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Linear Unit RHL80

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 linear rail, belt and pulleys. The stroke length is selectable per millimetre from 0 up to 10 metres.

Rollco cut and assemble everything in our own workshop, which enables very short delivery times.
There are 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

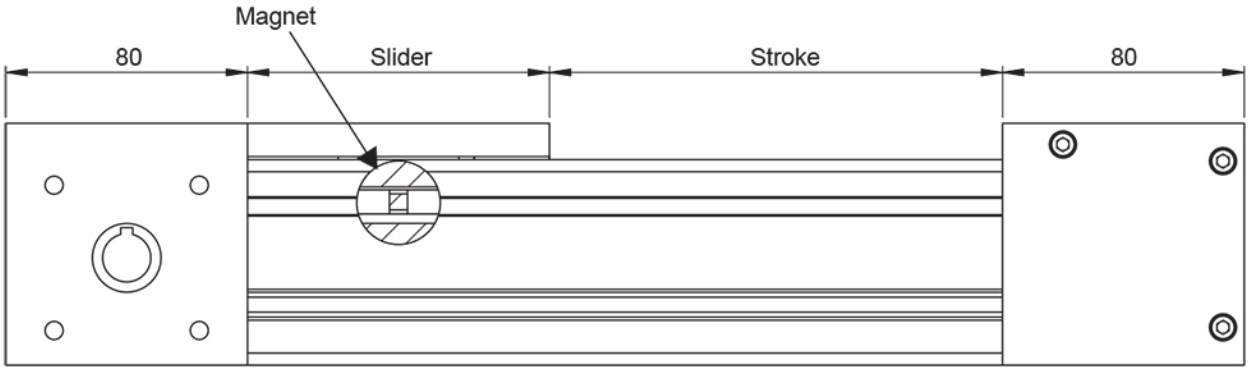
Dimensions in mm.
For higher values than stated in the table below, please contact Rollco.
The no load torque (T0) is a typical value for a new unit and will normally decrease with use. For extremely long strokes (above 6 meter) and for units oriented horizontal and with the slider oriented to the side, the no load torque value may exceed the typical values stated.



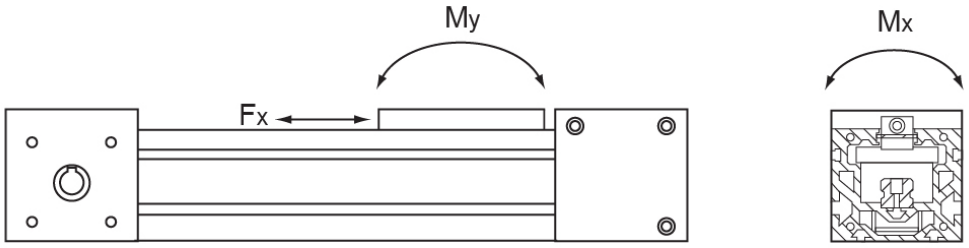


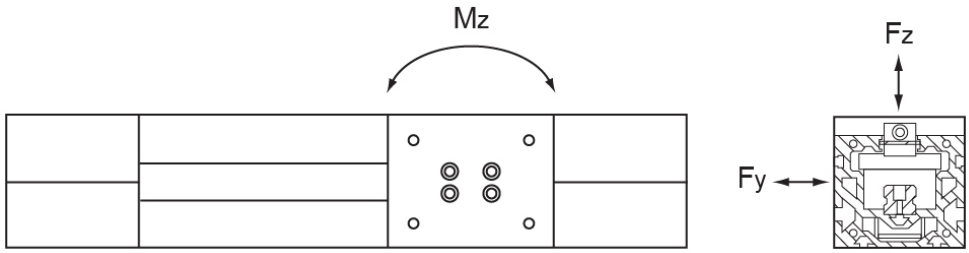
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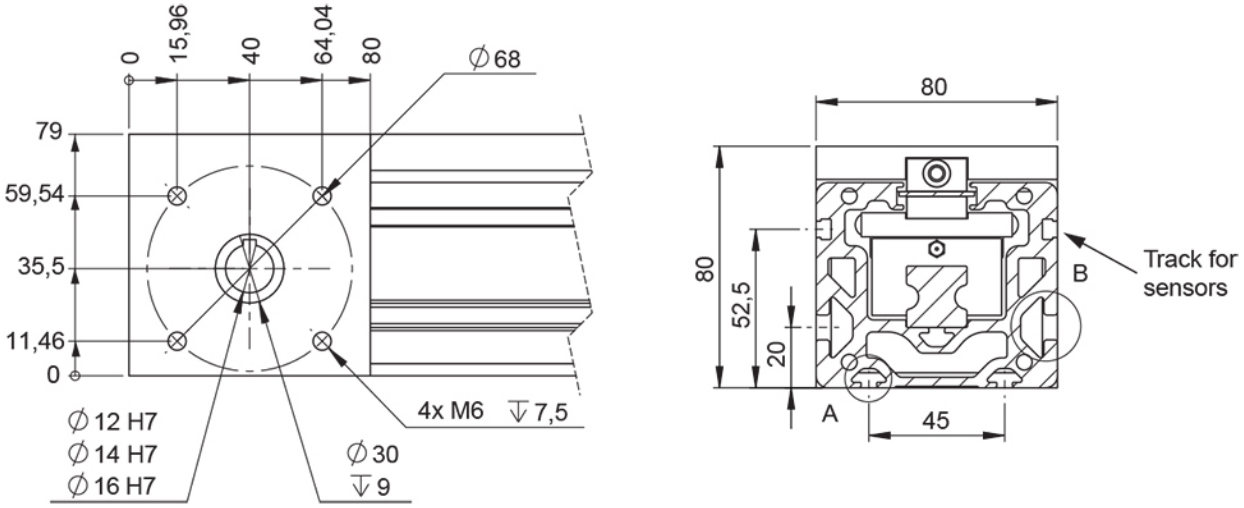
General Data



Total length = Stroke + slider + 160
Stroke: We recommend to add min. 50 mm to the nominal stroke (stroke = nominal stroke + 50 mm)

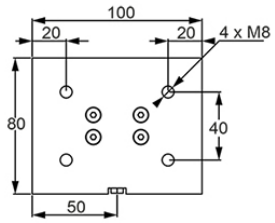




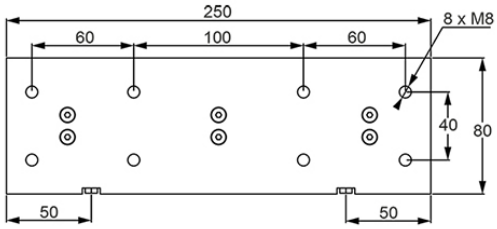


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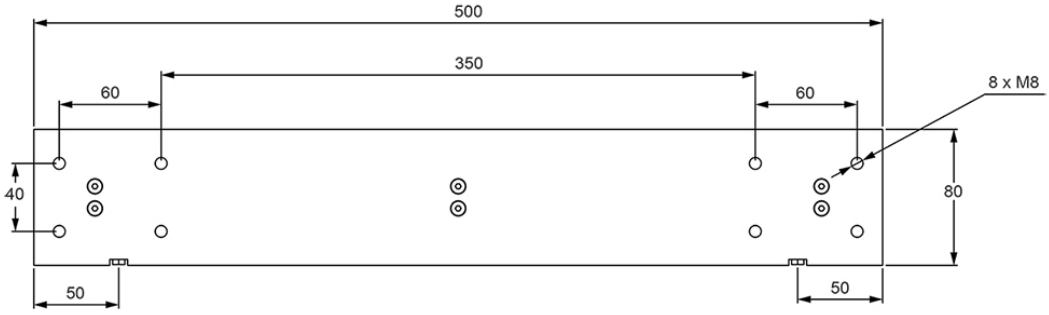
General Data



Slider V100



Slider V250



Slider V500

Designation	Mass of Linear Unit incl. Slider – 0 mm Stroke (kg)	Mass of Slider (kg)	Add. Mass of Complete Unit for Each +100 mm Stroke (kg)	Permissible Load Fz (N)	Permissible Load Fy (N)
RHL80-V100	5.2	0.8	0.8	1000	500
RHL80-V250	7.4	1.7	0.8	2000	1000
RHL80-V500	10.1	2.6	0.8	2000	1000

Designation	Permissible Moment Mx (Nm)	Permissible Moment My (Nm)	Permissible Moment Mz (Nm)	Max. Speed (m/s)	Max. Drive Torque (Nm)	Belt Type
RHL80-V100	50	50	50	2.5	17	AT 5
RHL80-V250	100	200	200	2.5	17	AT 5
RHL80-V500	100	450	450	2.5	17	AT 5

Designation	Belt Width	Pulley radius	Tooth pitch	Max. Traction Load Fx (N)	Belt Breaking Strength (N)	No Load Torque (Nm)
RHL80-V100	25	28.65	5	600	6370	1
RHL80-V250	25	28.65	5	600	6370	1
RHL80-V500	25	28.65	5	600	6370	1

Designation	Stroke for shaft revolution	Slider length
RHL80-V100	180	100
RHL80-V250	180	250
RHL80-V500	180	500

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Linear Unit RHL110

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 linear rail, belt and pulleys. The stroke length is selectable per millimetre from 0 up to 10 metres.

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There are 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.

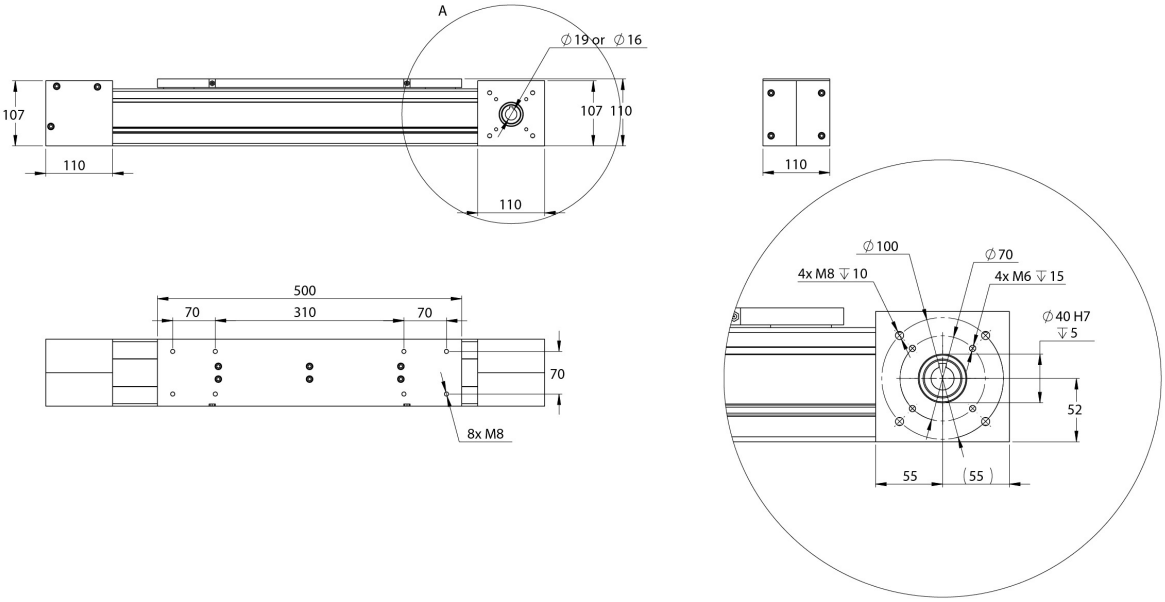
Product characteristics:
• Compact unit
• Compatible with structural systems
• Possible to use in X-Y-Z systems
• Customized versions available upon request

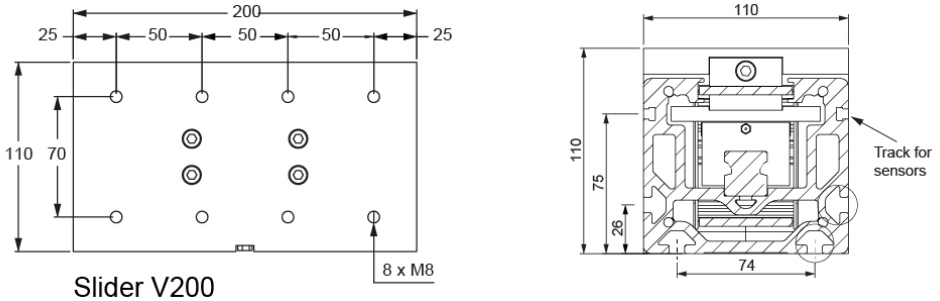
Dimensions in mm.
For higher values than stated in the table below, please contact Rollco.
The no load torque (T0) is a typical value for a new unit and will normally decrease with use. For extremely long strokes (above 6 meter) and for units oriented horizontal and with the slider oriented to the side, the no load torque value may exceed the typical values stated.



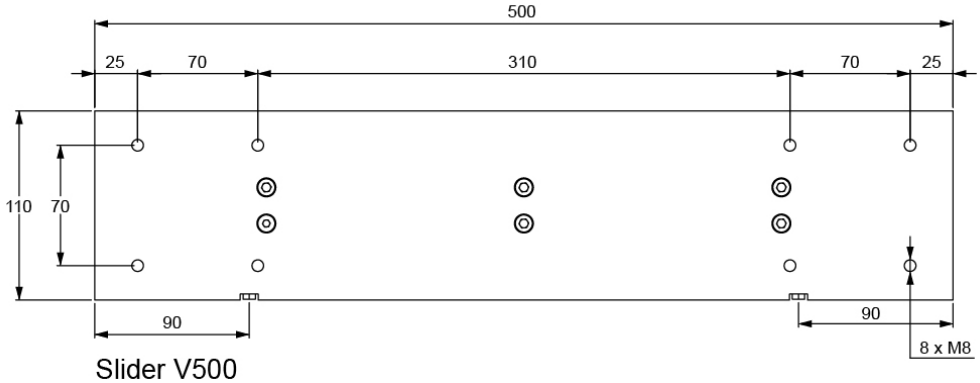
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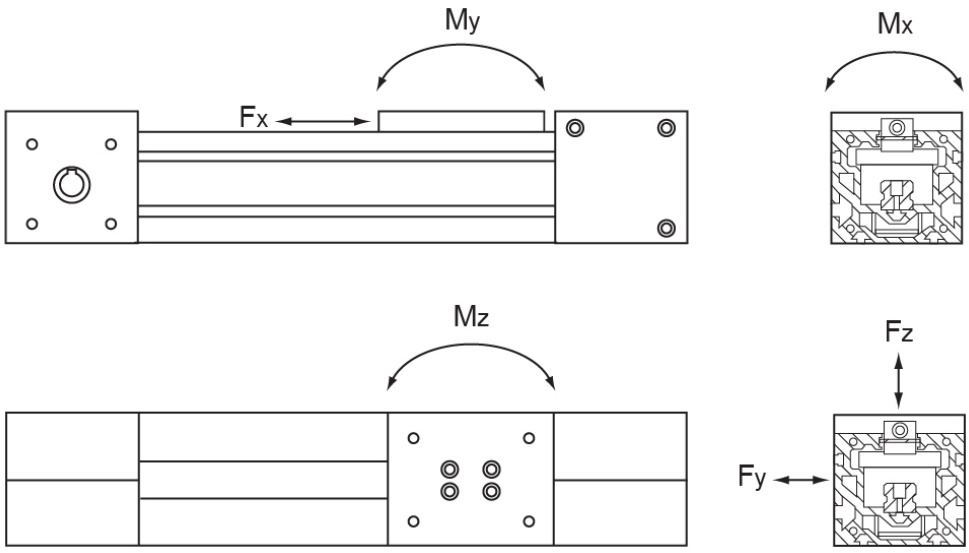
Slider V200



Slider V500

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General Data



Designation	Mass of Linear Unit incl. Slider – 0 mm Stroke (kg)	Mass of Slider (kg)	Add. Mass of Complete Unit for Each +100 mm Stroke (kg)	Permissible Load Fz (N)	Permissible Load Fy (N)
RHL110-V200	14.5	1.8	1.34	2000	1000
RHL110-V500	20.4	3.8	1.34	4000	2000

Designation	Permissible Moment Mx (Nm)	Permissible Moment My (Nm)	Permissible Moment Mz (Nm)	Max. Speed (m/s)	Max. Drive Torque (Nm)	Belt Type
RHL110-V200	100	100	100	2.5	75	AT 10
RHL110-V500	200	900	900	2.5	75	AT 10

Designation	Belt Width	Pulley radius	Tooth pitch	Max. Traction Load Fx (N)	Belt Breaking Strength (N)	No Load Torque (Nm)
RHL110-V200	49	36.6	10	2000	29780	2
RHL110-V500	49	36.6	10	2000	29780	2

Designation	Stroke for shaft revolution	Slider length
RHL110-V200	230	200
RHL110-V500	230	500

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CPS planetary gearbox

Economical entry level planetary gearbox with impressive price-performance and quality. CPK offers a long, cylindrical output interface with an optional B5-style flange. Output shaft smooth or with a keyway. The stated maximal backlash is kept throughout the lifetime of the gearbox

Ratio: 3-100
Max. Torque (Nm): 48-272
Other models: food-grade lubrication



Image by WITTENSTEIN



Image by WITTENSTEIN

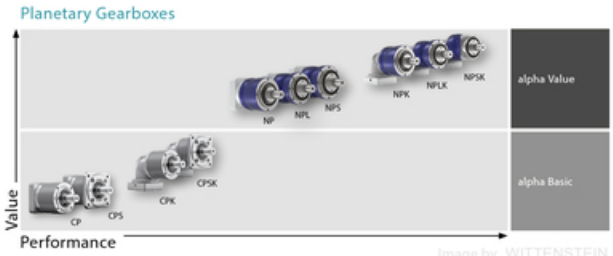


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General Data

Designation	Ratio	Remark	Size
CPS015	3 / 4 / 5 / 7 / 8 / 9 / 10 / 12 / 15 / 16 / 20 / 25 / 28 / 30 / 35 / 40 / 50 / 70 / 100	Compatible with Linear unit RHL80 + Adapter kit RHL80	015
CPS025	3 / 4 / 5 / 7 / 8 / 9 / 10 / 12 / 15 / 16 / 20 / 25 / 28 / 30 / 35 / 40 / 50 / 70 / 100	-	025
CPS035	3 / 4 / 5 / 7 / 8 / 9 / 10 / 12 / 15 / 16 / 20 / 25 / 28 / 30 / 35 / 40 / 50 / 70 / 100	Compatible with Linear unit RHL110+ Adapter kit RHL110	035

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CPSK bevel gearbox

The right-angle gearboxes of the alpha Basic Line are specially designed for applications with medium requirements for positioning accuracy. The extremely compact bevel gear stage enables use in applications with space constraints.

Ratio: 3-100
Max. Torque (Nm): 33-272
Other models: food-grade lubrication



Image by WITTENSTEIN



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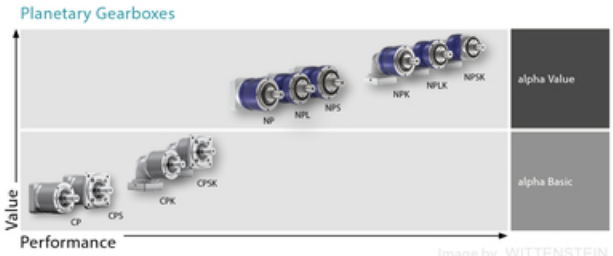


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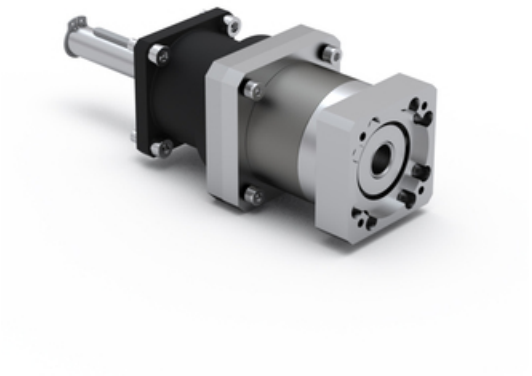
Designation	Ratio	Remark	Size
CPSK015	3 / 4 / 5 / 7 / 8 / 9 / 10 / 12 / 15 / 16 / 20 / 25 / 28 / 30 / 35 / 40 / 50 / 70 / 100	Compatible with Linear unit RHL80 + Adapter kit RHL80	015
CPSK025	3 / 4 / 5 / 7 / 8 / 9 / 10 / 12 / 15 / 16 / 20 / 25 / 28 / 30 / 35 / 40 / 50 / 70 / 100	-	025
CPSK035	3 / 4 / 5 / 7 / 8 / 9 / 10 / 12 / 15 / 16 / 20 / 25 / 28 / 30 / 35 / 40 / 50 / 70 / 100	Compatible with Linear unit RHL110 + Adapter kit RHL100	035

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Adapter kit RHL

Easily connect your RHL Linear unit with a planetary gear by using our adapter-kit. Design your complete solution of RHL Linear unit + Adapter kit + Planetary gear with our CAD-Configurator.

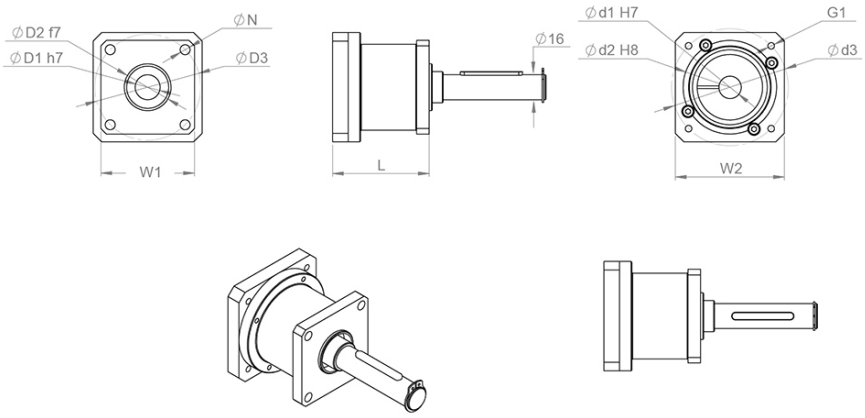




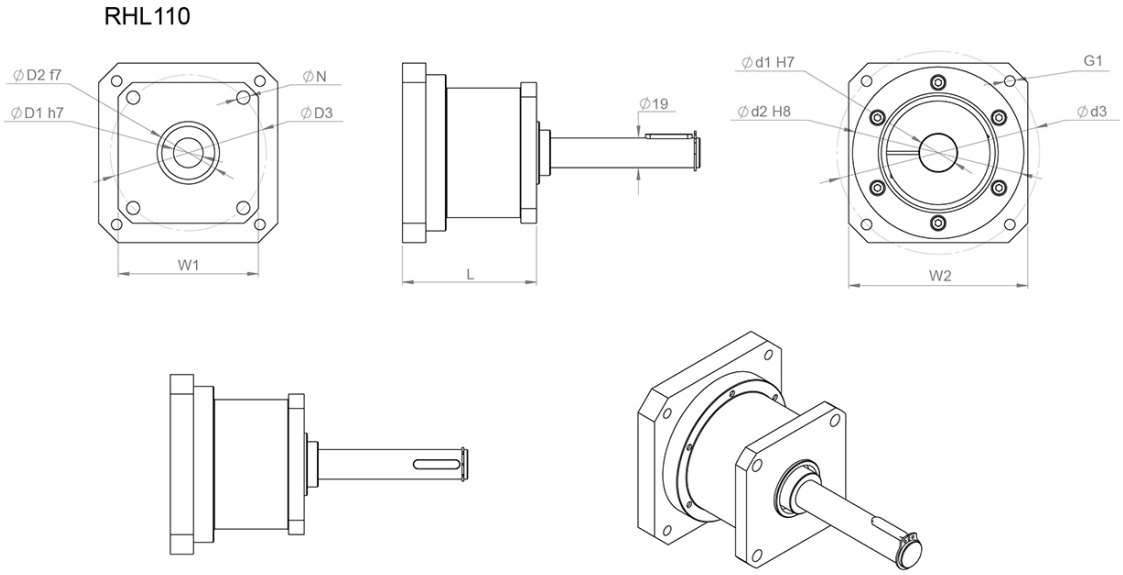
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General Data

RHL80



RHL110



Designation	Compatible with	D1	D2	D3	G1
RHL80-H16-CPS015 Adapter kit	RHL80	14	60	75	M5
RHL110-H19-CPS035 Adapter kit	RHL110	24	110	130	M8

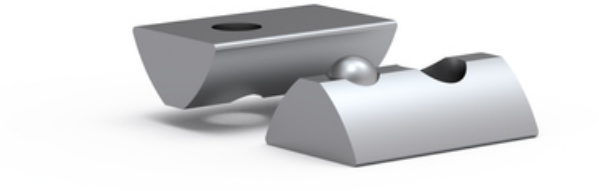
Designation	N1	L	W1	W2
RHL80-H16-CPS015 Adapter kit	6.4	62	60x60	70x70
RHL110-H19-CPS035 Adapter kit	8.4	86	90x90	115x115

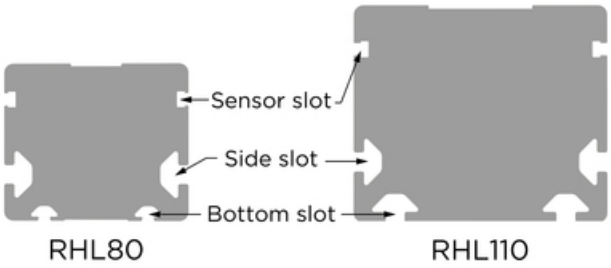
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T-Slots / T-Nuts

T-slot nuts. Dimensions in mm.





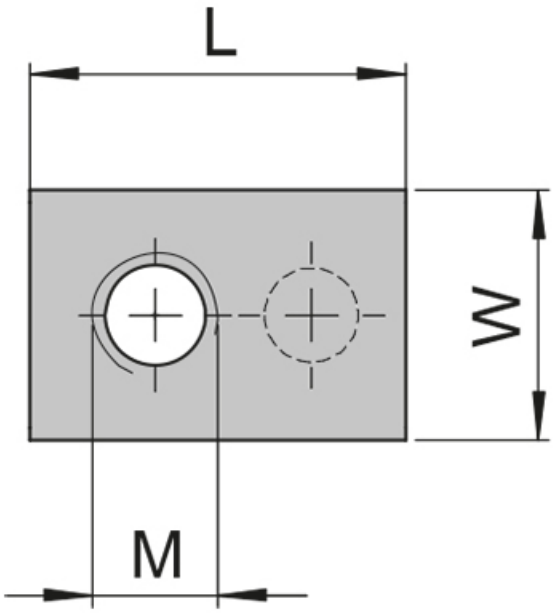
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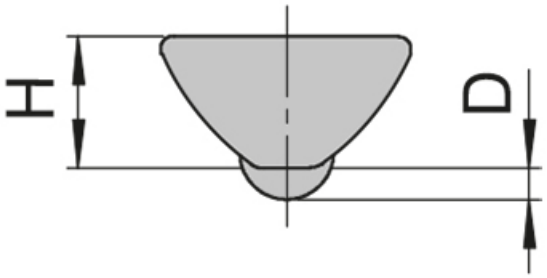
General Data

Designation	Description	Material
PN4025	M3, bottom slots RHL80 (Pivoting slot nut, ball spring)	Steel, galvanised
PN4030	M4, bottom slots RHL80 (Pivoting slot nut, ball spring)	Steel, galvanised
PN4035	M5, bottom slots RHL80 (Pivoting slot nut, ball spring)	Steel, galvanised
PN1035	M5, side slots RHL80/RHL110, bottom slots RHL110 (Pivoting slot nut, ball spring)	Steel, galvanised
PN1040	M6, side slots RHL80/RHL110, bottom slots RHL110 (Pivoting slot nut, ball spring)	Steel, galvanised
PN1045	M8, side slots RHL80/RHL110, bottom slots RHL110 (Pivoting slot nut, ball spring)	Steel, galvanised

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Dimensions



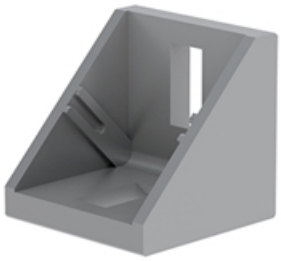


Designation	D	H	L	W	Thread	Slot
PN4025	1	4.2	12	8	M3	5
PN4030	1	4.2	12	8	M4	5
PN4035	1	4.2	12	8	M5	5
PN1035	1.7	7	22	13.7	M5	8
PN1040	1.7	7	22	13.7	M6	8
PN1045	1.7	7	22	13.7	M8	8

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Angle Bracket

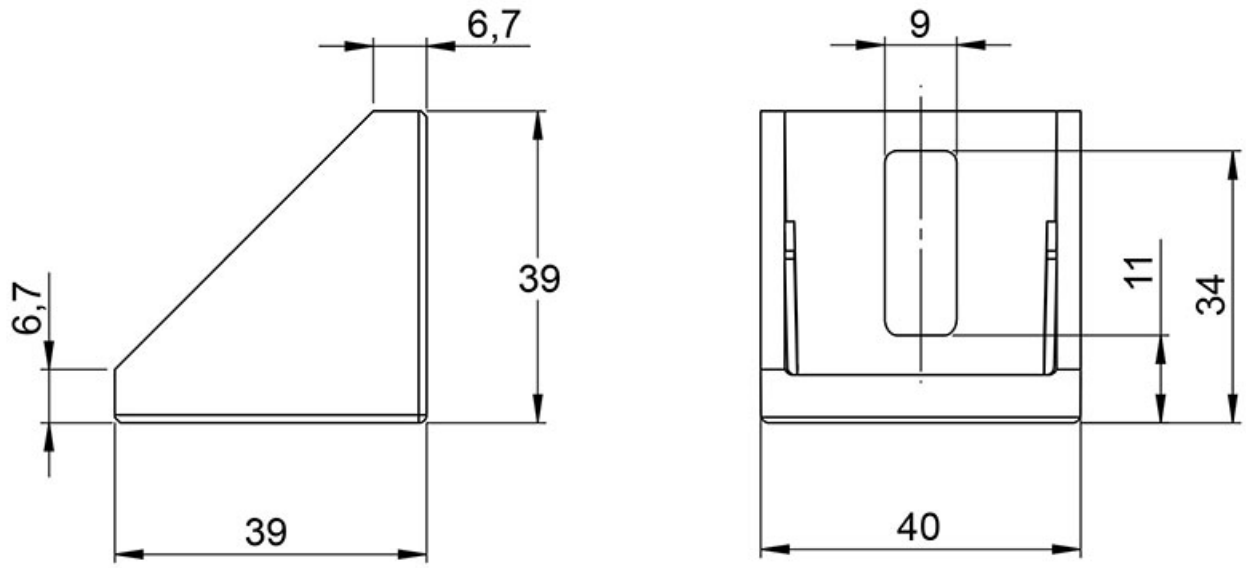
Dimensions in mm.





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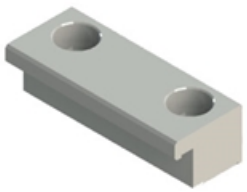


Designation	Description	Compatible with
RHL-4040A	Angle Bracket	RHL80, RHL110

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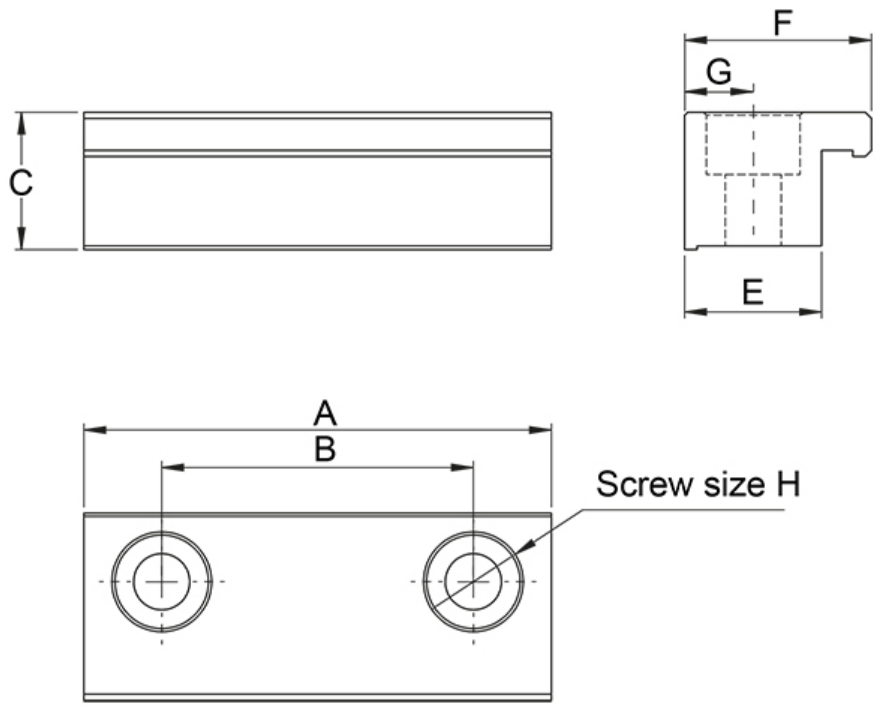
Fixing Element

Dimensions in mm.



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Dimensions



Designation	G	A	B	H	F	C	E
RHL80-FE8S (side)	11	75	50	M8	30	22	22
RHL80-FE5B (bottom)	11	75	50	M8	30	18.5	25
RHL110-FE8S (side)	11	75	50	M8	30	28	22
RHL110-FE8B (bottom)	11	75	50	M8	30	20	22

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Sensor

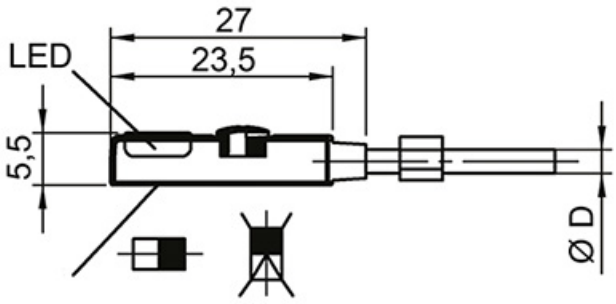
- Precise readjustment
- All-electronically
- Vibration resistant
- High protection class

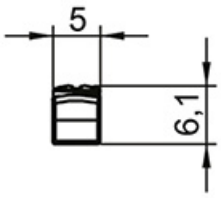
Dimensions in mm.

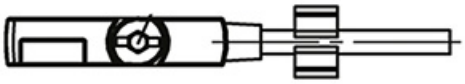


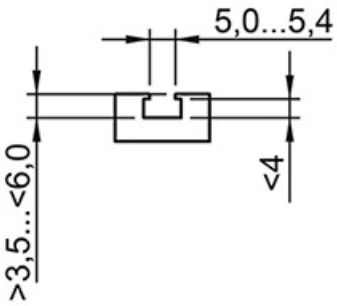
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General Data









Designation	Protection Class	Ambient Temperature (°C)	Approval	Casing material	Connection
RHL-BMF235K-PS (Normally Open)	IP 67	-25 ... +85	CE	PA12	Cable PUR. 2.0 m as standard
RHL-BMF235K-PO (Normally Closed)	IP 67	-25 ... +85	CE	PA12	Cable PUR. 2.0 m as standard

Designation	Contact rating	Indicators	Insulation Voltage Endurance (V DC)	Internal Power Consumption (mA)	Max. Rating (mA)	Max. Voltage Drop Static (V)
RHL-BMF235K-PS (Normally Open)	6 W max. (30 V, 200 mA)	LED: yellow output signal	75	6	200	2.5
RHL-BMF235K-PO (Normally Closed)	6 W max. (30 V, 200 mA)	LED: yellow output signal	75	6	200	2.5

Designation	Mounting	Operating Frequency (Hz)	Output	Reproducibility (mm)	Service Voltage (V DC)	Short circuit protected
RHL-BMF235K-PS (Normally Open)	Hex key size 2.0 mm. Max. tightening torque 0.4 Nm	5000	PNP, NO	< 0,1	10 ... 30	Yes
RHL-BMF235K-PO (Normally Closed)	Hex key size 2.0 mm. Max. tightening torque 0.4 Nm	5000	PNP, NC	< 0,1	10 ... 30	Yes

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