

## Table of contents

- **Linear Unit RHL80**
- **Linear Unit RHL110**
- **CPS planetary gearbox**
- **CPSK bevel gearbox**
- **Adapter kit RHL**
- **T-Slots / T-Nuts**
- **Angle Bracket**
- **Fixing Element**
- **Sensor**
- **RA Grease**

## Linear Unit RHL80

Dimensions in mm.

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

For higher values than stated below, please contact Rollco. The No load torque 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.

**Max. Speed (m/s):** 2.5

**Max. Drive Torque (Nm):** 17

**Pulley radius:** 28.65

**Belt Type:** AT 5

**Belt Width:** 25

**Tooth pitch:** 5

**Max. Traction Load Fx (N):** 600

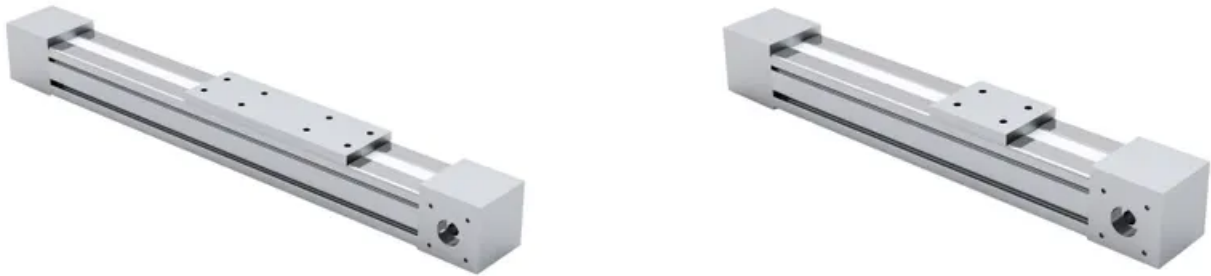
**Belt Breaking Strength (N):** 6370

**Stroke for shaft revolution:** 180

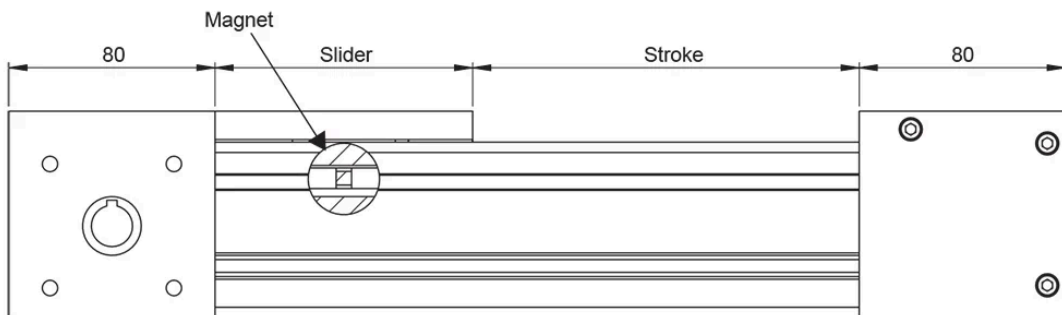
**No Load Torque (Nm):** 1

**Add. Mass of Complete Unit for Each +100 mm Stroke (kg):** 0.8



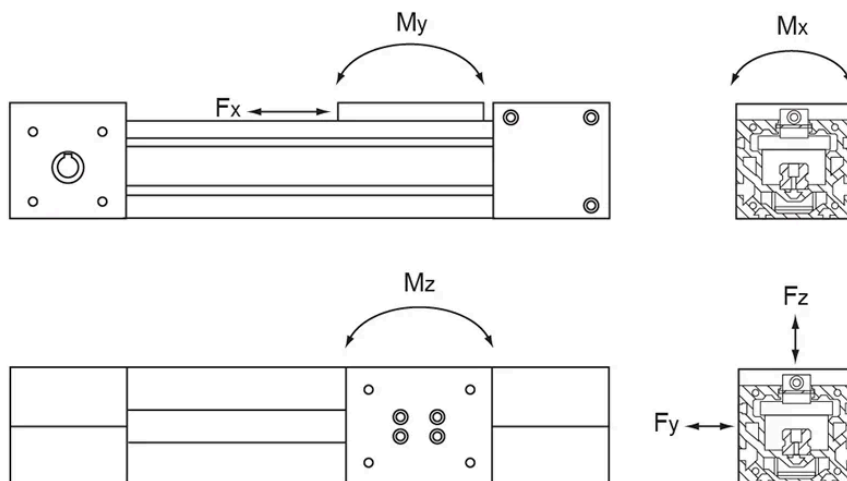


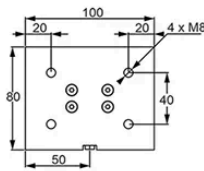
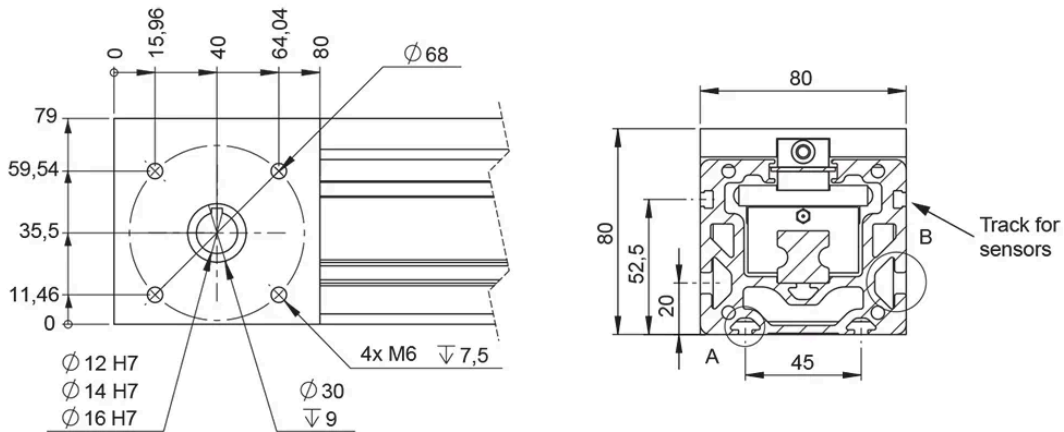
## General Data



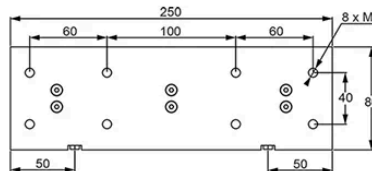
Total length = Stroke + slider + 160

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

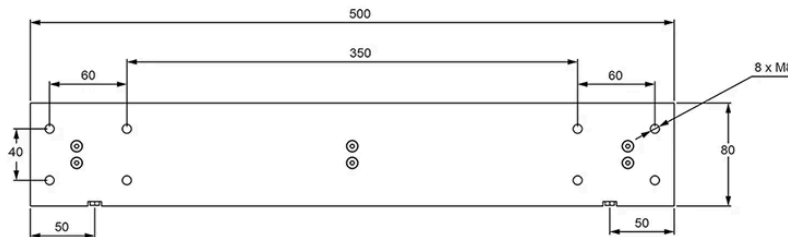




Slider V100



Slider V250



Slider V500

Designation	Slider length	Mass of Linear Unit incl. Slider - 0 mm Stroke (kg)	Mass of Slider (kg)	Permissible Load Fz (N)	Permissible Load Fy (N)
RHL80-V100	100	5.2	0.8	1000	500
RHL80-V250	250	7.4	1.7	2000	1000
RHL80-V500	500	10.1	2.6	2000	1000

Designation	Permissible Moment Mx (Nm)	Permissible Moment My (Nm)	Permissible Moment Mz (Nm)
RHL80-V100	50	50	50
RHL80-V250	100	200	200
RHL80-V500	100	450	450

## Linear Unit RHL110

Dimensions in mm.

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

For higher values than stated below, please contact Rollco. The No load torque 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.

**Max. Speed (m/s): 2.5**

**Max. Drive Torque (Nm): 75**

**Pulley radius: 36.6**

**Belt Type: AT 10**

**Belt Width: 49**

**Tooth pitch: 10**

**Max. Traction Load Fx (N): 2000**

**Belt Breaking Strength (N): 29780**

**Stroke for shaft revolution: 230**

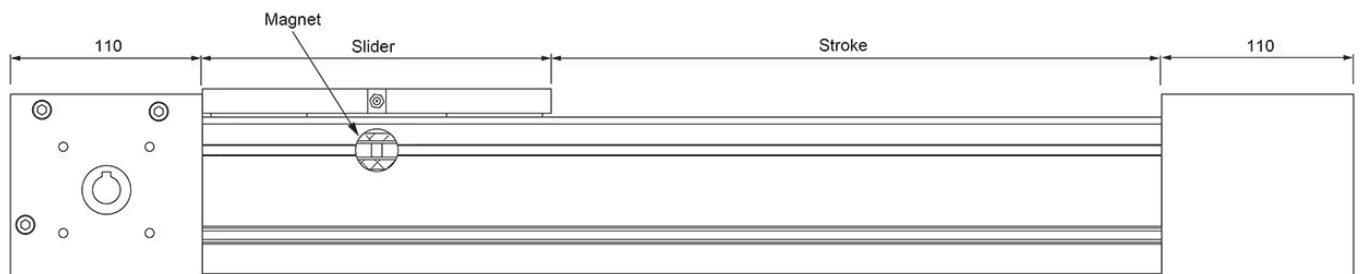
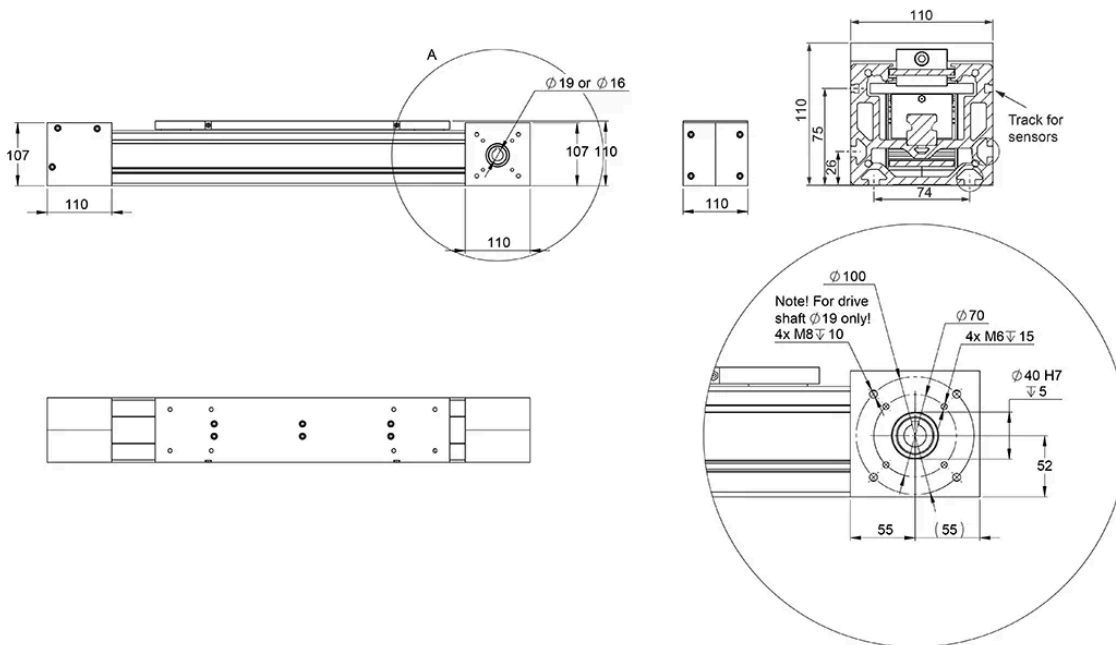
**No Load Torque (Nm): 2**

**Add. Mass of Complete Unit for Each +100 mm Stroke (kg): 1.34**

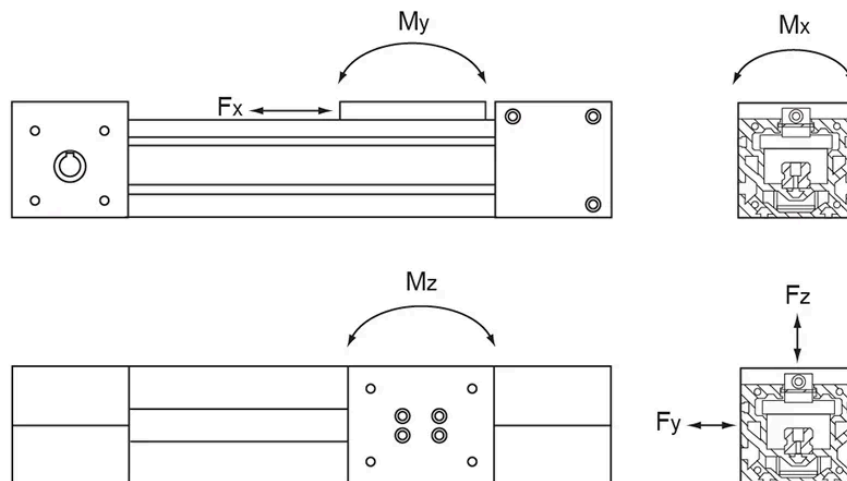
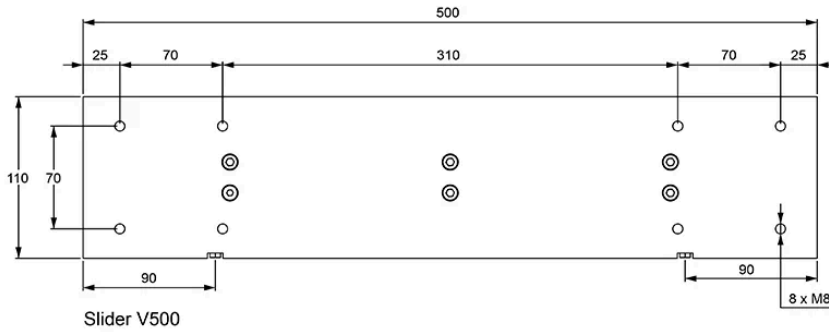
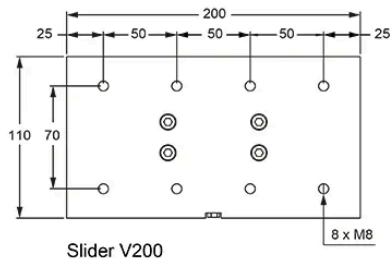




## General Data



Total length = Stroke + slider + 220  
 Stroke: We recommend to add min. 50 mm to the nominal stroke (stroke = nominal stroke + 50 mm)



Designation	Slider length	Mass of Linear Unit incl. Slider – 0 mm Stroke (kg)	Mass of Slider (kg)	Permissible Load Fz (N)	Permissible Load Fy (N)
RHL110-V200	200	14.5	1.8	2000	1000
RHL110-V500	500	20.4	3.8	4000	2000

Designation	Permissible Moment Mx (Nm)	Permissible Moment My (Nm)	Permissible Moment Mz (Nm)
RHL110-V200		100	100
RHL110-V500		900	900

## 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

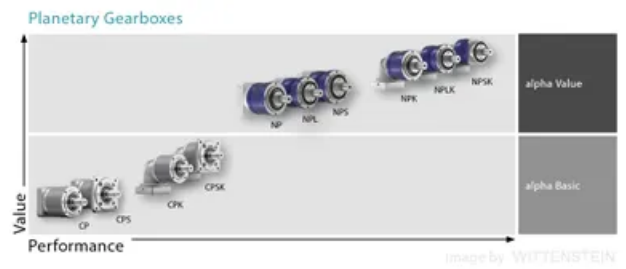


Image by WITTENSTEIN

## 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

## 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



image by WITTENSTEIN

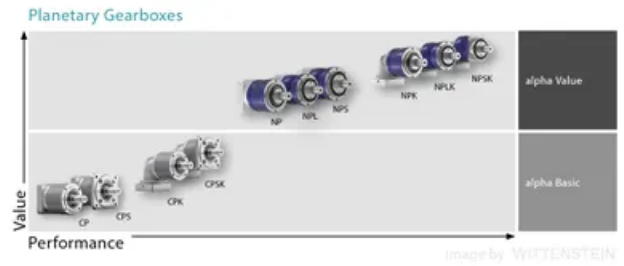


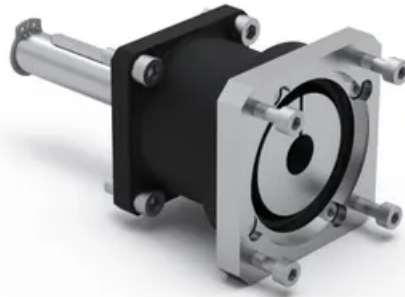
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## General Data

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

## Adapter kit RHL

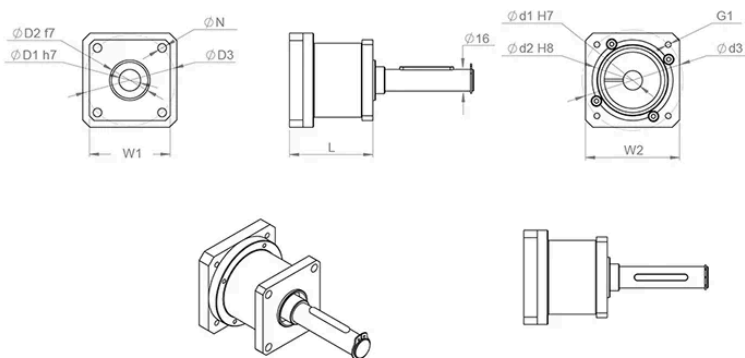
Easily connect your RHL Linear unit with a planetary gear by using our adapter-kit. Design your complete solution of RHL Linear unit + Adapter kit + Planetary gear with our CAD-Configurator.



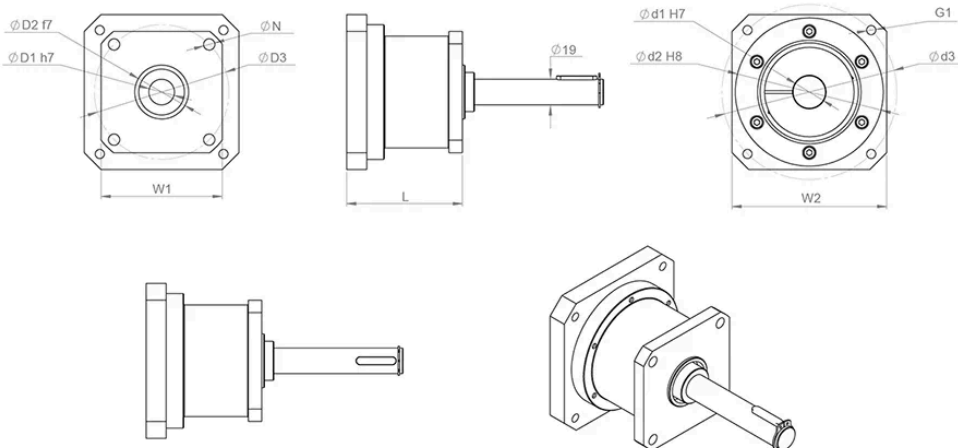


## General Data

RHL80



RHL110



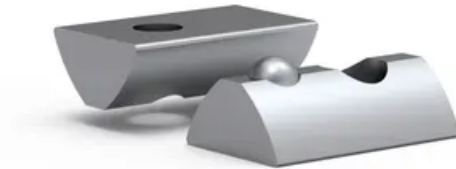
Designation	Compatible with	D1	D2	D3	G1
RHL80-H16-CPS015 Adapter kit	RHL80	14	60	75	M5

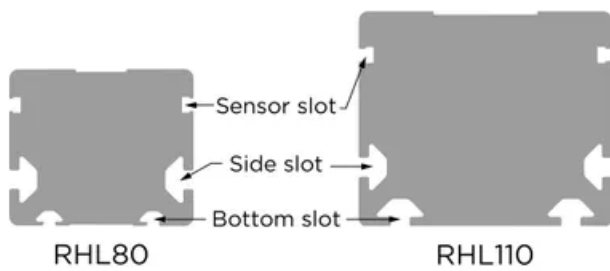
Designation	Compatible with	D1	D2	D3	G1
RHL110-H19-CPS035 Adapter kit	RHL110	24	110	130	M8

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

## T-Slots / T-Nuts

T-slot nuts. Dimensions in mm.

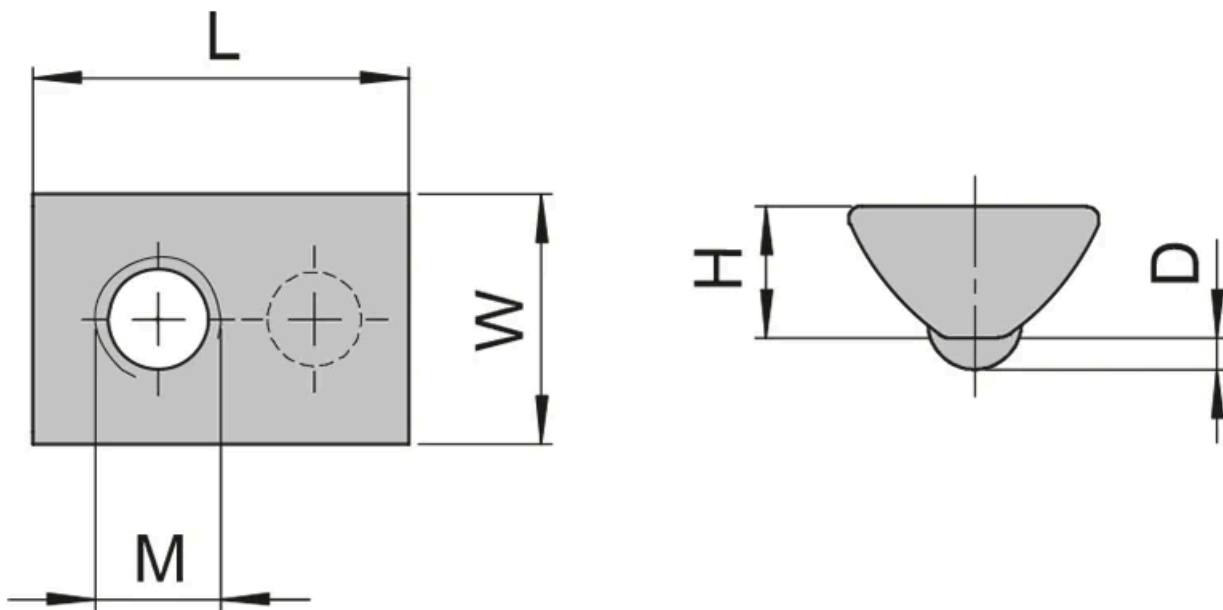




## General Data

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

## 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

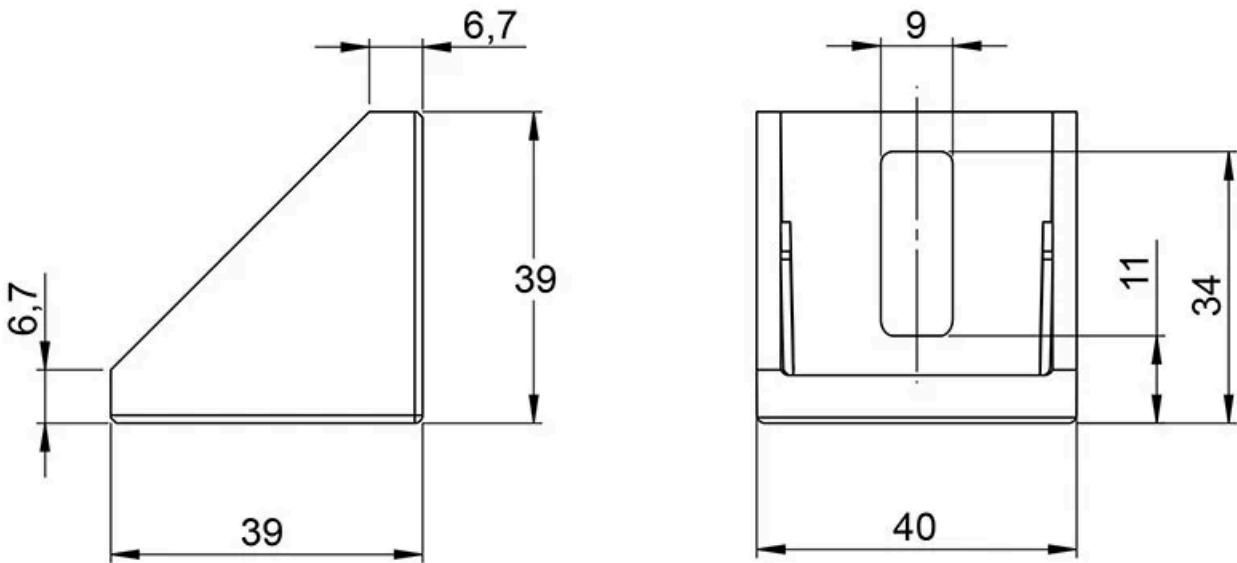
## Angle Bracket

Dimensions in mm.





**General Data**



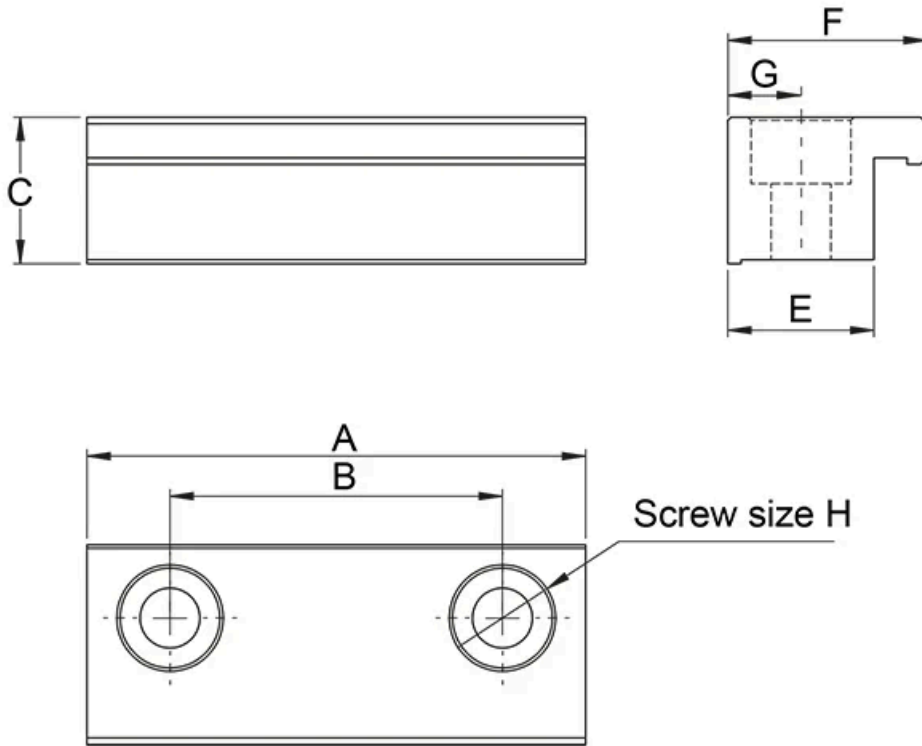
Designation	Description	Compatible with
RHL-4040A	Angle Bracket	RHL80, RHL110

## Fixing Element

Dimensions in mm.



## 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

## Sensor

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

Dimensions in mm.

**Service Voltage (V DC):** 10 ... 30

**Max. Rating (mA):** 200

**Contact rating:** 6 W max. (30 V, 200 mA)

**Internal Power Consumption (mA):** 6

**Max. Voltage Drop Static (V):** 2.5

**Operating Frequency (Hz):** 5000

**Reproducibility (mm):** < 0,1

**Ambient Temperature (°C):** -25 ... +85

**Insulation Voltage Endurance (V DC):** 75

**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

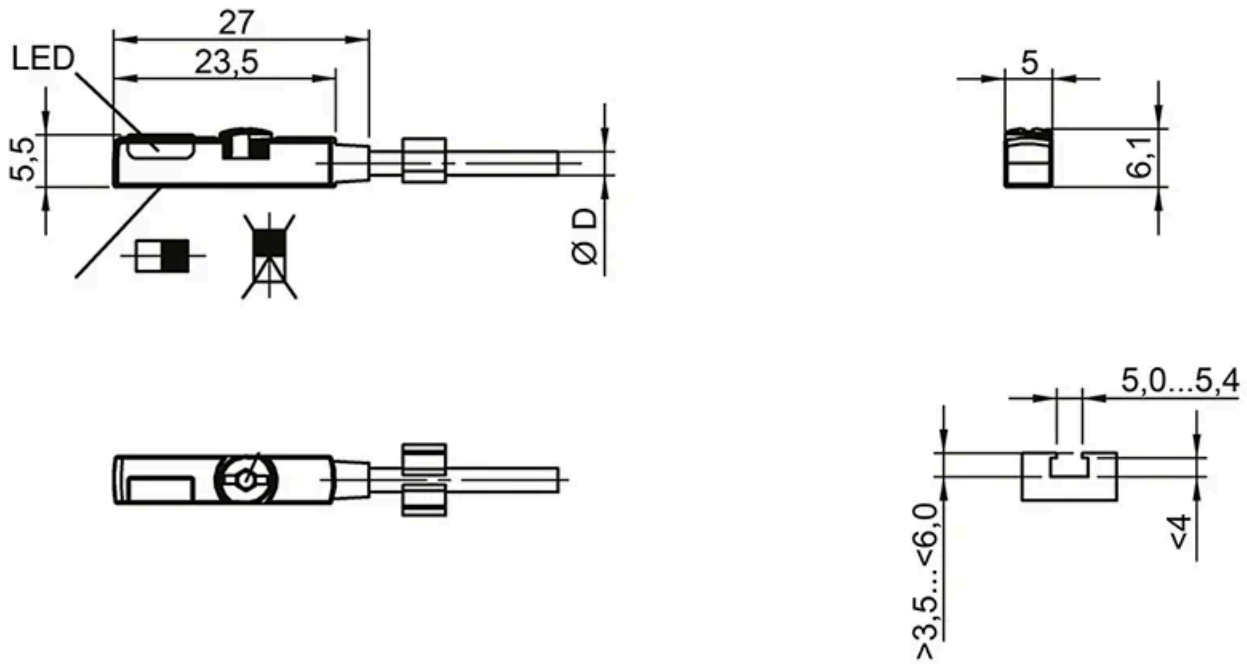
**Connection:** Cable PUR. 2.0 m as standard

**Approval:** CE

**Short circuit protected:** Yes



## General Data



Designation	Output
RHL-BMF235K-PS (Normally Open)	PNP, NO
RHL-BMF235K-PO (Normally Closed)	PNP, NC

## RA Grease

NLGI grade 1.5

Clear grease based on synthetic oils and PTFE. Will fulfil all severe specifications from bearing manufacturers, industrial applications and vehicle producers. Very suitable for use where long service life is required and desired. The specific rheological properties of the lubricant will give very low good flow properties of the grease at extremely low temperatures, at the same time the high film strength and thickness will guarantee lubrication also at elevated temperatures. The type of PTFE used will adhere strongly to all surfaces lubricated and give a very low friction coefficient. The grease is water resistant, withstands oxidation, has very good mechanical stability, is completely non-toxic and provides a very wide application temperature range.

**Temperature:** -40 to+260 °C (application range)



## General Data

Designation	Remark	Colour	Weight (g)
RA Grease NLGI 1.5	Cartridge package	Translucent white	400 g