to use in X-Y-Z systems
- Customized versions available upon request

Dimensions



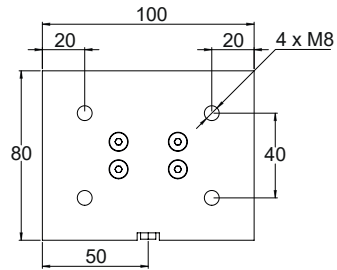
Total length = Stroke + slider + 160

Stroke: We recommend to add min. 50 mm to the nominal stroke (stroke = nominal stroke + 50 mm)

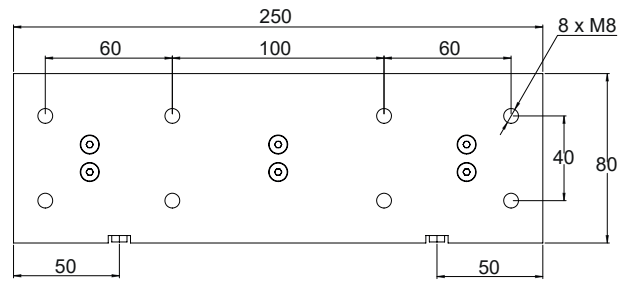


Sliders

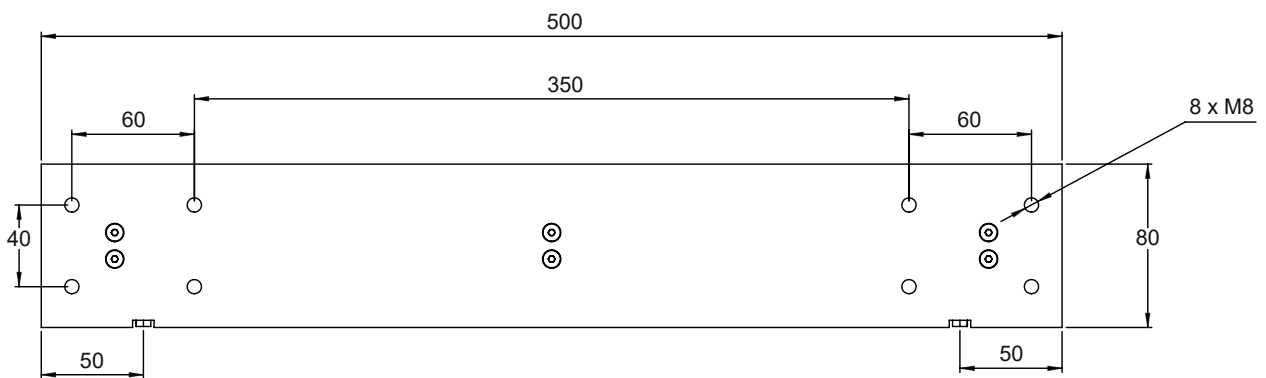
V100



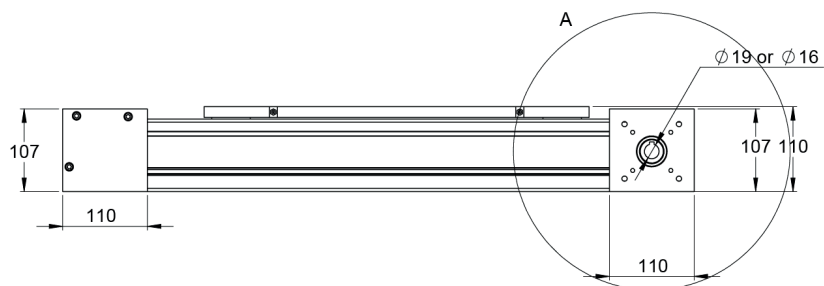
V250



V500

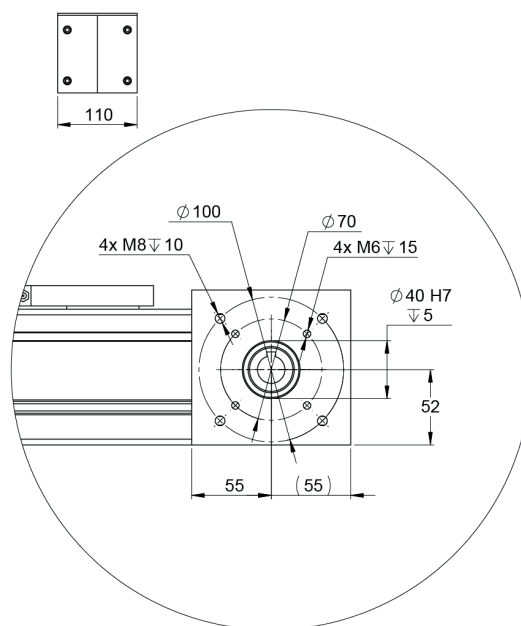
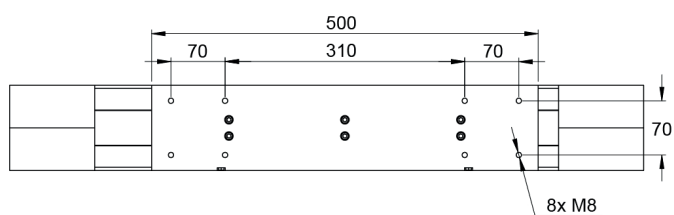


Dimensions

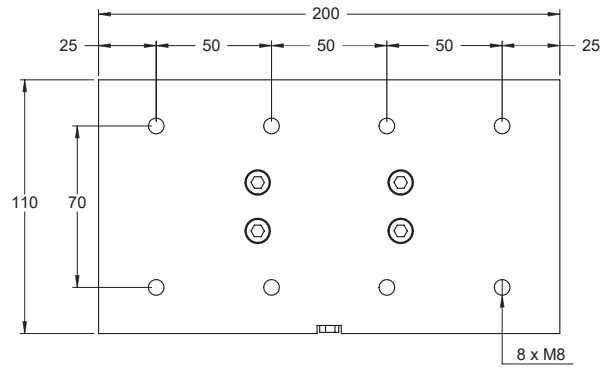


Total length = Stroke + slider + 220

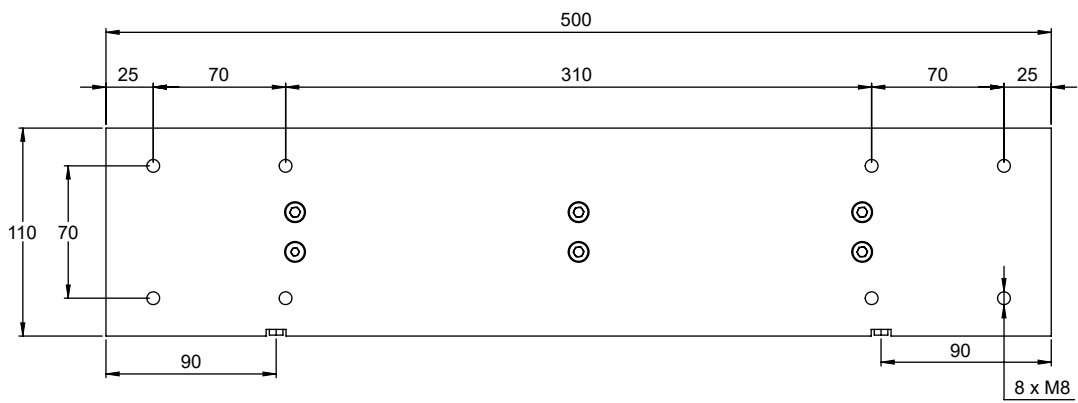
Stroke: We recommend to add min. 50 mm to the nominal stroke (stroke = nominal stroke + 50 mm)



Sliders V200

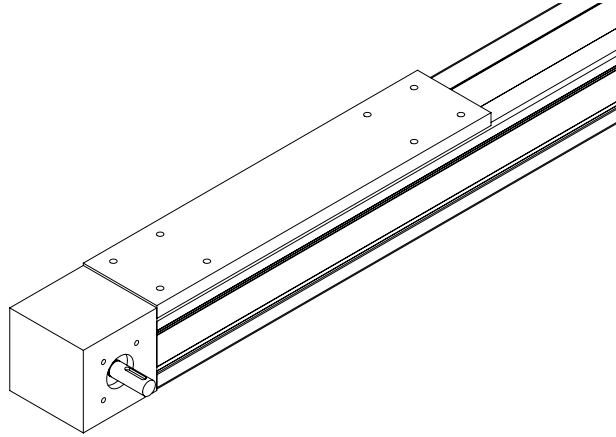


V500

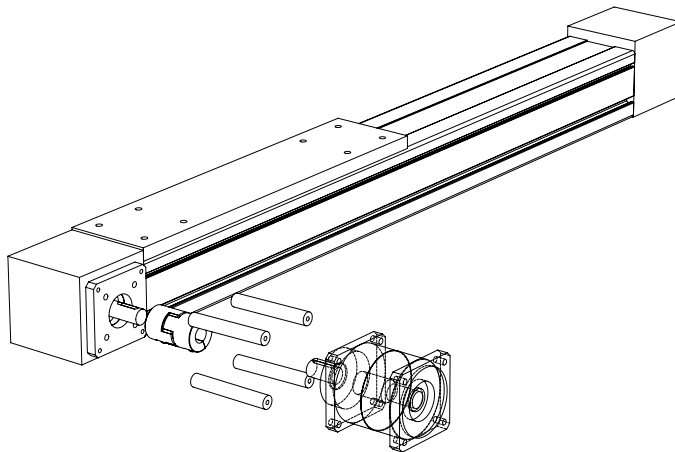


Drive Shafts and Drive Adapters

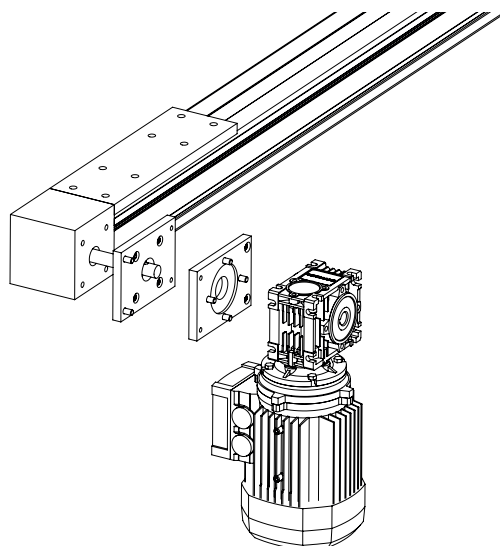
RHL are as standard with hollow shafts. We can supply solid shafts for mounting in the hollow shafts.



On request, we also make adapter flanges, closed or open style, with suitable shaft coupling. We need to know your motor or gear dimensions.



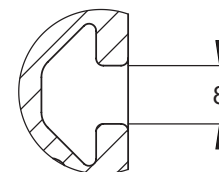
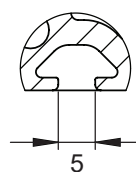
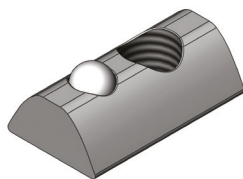
We can also put on a worm gear with or w/o asynchronous motor.



T-slot

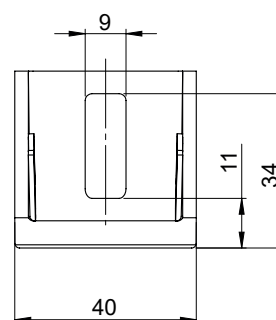
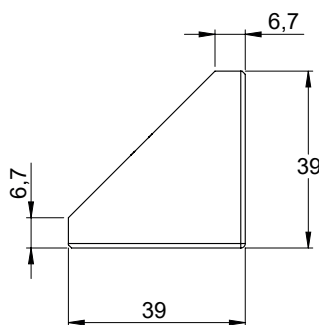
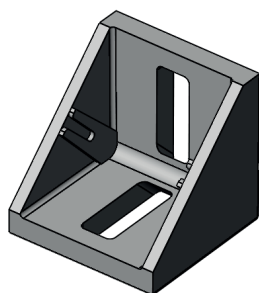
T-nuts available:

- PN4025 (M3, bottom slots RHL80)
- PN4030 (M4, bottom slots RHL80)
- PN4035 (M5, bottom slots RHL80)
- PN1035 (M5, side slots RHL80/RHL110, bottom slots RHL110)
- PN1040 (M6, side slots RHL80/RHL110, bottom slots RHL110)
- PN1045 (M8, side slots RHL80/RHL110, bottom slots RHL110)

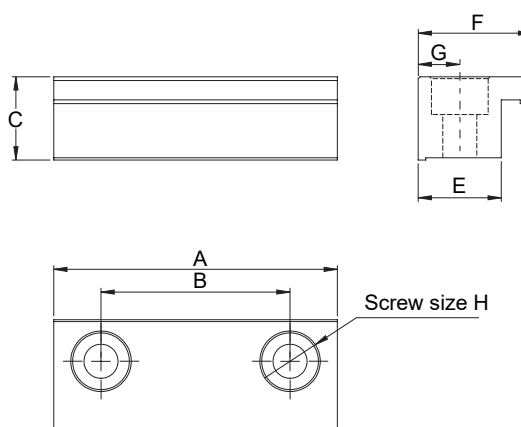
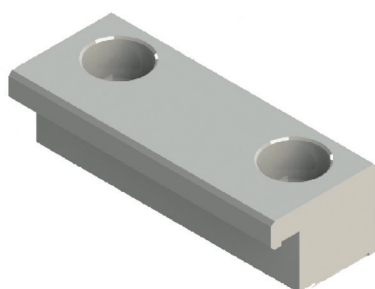


Angle Bracket

RHL-4040A (for RHL80 & RHL110)



Fixing Element

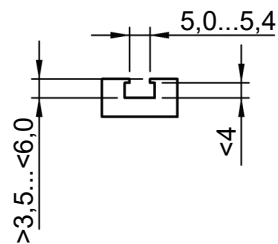
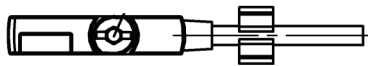
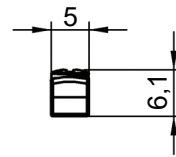
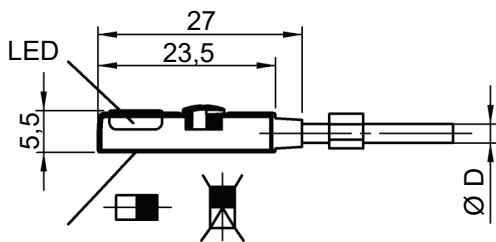


Article No.	A	B	C	E	F	G	H
RHL80-FE8S (side)	75	50	22	22	30	11	M8
RHL80-FE5B (bottom)	75	50	18.5	25	30	11	M8
RHL110-FE8S (side)	75	50	28	22	30	11	M8
RHL110-FE8B (bottom)	75	50	20	22	30	11	M8

Sensor

RHL-BMF235K-PS (Normally Open)
RHL-BMF235K-PO (Normally Closed)

- Precise readjustment
- All-electronically
- Vibration resistant
- High protection class



Technical Details

	RHL-BMF235K-PS (NO)	RHL-BMF235K-PO (NC)
Service voltage	10 ... 30 V DC	
Output	PNP, NO	PNP, NC
Maximum rating	200 mA	
Contact rating	6 W max. (30 V, 200 mA)	
Internal power consumption	6 mA	
Voltage drop, static	2,5 V max	
Operating frequency	5000 Hz	
Reproducibility	< 0,1 mm	
Ambient temperature	-25 ... +85 °C	
Insulation voltage endurance	75 V DC	
Protection class	IP 67	
Indicators	LED: yellow output signal	
Mounting	Hex key size 2,0 mm. Max. tightening torque 0,4 Nm	
Casing material	PA12	
Connection	Cable PUR, 2,0 m as standard	
Approval	CE	
Short circuit protected	Yes	

Linear Unit RHL

RHL80 - V250 - 1700 - H14 - R - MF - SD

Unit type

RHL80
RHL110

Sliders for RHL80

V100 (RHL80)
V250 (RHL80)
V500 (RHL80)
V200 (RHL110)
V500 (RHL110)

Stroke

Drive Hollow Shaft with Keyway or Spline Pulley for RHL80

Ø 12 H7 (RHL80)
Ø 14 H7 (RHL80)
Ø 16 H7 (RHL80)
Ø 16 H7 (RHL110)
Ø 19 H7 (RHL110)

Surface Treatment

R = Raydent coated rail and blocks
(Leave empty if not applicable)

Lubrication

MF = MF Long life lubrication
DF = DF Dust proof seal
(Leave empty if not applicable)

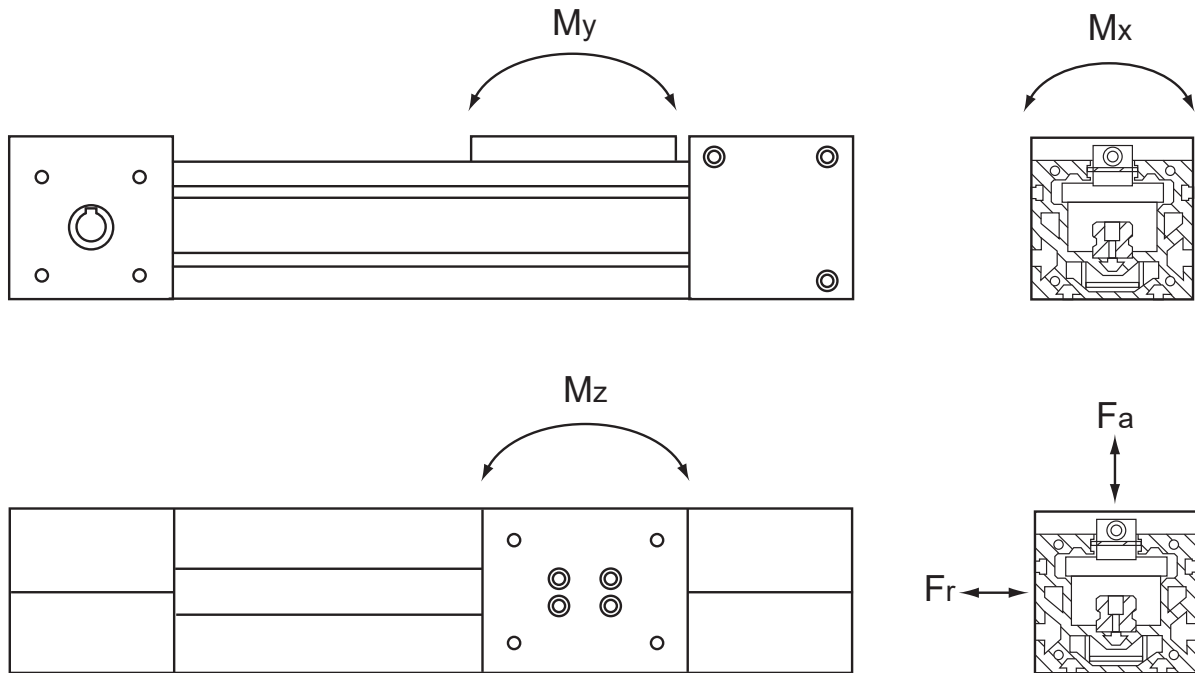
Synchronized Drive

SD = Drive unit synchronized (two units)
(Leave empty if not applicable)

Note: T-slot, Angle Bracket and Sensors must be ordered separately.

Technical Information

Technical Data



Article No.	Slider length mm	Mass of linear unit with zero (0 mm) stroke, incl. the slider (kg)	Mass		Permissible load (N)		Permissible moment (Nm)		
			Mass of the slider itself (kg)	Add. mass of the complete unit for each add. of 100 mm stroke (kg)	F_a	F_r	M_x	M_y	M_z
RHL80-V100	100	5,2	0,8	0,80	1000	500	50	50	50
RHL80-V250	250	7,4	1,7	0,80	2000	1000	100	200	200
RHL80-V500	500	10,1	2,6	0,80	2000	1000	100	450	450
RHL110-V200	200	14,5	1,8	1,34	2000	1000	100	100	100
RHL110-V500	500	20,4	3,8	1,34	4000	2000	200	900	900

Transmission

Type	RHL80	RHL110
Max. speed (m/s)	2,5	2,5
Max drive torque (Nm)*	17	71
Pulley radius (mm)	28,65	36,6
Belt type	AT 5	AT 10
Belt width (mm)	25	49
Tooth pitch (mm)	5	10
Max traction load* (N)	600	2000
Belt breaking strength (N)	6370	29780
Stroke for shaft revolution (mm)	180	230
No load torque (T0)**	1 Nm	2 Nm

* For higher values please contact Rollco

** The no load torque (T0) is a typical value for a new unit and will normally decrease with use.

For extremely long strokes (above 6 meter) and for units oriented horizontal and with the slider oriented to the side, the no load torque value may exceed the typical values stated.

Lubrication

The RHL system is equipped with a lubrication system. This keeps the grease inside the blocks and reduces the need for relubrication.

As an option, the bearing blocks inside RHL can be equipped with long life lubrication system. This option has in tests shown life times up to 32 000 km at low loads without any relubrication.

Please contact Rollco for more information.

Service and maintenance

The unit is delivered ready to use, lubricated with grease of NLGI 1,5 class.

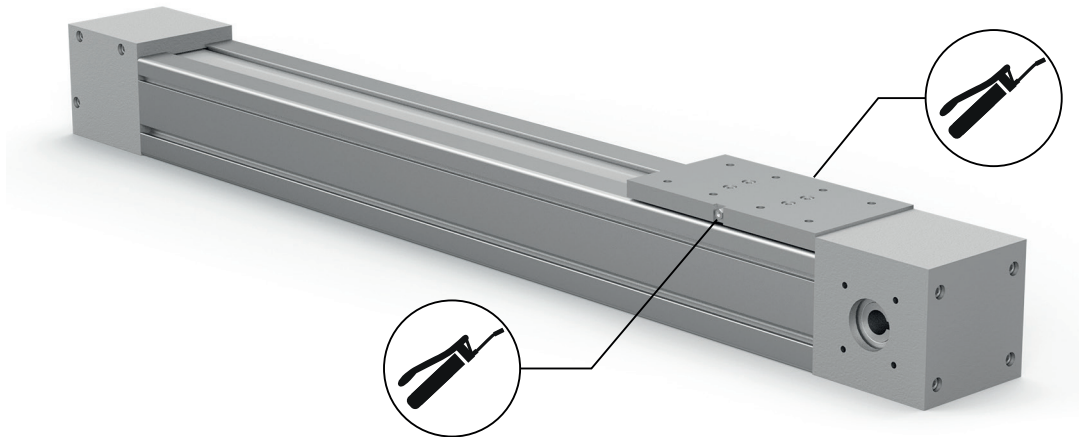
The lubrication intervals are every 500 operating hours or after the specified travel path of 5000 km.

When re-lubrication is required, use a similar grease, most mineral oil-based grease using lithium thickener and having an NLGI 1,5 to 2 consistence will work fine.

The belt wheel bearings are sealed and are not possible to re-lubricate. They have an expected grease life of 5 years.

Inspect the belt at regular intervals for damage. In the event of damage, plan a replacement of the belt.

For demanding operational conditions, please consult Rollco Technical support.



Please note that depending on model/type there can be one or two grease nipples per slider.

Instructions

- Pump in a single stroke of grease in each grease nipple with a pointy nozzle.

**ALWAYS THE RIGHT
SOLUTION AT THE RIGHT TIME.**

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