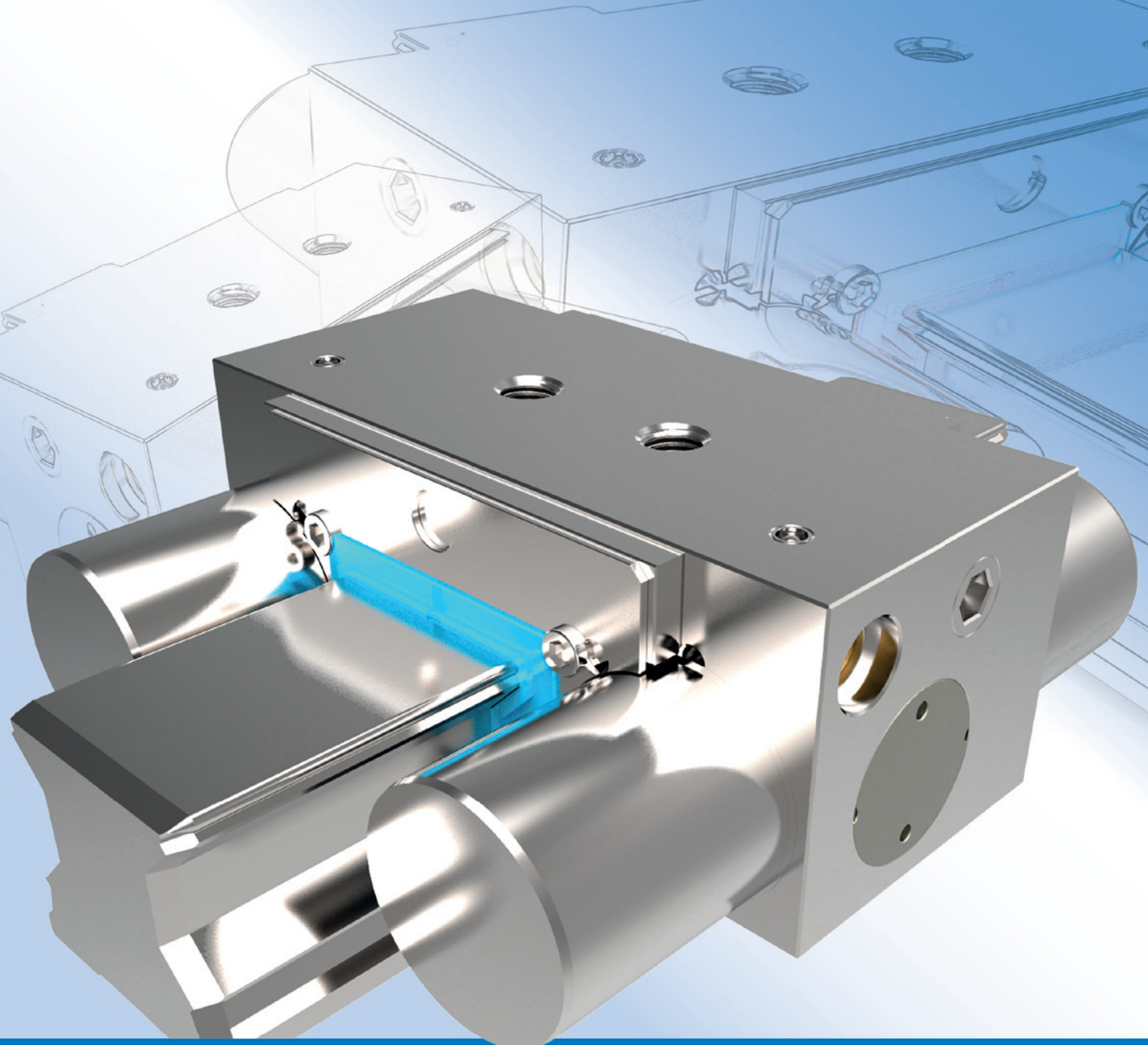


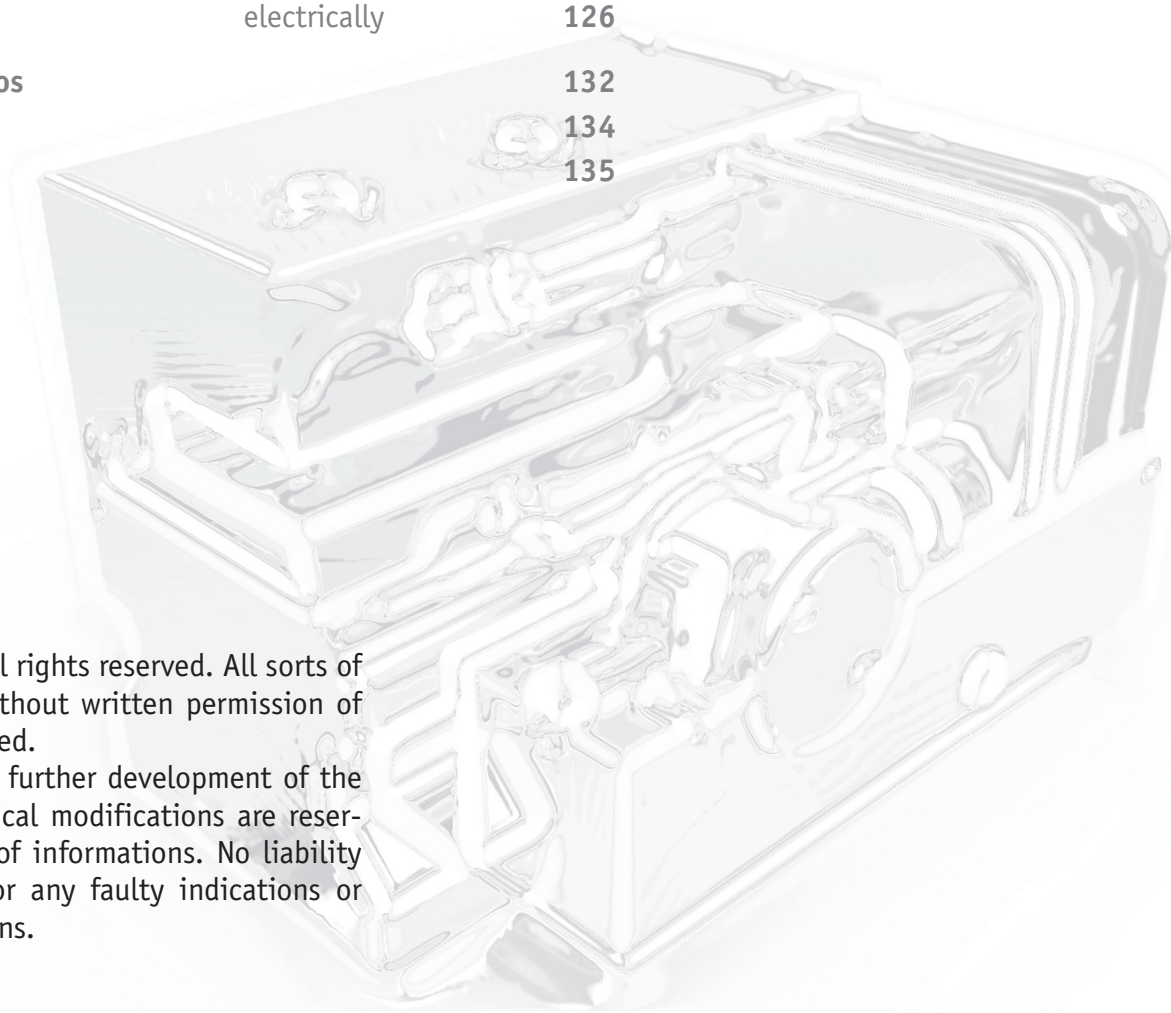
Clamping- and Braking Elements

for linear guides and piston rods

ZIMMER®
TECHNISCHE WERKSTÄTTEN

0812EN00K

Summary



Product Range

manually

clamping

pneumatically

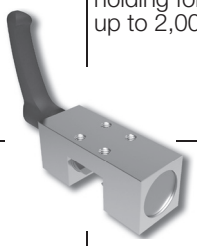
clamping

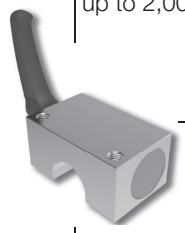
active

passive

braking

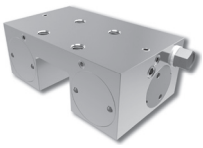
passive

HK
Page: 12
holding force up to 2,000 N

elementary, fail-safe

HKR
Page: 26
holding force up to 2,000 N

elementary, fail-safe

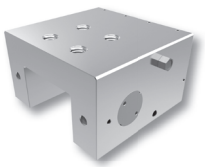
miniHK
Page: 30
holding force up to 220 N

small, powerful

MK
Page: 36
holding force up to 2,250 N

6 bar
high holding forces, low cost

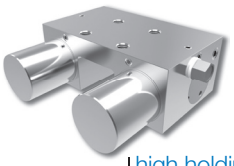
MKR
Page: 50
holding force up to 2,000 N

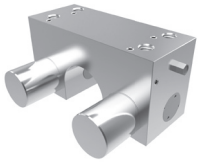
6 bar
high holding forces, low cost

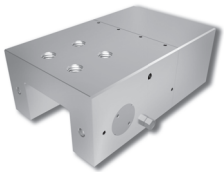
LKP
Page: 54
holding force up to 5,400 N

6 bar
narrow, low (S2)

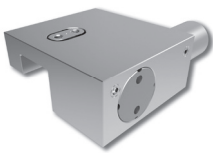
MCP
Page: 62
holding force up to 550 N

6 bar
small, powerful

MKS
Page: 36
holding force up to 3,000 N

5.5 bar
high holding forces, low cost

MKRS
Page: 50
holding force up to 1,700 N

5.5 bar
high holding forces, low cost

LKPS
Page: 54
holding force up to 3,600 N

5.5 bar
narrow, low (S2)

MCPS
Page: 62
holding force up to 400 N

5.5 bar
small, powerful

TPS
Page: 68
holding torque up to 1,000 Nm

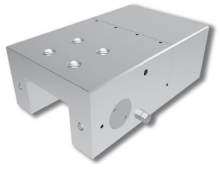
4 bar
active without pressure, flat design

MBPS
Page: 72
holding force up to 4,700 N

4 bar
high holding forces, low cost

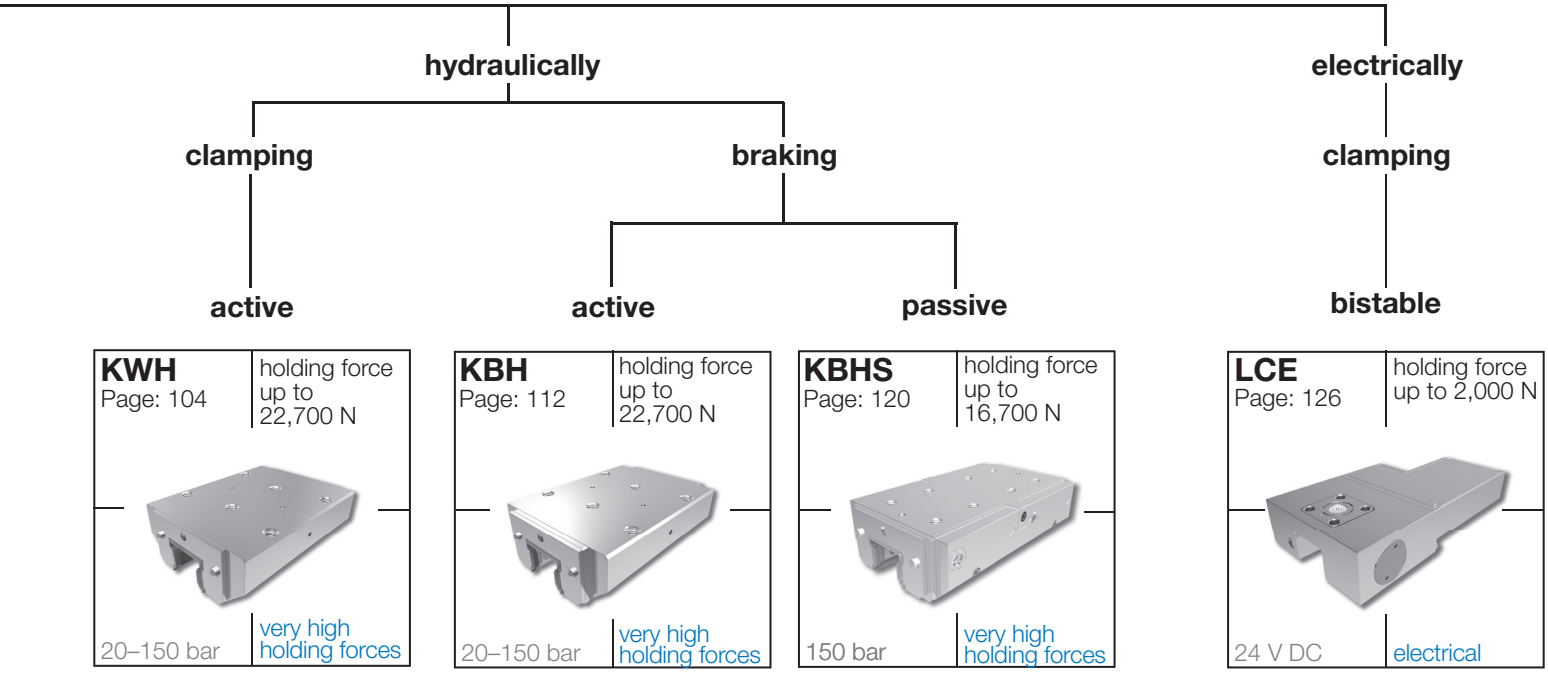
UBPS
Page: 82
holding force up to 9,200 N

6 bar
compact, maximum holding forces

LBPS
Page: 92
holding force up to 3,600 N

4 bar
narrow, low (S2)

RBPS
Page: 100
holding force up to 35,000 N

4 bar
compact, maximum holding forces



aktive:	elements are open without pressure
passiv:	elements are closed without pressure
bistabil:	elements remain in present condition

Powerful, durable, innovative and unique:

Zimmer® Clamping and Braking Elements for linear positioning applications.

Our products have been thoroughly developed and tested for tough, industrial applications. Our aim is not only to optimise products and adapt them to new requirements, we also want to open up new applications through innovative developments.

Our construction series feature a number of special characteristics which are typical of all Zimmer® developments.

High performance, maximum quality.

Zimmer® clamping and braking elements offer a new and innovative approach for positioning, holding and stopping applications. Here are some of the key benefits:

- **Small size with incredible holding force**
- **No relative movement for the workpiece**
- **No active clamping forces on the guide carriage**
- **High positioning accuracy**
- **High rigidity**
- **Long lifecycle**
- **Easy to install**
- **Excellent value**
- **Custom solutions available on request**
- **Series with special friction coating for brake lining material**

Our staff are highly qualified, motivated and consistently ensure the high quality of our products. Naturally we are ISO 9001 and ISO 14001:2004 certified.

We look forward to servicing your clamping and braking needs and if required could arrange a visit at your facility or ours.

✆ +49.7844.9138-0
www.zimmer-gmbh.com

Clamping, Braking and Areas of Use

The MK/MKS/MKR/MKRS/MBPS/UBPS series are built with two parallel (synchronous) wedge slide gears, which means the lifting movements of the contact sections can be carried out from either side. Relative movements resulting from the clamping process are therefore not expected to occur. Care must however be taken to ensure the connection design is correct.

The KWH/KBH/MCP/MCPS/LCE/HK/HKR/mini**HK** series are mounted on floating bearings and so no lateral forces are exerted on the connection design during the clamping process.
The friction connection between the clamping element and the linear guide is created at the free surfaces of the guide rails without causing wear and tear on the rails.

Series MK/MKS/MKR/MKRS/MCP/MCPS/KWH/HK/HKR and mini**HK** are designed exclusively for static clamping processes.

Because they feature the appropriate contact sections, the MBPS/UBPS/KBH/KBHS and RBPS series are also suitable for dynamic use (brakes).

Pneumatic Connections

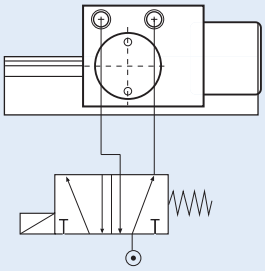
Clean, lubricated compressed air must be used for all pneumatic elements. The recommended filter size is 25 µm. The cable cross-section for the elements should be as large as possible to match the air supply connection. Smaller cross-sections reduce the response and reaction times of the elements. The feed line should be kept as short as possible.

In principle, all conventional pneumatic valves are suitable. The reaction time for the corresponding valve should be obtained from the respective manufacturer, especially when the valve is employed as a brake or as a safety device against falling.

Higher Supporting Forces by PLUS Connection

The holding force of the elements MKS/UBPS and MCPS can be increased by way of pressure support from the spring-loaded energy storage and insertion of a 5/2 (overflow-free) or 5/3 directional valve. In this case, the ventilation filter is replaced by connection of a second pneumatic line.

In case of use as a safety element, it should be noted that the higher holding force (PLUS connection) can only be achieved through additional charging with available pneumatic pressure.



Hydraulic Connections

The hydraulic clamping elements are prefilled with HLP 46 at the factory. The hydraulic connection is available on both sides, however one connection is sufficient for operation. Special care must be taken when exposing the rigid and flexible hydraulic inlet pipes to air, since airlocks can damage the sealing elements.

Connection Design, Installation of the Clamping Elements

To avoid adverse effects such as permanent rubbing on the linear guide, the connection must be designed strictly according to the load taken and requirements made. Any inclination of the clamping elements can cause rubbing, wear and tear, and thus damage to the linear guide rails.
Factory presetting is adjusted for the linear guide and must not be altered during installation. Always observe the installation instructions for the clamping and brake elements and for the linear guides.
Some spring-loaded elements are equipped with a transport securing device between the contact sections. This must be removed during installation by charging the element with pressure. When the pressure is removed, the transport securing device or linear guide must always lie between the contact sections.

The clamping elements have no guiding function. Replacement of a guide carriage by a clamping element is therefore not possible. The ideal position of the clamping element is between two guide carriages.
When several clamping elements are used, they should be distributed evenly on both guide rails to achieve maximum rigidity of the overall construction.

You can find additional installation notes at www.zimmer-gmbh.com under "Product choice".

Lubrication

If the prescribed pressure medium is used, subsequent lubrication is not required.

Surface Protection

All clamping housings are chemically nickelled and thus offer limited rust protection. Parts made from aluminium are chemically nickelled or hard-anodized, according to requirements.

B10d value

The B10d value indicates the number of operating cycles required to turn out 10% of the products.

✆ +49.7844.9138-0
www.zimmer-gmbh.com

Theoretical calculation of the braking distance

Example: Two guide carriages and a UBPS braking element (size 45)

A (number of braking elements)	= 1	v_0 (initial speed)	= 2 m/s
F (holding force of braking element)	= 3,700 N	μ_G (dynamic friction)	= 0.06
t_R (reaction time)	= 0.06 s	μ_G (static friction)	= 0.1
t_R (response time)	= 0.01 s	g (weight)	= 9.81 m/s²
m (mass)	= 50 kg		

The values for μ_G and μ_R are based on serial tests and many years of industrial experience. However, due to particular environmental conditions, different results may occur. The values t_R and t_A refer to measured test values.

Stopping distance (horizontal deployment)

The stopping distance is the theoretical, anticipated distance required to bring a known mass travelling at a defined speed to a standstill. During braking kinetic energy is converted into friction energy.

In addition, the braking distance is extended by the distance required by the overall system to apply the brakes. Short hose lines, fast valves and clean rails shorten the pathways.

Energy formulas:

$$W_{Kin} = \frac{1}{2} m \times v_0^2$$

$$W_{Fric} = F \times A \times \frac{\mu_G}{\mu_H} \times S_B$$

$$W_{Kin} = W_{Fric}$$

Braking distance S_B:

$$S_B = \frac{m \times v_0^2}{2 \times F \times A \times \frac{\mu_G}{\mu_H}} = \frac{50kg \times (2\,\frac{m}{s})^2}{2 \times 3{,}100N \times 1 \times \frac{0.06}{0.1}} = 0.054m$$

Reaction distance + response distance S_R:

$$S_R = v_0 \times (t_R + t_A) = 2\,\frac{m}{s} \times (0.06s + 0.01s) = 0.14m$$

Stopping distance S_H:

$$S_H = S_B + S_R = 0.054m + 0.14m = 0.194m$$

Stopping distance (vertical deployment)
Vertical deployment speeds up the system until the element is triggered and braking is applied. The holding force is reduced by the weight.

Speed at start of brake application V_{brake}:

$$V_{brake} = v_0 + g \times (t_R + t_A) = 2\,\frac{m}{s} + 9.81\,\frac{m}{s^2} \times (0.06s + 0.01s) = 2.69\,\frac{m}{s}$$

Braking distance S_B:

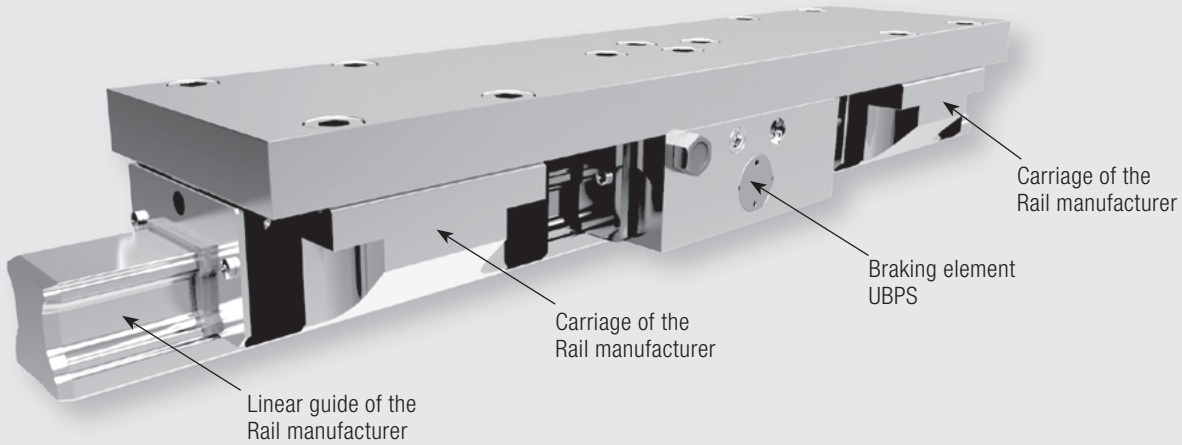
$$S_B = \frac{m \times v^2_{brake}}{2 \times ((F \times A \times \frac{\mu_G}{\mu_H}) - m \times g)} = \frac{50kg \times (2.69\,\frac{m}{s})^2}{2 \times ((3{,}100N \times 1 \times \frac{0.06}{0{,}1}) - 50kg \times 9.81\,\frac{m}{s^2})} = 0.112m$$

Reaction distance + response distance S_R:

$$S_R = v_0 \times (t_R + t_A) + \frac{1}{2} \times g \times (t_R + t_A)^2 = 2\,\frac{m}{s} \times (0.06s + 0.01s) + \frac{1}{2} \times 9.81\,\frac{m}{s^2} \times (0.06s + 0.01s)^2 = 0.164m$$

Stopping distance S_H:

$$S_H = S_B + S_R = 0.112m + 0.164m = 0.276m$$



During installation of the axis, with the brakes, the applicable machinery directives must be followed. Please contact us for help with the installation!

Part Number Explanation

Number codes for construction series:

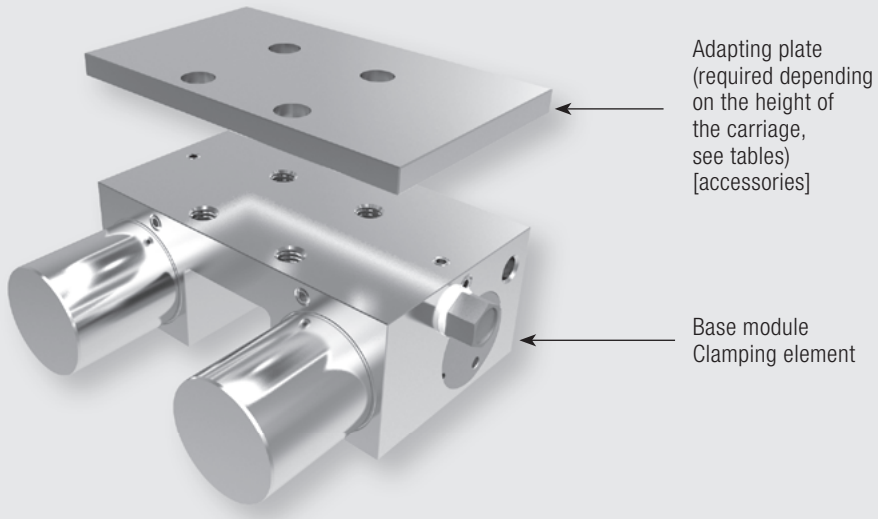
- ➜ **MK/MKS**
- ➜ **MKR/MKRS**
- ➜ **MCP/MCPS**
- ➜ **HK**
- ➜ **miniHK**
- ➜ **HKR**
- ➜ **RBPS**
- ➜ **TPS**

Series	Spring-loaded energy storage	Installation size	Manufacturer of linear guide	Rail variation		Adapting plate
M K	S	3 5	0 3	M R	+	PMK 35-7 [accessories]

Example: ordering our MK/MKS series.
The tables on the overview pages contain the part numbers of the elements as well as (if required) the part number of the appropriate adapting plate (accessories).
Please include both part numbers if an adapting plate is required.

You will find sizes and outlines underneath each particular construction series.

Example
(MKS series)



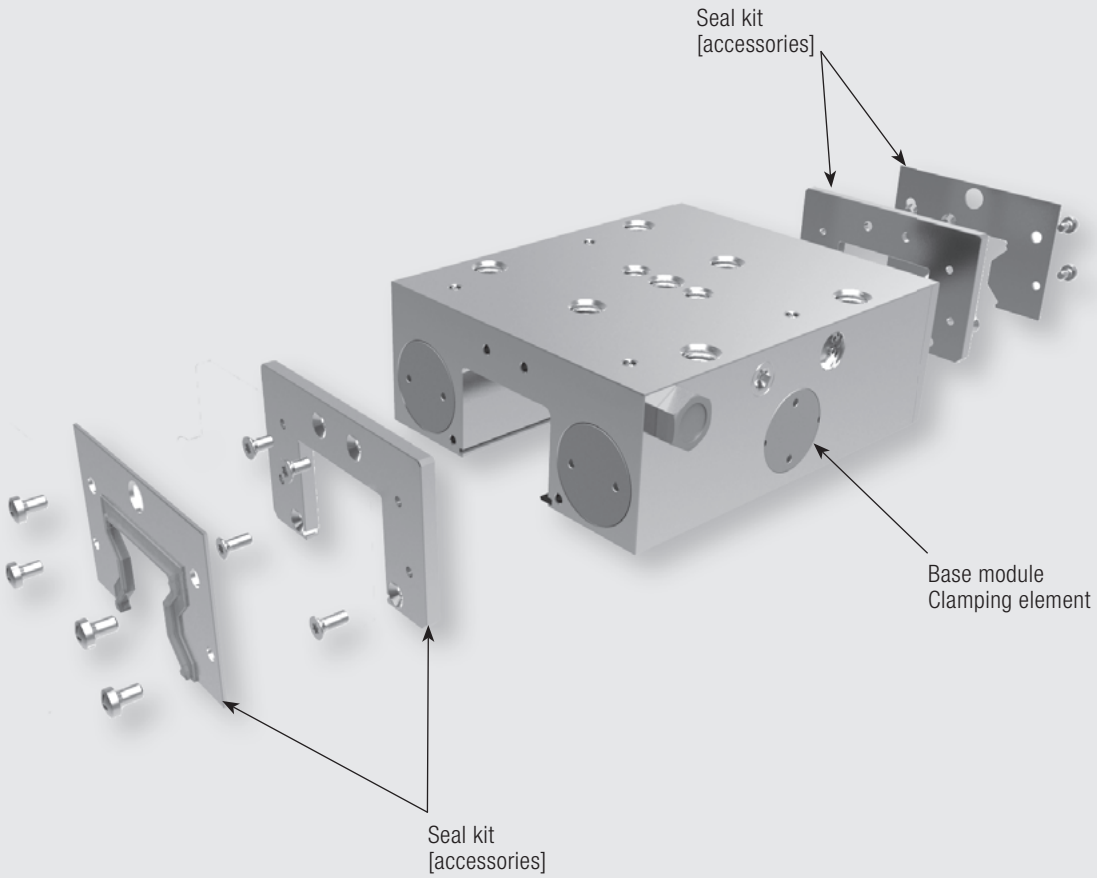
Series	Pressure medium Spring-loaded energy storage	Installation size	Manufacturer of linear guide	Rail variation	Type of carriage*	Distance plate Seal kit
U B	P S	3 5	0 1	A	S 1 (L)	A [accessories]

Example: ordering our UBPS series.
The tables on the overview pages already contain complete order numbers, except for the seal kit.
If the seal kit is required, add the letter A to the order number.
Our KBHS series is only available with the seal kit!
Our LCE series is only available without the seal kit!
Dimensions and elevation drawings can be found with the relevant series.

Number codes for construction series:

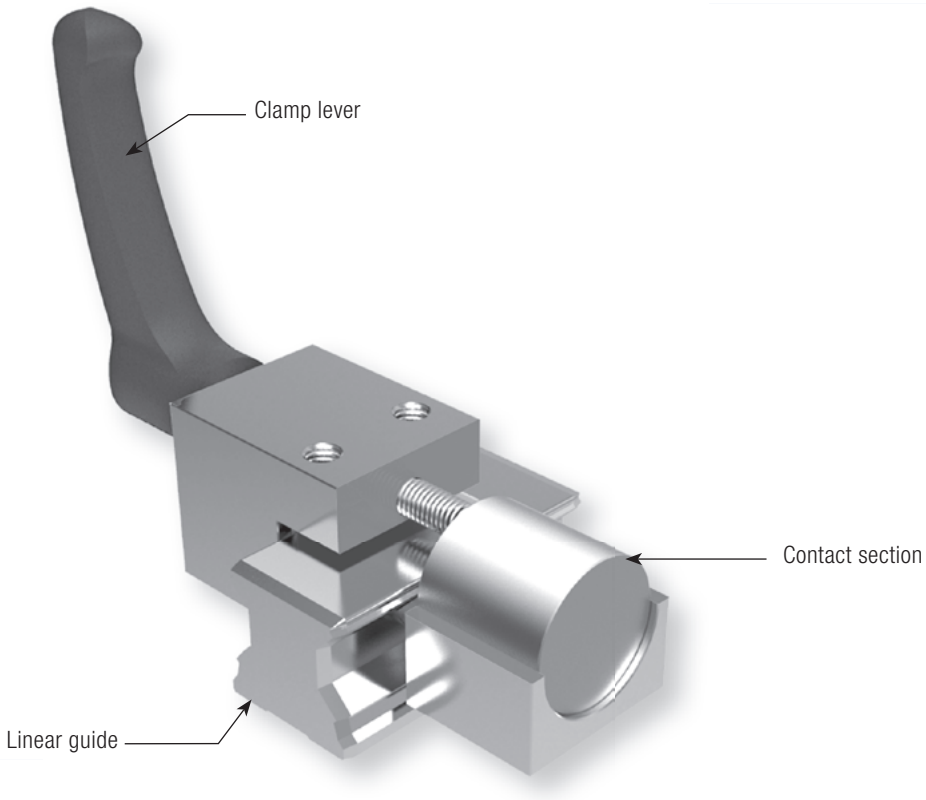
- ➜ **MBPS**
- ➜ **UBPS**
- ➜ **KWH**
- ➜ **KBH**
- ➜ **LKP/LKPS**
- ➜ **LBPS**
- ➜ **KBHS**
- ➜ **LCE**

Example
(UBPS series)



* Rail carriage according to DIN645-1: S1 (flange carriage), S2 (narrow and low block) und S3 (narrow and high block).

HK

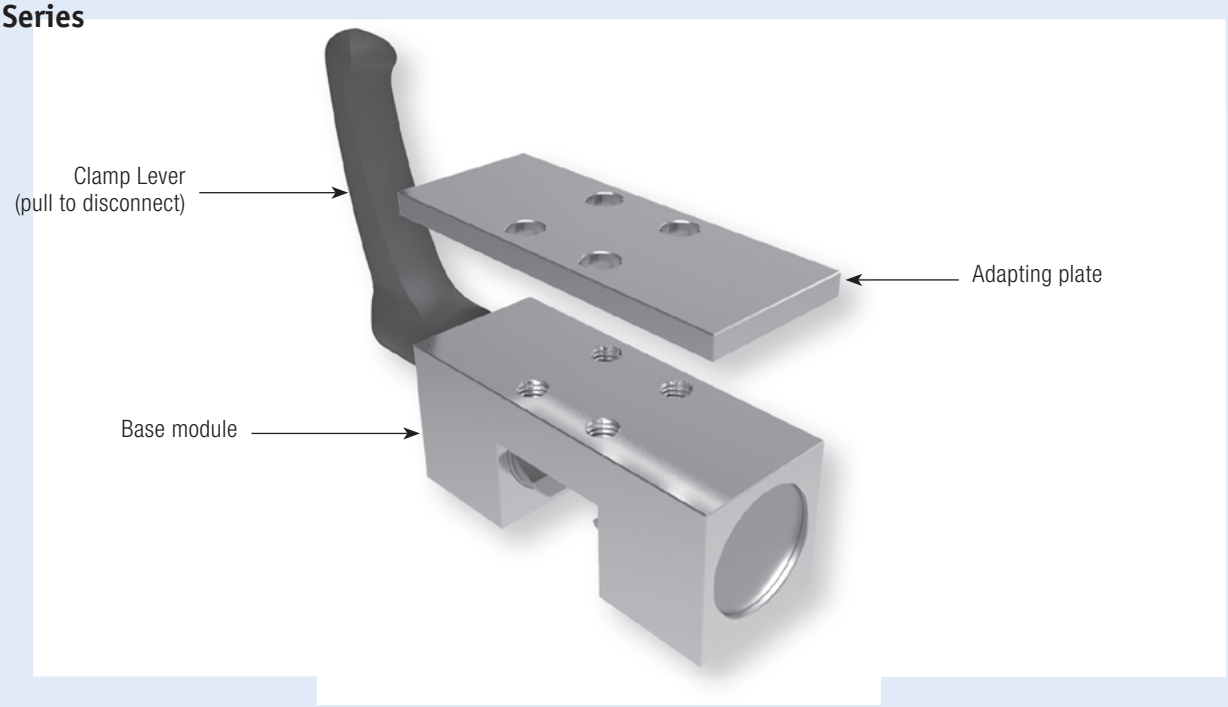


Simple and Reliable:
The manual Clamping Element **HK**

The HK series is a manually operated clamping element. By rotating the freely adjustable clamp lever, the contact sections are pressed synchronously against the free surfaces of the section rail guide.

The floating contact sections guarantee symmetric power transmission.

HK Series



Technical data for HK series:

Rail size	12–100
Holding forces	1,200N–2,000N
Fastening torque	4 Nm–17 Nm
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	50,000 (B10d - value)
Braking cycles	unsuitable

Application scenarios for HK:
- Table traverses and carriages
- Adjustment of width and stops
- Positioning of optic instruments and measuring tables

Accessories adapting plate for HK:
Depending on the height of the carriage (measure D), an additional adapting plate is required (see table from page 14).

Operation for HK:
Standard with hand lever. Other operation options available on request, e.g. a DIN 912 screw.

✆ +49.7844.9138-0
www.zimmer-gmbh.com

HK

Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 24 and 25]
SR, SSR	15	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	HK 1501 A		24	3
	20	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	HK 2001 A		28	8
	25	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	HK 2501 A		33	17
	30	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM	HK 3001 A		42	28
	35	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW	HK 3501 A	PMK 35-4	48	31
	45	SR..W, SR..TB	HK 4501 A		60	43
	55	SR..W, SR..TB	HK 5501 S		68	48
HSR	15	HSR..A, HSR..AM, HSR..B, HSR..BM, HSR..C	HK 1501 A		24	3
		HSR..R, HSR..RM, HSR..YR, HSR..YRM	HK 1501 A	PHK 15-4	28	
	20	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..M, HSR..LB, HSR..LBM, HSR..C, HSR..R, HSR..RM, HSR..R, HSR..LRM, HSR..YR, HSR..YRM, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	HK 2001 A		30	11
	25	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	HK 2501 A		36	21
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	HK 2501 A	PHK 25-4	40	
	30	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	HK 3001 A		42	28
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	HK 3001 A	PHK 30-3	45	
	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	HK 3501 A		48	35
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	HK 3501 A	PMK 35-7	55	
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	HK 4501 A		60	43
		HSR..R, HSR..LR, HSR..YR	HK 4501 A	PHK 45-10	70	
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	HK 5501 A		70	62
		HSR..R, HSR..LR, HSR..YR	HK 5501 A	PHK 55-10	80	
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB, HSR..R, HSR..LR, HSR..YR	HK 6501 A		90	53
	85	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB, HSR..R, HSR..LR	✆		110	✆
GSR	15	GSR..T, GSR..V	HK 1501 G		20	58
	20	GSR..T, GSR..V	HK 2001 G		24	59
	25	GSR..T, GSR..V	HK 2501 G		30	60
	30	GSR..T	HK 3001 G		33	57
	35	GSR..T	HK 3501 G		38	61
HRW	17	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	HK 1701 B		17	39
	21	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	HK 2101 B		21	23
	27	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	HK 2701 B		27	24
	35	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	HK 3501 B		35	45
	50	HRW..CA, HRW..CR	HK 5001 B		50	50
	60	HRW..CA	✆		60	✆
SHW	17	SHW..CAM, SHW..CRM, SHW..HRM	HK 1701 B		17	39
	21	SHW..CAM, SHW..CRM	HK 2101 B		21	23
	27	SHW..CA, SHW..CR	HK 2701 B		27	24
	35	SHW..CA, SHW..CR	HK 3501 B		35	45
	50	SHW..CA, SHW..CR	HK 5001 B		50	50
SHS	15	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 1501 A	PHK 15-2	24	1
		SHS..R	HK 1501 A	PHK 15-6	28	
	20	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 2001 A	PHK 20-2	30	8
	25	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 2501 A	PHK 25-2	36	19
		SHS..R, SHS..LR	HK 2501 A	PHK 25-6	40	
	30	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 3001 A		42	28
		SHS..R, SHS..LR	HK 3001 A	PHK 30-3	45	
	35	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 3501 A	PMK 35-4	48	31
		SHS..R, SHS..LR	HK 3501 A	PMK 35-11	55	
	45	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 4501 A		60	43
		SHS..R, SHS..LR	HK 4501 A	PHK 45-10	70	
	55	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 5501 A	PHK 55-4	70	65
		SHS..R, SHS..LR	HK 5501 A	PHK 55-14	80	
	65	SHS..C, SHS..LC, SHS..V, SHS..LV	HK 6501 A		90	53

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *[1]	[page 24 and 25]
SNR, SNS	25	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	HK 2501 N		31	13
	30	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	HK 3001 A		38	25
	35	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	HK 3501 A		44	31
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH		PMK 35-4	48	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH		PMK 35-11	55	
	45	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	HK 4501 A		52	40
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH		PHK 45-8	60	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH		PHK 45-18	70	
	55	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	HK 5501 A		63	46
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH		PHK 55-7	70	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH		PHK 55-17	80	
	65	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	HK 6501 N		75	52
	85	SNR..LR, SNR..LC, SNS..LR, SNS..LC	✆		90	✆
NR, NRS	25	NR..XR, NR..XLR, NR..XA, NR..XLA, NR..XB, NR..XLB, NRS..XR, NR S..XLR, NRS..XA, NRS..XLA, NRS..XB, NRS..XLB	HK 2501 N		31	13
	30	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	HK 3001 A		38	25
	35	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	HK 3501 A		44	31
	45	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	HK 4501 A		52	40
	55	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	HK 5501 A		63	46
	65	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	HK 6501 N		75	52
	85	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	✆		90	✆
SRG	15	SRG..A, SRG..V	✆		24	
	20	SRG..A, SRG..LA, SRG..V, SRG..LV	✆		30	
	25	SRG..C, SRG..LC	HK 2501 E		36	20
		SRG..R, SRG..LR	HK 2501 E	PHK 25-4	40	
	30	SRG..C, SRG..LC	HK 3001 E		42	27
		SRG..R, SRG..LR	HK 3001 E	PHK 30-3	45	
	35	SRG..C, SRG..LC	HK 3501 E		48	33
		SRG..R, SRG..LR	HK 3501 E	PMK 35-7	55	
	45	SRG..C, SRG..LC	HK 4501 E		60	42
		SRG..R, SRG..LR	HK 4501 E	PHK 45-10	70	
	55	SRG..C, SRG..LC	HK 5501 E		70	47
		SRG..R, SRG..LR	HK 5501 E	PHK 55-10	80	
	65	SRG..LC, SRG..LV	HK 6501 E		90	51
HCR	15	HCR 15A +60/150R	HK 1501/150		24	3
		HCR 15A +60/300R				
		HCR 15A +60/400R				
	25	HCR 25A +60/500R	HK 2501/1000		36	21
		HCR 25A +60/750R				
		HCR 25A +60/1000R				
		HCR 25A +60/1600R				
	35	HCR 35A +60/600R	HK 3501/1000		48	56
		HCR 35A +60/800R				
		HCR 35A +60/1000R				
		HCR 35A +60/1300R				
	45	HCR 45A +60/800R	✆		60	✆
		HCR 45A +60/1000R				
		HCR 45A +60/1200R				
		HCR 45A +60/1600R				
	65	HCR 65A +60/1000R	✆		90	✆
		HCR 65A +60/1500R				
		HCR 65A +60/2000R				
		HCR 65A +45/2500R				

*[1] Supplements the measure table and datasheet

See page 10 for part number explanation

HK

Rail manufacturer

Rexroth
Bosch Group

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 24 and 25]
R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	15	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	HK 1505 KR		24	2
		R1621	HK 1505 KR	PHK 15-4	28	
	20	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	HK 2005 KR		30	10
	25	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	HK 2505 KR		36	20
		R1621, R1624	HK 2505 KR	PHK 25-4	40	
	30	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	HK 3005 KR		42	27
		R1621, R1624	HK 3005 KR	PHK 30-3	45	
	35	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	HK 3505 KR		48	33
		R1621, R1624	HK 3505 KR	PMK 35-7	55	
	45	R1622, R1623, R1651, R1653	HK 4505 KR		60	42
		R1621, R1624	HK 4505 KR	PHK 45-10	70	
	55	R1622, R1623, R1651, R1653	HK 5505 KR		70	47
		R1621, R1624	HK 5505 KR	PHK 55-10	80	
	65	R1622, R1623, R1651, R1653	HK 6505 KR		90	51
R1675, R1677	20	R1671, R1672	HK 2005 KB		27	49
	25	R1671, R1672	HK 2505 KB		35	38
	35	R1671	HK 3505 KB		50	50
R1805, R1807	25	R1851, R1853	HK 2505 KR		36	20
		R1821, R1824	HK 2505 KR	PHK 25-4	40	
	35	R1851, R1853	HK 3505 KR		48	33
		R1821, R1824	HK 3505 KR	PMK 35-7	55	
	45	R1851, R1853	HK 4505 KR		60	42
		R1821, R1824	HK 4505 KR	PHK 45-10	70	
	55	R1851, R1853	HK 5505 KR		70	47
		R1821, R1824	HK 5505 KR	PHK 55-10	80	
	65	R1824, R1851, R1853	HK 6505 KR		90	51

Rail manufacturer

SCHNEEBERGER
LINEAR TECHNOLOGY

MRS	25	MRW..A, MRW..B	HK 2503 MR		36	20
		MRW..C, MRW..D, MRW..E	HK 2503 MR	PHK 25-4	40	
	35	MRW..A, MRW..B	HK 3503 MR		48	33
		MRW..C, MRW..D, MRW..E	HK 3503 MR	PMK 35-7	55	
	45	MRW..A, MRW..B	HK 4503 MR		60	42
		MRW..C, MRW..D	HK 4503 MR	PHK 45-10	70	
	55	MRW..A, MRW..B	HK 5503 MR		70	47
		MRW..C, MRW..D	HK 5503 MR	PHK 55-10	80	
	65	MRW..B, MRW..D	HK 6501 A		90	51
	100	MRW..B	✆		120	✆
BMS	15	BMW..A, BMW..F	HK 1503 BM		24	2
		BMW..C	HK 1503 BM	PHK 15-4	28	
	20	BMW..A, BMW..B, BMW..C, BMW..D,	HK 2003 BM		30	10
	25	BMW..A ,BMW..B, BMW..F, BMW..G	HK 2503 BM		36	20
		BMW..C, BMW..D, BMW..E	HK 2503 BM	PHK 25-4	40	
	30	BMW..A ,BMW..B, BMW..F, BMW..G	HK 3003 BM		42	27
		BMW..C, BMW..D, BMW..E	HK 3003 BM	PHK 30-3	45	
	35	BMW..A ,BMW..B, BMW..F, BMW..G	HK 3503 BM		48	33
		BMW..C, BMW..D, BMW..E	HK 3503 BM	PMK 35-7	55	
	45	BMW..A ,BMW..B	HK 4503 BM		60	42
		BMW..C, BMW..D	HK 4503 BM	PHK 45-10	70	

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer
IKO

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 24 and 25]
LWH	12	LWHT, LWHT..SL	✆		19	✆
		LWHDC..SL, LWHD, LWHD..SL, LWHDG..SL	✆		20	✆
	15	LWH..B, LWH..SL, LWH..M, LWHT..B, LWHT..SL, LWHT..M, LWHS..B, LWHS..SL, LWHS..M	HK 1501 A		24	3
		LWHD..B, LWHD..M, LWHY	HK 1501 A	PHK 15-4	28	
	20	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG, LWHY	HK 2001 A		30	11
	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	HK 2501 A		36	21
		LWHD..B, LWHD..M, LWHDG, LWHY	HK 2501 A	PHK 25-4	40	
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	HK 3001 A		42	28
		LWHD..B, LWHD..M, LWHDG, LWHY	HK 3001 A	PHK 30-3	45	
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	HK 3501 A		48	35
		LWHD..B, LWHD..M, LWHDG, LWHY	HK 3501 A	PMK 35-7	55	
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	HK 4501 A		60	43
		LWHD..B, LWHD..M, LWHDG, LWHY	HK 4501 A	PHK 45-10	70	
	55	LWH..B, LWHG, LWHT..B, LWHTG	HK 5501 A		70	62
		LWHD..B, LWHDG, LWHY	HK 5501 A	PHK 55-10	80	
	65	LWH..B, LWHG, LWHT..B, LWHTG, LWHD..B, LWHDG, LWHY	HK 6501 A		90	53
	85	LWHG, LWHTG	✆		110	✆
MH	12	MHT, MHT..SL	✆		19	✆
		MHDC..SL, MHD, MHD..SL, MHDG..SL	✆		20	✆
	15	MH, MHT, MHS	HK 1501 A		24	3
		MHD	HK 1501 A	PHK 15-4	28	
	20	MH, MHG, MHT, MHTG, MHS, MHSG	HK 2001 A		30	11
	25	MH, MHG, MHT, MHTG, MHS, MHSG	HK 2501 A		36	21
		MHD, MHDG	HK 2501 A	PHK 25-4	40	
	30	MH, MHG, MHT, MHTG, MHS, MHSG	HK 3001 A		42	28
		MHD, MHDG	HK 3001 A	PHK 30-3	45	
	35	MH, MHG, MHT, MHTG	HK 3501 A		48	35
		MHD, MHDG	HK 3501 A	PMK 35-7	55	
	45	MH, MHG, MHT, MHTG	HK 4501 A		60	43
		MHD, MHDG	HK 4501 A	PHK 45-10	70	
LRX	12	LRXC, LRX, LRXG	✆		19	✆
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	✆		20	✆
	15	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	HK 1510 B		24	5
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	HK 1510 B	PHK 15-4/01	28	
	20	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	HK 2010 B		30	10
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	HK 2010 B	PHK 20-4	34	
	25	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	HK 2514 A		36	63
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	HK 2501 A		40	22
	30	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	HK 3001 A		42	28
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	HK 3001 A		45	29
	35	LRXC, LRX, LRXG	HK 3501 A		48	35
		LRXDC, LRXD, LRXDG	HK 3501 A	PMK 35-7	55	
	45	LRXC, LRX, LRXG	HK 4501 A		60	43
		LRXDC, LRXD, LRXDG	HK 4501 A	PHK 45-10	70	
	55	LRXC, LRX, LRXG	HK 5501 A		70	62
		LRXDC, LRXD, LRXDG	HK 5501 A	PHK 55-10	80	
	65	LRXC, LRX, LRXG, LRXDC, LRXD, LRXDG	HK 6501 A		90	51
	85	LRX, LRXG	✆		110	✆
	100	LRXG	✆		120	✆
MX	15	MXC, MX, MXG, MXSC, MXS, MXSG	HK 1510 B		24	5
		MXDC, MXD, MXDG	HK 1510 B	PHK 15-4/01	28	
	20	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	HK 2010 B		30	10
		MXDC, MXD, MXDG, MXDL	HK 2010 B	PHK 20-4	34	
	25	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	HK 2514 A		36	63
		MXDC, MXD, MXDG, MXDL	HK 2501 A		40	22
	30	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	HK 3001 A		42	28
		MXDC, MXD, MXDG, MXDL	HK 3001 A		45	29
	35	MXN, MXNG, MXNS, MXNSG	✆		44	✆
		MXC, MX, MXG, MXL	HK 3501 A		48	35
	45	MXN, MXNG, MXNS, MXNSG	✆		52	✆
		MXC, MX, MXG, MXL	HK 4501 A		60	43
	55	MXN, MXNG, MXNS, MXNSG	✆		63	✆
		MXC, MX, MXG	HK 5501 A		70	62
	65	MXC, MX, MXG	HK 6510 R		90	44

LRX: for rail use with cover sheet please contact us!
*1 Supplements the measure table and datasheet

See page 10 for part number explanation

✆ +49.7844.9138-0
www.zimmer-gmbh.com

HK

Rail manufacturer

IKO

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 24 and 25]
LWE	15	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	HK 1501 A		24	3
	20	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	HK 2001 A		28	8
	25	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	HK 2501 A		33	17
	30	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	HK 3001 A		42	28
	35	LWE..Q, LWET..Q, LWES..Q, LWEC, LWE, LWETC, LWET, LWESC, LWES	HK 3501 A		48	35
	45	LWE, LWET, LWES	HK 4501 A		60	43
ME	15	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MH, MHT, MHS	HK 1501 A		24	3
		MHD	HK 1501 A	PHK 15-4	28	
	20	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC.. SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	HK 2001 A		28	8
		MH, MHG, MHT, MHTG, MHS, MHSG	HK 2001 A	PHK 20-2	30	
	25	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	HK 2501 A		33	17
		MH, MHG, MHT, MHTG, MHS, MHSG	HK 2501 A	PHK 25-3	36	
		MHD, MHDG	HK 2501 A	PHK 25-7	40	
	30	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MH, MHG, MHT, MHTG, MHS, MHSG	HK 3001 A		42	28
		MHD, MHDG	HK 3001 A		45	29
	35	MEC, ME, METC, MET, MESC, MES, MH, MHG, MHT, MHTG	HK 3501 A		48	35
		MHD, MHDG	HK 3501 A	PMK 35-7	55	
	45	ME, MET, MES, MH, MHG, MHT, MHTG	HK 4501 A		60	43
		MHD, MHDG	HK 4501 A	PHK 45-10	70	

Rail manufacturer

INA

TKD (KUE)	15	KWE	HK 1501 A		24	3
		KWE..-H	HK 1501 A	PHK 15-4	28	
	20	KWE, KWE..-H	HK 2001 A		30	11
	25	KWE	HK 2501 A	PHK 25-4	36	15
		KWE..-H	HK 2501 A	PHK 25-8	40	
	30	KWE	HK 3001 A	PHK 30-4	42	25
		KWE..-H	HK 3001 A	PHK 30-7	45	
	35	KWE	HK 3501 A	PMK 35-8	48	30
		KWE..-H	HK 3501 A	PMK 35-15	55	

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer

INA

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *[1]	[page 24 and 25]
TKVD (KUVE)	15	KWVE..-B, KWVE..-B-EC, KWVE..-B-ESC, KWVE..-B-S	HK 1502 K		24	3
		KWVE..-B-H	HK 1502 K	PHK 15-4	28	
	20	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-H	HK 2002 K		30	12
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	HK 2002 K		27	7
		KWVE..-B-EC, KWVE..-B-ESC	HK 2002 K		28	9
	25	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-HS, KWVE..B-S-HS	HK 2502 K	PHK 25-4	36	16
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL, KWVE..-B-N-HS, KWVE..B-SN-HS	HK 2502 K		31	14
		KWVE..-B-EC, KWVE..-B-ESC	HK 2502 K		33	18
		KWVE..-B-H, KWVE..-B-HL, KWVE..B-H-HS	HK 2502 K	PHK 25-7	40	
	30	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	HK 3002 K		42	28
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	HK 3002 K		38	25
		KWVE..-B-H, KWVE..-B-HL	HK 3002 K	PHK 30-3	45	28
	35	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	HK 3502 K	PMK 35-4	48	31
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	HK 3502 K		44	
		KWVE..-B-H, KWVE..-B-HL	HK 3502 K	PMK 35-11	55	
	45	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	HK 4502 K		60	41
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	HK 4502 K		52	64
		KWVE..-B-H, KWVE..-B-HL	HK 4502 K	PHK 45-10	70	41
	55	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL	✆		70	✆
TKSD (KUSE)	20	KWSE, KWSE..-L, KWSE..-H, KWSE..-HL	HK 2001 A		30	11
	25	KWSE, KWSE.. -L	HK 2501 A		36	21
		KWSE..-H, KWSE..-HL	HK 2501 A	PHK 25-4	40	
	30	KWSE, KWSE..-L	HK 3001 A		42	28
		KWSE..-H, KWSE..-HL	HK 3001 A	PHK 30-3	45	
	35	KWSE, KWSE..-L	HK 3501 A		48	35
	45	KWSE, KWSE..-L	HK 4501 A		60	43
TKVD..W (KUVE..W)	15	KWVE..-W	HK 1502 KB		21	4
	20	KWVE..-W, KWVE..-WL	HK 2002 KB		27	24
	25	KWVE..-W, KWVE..-WL	HK 2502 KB		35	37
	30	KWVE..-W	HK 3002 KB		42	54
	35	KWVE..-WL	HK 3502 KB		50	50
TSX..D (RUE)	25	RWU..-D-FE, RWU..-D-OE, RWU..-D-L-FE, RWU..-D-L-OE	HK 2502 R		36	21
		RWU..-D-H-FE, RWU..-D-H-OE, RWU..-D-HL-FE, RWU..-D-HL-OE	HK 2502 R	PHK 25-4	40	
	35	RWU..-E, RWU..-E-L	HK 3502 R		48	35
		RWU..-E-H, RWU..-E-HL	HK 3502 R	PMK 35-7	55	
	45	RWU..-E, RWU..-E-L	HK 4502 R		60	43
		RWU..-E-H, RWU..-E-HL	HK 4502 R	PHK 45-10	70	
	55	RWU..-E, RWU..-E-L	HK 5502 R		70	47
		RWU..-E-H, RWU..-E-HL	HK 5502 R	PHK 55-10	80	
	65	RWU..-E, RWU..-E-L	HK 6501 A		90	51
		RWU..-E, RWU..-E-L	HK 6501 A	PHK 65-10	100	

Rail manufacturer

NSK

LH	15	LAH..EMZ, LAH..GMZ	HK 1501 A		24	3
		LAH..ANZ, LAH..BNZ	HK 1501 A	PHK 15-4	28	
	20	LAH..EMZ, LAH..GMZ, LAH..ANZ, LAH..BNZ	HK 2001 A		30	11
	25	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	HK 2501 A		36	21
		LAH..ANZ, LAH..BNZ	HK 2501 A	PHK 25-4	40	
	30	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	HK 3001 A		42	28
		LAH..ANZ, LAH..BNZ	HK 3001 A	PHK 30-3	45	
	35	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	HK 3501 A		48	35
		LAH..ANZ, LAH..BNZ	HK 3501 A	PMK 35-7	55	
	45	LAH..EMZ, LAH..GMZ	HK 4501 A		60	43
		LAH..ANZ, LAH..BNZ	HK 4501 A	PHK 45-10	70	
	55	LAH..EMZ, LAH..GMZ	HK 5501 A		70	62
		LAH..ANZ, LAH..BNZ	HK 5501 A	PHK 55-10	80	
	65	LAH..EMZ, LAH..GMZ, LAH..ANZ, LAH..BNZ	HK 6501 A		90	53

*[1] Supplements the measure table and datasheet

See page 10 for part number explanation

HK

Rail manufacturer
NSK

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 24 and 25]
SH	15	SAH..EMZ, SAH..GMZ	HK 1501 A		24	3
		SAH..ANZ, SAH..BNZ	HK 1501 A	PHK 15-4	28	
	20	SAH..EMZ, SAH..GMZ, SAH..ANZ, SAH..BNZ	HK 2001 A		30	11
	25	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	HK 2501 A		36	21
		SAH..ANZ, SAH..BNZ	HK 2501 A	PHK 25-4	40	
	30	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	HK 3001 A		42	28
		SAH..ANZ, SAH..BNZ	HK 3001 A	PHK 30-3	45	
	35	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	HK 3501 A		48	35
		SAH..ANZ, SAH..BNZ	HK 3501 A	PMK 35-7	55	
LS	15	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	HK 1501 A	PHK 15-2	24	1
	20	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	HK 2001 A		28	8
	25	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	HK 2501 A		33	17
	30	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	HK 3001 A	PHK 30-4	42	25
	35	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	HK 3501 A		48	35
SS	15	SAS..KLZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	HK 1501 A	PHK 15-2	24	1
	20	SAS..KLZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	HK 2001 A		28	8
	25	SAS..KLZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	HK 2501 A		33	17
	30	SAS..KLZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	HK 3001 A	PHK 30-4	42	25
	35	SAS..KLZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	HK 3501 A		48	35
LW	17	LW..ELZ	HK 1701 B		17	39
	21	LW..ELZ	HK 2101 B		21	23
	27	LW..ELZ	HK 2701 B		27	24
	35	LW..ELZ	HK 3501 B		35	45
	50	LW..ELZ	HK 5001 B		50	50
RA	15	RA..AL, RA..BL, RA..EM, RA..GM	HK 1505 KR		24	2
		RA..AN, RA..BN	HK 1505 KR	PHK 15-4	28	
	20	RA..EM, RA..GM, RA..AN, RA..BN	✆		30	✆
	25	RA..AL, RA..BL, RA..EM, RA..GM	✆		36	✆
		RA..AN, RA..BN	HK 2501 A		40	22
	30	RA..AL, RA..BL, RA..EM, RA..GM	✆		42	✆
		RA..AN, RA..BN	✆		45	✆
	35	RA..AL, RA..BL, RA..EM, RA..GM	HK 3504 F		48	33
		RA..AN, RA..BN	HK 3504 F	PMK 35-7	55	
	45	RA..AL, RA..BL, RA..EM, RA..GM	HK 4504 F		60	42
		RA..AN, RA..BN	HK 4504 F	PHK 45-10	70	
	55	RA..AL, RA..BL, RA..EM, RA..GM	HK 5504 F		70	47
		RA..AN, RA..BN	HK 5504 F	PHK 55-10	80	
	65	RA..EM, RA..GM, RA..AN, RA..BN	HK 6504 F		90	51

Rail manufacturer
HIWIN®
Lineartechnologie

HGR..R, HGR..T	15	HGW..CC, HGL..CA, QHW..CC	HK 1501 A		24	3
		HGH..CA, QHH..CA	HK 1501 A	PHK 15-4	28	
	20	HGW..CC, HGW..HC, HGH..CA, HGH..HA, QHW..CC, QHW..HC, QHH..CA, QHH..HA	HK 2001 A	PHK 20-1	30	55
	25	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	HK 2501 A		36	21
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	HK 2501 A	PHK 25-4	40	
	30	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	HK 3001 A		42	28
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	HK 3001 A	PHK 30-3	45	
	35	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	HK 3501 A	PMK 35-3	48	32
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	HK 3501 A	PMK 35-10	55	
	45	HGW..CC, HGW..HC, HGL..CA, HGL..HA QHW..CC, QHW..HC	HK 4501 A		60	43
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	HK 4501 A	PHK 45-10	70	
	55	HGW..CC, HGW..HC, HGL..CA, HGL..HA	HK 5501 A		70	62
		HGH..CA, HGH..HA		PHK 55-10	80	
	65	HGW..CC, HGW..HC, HGH..CA, HGH..HA	HK 6501 A		90	53

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer
HIWIN®
Lineartechnologie

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *[1]	[page 24 and 25]
EGR..R, EGR..U, EGR..T	15	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	HK 1501 A	PHK 15-3	24	36
	20	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	HK 2001 A		28	8
	25	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	HK 2501 A	PHK 25-1	33	15
	30	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	HK 3001 A	PHK 30-4	42	25
	35	EGH...SA, EGH...CA, EGW...SC, EGW...CC	✆		48	✆
RG..T	15	RGW..CC	✆		24	✆
		RGH..CA	✆		28	✆
	20	RGW..CC, RGW..HC	✆		30	✆
		RGH..CA, RGH..HA	✆		34	✆
	25	RGW..CC, RGW..HC	HK 2503 MR		36	20
		RGH..CA, RGH..HA	HK 2503 MR	PHK 25-4	40	
	30	RGW..CC, RGW..HC	HK 3001 A		42	28
		RGH..CA, RGH..HA	HK 3001 A		45	29
	35	RGW..CC, RGW..HC	HK 3501 A		48	35
		RGH..CA, RGH..HA	HK 3501 A	PMK 35-7	55	
	45	RGW..CC, RGW..HC	HK 4501 A		60	43
		RGH..CA, RGH..HA	HK 4501 A	PHK 45-10	70	
	55	RGW..CC, RGW..HC	HK 5501 A		70	62
		RGH..CA, RGH..HA	HK 5501 A	PHK 55-10	80	
	65	RGW..CC, RGW..HC, RGH..CA, RGH..HA	HK 6501 A		90	53
WE	27	WEW..CC, WEH..CA	HK 2701 B		27	24
	35	WEW..CC, WEH..CA	HK 3501 B		35	45

Rail manufacturer
ROLLON

MRR	15	MRS, MRT..W, MRT..SW	HK 1501 A		24	3
		MRS..W	HK 1501 A	PHK 15-4	28	
	20	MRT..W, MRT..SW	HK 2006 A		28	26
		MRS, MRS..L, MRS..W, MRS..LW	HK 2006 A	PHK 20-2	30	
	25	MRT, MRT..S, MRT..W, MRT..SW, MRT..LW	HK 2514 A		33	34
		MRS, MRS..L, MRZ..W	HK 2501 A		36	21
		MRS..W, MRS..LW	HK 2501 A	PHK 25-4	40	
	30	MRS, MRS..L, MRT..W, MRT..SW, MRT..LW	HK 3001 A		42	28
		MRS..W, MRS..LW	HK 3001 A	PHK 30-3	45	
	35	MRS, MRS..L, MRT..W, MRT..SW, MRT..LW	HK 3501 A		48	35
		MRS..W, MRS..LW	HK 3501 A	PMK 35-7	55	
	45	MRS, MRS..L, MRT..W, MRT..LW	HK 4501 A		60	43
		MRS..W, MRS..LW	HK 4501 A	PHK 45-10	70	
	55	MCT..W, MCT..LW	X		68	X
		MCS, MCS..L	HK 5501 A		70	62
		MCS..W, MCS..LW	HK 5501 A	PHK 55-10	80	

*[1] Supplements the measure table and datasheet
X: not feasible

See page 10 for part number explanation

HK

Rail manufacturer

NTN SNR

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table
BG	15	BGCH..FN, BGCH..FL, BGCS..BS, BGCS..BN, BGCS..BL, BGXH..FN, BGXH..FL, BGXS..BS, BGXS..BN, BGXS..BL	HK 1501 A	PHK 15-2	24	1
		BGCH..BN, BGXH..BN	HK 1501 A	PHK 15-6	28	
	20	BGCS..BS, BGCS..BN, BGXS..BN, BGXS..BN	HK 2001 A		28	8
		BGCH..FN, BGCH..FL, BGCH..BN, BGCH..BL, BGCH..BE, BGXH..FN, BGXH..FL, BGXH..BN, BGXH..BL	HK 2001 A	PHK 20-2	30	
	25	BGCS..BS, BGCS..BN, BGXS..BS, BGXS..BN	HK 2501 A		33	17
		BGCH..FN, BGCH..FL, BGCH..FE, BGCX..BN, BGCX..BL, BGCX..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXX..BN, BGXX..BL, BGXX..BE	HK 2501 A	PHK 25-3	36	
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	HK 2501 A	PHK 25-7	40	
	30	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BL	HK 3001 A		42	28
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	HK 3001 A	PHK 30-3	45	
	35	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	HK 3501 A	PMK 35-4	48	31
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	HK 3501 A	PMK 35-11	55	
	45	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BN, BGXS..BL, BGXS..BE	HK 4501 A	PHK 45-6	60	6
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	HK 4501 A	PHK 45-16	70	
	55	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BN, BGXS..BL, BGXS..BE	HK 5501 A	PHK 55-4	70	65
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	HK 5501 A	PHK 55-14	80	

Rail manufacturer

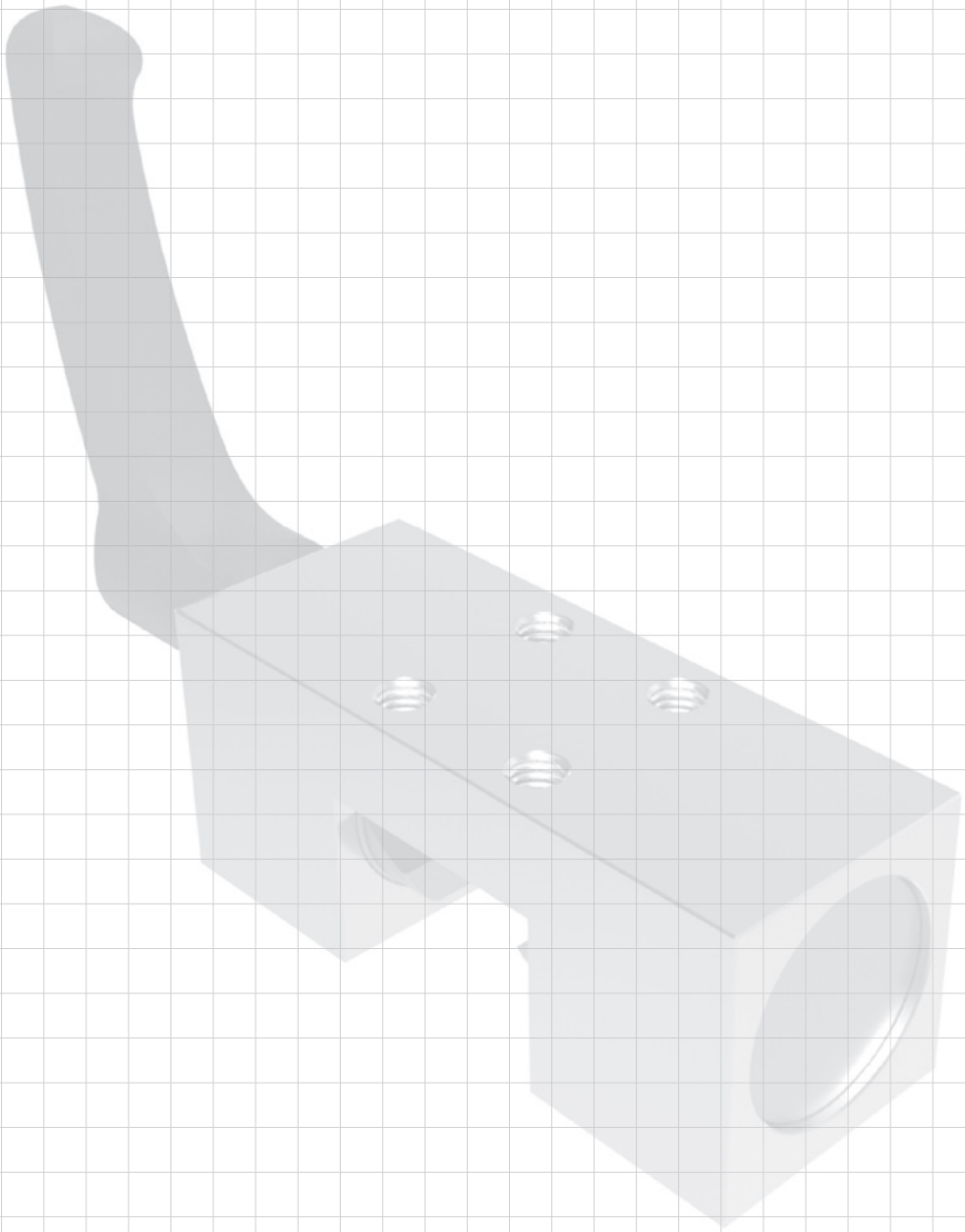
SKF

LLTHR, LLTHR..D4, LLTH..D6	15	LLTHC..SA, LLTHC..A, LLTHC..SU, LLTHC..U	HK 1501 A		24	3
		LLTHC..R	HK 1501 A	PHK 15-4	28	
	20	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LR	HK 2001 A		30	11
	25	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU	HK 2501 A		36	21
		LLTHC..R, LLTHC..LR	HK 2501 A	PHK 25-4	40	
	30	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU	HK 3001 A		42	28
		LLTHC..R, LLTHC..LR	HK 3001 A	PHK 30-3	45	
	35	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU	HK 3501 A		48	35
		LLTHC..R, LLTHC..LR	HK 3501 A	PMK 35-7	55	
	45	LLTHC..A, LLTHC..LA, LLTHC..U, LLTHC..LU	HK 4501 A		60	43
		LLTHC..R, LLTHC..LR	HK 4501 A	PHK 45-10	70	

*1 Supplements the measure table and datasheet

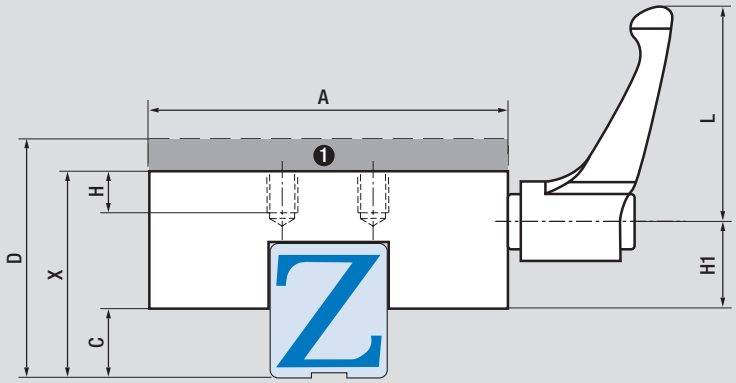
See page 10 for part number explanation

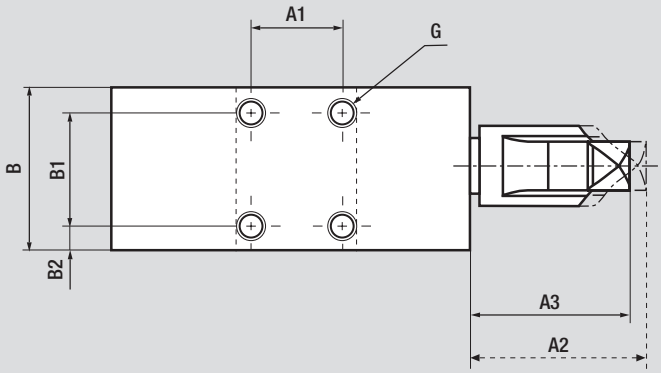
Room for notes



✆ +49.7844.9138-0
www.zimmer-gmbh.com

HK





NOTE: Consider measurement C/Interfering contour

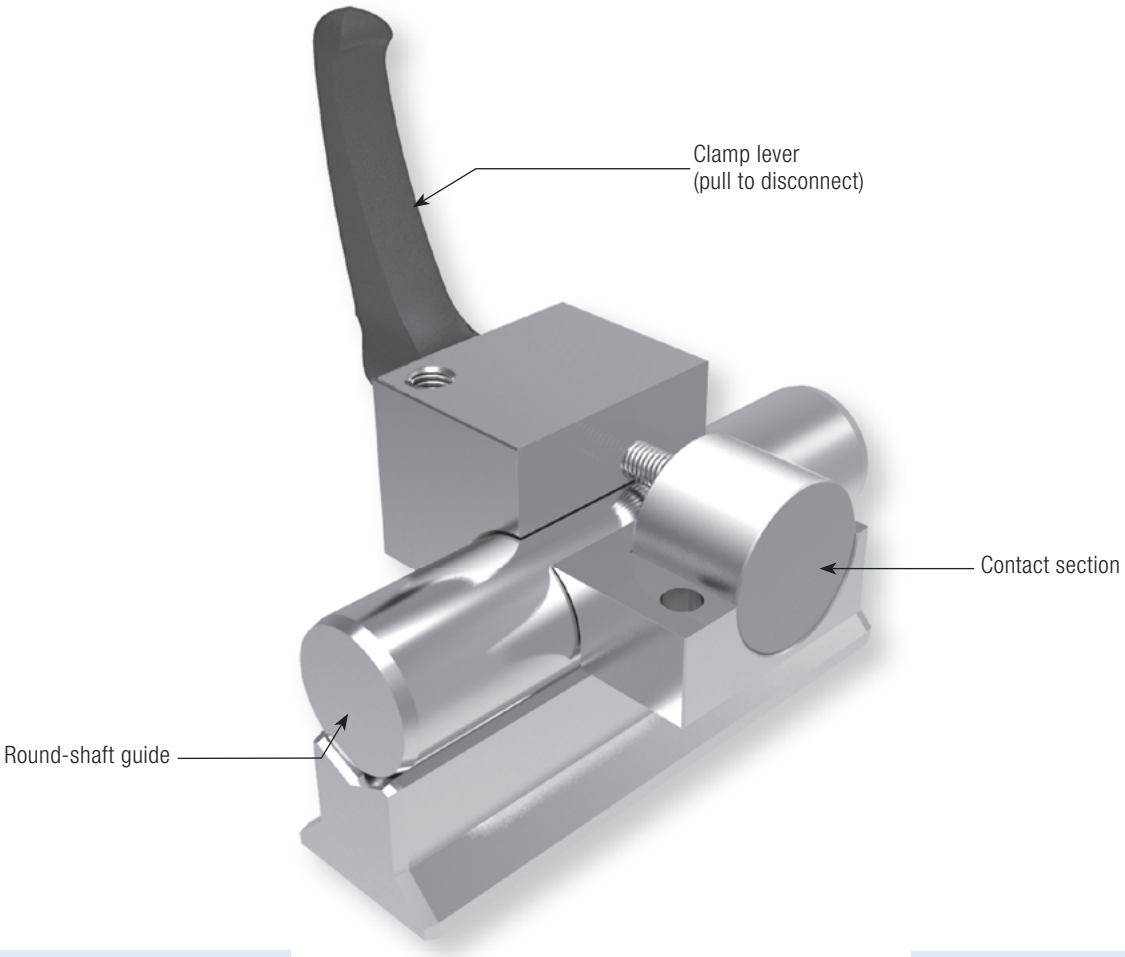
❶ Adapting plate (accessories)

X = measure of function to be complied
D = Linear guide installation measurement
(if necessary with adapting plate)

Measure table	Holding Power [N] HK Fastening torque [Nm]	A [mm]	A1 [mm]	A2 [mm]	A3 [mm]	B [mm]	B1 [mm]	B2 [mm]	C [mm]	X [mm]	G	L [mm]	H [mm]	H1 [mm]
1	1200/5	47	17	33,5	30,5	25	17	4	4,5	22	M4	44	5	12,5
2	1200/4	47	17	33,5	30,5	25	17	4	5	24	M4	44	5	14,3
3	1200/5	47	17	33,5	30,5	25	17	4	6,5	24	M4	44	5	12,5
4	1200/5	69	17	33,5	30,5	25	17	4	3,5	21	M4	44	5	12,5
5	1200/5	47	38	33,5	30,5	29	20	4,5	6,5	24	M5	44	6	13,4
6	2000/15	120	26	50,5	46,5	44	26	9	12	54	M10	78	14	26,5
7	1200/4	60	15	33,5	30,5	24	15	4,5	8	27	M5	44	5	12,5
8	1200/7	60	15	41,5	38,5	24	15	4,5	8	28	M5	63	6	13
9	1200/4	60	15	33,5	30,5	24	15	4,5	9	28	M5	44	6	12,5
10	1200/5	60	15	33,5	30,5	24	15	4,5	7	30	M5	44	6	17,5
11	1200/7	60	15	41,5	38,5	24	15	4,5	10	30	M5	63	6	13
12	1200/4	60	15	33,5	30,5	24	15	4,5	11	30	M5	44	5	12,5
13	1200/7	72	20	41,5	38,5	30	20	5	7	31	M6	63	7	15
14	1200/7	70	20	41,5	38,5	30	20	5	8	31	M6	63	6	15,5
15	1200/7	70	20	41,5	38,5	30	20	5	8	32	M6	63	8	15
16	1200/7	70	20	41,5	38,5	30	20	5	9	32	M6	63	6	15,5
17	1200/7	70	20	41,5	38,5	30	20	5	9	33	M6	63	8	15
18	1200/7	70	20	41,5	38,5	30	20	5	10	33	M6	63	6	15,5
19	1200/7	70	20	41,5	38,5	30	20	5	10	34	M6	63	8	15
20	1200/7	70	20	41,5	38,5	30	20	5	7	36	M6	63	7	22,3
21	1200/7	70	20	41,5	38,5	30	20	5	12	36	M6	63	7	15
22	1200/7	70	20	41,5	38,5	30	20	5	16	40	M6	63	8	15
23	1200/4	77	24	33,5	30,5	24	15	4,5	3	21	M5	44	6	12,5
24	1200/4	80	20	33,5	30,5	30	20	5	4	27	M6	44	6	17
25	2000/12	90	22	50,5	46,5	38	22	8,5	8	38	M6	78	8	21,5
26	1200/5	60	15	33,5	30,5	24	15	4,5	5	28	M5	44	6	17,5
27	2000/12	90	22	50,5	46,5	39	22	8,5	9	42	M6	78	8	25
28	2000/12	90	22	50,5	46,5	38	22	8,5	12	42	M6	78	8	21,5
29	2000/12	90	22	50,5	46,5	38	22	8,5	15	45	M6	78	8	21,5
30	2000/12	100	24	50,5	46,5	38	24	7,5	8	40	M8	78	10	21,5
31	2000/12	100	24	50,5	46,5	38	24	7,5	12	44	M8	78	10	21,5
32	2000/12	100	24	50,5	46,5	38	24	7,5	13	45	M8	78	10	21,5
33	2000/12	100	24	50,5	46,5	39	24	7,5	7	48	M8	78	10	31
34	1200/7	70	20	41,5	38,5	30	20	5	11,5	33	M6	63	8	15
35	2000/12	100	24	50,5	46,5	38	24	7,5	16	48	M8	78	10	21,5
36	1200/5	47	17	33,5	30,5	25	17	4	3,5	21	M4	44	5	12,5
37	1200/7	118	20	41,5	38,5	30	20	5	11	35	M6	63	8	13,5
38	1200/7	120	50	41,5	38,5	39	25	7	5	35	M6	63	11	23,2
39	1200/4	60	17	33,5	30,5	25	17	4	2,5	17	M4	44	5	10
40	2000/12	120	26	50,5	46,5	44	26	9	10	52	M10	78	14	26,5
41	2000/15	120	26	50,5	46,5	44	26	9	12	60	M10	78	12,5	35,7
42	2000/15	120	26	50,5	46,5	44	26	9	12	60	M10	78	14	35
43	2000/15	120	26	50,5	46,5	44	26	9	18	60	M10	78	14	26,5
44	2000/17	170	35	61,5	56,5	64	35	14,5	26	90	M16	95	20	38,5
45	2000/15	135	50	50,5	46,5	39	20	9,5	4	35	M8	78	10	20,5
46	2000/17	140	30	61,5	56,5	49	30	9,5	14	63	M14	95	16	31
47	2000/17	140	30	61,5	56,5	49	30	9,5	19	70	M14	95	14	37,5
48	2000/17	140	30	61,5	56,5	49	30	9,5	19	68	M14	95	16	31
49	1200/4	80	15	33,5	30,5	24	15	4,5	4	27	M5	44	10	18,8
50	2000/12	145	60	50,5	46,5	39	20	9,5	11	50	M8	78	11	26,9
51	2000/17	160	35	61,5	56,5	64	35	14,5	24	90	M16	95	20	45,5
52	2000/17	170	35	61,5	56,5	64	35	14,5	15	75	M16	95	21	36
53	2000/17	170	35	61,5	56,5	64	35	14,5	26	90	M16	95	24	36
54	2000/12	140	22	50,5	46,5	39	22	8,5	12	42	M6	78	8	20,5
55	1200/4	60	15	33,5	30,5	24	15	4,5	9	29	M5	44	6	12,5
56	2000/12	100	24	50,5	46,5	39	24	7,5	16	48	M8	78	10	21,5
57	2000/12	57	18	50,5	46,5	29	18	5,5	12	33	M6	78	8	13
58	1200/4	32	17	33,5	30,5	25	17	4	7	20	M4	44	5	7,8
59	1200/5	43	15	33,5	30,5	24	15	4,5	8,5	24	M5	44	6	8,8
60	1200/7	47	20	41,5	38,5	30	20	5	11	30	M6	63	7	9,5
61	2000/12	68	24	50,5	46,5	39	24	7,5	14	38	M8	78	10	15
62	2000/17	140	30	61,5	56,5	49	30	9,5	21	70	M14	95	16	31
63	1200/7	70	20	41,5	38,5	30	20	5	14,5	36	M6	63	8	15
64	2000/12	120	26	50,5	46,5	44	26	9	4	52	M10	78	12,5	35,7
65	2000/17	140	30	61,5	56,5	49	30	9,5	17	66	M14	95	16	31

✆ +49.7844.9138-0
www.zimmer-gmbh.com

HKR

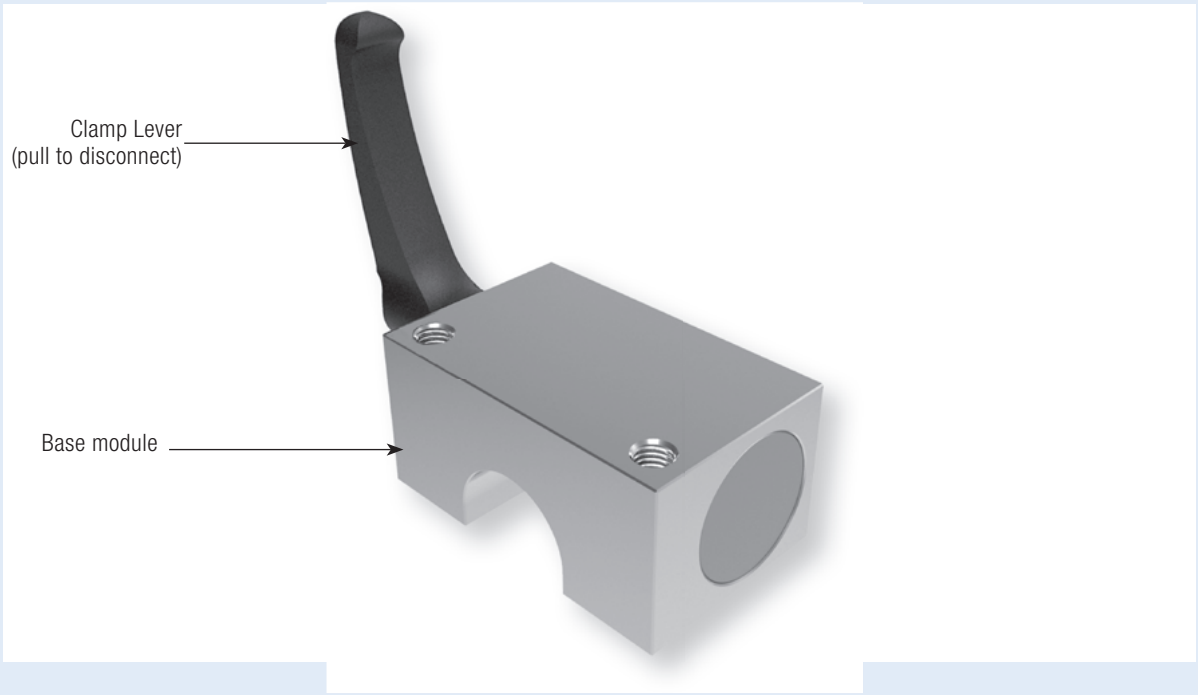


Efficient manual clamping elements for round-shaft guides **HKR.**

The HKR series is a manually operated clamping element for round-shaft guides. By rotating the freely adjustable clamp lever, the contact sections are pressed synchronously against the free surfaces of the round-shaft guide.

The floating contact sections guarantee symmetric power transmission.

HKR Series



Technical data for HKR series:

Shaft size	12–50
Holding forces	1,200 N–2,000 N
Fastening torque	5 Nm–17 Nm
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	50,000 (B10d - value)
Braking cycles	unsuitable

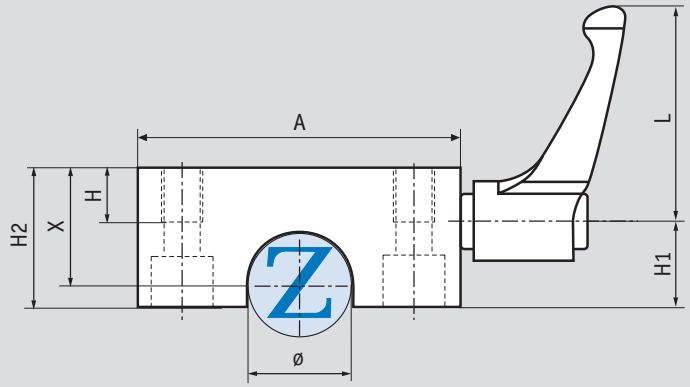
Application scenarios for HKR:

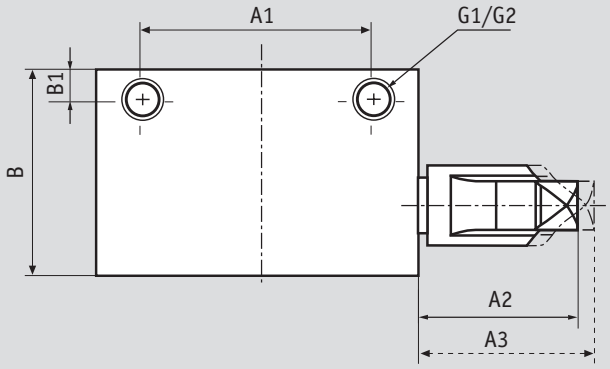
- Table traverses in wood industry
- Adjustment of width in plastics processing
- Positioning of optic instruments and measuring tables

Operation for HKR:

Standard with clamp lever. Other operation options available on request, e.g. a DIN 912 screw.

HKR

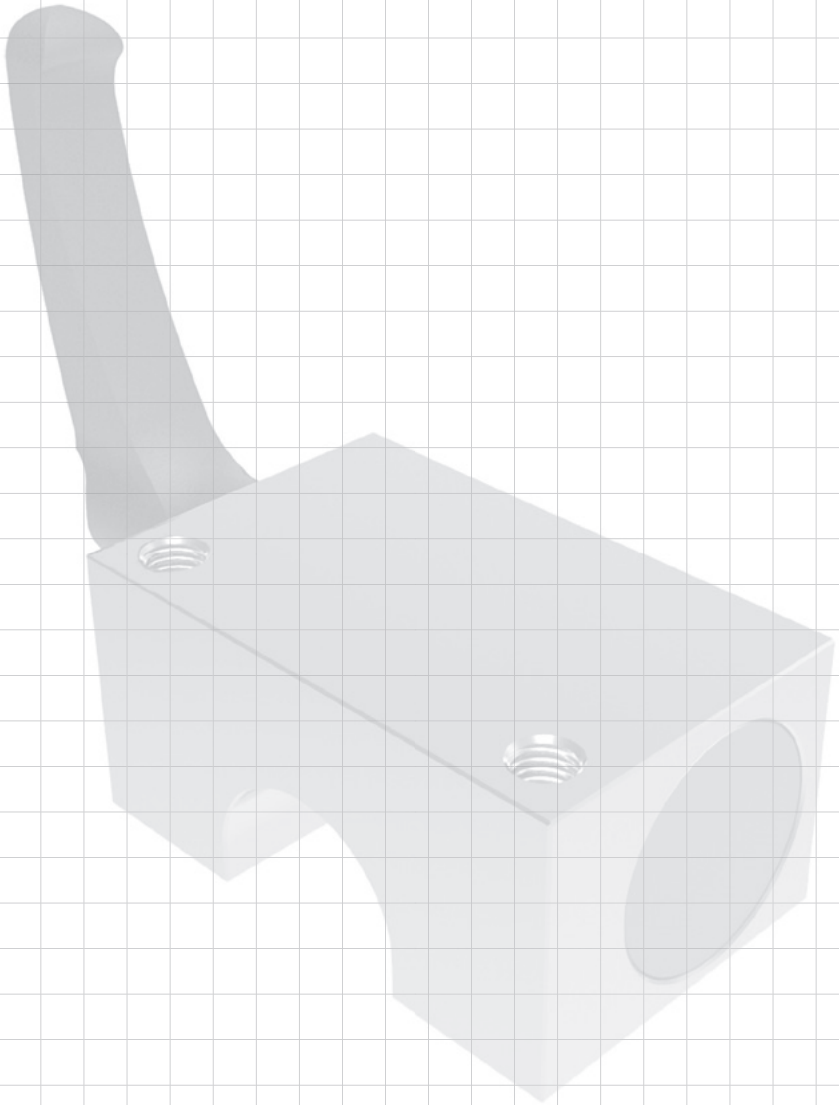




Comment

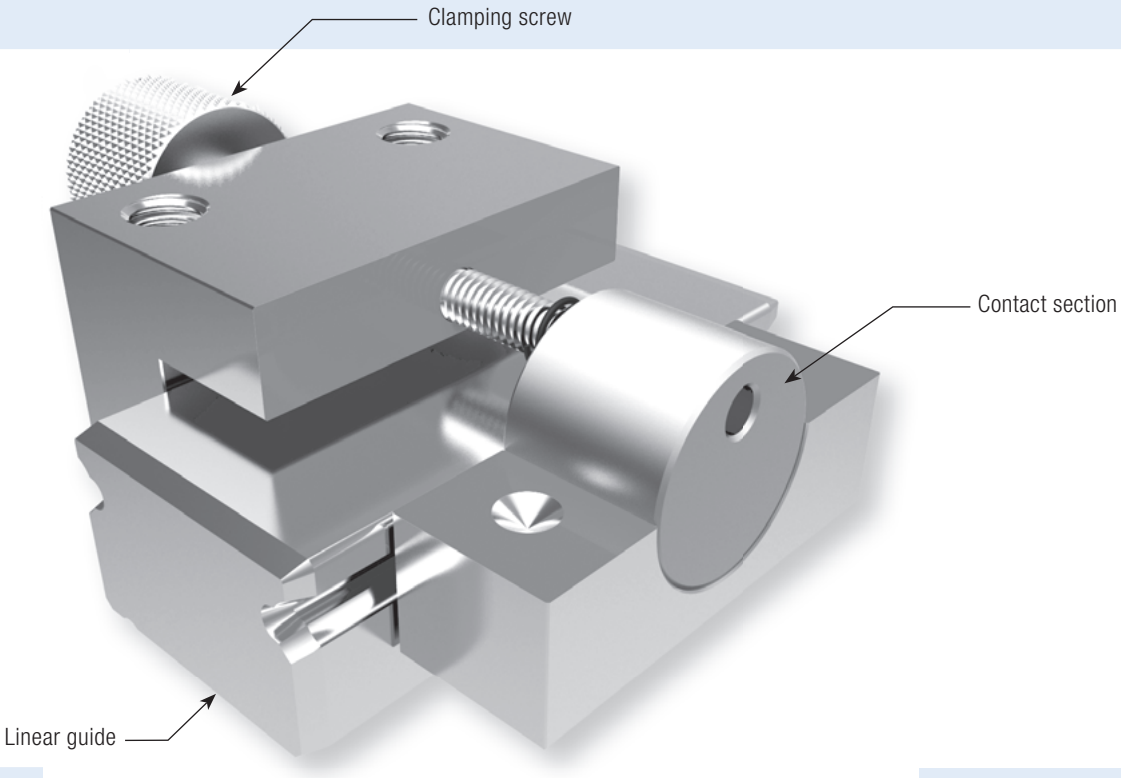
G1: connection from above
G2: connection from below

Sizee [mm]	Item number	Holding power [N] HKR/ Fastening torque [Nm]	A [mm]	A1 [mm]	A2 [mm]	A3 [mm]	B [mm]	B1 [mm]	X [mm]	H [mm]	H1 [mm]	H2 [mm]	G1	G2	L [mm]
12	HKR 1200 A	1200N/5	43	32	30,5	33,5	32	4,5	18	10	16	24	M5	M4	44
16	HKR 1600 A	1200N/5	53	40	30,5	33,5	38	5,5	22	12	19	29	M6	M5	44
20	HKR 2000 A	1200N/7	60	45	38,5	41,5	44	6,5	25	14	21,5	32	M8	M6	63
25	HKR 2500 A	1200N/7	78	60	38,5	41,5	52	9	30	16	25	38	M10	M8	63
30	HKR 3000 A	2000N/12	87	68	46,5	50,5	58	10	35	16	28,5	43	M10	M8	78
40	HKR 4000 A	2000N/17	108	86	56,5	61,5	68	11	45	20	34,5	53	M12	M10	95
50	HKR 5000 A	2000N/17	132	108	56,5	61,5	76	12	50	22	40,5	58	M16	M14	95



✆ +49.7844.9138-0
www.zimmer-gmbh.com

miniHK



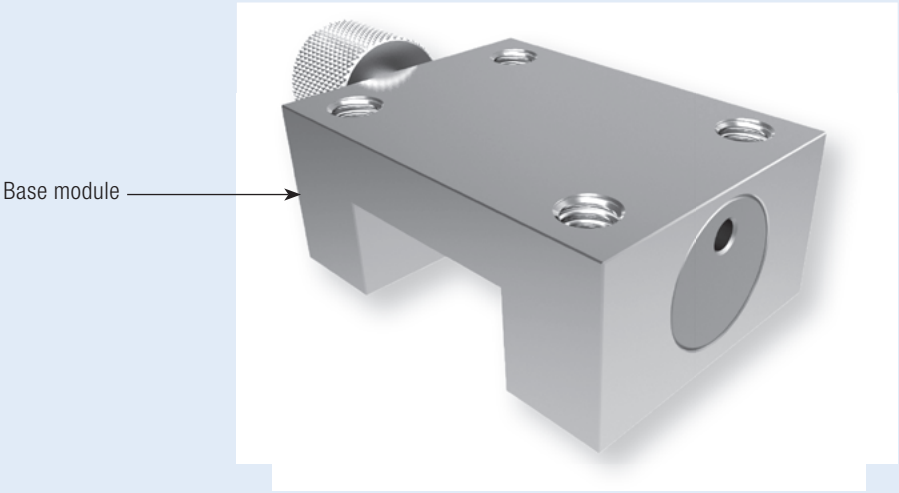
Small and efficient!

Miniature Manual Clamping **miniHK.**

The miniHK series is a manually actuated clamping element and is manufactured completely from stainless steel.
By tightening the clamping screw, the contact sections are pressed synchronously against the free surfaces of the section rail guide.

The floating contact sections guarantee symmetric power transmission.

miniHK Series



Technical data for miniHK series:

Rail size	5–42
Holding forces	40 N–300 N
Fastening torque	0.11 Nm–2.50 Nm
Spring-loaded energy storage	-
PLUS-connection	-
Clamping cycles	50,000 (B10d - value)
Braking cycles	unsuitable

Application scenarios for miniHK:
- Placement robot
- Measuring instruments
- Assembly aids
- Medical equipment
- Optical equipment

Operation for miniHK:
With clamping screw.

✆ +49.7844.9138-0
www.zimmer-gmbh.com

Rail manufacturer THK The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 34]
SRS	5	SRS..M	✆		6	✆
	7	SRS..M	✆		8	✆
	9	SRS..M, SRS..N	HK 0900 M		10	2
	12	SRS..M, SRS..N	HK 1200 M		13	3
	15	SRS..M, SRS..N	HK 1500 M		16	4
	20	SRS..M	HK 2000 M		20	5
	25	SRS..M	HK 2500 M		25	8
SRS-W	5	SRS..WM	✆		6,5	✆
	7	SRS..WM	✆		9	✆
	9	SRS..WM, SRS..WN	HK 0900 MW		12	11
	12	SRS..WM, SRS..WN	HK 1200 MW		14	12
	15	SRS..WM, SRS..WN	HK 1500 MW		16	13
RSR	5	RSR..M, RSR..N, RSR..TN	✆		6	✆
	7	RSR..M, RSR..N, RSR..ZM, RSH..M	HK 0700 M		8	1
	9	RSR..KM, RSR..N, RSR..ZM, RSH..KM	HK 0900 M		10	2
	12	RSR..VM, RSR..N, RSR..ZM, RSH..VM	HK 1200 M		13	3
	15	RSR..VM, RSR..N, RSR..ZM	HK 1500 M		16	4
	20	RSR..VM, RSR..N	HK 2000 M		25	6
RSR-W	3	RSR..WM, RSR..WN	✆		4,5	✆
	5	RSR..WM, RSR..WTM, RSR..WN, RSR..WTN	HK 0500 MW		6,5	9
	7	RSR..WM, RSR..WTM, RSR..WN, RSR..WTN, RSR..WZM, RSH..WZM	HK 0700 MW		9	10
	9	RSR..WV, RSR..WVM, RSR..WN, RSR..WZM, RSH..WZM	HK 0900 MW		12	11
	12	RSR..WV, RSR..WVM, RSR..WN, RSR..WZM, RSH..WZM	HK 1200 MW		14	12
	15	RSR..WV, RSR..WVM, RSR..WN, RSR..WZM, RSH..WZM	✆		16	✆
EPF	7	EPF..M	✆		8	✆
	9	EPF..M	✆		10	✆
	12	EPF..M	✆		13	✆
	15	EPF..M	HK 2000 M		16	4

Rail manufacturer Rexroth Bosch Group

R0445	7	R0442, R0444	HK 0700 M		8	1
	9	R0442..9/M3, R0444..9/M3	HK 0900 M		10	2
	12	R0442, R0444	HK 1200 M		13	3
	15	R0442, R0444	HK 1500 M		16	4
	20	R0442	HK 2000 M		25	6
R0455	9/M3	R0441, R0443	✆		12	✆
	12	R0441, R0443	✆		14	✆
	15	R0441, R0443	HK 1500 MW		16	13

Rail manufacturer SCHNEEBERGER LINEAR TECHNOLOGY

MN	7	MNN, MNNL, MNNXL	HK 0700 M		8	1
	9	MNN, MNNL, MNNXL	HK 0900 M		10	2
	12	MNN, MNNL, MNNXL	HK 1200 M		13	3
	15	MNN, MNNL, MNNXL	HK 1500 M		16	4
MN	14	MNN, MNNL	HK 0700 MW		9	10
	18	MNN, MNNL	HK 0900 MW		12	11
	24	MNN, MNNL	HK 1200 MW		14	12
	42	MNN, MNNL	HK 1500 MW		16	13

Rail manufacturer IKO

LWL	5	LWLC..B, LWLC..N, LWL..B, LWL..N	HK 0500 M		6	7
	7	LWLC..B, LWLC..N, LWL..B, LWL..N, LWLG..B, LWLG..N	HK 0700 M		8	1
	9	LWLC..B, LWLC..N, LWL..B, LWL..N, LWL..BCS, LWLG..B, LWLG..N	HK 0900 M		10	2
	12	LWLC..B, LWL..B, LWL..BCS, LWLG..B, LWL..CS	HK 1200 M		13	3
	15	LWLC..B, LWL..B, LWL..BCS, LWLG..B, LWL..CS	HK 1500 M		16	4
	20	LWLC..B, LWL..B, LWL..BCS, LWLG..B	HK 2000 M		20	5
	25	LWLC..B, LWL..B, LWLG..B	HK 2500 M		25	8
LWLF	10	LWLFC..B, LWLFC..N, LWLF..B, LWLF..N	HK 0500 MW		6,5	9
	14	LWLFC..B, LWLFC..N, LWLF..B, LWLF..N	HK 0700 MW		9	10
	18	LWLFC..B, LWLFC..N, LWLF..B, LWLF..BCS, LWLF..N, LWLFG..B, LWLFG..N, LWLF..CS	HK 0900 MW		12	11
	24	LWLFC..B, LWLF..B, LWLF..BCS, LWLFG..B, LWLF..CS	HK 1200 MW		14	12
	30	LWLFC..B, LWLF..B, LWLF..BCS, LWLFG..B	✆		15	✆
	42	LWLFC..B, LWLF..B, LWLF..BCS, LWLFG..B, LWLF..CS	HK 1500 MW		16	13

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *[1]	[page 34]
ML	5	MLC, ML	✆		6	✆
	7	MLC, ML, MLG	✆		8	✆
	9	MLC, ML, MLG	HK 0900 M		10	2
	12	MLC, ML, MLG	✆		13	✆
	15	MLC, ML, MLG	HK 1500 M		16	4
	20	MLC, ML, MLG	✆		20	✆
	25	MLC, ML, MLG	✆		25	✆

Rail manufacturer IKO

TKDM (KUME)	5	KWEM, KWEM..-C	✆		6	✆
	7	KWEM, KWEM..-L, KWEM..-C	HK 0700 M		8	1
	9	KWEM, KWEM..-L, KWEM..-C	HK 0900 M		10	2
	12	KWEM, KWEM..-L, KWEM..-C	HK 1200 M		13	3
	15	KWEM, KWEM..-L, KWEM..-C	HK 1500 M		16	4
TKMD..C	12	KWME..C	HK 1200 M		13	3
	15	KWME..C	HK 1500 M		16	4

Rail manufacturer INA

MGN	7	MGN..C, MGN..H	HK 0700 M		8	1
	9	MGN..C, MGN..H	HK 0900 M		10	2
	12	MGN..C, MGN..H	HK 1200 M		13	3
	15	MGN..C, MGN..H	HK 1500 M		16	4
MGW	7	MGW..C, MGW..H	HK 0700 MW		9	10
	9	MGW..C, MGW..H	✆		12	✆
	12	MGW..C, MGW..H	HK 1200 MW		14	12
	15	MGW..C, MGW..H	HK 1500 MW		16	13

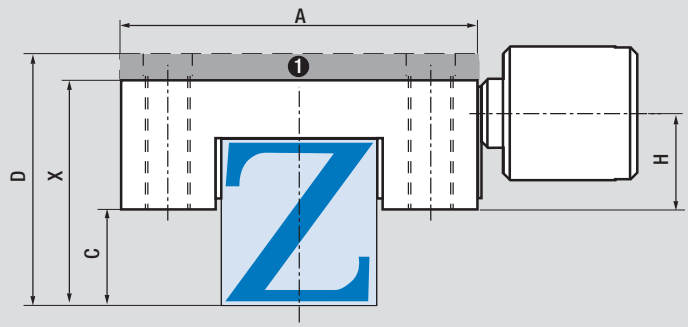
Rail manufacturer HIWIN Lineartechnologie

PU	5	PAU..TR	HK 0500 M		6	7
	7	PAU..AR	HK 0700 M		8	1
	9	PAU..TR	HK 0900 M		10	2
	12	PAU..TR	HK 1200 M		13	3
	15	PAU..AL	HK 1500 M		16	4
LU	15	LAU..AL	HK 1500 M		16	4
PE	5	PAE..AR	✆		6,5	✆
	7	PAE..TR	HK 0700 MW		9	10
	9	PAE..TR	HK 0900 MW		12	11
	12	PAE..AR	HK 1200 MW		14	12
	15	PAE..AR	HK 1500 MW		16	13

Rail manufacturer NSK

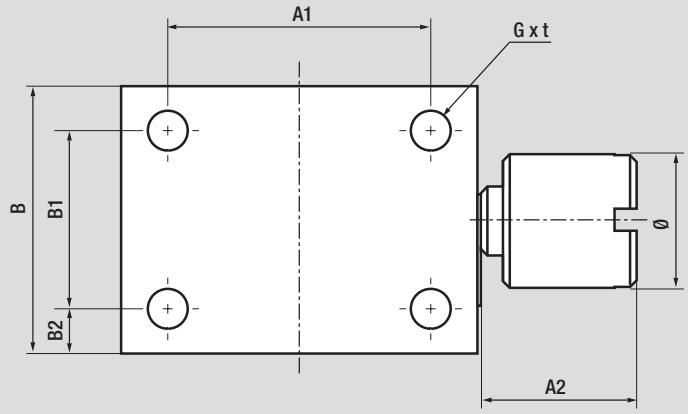
*[1] Supplements the measure table and datasheet

See page 10 for part number explanation

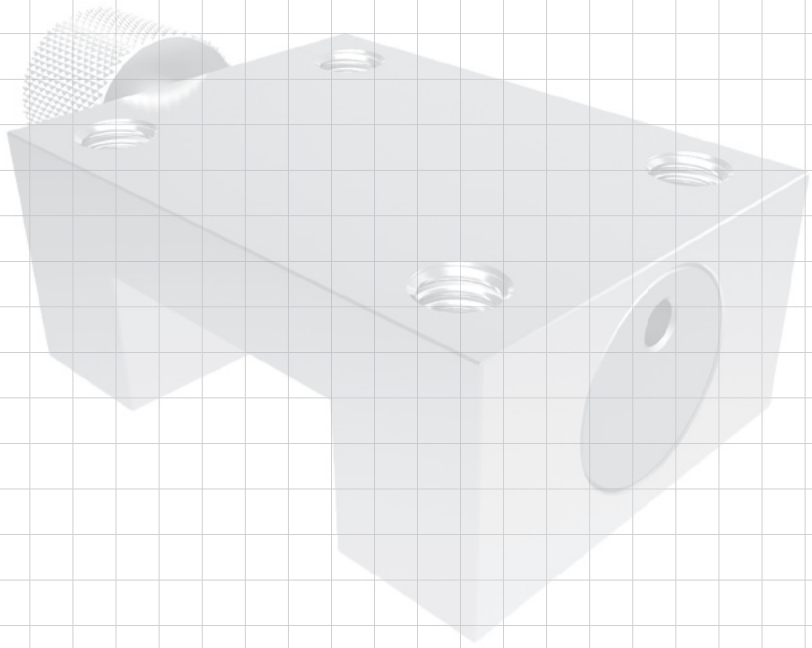


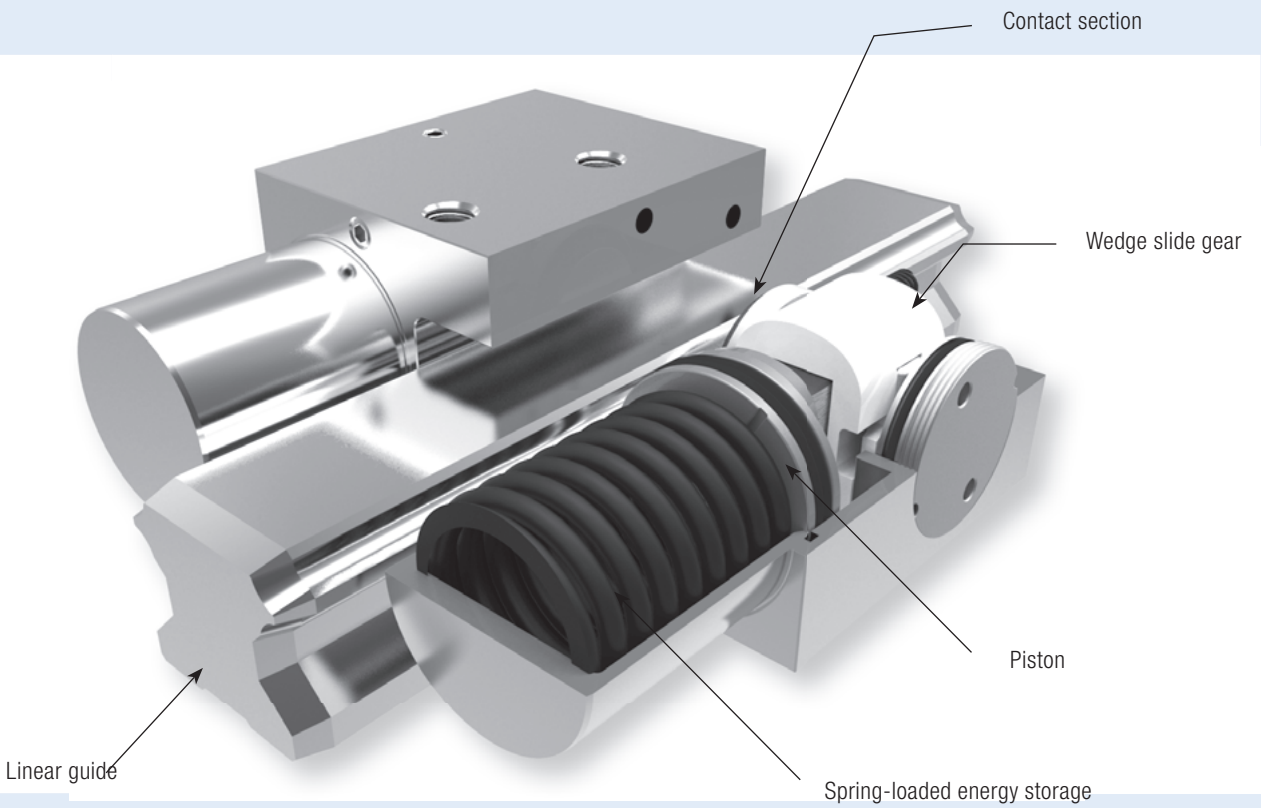
Note: Consider measurement C /Interfering contour

❶ Adapting plate PHK (accessories)



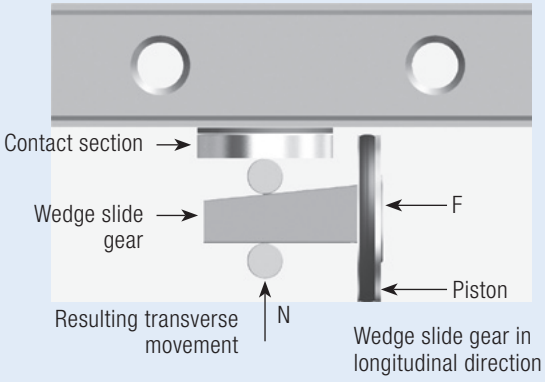
Measure table	Holding Power [N] minHK Fastening torque [Nm]	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	B2 [mm]	C [mm]	X [mm]	G x t [mm]	Ø [mm]	H [mm]
1	65 / 0,11	17	12	7	12	8	2	2	8	M2x2,5	6	4,3
2	100 / 0,17	20	15	9	17	11	3	2,7	10	M3x3	8	5,35
3	150 / 0,35	27	20	10	19	13	3	3,5	13	M3x3,6	10	7,15
4	180 / 0,75	32	25	14	20	14	3	5	16	M3x4	12	8,05
5	220 / 1,30	46	38	14	26	19	3,5	5	20	M4x6	14	9,60
6	220 / 1,30	46	38	14	26	19	3,5	10	25	M4x6	14	9,60
7	40 / 0,67	12	8	5	14	10	2	1,5	6	M2x4,5	4	3,4
8	300 / 2,50	48	35	16	35	24	5,5	5	25	M6x7	16	14,9
9	40 / 0,07	17	13	5	14	10	2	2	6,5	M2x4,5	4	3,4
10	65 / 0,10	25	19	6,65	12	8	2	3	9	M2x6	6	4,3
11	100 / 0,17	30	17	9	17	11	3	4,2	12	M3x3	8	5,85
12	150 / 0,35	40	30	10	19	13	3	4	14	M3x3,6	10	7,65
13	180 / 0,75	60	45	14,7	22	15	3,5	4,5	16	M4x4,5	12	8,55



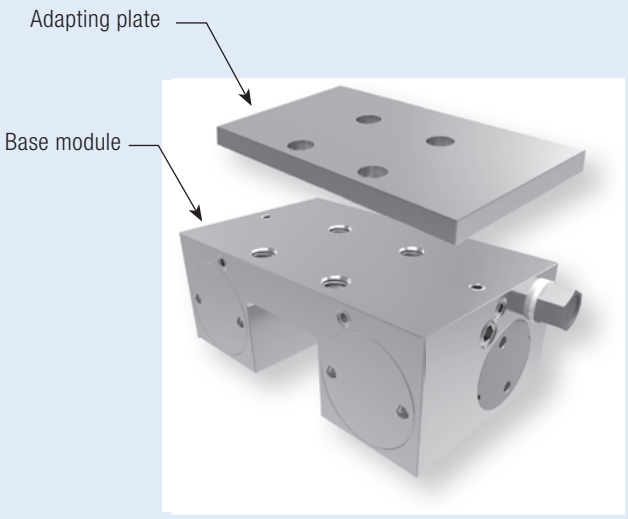


High holding forces – low cost:
The pneumatic Clamping Element MK/MKS.

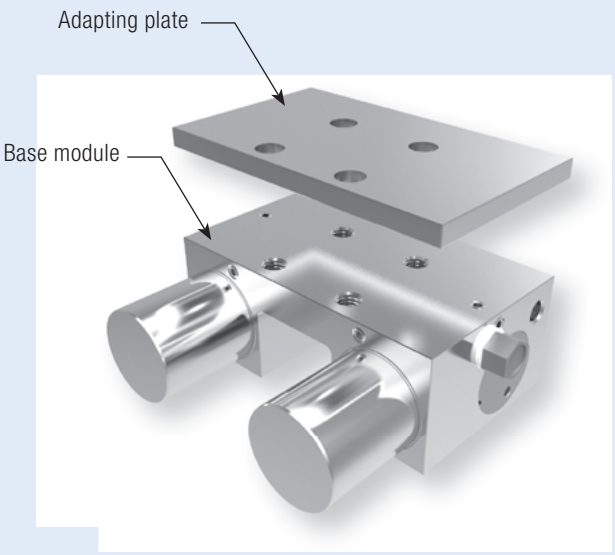
The MK/MKS series is the classic Zimmer clamping element. The patented wedge slide gear achieves high supporting forces. The pressure medium moves the wedge slide gear in a longitudinal direction. The resulting transverse movement presses contact sections with high force against the free surfaces of the section rail guide. The MK is clamped (closed) by pneumatic pressure. The MKS is clamped (closed) by spring-loaded energy storage and is opened by pneumatic pressure.



MK Series



MKS Series



Technical data for MK series:

Rail size	12–100
Holding forces	350 N–2,250 N
Min. pressure	6 bar
Max. pressure	8 bar
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	unsuitable

Technical data for MKS series:

Rail size	12–100
Holding forces	250 N–1,450 N
Min. pressure	5.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS-connection	√
Clamping cycles	5 mil. (B10d-value)*
Braking cycles	unsuitable

Application scenarios for MK:
- Positioning of axes
- Fixing of vertical axes
- Positioning of lifting devices
- Clamping of machine tables

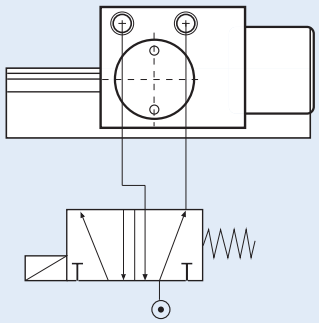
Application scenarios for MKS:
- Clamping in case of pressure drop
- Clamping without energy requirement

Connection options for MK/MKS:
The MK/MKS series have air connections on both sides as part of their standard equipment. This means that the air connection and the air-release filter can be moved over to the opposite side.

Adapting plate accessory for MK/MKS:
Depending on the height of the carriage (measure D), an additional adapting plate is required (see table from page 38).

Higher supporting forces with PLUS connection (MKS only):
By using a 5/2 (overflow-free) or 5/3 valve it is possible to support the spring power with pneumatic pressure. By using the PLUS connection, the stated supporting force will be increased.
When the PLUS connection (MKS only) is being used the air-release filter is replaced by connecting a second pneumatic tube (see drawing).
For further information, please refer to the assembly instructions or visit www.zimmer-gmbh.com.

*Note: With PLUS connection, the B10d value is not achieved



Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 48 and 49]
SR, SSR	15	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	MK/MKS 1501 A		24	1
	20	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	MK/MKS 2001 A		28	7
	25	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	MK/MKS 2501 A		33	17
	30	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM	MK/MKS 3001 A		42	29
	35	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW	MK/MKS 3501 A	PMK 35-3	48	36
	45	SR..W, SR..TB	MK/MKS 4501 A		60	46
	55	SR..W, SR..TB	MK/MKS 5501 SR		68	55
HSR	15	HSR..A, HSR..AM, HSR..B, HSR..BM, HSR..C	MK/MKS 1501 A		24	1
		HSR..R, HSR..RM, HSR..YR, HSR..YRM	MK/MKS 1501 A	PMK 15-4	28	
	20	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MK/MKS 2001 A		30	9
	25	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MK/MKS 2501 A		36	19
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	MK/MKS 2501 A	PMK 25-4	40	
	30	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MK/MKS 3001 A		42	29
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	MK/MKS 3001 A	PMK 30-3	45	
	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MK/MKS 3501 A	PMK 35-3	48	36
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	MK/MKS 3501 A	PMK 35-10	55	
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	MK/MKS 4501 A		60	46
		HSR..R, HSR..LR, HSR..YR	MK/MKS 4501 A	PMK 45-10	70	
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	MK/MKS 5501 A		70	56
		HSR..R, HSR..LR, HSR..YR	MK/MKS 5501 A	PMK 55-10	80	
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB, HSR..R, HSR..LR, HSR..YR	MK/MKS 6501 A		90	60
	85	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB, HSR..R, HSR..LR	✆		110	✆
GSR	15	GSR..T, GSR..V	✆		20	✆
	20	GSR..T, GSR..V	MK/MKS 2001 G★		24	5
	25	GSR..T, GSR..V	MK/MKS 2501 G★		30	23
	30	GSR..T	MK/MKS 3001 G★		33	31
	35	GSR..T	MK/MKS 3501 G★		38	32
HRW	12	HRW..LRM	✆		12	✆
	17	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	MK/MKS 1701 B		17	11
	21	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	MK/MKS 2101 B★		21	24
	27	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	MK/MKS 2701 B★		27	25
	35	HRW..CA, HRW..CAM, HRW..CR, HSR..CRM	MK/MKS 3501 B		35	49
	50	HRW..CA, HRW..CR	MK/MKS 5001 B		50	62
	60	HRW..CA	✆		60	✆
SHW	12	SHW..CAM, SHW..CRM, SHW..HRM	✆		12	✆
	17	SHW..CAM, SHW..CRM	MK/MKS 1701 B		17	11
	21	SHW..CA, SHW..CR	MK/MKS 2101 B★		21	24
	27	SHW..CA, SHW..CR	MK/MKS 2701 B★		27	25
	35	SHW..CA, SHW..CR	MK/MKS 3501 B		35	49
	50	SHW..CA, SHW..CR	MK/MKS 5001 B		50	62
SHS	15	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 1501 A		24	1
		SHS..R	MK/MKS 1501 A	PMK 15-4	28	
	20	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 2001 A		30	9
	25	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 2501 A	PMK 25-2	36	18
		SHS..R, SHS..LR	MK/MKS 2501 A	PMK 25-6	40	
	30	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 3001 A		42	29
		SHS..R, SHS..LR	MK/MKS 3001 A	PMK 30-3	45	
	35	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 3501 A	PMK 35-4	48	37
		SHS..R, SHS..LR	MK/MKS 3501 A	PMK 35-11	55	
	45	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 4501 A	PMK 45-6	60	44
		SHS..R, SHS..LR	MK/MKS 4501 A	PMK 45-16	70	
	55	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 5501 A	PMK 55-6	70	53
		SHS..R, SHS..LR	MK/MKS 5501 A	PMK 55-16	80	
	65	SHS..C, SHS..LC, SHS..V, SHS..LV	MK/MKS 6501 A		90	60

★ PLUS connection not possible
*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer
THK
The Mark of Linear Motion

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1 [page 48 and 49]	
SNR, SNS	25	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MK/MKS 2501 N		31	61
	30	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MK/MKS 3001 A		38	26
	35	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MK/MKS 3501 A		44	37
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	MK/MKS 3501 A	PMK 35-4	48	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	MK/MKS 3501 A	PMK 35-11	55	
	45	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MK/MKS 4501 A		52	43
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	MK/MKS 4501 A	PMK 45-8	60	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	MK/MKS 4501 A	PMK 45-18	70	
	55	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MK/MKS 5501 A		63	52
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	MK/MKS 5501 A	PMK 55-7	70	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	MK/MKS 5501 A	PMK 55-17	80	
	65	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MK/MKS 6501 N		75	47
	85	SNR..LR, SNR..LC, SNS..LR, SNS..LC	MK/MKS 8501 A	PMK 85-8	90	67
NR, NRS	25	NR..XR, NR..XLR, NR..XA, NR..XLA, NR..XB, NR..XLB, NRS..XR, NR S..XLR, NRS..XA, NRS..XLA, NRS..XB, NRS..XLB	MK/MKS 2501 N		31	61
	30	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MK/MKS 3001 A		38	26
	35	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MK/MKS 3501 A		44	37
	45	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MK/MKS 4501 A		52	43
	55	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MK/MKS 5501 A		63	52
	65	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MK/MKS 6501 N		75	47
	85	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MK/MKS 8501 A	PMK 85-8	90	67
SRG	15	SRG..A, SRG..V	MK/MKS 1501 E		24	2
	20	SRG..A, SRG..LA, SRG..V, SRG..LV	MK/MKS 2001 E		30	8
	25	SRG..C, SRG..LC	MK/MKS 2501 E	PMK 25-5	36	48
		SRG..R, SRG..LR	MK/MKS 2501 E	PMK 25-9	40	
	30	SRG..C, SRG..LC	MK/MKS 3001 E		42	15
		SRG..R, SRG..LR	MK/MKS 3001 E	PMK 30-3	45	
	35	SRG..C, SRG..LC	MK/MKS 3501 E		48	35
		SRG..R, SRG..LR	MK/MKS 3501 E	PMK 35-7	55	
	45	SRG..C, SRG..LC	MK/MKS 4501 E		60	42
		SRG..R, SRG..LR	MK/MKS 4501 E	PMK 45-10	70	
	55	SRG..C, SRG..LC	MK/MKS 5501 F	PMK 55-7	70	40
		SRG..R, SRG..LR	MK/MKS 5501 F	PMK 55-17	80	
	65	SRG..LC, SRG..LV	MK/MKS 6501 F	PMK 65-15	90	39
	85	SRG..LC	✆		110	✆
HCR	15	HCR 15A +60/150R	MK/MKS 1501/300		24	64
		HCR 15A +60/300R				
		HCR 15A +60/400R				
	25	HCR 25A +60/500R	MK/MKS 2501/1000		36	65
		HCR 25A +60/750R				
		HCR 25A +60/1000R				
	35	HCR 35A +60/600R	MK/MKS 3501/1000		48	66
		HCR 35A +60/800R				
		HCR 35A +60/1000R				
		HCR 35A +60/1300R				
	45	HCR 45A +60/800R	MK/MKS 4501/1000		60	51
		HCR 45A +60/1000R				
		HCR 45A +60/1200R				
		HCR 45A +60/1600R				
	65	HCR 65A +60/1000R	MK/MKS 6501/1000		90	68
		HCR 65A +60/1500R				
		HCR 65A +45/2000R				
		HCR 65A +45/2500R				
		HCR 65A +30/3000R				

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

MK/MKS

Rail manufacturer

Rexroth
Bosch Group

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 48 and 49]
R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	15	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MK/MKS 1505 AK		24	2
		R1621	MK/MKS 1505 AK	PMK 15-4	28	
	20	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MK/MKS 2005 AK		30	8
	25	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MK/MKS 2505 AK		36	14
		R1621, R1624	MK/MKS 2505 AK	PMK 25-4	40	
	30	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MK/MKS 3005 AK		42	71
		R1621, R1624	MK/MKS 3005 AK	PMK 30-3	45	
	35	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MK/MKS 3505 AK		48	35
		R1621, R1624	MK/MKS 3505 AK	PMK 35-7	55	
	45	R1622, R1623, R1651, R1653	MK/MKS 4505 AK		60	42
		R1621, R1624	MK/MKS 4505 AK	PMK 45-10	70	
	55	R1622, R1623, R1651, R1653	MK/MKS 5505 AK		70	50
		R1621, R1624	MK/MKS 5505 AK	PMK 55-10	80	
	65	R1622, R1623, R1651, R1653	MK/MKS 6505 AK		90	59
R1675, R1676 R1677	20	R1671, R1672	MK/MKS 2005 KB		27	58
	25	R1671, R1672	MK/MKS 2505 KB		35	41
	35	R1671	MK/MKS 3505 KB		50	63
R1805, R1806, R1807, R1808, R1845, R1846, R1847	25	R1851, R1853	MK/MKS 2505 AR		36	14
		R1821, R1824	MK/MKS 2505 AR	PMK 25-4	40	
	35	R1851, R1853	MK/MKS 3505 AR		48	35
		R1821, R1824	MK/MKS 3505 AR	PMK 35-7	55	
	45	R1851, R1853	MK/MKS 4505 AR		60	42
		R1821, R1824	MK/MKS 4505 AR	PMK 45-10	70	
	55	R1851, R1853	MK/MKS 5505 AR		70	50
		R1821, R1824	MK/MKS 5505 AR	PMK 55-10	80	
	65	R1824, R1851, R1853	MK/MKS 6505 AR		90	59

Rail manufacturer

SCHNEEBERGER
LINEAR TECHNOLOGY

MRS	25	MRW..A, MRW..B	MK/MKS 2503 MR		36	14
		MRW..C, MRW..D, MRW..E	MK/MKS 2503 MR	PMK 25-4	40	
	35	MRW..A, MRW..B	MK/MKS 3503 MR		48	35
		MRW..C, MRW..D, MRW..E	MK/MKS 3503 MR	PMK 35-7	55	
	45	MRW..A, MRW..B	MK/MKS 4503 MR		60	42
		MRW..C, MRW..D	MK/MKS 4503 MR	PMK 45-10	70	
	55	MRW..A, MRW..B	MK/MKS 5503 MR		70	50
		MRW..C, MRW..D	MK/MKS 5503 MR	PMK 55-10	80	
	65	MRW..B, MRW..D	MK/MKS 6503 MR		90	59
	100	MRW..B	✆		120	✆
BMS	15	BMW..A, BMW..F,	MK/MKS 1503 BM		24	2
		BMW..C	MK/MKS 1503 BM	PMK 15-4	28	
	20	BMW..A, BMW..B, BMW..C, BMW..D	MK/MKS 2003 BM		30	8
	25	BMW..A ,BMW..B, BMW..F, BMW..G	MK/MKS 2503 B		36	14
		BMW..C, BMW..D, BMW..E	MK/MKS 2503 B	PMK 25-4/02	40	
	30	BMW..A ,BMW..B, BMW..F, BMW..G	MK/MKS 3003 BM		42	27
		BMW..C, BMW..D, BMW..E	MK/MKS 3003 BM	PMK 30-3	45	
	35	BMW..A ,BMW..B, BMW..F, BMW..G	MK/MKS 3503 BM		48	35
		BMW..C, BMW..D, BMW..E	MK/MKS 3503 BM	PMK 35-7	55	
	45	BMW..A ,BMW..B	MK/MKS 4503 BM		60	42
		BMW..C, BMW..D	MK/MKS 4503 BM	PMK 45-10	70	

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer
IKO

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1 [page 48 and 49]	
LWH	12	LWHT, LWHT..SL	MK/MKS 1201 A		19	69
		LWHDC..SL, LWHD, LWHD..SL, LWHDG..SL	MK/MKS 1201 A		20	70
	15	LWH..B, LWH..SL, LWH..M, LWHT..B, LWHT..SL, LWHT..M, LWHS..B, LWHS..SL, LWHS..M	MK/MKS 1501 A		24	1
		LWHD..B, LWHD..M, LWHY	MK/MKS 1501 A	PMK 15-4	28	
	20	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG, LWHY	MK/MKS 2001 A		30	9
	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	MK/MKS 2501 A		36	19
		LWHD..B, LWHD..M, LWHDG, LWHY	MK/MKS 2501 A	PMK 25-4	40	
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	MK/MKS 3001 A		42	29
		LWHD..B, LWHD..M, LWHDG, LWHY	MK/MKS 3001 A	PMK 30-3	45	
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	MK/MKS 3501 A		48	38
		LWHD..B, LWHD..M, LWHDG, LWHY	MK/MKS 3501 A	PMK 35-7	55	
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	MK/MKS 4501 A	PMK 45-2	60	45
		LWHD..B, LWHD..M, LWHDG, LWHY	MK/MKS 4501 A	PMK 45-12	70	
	55	LWH..B, LWHG, LWHT..B, LWHTG	MK/MKS 5501 A		70	56
		LWHD..B, LWHDG, LWHY	MK/MKS 5501 A	PMK 55-10	80	
	65	LWH..B, LWHG, LWHT..B, LWHTG, LWHD..B, LWHDG, LWHY	MK/MKS 6501 A		90	60
	85	LWHG, LWHTG	✆		110	✆
MH	12	MHT, MHT..SL	MK/MKS 1201 A*2		19	69
		MHDC..SL, MHD, MHD..SL, MHDG..SL	MK/MKS 1201 A*2		20	70
	15	MH, MHT, MHS	MK/MKS 1501 A		24	1
		MHD	MK/MKS 1501 A	PMK 15-4	28	
	20	MH, MHG, MHT, MHTG, MHS, MHSG	MK/MKS 2001 A		30	9
	25	MH, MHG, MHT, MHTG, MHS, MHSG	MK/MKS 2501 A		36	19
		MHD, MHDG	MK/MKS 2501 A	PMK 25-4	40	
	30	MH, MHG, MHT, MHTG, MHS, MHSG	MK/MKS 3001 A		42	29
		MHD, MHDG	MK/MKS 3001 A	PMK 30-3	45	
	35	MH, MHG, MHT, MHTG	MK/MKS 3501 A		48	38
		MHD, MHDG	MK/MKS 3501 A	PMK 35-7	55	
	45	MH, MHG, MHT, MHTG	MK/MKS 4501 A	PMK 45-2	60	45
		MHD, MHDG	MK/MKS 4501 A	PMK 45-12	70	
LRX	12	LRXC, LRX, LRXG	MK/MKS 1201 A*2		19	69
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MK/MKS 1201 A*2		20	70
	15	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MK/MKS 1510 B		24	2
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MK/MKS 1510 B	PMK 15-4	28	
	20	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MK/MKS 2010 B		30	8
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MK/MKS 2010 B	PMK 20-4	34	
	25	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MK/MKS 2501 A		36	19
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MK/MKS 2501 A		40	21
	30	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MK/MKS 3001 A		42	29
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MK/MKS 3001 A		45	30
	35	LRXC, LRX, LRXG	MK/MKS 3501 A		48	38
		LRXDC, LRXD, LRXDG	MK/MKS 3501 A	PMK 35-7	55	
	45	LRXC, LRX, LRXG	MK/MKS 4501 A		60	46
		LRXDC, LRXD, LRXDG	MK/MKS 4501 A	PMK45-10	70	
	55	LRXC, LRX, LRXG	MK/MKS 5501 A		70	56
		LRXDC, LRXD, LRXDG	MK/MKS 5501 A	PMK 55-10	80	
	65	LRXC, LRX, LRXG, LRXDC, LRXD, LRXDG	MK/MKS 6505 AK	PMK 65-2	90	10
	85	LRX, LRXG	✆		110	✆
	100	LRXG	✆		120	✆

*1 Supplements the measure table and datasheet
*2 This table applies only for rail use without cover sheet!

See page 10 for part number explanation

Rail manufacturer

IKO

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 48 and 49]
MX	15	MXC, MX, MXG, MXSC, MXS, MXSG	MK/MKS 1510 B		24	2
		MXDC, MXD, MXDG	MK/MKS 1510 B	PMK 15-4	28	
	20	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	MK/MKS 2010 B		30	8
		MXDC, MXD, MXDG, MXDL	MK/MKS 2010 B	PMK 20-4	34	
	25	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	MK/MKS 2501 A		36	19
		MXDC, MXD, MXDG, MXDL	MK/MKS 2501 A		40	21
	30	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	MK/MKS 3001 A		42	29
		MXDC, MXD, MXDG, MXDL	MK/MKS 3001 A		45	30
	35	MXN, MXNG, MXNS, MXNSG	✆		44	✆
		MXC, MX, MXG, MXL	MK/MKS 3501 A		48	38
	45	MXN, MXNG, MXNS, MXNSG	✆		52	✆
		MXC, MX, MXG, MXL	MK/MKS 4501 A		60	46
	55	MXN, MXNG, MXNS, MXNSG	✆		63	✆
		MXC, MX, MXG	MK/MKS 5501 A		70	56
	65	MXC, MX, MXG	MK/MKS 6505 AK	PMK 65-2	90	10
LWE	15	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	MK/MKS 1501 A		24	1
	20	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	MK/MKS 2001 A		28	7
	25	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	MK/MKS 2501 A		33	17
	30	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	MK/MKS 3001 A		42	29
	35	LWE..Q, LWET..Q, LWES..Q, LWEC, LWE, LWETC, LWET, LWESC, LWES	MK/MKS 3501 A		48	38
	45	LWE, LWET, LWES	MK/MKS 4501 A		60	46
ME	15	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC,MESC..SL, MES, MES..SL, MESG, MESG..SL, MH, MHT, MHS	MK/MKS 1501 A		24	1
		MHD	MK/MKS 1501 A	PMK 15-4	28	
	20	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC.. SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	MK/MKS 2001 A		28	7
		MH, MHG, MHT, MHTG, MHS, MHSG	MK/MKS 2001 A		30	9
	25	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	MK/MKS 2501 A		33	17
		MH, MHG, MHT, MHTG, MHS, MHSG	MK/MKS 2501 A	PMK 25-2	36	18
		MHD, MHDG	MK/MKS 2501 A	PMK 25-6	40	
	30	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MH, MHG, MHT, MHTG, MHS, MHSG	MK/MKS 3001 A		42	29
		MHD, MHDG	MK/MKS 3001 A	PMK 30-3	45	
	35	MEC, ME, METC, MET, MESC, MES, MH, MHG, MHT, MHTG	MK/MKS 3501 A		48	38
		MHD, MHDG	MK/MKS 3501 A	PMK 35-7	55	
	45	ME, MET, MES, MH, MHG, MHT, MHTG	MK/MKS 4501 A		60	46
		MHD, MHDG	MK/MKS 4501 A	PMK 45-10	70	

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer

INA

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *[1]	[page 48 and 49]
TKD (KUE)	15	KWE	MK/MKS 1501 A		24	1
		KWE..-H	MK/MKS 1501 A	PMK 15-4	28	
	20	KWE, KWE..-H	MK/MKS 2001 A		30	9
	25	KWE	MK/MKS 2501 A	PMK 25-4	36	16
		KWE..-H	MK/MKS 2501 A	PMK 25-8	40	
	30	KWE	MK/MKS 3001 A	PMK 30-2	42	28
		KWE..-H	MK/MKS 3001 A	PMK 30-5	45	
	35	KWE	MK/MKS 3501 A	PMK 35-8	48	33
		KWE..-H	MK/MKS 3501 A	PMK 35-15	55	
TKVD (KUVE)	15	KWVE..-B, KWVE..-B-EC, KWVE..-B-ESC, KWVE..-B-S	MK/MKS 1502 K		24	1
		KWVE..-B-H	MK/MKS 1502 K	PMK 15-4	28	
	20	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-H	MK/MKS 2002 K		30	9
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	MK/MKS 2002 K		27	6
		KWVE..-B-EC, KWVE..-B-ESC	MK/MKS 2002 K		28	7
	25	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-HS, KWVE..B-S-HS	MK/MKS 2502 K	PMK 25-2	36	18
		KWVE..-B-EC, KWVE..-B-ESC	MK/MKS 2502 K		33	17
		KWVE..-B-H, KWVE..-B-HL, KWVE..B-H-HS	MK/MKS 2502 K	PMK 25-6	40	18
	30	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	MK/MKS 3002 K		42	29
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	MK/MKS 3002 K		38	26
		KWVE..-B-H, KWVE..-B-HL	MK/MKS 3002 K	PMK 30-3	45	29
	35	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	MK/MKS 3502 K		48	38
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	MK/MKS 3502 K		44	37
		KWVE..-B-H, KWVE..-B-HL	MK/MKS 3502 K	PMK 35-11	55	
	45	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	MK/MKS 4502 K		60	46
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	MK/MKS 4502 E		52	54
		KWVE..-B-H, KWVE..-B-HL	MK/MKS 4502 K	PMK 45-10	70	46
	55	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL	MK/MKS 5502 K		70	56
TKSD (KUSE)	20	KWSE, KWSE..-L, KWSE..-H, KWSE..-HL	MK/MKS 2001 A		30	9
	25	KWSE, KWSE.. -L	MK/MKS 2501 A		36	19
		KWSE..-H, KWSE..-HL	MK/MKS 2501 A	PMK 25-4	40	
	30	KWSE, KWSE..-L	MK/MKS 3001 A		42	29
		KWSE..-H, KWSE..-HL	MK/MKS 3001 A	PMK 30-3	45	
	35	KWSE, KWSE..L	MK/MKS 3501 A		48	38
	45	KWSE, KWSE..-L	MK/MKS 4501 A		60	46
TKVD - W (KUVE-W)	15	KWVE..-W	MK/MKS 1502 KB★		21	57
	20	KWVE..-W, KWVE..-WL	MK/MKS 2002 KB		27	13
	25	KWVE..-W, KWVE..-WL	MK/MKS 2502 KB		35	49
	30	KWVE..-W	MK/MKS 3002 KB		42	3
	35	KWVE..-WL	MK/MKS 3502 KB		50	62
TSX - E (RUE)	25	RWU..-D-FE, RWU..-D-OE, RWU..-D-L-FE, RWU..-D-L-OE	MK/MKS 2502 R★	PMK 25-2	36	18
		RWU..-D-H-FE, RWU..-D-H-OE, RWU..-D-HL-FE, RWU..-D-HL-OE	MK/MKS 2502 R★	PMK 25-6	40	
	35	RWU..-E, RWU..-E-L	MK/MKS 3502 R/02★		48	35
		RWU..-E-H, RWU..-E-HL	MK/MKS 3502 R/02★	PMK 35-7	55	
	45	RWU..-E, RWU..-E-L	MK/MKS 4502 R★	PMK 45-2	60	45
		RWU..-E-H, RWU..-E-HL	MK/MKS 4502 R★	PMK 45-12	70	
	55	RWU..-E, RWU..-E-L	MK/MKS 5502 R★		70	50
		RWU..-E-H, RWU..-E-HL	MK/MKS 5502 R★	PMK 55-10	80	
	65	RWU..-E, RWU..-E-L	MK/MKS 6502 R★		90	60
		RWU..-E-H, RWU..-E-HL	MK/MKS 6502 R★	PMK 65-10	100	

★ PLUS connection not possible

*[1] Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer

NSK

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 48 and 49]
LH	15	LAH..EMZ, LAH..GMZ	MK/MKS 1501 A		24	1
		LAH..ANZ, LAH..BNZ	MK/MKS 1501 A	PMK 15-4	28	
	20	LAH..EMZ, LAH..GMZ, LAH..ANZ, LAH..BNZ	MK/MKS 2001 A		30	9
	25	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	MK/MKS 2501 A		36	19
		LAH..ANZ, LAH..BNZ	MK/MKS 2501 A	PMK 25-4	40	
	30	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	MK/MKS 3001 A		42	29
		LAH..ANZ, LAH..BNZ	MK/MKS 3001 A		45	30
	35	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	MK/MKS 3501 A		48	38
		LAH..ANZ, LAH..BNZ	MK/MKS 3501 A	PMK 35-7	55	
	45	LAH..EMZ, LAH..GMZ	MK/MKS 4501 A		60	46
		LAH..ANZ, LAH..BNZ	MK/MKS 4501 A	PMK 45-10	70	
	55	LAH..EMZ, LAH..GMZ	MK/MKS 5501 A		70	56
		LAH..ANZ, LAH..BNZ	MK/MKS 5501 A	PMK 55-10	80	
	65	LAH..EMZ, LAH..GMZ, LAH..ANZ, LAH..BNZ	MK/MKS 6501 A		90	60
SH	15	SAH..EMZ, SAH..GMZ	MK/MKS 1501 A		24	1
		SAH..ANZ, SAH..BNZ	MK/MKS 1501 A	PMK 15-4	28	
	20	SAH..EMZ, SAH..GMZ, SAH..ANZ, SAH..BNZ	MK/MKS 2001 A		30	9
	25	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	MK/MKS 2501 A		36	19
		SAH..ANZ, SAH..BNZ	MK/MKS 2501 A	PMK 25-4	40	
	30	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	MK/MKS 3001 A		42	29
		SAH..ANZ, SAH..BNZ	MK/MKS 3001 A		45	30
	35	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	MK/MKS 3501 A		48	38
		SAH..ANZ, SAH..BNZ	MK/MKS 3501 A	PMK 35-7	55	
LS	15	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	MK/MKS 1501 A		24	1
	20	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	MK/MKS 2001 A		28	7
	25	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	MK/MKS 2501 A		33	17
	30	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	MK/MKS 3001 A		42	29
	35	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	MK/MKS 3501 A	PMK 35-4	48	37
SS	15	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	MK/MKS 1501 A		24	1
	20	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	MK/MKS 2001 A		28	7
	25	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	MK/MKS 2501 A		33	17
	30	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	MK/MKS 3001 A		42	29
	35	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	MK/MKS 3501 A	PMK 35-4	48	37
LW	17	LAW..ELZ	MK/MKS 1701 B		17	11
	21	LAW..ELZ	MK/MKS 2101 B★		21	24
	27	LAW..ELZ	MK/MKS 2701 B★		27	25
	35	LAW..ELZ	MK/MKS 3501 B		35	49
	50	LAW..ELZ	MK/MKS 5001 B		50	62
RA	15	RA..AL, RA..BL, RA..EM, RA..GM	MK/MKS 1504 F		24	2
		RA..AN, RA..BN	MK/MKS 1504 F	PMK 15-4	28	
	20	RA..EM, RA..GM, RA..AN, RA..BN	MK/MKS 2004 F		30	8
	25	RA..AL, RA..BL, RA..EM, RA..GM	MK/MKS 2505 AR		36	14
		RA..AN, RA..BN	MK/MKS 2505 AR	PMK 25-4	40	
	30	RA..AL, RA..BL, RA..EM, RA..GM	MK/MKS 3004 F		42	15
		RA..AN, RA..BN	MK/MKS 3004 F	PMK 30-3	45	
	35	RA..AL, RA..BL, RA..EM, RA..GM	MK/MKS 3504 F		48	35
		RA..AN, RA..BN	MK/MKS 3504 F	PMK 35-7	55	
	45	RA..AL, RA..BL, RA..EM, RA..GM	MK/MKS 4504 F		60	42
		RA..AN, RA..BN	MK/MKS 4504 F	PMK 45-10	70	
	55	RA..AL, RA..BL, RA..EM, RA..GM	MK/MKS 5504 F	PMK 55-3	70	22
		RA..AN, RA..BN	MK/MKS 5504 F	PMK 55-13	80	
	65	RA..EM, RA..GM, RA..AN, RA..BN	MK/MKS 6504 F	PMK 65-12	90	34

★ PLUS connection not possible

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer
HIWIN®
Lineartechnologie

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *[1]	[page 48 and 49]
HGR..R, HGR..T	15	HGW..CC, HGL..CA, QHW..CC	MK/MKS 1501 A		24	1
		HGH..CA, QHH..CA	MK/MKS 1501 A	PMK 15-4	28	
	20	HGW..CC, HGW..HC, HGH..CA, HGH..HA, QHW..CC, QHW..HC, QHH..CA, QHH..HA	MK/MKS 2001 A		30	9
	25	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	MK/MKS 2501 A		36	19
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MK/MKS 2501 A	PMK 25-4	40	
	30	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	MK/MKS 3001 A		42	29
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MK/MKS 3001 A	PMK 30-3	45	
	35	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	MK/MKS 3501 A		48	38
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MK/MKS 3501 A	PMK 35-7	55	
	45	HGW..CC, HGW..HC, HGL..CA, HGL..HA QHW..CC, QHW..HC	MK/MKS 4501 A	PMK 45-2	60	45
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MK/MKS 4501 A	PMK 45-12	70	
	55	HGW..CC, HGW..HC, HGL..CA, HGL..HA	MK/MKS 5501 A		70	56
		HGH..CA, HGH..HA	MK/MKS 5501 A	PMK 55-10	80	
	65	HGW..CC, HGW..HC, HGH..CA, HGH..HA	MK/MKS 6501 A		90	60
EGR..R, EGR..U, EGR..T	15	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	MK/MKS 1501 A		24	1
	20	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	MK/MKS 2001 A		28	7
	25	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	MK/MKS 2501 A	PMK 25-2	33	20
	30	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	MK/MKS 3001 A	PMK 30-2	42	28
	35	EGH...SA, EGH...CA, EGW...SC, EGW...CC	✆		48	✆
RG..T	15	RGW..CC	✆		24	✆
		RGH..CA	✆		28	
	20	RGW..CC, RGW..HC	✆		30	✆
		RGH..CA, RGH..HA	✆		34	
	25	RGW..CC, RGW..HC	MK/MKS 2512 F		36	14
		RGH..CA, RGH..HA	MK/MKS 2512 F	PMK 25-4	40	
	30	RGW..CC, RGW..HC	MK/MKS 3012 F		42	15
		RGH..CA, RGH..HA	MK/MKS 3012 F	PMK 30-3	45	
	35	RGW..CC, RGW..HC	MK/MKS 3512 F		48	35
		RGH..CA, RGH..HA	MK/MKS 3512 F	PMK 35-7	55	
	45	RGW..CC, RGW..HC	MK/MKS 4512 F		60	42
		RGH..CA, RGH..HA	MK/MKS 4512 F	PMK 45-10	70	
	55	RGW..CC, RGW..HC	MK/MKS 5501 F	PMK 55-6	70	12
		RGH..CA, RGH..HA	MK/MKS 5501 F	PMK 55-16	80	
	65	RGW..CC, RGW..HC, RGH..CA, RGH..HA	✆		90	✆
WE	27	WEW..CC, WEH..CA	MK/MKS 2701 B★		27	25
	35	WEW..CC, WEH..CA	MK/MKS 3501 B		35	49

★ PLUS connection not possible
*[1] Supplements the measure table and datasheet

See page 10 for part number explanation

MK/MKS

Rail manufacturer
ROLLON

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 48 and 49]
MRR	15	MRS, MRT..W, MRT..SW	MK/MKS 1501 A		24	1
		MRS..W	MK/MKS 1501 A	PMK 15-4	28	
	20	MRT..W, MRT..SW	MK/MKS 2001 A		28	7
		MRS, MRS..L, MRS..W, MRS..LW	MK/MKS 2001 A	PMK 20-2	30	
	25	MRT, MRT..S, MRT..W, MRT..SW, MRT..LW	✆		33	✆
		MRS, MRS..L, MRZ..W	MK/MKS 2501 A		36	19
		MRS..W, MRS..LW	MK/MKS 2501 A	PMK 25-4	40	
	30	MRS, MRS..L, MRT..W, MRT..SW, MRT..LW	MK/MKS 3001 A		42	29
		MRS..W, MRS..LW	MK/MKS 3001 A	PMK 30-3	45	
	35	MRS, MRS..L, MRT..W, MRT..SW, MRT..LW	MK/MKS 3501 A		48	38
		MRS..W, MRS..LW	MK/MKS 3501 A	PMK 35-7	55	
	45	MRS, MRS..L, MRT..W, MRT..LW	MK/MKS 4501 A		60	46
		MRS..W, MRS..LW	MK/MKS 4501 A	PMK 45-10	70	
	55	MCT..W, MCT..LW	✆		68	✆
		MCS, MCS..L	MK/MKS 5501 A		70	56
		MCS..W, MCS..LW	MK/MKS 5501 A	PMK 55-10	80	

NTN SNR

BG	15	BGCH..FN, BGCH..FL, BGCS..BS, BGCS..BN, BGCS..BL, BGXH..FN, BGXH..FL, BGXS..BS, BGXS..BN, BGXS..BL	MK/MKS 1501 A		24	1
		BGCH..BN, BGXH..BN	MK/MKS 1501 A	PMK 15-4	28	
	20	BGCS..BS, BGCS..BN, BGXS..BN, BGXS..BN	MK/MKS 2001 A		28	7
		BGCH..FN, BGCH..FL, BGCH..BN, BGCH..BL, BGXH..FN, BGXH..FL, BGXH..BN, BGXH..BL	MK/MKS 2001 A		30	9
	25	BGCS..BS, BGCS..BN, BGXS..BS, BGXS..BN	MK/MKS 2501 A		33	17
		BGCH..FN, BGCH..FL, BGCH..FE, BGCX..BN, BGCX..BL, BGCX..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXX..BN, BGXX..BL, BGXX..BE	MK/MKS 2501 A	PMK 25-2	36	18
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	MK/MKS 2501 A	PMK 25-6	40	
	30	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	MK/MKS 3001 A		42	29
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	MK/MKS 3001 A	PMK 30-3	45	
	35	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	MK/MKS 3501 A	PMK 35-4	48	37
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	MK/MKS 3501 A	PMK 35-11	55	
	45	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BN, BGXS..BL, BGXS..BE	MK/MKS 4501 A	PMK 45-6	60	44
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	MK/MKS 4501 A	PMK 45-16	70	
	55	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BN, BGXS..BL, BGXS..BE	MK/MKS 5501 A	PMK 55-7	70	4
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	MK/MKS 5501 A	PMK 55-17	80	

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Rail manufacturer

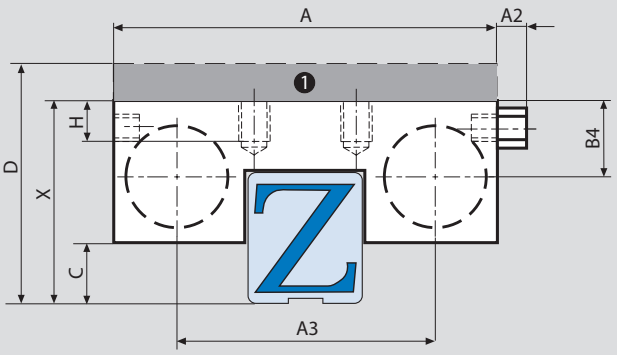
SKF

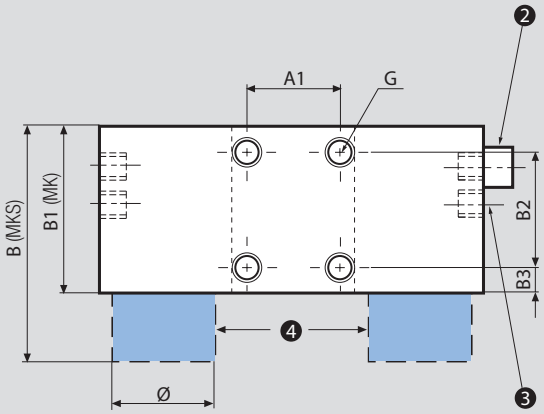
Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 48 and 49]
LLTH, LLTH..D4, LLTH..D6	15	LLTHC..SA, LLTHC..A, LLTHC..SU, LLTHC..U	MK/MKS 1501 A		24	1
		LLTHC..R	MK/MKS 1501 A	PMK 15-4	28	
	20	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LR	MK/MKS 2001 A		30	9
	25	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU,	MK/MKS 2501 A		36	19
		LLTHC..R, LLTHC..LR	MK/MKS 2501 A	PMK 25-4	40	
	30	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU,	MK/MKS 3001 A		42	29
		LLTHC..R, LLTHC..LR	MK/MKS 3001 A	PMK 30-3	45	
	35	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU,	MK/MKS 3501 A	PMK 35-3	48	36
		LLTHC..R, LLTHC..LR	MK/MKS 3501 A	PMK 35-10	55	
	45	LLTHC..A, LLTHC..LA, LLTHC..U, LLTHC..LU,	MK/MKS 4501 A		60	46
		LLTHC..R, LLTHC..LR	MK/MKS 4501 A	PMK 45-10	70	

*1 Supplements the measure table and datasheet

See page 10 for part number explanation

MK/MKS



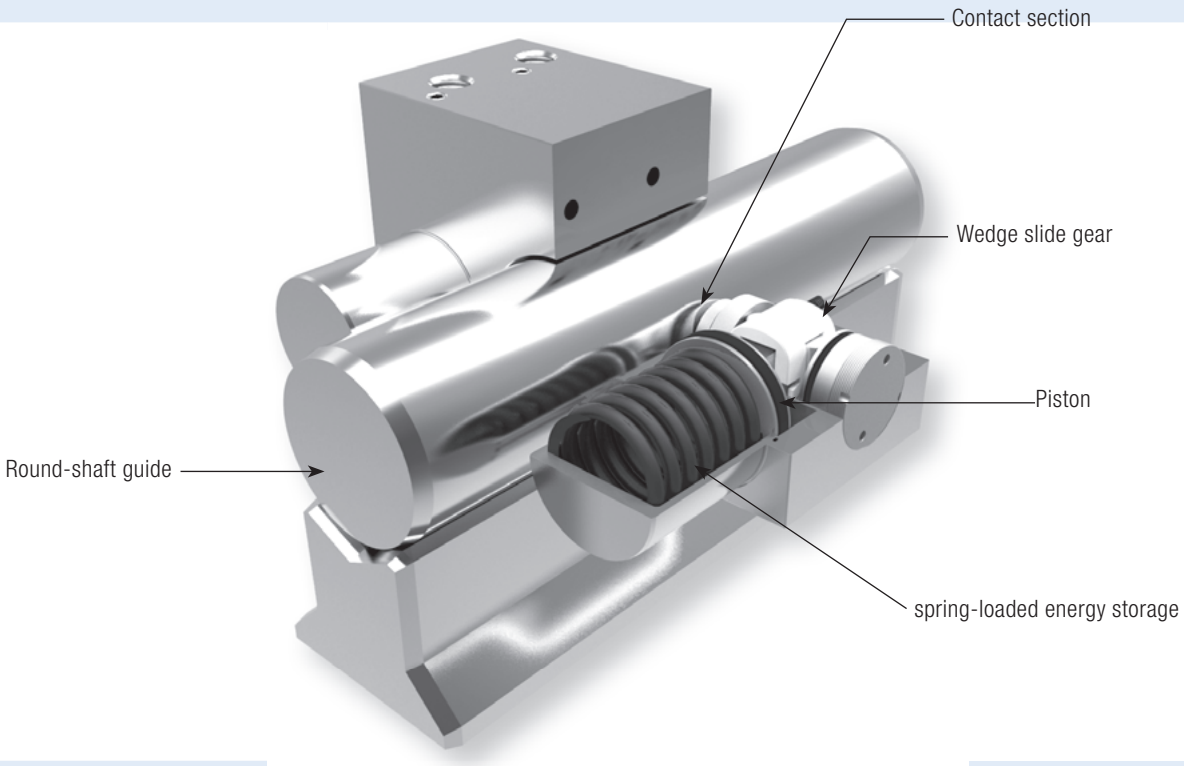


Note: Consider measurement C/Interfering contour!

Air connections are located on both sides and can be exchanged according to mounting requirements.
Only one connection is necessary for function.

1. Adapting plate PMK (accessory)
2. MK Series: Air filter
   MKS: M5 port (air connection)
3. MK Series: M5 port (air connection)
   MKS: Air filter / Plus connection M5.
4. The attachment spring unit on the MKS is not applicable on the MK.

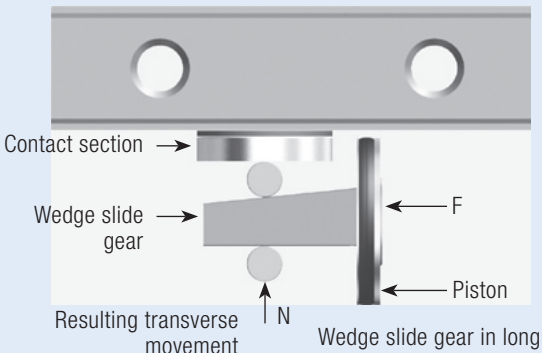
Measure table	Holding Power [N] MK	Holding Power [N] MKS	A [mm]	A1 [mm]	A2 [mm]	A3 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	C [mm]	X [mm]	G	H [mm]	Ø
1	650	400	55	15	6	34	58	39	15	15,5	12	2,5	24	M4	4,5	16
2	650	400	55	15	6	34	58	39	15	15,5	11,6	3,2	24	M4	4,5	16
3	1750	1050	142	22	5	110	68	39	22	8,5	20,5	7	42	M8	8	25
4	2250	1450	128	30	5	87	82	49	30	9,5	30,5	14	63	M10	18	30
5	650	400	60	15	5	39	68	59	25	12	10,5	4,5	24	M5	7	16
6	1000	600	66	20	6	43	61	39	20	5	14,4	1,5	27	M5	5,5	20
7	1000	600	66	20	6	43	61	39	20	5	14,4	2,5	28	M5	5,5	20
8	1000	600	66	20	5	43	61	39	20	9	15,5	3	30	M6	6	20
9	1000	600	66	20	6	43	61	39	20	5	14,4	4,5	30	M5	5,5	20
10	2250	1450	138	30	5	96,8	82	49	30	9,5	55	16,5	88	M10	20	30
11	460	250	70	15	5	50,6	63	48	15	11,5	8,3	1,2	17	M5	7,5	12
12	2250	1450	128	30	5	86,8	82	49	30	9,5	36,2	11	64	M10	15	30
13	1000	600	88	20	6	65	61	39	20	5	14,4	1,5	27	M5	5,5	20
14	1200	750	75	20	5	49	56	35	20	5	20	3,5	36	M6	8	22
15	1200	750	90	22	5	64	60	39	22	8,5	24,5	5	42	M8	9	22
16	1200	750	75	20	5	49	56	35	20	5	15,5	4	32	M6	8	22
17	1200	750	75	20	5	49	56	35	20	5	15,5	5	33	M6	8	22
18	1200	750	75	20	5	49	56	35	20	5	15,5	6	34	M6	8	22
19	1200	750	75	20	5	49	56	35	20	5	15,5	8	36	M6	8	22
20	1200	750	75	20	5	49	56	35	20	5	15,5	3,0	31	M6	8	22
21	1200	750	75	20	5	49	56	35	20	5	15,5	12	40	M6	8	22
22	2250	1450	128	30	5	86,8	82	49	30	9,5	40	10	67	M10	15	30
23	1200	750	75	20	5	49	65	54	20	12	12,5	5	30	M6	8	22
24	650	400	77	15	5	56	58	49	15	21,5	9,6	2	21	M5	5	16
25	1000	600	88	20	5	65	65	53	20	19,5	11,5	4	27	M6	6	20
26	1750	1050	90	22	5	58	68	39	22	8,5	20,5	3	38	M8	10	25
27	1750	1050	90	22	5	58	68	39	22	8,5	24	3,5	42	M8	9	25
28	1750	1050	90	22	5	58	68	39	22	8,5	20,5	5	40	M8	10	25
29	1750	1050	90	22	5	58	68	39	22	8,5	20,5	7	42	M8	10	25
30	1750	1050	90	22	5	58	68	39	22	8,5	20,5	10	45	M8	10	25
31	1750	1050	90	22	5	58	78	59	22	13,5	14	5	33	M8	8	25
32	1750	1050	96	20	5	64	73	54	20	10	15,5	8,5	38	M8	10	25
33	2000	1250	100	24	5	68	67	39	24	7,5	20,5	3,5	40	M8	10	28
34	2250	1450	138	30	5	96,8	82	49	30	9,5	43,7	14,5	78	M10	15	30
35	2000	1250	100	24	5	68	67	39	24	7,5	28	4	48	M8	10	28
36	2000	1250	100	24	5	68	67	39	24	7,5	20,5	8,5	45	M8	10	28
37	2000	1250	100	24	5	68	67	39	24	7,5	20,5	7,5	44	M8	10	28
38	2000	1250	100	24	5	68	67	39	24	7,5	20,5	11,5	48	M8	10	28
39	2250	1450	138	30	5	96,8	82	49	30	9,5	43,7	11,5	75	M10	15	30
40	2250	1450	128	30	5	86,8	82	49	30	9,5	36,2	10	63	M10	15	30
41	1200	750	120	50	5	94	56	35	20	5	20	2,5	35	M6	8	22
42	2250	1450	120	26	5	78,8	82	49	26	11,5	35,5	8	60	M10	15	30
43	2250	1450	120	26	5	78,8	82	49	26	11,5	26,8	8,5	52	M10	15	30
44	2250	1450	120	26	5	78,8	82	49	26	11,5	26,8	10,5	54	M10	15	30
45	2250	1450	120	26	5	78,8	82	49	26	11,5	26,8	14,5	58	M10	15	30
46	2250	1450	120	26	5	78,8	82	49	26	11,5	26,8	16,5	60	M10	15	30
47	2250	1450	138	30	5	97	82	49	30	9,5	42	16	75	M10	15	30
48	1200	750	75	20	5	49	56	35	20	5	15,3	3,5	31	M6	7,5	22
49	1200	750	121	50	5	95	57	36	20	5	17,5	5	35	M8	10	22
50	2250	1450	128	30	5	86,8	82	49	30	9,5	40	13	70	M10	15	30
51	1500	1000	130	26	5	88,8	82	49	26	11,5	26,8	16,5	60	M10	15	30
52	2250	1450	128	30	5	87	82	49	30	9,5	30,5	14,5	63	M10	18	30
53	2250	1450	128	30	5	87	82	49	30	9,5	30,5	15,5	64	M10	18	30
54	2250	1450	120	26	5	78,8	82	49	26	11,5	28,5	7	52	M10	13,8	30
55	2250	1450	128	30	5	87	82	49	30	9,5	30,5	19,5	68	M10	18	30
56	2250	1450	128	30	5	87	82	49	30	9,5	30,5	21,5	70	M10	18	30
57	650	400	77	15	5	56	58	39	15	21,5	9,6	2	21	M5	5	16
58	650	400	80	20	5	59	58	39	20	15,5	14	3,5	27	M4	4,5	16
59	2250	1450	138	30	5	96,8	82	49	30	9,5	55	16,5	90	M10	20	30
60	2250	1450	138	30	5	96,8	82	49	30	9,5	46	27	90	M10	15	30
61	1200	750	75	20	5	50,4	56	35	20	5	15,5	3	31	M6	8	22
62	2000	1250	156	60	5	124	67	39	20	9,5	29,5	4,5	50	M10	10	28
63	2000	1250	156	60	5	124	70	42	20	9,5	30	4,5	50	M10	10	28
64	650	400	64	15	6	45,4	58	39	15	15,5	12	2,5	24	M4	4,5	16
65	1200	750	84	20	5	58	56	35	20	5	15,5	8	36	M6	8	22
66	1200	750	114	24	5	82	67	39	24	7,5	20,5	11,5	48	M8	10	28
67	2250	1450	160	60	5	119	82	49	30	9,5	42	23	82	M10	15	30
68	2250	1450	150	30	5	108,8	82	49	30	9	47	26	90	M10	20	30
69	350	250	48,6	15	5	29,7	63	50	15	15,5	8,5	3	19	M4	4,5	12
70	350	250	48,6	15	5	29,7	63	50	15	15,5	8,5	4	20	M4	4,5	12
71	1750	1050	90	22	5	58	68	39	22	8,5	24,5	3,5	42	M8	9	25



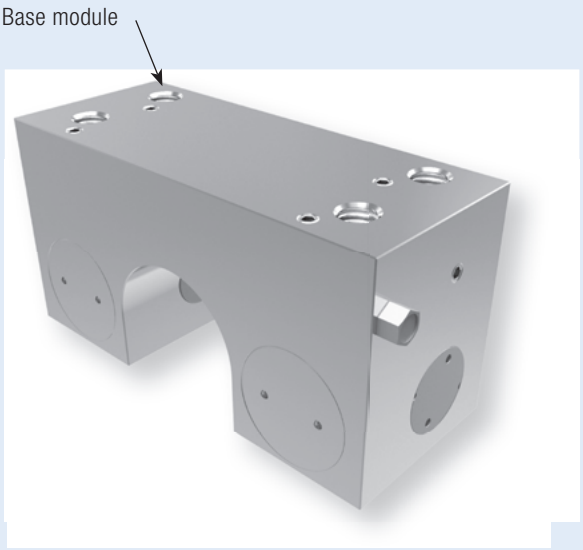
Efficient clamping elements for round-shaft guides **MKR/MKRS**

The MKR/MKRS series is our classic element for round-shaft guides that clamp (close) with pneumatic pressure.
The patented wedge slide gear enables high supporting forces. The pressure medium moves the wedge slide gear in a longitudinal direction.

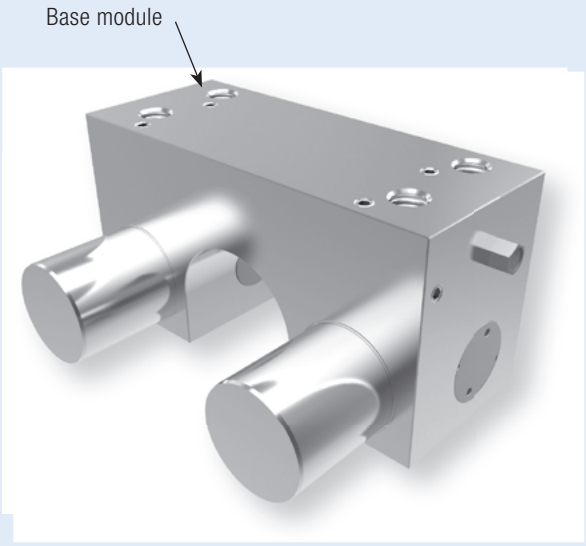
The resulting transverse movement presses the contact sections against the shaft guides.
The MKR is clamped (closed) by pneumatic pressure. The MKRS is clamped (closed) by spring-loaded energy storage and is opened by pneumatic pressure.



MKR Series



MKRS Series



Technical data for MKR series:

Shaft size [mm]	12–60
Holding forces	650 N–2,000 N
Min. pressure	6 bar
Max. pressure	8 bar
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	unsuitable

Technical data for MKRS series:

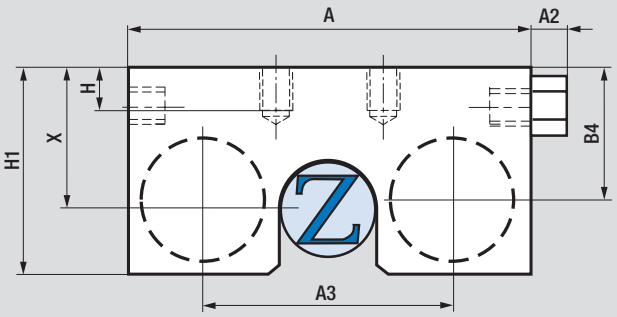
Shaft size	12–60
Holding forces	350 N–1,700 N
Min. pressure	5.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	unsuitable

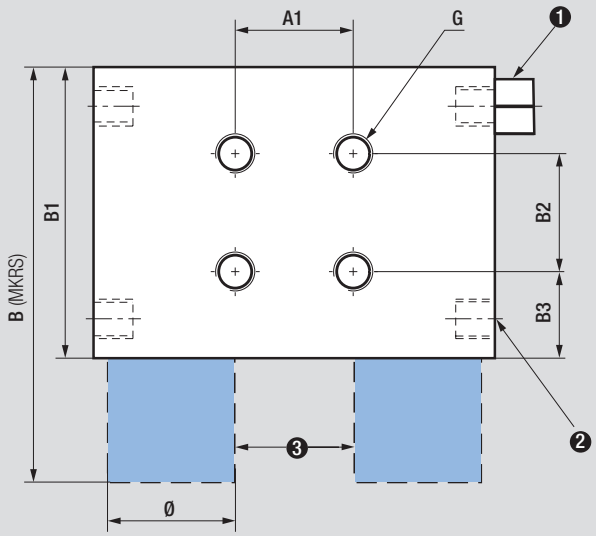
Application scenarios for MKR:
- Axes with pneumatic positioning
- Table traverses in wood industry
- Fixing of vertical axes
- Positioning of lifting devices
- Pneumatic clamping of machine tables
- Machine table clamping of work centres

Additional application scenarios for MKRS:
- Clamping in case of pressure drop
- Clamping without energy requirement

Connection options for MKR/MKRS:
The MKR/MKRS series have air connections on both sides as part of their standard equipment. This means that the air connection and the air-release filter can be moved over to the opposite side.
PLUS connection is not possible with the MKRS series.

MKR





Air connections are located on both sides
and can be exchanged according
to mounting requirements.
Only one connection is necessary for function.

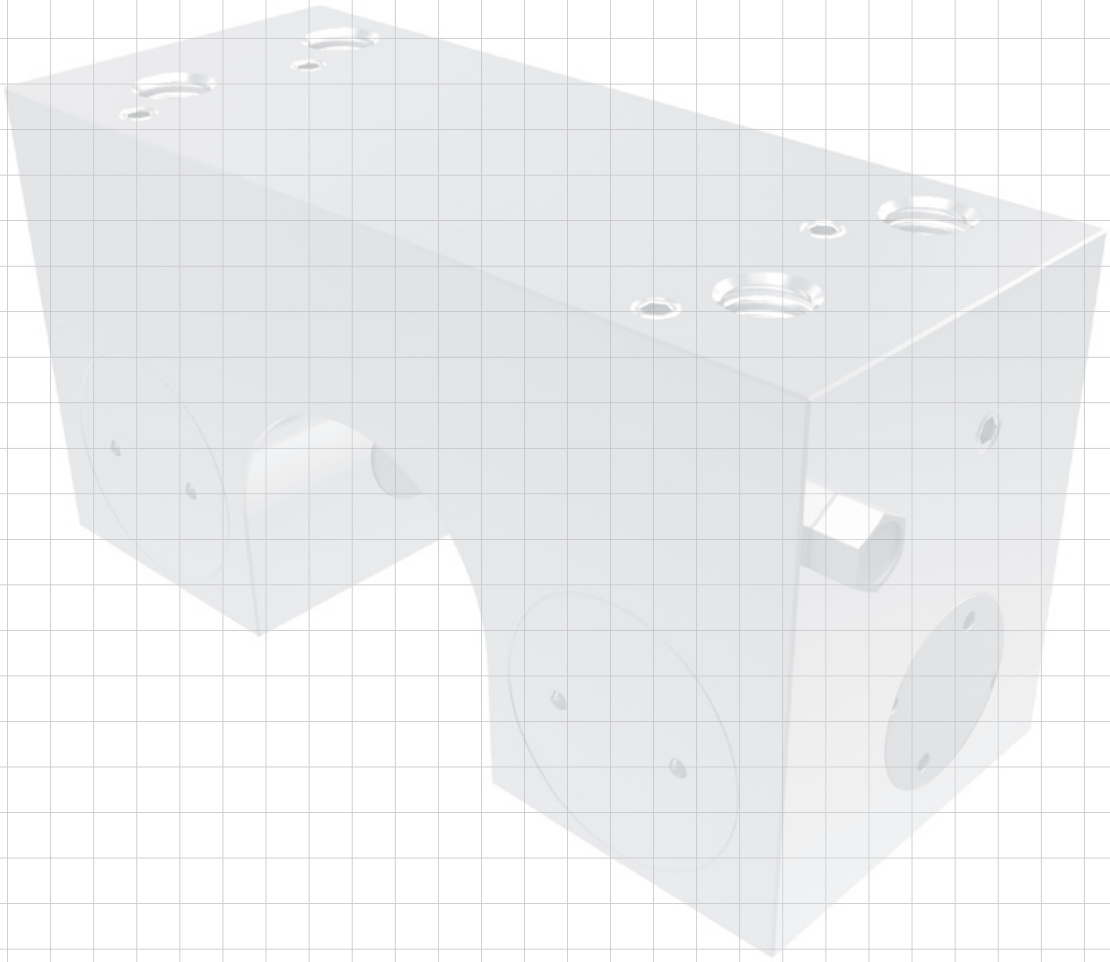
❶ MKR Series: Air filter
MKRS Series: M5 port (air connection)

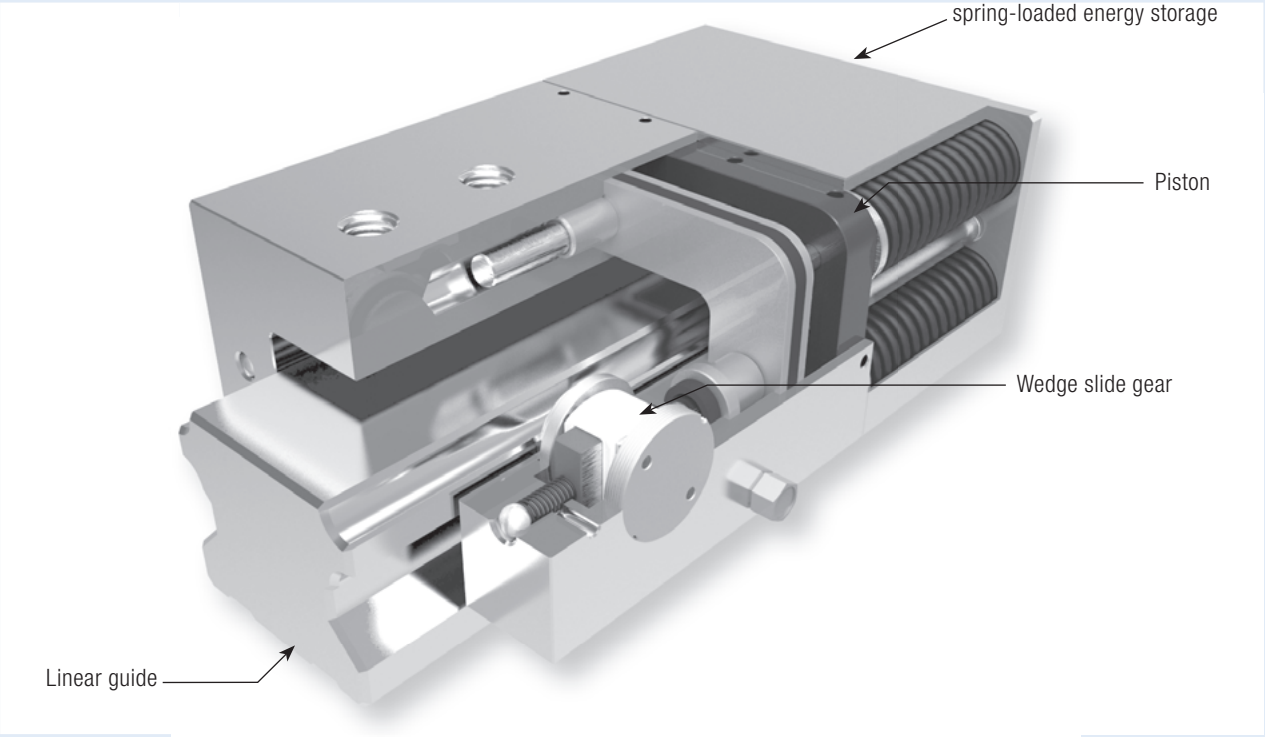
❷ MKR Series: M5 port (air connection)
MKRS Series: Air filter

❸ The attachment spring unit on the MKRS is not applicable on the MKR.

Size [mm]	Item number	Holding power [N] MKR	Holding power [N] MKRS	A [mm]	A1 [mm]	A2 [mm]	A3 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	X [mm]	G	H [mm]	H1 [mm]	Ø [mm]
12	MKR/MKRS 1200 A	650	350	50	15	5	31	56	37	15	11	18	18	M5	6	27,5	16
16	MKR/MKRS 1600 A	650	400	55	15	5	35	58	39	15	12,5	22	22	M5	6	32	16
20	MKR/MKRS 2000 A	1000	600	66	45	5	43	60	38	18	13	25	25	M8	10	38	20
25	MKR/MKRS 2500 A	1200	750	77	60	5	51	63	43	20	15	30	30	M10	12	43	22
30	MKR/MKRS 3000 A	1750	1050	92	68	5	60	77,5	48,5	25	14	34	35	M10	13	48,5	25
40	MKR/MKRS 4000 A	2000	1700	120	90	5	78,8	82	49	26	14	45	45	M10	15	62	30
50	MKR/MKRS 5000 A	1850	1650	132	108	5	90,8	82	49	30	9,5	50	50	M10	15	67	30
60	MKR/MKRS 6000 A	1850	1650	142	108	5	100,8	82	49	30	9,5	50	50	M10	15	67	30

See page 10 for part number explanation



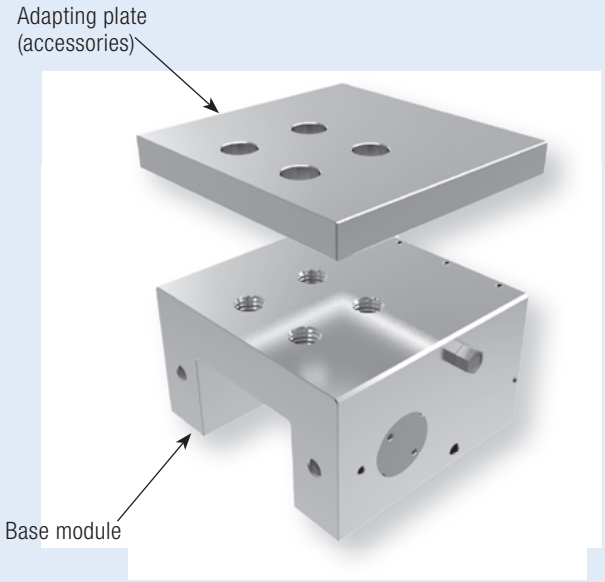


Narrow and low design (S2/S3):
The pneumatic Clamping Element **LKP/LKPS**

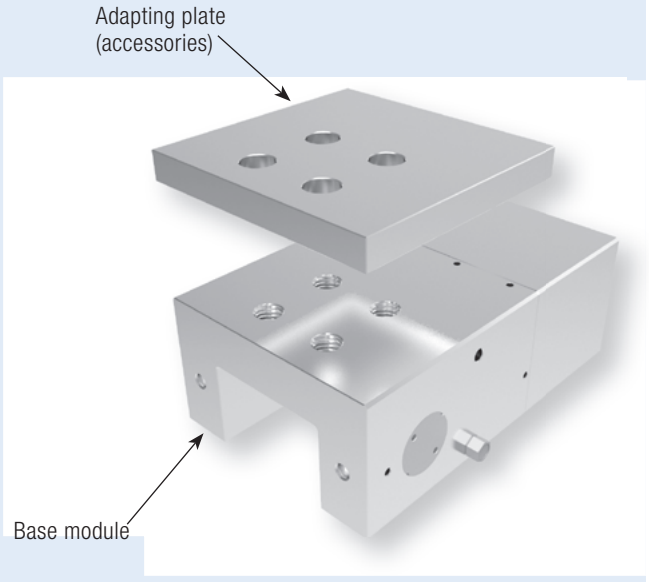
The LKP/LKPS series is set apart by the narrow and low design to DIN645-1 and the high holding forces.
The LKP/LKPS series is a low-cost clamping element available for rail sizes 15–55.
The LKP is an element that closes under pneumatic pressure.
At a pneumatic operating pressure of 6 bar, a retention force of up to 5,400 N is achieved.

The LKPS is closed by a spring-loaded energy storage and opened under the impact of air. At a pneumatic opening pressure of 5.5 bar, a retention force of up to 3,600 N is achieved.

LKP series



LKPS series



Technical data for LKP series:

Rail size	15–55
Holding forces	350 N–2,250 N
Min. pressure	6 bar
Max. pressure	8 bar
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	unsuitable

Technical data for LKPS series:

Rail size	15–55
Holding forces	250 N - 1,450 N
Min. pressure	5.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	unsuitable

Application scenarios for LKP:
- Clamping of machine tables
- Positioning of axes
- Fixing of vertical axes in neutral position

Application scenarios for LKPS:
- Clamping in case of pressure drop
- Clamping without energy requirement

Connection options for LKP/LKPS:
The LKP/LKPS series have air connections on both sides as part of their standard equipment. This means that the air connection and the air-release filter can be moved over to the opposite side.

Adapting plate accessory for LKP/LKPS:
Depending on the height of the carriage (measure D), an additional adapting plate is required (see table from page 56).

Rail manufacturer THK The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 61]
SR, SSR	15	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM	LKP/LKPS 1501 AS2		24	1
	20	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM	LKP/LKPS 2001 AS2		28	3
	25	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM	LKP/LKPS 2501 AS2		33	5
	30	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM	✆		42	✆
	35	SR..W, SR..WM, SR..V, SR..VM, SSR..XW	✆		48	✆
	45	SR..W	✆		60	✆
	55	SR..W	✆		68	✆
HSR	15	HSR..R, HSR..RM, HSR..YR, HSR..YRM	LKP/LKPS 1501 AS2	PLK 15-4	28	1
	20	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	LKP/LKPS 2001 AS2		30	2
	25	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	LKP/LKPS 2501 AS2	PLK 25-4	40	4
	30	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	✆		45	✆
	35	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	✆		55	✆
	45	HSR..R, HSR..LR, HSR..YR	✆		70	✆
	55	HSR..R, HSR..LR, HSR..YR	✆		80	✆
SHS	15	SHS..V, SHS..LV	LKP/LKPS 1501 AS2		24	1
		SHS..R	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	SHS..V, SHS..LV	LKP/LKPS 2001 AS2		30	3
	25	SHS..V, SHS..LV	LKP/LKPS 2501 AS2	PLK 25-2	36	6
		SHS..R, SHS..LR	LKP/LKPS 2501 AS2	PLK 25-6	40	
	30	SHS..V, SHS..LV	✆		42	✆
		SHS..R, SHS..LR	✆		45	
	35	SHS..V, SHS..LV	✆		48	✆
		SHS..R, SHS..LR	✆		55	
	45	SHS..V, SHS..LV	✆		60	✆
		SHS..R, SHS..LR	✆		70	
	55	SHS..V, SHS..LV	✆		70	✆
		SHS..R, SHS..LR	✆		80	
SRG	15	SRG..V	LKP/LKPS 1501 AS2		24	1
	20	SRG..V, SRG..LV	LKP/LKPS 2001 AS2		30	2
	25	SRG..R, SRG..LR	LKP/LKPS 2501 AS2		40	4
	30	SRG..R, SRG..LR	✆		45	✆
	35	SRG..R, SRG..LR	✆		55	✆
	45	SRG..R, SRG..LR	✆		70	✆
	55	SRG..R, SRG..LR	✆		80	✆

Rail manufacturer Rexroth Bosch Group

R1605, R1607, R1645, R1647 R2045, R2047	15	R1622, R1623, R1632,R1662, R1666, R2011	LKP/LKPS 1505 AS2		24	1
		R1621	LKP/LKPS 1505 AS2	PLK 15-4	28	
	20	R1622, R1623, R1632, R1662, R1666, R2011	LKP/LKPS 2005 AS2		30	2
	25	R1622, R1623, R1632, R1662,R1666, R2011	LKP/LKPS 2505 AS2		36	4
		R1621, R1624	LKP/LKPS 2505 AS2	PLK 25-4	40	
	30	R1622, R1623, R1632, R1662, R1666, R2011	✆		42	✆
		R1621, R1624	✆		45	
	35	R1622, R1623, R1632,R1662, R1666, R2011	✆		48	✆
		R1621, R1624	✆		55	
	45	R1622, R1623,	✆		60	✆
		R1621, R1624	✆		70	
	55	R1622, R1623,	✆		70	✆
		R1621, R1624	✆		80	
R1805, R1806, R1807	25	R1821, R1824	LKP/LKPS 2505 BS2	PLK 25-4	40	4
	35	R1821, R1824	✆		55	✆
	45	R1821, R1824	✆		70	✆
	55	R1821, R1824	✆		80	✆

Rail manufacturer SCHNEEBERGER LINEAR TECHNOLOGY

MRS	25	MRW..C, MRW..D, MRW..E	LKP/LKPS 2501 AS2	PLK 25-4	40	4
	35	MRW..C, MRW..D, MRW..E	✆		55	✆
	45	MRW..C, MRW..D	✆		70	✆
	55	MRW..C, MRW..D	✆		80	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 61]
LWH	15	LWHS..B, LWHS..SL, LWHS..M	LKP/LKPS 1501 AS2		24	1
		LWHD..B, LWHD..M, LWHY	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	LWHS..B, LWHS..SL, LWHS..M, LWHSG, LWHY	LKP/LKPS 2001 AS2		30	2
	25	LWHS..B, LWHS..SL, LWHS..M, LWHSG	LKP/LKPS 2501 AS2		36	4
		LWHD..B, LWHD..M, LWHDG, LWHY	LKP/LKPS 2501 AS2	PLK 25-4	40	
	30	LWHS..B, LWHS..SL, LWHS..M, LWHSG	✆		42	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		45	✆
	35	LWHD..B, LWHD..M, LWHDG, LWHY	✆		55	✆
	45	LWHD..B, LWHD..M, LWHDG, LWHY	✆		70	✆
	55	LWHD..B, LWHDG, LWHY	✆		80	✆
MH	15	MHS	LKP/LKPS 1501 AS2		24	1
		MHD	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	MHS, MHSG	LKP/LKPS 2001 AS2		30	2
	25	MHS, MHSG	LKP/LKPS 2501 AS2		36	4
		MHD, MHDG	LKP/LKPS 2501 AS2	PLK 25-4	40	
	30	MHS, MHSG	✆		42	✆
		MHD, MHDG	✆		45	✆
	35	MHD, MHDG	✆		55	✆
	45	MHD, MHDG	✆		70	✆
LRX	15	LRXSC, LRXS, LRXSG	LKP/LKPS 1501 AS2		24	1
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	LRXSC, LRXS, LRXSG	✆		30	✆
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	✆		34	✆
	25	LRXSC, LRXS, LRXSG	LKP/LKPS 2501 AS2		36	4
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	LKP/LKPS 2501 AS2	PLK 25-4	40	
	30	LRXSC, LRXS, LRXSG	✆		42	✆
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	✆		45	✆
	35	LRXDC, LRXD, LRXDG	✆		55	✆
	45	LRXDC, LRXD, LRXDG	✆		70	✆
	55	LRXDC, LRXD, LRXDG	✆		80	✆
MX	15	MXSC, MXS, MXSG	LKP/LKPS 1501 AS2		24	1
		MXDC, MXD, MXDG	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	MXSC, MXS, MXSG, MXSL	✆		30	✆
		MXDC, MXD, MXDG, MXDL	✆		34	
	25	MXSC, MXS, MXSG, MXSL	LKP/LKPS 2501 AS2		36	4
		MXDC, MXD, MXDG, MXDL	LKP/LKPS 2501 AS2	PLK 25-4	40	
	30	MXSC, MXS, MXSG, MXSL	✆		42	✆
		MXDC, MXD, MXDG, MXDL	✆		45	✆
	35	MXNS, MXNSG	✆		44	✆
	45	MXNS, MXNSG	✆		52	✆
	55	MXNS, MXNSG	✆		63	✆
LWE	15	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	LKP/LKPS 1501 AS2		24	1
	20	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL,LWESG, LWESG..SL	LKP/LKPS 2001 AS2		28	3
	25	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL,LWESG, LWESG..SL	LKP/LKPS 2501 AS2		33	5
	30	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL,LWESG, LWESG..SL	✆		42	✆
	35	LWES..Q, LWESC, LWES	✆		48	✆
	45	LWES	✆		60	✆
ME	15	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MHS	LKP/LKPS 1501 AS2		24	1
		MHD	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	LKP/LKPS 2001 AS2		28	3
		MHS, MHSG	LKP/LKPS 2001 AS2	PLK 20-2	30	
	25	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	LKP/LKPS 2501 AS2		33	5
		MHS, MHSG	LKP/LKPS 2501 AS2	PLK 25-2	36	6
		MHD, MHDG	LKP/LKPS 2501 AS2	PLK 25-6	40	
	30	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MHS, MHSG	✆		42	✆
		MHD, MHDG	✆		45	✆
	35	MESC, MES	✆		48	✆
		MHD, MHDG	✆		55	✆
	45	MES	✆		60	✆
		MHD, MHDG	✆		70	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Rail manufacturer

INA

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 61]
(KUE)	15	KWE..-H	✆		28	✆
	20	KWE..-H	LKP/LKPS 2001 AS2		30	2
	25	KWE..-H	LKP/LKPS 2501 AS2	PLK 25-6	40	6
	30	KWE..-H	✆		45	✆
	35	KWE..-H	✆		55	✆
TKVD (KUVE)	15	KWVE..-B-ESC, KWVE..-B-S	✆		24	✆
		KWVE..-B-H	✆		28	✆
	20	KWVE..-B-S, KWVE..-B-SL, KWVE..B-H	✆		30	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		27	✆
		KWVE..-B-ESC	✆		28	✆
	25	KWVE..-B-S, KWVE..-B-SL, KWVE..B-S-HS	✆		36	✆
		KWVE..-B-ESC	✆		33	✆
		KWVE..-B-H, KWVE..-B-HL, KWVE..B-H-HS	✆		40	✆
	30	KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	✆		42	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		38	✆
		KWVE..-B-H, KWVE..-B-HL	✆		45	✆
	35	KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	✆		48	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		44	✆
		KWVE..-B-H, KWVE..-B-HL	✆		55	✆
	45	KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	✆		60	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		52	✆
		KWVE..-B-H, KWVE..-B-HL	✆		70	✆
	55	KWVE..-B-S, KWVE..-B-SL	✆		70	✆
TKSD (KUSE)	20	KWSE..-H, KWSE..-HL	LKP/LKPS 2001 AS2		30	2
	25	KWSE..-H, KWSE..-HL	LKP/LKPS 2501 AS2		36	4
	30	KWSE..-H, KWSE..-HL	✆		42	✆

Rail manufacturer

NSK

LH	15	LAH..ANZ, LAH..BNZ	LKP/LKPS 1501 AS2	PLK 15-4	28	1
	20	LAH..ANZ, LAH..BNZ	LKP/LKPS 2001 AS2	PLK 20-2	30	3
	25	LAH..ALZ, LAH..BLZ	LKP/LKPS 2501 AS2		36	6
		LAH..ANZ, LAH..BNZ	LKP/LKPS 2501 AS2	PLK 25-6	40	
	30	LAH..ALZ, LAH..BLZ	✆		42	✆
		LAH..ANZ, LAH..BNZ	✆		45	✆
	35	LAH..ALZ, LAH..BLZ	✆		48	✆
		LAH..ANZ, LAH..BNZ	✆		55	✆
	45	LAH..ANZ, LAH..BNZ	✆		70	✆
SH	15	SAH..ANZ, SAH..BNZ	LKP/LKPS 1501 AS2	PLK 15-4	28	1
	20	SAH..ANZ, SAH..BNZ	LKP/LKPS 2001 AS2	PLK 20-2	30	3
	25	SAH..ALZ, SAH..BLZ	LKP/LKPS 2501 AS2		36	6
		SAH..ANZ, SAH..BNZ	LKP/LKPS 2501 AS2	PLK 25-6	40	
	30	SAH..ALZ, SAH..BLZ	✆		42	✆
		SAH..ANZ, SAH..BNZ	✆		45	✆
	35	SAH..ALZ, SAH..BLZ	✆		48	✆
		SAH..ANZ, SAH..BNZ	✆		55	✆
LS	15	LAS..CLZ, LAS..ALZ	LKP/LKPS 1501 AS2		24	1
	20	LAS..CLZ, LAS..ALZ	LKP/LKPS 2001 AS2		28	3
	25	LAS..CLZ, LAS..ALZ	LKP/LKPS 2501 AS2		33	5
	30	LAS..CLZ, LAS..ALZ	✆		42	✆
	35	LAS..CLZ, LAS..ALZ	✆		48	✆
SS	15	SAS..CLZ, SAS..ALZ	LKP/LKPS 1501 AS2		24	1
	20	SAS..CLZ, SAS..ALZ	LKP/LKPS 2001 AS2		28	3
	25	SAS..CLZ, SAS..ALZ	LKP/LKPS 2501 AS2		33	5
	30	SAS..CLZ, SAS..ALZ	✆		42	✆
	35	SAS..CLZ, SAS..ALZ	✆		48	✆
RA	15	RA..AL, RA..BL	✆		24	✆
		RA..AN, RA..BN	✆		28	✆
	20	RA..EM, RA..GM, RA..AN, RA..BN	✆		30	✆
	25	RA..AL, RA..BL	✆		36	✆
		RA..AN, RA..BN	✆		40	✆
	30	RA..AL, RA..BL	✆		42	✆
		RA..AN, RA..BN	✆		45	✆
	35	RA..AL, RA..BL	✆		48	✆
		RA..AN, RA..BN	✆		55	✆
	45	RA..AL, RA..BL	✆		60	✆
		RA..AN, RA..BN	✆		70	✆
	55	RA..AL, RA..BL	✆		70	✆
		RA..AN, RA..BN	✆		80	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Rail manufacturer HIWIN Lineartechnologie

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *[1]	[page 61]
HGR..R, HGR..T	15	HGL..CA,	LKP/LKPS 1501 AS2		24	1
		HGH..CA, QHH..CA	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	HGH..CA, HGH..HA, QHH..CA, QHH..HA	LKP/LKPS 2001 AS2	PLK 20-2	30	3
	25	HGL..CA, HGL..HA	LKP/LKPS 2501 AS2		36	4
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	LKP/LKPS 2501 AS2	PLK 25-4	40	
	30	HGL..CA, HGL..HA	✆		42	✆
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	✆		45	✆
	35	HGL..CA, HGL..HA	✆		48	✆
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	✆		55	✆
	45	HGL..CA, HGL..HA	✆		60	✆
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	✆		70	✆
	55	HGL..CA, HGL..HA,	✆		70	✆
		HGH..CA, HGH..HA	✆		80	✆
EGR..R, EGR..U, EGR..T	15	EGH...SA, EGH...CA, QEH..SA, QEH..CA	LKP/LKPS 1501 AS2		24	1
	20	EGH...SA, EGH...CA, QEH..SA, QEH..CA	LKP/LKPS 2001 AS2		28	3
	25	EGH...SA, EGH...CA QEH..SA, QEH..CA	✆		33	✆
	30	EGH...SA, EGH...CA, QEH..SA, QEH..CA	✆		42	✆
	35	EGH...SA, EGH...CA	✆		48	✆
RG..T	15	RGH..CA	✆		28	✆
	20	RGH..CA, RGH..HA	✆		34	✆
	25	RGH..CA, RGH..HA	LKP/LKPS 2501 AS2	PLK 25-4	40	4
	30	RGH..CA, RGH..HA	✆		45	✆
	35	RGH..CA, RGH..HA	✆		55	✆
	45	RGH..CA, RGH..HA	✆		70	✆
	55	RGH..CA, RGH..HA	✆		80	✆

Rail manufacturer NTN SNR

BG	15	BGCS..BS, BGCS..BN, BGCS..BL, BGXS..BS, BGXS..BN, BGXS..BL	LKP/LKPS 1501 AS2		24	1
		BGCH..BN, BGXH..BN	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	BGCS..BS, BGCS..BN, BGXS..BS, BGXS..BN	LKP/LKPS 2001 AS2		28	3
		BGCH..BN, BGCH..BL, BGXH..BN, BGXH..BL	LKP/LKPS 2001 AS2	PLK 20-2	30	
	25	BGCS..BS, BGCS..BN, BGXS..BS, BGXS..BN	LKP/LKPS 2501 AS2		33	5
		BGCH..FN, BGCH..FL, BGCH..FE, BGCX..BN, BGCX..BL, BGCX..BE, BGXX..BN, BGXX..BL, BGXX..BE	LKP/LKPS 2501 AS2	PLK 25-2	36	6
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	LKP/LKPS 2501 AS2	PLK 25-6	40	
	30	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	✆		42	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		45	✆
	35	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	✆		48	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		55	✆
	45	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BN, BGXS..BL, BGXS..BE	✆		60	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		70	✆
	55	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BN, BGXS..BL, BGXS..BE	✆		70	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		80	✆

*[1] Supplements the measure table and datasheet

See page 11 for part number explanation

LKP/LKPS

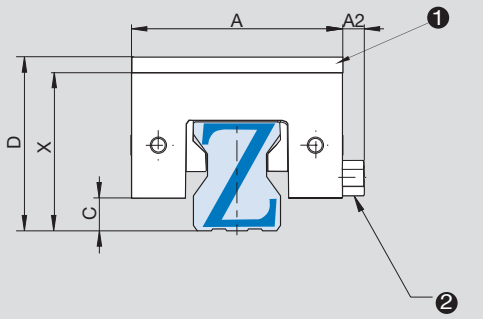
Rail manufacturer

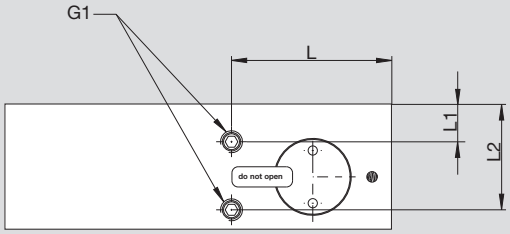
SKF

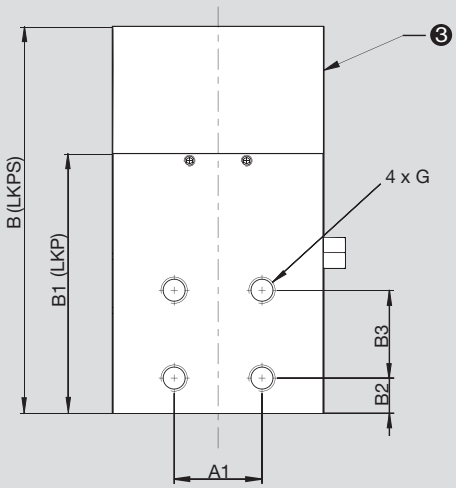
Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 61]
LLTH, LLTH..D4, LLTH..D6	15	LLTHC..SU, LLTHC..U	LKP/LKPS 1501 AS2		24	1
		LLTHC..R	LKP/LKPS 1501 AS2	PLK 15-4	28	
	20	LLTHC..SU, LLTHC..U, LLTHC..LR	LKP/LKPS 2001 AS2	PLK 20-2	30	3
	25	LLTHC..SU, LLTHC..U,	LKP/LKPS 2501 AS2		36	4
		LLTHC..R, LLTHC..LR	LKP/LKPS 2501 AS2	PLK 25-4	40	
	30	LLTHC..SU, LLTHC..U,	✆		42	✆
		LLTHC..R, LLTHC..LR	✆		45	✆
	35	LLTHC..SU, LLTHC..U,	✆		48	✆
		LLTHC..R, LLTHC..LR	✆		55	✆
	45	LLTHC..U,	✆		60	✆
		LLTHC..R, LLTHC..LR	✆		70	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation







Note: Consider measurement C/Interfering contour!

Air connections are located on both sides and can be exchanged according to mounting requirements.
Only one connection is necessary for function.

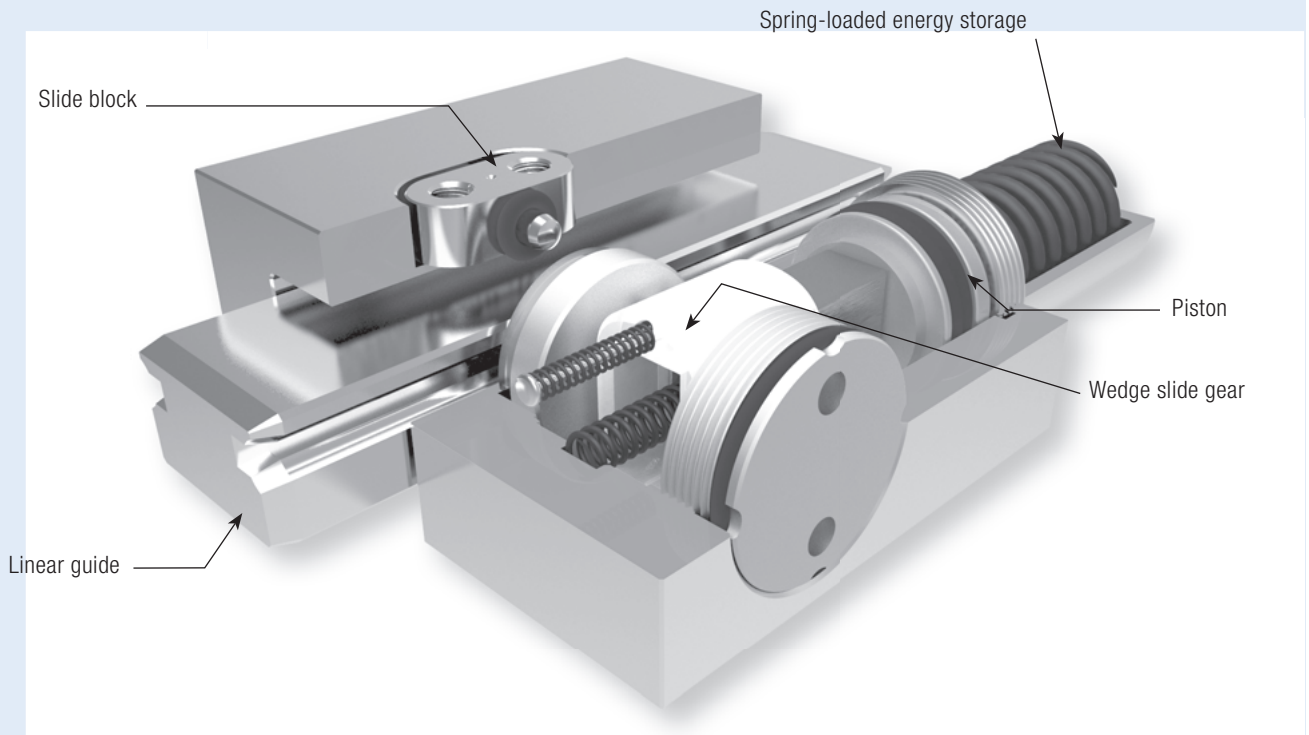
❶ Adapting plate PLK (accessory)

❷ Air filter

❸ The attachment spring unit on the LKPS is not applicable on the LKP.

	Holding power [N] LKP	Holding power [N] LKPS	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	L [mm]	L1 [mm]	L2 [mm]
1	550	400	34	15	-	76	49	8,5	15	3,3	24	M4/4,5	M3	31,5	4,5	17
2	850	650	44	20	-	81	52	7	20	5,5	30	M5/5,5	M3	33,5	4,5	20,5
3	850	650	44	20	-	81	52	7	20	3,5	28	M5/5,5	M3	33,5	4,5	20,5
4	1100	750	48	20	5	86	57	8	20	7,5	36	M6/6	M5	35,5	8,5	24
5	1100	750	48	20	5	86	57	8	20	4,5	33	M6/6	M5	35,5	8,5	24
6	1100	750	48	20	5	86	57	8	20	5,5	34	M6/6	M5	35,5	8,5	24

✆ +49.7844.9138-0
www.zimmer-gmbh.com

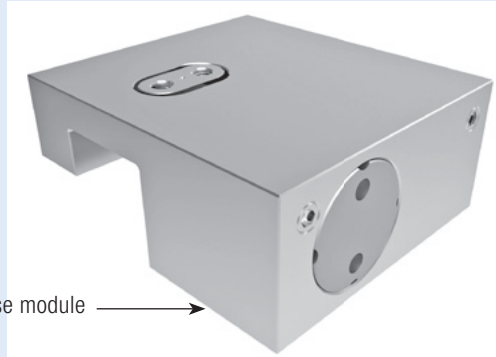


New product for miniature section rails:
Miniature clamping MCP/MCPS.

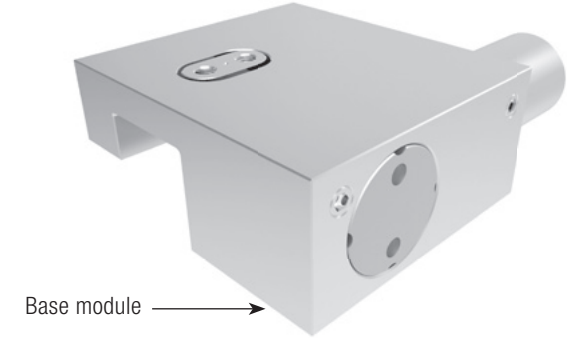
The MCP/MCPS series was developed specially for miniature guide rails and can be used for miniature rail sizes from 5–25. They are asymmetrically arranged with respect to the rail axis,which makes it possible to keep the carriage width on one side.

The wrap-around clamp is floating, consequently there are no transverse forces in adjoining structures. This also enables a friction connection for the contact sections between the element and linear guide.

MCP Series



MCPS Series



Technical data for MCP series:

Rail size	5–25
Holding forces	130 N–550 N
Min. pressure	6 bar
Max. pressure	8 bar
spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	unsuitable

Technical data for MCPS series:

Rail size	5–25
Holding forces	80 N–400 N
Min. pressure	5.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS-connection	√
Clamping cycles	5 mil. (B10d-value)*
Braking cycles	unsuitable

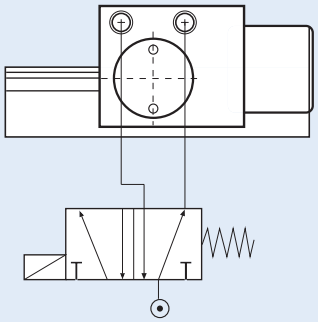
Application scenarios for MCP:
- Clamping of machine tables
- Positioning of axes
- Fixing of vertical axes in neutral position

Application scenarios for MCPS:
- Clamping in case of pressure drop
- Clamping without energy requirement

Connection options for MCP/MCPS:
The MCP/MCPS series have only one air connection on the side.

Higher supporting forces with PLUS connection (MCPS):
By using a 5/2 (overflow-free) or 5/3 valve it is possible to support the spring power with pneumatic pressure. By using the PLUS connection, thestated supporting force will be increased.
When the PLUS connection (MCPS only) is being used the air-release filter is replaced by connecting a second pneumatic tube (see drawing).
For further information, please refer to the assembly instructions or visit www.zimmer-gmbh.com.

*Note: With PLUS connection, the B10d value is not achieved.



Rail manufacturer	Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 66]
THK The Mark of Linear Motion	SRS	7	SRS..M		✆	8	✆
		9	SRS..M, SRS..N		MCP/MCPS 0901 H	10	5
		12	SRS..M, SRS..N		MCP/MCPS 1201 A	13	2
		15	SRS..M, SRS..N		MCP/MCPS 1501 H	16	3
		20	SRS..M		MCP/MCPS 2001 A	20	4
		25	SRS..M		✆	25	✆
	RSR	7	RSR..M, RSR..N, RSR..ZM, RSH..M		✆	8	✆
		9	RSR..KM, RSR..N, RSR..ZM, RSH..KM		MCP/MCPS 0901 A	10	1
		12	RSR..VM, RSR..N, RSR..ZM, RSH..VM		MCP/MCPS 1201 M	13	2
		15	RSR..VM, RSR..N, RSR..ZM		MCP/MCPS 1501 M	16	3
		20	RSR..VM, RSR..N		✆	25	✆
	EPF	7	EPF..M		✆	8	✆
		9	EPF..M		✆	10	✆
		12	EPF..M		✆	13	✆
		15	EPF..M		X	16	X
Rail manufacturer							
Rexroth Bosch Group	0445	7	R0442, R0444		✆	8	✆
		9	R0442..9/M3, R0444..9/M3		MCP/MCPS 0901 A	10	1
		12	R0442, R0444		MCP/MCPS 1205 A	13	2
		15	R0442, R0444		MCP/MCPS 1505 A	16	3
		20	R0442		MCP/MCPS 2005 A	25	6
Rail manufacturer							
SCHNEEBERGER	MN	7	MNN, MNNL, MNNXL		✆	8	✆
		9	MNN, MNNL, MNNXL		MCP/MCPS 0901 A	10	1
		12	MNN, MNNL, MNNXL		✆	13	✆
		15	MNN, MNNL, MNNXL		MCP/MCPS 1504 A	16	3
Rail manufacturer							
IKO	LWL	5	LWLC..B, LWLC..N, LWL..B, LWL..N		✆	6	✆
		7	LWLC..B, LWLC..N, LWL..B, LWL..N, LWLG..B, LWLG..N		✆	8	✆
		9	LWLC..B, LWLC..N, LWL..B, LWL..BCS, LWL..N, LWLG..B, LWLG..N		✆	10	✆
		12	LWLC..B, LWL..B, LWL..BCS, LWLG..B, LWL..CS		MCP/MCPS 1201 A	13	2
		15	LWLC..B, LWL..B, LWL..BCS, LWLG..B, LWL..CS		MCP/MCPS 1504 A	16	3
		20	LWLC..B, LWL..B, LWL..BCS, LWLG..B		MCP/MCPS 2001 A	20	4
		25	LWLC..B, LWL..B, LWLG..B		✆	25	✆
	ML	5	MLC, ML		✆	6	✆
		7	MLC, ML, MLG		✆	8	✆
		9	MLC, ML, MLG		✆	10	✆
		12	MLC, ML, MLG		✆	13	✆
		15	MLC, ML, MLG		MCP/MCPS 1504 A	16	3
		20	MLC, ML, MLG		✆	20	✆
		25	MLC, ML, MLG		✆	25	✆
Rail manufacturer							
INA	TKDM (KUEM)	5	KWEM, KWEM..-C		✆	6	✆
		7	KWEM, KWEM..-L, KWEM..-C		✆	8	✆
		9	KWEM, KWEM..-L, KWEM..-C		✆	10	✆
		12	KWEM, KWEM..-L, KWEM..-C		MCP/MCPS 1201 A	13	2
		15	KWEM, KWEM..-L, KWEM..-C		MCP/MCPS 1504 A	16	3
	TKMD..-C (KUME..-C)	12	KWME..-C		MCP/MCPS 1201 A	13	2
		15	KWME..-C		MCP/MCPS 1504 A	16	3

X: not feasible
*1 Supplements the measure table and datasheet

See page 10 for part number explanation

Type of rail	Size	Item number	[for height compensation]	Measure D [mm] *[1]	[page 66]
MGN	7	MGN..C, MGN..H	✆	8	✆
	9	MGN..C, MGN..H	✆	10	✆
	12	MGN..C, MGN..H	MCP/MCPS 1201 A	13	2
	15	MGN..C, MGN..H	MCP/MCPS 1504 A	16	3

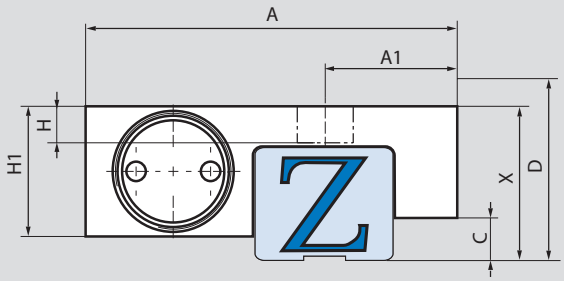
Rail manufacturer
HIWIN
Lineartechnologie

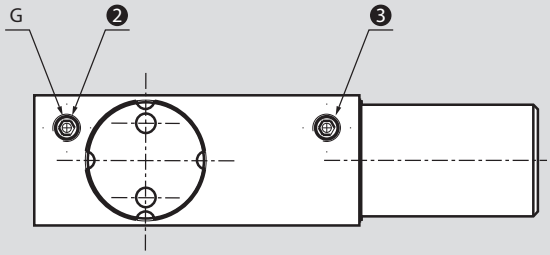
PU	5	PAU..TR	✆	6	✆
	7	PAU..AR	✆	8	✆
	9	PAU..TR	MCP/MCPS 0901 A	10	1
	12	PAU..TR	MCP/MCPS 1201 A	13	2
	15	PAU..AL	MCP/MCPS 1504 A	16	3
LU	15	LAU..AL	MCP/MCPS 1504 A	16	3

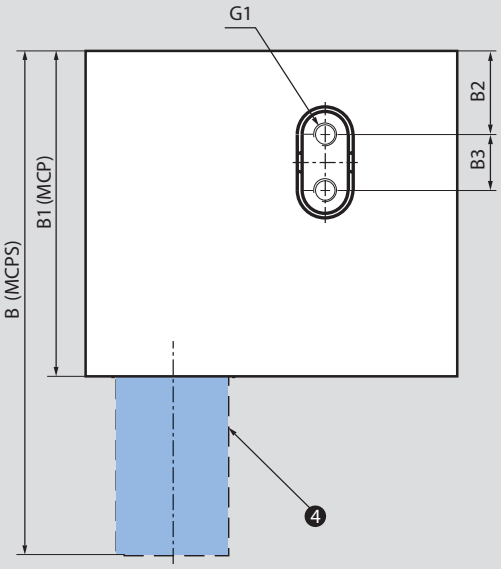
Rail manufacturer
NSK

*[1] Supplements the measure table and datasheet

See page 10 for part number explanation







Note: Consider measurement C/Interfering contour!

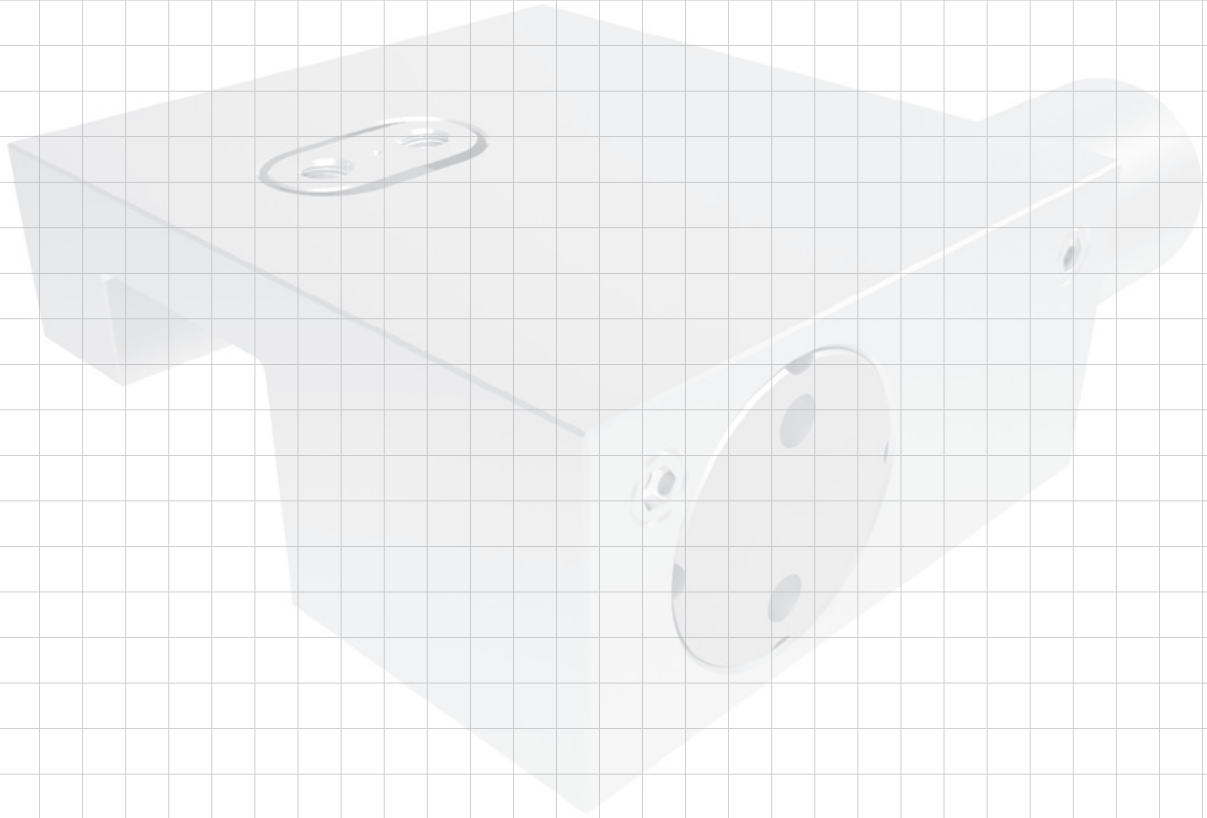
G: air connection

❶ MCP Series: Air filter
MCPS: M3 port (air connection)

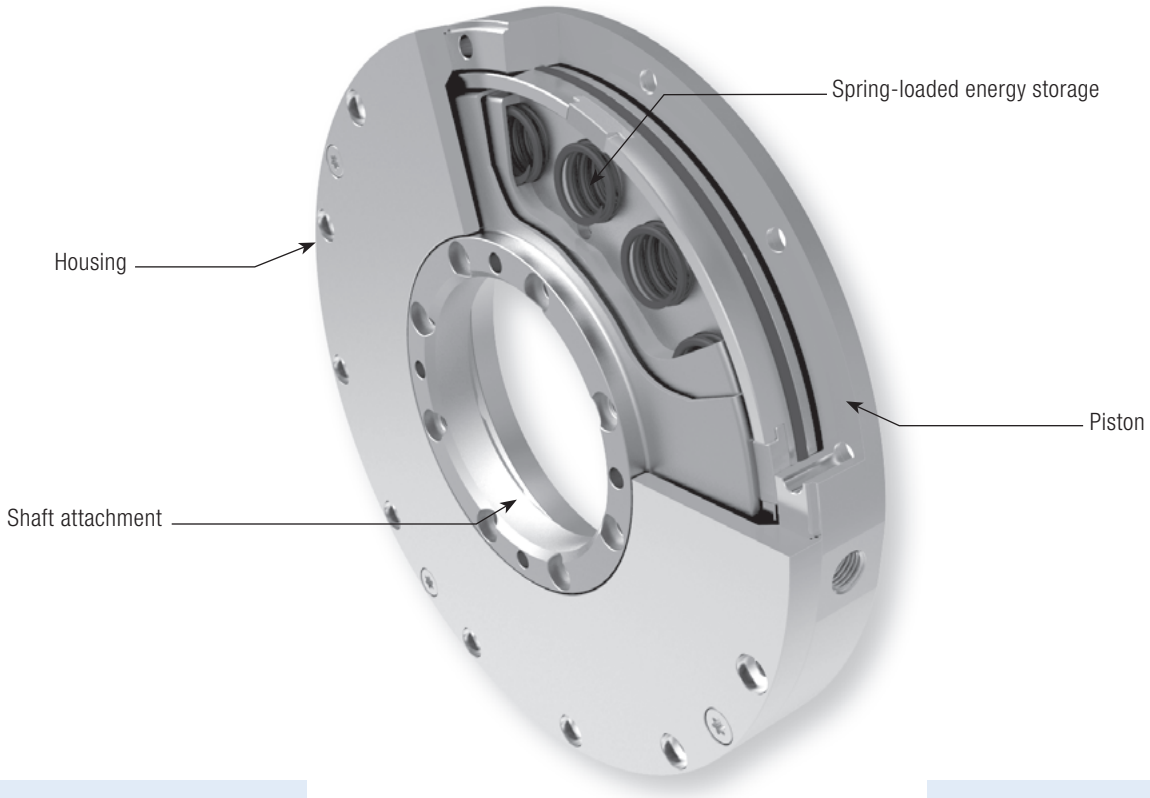
❷ MCP Series: M3 port (air connection)
MCPS: Air filter / Plus connection M3.

❸ The attachment spring unit on the MCPS is not applicable on the MCP.

Measure table	Holding power [N] MCP	Holding power [N] MCPS	A [mm]	A1 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	H [mm]	H1 [mm]
1	130	80	32,5	9,7	52,5	34	8,25	5,5	1,45	10	M3	M2,5	3,3	15
2	280	250	37,5	13,2	52,5	34	8,25	5,5	2,95	13	M3	M2,5	3,5	16
3	320	280	41,5	15,7	52,5	34	8	6	3,95	16	M3	M2,5	3,8	16
4	550	400	48,7	19,7	60	41	10,5	8	2,45	20	M3	M4	6,2	23
5	130	80	32,5	9,7	52,5	34	8,25	5,5	2,15	10	M3	M2,5	3,3	15
6	550	400	48,7	19,7	60	41	10,5	8	7,45	25	M3	M4	6,2	23



✆ +49.7844.9138-0
www.zimmer-gmbh.com

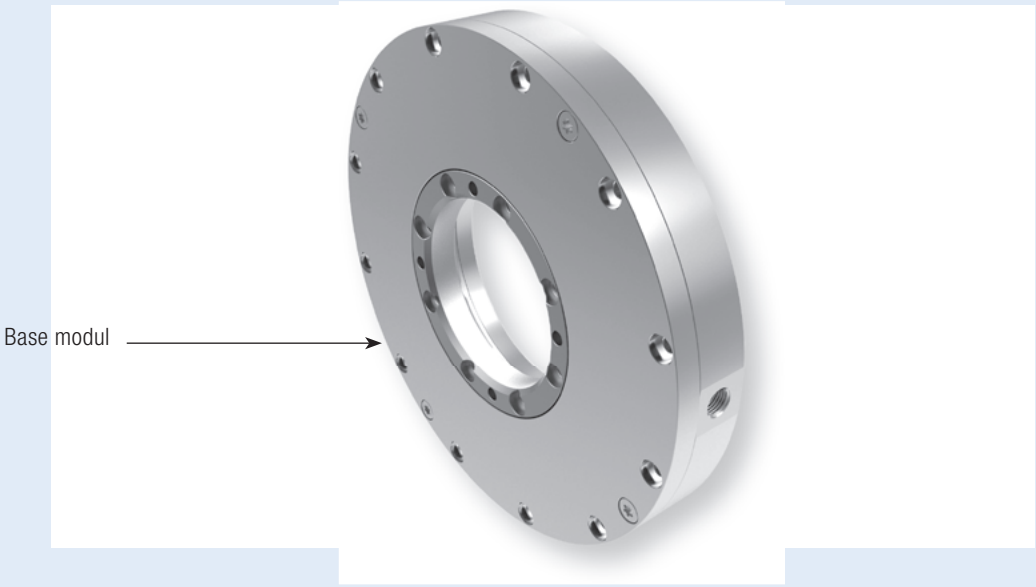


Active without pressure – flat design:
The Clamping Element for torque take-up with spring-loaded energy storage **TPS.**

The TPS series is a pneumatic clamping element for torque motors or for rotational axes. It works with a newly developed spring-loaded energy storage system. Torque take-up occurs inside the TPS which excludes wear on the driven shaft. TPS achieves high holding torques at a pneumatic opening pressure of > 4 bar.

The TPS is very precise due to its high rigidity and positioning accuracy.
The zero maintenance TPS is suitable for shaft diameters of Ø 50 to Ø 320 mm. It is characterised by easy assembly and a flat design.

TPS Series



Technical data for TPS series:

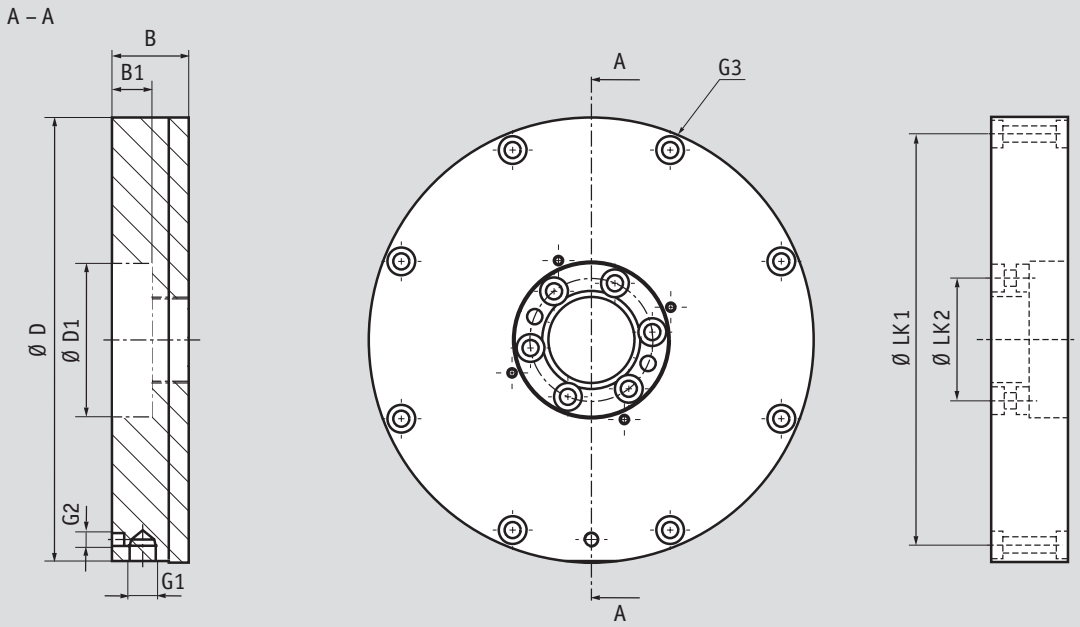
Shaft size [mm]	50–320
Holding torque	60 Nm–1,000 Nm
Min. pressure	5.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	unsuitable

Application scenarios for TPS:
- For deployment in torque motors
- For deployment in rotating disc contactors
- For deployment in axis modules
- Torque take-up of shafts
- Clamping in case of pressure drop

Variations TPS:
Available as 6 bar variation with higher holding forces on request.

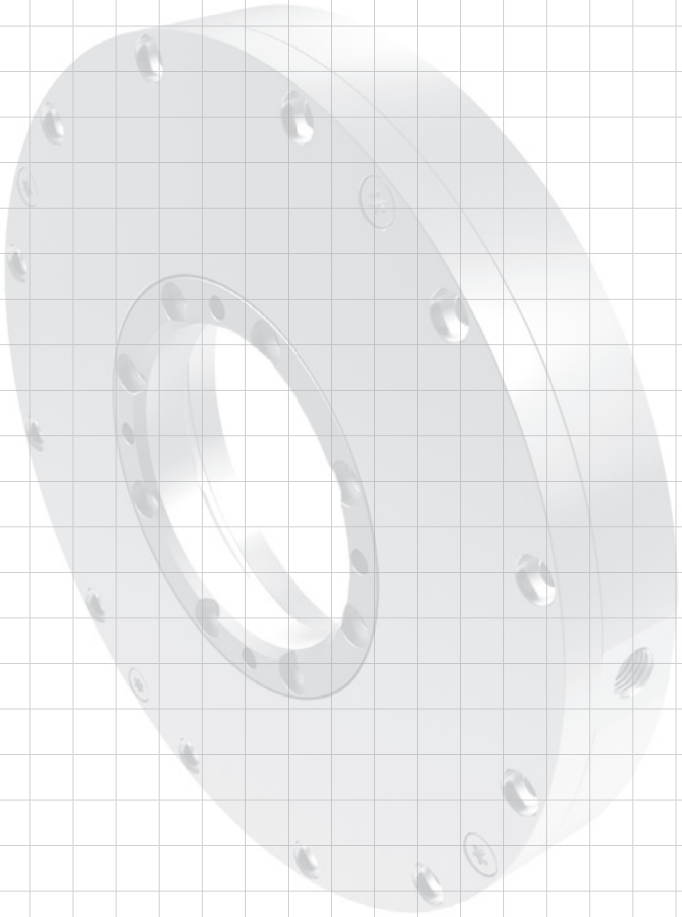
Connection options TPS:
The air connection features a radial and axial arrangement.
PLUS connection is not possible with this TPS series.

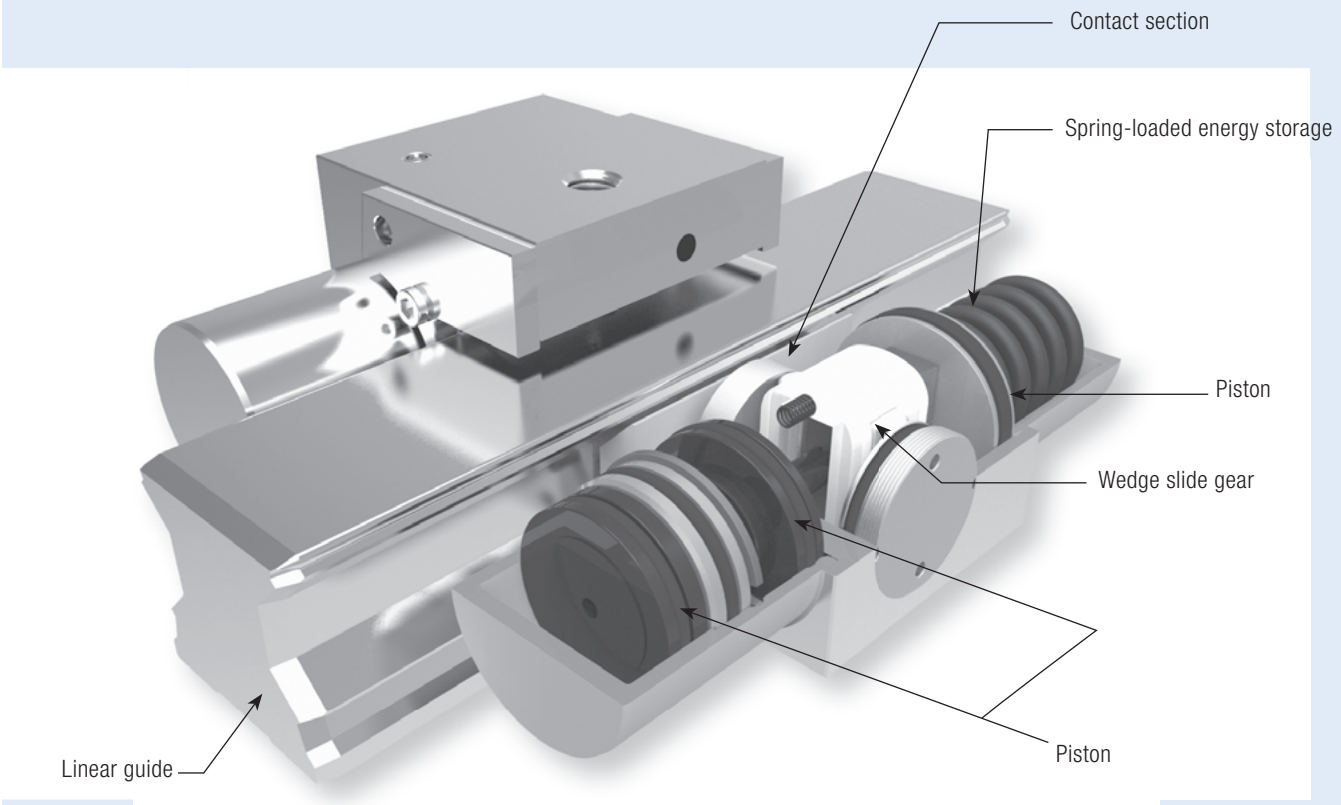
TPS



G1/G2: Air connection

Size [mm]	Item number	Holding torque [Nm] TP	B [mm]	B1 [mm]	Ø D [mm]	Ø D1 [mm]	Ø LK1 [mm]	Ø LK2 [mm]	G1	G2	G3
50	TPS050	60	25	13	145	51	134	40	G1/8“	M5	M5
60	TPS060	80	25	13	155	61	144	50	G1/8“	M5	M5
70	✆										
80	TPS080	120	25	13	175	81	164	70	G1/8“	M5	M5
90	TPS090	130	28	14	185	91	174	80	G1/8“	M5	M5
100	✆										
120	✆										
160	TPS160	400	35	19	288	161	270	136	G1/8“	G1/8“	M6
200	TPS200	500	35	19	328	201	310	176	G1/8“	G1/8“	M6
220	TPS220										
240	TPS240	770	35	19	368	241	350	216	G1/8“	G1/8“	M6
320	TPS320	1000	35	19	450	321	430	296	G1/8“	G1/8“	M6



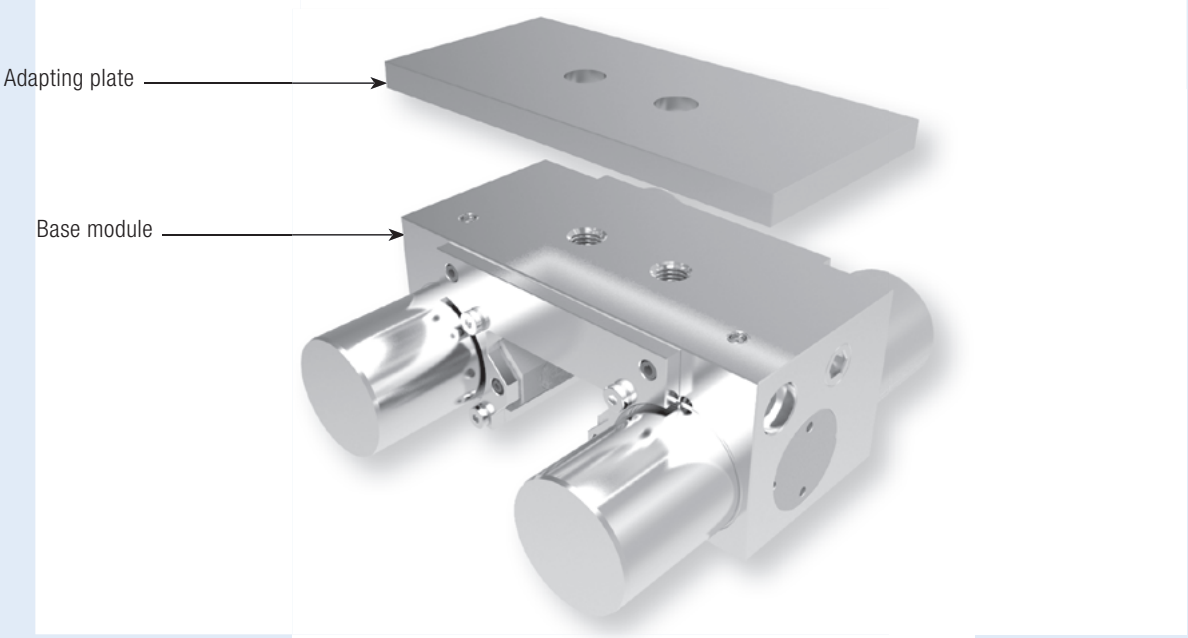


Active without pressure:
The Clamping and Braking Element including spring-loaded energy storage **MBPS.**

The MBPS series is based on a dual-effective wedge slide gear with spring-loaded energy storage for clamping and braking without pressure. As a specific feature it has three pistons connected inline. This arrangement allows the use of a stronger spring at 4.5 bar.
The stronger spring-loaded storage permits holding forces up to 4,700 N. The MBPS series is designed for braking on linear guides. Because of the material combination of the linear guide/contact section, the linear guide won't be damaged by the contact section.

In order to prevent damage from contamination with chips (chips between contact section and linear guide), the majority of elements can be fitted with original seals from the respective linear guide manufacturer as accessories. In order to guarantee the lifetime of the seals, follow the corresponding instructions from the respective linear guide manufacturer.
Details on the length of the brake path to be expected can be obtained from our technical advisors. The computations are based on serial tests and our industrial experience.

MBPS Series



Technical data for MBPS series:

Rail size	15–55
Holding forces	750 N–4,700 N
Min. pressure	4.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	2,000

Application scenarios for MBPS:
- Clamping in case of pressure drop
- Emergency OFF function
- Braking for linear motors
- Z-axes positioning in neutral position
- Machine table clamping of work centres

Connection options for MBPS:
The MBPS series has air connections on both sides as part of its standard equipment. This means that the air connection can be moved over to the opposite side.
PLUS connection is not possible with the MBPS series.

Adapting plate accessory for MBPS:
Depending on the height of the carriage (measure D), an additional adapting plate is required (see table from page 74).

Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 81]
SR, SSR	15	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	MBPS 1501 GS1		24	22
	20	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	MBPS 2001 GS1		28	14
	25	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	MBPS 2501 GS1		33	13
	30	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM	MBPS 3004 BS1		42	5
	35	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW	MBPS 3501 GS1	PMB 35-4	48	17
	45	SR..W, SR..TB	✆		60	✆
	55	SR..W, SR..TB	✆		68	✆
HSR	15	HSR..A, HSR..AM, HSR..B, HSR..BM, HSR..C	MBPS 1501 AS1		24	22
		HSR ..R, HSR..RM, HSR..YR, HSR..YRM	MBPS 1501 AS1	PMB 15-4	28	
	20	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MBPS 2001 AS1		30	12
	25	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MBPS 2504 BS1		36	10
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	MBPS 2504 BS1	PMB 25-4	40	
	30	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MBPS 3004 BS1		42	5
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	MBPS 3004 BS1	PMB 30-3	45	
	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	MBPS 3501 AS1		48	6
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	MBPS 3501 AS1	PMB 35-7	55	
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	MBPS 4504 BS1		60	7
		HSR..R, HSR..LR, HSR..YR	MBPS 4504 BS1	PMB 45-10	70	
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	MBPS 5501 AS1		70	15
		HSR..R, HSR..LR, HSR..YR	MBPS 5501 AS1	PMB 55-10-01	80	
GSR	15	GSR..T, GSR..V	✆		20	✆
	20	GSR..T, GSR..V	✆		24	✆
	25	GSR..T, GSR..V	✆		30	✆
	30	GSR..T	✆		33	✆
	35	GSR..T	✆		38	✆
SHS	15	SHS..C, SHS..LC, SHS..V, SHS..LV	X			X
		SHS..R	X			X
	20	SHS..C, SHS..LC, SHS..V, SHS..LV	MBPS 2001 CS1		30	12
	25	SHS..C, SHS..LC, SHS..V, SHS..LV	MBPS 2504 BS1	PMB 25-1	36	11
		SHS..R, SHS..LR	MBPS 2504 BS1	PMB 25-5	40	
	30	SHS..C, SHS..LC, SHS..V, SHS..LV	MBPS 3004 BS1		42	5
		SHS..R, SHS..LR	MBPS 3004 BS1	PMB 30-3	45	
	35	SHS..C, SHS..LC, SHS..V, SHS..LV	MBPS 3501 CS1		48	8
		SHS..R, SHS..LR	MBPS 3501 CS1	PMB 35-7	55	
	45	SHS..C, SHS..LC, SHS..V, SHS..LV	MBPS 4504 BS1	PMB 45-3	60	9
		SHS..R, SHS..LR	MBPS 4504 BS1	PMB 45-13	70	
	55	SHS..C, SHS..LC, SHS..V, SHS..LV	MBPS 5501 CS1		70	15
		SHS..R, SHS..LR	MBPS 5501 CS1	PMB 55-10-01	80	
SNR, SNS	25	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MBPS 2501 IS1		31	25
	30	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MBPS 3004 BS1		38	26
	35	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MBPS 3504 BS1		44	21
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	MBPS 3504 BS1	PMB 35-4	48	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	MBPS 3504 BS1	PMB 35-11	55	
	45	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MBPS 4504 BS1		52	27
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	MBPS 4501 BS1	PMB 45-8	60	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	MBPS 4501 BS1	PMB 45-18	70	
	55	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	MBPS 5501 BS1		63	30
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	MBPS 5501 BS1	PMB 55-7-01	70	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	MBPS 5501 BS1	PMB 55-17-01	80	

X: not feasible
*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 81]
NR, NRS	25	NR..XR, NR..XLR, NR..XA, NR..XLA, NR..XB, NR..XLB, NRS..XR, NR S..XLR, NRS..XA, NRS..XLA, NRS..XB, NRS..XLB	✆		31	✆
	30	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MBPS 3004 BS1		38	26
	35	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MBPS 3504 BS1		44	21
	45	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MBPS 4504 BS1		52	27
	55	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	MBPS 5504 BS1		63	30
SRG	15	SRG..A, SRG..V	MBPS 1501 ES1		24	23
	20	SRG..A, SRG..LA, SRG..V, SRG..LV	MBPS 2001 ES1		30	12
	25	SRG..C, SRG..LC	MBPS 2501 ES1		36	1
		SRG..R, SRG..LR	MBPS 2501 ES1	PMB 25-4	40	
	30	SRG..C, SRG..LC	MBPS 3001 ES1		42	5
		SRG..R, SRG..LR	MBPS 3001 ES1	PMB 30-3	45	
	35	SRG..C, SRG..LC	MBPS 3501 ES1		48	3
		SRG..R, SRG..LR	MBPS 3501 ES1	PMB 35-7	55	
	45	SRG..C, SRG..LC	MBPS 4501 ES1		60	4
		SRG..R, SRG..LR	MBPS 4501 ES1	PMB 45-10	70	
	55	SRG..C, SRG..LC	MBPS 5501 ES1	PMB 55-3	70	16
		SRG..R, SRG..LR	MBPS 5501 ES1	PMB 55-13	80	

Rail manufacturer THK The Mark of Linear Motion

R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	15	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MBPS 1505 AS1		24	22
		R1621		PMB 15-4	28	
	20	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MBPS 2005 AS1		30	12
	25	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MBPS 2505 AS1		36	1
		R1621, R1624	MBPS 2505 AS1	PMB 25-4	40	
	30	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MBPS 3005 AS1		42	2
		R1621, R1624	MBPS 3005 AS1	PMB 30-3	45	
	35	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	MBPS 3505 AS1		48	3
		R1621, R1624	MBPS 3505 AS1	PMB 35-7	55	
	45	R1622, R1623, R1651, R1653	MBPS 4505 AS1		60	4
		R1621, R1624	MBPS 4505 AS1	PMB 45-10	70	
	55	R1622, R1623, R1651, R1653	MBPS 5505 AS1		70	18
		R1621, R1624	MBPS 5505 AS1	PMB 55-10	80	
R1805, R1806, R1807, R1808, R1845, R1846, R1847	25	R1851, R1853	MBPS 2505 BS1		36	1
		R1821, R1824	MBPS 2505 BS1	PMB 25-4	40	
	35	R1851, R1853	MBPS 3505 BS1		48	3
		R1821, R1824	MBPS 3505 BS1	PMB 35-7	55	
	45	R1851, R1853	MBPS 4505 BS1		60	4
		R1821, R1824	MBPS 4505 BS1	PMB 45-10	70	
	55	R1851, R1853	MBPS 5505 BS1		70	18
		R1821, R1824	MBPS 5505 BS1	PMB 55-10	80	

Rail manufacturer Rexroth Bosch Group

MRS	25	MRW..A, MRW..B	MBPS 2503 AS1		36	1
		MRW..C, MRW..D, MRW..E	MBPS 2503 AS1	PMB 25-4	40	
	35	MRW..A, MRW..B	MBPS 3503 AS1		48	3
		MRW..C, MRW..D, MRW..E	MBPS 3503 AS1	PMB 35-7	55	
	45	MRW..A, MRW..B	MBPS 4503 AS1		60	4
		MRW..C, MRW..D	MBPS 4503 AS1	PMB 45-10	70	
	55	MRW..A, MRW..B	MBPS 5503 AS1		70	18
		MRW..C, MRW..D	MBPS 5503 AS1	PMB 55-10	80	

Rail manufacturer SCHNEEBERGER LINEAR TECHNOLOGY

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Rail manufacturer

IKO

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 81]
LWH	15	LWH..B, LWH..SL, LWH..M, LWHT..B, LWHT..SL, LWHT..M, LWHS..B, LWHS..SL, LWHS..M	MBPS 1504 BS1		24	22
		LWHD..B, LWHD..M, LWHY	MBPS 1504 BS1	PMB 15-4	28	
	20	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG, LWHY	MBPS 2004 BS1-01		30	12
	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	MBPS 2510 AS1	PMB 25-1	36	11
		LWHD..B, LWHD..M, LWHDG, LWHY	MBPS 2510 AS1	PMB 25-5	40	
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	✆		42	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		45	
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	✆		48	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		55	
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	✆		60	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		70	
	55	LWH..B, LWHG, LWHT..B, LWHTG	MBPS 5504 BS1		70	15
		LWHD..B, LWHDG, LWHY	MBPS 5504 BS1	PMB 55-10-01	80	
MH	15	MH, MHT, MHS	MBPS 1504 BS1		24	22
		MHD	MBPS 1504 BS1	PMB 15-4	28	
	20	MH, MHG, MHT, MHTG, MHS, MHSG	MBPS 2004 BS1-01		30	12
	25	MH, MHG, MHT, MHTG, MHS, MHSG	MBPS 2510 AS1	PMB 25-1	36	11
		MHD, MHDG	MBPS 2510 AS1	PMB 25-5	40	
	30	MH, MHG, MHT, MHTG, MHS, MHSG	✆		42	✆
		MHD, MHDG	✆		45	
	35	MH, MHG, MHT, MHTG	✆		48	✆
		MHD, MHDG	✆		55	
	45	MH, MHG, MHT, MHTG	✆		60	✆
		MHD, MHDG	✆		70	
LRX	15	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MBPS 1510 BS1		24	22
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MBPS 1510 BS1	PMB 15-4	28	
	20	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MBPS 2010 BS1		30	12
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MBPS 2010 BS1	PMB 20-4	34	
	25	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MBPS 2510 BS1*2		36	1
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MBPS 2510 BS1*2	PMB 25-4	40	
	30	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	MBPS 3010 BS1		42	5
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	MBPS 3010 BS1	PMB 30-3	45	
	35	LRXC, LRX, LRXG	MBPS 3510 BS1		48	3
		LRXDC, LRXD, LRXDG	MBPS 3510 BS1	PMB 35-7	55	
	45	LRXDC, LRXD, LRXDG	MBPS 4510 BS1*2		60	4
		LRXDC, LRXD, LRXDG	MBPS 4510 BS1*2	PMB 45-10	70	
	55	LRXC, LRX, LRXG	MBPS 5510 BS1	PMB 55-4	70	23
		LRXDC, LRXD, LRXDG	MBPS 5510 BS1	PMB 55-14	80	
MX	15	MXC, MX, MXG, MXSC, MXS, MXSG	MBPS 1510 BS1		24	22
		MXDC, MXD, MXDG	MBPS 1510 BS1	PMB 15-4	28	
	20	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	MBPS 2010 BS1		30	12
		MXDC, MXD, MXDG, MXDL	MBPS 2010 BS1	PMB 20-4	34	
	25	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	MBPS 2510 BS1*2		36	1
		MXDC, MXD, MXDG, MXDL	MBPS 2510 BS1*2	PMB 25-4	40	
	30	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	MBPS 3010 BS1		42	5
		MXDC, MXD, MXDG, MXDL	MBPS 3010 BS1	PMB 30-3	45	
	35	MXN, MXNG, MXNS, MXNSG	X		44	X
		MXC, MX, MXG, MXL	MBPS 3510 BS1		48	3
	45	MXN, MXNG, MXNS, MXNSG	X		52	X
		MXC, MX, MXG, MXL	MBPS 4510 BS1*2		60	4
	55	MXN, MXNG, MXNS, MXNSG	X		63	X
		MXC, MX, MXG	MBPS 5510 BS1	PMB 55-4	70	31
	65	MXC, MX, MXG	✆		90	✆

X: not feasible

*1 Supplements the measure table and datasheet

*2 This table applies only for rail use without cover sheet!

See page 11 for part number explanation

Rail manufacturer

IKO

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	
LWE	15	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	MBPS 1504 BS1		24	22
	20	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	✆		28	✆
	25	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	✆		33	✆
	30	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	MBPS 3004 BS1		42	5
	35	LWE..Q, LWET..Q, LWES..Q, LWEC, LWE, LWETC, LWET, LWESC, LWES	✆		48	✆
	45	LWE, LWET, LWES	✆		60	✆
ME	15	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MH, MHT, MHS	MBPS 1504 BS1		24	22
		MHD	MBPS 1504 BS1	PMB 15-4	28	
	20	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	✆		28	✆
		MH, MHG, MHT, MHTG, MHS, MHSG	✆		30	
	25	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	✆		33	✆
		MH, MHG, MHT, MHTG, MHS, MHSG	✆		36	
		MHD, MHDG	✆		40	
	30	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MH, MHG, MHT, MHTG, MHS, MHSG	MBPS 3004 BS1		42	5
		MHD, MHDG	MBPS 3004 BS1	PMB 30-3	45	
	35	MEC, ME, METC, MET, MESC, MES, MH, MHG, MHT, MHTG	✆		48	✆
		MHD, MHDG	✆		55	
	45	ME, MET, MES, MH, MHG, MHT, MHTG	✆		60	✆
		MHD, MHDG	✆		70	

Rail manufacturer

INA

TKD (KUE)	15	KWE	✆		24	✆
		KWE..-H	✆		28	
	20	KWE, KWE..-H	✆		30	✆
	25	KWE	✆		36	✆
		KWE..-H	✆		40	
	30	KWE	MBPS 3004 BS1		42	5
		KWE..-H	MBPS 3004 BS1	PMB 30-3	45	
	35	KWE	✆		48	✆
		KWE..-H	✆		55	
TKVD (KUVE)	15	KWVE..-B, KWVE..-B-EC, KWVE..-B-ESC, KWVE..-B-S	✆		24	✆
		KWVE..-B-H	✆		28	
	20	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-H	MBPS 2002 BS1		30	12
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	✆		27	✆
		KWVE..-B-EC, KWVE..-B-ESC	✆		28	✆
	25	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-HS, KWVE..B-S-HS	MBPS 2502 BS1	PMB 25-3	36	20
		KWVE..-B-EC, KWVE..-B-ESC	MBPS 2502 BS1		33	
		KWVE..-B-H, KWVE..-B-HL, KWVE..B-H-HS	MBPS 2502 BS1	PMB 25-7	40	
	30	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	MBPS 3002 BS1		42	2
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	✆		38	✆
		KWVE..-B-H, KWVE..-B-HL	MBPS 3002 BS1	PMB 30-3	45	2
	35	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	MBPS 3502 BS1	PMB 35-4	48	21
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	MBPS 3502 BS1		44	
		KWVE..-B-H, KWVE..-B-HL	MBPS 3502 BS1	PMB 35-11	55	
	45	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	MBPS 3502 BS1		60	4
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	✆		52	✆
		KWVE..-B-H, KWVE..-B-HL	MBPS 4502 BS1	PMB 45-10	70	4
	55	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL	✆		70	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Rail manufacturer

INA

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 81]
TKSD (KUSE)	20	KWSE, KWSE..-L, KWSE..-H, KWSE..-HL	MBPS 2002 AS1		30	12
	25	KWSE, KWSE..-L	MBPS 2502 AS1		36	10
		KWSE..-H, KWSE..-HL	MBPS 2502 AS1	PMB 25-4	40	
	30	KWSE, KWSE..-L	MBPS 3002 AS1		42	5
		KWSE..-H, KWSE..-HL	MBPS 3002 AS1	PMB 30-3	45	
	35	KWSE, KWSE..-L	MBPS 3502 AS1		48	6
		KWSE..-H, KWSE..-HL	MBPS 3502 AS1	PMB 35-7	55	
	45	KWSE, KWSE..-L	✆		60	✆
TSX-E (RUE)	25	RWU..-D-FE, RWU..-D-OE, RWU..-D-L-FE, RWU..-D-L-OE	MBPS 2502 DS1		36	28
		RWU..-D-H-FE, RWU..-D-H-OE, RWU..-D-HL-FE, RWU..-D-HL-OE	MBPS 2502 DS1	PMB 25-4/01	40	
	35	RWU..-E, RWU..-E-L	MBPS 3502 DS1	PMB 35-2	48	29
		RWU..-E-H, RWU..-E-HL	MBPS 3502 DS1	PMB 35-9	55	
	45	RWU..-E, RWU..-E-L	MBPS 4502 DS1		60	4
		RWU..-E-H, RWU..-E-HL	MBPS 4502 DS1	PMB 45-10	70	
	55	RWU..-E, RWU..-E-L	MBPS 5502 DS1	PMB 55-3	70	19
		RWU..-E-H, RWU..-E-HL	MBPS 5502 DS1	PMB 55-13	80	

Rail manufacturer

NSK

LH	15	LAH..EMZ, LAH..GMZ	MBPS 1504 BS1		24	22
		LAH..ANZ, LAH..BNZ	MBPS 1504 BS1	PMB 15-4	28	
	20	LAH..EMZ, LAH..GMZ, LAH..ANZ, LAH..BNZ	MBPS 2004 BS1		30	12
	25	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	MBPS 2504 BS1		36	10
		LAH..ANZ, LAH..BNZ	MBPS 2504 BS1	PMB 25-4	40	
	30	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	MBPS 3004 BS1		42	5
		LAH..ANZ, LAH..BNZ	MBPS 3004 BS1	PMB 30-3	45	
	35	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	MBPS 3504 BS1		48	6
		LAH..ANZ, LAH..BNZ	MBPS 3504 BS1	PMB 35-7	55	
	45	LAH..EMZ, LAH..GMZ	MBPS 4504 BS1		60	7
		LAH..ANZ, LAH..BNZ	MBPS 4504 BS1	PMB 45-10	70	
	55	LAH..EMZ, LAH..GMZ	MBPS 5504 BS1		70	15
		LAH..ANZ, LAH..BNZ	MBPS 5504 BS1	PMB 55-10-01	80	
SH	15	SAH..EMZ, SAH..GMZ	MBPS 1504 BS1		24	22
		SAH..ANZ, SAH..BNZ	MBPS 1504 BS1	PMB 15-4	28	
	20	SAH..EMZ, SAH..GMZ, SAH..ANZ, SAH..BNZ	MBPS 2004 BS1		30	12
	25	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	MBPS 2504 BS1		36	10
		SAH..ANZ, SAH..BNZ	MBPS 2504 BS1	PMB 25-4	40	
	30	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	MBPS 3004 BS1		42	5
		SAH..ANZ, SAH..BNZ	MBPS 3004 BS1	PMB 30-3	45	
	35	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	MBPS 3504 BS1		48	6
		SAH..ANZ, SAH..BNZ	MBPS 3504 BS1	PMB 35-7	55	
LS	15	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	✆		24	✆
	20	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	✆		28	✆
	25	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	MBPS 2504 AS1	PMB 25-1	33	24
	30	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	✆		42	✆
	35	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	✆		48	✆
SS	15	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	✆		24	✆
	20	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	✆		28	✆
	25	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	MBPS 2504 AS1	PMB 25-1	33	24
	30	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	✆		42	✆
	35	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	✆		48	✆
RA	15	RA..AL, RA..BL, RA..EM, RA..GM	✆		24	✆
		RA..AN, RA..BN	✆		28	
	20	RA..EM, RA..GM, RA..AN, RA..BN	✆		30	✆
	25	RA..AL, RA..BL, RA..EM, RA..GM	MBPS 2504 FS1		36	1
		RA..AN, RA..BN	MBPS 2504 FS1	PMB 25-4	40	
	30	RA..AL, RA..BL, RA..EM, RA..GM	MBPS 3004 FS1		42	2
		RA..AN, RA..BN	MBPS 3004 FS1	PMB 30-3	45	
	35	RA..AL, RA..BL, RA..EM, RA..GM	MBPS 3504 FS1		48	3
		RA..AN, RA..BN	MBPS 3504 FS1	PMB 35-7	55	
	45	RA..AL, RA..BL, RA..EM, RA..GM	MBPS 4504 FS1		60	4
		RA..AN, RA..BN	MBPS 4504 FS1	PMB 45-10	70	
	55	RA..AL, RA..BL, RA..EM, RA..GM	MBPS 5504 FS1	PMB 55-3	70	16
		RA..AN, RA..BN	MBPS 5504 FS1	PMB 55-13	80	

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 81]
HGR..R	15	HGW..CC, HGL..CA, QHW..CC	MBPS 1512 ES1		24	22
		HGH..CA, QHH..CA	MBPS 1512 ES1	PMB 15-4	28	
	20	HGW..CC, HGW..HC, HGH..CA, HGH..HA, QHW..CC, QHW..HC, QHH..CA, QHH..HA	MBPS 2012 ES1		30	12
	25	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	MBPS 2504 BS1		36	10
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MBPS 2504 BS1	PMB 25-4	40	
	30	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	MBPS 3004 BS1		42	5
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MBPS 3004 BS1	PMB 30-3	45	
	35	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	MBPS 3512 ES1		48	6
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MBPS 3512 ES1	PMB 35-7	55	
	45	HGW..CC, HGW..HC, HGL..CA, HGL..HA QHW..CC, QHW..HC	MBPS 4504 BS1		60	7
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	MBPS 4504 BS1	PMB 45-10	70	
	55	HGW..CC, HGW..HC, HGL..CA, HGL..HA	✆		70	✆
		HGH..CA, HGH..HA	✆		80	
EGR..R EGR..U EGR..T	15	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	✆		24	✆
	20	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	✆		28	✆
	25	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	X		33	X
	30	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	MBPS 3004 BS1		42	5
	35	EGH...SA, EGH...CA, EGW...SC, EGW...CC	✆			✆
RG..T	15	RGW..CC	✆		24	✆
		RGH..CA	✆		28	
	20	RGW..CC, RGW..HC	✆		30	✆
		RGH..CA, RGH..HA	✆		34	
	25	RGW..CC, RGW..HC	✆		36	✆
		RGH..CA, RGH..HA	✆		40	
	30	RGW..CC, RGW..HC	✆		42	✆
		RGH..CA, RGH..HA	✆		45	
	35	RGW..CC, RGW..HC	✆		48	✆
		RGH..CA, RGH..HA	✆		55	
	45	RGW..CC, RGW..HC	MBPS 4512 FS1		60	4
		RGH..CA, RGH..HA	MBPS 4512 FS1	PMB 45-10	70	
	55	RGW..CC, RGW..HC	MBPS 5501 ES1	PMB 55-3	70	16
		RGH..CA, RGH..HA	MBPS 5501 ES1	PMB 55-13	80	

Rail manufacturer
HIWIN®
Lineartechnologie

X: not feasible
*1 Supplements the measure table and datasheet

See page 11 for part number explanation

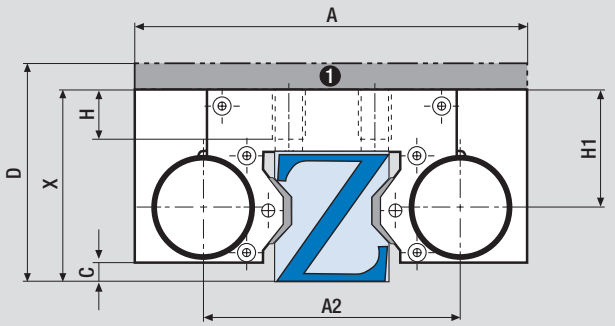
MBPS

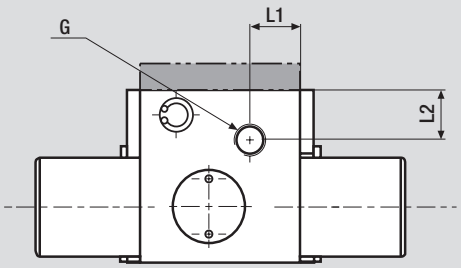
Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 81]
Rail manufacturer ROLLON						
MR	15	MRS, MRT..W, MRT..SW	✆		24	✆
		MRS..W	✆		28	
	20	MRT..W, MRT..SW	X		28	X
		MRS, MRS..L, MRS..W, MRS..LW	MBPS 2014 AS1		30	12
	25	MRT, MRT..S, MRT..W, MRT..SW, MRT..LW	✆		33	✆
		MRS, MRS..L, MRZ..W	MBPS 2504 BS1		36	10
		MRS..W, MRS..LW	MBPS 2504 BS1	PMB 25-4	40	
	30	MRS, MRS..L, MRT..W, MRT..SW, MRT..LW	MBPS 3004 BS1		42	5
		MRS..W, MRS..LW	MBPS 3004 BS1	PMB 30-3	45	
	35	MRS, MRS..L, MRT..W, MRT..SW, MRT..LW	MBPS 3514 AS1		48	6
		MRS..W, MRS..LW	MBPS 3514 AS1	PMB 35-7	55	
	45	MRS, MRS..L, MRT..W, MRT..LW	MBPS 4504 BS1		60	7
		MRS..W, MRS..LW	MBPS 4504 BS1	PMB 45-10	70	
	55	MCT..W, MCT..LW	✆		68	✆
		MCS, MCS..L	✆		70	
		MCS..W, MCS..LW	✆		80	
Rail manufacturer NTN, SNR						
BG	15	BGCH..FN, BGCH..FL, BGCS..BS, BGCS..BN, BGCS..BL, BGXH..FN, BGXH..FL, BGXS..BS, BGXS..BN, BGXS..BL	✆		24	✆
		BGCH..BN, BGXH..BN	✆		28	
	20	BGCS..BS, BGCS..BN, BGXS..BN, BGXS..BN	✆		28	✆
		BGCH..FN, BGCH..FL, BGCH..BN, BGCH..BL, BGXH..FN, BGXH..FL, BGXH..BN, BGXH..BL	✆		30	✆
	25	BGCS..BS, BGCS..BN, BGXS..BS, BGXS..BN	✆		33	✆
		BGCH..FN, BGCH..FL, BGCH..FE, BGCX..BN, BGCX..BL, BGCX..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXX..BN, BGXX..BL, BGXX..BE	MBPS 2504 BS1	PMB 25-2	36	31
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	MBPS 2504 BS1	PMB 25-6	40	
	30	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	✆		42	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		45	✆
	35	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	✆		48	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		55	✆
	45	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BN, BGXS..BL, BGXS..BE	✆		60	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		70	✆
	55	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXH..FN, BGXH..FL, BGXH..FE, BGXS..BN, BGXS..BL, BGXS..BE	MBPS 5501 CS1		70	15
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	MBPS 5501 CS1	PMB 55-10-01	80	
Rail manufacturer SKF						
LLTH, LLTH..D4, LLTH..D6	15	LLTHC..SA, LLTHC..A, LLTHC..SU, LLTHC..U	✆		24	✆
		LLTHC..R	✆		28	
	20	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LR	✆		30	✆
	25	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU,	✆		36	✆
		LLTHC..R, LLTHC..LR	✆		40	✆
	30	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU,	✆		42	✆
		LLTHC..R, LLTHC..LR	✆		45	✆
	35	LLTHC..SA, LLTHC..A, LLTHC..LA, LLTHC..SU, LLTHC..U, LLTHC..LU,	✆		48	✆
		LLTHC..R, LLTHC..LR	✆		55	✆
	45	LLTHC..A, LLTHC..LA, LLTHC..U, LLTHC..LU,	✆		60	✆
		LLTHC..R, LLTHC..LR	✆		70	✆

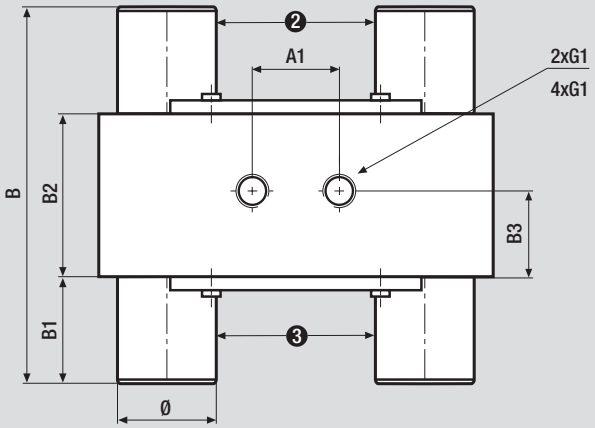
X: not feasible

*1 Supplements the measure table and datasheet

See page 11 for part number explanation







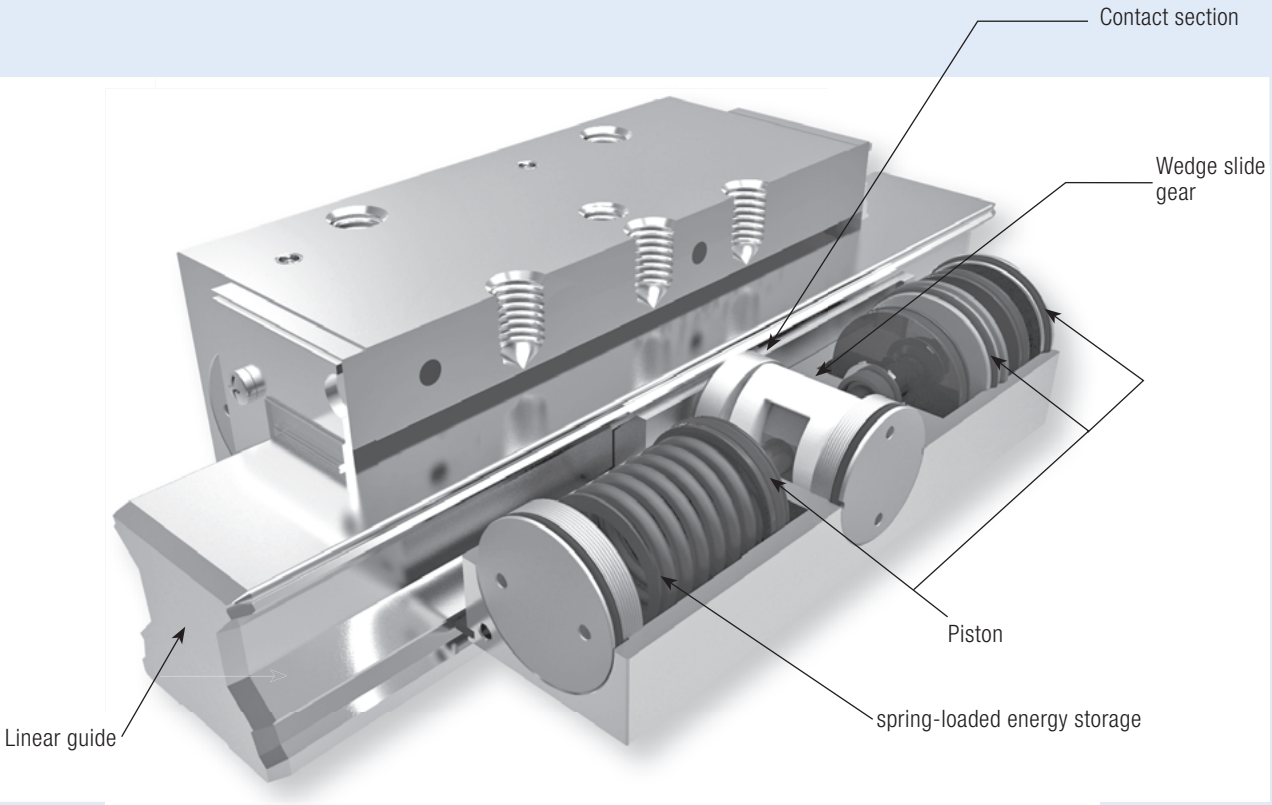
Note: Consider measurement C/Interfering contour!

Air connections are located on both sides and can be exchanged according to mounting requirements.
Only one connection is necessary for function.

1. Adapting plate PMB (accessory)
2. Attachment of piston unit
3. Attachment of spring unit

Measure table	Holding power [N] MBPS	A [mm]		A2 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	L1 [mm]	L2 [mm]	Ø [mm]	H [mm]	H1 [mm]
1	1300	75	20	49	95,2	20,2	44	22	3,5	36	M5	M6	16,5	6,5	22	8	20
2	2000	90	22	58	107	29	47	23	3,5	42	M5	M8	30,5	7,2	25	9	24
3	2600	100	24	68	105,7	27,7	46	24,5	6	48	G1/8“	M8	19	9	28	10	26,5
4	3600	120	26	78,8	113,2	32,2	49	24,5	8	60	G1/8“	M10	31,1	15	30	15	35,5
5	1300	90	22	64	98,2	20,2	47	23	7	42	M5	M8	14	6,5	22	9	22,5
6	2000	100	24	70	106	29	46	24,5	9,5	48	M5	M8	19	7,2	25	9	24
7	2600	120	26	88	108,7	27,7	49	24,5	15	60	G1/8“	M10	16	8	28	14	29,5
8	2000	100	24	70	106	29	46	24,5	8	48	M5	M8	19	8,7	25	9	25,5
9	2600	120	26	88	108,7	27,7	49	24,5	12	57	G1/8“	M10	16	8	28	14	29,5
10	1200	75	20	52	94	22	44	22	6,5	36	M5	M6	16,2	5	20	8	18
11	1200	75	20	52	94	22	44	22	5,5	35	M5	M6	16,2	5	20	8	18
12	750	66	20	45,7	94	19	44	22	4,2	30	M5	M6	15,5	5,5	16	8,6	16,2
13	1000	75	20	52	94	22	44	22	5,5	33	M5	M6	33	6	20	8	16,5
14	1000	66	20	45,7	94	19	44	22	2,2	28	M5	M6	15,5	5,5	16	8,6	16,2
15	3600	140	30/30	98,8	113,2	32,2	49	9,5	13	70	G1/8“	M10	23	16	30	15	40,5
16	4700	140	38/38	97	144	41	62	12	8	67	G1/8“	M10	23	11	39	15	38
17	1700	100	24	70	106	29	46	24,5	5,5	44	M5	M8	19	7,2	25	9	24
18	4700	140	38/38	97	144	41	62	12	11	70	G1/8“	M10	23	11	39	15	38
19	3500	140	38/38	97	144	41	62	12	8	67	G1/8“	M10	23	11	39	15	38
20	1200	75	20	52	94	22	44	22	3,5	33	M5	M6	16,2	5	20	7	18
21	2000	100	24	70	106	29	46	24,5	5,5	44	M5	M8	19	7,2	25	9	24
22	750	61	15	40,8	94	19	44	22	2,5	24	M5	M5	34,5	5,3	16	7,3	11,8
23	4700	140	38/38	97	144	41	62	12	7	66	G1/8“	M10	23	11	39	15	38
24	1200	75	20	52	94	22	44	22	4,5	32	M5	M6	33	6	20	8	16,5
25	750	72	20	52	94	19	44	22	5,2	31	M5	M6	35,2	8,2	16	8,6	16,2
26	1300	90	22	64	98,2	20,2	47	23	3	38	M5	M8	14	6,5	22	9	22,5
27	2600	120	26	88	108,7	27,7	49	24,5	7	52	G1/8“	M10	16	8	28	14	29,5
28	750	70	23	48	94	19	44	22	4	36	M5	M6	15,5	10	16	8	22,5
29	2100	100	24	68	105,7	27,7	46	24,5	4	46	G1/8“	M8	19	9	28	10	26,5
30	3600	140	30/30	98,8	113,2	32,2	49	9,5	6	62	G1/8“	M10	23	16	30	15	40,5
31	1200	75	20	52	94	22	44	22	4,5	34	M5	M6	16,2	5	20	8	18

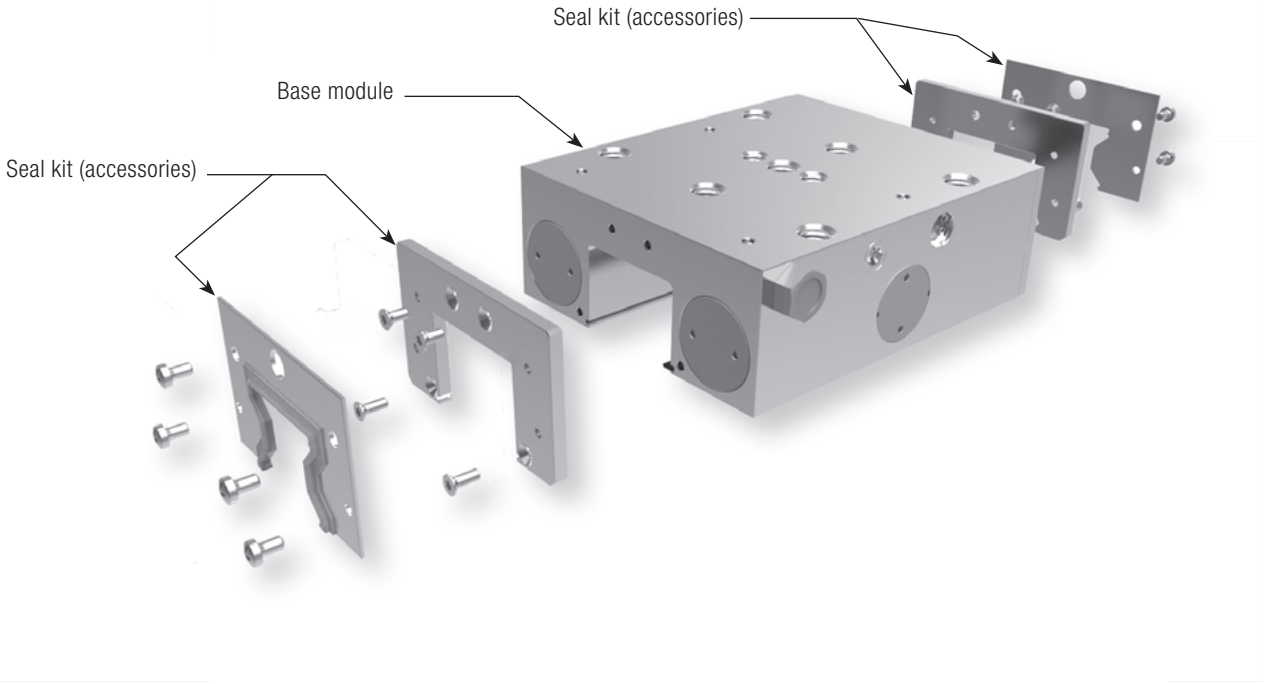
✆ +49.7844.9138-0
www.zimmer-gmbh.com



Active without pressure – compact and powerful:
The Clamping and Braking Element with spring-loaded energy storage **UBPS**

The UBPS series is based on a dual-effective wedge slide gear with spring-loaded energy storage for clamping and braking without pressure. This arrangement of three pistons connected inline allows the use of a stronger spring at 5.5bar. The stronger spring-loaded energy storage permits holding forces up to 9,200N. Positive fit contact sections mounted within a strong casing guarantee high axial and horizontal rigidity.
The UBPS series is designed for braking on linear guides. Because of the material combination of the linear guide/contact section, the linear guide won't be damaged by the contact section.
In order to exclude damage from contamination with chips (chips between contact section and linear guide), the elements can be fitted with original seals (seal kit) from the respective linear guide manufacturer and longitudinal seals as accessories.
When used in harsh work environments or with cooling liquid, the seal kit should be used as well. In order to guarantee the lifetime of the seals, follow the corresponding instructions from the respective linear guide manufacturer.
Details on the length of the brake path to be expected can be obtained from our technical advisors. The computations are based on serial tests and our industrial experience.

UBPS Series



Technical data for UBPS series:

Rail size	20–65
Holding forces	1,500 N–9,200 N
Min. pressure	5.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS connection	√
Clamping cycles	5 mil. (B10d-value)*
Braking cycles	2,000

Application scenarios for UBPS:
- Clamping in case of pressure drop
- Clamping without energy requirement
- Emergency OFF function
- Braking for linear motors
- Z-axes positioning in neutral position
- Machine table clamping of work centres

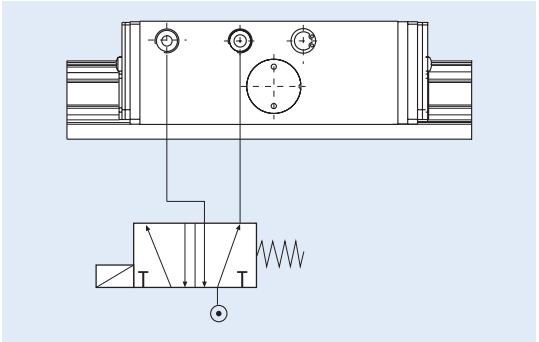
Seal kit accessories for UBPS:
Seals are recommended in harsh work environments.
The element is also available with CE certification.

Connection options for UBPS:
The basic version of the UBPS series features air connections on both sides. This means that the air connection and the air-release filter can be moved over to the opposite side.

Adapting plate accessory for UBPS:
Depending on the height of the carriage (measure D), an additional adapting plate is required (see table from page 84).

Higher supporting forces with PLUS connection:
By using a 5/2(overflow-free) or 5/3 valve it is possible to support the spring power with pneumatic pressure. By using the PLUS connection, the stated supporting force will be increased.
When the PLUS connection is being used the air-release filter is replaced by connecting a second pneumatic tube(see drawing).
For further information, please refer to the assembly instructions or visit www.zimmer-gmbh.com.

*Note: With PLUS connection, the B10d value is not achieved.



Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 90]
HSR	20	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	✆		30	✆
	25	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	✆		36	✆
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	✆		40	
	30	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	UBPS 3001 AS1		42	3
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	UBPS 3001 AS1	PUB 30-3	45	
	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	UBPS 3501 AS1		48	6
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	UBPS 3501 AS1	PUB 35-7	55	
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	UBPS 4501 AS1		60	18
		HSR..R, HSR..LR, HSR..YR	UBPS 4501 AS1	PUB 45-10	70	
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	UBPS 5501 AS1L*3		70	4
		HSR..CB, HSR..HB	UBPS 5501 AS1L*3	PUBL 55-10	80	
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB, HSR..R, HSR..LR, HSR..YR	UBPS 6501 AS1L*3		90	8
SHS	20	SHS..C, SHS..LC, SHS..V, SHS..LV	✆		30	✆
	25	SHS..C, SHS..LC, SHS..V, SHS..LV	✆		36	✆
		SHS..R, SHS..LR	✆		40	
	30	SHS..C, SHS..LC, SHS..V, SHS..LV	UBPS 3001 CS1		42	3
		SHS..R, SHS..LR	UBPS 3001 CS1	PUB 30-3	45	
	35	SHS..C, SHS..LC, SHS..V, SHS..LV	UBPS 3501 CS1		48	6
		SHS..R, SHS..LR	UBPS 3501 CS1	PUB 35-7	55	
	45	SHS..C, SHS..LC, SHS..V, SHS..LV	UBPS 4501 CS1		60	18
		SHS..R, SHS..LR	UBPS 4501 CS1	PUB 45-10	70	
	55	SHS..C, SHS..LC, SHS..V, SHS..LV	UBPS 5501 CS1L*3		70	4
		SHS..R, SHS..LR	UBPS 5501 CS1L*3	PUBL 55-10	80	
	65	SHS..C, SHS..LC, SHS..V, SHS..LV	UBPS 6501 CS1L*3		90	8
SNR, SNS	25	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	✆		31	✆
	30	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	✆		38	✆
	35	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	UBPS 3501 IS1		44	7
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	UBPS 3501 IS1	PUB 35-4	48	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	UBPS 3501 IS1	PUB 35-11	55	
	45	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	✆		52	✆
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	✆		60	
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	✆		70	
	55	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	✆		63	✆
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	✆		70	✆
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	✆		80	✆
	65	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	UBPS 6501 IS1L*3		75	9
NR, NRS	25	NR..XR, NR..XLR, NR..XA, NR..XLA, NR..XB, NR..XLB, NRS..XR, NR S..XLR, NRS..XA, NRS..XLA, NRS..XB, NRS..XLB	✆		31	✆
	30	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	✆		38	✆
	35	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	UBPS 3501 BS1		44	7
	45	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	UBPS 4501 BS1		52	12
	55	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	UBPS 5501 BS1L*3		63	21
	65	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	UBPS 6501 BS1L*3		75	9

*1 Supplements the measure table and datasheet
*3 Long version UBPS

See page 11 for part number explanation

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 90]
SRG	20	SRG..A, SRG..LA, SRG..V, SRG..LV	✆		30	✆
	25	SRG..C, SRG..LC	UBPS 2501 ES1	PUB 25-1-5	36	20
		SRG..R, SRG..LR	UBPS 2501 ES1	PUB 25-5-5	40	
	30	SRG..C, SRG..LC	UBPS 3001 ES1		42	3
		SRG..R, SRG..LR	UBPS 3001 ES1	PUB 30-3	45	
	35	SRG..C, SRG..LC	UBPS 3501 ES1		48	5
		SRG..R, SRG..LR	UBPS 3501 ES1	PUB 35-7	55	
	45	SRG..C, SRG..LC	UBPS 4501 ES1L*3		60	10
		SRG..R, SRG..LR	UBPS 4501 ES1L*3	PUBL 45-10	70	
	55	SRG..C, SRG..LC	UBPS 5501 ES1L*3		70	11
		SRG..R, SRG..LR	UBPS 5501 ES1L*3	PUBL 55-10	80	
	65	SRG..LC, SRG..LV	UBPS 6501 ES1L*3		90	8

Rail manufacturer

THK
The Mark of Linear Motion

R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	20	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	✆		30	✆
	25	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	UBPS 2505 AS1		36	1
		R1621, R1624	UBPS 2505 AS1	PUB 25-4	40	
	30	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	UBPS 3005 AS1		42	2
		R1621, R1624	UBPS 3005 AS1	PUB 30-3	45	
	35	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	UBPS 3505 AS1		48	5
		R1621, R1624	UBPS 3505 AS1	PUB 35-7	55	
	45	R1622, R1623, R1651, R1653	UBPS 4505 AS1L*3		60	10
		R1621,R1624	UBPS 4505 AS1L*3	PUBL 45-10	70	
	55	R1622, R1623, R1651, R1653	UBPS 5505 AS1L*3		70	11
		R1621, R1624	UBPS 5505 AS1L*3	PUBL 55-10	80	
	65	R1622, R1623, R1651, R1653	UBPS 6505 AS1L*3		90	8
R1805, R1806, R1807, R1808, R1845, R1846, R1847	25	R1851, R1853	UBPS 2505 BS1		36	1
		R1821, R1824	UBPS 2505 BS1	PUB 25-4	40	
	35	R1851, R1853	UBPS 3505 BS1		48	5
		R1821, R1824	UBPS 3505 BS1	PUB 35-7	55	
	45	R1851, R1853	UBPS 4505 BS1L*3		60	10
		R1821, R1824	UBPS 4505 BS1L*3	PUBL 45-10	70	
	55	R1851, R1853	UBPS 5505 BS1L*3		70	11
		R1821, R1824	UBPS 5505 BS1L*3	PUBL 55-10	80	
	65	R1824, R1851, R1853	UBPS 6505 BS1L*3		90	8

Rail manufacturer

Rexroth
Bosch Group

MRS	25	MRW..A, MRW..B	UBPS 2503 AS1		36	1
		MRW..C, MRW..D, MRW..E	UBPS 2503 AS1	PUB 25-4	40	
	35	MRW..A, MRW..B	UBPS 3503 AS1		48	19
		MRW..C, MRW..D, MRW..E	UBPS 3503 AS1	PUB 35-7	55	
	45	MRW..A, MRW..B	UBPS 4503 AS1L*3		60	10
		MRW..C, MRW..D	UBPS 4503 AS1L*3	PUBL 45-10	70	
	55	MRW..A, MRW..B	UBPS 5503 AS1L*3		70	11
		MRW..C, MRW..D	UBPS 5503 AS1L*3	PUBL 55-10	80	
	65	MRW..B, MRW..D	UBPS 6503 AS1L*3		90	8

Rail manufacturer

SCHNEEBERGER
LINEAR TECHNOLOGY

*1 Supplements the measure table and datasheet
*3 Long version UBPS

See page 11 for part number explanation

Rail manufacturer

IKO

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 90]
LWH	20	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG, LWHY	✆		30	✆
	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	✆		36	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		40	
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	UBPS 3010 AS1		42	17
		LWHD..B, LWHD..M, LWHDG, LWHY	UBPS 3010 AS1	PUB 30-3	45	
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	UBPS 3510 AS1		48	6
		LWHD..B, LWHD..M, LWHDG, LWHY	UBPS 3510 AS1	PUB 35-7	55	
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	UBPS 4510 AS1		60	18
		LWHD..B, LWHD..M, LWHDG, LWHY	UBPS 4510 AS1	PUB 45-10	70	
	55	LWH..B, LWHG, LWHT..B, LWHTG	✆		70	✆
		LWHD..B, LWHDG, LWHY	✆		80	✆
	65	LWH..B, LWHG, LWHT..B, LWHTG, LWHD..B, LWHDG, LWHY	✆		90	✆
MH	20	MH, MHG, MHT, MHTG, MHS, MHSG	✆		30	✆
	25	MH, MHG, MHT, MHTG, MHS, MHSG	✆		36	✆
		MHD, MHDG	✆		40	✆
	30	MH, MHG, MHT, MHTG, MHS, MHSG	UBPS 3010 AS1		42	17
		MHD, MHDG	UBPS 3010 AS1	PUB 30-3	45	
	35	MH, MHG, MHT, MHTG	UBPS 3510 AS1		48	6
		MHD, MHDG	UBPS 3510 AS1	PUB 35-7	55	
	45	MH, MHG, MHT, MHTG	UBPS 4510 AS1		60	18
		MHD, MHDG	UBPS 4510 AS1	PUB 45-10	70	
LRX	20	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	✆		30	✆
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	✆		34	✆
	25	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	UBPS 2510 BS1		36	1
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	UBPS 2510 BS1	PUB 25-4	40	
	30	LRXC, LRX, LRXG, LRXSC, LRXS, LRXSG	UBPS 3010 BS1		42	2
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	UBPS 3010 BS1	PUB 30-3	45	
	35	LRXC, LRX, LRXG	UBPS 3510 BS1		48	5
		LRXDC, LRXD, LRXDG	UBPS 3510 BS1	PUB 35-7	55	
	45	LRXC, LRX, LRXG	UBPS 4510 BS1L*2		60	10
		LRXDC, LRXD, LRXDG	UBPS 4510 BS1L*2	PUBL 45-10	70	
	55	LRXC, LRX, LRXG	UBPS 5510 BS1L*2		70	4
		LRXDC, LRXD, LRXDG	UBPS 5510 BS1L*2	PUBL 55-10	80	
	65	LRXC, LRX, LRXG, LRXDC, LRXD, LRXDG	UBPS 6510 BS1L*2		90	8
MX	20	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	✆		30	✆
		MXDC, MXD, MXDG, MXDL	✆		34	
	25	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	UBPS 2510 BS1		36	1
		MXDC, MXD, MXDG, MXDL	UBPS 2510 BS1	PUB 25-4	40	
	30	MXC, MX, MXG, MXL, MXSC, MXS, MXSG, MXSL	UBPS 3010 BS1		42	2
		MXDC, MXD, MXDG, MXDL	UBPS 3010 BS1	PUB 30-3	45	
	35	MXN, MXNG, MXNS, MXNSG	x		44	x
		MXC, MX, MXG, MXL	UBPS 3510 BS1		48	5
	45	MXN, MXNG, MXNS, MXNSG	x		52	x
		MXC, MX, MXG, MXL	UBPS 4510 BS1L*2		60	10
	55	MXN, MXNG, MXNS, MXNSG	x		63	x
		MXC, MX, MXG	UBPS 5510 BS1L*2		70	4
	65	MXC, MX, MXG	UBPS 6510 BS1L*2		90	8
LWE	20	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	✆		28	✆
	25	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	✆		33	✆
	30	LWE..Q, LWET..Q, LWES..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	UBPS 3010 DS1		42	17
	35	LWE..Q, LWET..Q, LWES..Q, LWEC, LWE, LWETC, LWET, LWESC, LWES	UBPS 3510 DS1		48	6
	45	LWE, LWET, LWES	UBPS 4510 DS1		60	18

X: not feasible
*1 Supplements the measure table and datasheet
*2 Only for rail use without cover sheet, long version UBPS

See page 11 for part number explanation

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 90]
ME	20	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC.. SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	✆		28	✆
		MH, MHG, MHT, MHTG, MHS, MHSG	✆		30	
	25	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	✆		33	✆
		MH, MHG, MHT, MHTG, MHS, MHSG	✆		36	
		MHD, MHDG			40	
	30	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MH, MHG, MHT, MHTG, MHS, MHSG	UBPS 3010 DS1		42	17
		MHD, MHDG	UBPS 3010 DS1	PUB 30-3	45	
	35	MEC, ME, METC, MET, MESC, MES, MH, MHG, MHT, MHTG	UBPS 3510 DS1		48	6
		MHD, MHDG	UBPS 3510 DS1	PUB 35-7	55	
	45	ME, MET, MES, MH, MHG, MHT, MHTG	UBPS 4510 DS1		60	18
		MHD, MHDG	UBPS 4510 DS1	PUB 45-10	70	

Rail manufacturer

IKO

TKD (KUE)	20	KWE, KWE..-H	✆		30	✆
	25	KWE	✆		36	✆
		KWE..-H	✆		40	
	30	KWE	UBPS 3002 CS1		42	3
		KWE..-H	UBPS 3002 CS1	PUB 30-3	45	
	35	KWE	✆		48	✆
		KWE..-H	✆		55	
TKVD (KUVE)	20	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-H	✆		30	✆
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	✆		27	
		KWVE..-B-EC, KWVE..-B-ESC	✆		28	
	25	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL, KWVE..B-HS, KWVE..B-S-HS	✆		36	✆
		KWVE..-B-EC, KWVE..-B-ESC	✆		33	
		KWVE..-B-H, KWVE..-B-HL, KWVE..B-H-HS	✆		40	
	30	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	UBPS 3002 BS1		42	3
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	✆		38	✆
		KWVE..-B-H, KWVE..-B-HL	UBPS 3002 BS1	PUB 30-3	45	3
	35	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	UBPS 3502 BS1		48	19
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	✆		44	✆
		KWVE..-B-H, KWVE..-B-HL	UBPS 3502 BS1	PUB 35-7	55	19
	45	KWVE..-B, KWVE..-B-EC, KWVE..-B-L, KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	UBPS 4502 BS1L*3		60	10
		KWVE..-B-N, KWVE..-B-NL, KWVE..-B-SN, KWVE..-B-SNL	✆		52	✆
		KWVE..-B-H, KWVE..-B-HL	UBPS 4502 BS1L*3	PUBL 45-10	70	10
	55	KWVE..-B, KWVE..-B-L, KWVE..-B-S, KWVE..-B-SL	UBPS 5502 DS1L*3		70	11
TKSD (KUSE)	20	KWSE, KWSE..-L, KWSE..-H, KWSE..-HL	✆		30	✆
	25	KWSE, KWSE..-L	✆		36	✆
		KWSE..-H, KWSE..-HL	✆		40	
	30	KWSE, KWSE..-L	UBPS 3002 AS1		42	3
		KWSE..-H, KWSE..-HL	UBPS 3002 AS1	PUB 30-3	45	
	35	KWSE, KWSE..-L	UBPS 3502 AS1		48	6
		KWSE..-H, KWSE..-HL	UBPS 3502 AS1	PUB 35-7	55	
	45	KWSE, KWSE..-L	UBPS 4502 AS1		60	18
TSX-E (RUE)	25	RWU..-D-FE, RWU..-D-OE, RWU..-D-L-FE, RWU..-D-L-OE	x		36	x
		RWU..-D-H-FE, RWU..-D-H-OE, RWU..-D-HL-FE, RWU..-D-HL-OE	x		40	x
	35	RWU..-E, RWU..-E-L	UBPS 3502 DS1★		48	13
		RWU..-E-H, RWU..-E-HL	UBPS 3502 DS1★	PUB 35-7	55	
	45	RWU..-E, RWU..-E-L	UBPS 4502 DS1L*2		60	14
		RWU..-E-H, RWU..-E-HL	UBPS 4502 DS1L*2	PUBL 45-10	70	
	55	RWU..-E, RWU..-E-L	UBPS 5502 DS1L*2		70	15
		RWU..-E-H, RWU..-E-HL	UBPS 5502 DS1L*2	PUBL 55-10	80	
	65	RWU..-E, RWU..-E-L	UBPS 6502 DS1L*2		90	16
		RWU..-E-H, RWU..-E-HL	UBPS 6502 DS1L*2	PUBL 65-10	100	

Rail manufacturer

INA

X: not feasible

*1 Supplements the measure table and datasheet

★ PLUS connection not possible

*2 PLUS connection not possible, long version UBPS

*3 Long version UBPS

See page 11 for part number explanation

UBPS

Rail manufacturer
NSK

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 90]
LH	20	LAH..EMZ, LAH..GMZ, LAH..ANZ, LAH..BNZ	✆		30	✆
	25	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	✆		36	✆
		LAH..ANZ, LAH..BNZ	✆		40	
	30	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	UBPS 3004 BS1		42	17
		LAH..ANZ, LAH..BNZ	UBPS 3004 BS1	PUB 30-3	45	
	35	LAH..EMZ, LAH..GMZ, LAH..ALZ, LAH..BLZ	UBPS 3504 BS1		48	6
		LAH..ANZ, LAH..BNZ	UBPS 3504 BS1	PUB 35-7	55	
	45	LAH..EMZ, LAH..GMZ	UBPS 4504 BS1		60	18
		LAH..ANZ, LAH..BNZ	UBPS 4504 BS1	PUB 45-10	70	
	55	LAH..EMZ, LAH..GMZ	UBPS 5504 BS1L*3		70	4
		LAH..ANZ, LAH..BNZ	UBPS 5504 BS1L*3	PUBL 55-10	80	
	65	LAH..EMZ, LAH..GMZ, LAH..ANZ, LAH..BNZ	UBPS 6504 BS1L*3		90	8
SH	20	SAH..EMZ, SAH..GMZ, SAH..ANZ, SAH..BNZ	✆		30	✆
	25	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	✆		36	✆
		SAH..ANZ, SAH..BNZ	✆		40	
	30	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	UBPS 3004 BS1		42	17
		SAH..ANZ, SAH..BNZ	UBPS 3004 BS1	PUB 30-3	45	
	35	SAH..EMZ, SAH..GMZ, SAH..ALZ, SAH..BLZ	UBPS 3504 BS1		48	6
		SAH..ANZ, SAH..BNZ	UBPS 3504 BS1	PUB 35-7	55	
LS	20	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	✆		28	✆
	25	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	✆		33	✆
	30	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	UBPS 3004 AS1		42	17
	35	LAS..JMZ, LAS..EMZ, LAS..CLZ, LAS..ALZ	UBPS 3504 AS1		48	6
SS	20	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	✆		28	✆
	25	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	✆		33	✆
	30	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	UBPS 3004 AS1		42	17
	35	SAS..JMZ, SAS..EMZ, SAS..CLZ, SAS..ALZ	UBPS 3504 AS1		48	6
RA	20	RA..EM, RA..GM, RA..AN, RA..BN	✆		30	
	25	RA..AL, RA..BL, RA..EM, RA..GM	UBPS 2504 FS1		36	1
		RA..AN, RA..BN	UBPS 2504 FS1	PUB 25-4	40	
	30	RA..AL, RA..BL, RA..EM, RA..GM	UBPS 3004 FS1		42	2
		RA..AN, RA..BN	UBPS 3004 FS1	PUB 30-3	45	
	35	RA..AL, RA..BL, RA..EM, RA..GM	UBPS 3504 FS1		48	5
		RA..AN, RA..BN	UBPS 3504 FS1	PUB 35-7	55	
	45	RA..AL, RA..BL, RA..EM, RA..GM	UBPS 4504 FS1L*3		60	10
		RA..AN, RA..BN	UBPS 4504 FS1L*3	PUBL 45-10	70	
	55	RA..AL, RA..BL, RA..EM, RA..GM	UBPS 5504 FS1L*3	PUBL 55-3	70	22
		RA..AN, RA..BN	UBPS 5504 FS1L*3	PUBL 55-13	80	
	65	RA..EM, RA..GM, RA..AN, RA..BN	UBPS 6504 FS1L*3		90	8

*1 Supplements the measure table and datasheet
*3 Long version UBPS

See page 11 for part number explanation

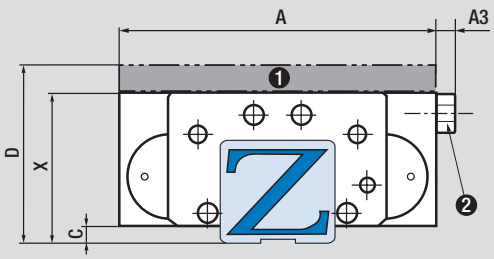
Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	
HGR..R, HGR..T	20	HGW..CC, HGW..HC, HGH..CA, HGH..HA, QHW..CC, QHW..HC, QHH..CA, QHH..HA	✆		30	✆
	25	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	✆		36	✆
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	✆		40	
	30	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	UBPS 3012 ES1		42	3
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	UBPS 3012 ES1	PUB 30-3	45	
	35	HGW..CC, HGW..HC, HGL..CA, HGL..HA, QHW..CC, QHW..HC	UBPS 3512 ES1		48	6
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	UBPS 3512 ES1	PUB 35-7	55	
	45	HGW..CC, HGW..HC, HGL..CA, HGL..HA QHW..CC, QHW..HC	UBPS 4512 ES1		60	18
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	UBPS 4512 ES1	PUB 45-10	70	
	55	HGW..CC, HGW..HC, HGL..CA, HGL..HA	X		70	X
		HGH..CA, HGH..HA	X		80	
	65	HGW..CC, HGW..HC, HGH..CA, HGH..HA	X		90	X
EGR..R, EGR..U, EGR..T	20	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	✆		28	✆
	25	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	X		33	X
	30	EGH...SA, EGH...CA, EGW...SC, EGW...CC QEH..SA, QEH..CA, QEW..SC, QEW..CC	✆		42	✆
	35	EGH...SA, EGH...CA, EGW...SC, EGW...CC	✆		48	✆
RG..T	20	RGW..CC, RGW..HC	✆		30	✆
		RGH..CA, RGH..HA	✆		34	
	25	RGW..CC, RGW..HC	UBPS 2512 FS1		36	1
		RGH..CA, RGH..HA	UBPS 2512 FS1	PUB 25-4	40	
	30	RGW..CC, RGW..HC	UBPS 3012 FS1		42	2
		RGH..CA, RGH..HA	UBPS 3012 FS1	PUB 30-3	45	
	35	RGW..CC, RGW..HC	UBPS 3512 FS1		48	5
		RGH..CA, RGH..HA	UBPS 3512 FS1	PUB 35-7	55	
	45	RGW..CC, RGW..HC	UBPS 4512 FS1L*3		60	10
		RGH..CA, RGH..HA	UBPS 4512 FS1L*3	PUBL 45-10	70	
	55	RGW..CC, RGW..HC	UBPS 5512 FS1L*3		70	11
		RGH..CA, RGH..HA	UBPS 5512 FS1L*3	PUBL 55-10	80	
	65	RGW..CC, RGW..HC, RGH..CA, RGH..HA	UBPS 6512 FS1L*3		90	8

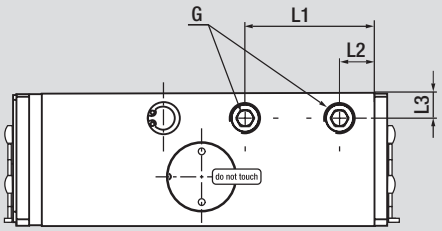
X: not feasible
*1 Supplements the measure table and datasheet
*3 Long version UBPS

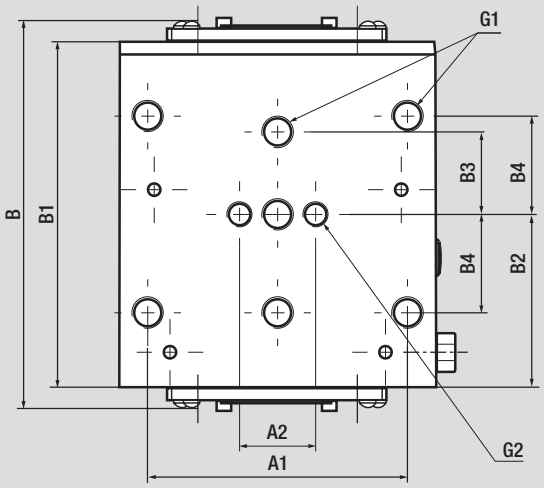
See page 11 for part number explanation

Rail manufacturer
HIWIN
Lineartechnologie

UBPS





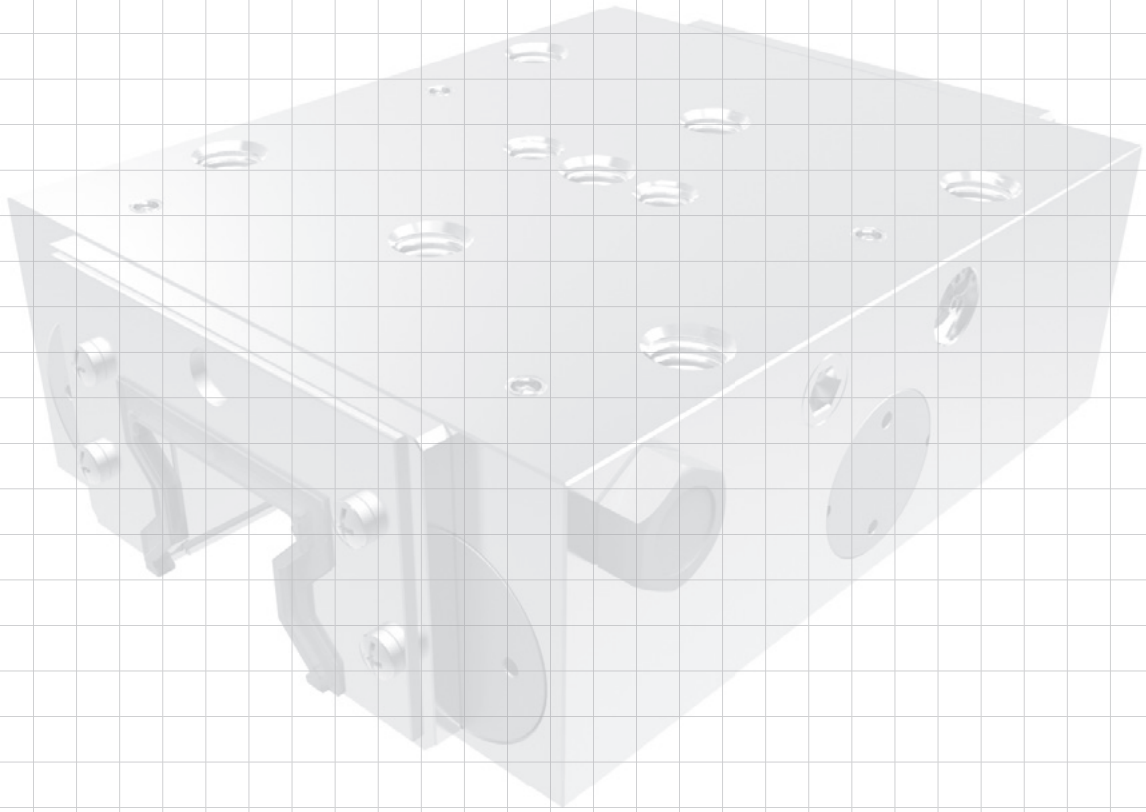


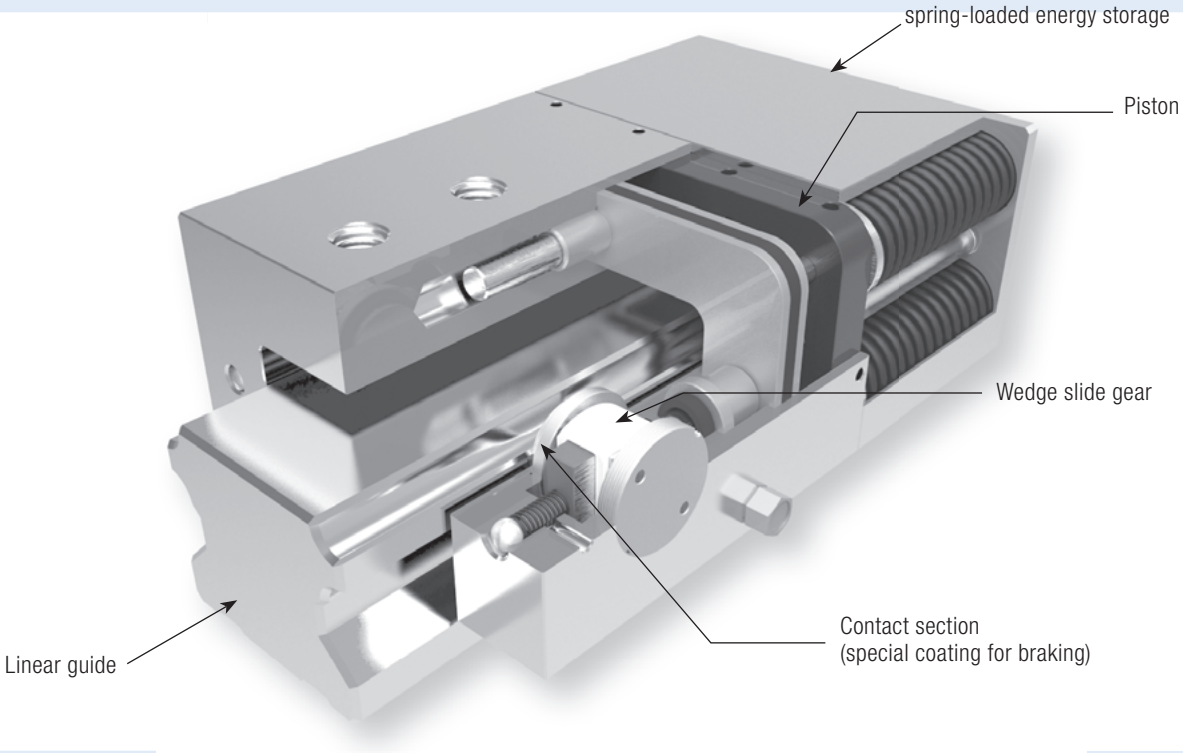
Note: Consider measurement C/Interfering contour!

Comment:
The air filter is not necessary if the PLUS-connection is being used. Air connections are located on both sides and can be exchanged according to mounting requirements. Only one connection is necessary for function.

1. Adapting plate PUB (accessory)
2. air filter

Measure table	Holding power [N] UBPS	Holding power [N] UBPS [PLUS]	A [mm]	A1 [mm]	A2 [mm]	A3 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	C	X [mm]	G	G1	G2	L1 [mm]	L2 [mm]	L3 [mm]
1	1500	2200	70	57	20	5	max.136	99	49,5	20	22,5	5	36	M5	M8/7	M6/7	34,3	11	6,5
2	2500	3300	90	72	22	5	max.138	109	54,5	22	26	5	42	M5	M10/8	M8/8	40,8	11	6,5
3	1750	2250	90	72	22	5	max.138	109	54,5	22	26	5	42	M5	M10/8	M8/8	40,8	11	7
4	5200	7600	140	116	-	6	max.221	197	98,5	35	47,5	10	70	G1/8“	M14/14	M14/14	165	32	12
5	2800	3800	100	82	24	6	max.136	109	54,5	26	31	6	48	G1/8“	M10/10	M8/10	40,8	11	8
6	2500	3300	100	82	24	6	max.136	109	54,5	26	31	6	48	G1/8“	M10/10	M8/10	40,8	11	8
7	2500	3300	100	-	24	6	max.136	109	54,5	-	31	5,5	44	G1/8“	M10/10	M8/10	40,8	11	7
8	7700	9200	170	142	-	6	max.233	197	98,5	41	55	11,5	90	G1/8“	M16/20	M16/20	170	27	20
9	7700	9200	170	142	-	6	max.215	197	98,5	41	55	11	75	G1/8“	M16/14	M16/14	170	27	11
10	5200	7600	120	100	-	6	max.228	197	98,5	30	40	8	60	G1/8“	M12/12	M12/12	167	32	12
11	7700	9200	140	116	-	6	max.226	197	98,5	35	47,5	10	70	G1/8“	M14/14	M14/14	165	32	13
12	3100	3800	120	-	26	6	max.127	109	54,5	40	40	7	52	G1/8“	M12/12	M10/12	84	25	7
13	2500	-	100	82	24	6	max.129	109	54,5	26	31	6	48	G1/8“	M10/10	M8/10	40,8	11	8
14	5200	-	120	100	-	6	max.224	197	98,5	30	40	8	60	G1/8“	M12/12	M12/12	167	32	12
15	6200	-	140	116	-	6	max.223	197	98,5	35	47,5	10	70	G1/8“	M14/14	M14/14	165	32	13
16	7700	-	170	142	-	6	max.226	197	98,5	41	55	11,5	90	G1/8“	M16/20	M16/20	170	27	20
17	2150	2650	90	72	22	5	max.130	109	54,5	22	26	5	42	M5	M10/8	M8/8	40,8	11	7
18	3100	3800	120	100	26	6	max.133	109	54,5	30	40	8	60	G1/8“	M12/12	M10/12	45	26	8
19	2600	3400	100	82	24	6	max.136	109	54,5	26	31	6	48	G1/8“	M10/10	M8/10	40,8	11	8
20	1500	2200	70	57	20	5	max.136	99	49,5	20	22,5	3,5	34,5	M5	M8/7	M6/7	34,3	11	6,5
21	5200	7600	140	116	-	6	max.218	197	98,5	47,5	47,5	11	63	G1/8“	M14/12	M14/12	167	32	12
22	7700	9200	140	116	-	6	max.214	197	98,5	35	47,5	7	67	G1/8“	M14/14	M14/14	165	32	13



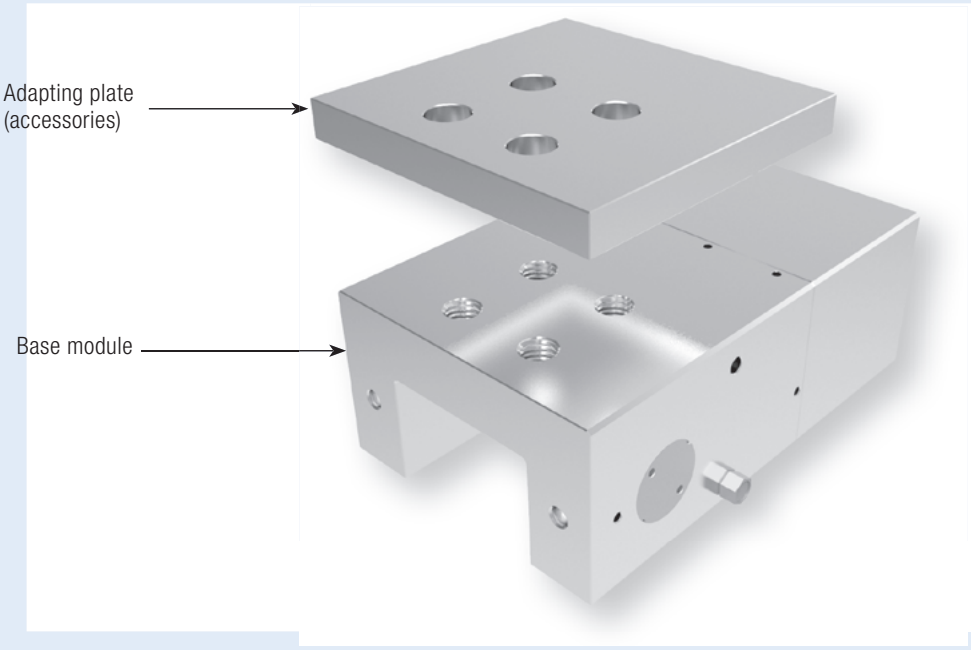


Narrow and low design (S2/S3):
The Clamping and Braking Element with spring-loaded energy storage **LBPS**

The LBPS series is set apart by the narrow and low design to DIN645-1 and the high holding forces.
The LBPS series is a low-cost clamping and braking element available for rail sizes 15–55.
The LBPS series is designed for braking on linear guides. Because of the material combination of the linear guide/contact section, the linear guide won't be damaged by the contact section.

The LBPS is closed by a spring-loaded energy storage and opened under the impact of air. At a pneumatic opening pressure of 5.5 bar, a retention force of up to 3,600 N is achieved.
Details on the length of the brake path to be expected can be obtained from our technical advisors. The computations are based on serial tests and our industrial experience.

LBPS Series



Technical data for LBPS series:

Rail size	15–55
Holding forces	400 N–3,600 N
Min. pressure	5.5 bar
Max. pressure	8 bar
Spring-loaded energy storage	√
PLUS connection	-
Clamping cycles	5 mil. (B10d-value)
Braking cycles	2,000

Application scenarios for LBPS:
- Clamping in case of pressure drop
- Emergency OFF function
- Clamping without energy requirement
- Braking for linear motors

Connection options for LBPS:
The LBPS series have air connections on both sides as part of their standard equipment. This means that the air connection and the air-release filter can be moved over to the opposite side.

Adapting plate accessory for LBPS:
Depending on the height of the carriage (measure D), an additional adapting plate is required (see table from page 94).

LBPS

Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 99]
SR, SSR	15	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM	LBPS 1501 AS2		24	1
	20	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM	LBPS 2001 AS2		28	3
	25	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM	LBPS 2501 AS2		33	5
	30	SR..W, SR..WM, SR..V, SR..VM, SSR..XW, SSR..XWM	✆		42	✆
	35	SR..W, SR..WM, SR..V, SR..VM, SSR..XW	✆		48	✆
	45	SR..W	✆		60	✆
	55	SR..W	✆		68	✆
HSR	15	HSR..R, HSR..RM, HSR..YR, HSR..YRM	LBPS 1501 AS2	PLK 15-4	28	1
	20	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	LBPS 2001 AS2		30	2
	25	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	LBPS 2501 AS2	PLK 25-4	40	4
	30	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	✆		45	✆
	35	HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..R, HSR..YR, HSR..YRM	✆		55	✆
	45	HSR..R, HSR..LR, HSR..YR	✆		70	✆
	55	HSR..R, HSR..LR, HSR..YR	✆		80	✆
SHS	15	SHS..V, SHS..LV	LBPS 1501 AS2		24	1
		SHS..R	LBPS 1501 AS2	PLK 15-4	28	
	20	SHS..V, SHS..LV	LBPS 2001 AS2		30	3
	25	SHS..V, SHS..LV	LBPS 2501 AS2	PLK 25-2	36	6
		SHS..R, SHS..LR	LBPS 2501 AS2	PLK 25-6	40	
	30	SHS..V, SHS..LV	✆		42	✆
		SHS..R, SHS..LR	✆		45	
	35	SHS..V, SHS..LV	✆		48	✆
		SHS..R, SHS..LR	✆		55	
	45	SHS..V, SHS..LV	✆		60	✆
		SHS..R, SHS..LR	✆		70	
	55	SHS..V, SHS..LV	✆		70	✆
		SHS..R, SHS..LR	✆		80	
SRG	15	SRG..V	LBPS 1501 AS2		24	1
	20	SRG..V, SRG..LV	LBPS 2001 AS2		30	2
	25	SRG..R, SRG..LR	LBPS 2501 AS2		40	4
	30	SRG..R, SRG..LR	✆		45	✆
	35	SRG..R, SRG..LR	✆		55	✆
	45	SRG..R, SRG..LR	✆		70	✆
	55	SRG..R, SRG..LR	✆		80	✆

Rail manufacturer

Rexroth
Bosch Group

R1605, R1607, R1645, R1647 R2045, R2047	15	R1622, R1623, R1632,R1662, R1666, R2011	LBPS 1505 AS2		24	1
		R1621	LBPS 1505 AS2	PLK 15-4	28	
	20	R1622, R1623, R1632, R1662, R1666, R2011	LBPS 2005 AS2		30	2
	25	R1622, R1623, R1632, R1662,R1666, R2011	LBPS 2505 AS2		36	4
		R1621, R1624	LBPS 2505 AS2	PLK 25-4	40	
	30	R1622, R1623, R1632, R1662, R1666, R2011	✆		42	✆
		R1621, R1624	✆		45	
	35	R1622, R1623, R1632,R1662, R1666, R2011	✆		48	✆
		R1621, R1624	✆		55	
	45	R1622, R1623,	✆		60	✆
		R1621, R1624	✆		70	
	55	R1622, R1623,	✆		70	✆
		R1621, R1624	✆		80	
R1805, R1806, R1807	25	R1821, R1824	LBPS 2505 BS2	PLK 25-4	40	4
	35	R1821, R1824	✆		55	✆
	45	R1821, R1824	✆		70	✆
	55	R1821, R1824	✆		80	✆

Rail manufacturer

SCHNEEBERGER

MRS	25	MRW..C, MRW..D, MRW..E	LBPS 2501 AS2	PLK 25-4	40	4
	35	MRW..C, MRW..D, MRW..E	✆		55	✆
	45	MRW..C, MRW..D	✆		70	✆
	55	MRW..C, MRW..D	✆		80	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Rail manufacturer

IKO

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 99]
LWH	15	LWHS..B, LWHS..SL, LWHS..M	LBPS 1501 AS2		24	1
		LWHD..B, LWHD..M, LWHY	LBPS 1501 AS2	PLK 15-4	28	
	20	LWHS..B, LWHS..SL, LWHS..M, LWHSG, LWHY	LBPS 2001 AS2		30	2
	25	LWHS..B, LWHS..SL, LWHS..M, LWHSG	LBPS 2501 AS2		36	4
		LWHD..B, LWHD..M, LWHDG, LWHY	LBPS 2501 AS2	PLK 25-4	40	
	30	LWHS..B, LWHS..SL, LWHS..M, LWHSG	✆		42	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		45	✆
	35	LWHD..B, LWHD..M, LWHDG, LWHY	✆		55	✆
	45	LWHD..B, LWHD..M, LWHDG, LWHY	✆		70	✆
	55	LWHD..B, LWHDG, LWHY	✆		80	✆
MH	15	MHS	LBPS 1501 AS2		24	1
		MHD	LBPS 1501 AS2	PLK 15-4	28	
	20	MHS, MHSG	LBPS 2001 AS2		30	2
	25	MHS, MHSG	LBPS 2501 AS2		36	4
		MHD, MHDG	LBPS 2501 AS2	PLK 25-4	40	
	30	MHS, MHSG	✆		42	✆
		MHD, MHDG	✆		45	✆
	35	MHD, MHDG	✆		55	✆
	45	MHD, MHDG	✆		70	✆
LRX	15	LRXSC, LRXS, LRXSG	LBPS 1501 AS2		24	1
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	LBPS 1501 AS2	PLK 15-4	28	
	20	LRXSC, LRXS, LRXSG	✆		30	✆
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	✆		34	✆
	25	LRXSC, LRXS, LRXSG	LBPS 2501 AS2		36	4
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	LBPS 2501 AS2	PLK 25-4	40	
	30	LRXSC, LRXS, LRXSG	✆		42	✆
		LRXDC, LRXDC..SL, LRXD, LRXD..SL, LRXDG, LRXDG..SL	✆		45	✆
	35	LRXDC, LRXD, LRXDG	✆		55	✆
	45	LRXDC, LRXD, LRXDG	✆		70	✆
	55	LRXDC, LRXD, LRXDG	✆		80	✆
MX	15	MXSC, MXS, MXSG	LBPS 1501 AS2		24	1
		MXDC, MXD, MXDG	LBPS 1501 AS2	PLK 15-4	28	
	20	MXSC, MXS, MXSG, MXSL	✆		30	✆
		MXDC, MXD, MXDG, MXDL	✆		34	
	25	MXSC, MXS, MXSG, MXSL	LBPS 2501 AS2		36	4
		MXDC, MXD, MXDG, MXDL	LBPS 2501 AS2	PLK 25-4	40	
	30	MXSC, MXS, MXSG, MXSL	✆		42	✆
		MXDC, MXD, MXDG, MXDL	✆		45	✆
	35	MXNS, MXNSG	✆		44	✆
	45	MXNS, MXNSG	✆		52	✆
	55	MXNS, MXNSG	✆		63	✆
LWE	15	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL, LWESG, LWESG..SL	LBPS 1501 AS2		24	1
	20	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL,LWESG, LWESG..SL	LBPS 2001 AS2		28	3
	25	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL,LWESG, LWESG..SL	LBPS 2501 AS2		33	5
	30	LWES..Q, LWESC, LWESC..SL, LWES, LWES..SL,LWESG, LWESG..SL	✆		42	✆
	35	LWES..Q, LWESC, LWES	✆		48	✆
	45	LWES	✆		60	✆
ME	15	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MHS	LBPS 1501 AS2		24	1
		MHD	LBPS 1501 AS2	PLK 15-4	28	
	20	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	LBPS 2001 AS2		28	3
		MHS, MHSG	LBPS 2001 AS2	PLK 20-2	30	
	25	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL	LBPS 2501 AS2		33	5
		MHS, MHSG	LBPS 2501 AS2	PLK 25-2	36	6
		MHD, MHDG	LBPS 2501 AS2	PLK 25-6	40	
	30	MESC, MESC..SL, MES, MES..SL, MESG, MESG..SL, MHS, MHSG	✆		42	✆
		MHD, MHDG	✆		45	✆
	35	MESC, MES	✆		48	✆
		MHD, MHDG	✆		55	✆
	45	MES	✆		60	✆
		MHD, MHDG	✆		70	✆

LRX: this table applies only for rail use without cover sheet!

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Rail manufacturer

INA

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 99]
(KUE)	15	KWE..-H	✆		28	✆
	20	KWE..-H	LBPS 2001 AS2		30	2
	25	KWE..-H	LBPS 2501 AS2	PLK 25-6	40	6
	30	KWE..-H	✆		45	✆
	35	KWE..-H	✆		55	✆
TKVD (KUVE)	15	KWVE..-B-ESC, KWVE..-B-S	✆		24	✆
		KWVE..-B-H	✆		28	✆
	20	KWVE..-B-S, KWVE..-B-SL, KWVE..B-H	✆		30	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		27	✆
		KWVE..-B-ESC	✆		28	✆
	25	KWVE..-B-S, KWVE..-B-SL, KWVE..B-S-HS	✆		36	✆
		KWVE..-B-ESC	✆		33	✆
		KWVE..-B-H, KWVE..-B-HL, KWVE..B-H-HS	✆		40	✆
	30	KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	✆		42	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		38	✆
		KWVE..-B-H, KWVE..-B-HL	✆		45	✆
	35	KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	✆		48	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		44	✆
		KWVE..-B-H, KWVE..-B-HL	✆		55	✆
	45	KWVE..-B-ESC, KWVE..-B-S, KWVE..-B-SL	✆		60	✆
		KWVE..-B-SN, KWVE..-B-SNL	✆		52	✆
		KWVE..-B-H, KWVE..-B-HL	✆		70	✆
	55	KWVE..-B-S, KWVE..-B-SL	✆		70	✆
TKSD (KUSE)	20	KWSE..-H, KWSE..-HL	LBPS 2001 AS2		30	2
	25	KWSE..-H, KWSE..-HL	LBPS 2501 AS2		36	4
	30	KWSE..-H, KWSE..-HL	✆		42	✆

NSK

LH	15	LAH..ANZ, LAH..BNZ	LBPS 1501 AS2	PLK 15-4	28	1
	20	LAH..ANZ, LAH..BNZ	LBPS 2001 AS2	PLK 20-2	30	3
	25	LAH..ALZ, LAH..BLZ	LBPS 2501 AS2		36	6
		LAH..ANZ, LAH..BNZ	LBPS 2501 AS2	PLK 25-6	40	
	30	LAH..ALZ, LAH..BLZ	✆		42	✆
		LAH..ANZ, LAH..BNZ	✆		45	✆
	35	LAH..ALZ, LAH..BLZ	✆		48	✆
		LAH..ANZ, LAH..BNZ	✆		55	✆
	45	LAH..ANZ, LAH..BNZ	✆		70	✆
SH	15	SAH..ANZ, SAH..BNZ	LBPS 1501 AS2	PLK 15-4	28	1
	20	SAH..ANZ, SAH..BNZ	LBPS 2001 AS2	PLK 20-2	30	3
	25	SAH..ALZ, SAH..BLZ	LBPS 2501 AS2		36	6
		SAH..ANZ, SAH..BNZ	LBPS 2501 AS2	PLK 25-6	40	
	30	SAH..ALZ, SAH..BLZ	✆		42	✆
		SAH..ANZ, SAH..BNZ	✆		45	✆
	35	SAH..ALZ, SAH..BLZ	✆		48	✆
		SAH..ANZ, SAH..BNZ	✆		55	✆
LS	15	LAS..CLZ, LAS..ALZ	LBPS 1501 AS2		24	1
	20	LAS..CLZ, LAS..ALZ	LBPS 2001 AS2		28	3
	25	LAS..CLZ, LAS..ALZ	LBPS 2501 AS2		33	5
	30	LAS..CLZ, LAS..ALZ	✆		42	✆
	35	LAS..CLZ, LAS..ALZ	✆		48	✆
SS	15	SAS..CLZ, SAS..ALZ	LBPS 1501 AS2		24	1
	20	SAS..CLZ, SAS..ALZ	LBPS 2001 AS2		28	3
	25	SAS..CLZ, SAS..ALZ	LBPS 2501 AS2		33	5
	30	SAS..CLZ, SAS..ALZ	✆		42	✆
	35	SAS..CLZ, SAS..ALZ	✆		48	✆
RA	15	RA..AL, RA..BL	✆		24	✆
		RA..AN, RA..BN	✆		28	✆
	20	RA..EM, RA..GM, RA..AN, RA..BN	✆		30	✆
	25	RA..AL, RA..BL	✆		36	✆
		RA..AN, RA..BN	✆		40	✆
	30	RA..AL, RA..BL	✆		42	✆
		RA..AN, RA..BN	✆		45	✆
	35	RA..AL, RA..BL	✆		48	✆
		RA..AN, RA..BN	✆		55	✆
	45	RA..AL, RA..BL	✆		60	✆
		RA..AN, RA..BN	✆		70	✆
	55	RA..AL, RA..BL	✆		70	✆
		RA..AN, RA..BN	✆		80	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Rail manufacturer
HIWIN
Lineartechnologie

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	
HGR..R, HGR..T	15	HGL..CA,	LBPS 1501 AS2		24	1
		HGH..CA, QHH..CA	LBPS 1501 AS2	PLK 15-4	28	
	20	HGH..CA, HGH..HA, QHH..CA, QHH..HA	LBPS 2001 AS2	PLK 20-2	30	3
	25	HGL..CA, HGL..HA	LBPS 2501 AS2		36	4
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	LBPS 2501 AS2	PLK 25-4	40	
	30	HGL..CA, HGL..HA	✆		42	✆
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	✆		45	✆
	35	HGL..CA, HGL..HA	✆		48	✆
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	✆		55	✆
	45	HGL..CA, HGL..HA	✆		60	✆
		HGH..CA, HGH..HA, QHH..CA, QHH..HA	✆		70	✆
	55	HGL..CA, HGL..HA,	✆		70	✆
		HGH..CA, HGH..HA	✆		80	✆
EGR..R, EGR..U, EGR..T	15	EGH...SA, EGH...CA, QEH..SA, QEH..CA	LBPS 1501 AS2		24	1
	20	EGH...SA, EGH...CA, QEH..SA, QEH..CA	LBPS 2001 AS2		28	3
	25	EGH...SA, EGH...CA QEH..SA, QEH..CA	✆		33	✆
	30	EGH...SA, EGH...CA, QEH..SA, QEH..CA	✆		42	✆
	35	EGH...SA, EGH...CA	✆		48	✆
RG..T	15	RGH..CA	✆		28	✆
	20	RGH..CA, RGH..HA	✆		34	✆
	25	RGH..CA, RGH..HA	LBPS 2501 AS2	PLK 25-4	40	4
	30	RGH..CA, RGH..HA	✆		45	✆
	35	RGH..CA, RGH..HA	✆		55	✆
	45	RGH..CA, RGH..HA	✆		70	✆
	55	RGH..CA, RGH..HA	✆		80	✆

Rail manufacturer
NTN SNR

BG	15	BGCS..BS, BGCS..BN, BGCS..BL, BGXS..BS, BGXS..BN, BGXS..BL	LBPS 1501 AS2		24	1
		BGCH..BN, BGXH..BN	LBPS 1501 AS2	PLK 15-4	28	
	20	BGCS..BS, BGCS..BN, BGXS..BS, BGXS..BN	LBPS 2001 AS2		28	3
		BGCH..BN, BGCH..BL, BGXH..BN, BGXH..BL	LBPS 2001 AS2	PLK 20-2	30	
	25	BGCS..BS, BGCS..BN, BGXS..BS, BGXS..BN	LBPS 2501 AS2		33	5
		BGCH..FN, BGCH..FL, BGCH..FE, BGCX..BN, BGCX..BL, BGCX..BE, BGXX..BN, BGXX..BL, BGXX..BE	LBPS 2501 AS2	PLK 25-2	36	6
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	LBPS 2501 AS2	PLK 25-6	40	
	30	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	✆		42	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		45	✆
	35	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BS, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BS, BGXS..BN, BGXS..BL, BGXS..BE	✆		48	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		55	✆
	45	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BN, BGXS..BL, BGXS..BE	✆		60	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		70	✆
	55	BGCH..FN, BGCH..FL, BGCH..FE, BGCS..BN, BGCS..BL, BGCS..BE, BGXS..BN, BGXS..BL, BGXS..BE	✆		70	✆
		BGCH..BN, BGCH..BL, BGCH..BE, BGXH..BN, BGXH..BL, BGXH..BE	✆		80	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

LBPS

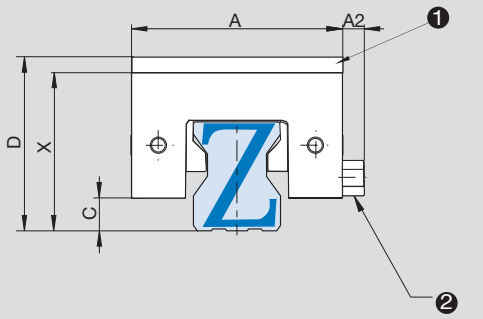
Rail manufacturer

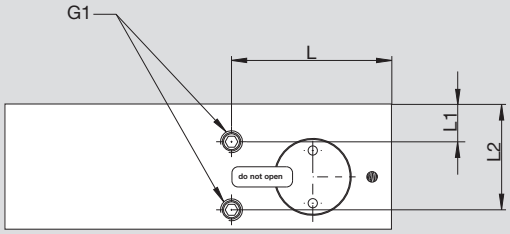
SKF

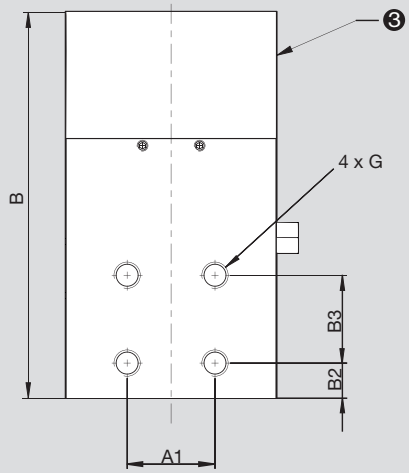
Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 99]
LLTH, LLTH..D4, LLTH..D6	15	LLTHC..SU, LLTHC..U	LBPS 1501 AS2		24	1
		LLTHC..R	LBPS 1501 AS2	PLK 15-4	28	
	20	LLTHC..SU, LLTHC..U, LLTHC..LR	LBPS 2001 AS2	PLK 20-2	30	3
	25	LLTHC..SU, LLTHC..U,	LBPS 2501 AS2		36	4
		LLTHC..R, LLTHC..LR	LBPS 2501 AS2	PLK 25-4	40	
	30	LLTHC..SU, LLTHC..U,	✆		42	✆
		LLTHC..R, LLTHC..LR	✆		45	✆
	35	LLTHC..SU, LLTHC..U,	✆		48	✆
		LLTHC..R, LLTHC..LR	✆		55	✆
	45	LLTHC..U,	✆		60	✆
		LLTHC..R, LLTHC..LR	✆		70	✆

*1 Supplements the measure table and datasheet

See page 11 for part number explanation







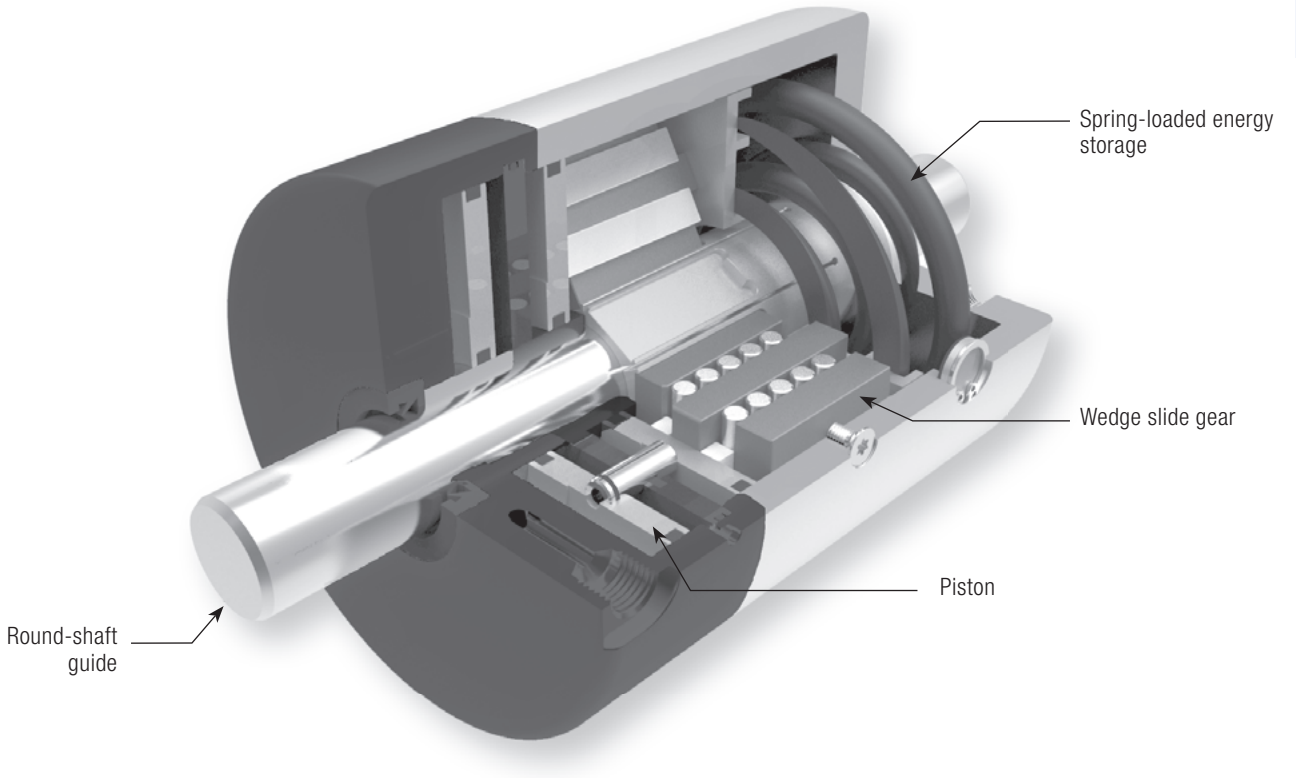
Note: Consider measurement C/Interfering contour!

Air connections are located on both sides and can be exchanged according to mounting requirements.
Only one connection is necessary for function.

1. Adapting plate PLK (accessory)
2. Air filter
3. Spring-loaded energy storage (LBPS)

Measure table	Holding power [N] LBPS	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	L [mm]	L1 [mm]	L2 [mm]
1	400	34	15	-	76	8,5	15	3,3	24	M4/4,5	M3	31,5	4,5	17
2	650	44	20	-	81	7	20	5,5	30	M5/5,5	M3	33,5	4,5	20,5
3	650	44	20	-	81	7	20	3,5	28	M5/5,5	M3	33,5	4,5	20,5
4	750	48	20	5	86	8	20	7,5	36	M6/6	M5	35,5	8,5	24
5	750	48	20	5	86	8	20	4,5	33	M6/6	M5	35,5	8,5	24
6	750	48	20	5	86	8	20	5,5	34	M6/6	M5	35,5	8,5	24

✆ +49.7844.9138-0
www.zimmer-gmbh.com



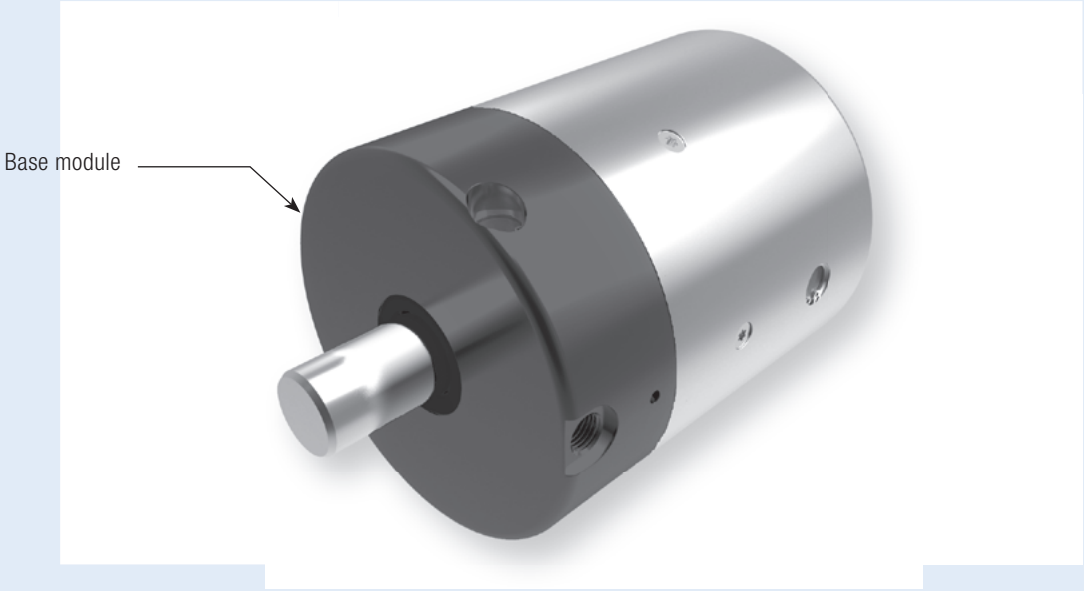
Active without pressure – incredible holding force

The pneumatic Clamping and Braking Element for piston rods **RBPS.**

The RBPS series is based on our proven wedge slide gear principle and is used for clamping and braking without pressure.
This element was developed for deployment on round-shaft guides or piston rods with a surface hardness of min. HRC 54.
The compact design is suitable for shaft diameters of Ø 10 to Ø 60 and allows holding forces of up to 60,000 N at a pneumatic opening pressure of just 4 bar.

As a specific feature no reset is needed for restarting.
The RBPS series stands out for its short reaction times. Even in vertical deployment, short braking distance are achieved in less than 30 ms.
Details on the length of the brake path to be expected can be obtained from our technical advisors. The computations are based on serial tests and our industrial experience.

RBPS Series



Technical data for RBPS series:

Shaft size [mm]	5–60
Holding forces	3,500 N–60,000 N
Minimum pressure	4 bar
Maximum pressure	8 bar
Spring-loaded energy storage	√
PLUS connection	-
Clamping cycles	5 mil. (B10d - value)
Braking cycles	2,000

Application scenarios for RBPS:

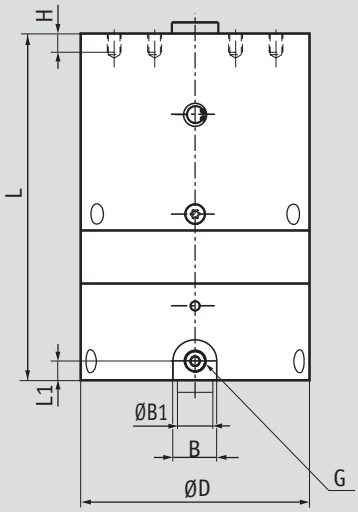
- Positioning of axes
- Clamping and braking in case of pressure drop
- Fixing of vertical axes
- Positioning of lifting devices

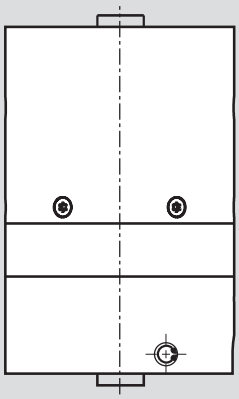
Connection options for RBPS:

The air connection is located on the side.
A PLUS connection (see technical operation principles) is not possible.

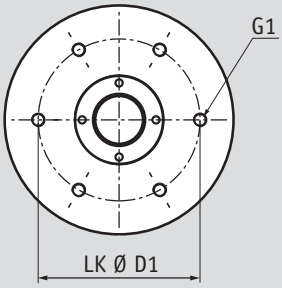
✆ +49.7844.9138-0
www.zimmer-gmbh.com

RBPS





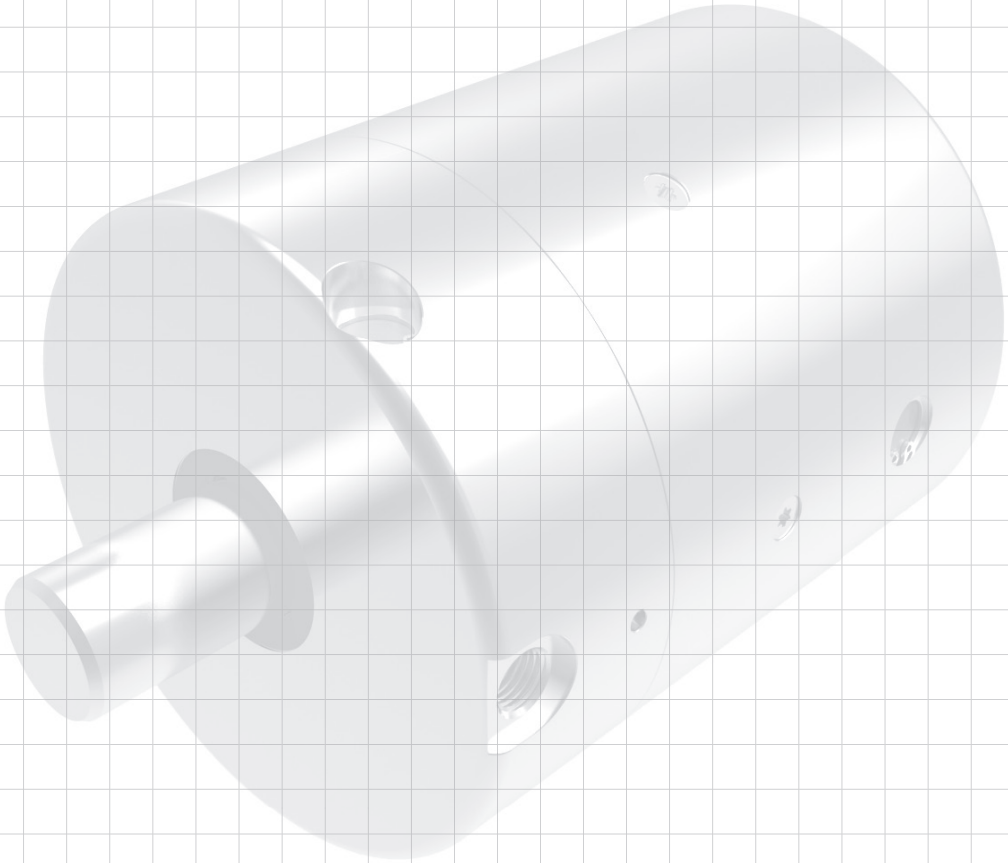
G: Air connection

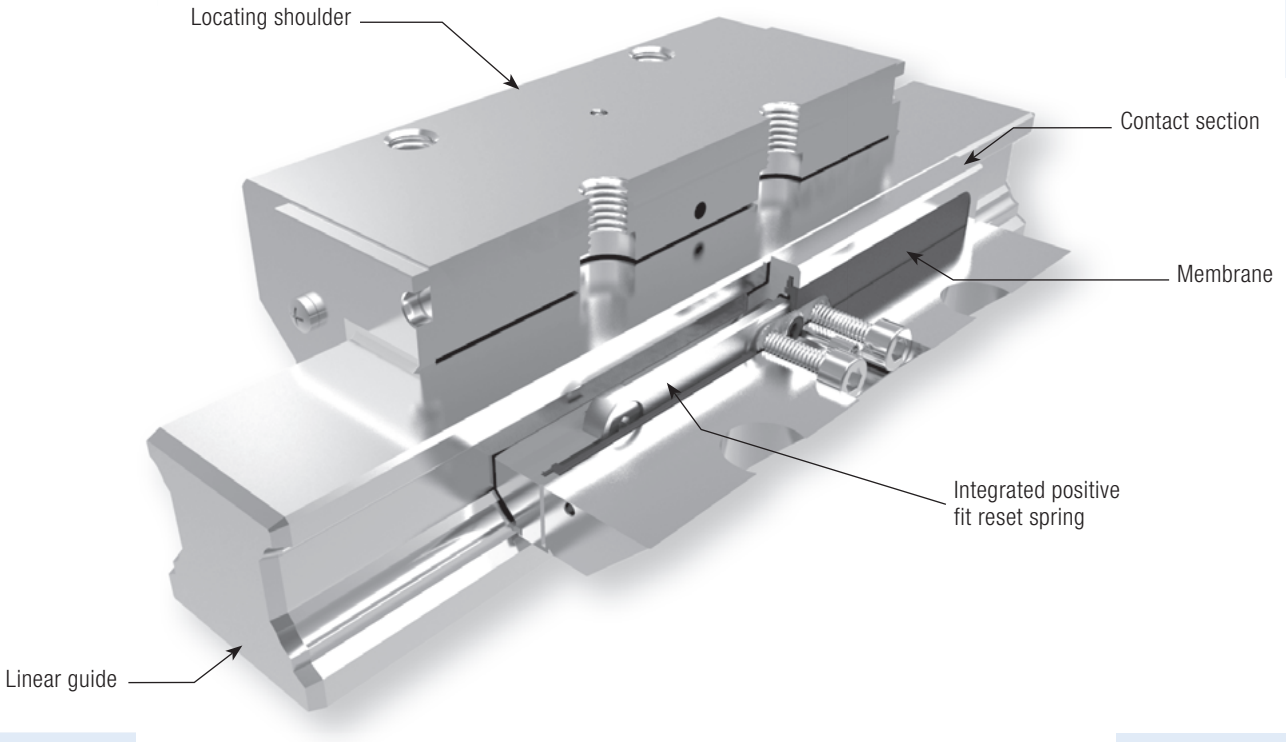


Size [mm]	Item Number	Holding power [N] RB	Ø D [mm]	LK Ø D1 [mm]	L [mm]	L1 [mm]	G	G1	H [mm]	B [mm]	Ø B1 [mm]
5	RBPS 0500	3500	49	30	68	5	M5	M5	6	11	5
6	RBPS 0600	3500	49	30	68	5	M5	M5	6	11	6
8	RBPS 0800	3500	49	30	68	5	M5	M5	6	11	8
10	**RBPS 1000**	**3500**	**49**	**30**	**68**	**5**	**M5**	**M5**	**6**	**11**	**10**
12	RBPS 1200	10000	98,5	70	150	8,4	G1/8“	M6	8	16,6	12
14	RBPS 1400	10000	98,5	70	150	8,4	G1/8“	M6	8	16,6	14
15	RBPS 1500	10000	98,5	70	150	8,4	G1/8“	M6	8	16,6	15
16	RBPS 1600	10000	98,5	70	150	8,4	G1/8“	M6	8	16,6	16
18	RBPS 1800	10000	98,5	70	150	8,4	G1/8“	M6	8	16,6	18
20	**RBPS 2000**	**10000**	**98,5**	**70**	**150**	**8,4**	**G1/8“**	**M6**	**8**	**16,6**	**20**
22	RBPS 2200	18000	135	90	165	9,25	G1/8“	M8	9	20	22
24	RBPS 2400	18000	135	90	165	9,25	G1/8“	M8	9	20	24
25	RBPS 2500	18000	135	90	165	9,25	G1/8“	M8	9	20	25
26	RBPS 2600	18000	135	90	165	9,25	G1/8“	M8	9	20	26
28	**RBPS 2800**	**18000**	**135**	**90**	**165**	**9,25**	**G1/8“**	**M8**	**9**	**20**	**28**
30	RBPS 3000	35000	170	100	220	11	G1/4“	M10	12	20	30
32	RBPS 3200	35000	170	100	220	11	G1/4“	M10	12	20	32
35	RBPS 3500	35000	170	100	220	11	G1/4“	M10	12	20	35
36	RBPS 3600	35000	170	100	220	11	G1/4“	M10	12	20	36
38	RBPS 3800	35000	170	100	220	11	G1/4“	M10	12	20	38
40	RBPS 4000	35000	170	100	220	11	G1/4“	M10	12	20	40
42	RBPS 4200	35000	170	100	220	11	G1/4“	M10	12	20	42
45	**RBPS 4500**	**35000**	**170**	**100**	**220**	**11**	**G1/4“**	**M10**	**12**	**20**	**45**
46	RBPS 4600	✆									
48	RBPS 4800	✆									
50	RBPS 5000	✆									
55	RBPS 5500	✆									
60	**RBPS 6000**	✆									

Highlighted sizes are standard products.

Further round-shaft sizes (also inch measurement) on request.



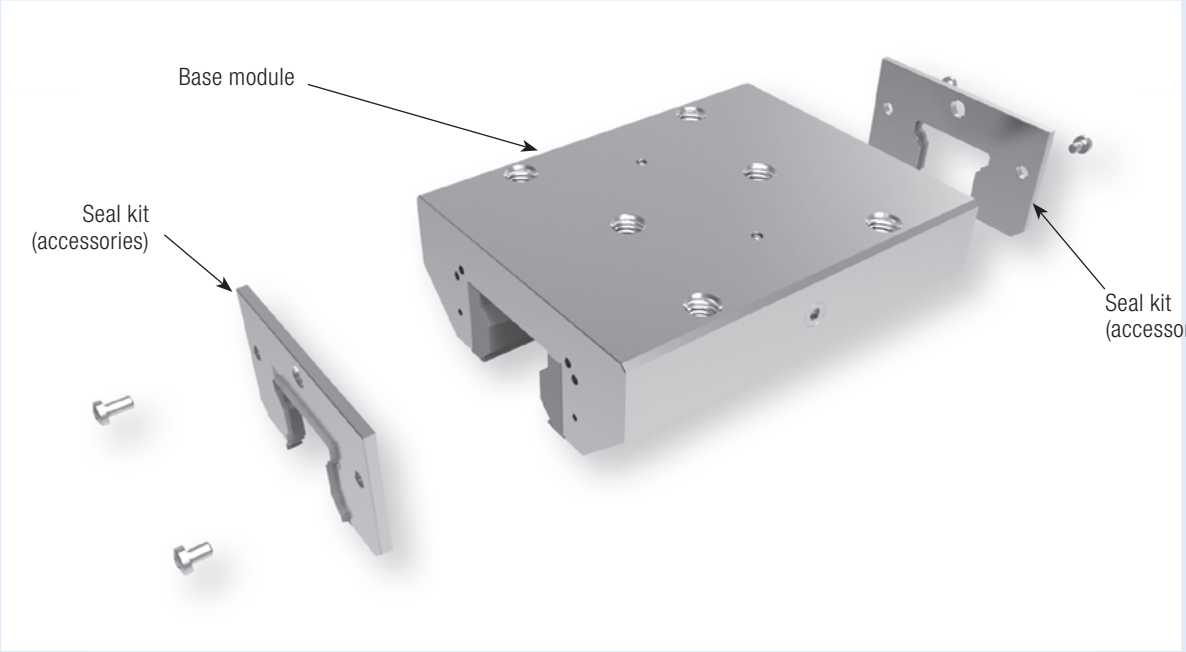


Hydraulic super-heavy load clamping:
The Clamping Element with membrane technology **KWH**

The KWH series is a hydraulically operated heavy load clamping device. The hydraulic oil presses the large-surface contact sections directly onto the section rail guide via a piston mechanism.
When used in harsh work environments or with cooling liquid, the elements can be fitted with original seals from the respective linear guide manufacturer and longitudinal seals as accessories.
A pre-tensioned reset spring enables short cycle times. The special pressure membrane technology guarantees operational reliability.

The pressure ranges from 20 bar to a 100 bar maximum for sizes 25 and 30. All sizes from 35 to 125 operate in a pressure range from 30 bar to a 150 bar maximum.
The KWH series features zero backlash and extremely low absorption volumes of maximum 7.6 cm^3 per clamping operation.
For more information visit www.zimmer-gmbh.com.

KWH Series



Technical data for KWH series:

Rail size	25–125
Holding forces	1,600 N–46,000 N
Maximum permissible operating pressure depending on size	100 bar–150 bar
Maximum permissible peak pressure depending on size	110 bar–160 bar
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	10 mil. (B10d-value)
Braking cycles	unsuitable

Application scenarios for KWH:

- Machine table clamping of heavy cutting work centres
- Clamping of heavy handling systems

Accessories seal kit for KWH:

The KWH series is available with seal kit (as accessories) which are recommended for harsh work environments.

Connection options for KWH:

The KWH series has a hydraulic supply port on both sides.

KWH

Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Measure table [page 110 and 111]
HSR	25	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	KWH 2501 AS1	5
	30	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	KWH 3001 AS1	12
	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	KWH 3501 AS1	19
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 4501 AS1	28
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 5501 AS1	34
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 6501 AS1	42
	85	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 8501 AS1	53
	100	HSR..HA, HSR..HB, HSR..HR	KWH 10001 AS1	54
SHS	25	SHS..C, SHS..LC	KWH 2501 CS1	5
	30	SHS..C, SHS..LC	KWH 3001 CS1	12
	35	SHS..C, SHS..LC	KWH 3501 CS1	19
		SHS..R, SHS..LR	KWH 3501 CS3	50
	45	SHS..C, SHS..LC	KWH 4501 CS1	28
	55	SHS..C, SHS..LC	KWH 5501 CS1	34
	65	SHS..C, SHS..LC	KWH 6501 CS1	42
SNR, SNS	25	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 2501 IS1	1
	30	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 3001 IS1	9
	35	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 3501 IS1	15
	45	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 4501 IS1	23
	55	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 5501 IS1	31
	65	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 6501 IS1	38
	85	SNR..LC, SNS..LC	KWH 8501 IS1	57
NR, NRS	25	NR..XA, NR..XLA, NR..XB, NR..XLB, NRS..XA, NRS..XLA, NRS..XB, NRS..XLB	KWH 2501 BS1	1
	30	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KWH 3001 BS1	9
	35	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KWH 3501 BS1	15
	45	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KWH 4501 BS1	23
	55	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KWH 5501 BS1	31
	65	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KWH 6501 BS1	38
	85	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	✆	✆
	100	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KWH 10001 BS1	56
SRG	25	SRG..C, SRG..LC	KWH 2501 ES1	5
	30	SRG..C, SRG..LC	KWH 3001 ES1	12
	35	SRG..C, SRG..LC	KWH 3501 ES1	19
		SRG..R, SRG..LR	KWH 3501 ES3	50
	45	SRG..C, SRG..LC	KWH 4501 ES1*2	28
		SRG..R, SRG..LR	KWH 4501 ES3	✆
	55	SRG..C, SRG..LC	KWH 5501 ES1	34
		SRG..R, SRG..LR	KWH 5501 ES3	51
	65	SRG..LC	KWH 6501 ES1	42
	85	SRG..LC	KWH 8501 ES1	53
	100	SRG..LC	KWH 10001 ES1	54

Rail manufacturer

Rexroth
Bosch Group

R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	25	R1631, R1651, R1653, R1661, R1665, R2001, R2002, R2000	KWH 2505 AS1	3
		R1622, R1623 , R1632, R1662, R1666 , R2011, R2012, R2010	KWH 2505 AS2	6
		R1621, R1624	KWH 2505 AS3	8
	30	R1631, R1651, R1653, R1661, R1665, R2001, R2002, R2000	KWH 3005 AS1	10
		R1622, R1623 , R1632, R1662, R1666, R2011, R2012, R2010	KWH 3005 AS2	13
		R1621, R1624	KWH 3005 AS3	14
	35	R1631, R1651, R1653, R1661, R1665, R2001, R2002, R2000	KWH 3505 AS1	17
		R1622, R1623 , R1632, R1662, R1666, R2011, R2012, R2010	KWH 3505 AS2	20
		R1621, R1624	KWH 3505 AS3	22
	45	R1651, R1653	KWH 4505 AS1	25
		R1622, R1623	KWH 4505 AS2	27
		R1621, R1624	KWH 4505 AS3	30
	55	R1651, R1653	KWH 5505 AS1	33
		R1622,R1623	KWH 5505 AS2	35
		R1621, R1624	KWH 5505 AS3	37
	65	R1651, R1653	KWH 6505 AS1	41
		R1622, R1623	KWH 6505 AS2	44
R1805, R1806 R1807, R1845, R1846, R1847	25	R1851, R1853	KWH 2505 BS1	2
		R1821, R1824	KWH 2505 BS3	7
	35	R1851, R1853	KWH 3505 BS1	16
		R1821, R1824	KWH 3505 BS3	21
	45	R1851, R1853	KWH 4505 BS1	24
		R1821, R1824	KWH 4505 BS3	29
	55	R1851, R1853	KWH 5505 BS1	32
		R1821, R1824	KWH 5505 BS3	36
	65	R1851, R1853	KWH 6505 BS1	39
		R1824	KWH 6505 BS2	43

*2 This table applies only for rail use without cover sheet!

See page 11 for part number explanation

Type of rail	Size	Type of carriage	Item number	Measure table [page 110 and 111]
R1875, R1873	55	R1872	KWH 5505 BS4	57
	65	R1872	KWH 6505 BS4	52
	85	R1872	✆	✆
	100	R1872	✆	✆
R1835, R1865	100	R1861, R1863	KWH 10005 BS1	54
	125	R1861, R1863	KWH 12505 BS1	55

Rail manufacturer

Rexroth
Bosch Group

MRS	25	MRW..A, MRW..B	KWH 2503 AS1	4
	35	MRW..A, MRW..B	KWH 3503 AS1	18
		MRW..C, MRW..D	KWH 3503 AS3	46
	45	MRW..A, MRW..B	KWH 4503 AS1	26
		MRW..C, MRW..D	KWH 4503 AS3	48
	55	MRW..A, MRW..B	KWH 5503 AS1	45
		MRW..C, MRW..D	KWH 5503 AS3	49
	65	MRW..B	KWH 6503 AS1	40
		MRW..D	KWH 6503 AS3	43
	100	MRW..B	KWH 10003 AS1	54

Rail manufacturer

SCHNEEBERGER
LINEAR TECHNOLOGY

LWH	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG	KWH 2510 AS1	5
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG	KWH 3010 AS1	12
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	KWH 3510 AS1	19
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	KWH 4510 AS1	28
	55	LWH..B, LWHG, LWHT..B, LWHTG	KWH 5510 AS1	34
	65	LWH..B, LWHG, LWHT..B, LWHTG	KWH 6510 AS1	42
	85	LWHG, LWHTG	✆	✆
MH	25	MH, MHG, MHT, MHTG	KWH 2510 AS1	5
	30	MH, MHG, MHT, MHTG	KWH 3010 AS1	12
	35	MH, MHG, MHT, MHTG	KWH 3510 AS1	19
	45	MH, MHG, MHT, MHTG	KWH 4510 AS1	28
LRX	25	LRXC, LRX, LRXG	KWH 2510 BS1	5
	30	LRXC, LRX, LRXG	✆	✆
	35	LRXC, LRX, LRXG	KWH 3510 BS1	19
		LRXDC, LRXD, LRXDG	KWH 3510 BS3	22
	45	LRXC, LRX, LRXG	KWH 4510 BS1	28
	55	LRXC, LRX, LRXG	KWH 5510 BS1	34
		LRXDC, LRXD, LRXDG	KWH 5510 BS3	51
	65	LRXC, LRX, LRXG	KWH 6510 BS1	42
		LRXDC, LRXD, LRXDG	✆	✆
	85	LRX, LRXG	✆	✆
	100	LRXG	✆	✆
MX	25	MXC, MX, MXG, MXL	KWH 2510 BS1	5
	30	MXC, MX, MXG, MXL	✆	✆
	35	MXC, MX, MXG, MXL	KWH 3510 BS1	19
		MXDC, MXD, MXDG, MXDL	KWH 3510 BS3	22
	45	MXC, MX, MXG, MXL	KWH 4510 BS1	28
	55	MXC, MX, MXG	KWH 5510 BS1	34
	65	MXC, MX, MXG	KWH 6510 BS1*[2]	42
LWE	25	LWE..Q, LWET..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL	KWH 2510 DS1	47
	30	LWE..Q, LWET..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL	✆	✆
	35	LWE..Q, LWET..Q, LWEC, LWE, LWETC, LWET	✆	✆
	45	LWE, LWET	✆	✆
ME	25	MH, MHG, MHT, MHTG	✆	✆
		MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL	KWH 2510 DS1	47
	30	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MH, MHG, MHT, MHTG	✆	✆
	35	MEC, ME, METC, MET, MH, MHG, MHTG	✆	✆
	45	ME, MET, MH, MHG, MHT, MHTG	✆	✆

*[2] This table applies only for rail use without cover sheet!

See page 11 for part number explanation

Rail manufacturer

INA

Type of rail	Size	Type of carriage	Item number	Measure table [page 110 and 111]
TKD (KUE)	25	KWE	✆	✆
	30	KWE	✆	✆
	35	KWE	✆	✆
TKVD (KUVE)	25	KWVE..-B, KWVE..-B-L, KWVE..-B-EC, KWVE..-B-HS, KWVE..-BS-HS	KWH 2502 BS1	4
	30	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	KWH 3002 BS1	11
		KWVE..-B-ECSC, KWVE..B-S, KWVE..B-SL,	KWH 3002 BS2	58
	35	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	KWH 3502 BS1	18
	45	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	KWH 4502 BS1	26
	55	KWVE..-B, KWVE..-B-L	✆	✆
TKSD (KUSE)	25	KWSE, KWSE..-L	KWH 2502 AS1	4
	30	KWSE, KWSE..-L	KWH 3002 AS1	11
	35	KWSE, KWSE..-L	KWH 3502 AS1	18
	45	KWSE, KWSE..-L	KWH 4502 AS1	26
	55	KWSE, KWSE..-L	KWH 5502 AS1	45
TSX..E (RUE)	25	RWU..-D-FE, RWU..-D-OE, RWU..-D-L-FE, RWU..-D-L-OE	KWH 2502 DS1	4
	35	RWU..-E, RWU..-E-L	KWH 3502 DS1	18
		RWU..-E-H, RWU..-E-HL	KWH 3502 DS3	50
	45	RWU..-E, RWU..-E-L	KWH 4502 DS1	26
	55	RWU..-E, RWU..-E-L	KWH 5502 DS1	45
		RWU..-E-H, RWU..-E-HL	KWH 5502 DS3	51
	65	RWU..-E, RWU..-E-L	KWH 6502 DS1	40
	100	RWU..-E-L	KWH 10002 DS1	54

Rail manufacturer

NSK

LH	25	LAH..EMZ, LAH..GMZ	KWH 2504 BS1	5
	30	LAH..EMZ, LAH..GMZ	KWH 3004 BS1	12
	35	LAH..EMZ, LAH..GMZ	KWH 3504 BS1	19
	45	LAH..EMZ, LAH..GMZ	KWH 4504 BS1	28
	55	LAH..EMZ, LAH..GMZ	KWH 5504 BS1	34
	65	LAH..EMZ, LAH..GMZ	KWH 6504 BS1	42
SH	25	SAH..EMZ, SAH..GMZ	KWH 2504 BS1	5
	30	SAH..EMZ, SAH..GMZ	KWH 3004 BS1	12
	35	SAH..EMZ, SAH..GMZ	KWH 3504 BS1	19
LS	25	LAS.. JMZ, LAS..EMZ	✆	✆
	30	LAS.. JMZ, LAS..EMZ	KWH 3004 AS1	12
	35	LAS.. JMZ, LAS..EMZ	KWH 3504 AS1	19
SS	25	SAS.. JMZ, SAS..EMZ	✆	✆
	30	SAS.. JMZ, SAS..EMZ	KWH 3004 AS1	12
	35	SAS.. JMZ, SAS..EMZ	KWH 3504 AS1	19
RA	25	RA..EM, RA..GM	✆	✆
	30	RA..EM, RA..GM	KWH 3004 FS1	12
	35	RA..EM, RA..GM	KWH 3504 FS1	19
		RA..AN, RA..BN	KWH 3504 FS3	22
	45	RA..EM, RA..GM	KWH 4504 FS1	28
	55	RA..EM, RA..GM	KWH 5504 FS1	34
	65	RA..EM, RA..GM	KWH 6504 FS1	42
		RA..AN, RA..BN	KWH 6504 FS3	44

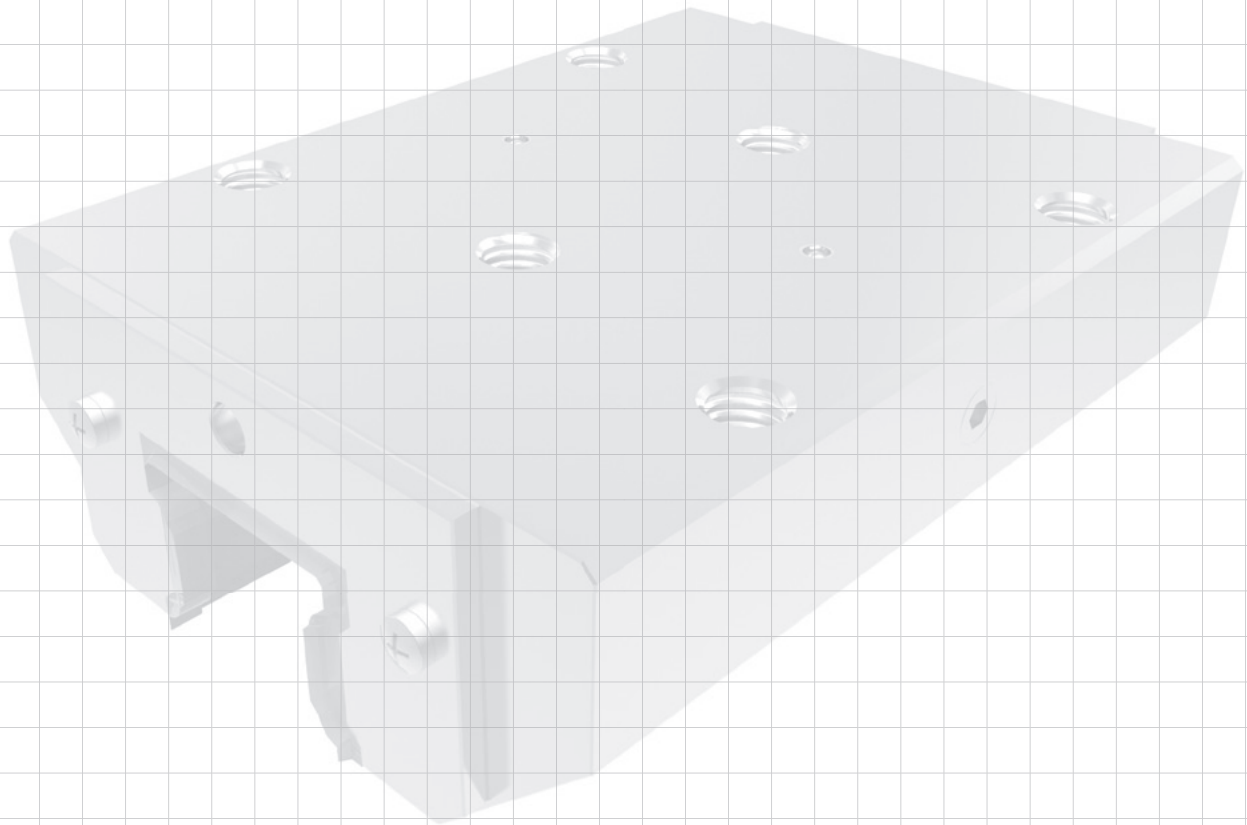
Rail manufacturer

HIWIN Lineartechnologie

HGR..R, HGR..T	25	HGW..CC, HGW..HC, QHW..CC, QHW..HC	KWH 2512 ES1	4
	30	HGW..CC, HGW..HC, QHW..CC, QHW..HC	KWH 3012 ES1	11
	35	HGW..CC, HGW..HC, QHW..CC, QHW..HC	KWH 3512 ES1	19
	45	HGW..CC, HGW..HC, QHW..CC, QHW..HC	KWH 4512 ES1	26
	55	HGW..CC, HGW..HC	✆	✆
	65	HGW..CC, HGW..HC	✆	✆
EGR..R, EGR..U, EGR..T	25	EGW...SC, EGW...CC, QEW..SC, QEW..CC	X	X
	30	EGW...SC, EGW...CC, QEW..SC, QEW..CC	✆	✆
	35	EGW...SC, EGW...CC	✆	✆
RGR..T	25	RGW..CC, RGW..HC	✆	✆
	30	RGW..CC, RGW..HC	KWH 3012 FS1	11
	35	RGW..CC, RGW..HC	KWH 3512 FS1	18
	45	RGW..CC, RGW..HC	KWH 4512 FS1*[2]	26
	55	RGW..CC, RGW..HC	KWH 5512 FS1	33
		RGH..CA, RGH..HA	KWH 5512 FS3	51
	65	RGW..CC, RGW..HC	KWH 6512 FS1*[2]	40

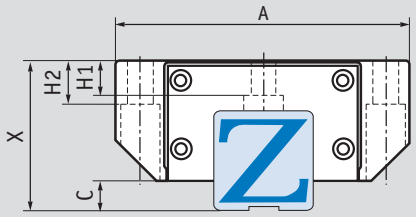
*[2] This table applies only for rail use without cover sheet!
X: not feasible

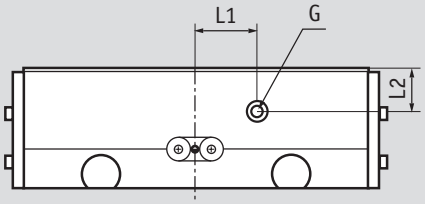
See page 11 for part number explanation

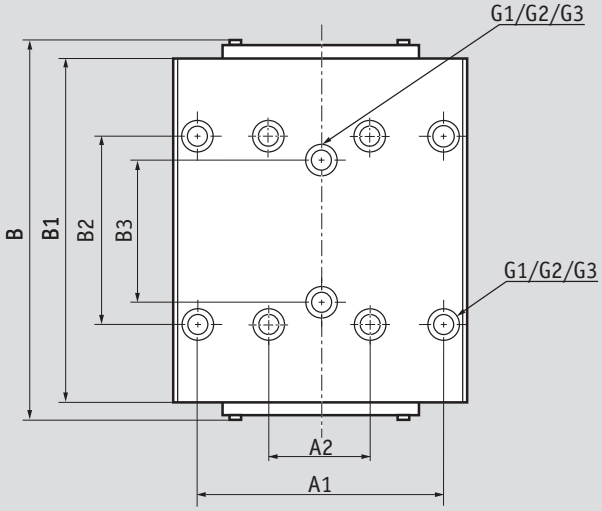


✆ +49.7844.9138-0
www.zimmer-gmbh.com

KWH







Note: Consider measurement C/Interfering contour!

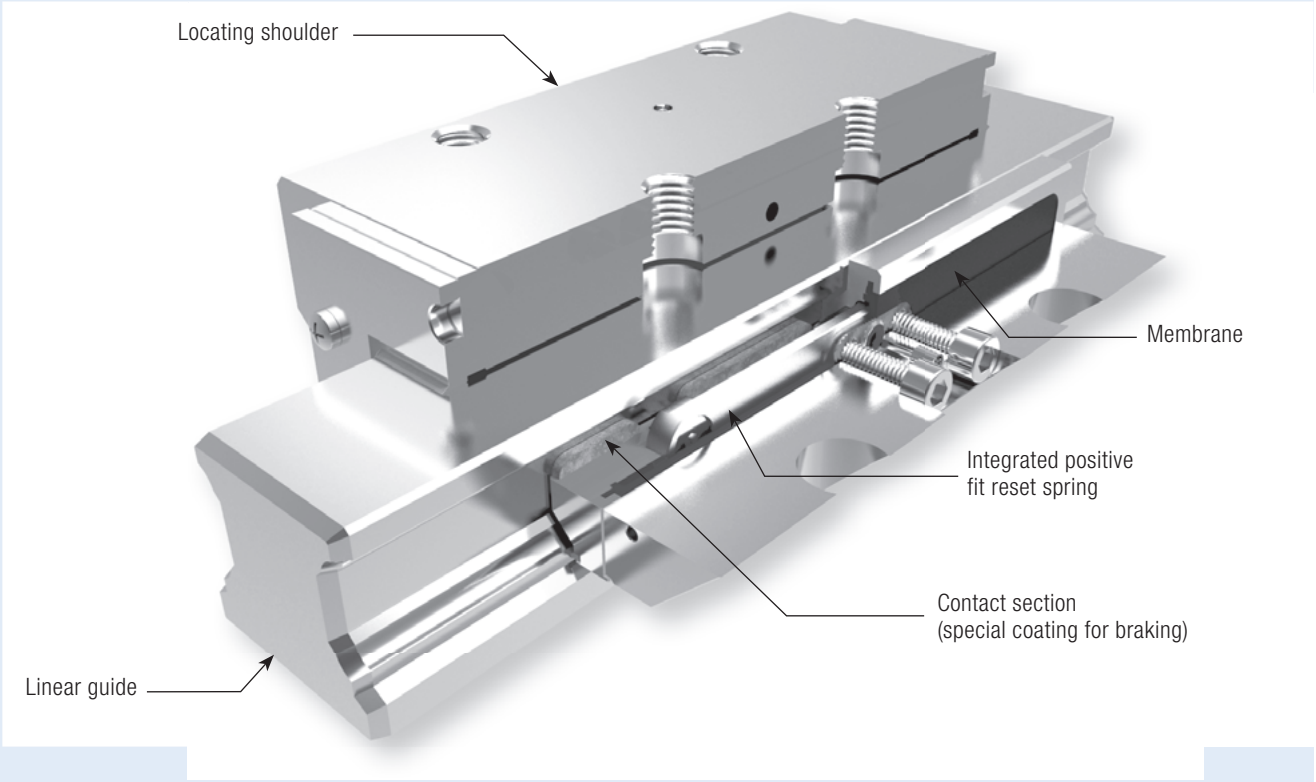
Comment:

G: The hydraulic connection is available on either side.

Only one connection is necessary for function.
Return line pressure < 1.5 bar.

Measure table	Holding power [N] KWH	max. operating pressure [bar]	A [mm]	A1/A2 [mm]	B max. [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	G2 [mm]	G3	H1 [mm]	H2 [mm]	L1 [mm]	L2 [mm]
1	1600	100	70	57	116	92	45	45	5,5	31	1/8“	M8	6,8	M6	7,7	9	10	9,5
2	2200	100	70	57	105	92	45	40	6	36	1/8“	M8	6,8	M6	7	9	0	8
3	2200	100	70	57	102	92	45	40	6,5	36	1/8“	M8	6,8	M6	7	9	0	8
4	2200	100	70	57	116	92	45	40	6,5	36	1/8“	M8	6,8	M6	5,8	9	10	9
5	2200	100	70	57	106	92	45	45	6,5	36	1/8“	M8	6,8	M6	6,5	9	10	9
6	1600	100	48	35	102	92	50	50	6,5	36	1/8“	M6	-	-	8	8	10	8
7	1600	100	48	35	100	92	50	50	6,5	40	1/8“	M6	-	-	12	12	10	12
8	1600	100	48	35	102	92	50	50	6,5	40	1/8“	M6	-	-	12	12	10	12
9	2100	100	90	72	119	103,5	52	52	7	38	1/8“	M10	8,6	M8	7	10	0	10,5
10	3000	100	90	72	115	103,5	52	44	7	42	1/8“	M10	8,6	M8	8	11	0	10,5
11	3000	100	90	72	124	103,5	52	44	7	42	1/8“	M10	8,6	M8	7	10	0	10,5
12	3000	100	90	72	120	103,5	52	52	7	42	1/8“	M10	8,6	M8	7	10	0	10,5
13	3000	100	60	40	115	103,5	60	60	7	42	1/8“	M8	-	-	8	8	10	9
14	3000	100	60	40	115	103,5	60	60	7	45	1/8“	M8	-	-	11	11	10	12
15	4300	150	100	82	130	120,5	62	62	8	44	1/8“	M10	8,6	M8	7	12	0	12
16	5700	150	100	82	128	120,5	62	52	7	48	1/8“	M10	8,6	M8	11	12	0	12
17	5700	150	100	82	133	120,5	62	52	8	48	1/8“	M10	8,6	M8	10,2	12	0	12
18	5700	150	100	82	147	120,5	62	52	8	48	1/8“	M10	8,6	M8	6,4	12	0	12
19	5700	150	100	82	144	120,5	62	62	8	48	1/8“	M10	8,6	M8	6,4	12	0	12
20	3500	100	70	50	133	120,5	72	72	8	48	1/8“	M8	-	-	13	13	0	12
21	3500	100	70	50	130	120,5	72	72	7	55	1/8“	M8	-	-	13	13	0	18
22	3500	100	70	50	136	120,5	72	72	8	55	1/8“	M8	-	-	13	13	0	18
23	7400	150	120	100	166	155	80	80	10	52	1/8“	M12	10,5	M10	10,4	15	0	12
24	9900	150	120	100	166	155	80	60	9	60	1/8“	M12	10,5	M10	12,4	15	0	15
25	9900	150	120	100	170	155	80	60	10	60	1/8“	M12	10,5	M10	12,4	15	0	15
26	9900	150	120	100	184	155	80	60	10	60	1/8“	M12	10,5	M10	11,9	15	0	15
27	7400	100	86	60	170	155	80	80	10	60	1/8“	M10	-	-	15	15	0	15
28	9900	150	120	100	175	155	80	80	10	60	1/8“	M12	10,5	M10	11,9	15	0	15
29	7400	100	86	60	166	155	80	80	9	70	1/8“	M10	-	-	18	18	0	24
30	7400	100	86	60	170	155	80	80	10	70	1/8“	M10	-	-	18	18	0	24
31	10200	150	140	116	201	184	95	95	12	63	1/8“	M14	12,5	M12	13,7	16	0	16
32	13700	150	140	116	197	184	95	70	12	70	1/8“	M14	12,5	M12	13,7	18	0	16
33	13700	150	140	116	203	184	95	70	13	70	1/8“	M14	12,5	M12	13,5	18	0	16
34	13700	150	140	116	206	184	95	95	13	70	1/8“	M14	12,5	M12	13,5	18	0	16
35	13700	150	100	75	200	184	95	95	13	70	1/8“	M12	-	-	20,8	18	0	16
36	13700	150	100	75	197	184	95	95	12	80	1/8“	M12	-	-	19	19	0	26
37	13700	150	100	75	200	184	95	95	13	80	1/8“	M12	-	-	19	19	0	26
38	17000	150	170	142	219	200	110	110	11	75	1/4“	M16	14,5	M14	21	25	0	20
39	22700	150	170	142	238	227	110	82	14	90	1/4“	M16	14,5	M14	21,5	23	0	20
40	22700	150	170	142	257	227	110	82	14	90	1/4“	M16	14,5	M14	14,5	22	0	20
41	22700	150	170	142	240	227	110	82	14	90	1/4“	M16	14,5	M14	14	23	0	20
42	22700	150	170	142	253	227	110	110	14	90	1/4“	M16	14,5	M14	14,5	22	0	20
43	22700	150	126	76	238	227	120	120	14	90	1/4“	M16	-	-	21	21	0	20
44	22700	150	126	76	255	227	120	120	14	90	1/4“	M16	-	-	21	21	0	20
45	13700	150	140	116	214	184	95	70	13	70	1/8“	M14	12,5	M12	13,5	18	0	16
46	3500	100	70	50	140	120,5	72	72	8	55	1/8“	M8	-	-	13	13	0	18
47	2200	100	70	57	106	92	45	45	3,5	33	1/8“	M8	6,8	M6	5,8	9	10	9
48	7400	100	86	60	190	155	80	80	10	70	1/8“	M10	-	-	18	18	0	24
49	13 700	150	100	75	215	184	95	95	13	80	1/8“	M12	-	-	19	19	0	26
50	3500	100	70	50	138	120,5	72	72	6	55	1/8“	M8	-	-	13	13	0	18
51	13700	150	100	75	210	184	95	95	9	80	1/8“	M12	-	-	19	19	0	26
52	22700	150	200	172/50	250	227	110	110	14	100	1/4“	M14	12,5	M12	20	20	0	20
53	27400	150	215	140	210	192	140	140	16	110	1/4“	M20	17,5	M16	19,8	35	0	20
54	34000	150	250	200	230	208	150	150	15	120	1/4“	M20	17,5	M16	17,5	30	0	20
55	46000	150	320	270	245	233	102,5	102,5	25	160	1/4“	M27	24	M24	29	45	0	50
56	34000	150	250	200	226	208	150	150	7	105	1/4“	M20	17,5	M16	24	30	0	20
57	13700	150	165	140/40	200	192	95	95	12	80	1/4“	M8	-	-	19	19	0	16
58	3000	100	60	40	108	130,5	60	60	4	42	1/8“	M8	-	-	11	11	10	12

✆ +49.7844.9138-0
www.zimmer-gmbh.com

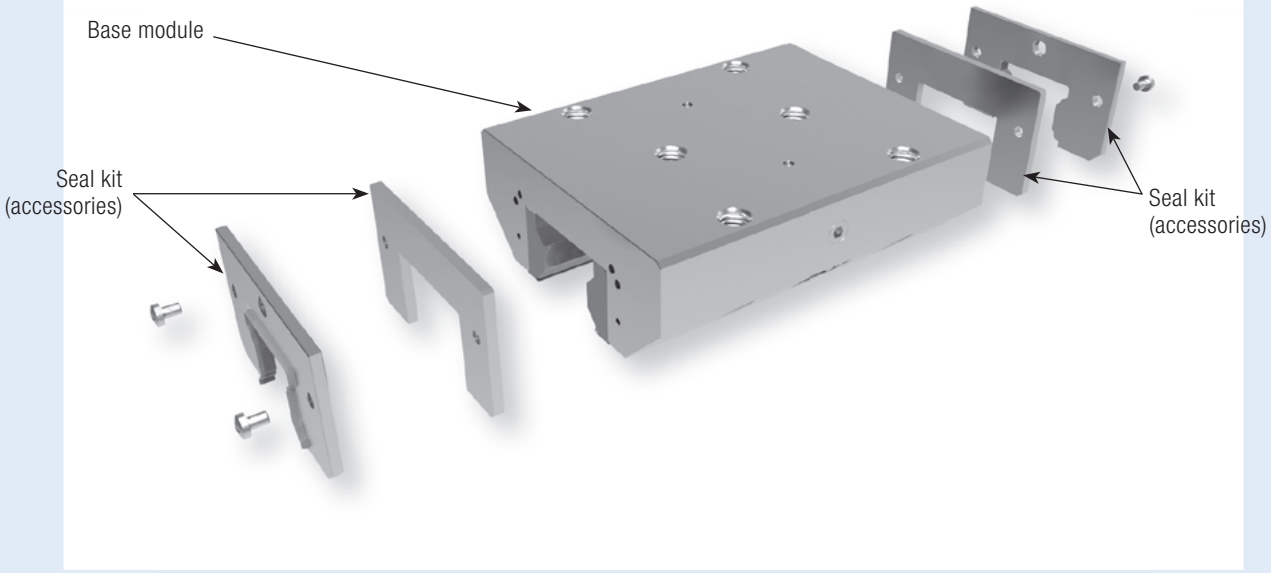


Hydraulic heavy load brake:
The Braking and Clamping Element with membrane technology **KBH.**

The KBH series is a hydraulically operated heavy load brake. The hydraulic oil presses the large-surface contact sections, which are equipped with a special brake lining, directly onto the section rail guide via a piston mechanism.
Because of the material combination of the linear guide/contact section, the linear guide won't be damaged by the contact section. In order to prevent damage from chips between the contact section and linear guide, the elements can be fitted with original seals from the respective linear guide manufacturer and longitudinal seals as accessories.

When the braking element is used in harsh work environments or with cooling liquid, seals should be used as well.
A pre-tensioned reset spring enables short cycle times. The special pressure membrane technology guarantees operational reliability.
The pressure ranges from 20 bar to a 100 bar maximum for sizes 25 and 30. All sizes from 35 to 125 operate in a pressure range from 30 bar to a 150 bar. The KBH series features zero backlash and extremely low absorption volumes of maximum 7.6 cm^3 per clamping operation.
For more information visit www.zimmer-gmbh.com.

KBH Series



Technical data for KBH series:

Rail size	25–100
Holding forces	2,200 N–46,000 N
Maximum permissible operating pressure depending on size	100 bar–150 bar
Maximum permissible peak pressure depending on size	110 bar–160 bar
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	10 mil. (B10d - value)
Braking cycles	2,000

Application scenarios for KBH:

- Machine table clamping of heavy cutting work centres
- Clamping and braking of heavy handling systems
- Braking

Connection options for KBH:

The KBH series has a hydraulic supply port on both sides.

Seal kit accessories for KBH:

The KBH series is available with seals (as accessories) which are recommended for harsh work environments.

Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Measure table [page 118 and 119]
HSR	25	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	✆	✆
	30	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	✆	✆
	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	KBH 3501 AS1	8
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KBH 4501 AS1	14
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KBH 5501 AS1	19
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KBH 6501 AS1	25
	85	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 8501 AS1	35
	100	HSR..HA, HSR..HB, HSR..HR	KWH 10001 AS1	36
SHS	25	SHS..C, SHS..LC	KBH 2501 CS1	2
	30	SHS..C, SHS..LC	KBH 3001 CS1	3
	35	SHS..C, SHS..LC	KBH 3501 CS1	8
	45	SHS..C, SHS..LC	KBH 4501 CS1	14
	55	SHS..C, SHS..LC	KBH 5501 CS1	19
	65	SHS..C, SHS..LC	KBH 6501 CS1	25
SNR, SNS	25	SNR..C, SNR..LC, SNS..C, SNS..LC	✆	✆
	30	SNR..C, SNR..LC, SNS..C, SNS..LC	✆	✆
	35	SNR..C, SNR..LC, SNS..C, SNS..LC	KBH 3501 IS1	4
	45	SNR..C, SNR..LC, SNS..C, SNS..LC	KBH 4501 IS1	10
	55	SNR..C, SNR..LC, SNS..C, SNS..LC	KBH 5501 IS1	16
	65	SNR..C, SNR..LC, SNS..C, SNS..LC	KBH 6501 IS1	21
	85	SNR..LC, SNS..LC	KWH 8501 IS1	37
NR, NRS	25	NR..XA, NR..XLA, NR..XB, NR..XLB, NRS..XA, NRS..XLA, NRS..XB, NRS..XLB	✆	✆
	30	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	✆	✆
	35	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KBH 3501 BS1	4
	45	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KBH 4501 BS1	10
	55	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KBH 5501 BS1	16
	65	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KBH 6501 BS1	21
	85	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	✆	✆
	100	NR..A, NR..LA, NR..B, NR..LB, NRS..A, NRS..LA, NRS..B, NRS..LB	KWH 10001 BS1	34
SRG	25	SRG..C, SRG..LC	KBH 2501 ES1	2
	30	SRG..C, SRG..LC	KBH 3001 ES1	3
	35	SRG..C, SRG..LC	KBH 3501 ES1	8
		SRG..L, SRG..LR	KBH 3501 ES3	29
	45	SRG..C, SRG..LC	KBH 4501 ES1*2	14
	55	SRG..C, SRG..LC	KBH 5501 ES1	19
	65	SRG..LC	KBH 6501 ES1	25
	85	SRG..LC	KWH 8501 ES1	35
	100	SRG..LC	KWH 10001 ES1	36

Rexroth
Bosch Group

R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	25	R1631, R1651, R1653, R1661, R1665, R2001, R2002, R2000	KBH 2505 AS1	1
		R1622, R1623 , R1632, R1662, R1666 , R2011, R2012, R2010	✆	✆
		R1621, R1624	✆	✆
	30	R1631, R1651, R1653, R1661, R1665, R2001, R2002, R2000	✆	✆
		R1622, R1623 , R1632, R1662, R1666, R2011, R2012, R2010	✆	✆
		R1621, R1624	✆	✆
	35	R1631, R1651, R1653, R1661, R1665, R2001, R2002, R2000	KBH 3505 AS1	6
		R1622, R1623 , R1632, R1662, R1666, R2011, R2012, R2010	✆	✆
		R1621, R1624	✆	✆
	45	R1651, R1653	KBH 4505 AS1	12
		R1622, R1623	✆	✆
		R1621, R1624	✆	✆
	55	R1651, R1653	KBH 5505 AS1	18
		R1622,R1623	✆	✆
		R1621, R1624	✆	✆
	65	R1651, R1653	KBH 6505 AS1	24
		R1622, R1623	KBH 6505 AS2	26
R1805, R1806 R1807, R1845 R1846, R1847	25	R1851, R1853	KBH 2505 BS1	1
		R1821, R1824	✆	✆
	35	R1851, R1853	KBH 3505 BS1	5
		R1821, R1824	KBH 3505 BS3	9
	45	R1851, R1853	KBH 4505 BS1	11
		R1821, R1824	KBH 4505 BS3	15
	55	R1851, R1853	KBH 5505 BS1	17
		R1821, R1824	KBH 5505 BS3	20
	65	R1851, R1853	KBH 6505 BS1	22
		R1824	✆	✆

*2 This table applies only for rail use without cover sheet!

See page 11 for part number explanation

Type of rail	Size	Type of carriage	Item number	Measure table [page 118 and 119]
R1875, R1873	55	R1872	✆	✆
	65	R1872	KBH 6505 BS4	28
	85	R1872	✆	✆
	100	R1872	✆	✆
R1835, R1865	100	R1861, R1863	KWH 10005 BS1*2	36
	125	R1861, R1863	KWH 12505 BS1	38

Rail manufacturer

Rexroth
Bosch Group

MRS	25	MRW..A, MRW..B	✆	✆
	35	MRW..A, MRW..B	KBH 3503 AS1	7
		MRW..C, MRW..D	KBH 3503 AS3	30
	45	MRW..A, MRW..B	KBH 4503 AS1	13
		MRW..C, MRW..D	KBH 4503 AS3	31
	55	MRW..A, MRW..B	KBH 5503 AS1	27
		MRW..C, MRW..D	KBH 5503 AS3	32
	65	MRW..B	KBH 6503 AS1	23
		MRW..D	KBH 6503 AS3	33
	100	MRW..B	KWH 10003 AS1	36

Rail manufacturer

SCHNEEBERGER
LINEAR TECHNOLOGY

LWH	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG	✆	✆
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG	✆	✆
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	KBH 3510 AS1	8
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	KBH 4510 AS1	14
	55	LWH..B, LWHG, LWHT..B, LWHTG	✆	✆
	65	LWH..B, LWHG, LWHT..B, LWHTG	✆	✆
	85	LWHG, LWHTG	✆	✆
MH	25	MH, MHG, MHT, MHTG	✆	✆
	30	MH, MHG, MHT, MHTG	✆	✆
	35	MH, MHG, MHT, MHTG	KBH 3510 AS1	8
	45	MH, MHG, MHT, MHTG	KBH 4510 AS1	14
LRX	25	LRXC, LRX, LRXG	KBH 2510 BS1	2
	30	LRXC, LRX, LRXG	KBH 3010 BS1	3
	35	LRXC, LRX, LRXG	KBH 3510 BS1	8
		LRXDC, LRXD, LRXDG	KBH 3510 BS3	30
	45	LRXC, LRX, LRXG	KBH 4510 BS1	14
	55	LRXC, LRX, LRXG	KBH 5510 BS1	19
		LRXDC, LRXD, LRXDG	KBH 5510 BS3	39
	65	LRXC, LRX, LRXG	KBH 6510 BS1	25
		LRXDC, LRXD, LRXDG	KBH 6510 BS3	26
	85	LRX, LRXG	✆	✆
	100	LRXG	✆	✆
MX	25	MXC, MX, MXG, MXL	KBH 2510 BS1	2
	30	MXC, MX, MXG, MXL	KBH 3010 BS1	3
	35	MXC, MX, MXG, MXL	KBH 3510 BS1	8
	45	MXC, MX, MXG, MXL	KBH 4510 BS1*2	14
	55	MXC, MX, MXG	KBH 5510 BS1	19
	65	MXC, MX, MXG	KBH 6510 BS1	25
LWE	25	LWE..Q, LWET..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL	✆	✆
	30	LWE..Q, LWET..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL	✆	✆
	35	LWE..Q, LWET..Q, LWEC, LWE, LWETC, LWET	✆	✆
	45	LWE, LWET	✆	✆
ME	25	MH, MHG, MHT, MHTG	✆	✆
		MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL	✆	✆
	30	MEC, MEC..SL, ME, ME..SL, MEG, MEG..SL, METC, METC..SL, MET, MET..SL, METG, METG..SL, MH, MHG, MHT, MHTG	✆	✆
	35	MEC, ME, METC, MET, MH, MHG, MHTG	✆	✆
	45	ME, MET, MH, MHG, MHT, MHTG	✆	✆

*2 This table applies only for rail use without cover sheet!

See page 11 for part number explanation

KBH

Rail manufacturer

INA

Type of rail	Size	Type of carriage	Item number	Measure table [page 118 and 119]
TKD (KUE)	25	KWE	✆	✆
	30	KWE	✆	✆
	35	KWE	✆	✆
TKVD (KUVE)	25	KWVE..-B, KWVE..-B-L, KWVE..-B-EC, KWVE..-B-HS, KWVE..-BS-HS	✆	✆
	30	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	✆	✆
	35	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	KBH 3502 BS1	7
	45	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	KBH 4502 BS1	13
	55	KWVE..-B, KWVE..-B-L	✆	✆
TKSD (KUSE)	25	KWSE, KWSE..-L	✆	✆
	30	KWSE, KWSE..-L	✆	✆
	35	KWSE, KWSE..-L	KBH 3502 AS1	7
	45	KWSE, KWSE..-L	KBH 4502 AS1	13
	55	KWSE, KWSE..-L	✆	✆
TSX..E (RUE)	25	RWU..-D-FE, RWU..-D-OE, RWU..-D-L-FE, RWU..-D-L-OE	X	X
	35	RWU..-E, RWU..-E-L	X	X
	45	RWU..-E, RWU..-E-L	KBH 4502 DS1	13
	55	RWU..-E, RWU..-E-L	KBH 5502 DS1	27
	65	RWU..-E, RWU..-E-L	KBH 6502 DS1	23
	100	RWU..-E-L	KWH 10002 DS1	36

Rail manufacturer

NSK

LH	25	LAH..EMZ, LAH..GMZ	✆	✆
	30	LAH..EMZ, LAH..GMZ	✆	✆
	35	LAH..EMZ, LAH..GMZ	KBH 3504 BS1	8
	45	LAH..EMZ, LAH..GMZ	KBH 4504 BS1	14
	55	LAH..EMZ, LAH..GMZ	KBH 5504 BS1	19
	65	LAH..EMZ, LAH..GMZ	KBH 6504 BS1	25
SH	25	SAH..EMZ, SAH..GMZ	✆	✆
	30	SAH..EMZ, SAH..GMZ	✆	✆
	35	SAH..EMZ, SAH..GMZ	KBH 3504 BS1	8
LS	25	LAS.. JMZ, LAS..EMZ	✆	✆
	30	LAS.. JMZ, LAS..EMZ	✆	✆
	35	LAS.. JMZ, LAS..EMZ	KBH 3504 AS1	8
SS	25	SAS..JMZ, SAS..EMZ	✆	✆
	30	SAS..JMZ, SAS..EMZ	✆	✆
	35	SAS..JMZ, SAS..EMZ	KBH 3504 AS1	8
RA	25	RA..EM, RA..GM	✆	✆
	30	RA..EM, RA..GM	✆	✆
	35	RA..EM, RA..GM	KBH 3504 FS1	8
		RA..AN, RA..BN	KBH 3504 FS3	30
	45	RA..EM, RA..GM	✆	✆
	55	RA..EM, RA..GM	KBH 5504 FS1	19
	65	RA..EM, RA..GM	✆	✆

Rail manufacturer

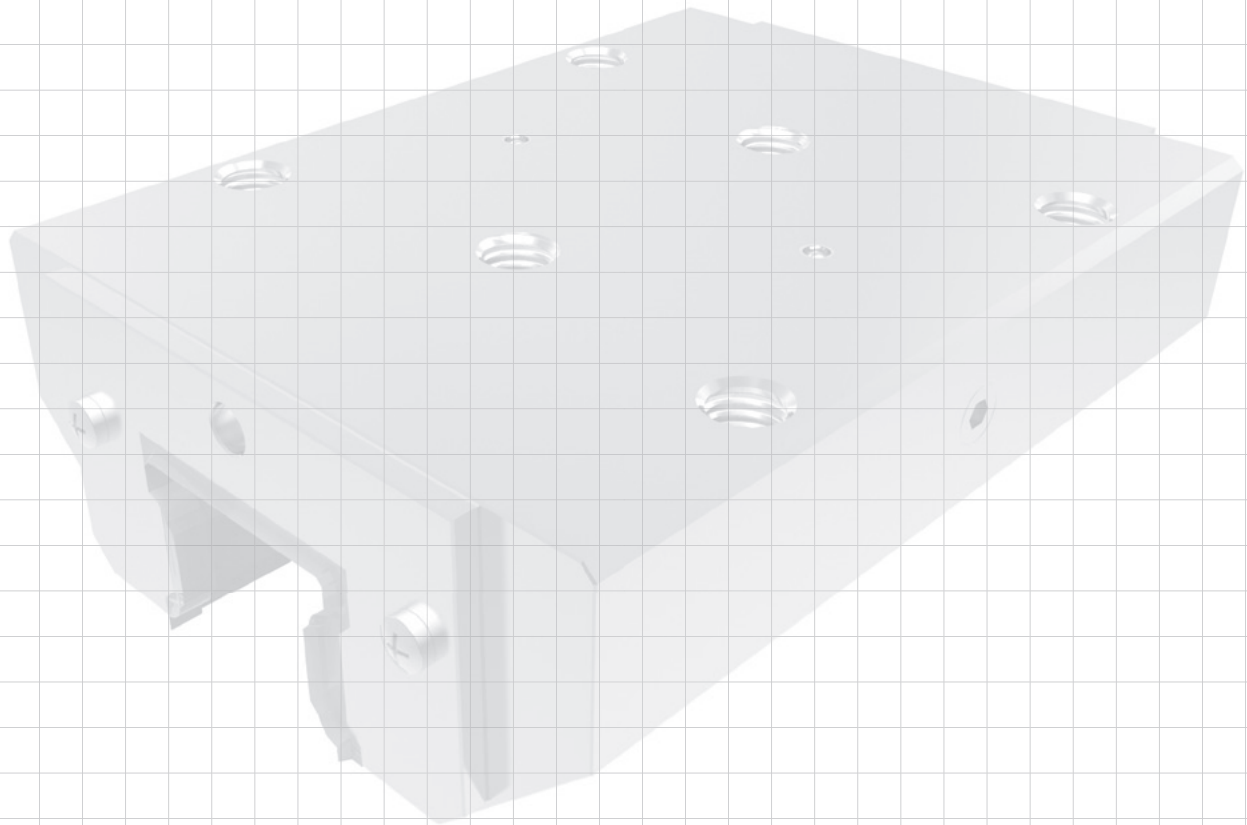
HIWIN Lineartechnologie

HGR..R, HGR..T	25	HGW..CC, HGW..HC, QHW..CC, QHW..HC	KBH 2512 ES1	40
	30	HGW..CC, HGW..HC, QHW..CC, QHW..HC	✆	✆
	35	HGW..CC, HGW..HC, QHW..CC, QHW..HC	✆	✆
	45	HGW..CC, HGW..HC, QHW..CC, QHW..HC	✆	✆
	55	HGW..CC, HGW..HC	✆	✆
	65	HGW..CC, HGW..HC	✆	✆
EGR..R, EGR..U, EGR..T	25	EGW...SC, EGW...CC, QEW..SC, QEW..CC	X	X
	30	EGW...SC, EGW...CC, QEW..SC, QEW..CC	KBH 3012 CS1	3
	35	EGW...SC, EGW...CC	✆	✆
RG..T	25	RGW..CC, RGW..HC	✆	✆
	30	RGW..CC, RGW..HC	✆	✆
	35	RGW..CC, RGW..HC	KBH 3512 FS1*2	7
	45	RGW..CC, RGW..HC	KBH 4512 FS1*2	13
		RGH..CA, RGH..HA	✆	✆
	55	RGW..CC, RGW..HC	KBH 5512 FS1*2	18
	65	RGW..CC, RGW..HC	KBH 6512 FS1*2	23

X: not feasible

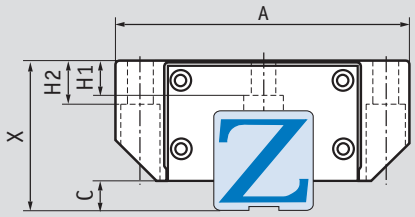
*2 This table applies only for rail use without cover sheet!

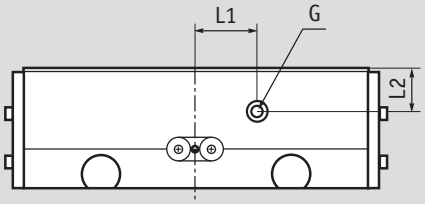
See page 11 for part number explanation

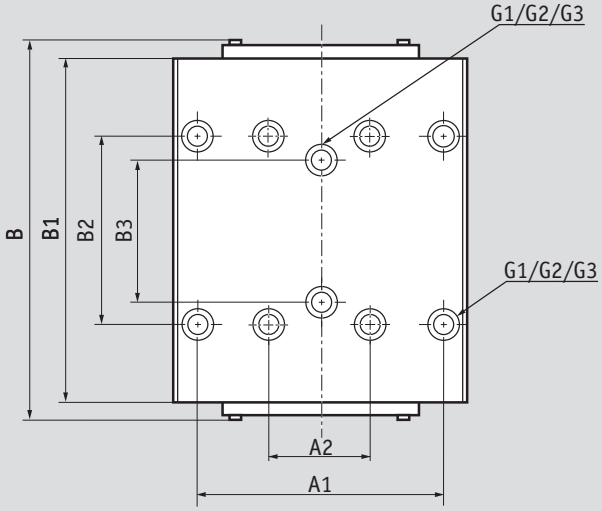


✆ +49.7844.9138-0
www.zimmer-gmbh.com

KBH







Note: Consider measurement C/Interfering contour!

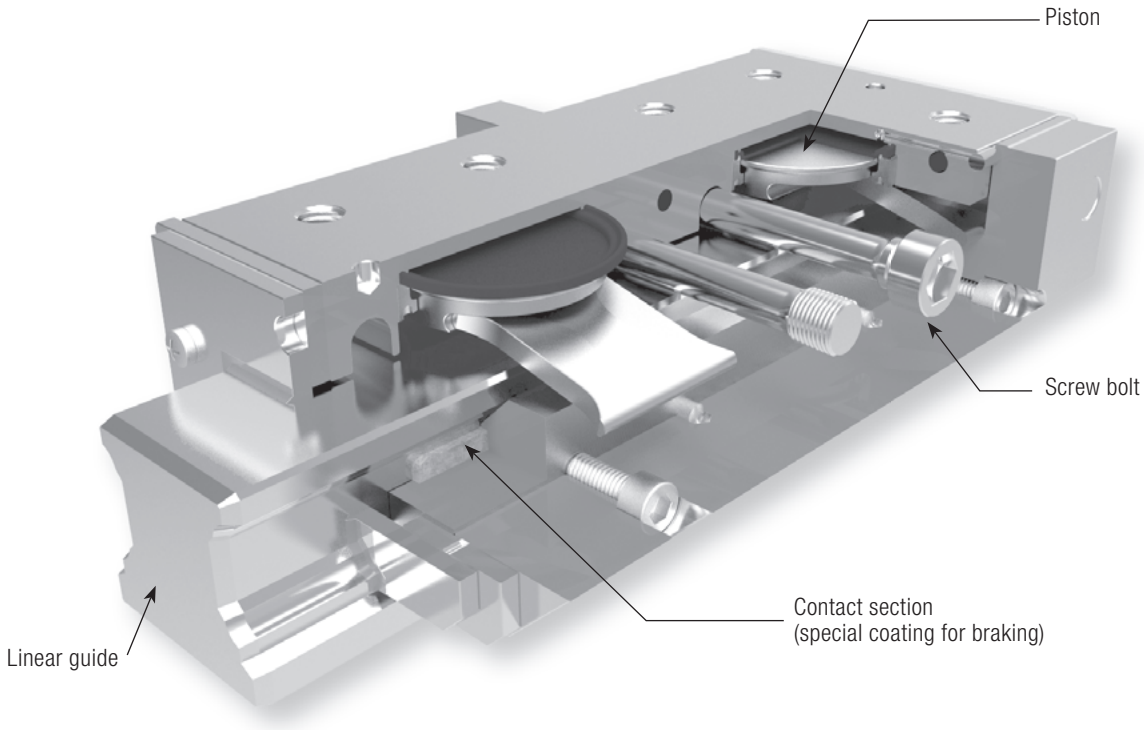
Comment:

G: The hydraulic connection is available on either side.

Only one connection is necessary for function.
Return line pressure < 1.5 bar.

Measure table	Holding power [N] KBH	max. operating pressure [bar]	A [mm]	A1/A2 [mm]	B max. [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	G2 [mm]	G3	H1 [mm]	H2 [mm]	L1 [mm]	L2 [mm]
1	2200	100	70	57	109	98	45	40	6,5	36	1/8“	M8	6,8	M6	7	9	0	8
2	2200	100	70	57	108	98	45	45	6,5	36	1/8“	M8	6,8	M6	5,8	9	10	9
3	3000	100	90	72	120	111,5	52	52	7	42	1/8“	M10	8,6	M8	7	10	0	10,5
4	4300	150	100	82	137	128,5	62	62	8	44	1/8“	M10	8,6	M8	7	12	0	12
5	5700	150	100	82	137	128,5	62	52	7	48	1/8“	M10	8,6	M8	11	12	0	12
6	5700	150	100	82	141	128,5	62	52	8	48	1/8“	M10	8,6	M8	10,2	12	0	12
7	5700	150	100	82	148	128,5	62	52	8	48	1/8“	M10	8,6	M8	6,4	12	0	12
8	5700	150	100	82	145	128,5	62	62	8	48	1/8“	M10	8,6	M8	6,4	12	0	12
9	3500	100	70	50	137	128,5	72	72	7	55	1/8“	M8	-	-	13	13	0	18
10	7400	150	120	100	176	163	80	80	10	52	1/8“	M12	10,5	M10	10,4	15	0	12
11	9900	150	120	100	175	163	80	60	9	60	1/8“	M12	10,5	M10	12,4	15	0	15
12	9900	150	120	100	170	163	80	60	10	60	1/8“	M12	10,5	M10	12,4	15	0	15
13	9900	150	120	100	185	163	80	60	10	60	1/8“	M12	10,5	M10	11,9	15	0	15
14	9900	150	120	100	176	163	80	80	10	60	1/8“	M12	10,5	M10	11,9	15	0	15
15	7400	100	86	60	171	163	80	80	9	70	1/8“	M10	-	-	18	18	0	24
16	10200	150	140	116	202	192	95	95	12	63	1/8“	M14	12,5	M12	13,7	16	0	16
17	13700	150	140	116	205	192	95	70	12	70	1/8“	M14	12,5	M12	13,7	18	0	16
18	13700	150	140	116	209	192	95	70	13	70	1/8“	M14	12,5	M12	13,5	18	0	16
19	13700	150	140	116	209	192	95	95	13	70	1/8“	M14	12,5	M12	13,5	18	0	16
20	13700	150	100	75	205	192	95	95	12	80	1/8“	M12	-	-	19	19	0	26
21	17000	150	170	142	219	208	110	110	11	75	1/4“	M16	14,5	M14	21	25	0	20
22	22700	150	170	142	246	235	110	82	14	90	1/4“	M16	14,5	M14	21,5	23	0	20
23	22700	150	170	142	258	235	110	82	14	90	1/4“	M16	14,5	M14	14,5	22	0	20
24	22700	150	170	142	264	235	110	82	14	90	1/4“	M16	14,5	M14	14	23	0	20
25	22700	150	170	142	250	235	110	110	14	90	1/4“	M16	14,5	M14	14,5	22	0	20
26	22700	150	126	76	264	235	120	120	14	90	1/4“	M16	-	-	21	21	0	20
27	13700	150	140	116	215	192	95	70	13	70	1/8“	M14	12,5	M12	13,5	18	0	16
28	22700	150	200	172/50	250	235	110	110	14	100	1/4“	M14	20	M12	20	20	0	20
29	3500	100	70	50	139	128,5	72	72	6	55	1/8“	M8	-	-	13	13	0	18
30	3500	100	70	50	150	128,5	72	72	8	55	1/8“	M8	-	-	13	13	0	18
31	7400	100	86	60	185	163	80	80	10	70	1/8“	M10	-	-	18	18	0	24
32	13700	150	100	75	215	192	95	95	13	80	1/8“	M12	-	-	19	19	0	26
33	22700	150	126	76	258	235	120	120	14	90	1/4“	M16	-	-	21	21	0	20
34	34000	150	250	200	226	208	150	150	7	105	1/4“	M20	17,5	M16	24	30	0	20
35	27400	150	215	185	210	192	140	140	16	110	1/4“	M20	17,5	M16	19,8	35	0	20
36	34000	150	250	200	231	208	150	150	15	120	1/4“	M20	17,5	M16	17,5	30	0	20
37	13700	150	165	140/40	200	192	95	95	12	80	1/4“	M12	-	-	19	19	0	16
38	46000	150	320	270	245	227	102,5	102,5	25	160	1/4“	M27	24	M24	29	45	0	50
39	13700	150	100	75	203	192	95	95	9	80	1/8“	M12	-	-	19	19	0	26
40	2200	100	70	57	108	98	45	40	6,5	36	1/8“	M8	6,8	M6	5,8	9	10	9

✆ +49.7844.9138-0
www.zimmer-gmbh.com



Hydraulic heavy load brake:
The Braking and Clamping Element with spring-loaded energy storage **KBHS.**

The KBHS series is a hydraulically operated heavy load brake featuring spring-loaded energy storage.
This function is based on the toggle lever principle. Pre-tensioned stress bolts provide holding force in case of pressure drop. Here the large-surface contact sections, which are equipped with a special brake lining, are pressed directly onto the free surfaces of the section rail.
At a hydraulic opening pressure of 150 bar a holding power of up to 25,000 N is achieved. The KBHS series features a compact design and is suitable from sizes 35 to 125.

The KBHS series is designed for braking and clamping on linear guides. Because of the material combination of the linear guide/ contact section, the linear guide won't be damaged by the contact section. In order to prevent damage from chips between the contact section and linear guide, the elements are fitted with original seals from the respective linear guide manufacturer and longitudinal seals as accessories. In order to guarantee the lifetime of the seals, follow the corresponding instructions from the respective linear guide manufacturer.
Details on the length of the brake path to be expected can be obtained from our technical advisors. The computations are based on serial tests and our industrial experience.

KBHS Series

Technical data for KBHS series:

Rail size	35–125
Holding forces	7,500 N–25,000 N
Minimum operating pressure	150 bar
Maximum permissible peak pressure	160 bar
Spring-loaded energy storage	√
PLUS connection	-
Clamping cycles	500,000 (B10d - value)
Braking cycles	2,000

Application scenarios for KBHS:
- Machine table clamping of heavy cutting work centres
- Clamping and braking of heavy handling systems
- Braking in emergency OFF situations
- Clamping in case of pressure drop

Seal kit for KBH:
The KBHS series is only available with seal kit.

Connection options for KBHS:
The KBHS series has a hydraulic supply port on both sides.

KBHS

Rail manufacturer THK – The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Measure table [page 124]
HSR	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	KBHS 3501 AS1A	1
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KBHS 4501 AS1A	2
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KBHS 5501 AS1A	4
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KBHS 6501 AS1A	3
SHS	35	SHS..C, SHS..LC	KBHS 3501 CS1A	1
	45	SHS..C, SHS..LC	KBHS 4501 CS1A	2
	55	SHS..C, SHS..LC	KBHS 5501 CS1A	4
	65	SHS..C, SHS..LC	KBHS 6501 CS1A	3
SRG	35	SRG..C, SRG..LC	KBHS 3501 ES1A	1
	45	SRG..C, SRG..LC	KBHS 4501 ES1A	2
	55	SRG..C, SRG..LC	KBHS 5501 ES1A	4
	65	SRG..LC	KBHS 6501 ES1A	3

Rail manufacturer Rexroth Bosch Group

R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	35	R1631, R1651, R1653, R1661, R1665, R2001, R2002, R2000	KBHS 3505 AS1A	1
	45	R1651, R1653	KBHS 4505 AS1A	2
	55	R1651, R1653	✆	✆
	65	R1651, R1653	KBHS 6505 AS1A	3
R1805, R1806, R1807, R1845, R1846, R1847	35	R1851, R1853	KBHS 3505 BS1A	1
	45	R1851, R1853	KBHS 4505 BS1A	2
	55	R1851, R1853	KBHS 5505 BS1A	4
	65	R1851, R1853	KBHS 6505 BS1A	3
R1835, R1865	100	R1861, R1863	✆	✆
	125	R1861, R1863	KBHS 12505 BS1A	6

Rail manufacturer SCHNEEBERGER LINEAR TECHNOLOGY

MRS	35	MRW..A, MRW..B	KBHS 3503 AS1A	1
	45	MRW..A, MRW..B	KBHS 4503 AS1A	2
	55	MRW..A, MRW..B	X	X
	65	MRW..B	KBHS 6503 AS1A	3

Rail manufacturer IKO

LWH	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	✆	✆
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	✆	✆
	55	LWH..B, LWHG, LWHT..B, LWHTG	✆	✆
	65	LWH..B, LWHG, LWHT..B, LWHTG	✆	✆
MH	35	MH, MHG, MHT, MHTG	✆	✆
	45	MH, MHG, MHT, MHTG	✆	✆
LRX	35	LRXC, LRX, LRXG	KBHS 3510 BS1A	1
	45	LRXC, LRX, LRXG	KBHS 4510 BS1A	2
	55	LRXC, LRX, LRXG	KBHS 5510 BS1A	5
	65	LRXC, LRX, LRXG	KBHS 6510 BS1A	3
MX	35	MXC, MX, MXG, MXL	KBHS 3510 BS1A	1
	45	MXC, MX, MXG, MXL	KBHS 4510 BS1A	2
	55	MXC, MX, MXG	KBHS 5510 BS1A	5
	65	MXC, MX, MXG	KBHS 6510 BS1A	3
LWE	35	LWE..Q, LWET..Q, LWEC, LWE, LWETC, LWET	✆	✆
	45	LWE, LWET	✆	✆
ME	35	MEC, ME, METC, MET, MH, MHG, MHTG	✆	✆
	45	ME, MET, MH, MHG, MHT, MHTG	✆	✆

X: not feasible
*[1] Supplements the measure table and datasheet

See page 11 for part number explanation

Type of rail	Size	Type of carriage	Item number	Measure table [page 124]
TKVD (KUVE)	35	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	KBHS 3502 BS1A	1
	45	KWVE..-B, KWVE..-B-EC, KWVE..-B-L	KBHS 4502 BS1A	2
	55	KWVE..-B, KWVE..-B-L	✆	✆
TKSD (KUSE)	35	KWSE, KWSE..-L	KBHS 3502 AS1A	1
	45	KWSE, KWSE..-L	KBHS 4502 AS1A	2
	55	KWSE, KWSE..-L	✆	✆
TSX -E (RUE)	35	RWU..-E, RWU..-E-L	KBHS 3502 DS1A	1
	45	RWU..-E, RWU..-E-L	KBHS 4502 DS1A	2
	55	RWU..-E, RWU..-E-L	KBHS 5502 DS1A	4
	65	RWU..-E, RWU..-E-L	KBHS 6502 DS1A	3

Rail manufacturer

INA

LH	35	LAH..EMZ, LAH..GMZ	KBHS 3504 BS1A	1
	45	LAH..EMZ, LAH..GMZ	KBHS 4504 BS1A	2
	55	LAH..EMZ, LAH..GMZ	✆	✆
	65	LAH..EMZ, LAH..GMZ	✆	✆
SH	35	SAH..EMZ, SAH..GMZ	KBHS 3504 BS1A	1
LS	35	LAS..JMZ, LAS..EMZ	KBHS 3504 AS1A	1
SS	35	SAS..JMZ, SAS..EMZ	KBHS 3504 AS1A	1
RA	35	RA..EM, RA..GM	KBHS 3504 FS1A	1
	45	RA..EM, RA..GM	KBHS 4504 FS1A	2
	55	RA..EM, RA..GM	✆	✆
	65	RA..EM, RA..GM	KBHS 6504 FS1A	3

Rail manufacturer

NSK

HGR..R, HGR..T	35	HGW..CC, HGW..HC, QHW..CC, QHW..HC	KBHS 3512 ES1A*4	1
	45	HGW..CC, HGW..HC, QHW..CC, QHW..HC	KBHS 4512 ES1A*4	2
	55	HGW..CC, HGW..HC	✆	✆
	65	HGW..CC, HGW..HC	✆	✆
RG..T	35	RGW..CC, RGW..HC	✆	
	45	RGW..CC, RGW..HC	KBHS 4512 FS1A	2
	55	RGW..CC, RGW..HC	KBHS 5512 FS1A	4
	65	RGW..CC, RGW..HC	KBHS 6512 FS1A	3

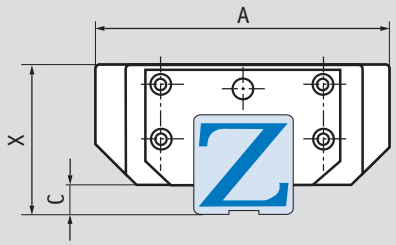
Rail manufacturer

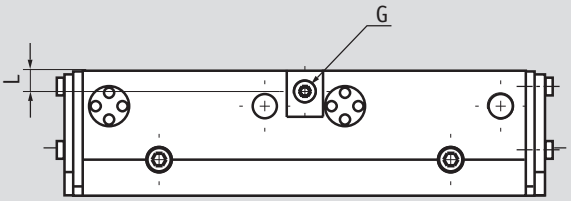
HIWIN Lineartechnologie

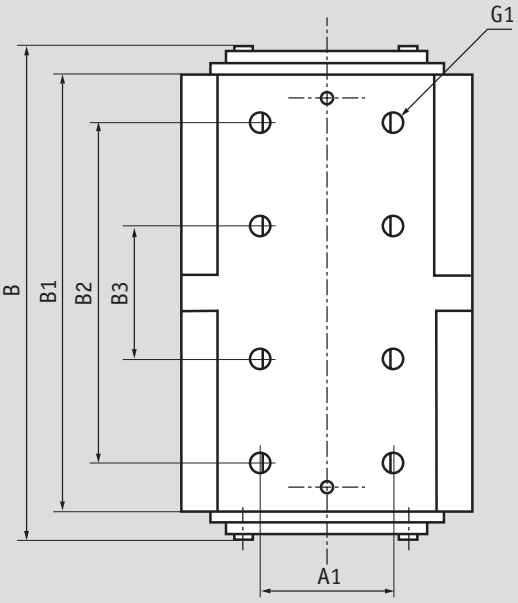
*4 Linear guide to be machined at the clamp contact section!

See page 11 for part number explanation

KBHS







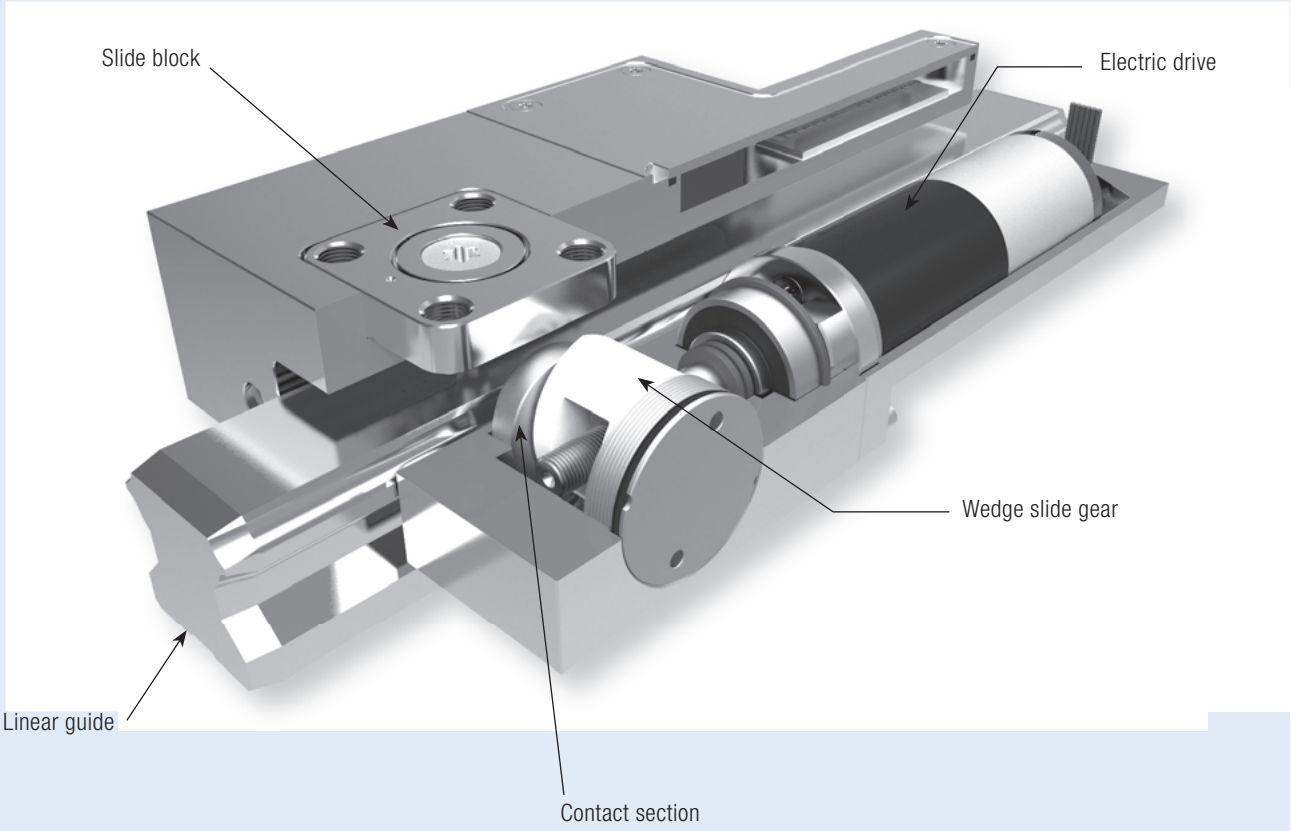
Note: Consider measurement C/Interfering contour!

Comment:

G: The hydraulic connection is available on either side

Only one connection is necessary for function.
Return line pressure < 1.5 bar.

Measure table	Holding power [N] KBHS	max. operating pressure [bar]	A [mm]	A1 [mm]	B max. [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	L [mm]
1	7500	150	100	41	184	155	122	46	6	48	1/8“	M8/15	9
2	9000	150	120	55	210	180	140	55	8	60	1/8“	M10/19,3	9
3	16000	150	170	70	301	270	205	80	11,5	90	1/4“	M16/29,3	11
4	11500	160	140	60	236	214	165	65	10	70	1/8“	M12/21,3	8
5	11500	160	140	60	233	214	165	65	9	70	1/8“	M12/21,3	8
6	25000	160	240	100	340	300	240	76	26	160	1/8“	M16/25	11



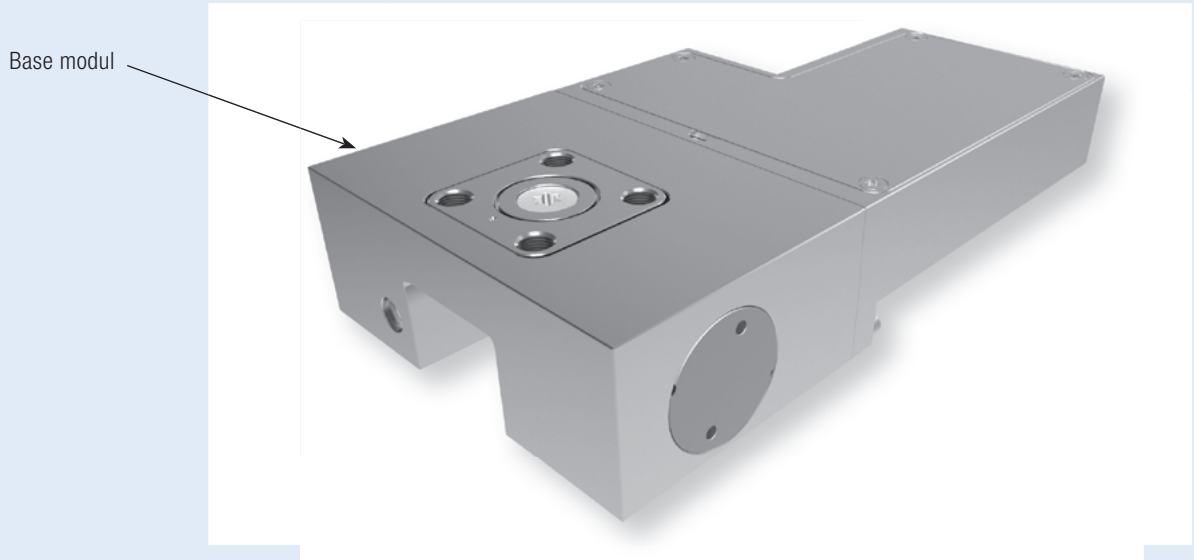
High holding forces – electric drive:
The electric Clamping Element **LCE**

The LCE is a refinement of the MKE series.*
In contrast to the MKE, the LCE has a recessed connector. This makes it more compact than the MKE, allowing a direct replacement.
The clamping force is generated in the conventional manner via a wedge gear.
The LCE is set apart by a floating mounting, which inhibits transverse forces in the connection arrangement.
Thanks to the improved functional principle, the LCE series achieves very high operating cycles and faster cycle times than the MKE series.

The electronic assembly comprises two parts – the part integrated into the clamping element and the electronic mechanism.
The current is electronically monitored to systematically achieve the required clamping force.
The self-inhibiting functional principle allows currentless and voltage-free clamping, i. e. in the unclamped or clamped state, only the control voltage is present.

* MKE the previous series of the LCE

LCE Series



Technical data for LCE series:

Rail size	15–35
Holding forces	550 N–2,000 N
Spring-loaded energy storage	-
PLUS connection	-
Clamping cycles	5 mil. (B10d - value)
Braking cycles	unsuitable
Safety category	IP 65

Application scenarios for LCE:
- Axes with electric positioning
- Table traverses in medical applications
- Positioning of lifting devices
- Electric clamping of machine tables

External electronic components for LCE series:

Supply voltage	24V DC
Power consumption	Switch-on current depends on size, see datasheet
Fuse	Electronic component group fitted with separate fuse
Dimensions	L=100 mm, B=22,5 mm, T=115 mm
Mounting	Can be clipped on rail section
Control inputs	Direction (open/closed) 24 V DC
Control outputs	Pos. 0 (open) PNP 24 V, 500 mA resistance to short circuit Pos. 1 (closed) PNP 24 V, 500 mA resistance to short circuit
Connection lead	Plug 12x1, plug on clamping side, patch cord, 8-pole, sheathed (available as accessory) or clamping with clamp arrangement (3 m).
Plan of terminal connections	See www.zimmer-gmbh.com

Connection options for LCE:
The LCE is supplied with an external controller and an 8-pole patch cord, available as an accessory. Please state when ordering!

Adapting plate accessory for LCE:
Depending on the height of the carriage (measure D), an additional adapting plate is required (see table from page 128).

Accessory patch cord for LCE:
8-pin patch cord with screw-connection (M12x1 **straight** or **90° angle**) and tinned cables (highly-flexible, oil resistant)

Item number patch cord:

CSTE00-10	**straight**	10 m
CSTE90-10	**90° angle**	10 m

LCE

Rail manufacturer

THK
The Mark of Linear Motion

Type of rail	Size	Type of carriage	Item number	Adapting plate [for height compensation]	Measure D [mm] *1	Measure table [page 130]
SR / SSR	15	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	LCE 1501 AS1		24	1
	20	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	LCE 2001 AS1		28	2
	25	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM, SSR..XV, SSR..XVM, SSR..XTB	LCE 2501 AS1	PMK 25-2	33	3
	30	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW, SSR..XWM	LCE 3001 AS1		42	9
	35	SR..W, SR..WM, SR..V, SR..VM, SR..TB, SR..TBM, SR..SB, SR..SBM, SSR..XW	✆		48	✆
HSR	15	HSR..A, HSR..AM, HSR..B, HSR..BM, HSR..C	LCE 1501 AS1		24	1
		HSR..R, HSR..RM, HSR..YR, HSR..YRM	LCE 1501 AS1	PMK 15-4	28	
	20	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	LCE 2001 AS1	PMK 20-2	30	2
	25	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA,HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	LCE 2501 AS1	PMK 25-2	36	5
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	LCE 2501 AS1	PMK 25-6	40	
	30	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	LCE 3001 AS1		42	9
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	LCE 3001 AS1	PMK 30-3	45	
	35	HSR..A, HSR..AM, HSR..LA, HSR..LAM, HSR..B, HSR..BM, HSR..LB, HSR..LBM, HSR..C, HSR..CA, HSR..CAM, HSR..HA, HSR..HAM, HSR..CB, HSR..CBM, HSR..HB, HSR..HBM	✆		48	✆
		HSR..R, HSR..RM, HSR..LR, HSR..LRM, HSR..YR, HSR..YRM	✆		55	✆
SHS	15	SHS..C, SHS..LC, SHS..V, SHS..LV	LCE 1501 AS1	PMK 15-2	24	7
		SHS..R	LCE 1501 AS1	PMK 15-6	28	
	20	SHS..C, SHS..LC, SHS..V, SHS..LV	LCE 2001 AS1	PMK 20-2	30	2
	25	SHS..C, SHS..LC, SHS..V, SHS..LV	LCE 2501 AS1	PMK 25-4	36	3
		SHS..R, SHS..LR	LCE 2501 AS1	PMK 25-8	40	
	30	SHS..C, SHS..LC, SHS..V, SHS..LV	LCE 3001 AS1	PMK 30-2	42	10
		SHS..R, SHS..LR	LCE 3001 AS1	PMK 30-5	45	
	35	SHS..C, SHS..LC, SHS..V, SHS..LV	✆		48	✆
		SHS..R, SHS..LR	✆		55	✆
SNR / SNS	25	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	✆		31	✆
	30	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	LCE 3001 AS1		38	11
	35	SNR..R, SNR..LR, SNR..C, SNR..LC, SNS..R, SNS..LR, SNS..C, SNS..LC	✆		44	✆
		SNR..CH, SNR..LCH, SNS..CH, SNS..LCH	✆		48	✆
		SNR..RH, SNR..LRH, SNS..RH, SNS..LRH	✆		55	✆
NR / NRS	25	NR..XR, NR..XLR, NR..XA, NR..XLA, NR..XB, NR..XLB, NRS..XR, NR S..XLR, NRS..XA, NRS..XLA, NRS..XB, NRS..XLB	✆		31	✆
	30	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	LCE 3001 AS1		38	11
	35	NR..R, NR..LR, NR..A, NR..LA, NR..B, NR..LB, NRS..R, NRS..LR, NRS..A, NRS..LA, NRS..B, NRS..LB	✆		44	✆
SRG	15	SRG..A, SRG..V	LCE 1501 ES1		24	1
	20	SRG..A, SRG..LA, SRG..V, SRG..LV	LCE 2001 ES1		30	6
	25	SRG..C, SRG..LC	LCE 2501 ES1		36	4
		SRG..R, SRG..LR	LCE 2501 ES1	PMK 25-4	40	
	30	SRG..C, SRG..LC	LCE 3001 ES1		42	8
		SRG..R, SRG..LR	LCE 3001 ES1	PMK 30-3	45	
	35	SRG..C, SRG..LC	✆		48	✆
		SRG..R, SRG..LR	✆		55	

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

Type of rail	Size		Item number	[for height compensation]	Measure D [mm] *1	[page 130]
R1605, R1606, R1607, R1608, R1645, R1647, R2045, R2047	15	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	LCE 1505 AS1		24	1
		R1621	LCE 1505 AS1	PMK 15-4	28	
	20	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	LCE 2005 AS1		30	6
	25	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	LCE 2505 AS1		36	4
		R1621, R1624	LCE 2505 AS1	PMK 25-4	40	
	30	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	LCE 3005 AS1		42	8
		R1621, R1624	LCE 3005 AS1	PMK 30-3	45	
	35	R1622, R1623, R1631, R1632, R1651, R1653, R1661, R1662, R1665, R1666, R2001, R2002, R2011, R2012, R2000, R2010	✆		48	✆
		R1621, R1624	✆		55	
R1805, R1806, R1807, R1808, R1845, R1846, R1847	25	R1851, R1853	LCE 2505 BS1		36	4
		R1821, R1824	LCE 2505 BS1	PMK 25-4	40	
	35	R1851, R1853	✆		48	✆
		R1821, R1824	✆		55	

Rail manufacturer

Rexroth
Bosch Group

MRS	25	MRW..A, MRW..B	LCE 2503 AS1		36	4
		MRW..C, MRW..D, MRW..E	LCE 2503 AS1	PMK 25-4	40	
	35	MRW..A, MRW..B	✆		48	✆
		MRW..C, MRW..D, MRW..E	✆		55	
BMS	15	BMW..A, BMW..F, BMW..K	✆		24	✆
		BMW..C	✆		28	
	20	BMW..A, BMW..B, BMW..C, BMW..D	✆		30	✆
	25	BMW..A ,BMW..B, BMW..F, BMW..G	✆		36	✆
		BMW..C, BMW..D, BMW..E	✆		40	
	30	BMW..A ,BMW..B, BMW..F, BMW..G	✆		42	✆
		BMW..C, BMW..D, BMW..E	✆		45	
	35	BMW..A ,BMW..B, BMW..F, BMW..G	✆		48	✆
		BMW..C, BMW..D, BMW..E	✆		55	

Rail manufacturer

SCHNEEBERGER

LWH	15	LWH..B, LWH..SL, LWH..M, LWHT..B, LWHT..SL, LWHT..M, LWHS..B, LWHS..SL, LWHS..M	✆		24	✆
		LWHD..B, LWHD..M, LWHY	✆		28	
	20	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG, LWHY	✆		30	✆
	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	✆		36	✆
		LWHD..B, LWHD..M, LWHDG, LWHY			40	
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG, LWHS..B, LWHS..SL, LWHS..M, LWHSG	✆		42	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		45	
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	✆		48	✆
		LWHD..B, LWHD..M, LWHDG, LWHY	✆		55	
MH	15	MH, MHT, MHS	✆		24	✆
		MHD	✆		28	
	20	MH, MHG, MHT, MHTG, MHS, MHSG	✆		30	✆
	25	MH, MHG, MHT, MHTG, MHS, MHSG	✆		36	✆
		MHD, MHDG	✆		40	
	30	MH, MHG, MHT, MHTG, MHS, MHSG	✆		42	✆
		MHD, MHDG	✆		45	
	35	MH, MHG, MHT, MHTG	✆		48	✆
		MHD, MHDG	✆		55	

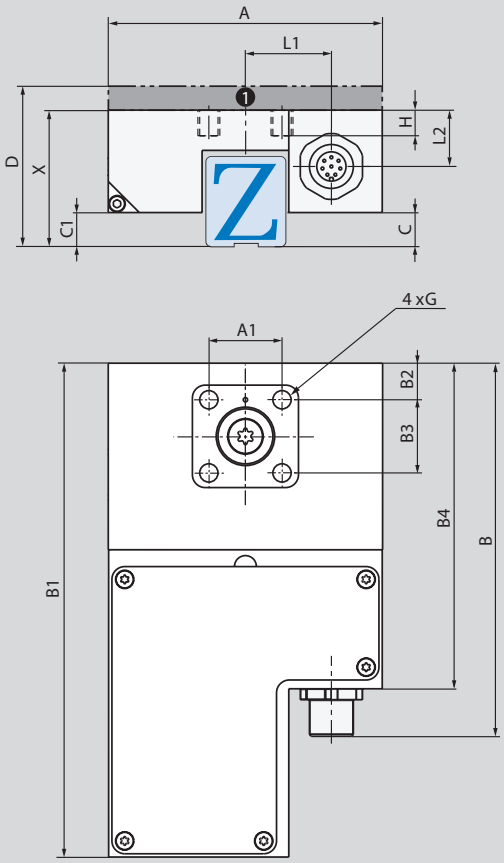
Rail manufacturer

IKO

*1 Supplements the measure table and datasheet

See page 11 for part number explanation

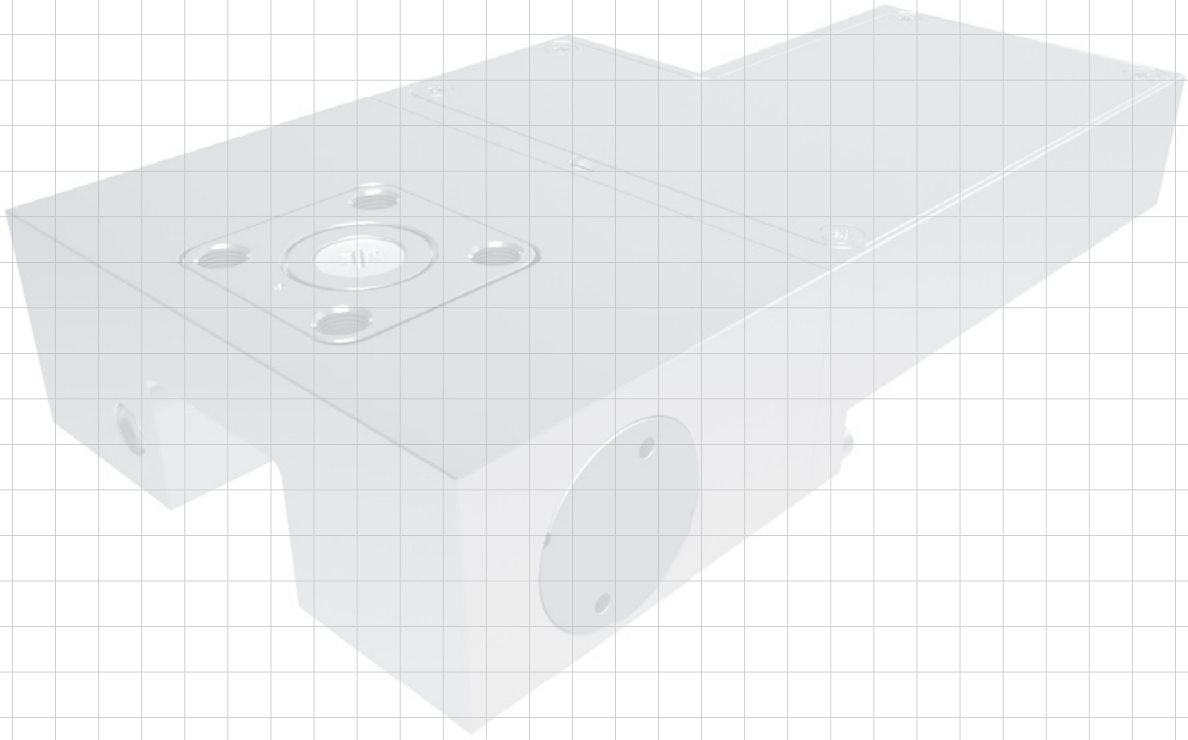
LCE



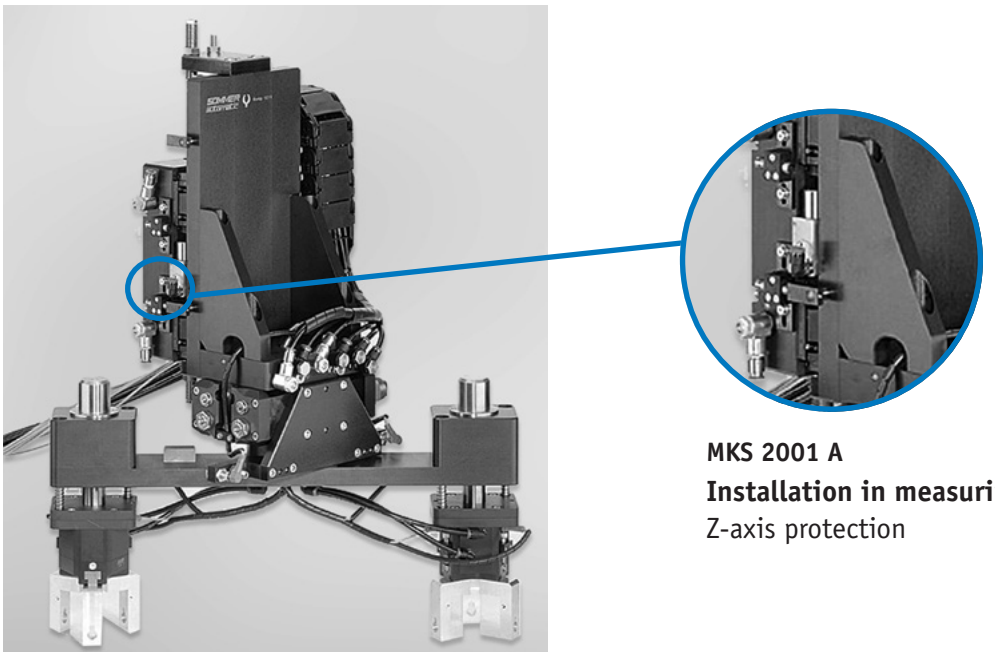
Note: Consider measurement C/Interfering contour!

❶ Adapting plate PMK (accessories)

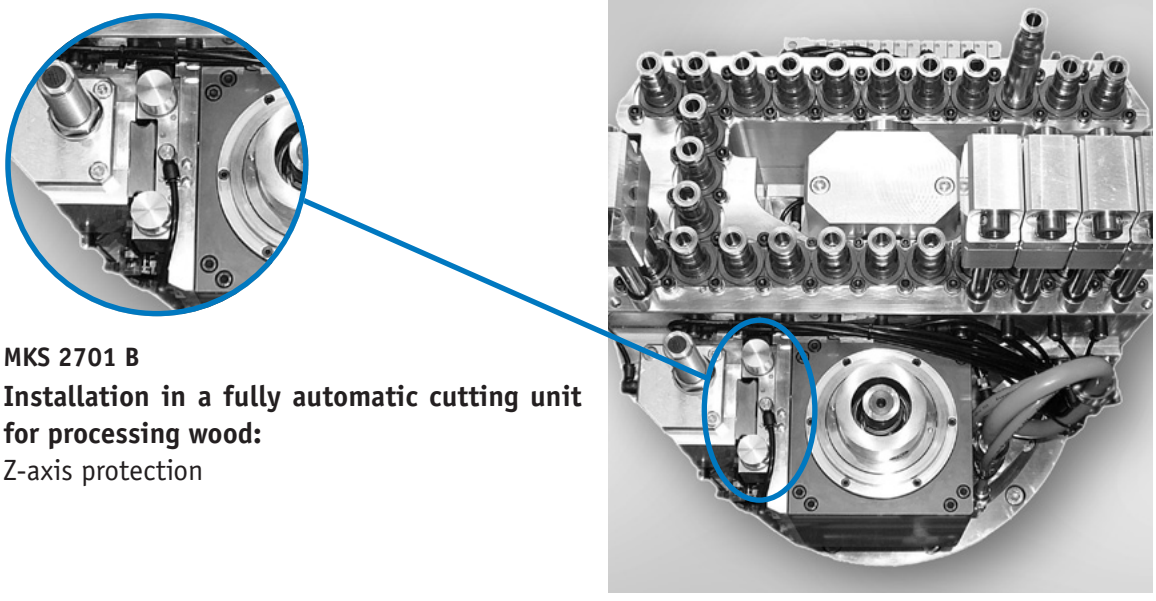
Measure table	Holding power [N] LCE	A [mm]	A1 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	C [mm]	C1 [mm]	X [mm]	G [mm]	L1 [mm]	L2 [mm]	H [mm]
1	550	55	15	93	115	8,5	15	80	4,75	2,85	24	M4	17,5	10,7	4,5
2	800	62,8	20	103	115	6	20	90	7,05	4,05	28	M5	21	11	5,5
3	1200	75	20	107	135	10	20	94	4	4	32	M6	23,5	15,4	6
4	1200	75	20	107	135	10	20	94	8	3,5	36	M6	23,5	15,4	6
5	1200	75	20	107	135	10	20	94	6	6	34	M6	23,5	15,4	6
6	800	62,8	20	103	115	6	20	90	9,05	3,05	30	M5	21	11	5,5
7	550	55	15	93	115	8,5	15	80	2,75	0,85	22	M4	17,5	10,7	4,5
8	2000	90	22	110	153,5	9	22	97	10	3,5	42	M8	29	20	8
9	2000	90	22	110	153,5	9	22	97	10	7	42	M8	29	20	8
10	2000	90	22	110	153,5	9	22	97	8	5	40	M8	29	20	8
11	2000	90	22	110	153,5	9	22	97	6	3	38	M8	29	20	8



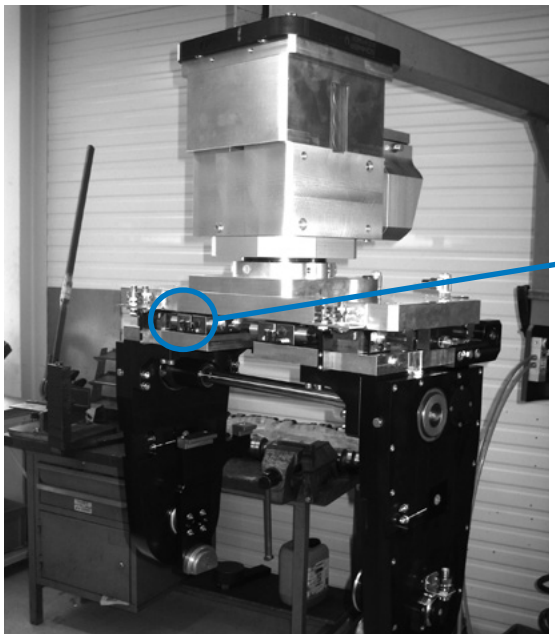
✆ +49.7844.9138-0
www.zimmer-gmbh.com

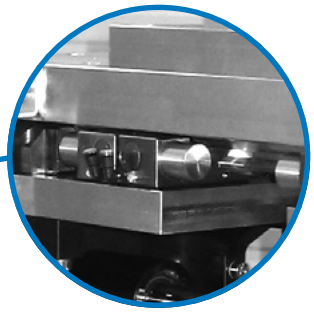


MKS 2001 A
Installation in measuring machine equipment:
Z-axis protection



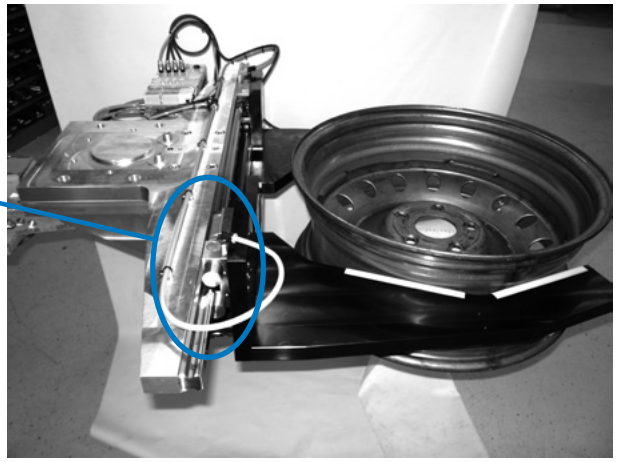
MKS 2701 B
Installation in a fully automatic cutting unit for processing wood:
Z-axis protection



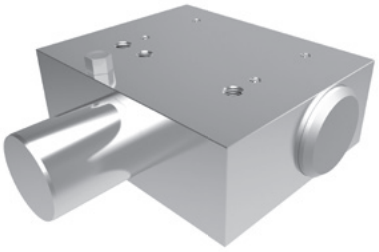


MKRS 2502 R/01
Crankcase handling:
Special design with **4 bar** opening pressure

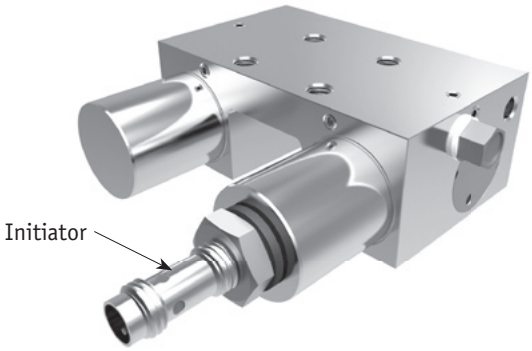
MKS 2501 A:
Installed in a wheel rim handling



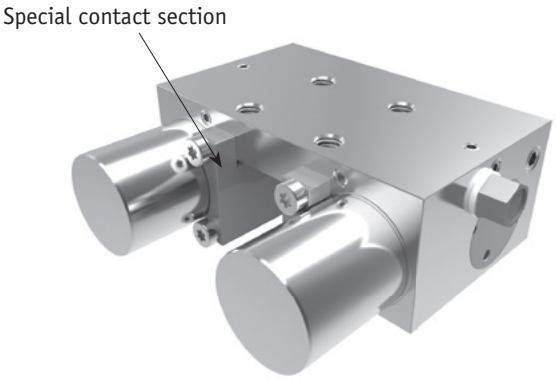
✆ +49.7844.9138-0
www.zimmer-gmbh.com



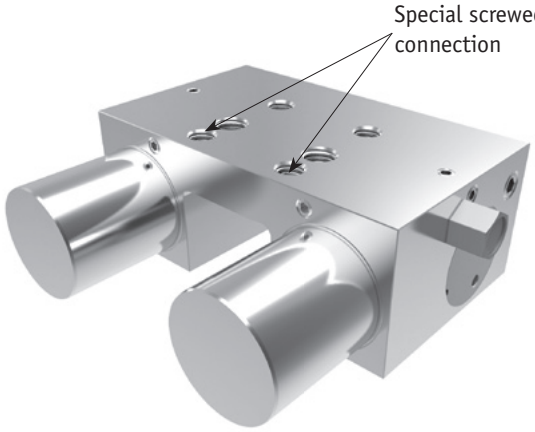
Pneumatic clamping element
for U-profiles, e.g. MKUS



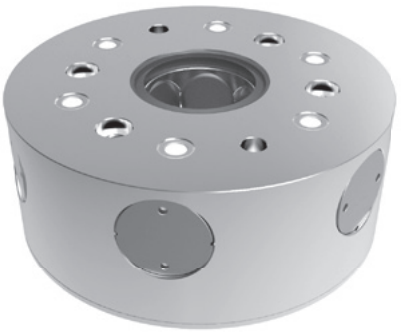
Pneumatic clamping element
with initiator, e.g. MKS



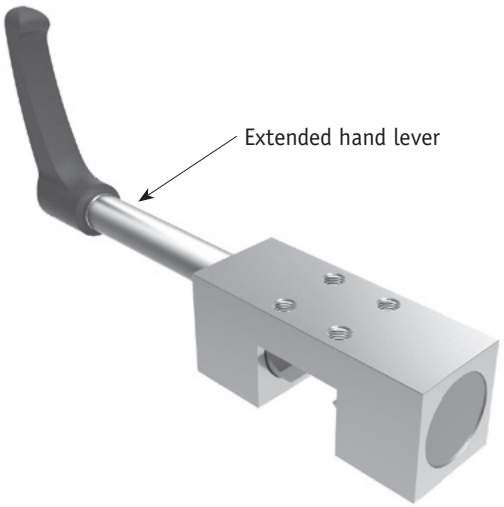
Pneumatic clamping element
with special contact sections, e.g. MKS



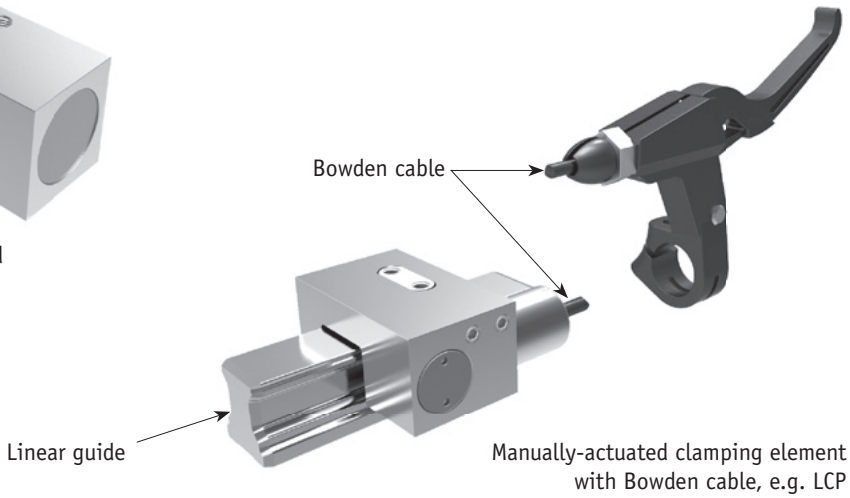
Pneumatic clamping element
with special screwed connection and
4 bar opening pressure, e.g. MKS



Pneumatic clamping element
in rod area, e.g. MKR



Manual clamping element with extended
hand lever, e.g. HK



Manually-actuated clamping element
with Bowden cable, e.g. LCP