



CLAMPING ELEMENTS

LOCKED-LK

SAFETY PRODUCTS

CLAMPING AND BRAKING
ELEMENTS FOR LINEAR GUIDES

PNEUMATIC, ELECTRICAL
AND MANUAL UNITS



CLAMPING ELEMENTS FOR LINEAR GUIDES

The ideal combination of high clamping forces
with small installation space

The LK family is an ideal addition to ACE's growing portfolio of clamping elements. Users now have a free choice between clamping and braking elements for linear guides of all common sizes.

The components of the LK family provide both precise process clamping and emergency braking as required. This allows even large mass forces on linear units to be reliably secured, decelerated, clamped, and held.

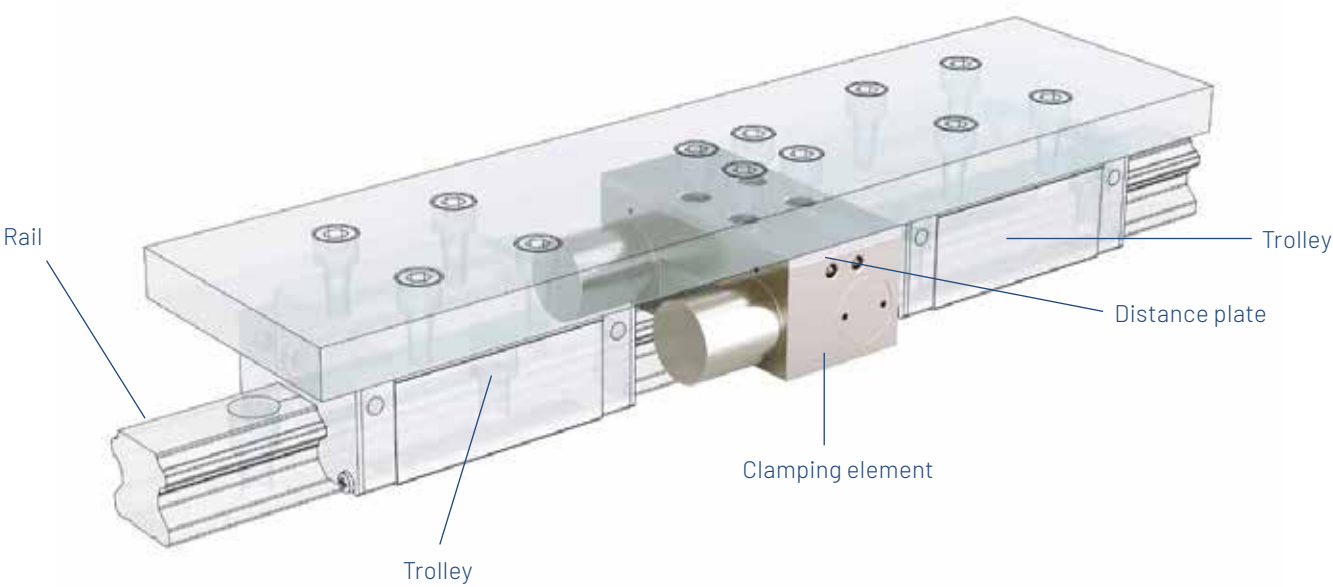
Operating according to the wedge gear principle, LOCKED-LK types offer users even higher clamping, holding, and braking forces than clamping elements using spring-loaded designs. The new family consists of various types of clamping elements, all designed, tested, and perfected for operation on profile rails. They therefore offer an excellent clamping force to dimension ratio.

These innovative pneumatically and electrically operated units are suitable for integration into new construction designs as well as for replacing units from other manufacturers in existing designs and systems.

LOCKED by ACE.
Be on the safe side!

- Increased process reliability
- Available as clamps and emergency stop brakes
- High clamping forces in small installation spaces
- Suitable for all standard sizes
- More functional options, also more customized ones
- Optional proximity switches for end position monitoring

NOMENCLATURE



Elements are described with the following order code:

	LKDP	25	T001	M	F
1. TYPES					
2. RAIL SIZE					
3. COMBINATION OF GUIDES AND TROLLEYS					
4. AIR					
5. BRAKE F					

Nomenclature

1. **Series codes are the following:** LK / LKDP / LKDPH / LKDPM / LKDI / LKMC
2. **Nominal guide size indicates the size of the guide rail on which the element is mounted. It is also the size of the element.**
3. **The Guide/Carriage combination identifies the clamping element associated with the guide/carriage**
4. **The code of the Pneumatic functioning type parameter is the following:**
 - S** Normally open (Air to close)
 - M** Normally closed (Air to open)
 - E** Normally open (Air to close and to open)
 - D** Normally closed (Air to open and to close)
5. **The Working type parameter defines the clamping element:**
 - F** Dynamic braking element
(otherwise it is clamping)
 - S** With sensor
(Integrated proximity switch for monitoring the piston positions)
 - P** Element working with pressure less than 6 bar, but more than 4.5 bar.
 - Q** Element working with pressure from 4.5 bar to 4 bar.
 - R** Element working with pressure less than 4 bar.



Clamping Elements



LOCKED LK

Basic clamping element for profile rails

Excellent ratio of clamping force and dimensions.

Page 8



LOCKED LKDP

Double piston system

High holding force

Page 10



LOCKED LKDPH

Powered double piston system

Extremely high holding force, small dimensions

Page 12



LOCKED LKDPM

Clamping and braking element

High clamping force

Shaped profile

Page 14



LOCKED LKDI

Pneumatic locking and braking element

With integrated springs. Further increase in closing force compared to the LKDPM

Page 16



LOCKED LKMC

Compact and inexpensive suitable for small installation space

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LOCKED LKMCE

Electric clamping element

Page 20

LOCKED-LK

Clamping elements for profile rails

The LK is the product series for high clamping force with a small installation space.

The clamping elements are made of steel.



- Reduced size
- High clamping forces
- Precise positioning
- High rigidity
- Version with proximity sensor possible

- Clamping element without energy input
- It contains springs for closing
- The pressure acts to open
- Version with proximity sensor possible

TECHNICAL DATA

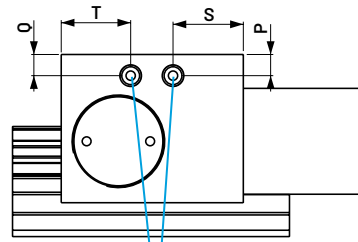
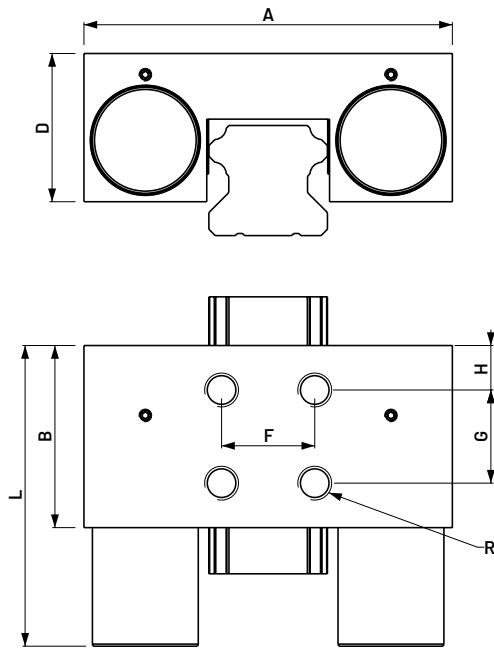
Holding forces S and E

Operating state: Open without pressure
Rail size: 15 mm to 65 mm
Holding forces S and E: 650 N to 3,000 N
Material: Nickel-plated steel
Temperature range: 20°C to +80°C
Operating pressure: 5.5 to 8 bar
Switching time: 40 to 60 ms
Clamping surface hardness: 60 to 62 HRC

TECHNICAL DATA

Holding forces M and D

Operating state: Closed without pressure
Rail size: 15 mm to 65 mm
Holding forces M and D: 400 N to 5,000 N
Material: Nickel-plated steel
Temperature range: 20°C to +80°C
Operating pressure: 5.5 to 8 bar
Switching time: 40 to 60 ms
Clamping surface hardness: 60 to 62 HRC

**M5 Air connection**

We recommend the use of
a compressed air hose $\varnothing 6 \times 4$

TYPES	Rail	Holding force N				A mm	B mm	D mm	F mm	G mm	H mm	L mm	P mm	Q mm	R	S mm	T mm
		M	S	E	D												
LK15S0	15 S0	400	650	650	1050	57	43	21	15	15	12,5	62	5	15	M4x5	37	6
LK15S5	15 S5	400	650	650	1050	55	39	20,8	15	15	8,5	58	5,4	16,3	M4x5	37	4,5
LK15T0	15 T0	400	650	650	1050	60	43	21,5	15	15	12,5	62	5,5	15,5	M4x5	37	6
LK15T5	15 T5	400	650	650	1050	55	39	21,5	15	15	8,5	58	5,5	17	M4x5	37	4,5
LK20S0	20 S0	600	1000	1000	1600	68	39	27	20	20	14	61	5	7	M5x5	16,9	5,5
LK20S5	20 S5	600	1000	1000	1600	64,1	39	27	20	20	10	61	5	6,5	M5x5	16,9	5
LK2T0	20 T0	600	1000	1000	1600	70	39	25,5	20	20	14	61	5	5	M5x5	18,5	5
LK20T5	20 T5	600	1000	1000	1600	66	39	25,5	20	20	14	61	5	5	M5x5	18,5	5
LK25S0	25 S0	750	1200	1200	1950	75	39	32,5	20	20	14	63,5	6,6	9,5	M6x8	19,5	5,5
LK25S5	25 S5	750	1200	1200	1950	75	35	32,5	20	20	10	56	6,6	9,5	M6x8	19,5	5
LK25T0	25 T0	750	1200	1200	1950	77	39	28	20	20	14	63,5	5	6	M6x8	19	5,5
LK25T5	25 T5	750	1200	1200	1950	75	35	28	20	20	10	56	5	6	M6x8	19	5
LK30S0	30 S0	1050	1750	1750	2800	87	43	38,5	22	22	10,5	71	8,5	8,5	M8x8	16,5	16,5
LK30S5	30 S5	1050	1750	1750	2800	90	39	38,5	22	22	8,5	68	8,5	8,5	M8x8	16,5	14,5
LK30T0	30 T0	1050	1750	1750	2800	87	43	35	22	22	10,5	71	5	5	M8x8	16,5	16,5
LK30T5	30 T5	1050	1750	1750	2800	90	39	35	22	22	8,5	68	5	5	M8x8	16,5	14,5
LK35S0	35 S0	1250	2000	2000	3250	106	46	42,5	24	24	7,5	78	5,5	11	M8x15	23	7
LK35S5	35 S5	1250	2000	2000	3250	100	39	42	24	24	7,5	59	10,5	12,5	M8x15	23	4,5
LK35T0	35 T0	1250	2000	2000	3250	106	46	42,5	24	24	7,5	78	12	11	M8x15	23	7
LK35T5	35 T5	1250	2000	2000	3250	100	39	36,5	24	24	7,5	59	5	7	M8x15	23	4,5
LK45S0	45 S0	1500	2300	2300	3800	116	50	52	26	26	12	82	15	8	M10x19	20,5	21
LK45S5	45 S5	1500	2300	2300	3800	120	50	52	26	26	12	82	15	8	M10x19	20	20
LK45T0	45 T0	1500	2300	2300	3800	120	49	43,5	26	26	11,5	81	6,5	6,5	M10x18	20	20
LK45T5	45 T5	2000	3000	3000	5000	128	49	59	30	30	9,5	82	17	10	M10x19	18,5	18,5
LK55S5	55 S5	2000	3000	3000	5000	128	49	53	30	30	9,5	81	16	9	M10x19	18,5	20
LK55T0	55 T0	2000	3000	3000	5000	136	49	54	30	30	9,5	82	13	8	M10x19	18,5	18,5
LK65T0	65 T0	2000	3000	3000	5000	146	49	67	50	50	9,5	82	26	21	M10x20	18,5	18,5

LOCKED-LKDP

Clamping elements for profile rails

The LKDP is a product series for high clamping force with a small installation space.
The clamping elements are made of steel.



- Double piston system: high clamping forces
- Reduced size
- Short reaction times
- Version with proximity sensor possible

- Locking element without energy input
- High clamping forces due to double piston system
- Reduced size
- Short reaction times
- Version with proximity sensor possible

TECHNICAL DATA

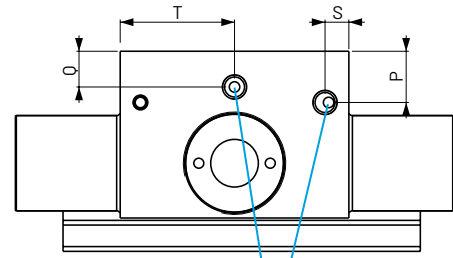
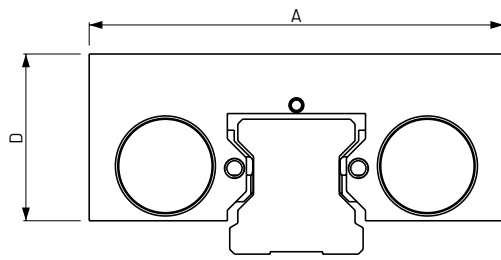
Holding forces S and E

Operating state: Open without pressure
Rail size: 20 mm to 45 mm
Holding forces S and E: 1,300 N to 3,000 N
Material: Nickel-plated steel
Temperature range: -20°C to +80°C
Operating pressure: 5.5 to 8 bar
Switching time: 40 to 60 ms
Clamping surface hardness: 60 to 62 HRC

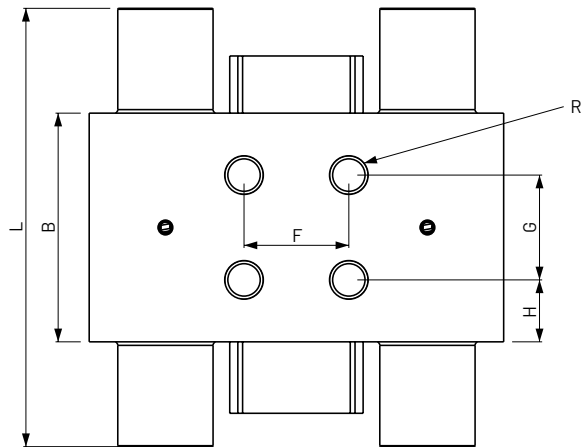
TECHNICAL DATA

Holding forces M and D

Operating state: Closed without pressure
Rail size: 20 mm to 45 mm
Holding forces M and D: 800 N to 5,000 N
Material: Nickel-plated steel
Temperature range: -20°C to +80°C
Operating pressure: 5.5 to 8 bar
Switching time: 40 to 60 ms
Clamping surface hardness: 60 to 62 HRC

**M5 Air connection**

We recommend the use of
a compressed air hose $\varnothing 6 \times 4$



	Rail	Holding force N															
TYPES		M	S	E	D	A mm	B mm	D mm	F mm	G mm	H mm	L mm	P mm	Q mm	R	S mm	T mm
LKDP20S	20 S	800	1300	1300	2100	70	51	27	20	27	12	89	7,5	5	M5x6	15	10
LKDP20T	20 T	800	1300	1300	2100	73	51	25,5	20	27	12	89	5,5	5	M5x6	15	10
LKDP25S	25 S	1200	2000	2000	3200	74	51	32,5	20	20	15,5	95	5,25	8,75	M6x7	25,5	5,5
LKDP25T	25 T	1200	2000	2000	3200	78	51	30,5	20	20	15,5	95	5	6,5	M6x7	30,5	5,5
LKDP30S	30 S	1200	2000	2000	3200	87	48	35	22	22	13	92	7,5	11	M8x10	24	5
LKDP30T	30 T	1200	2000	2000	3200	89	48	33	22	22	13	92	6	9,5	M8x10	19,5	6
LKDP35S	35 S	1500	2200	2200	3700	94	49	44	24	24	12,5	98	13	10	M8x15	14	19,5
LKDP35T	35 T	1500	2200	2200	3700	100	49	36,5	24	24	12,5	98	7,5	5,25	M8x15	30,5	4,5
LKDP45S	45 S	2000	3000	3000	5000	107,8	56	52	26	26	15	114	16,55	12,55	M10x17	28	4,5
LKDP45T	45 T	2000	3000	3000	5000	120	56	43,5	26	26	15	114	13	9,5	M10x17	22	5

LOCKED-LKDPH

Clamping elements for profile rails

Die LKDPH ist eine neue Produktreihe für hohe Spannkraft mit kleinem Bauraum. Die Klemmelemente werden in Stahl gefertigt.



- Double piston system: high clamping forces
- Reduced size
- Short reaction times
- Version with proximity sensor possible

- Locking element without energy input
- High clamping forces due to double piston system
- Reduced size
- Short reaction times
- Version with proximity sensor possible

TECHNICAL DATA

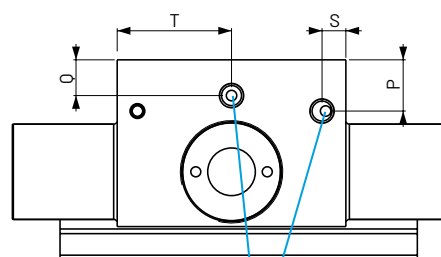
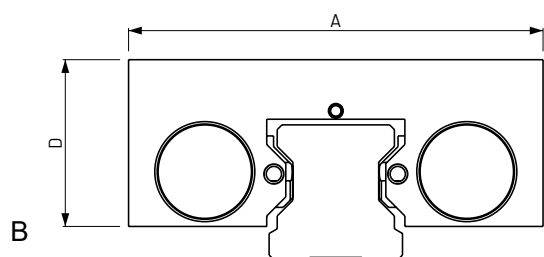
Holding forces S and E

Operating state: Open without pressure
Rail size: 15 mm to 55 mm
Holding forces S and E: 1,300 N to 6,000 N
Material: Nickel-plated steel
Temperature range: 20°C to +80°C
Operating pressure: 5.5 to 8 bar
Switching time: 40 to 60 ms
Hardness of clamping surface: 60 to 62 HRC

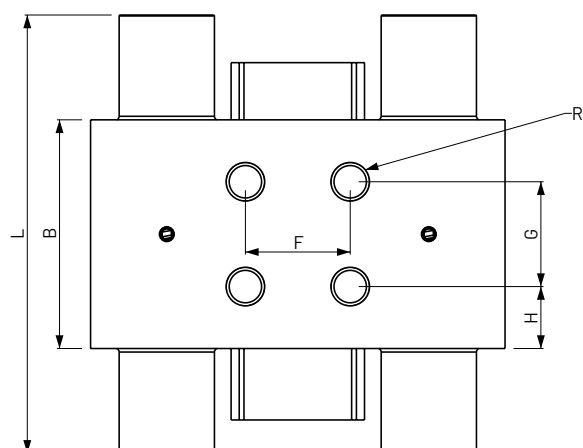
TECHNICAL DATA

Holding forces M and D

Operating state: Closed without pressure
Rail size: 15 mm to 55 mm
Holding forces M and D: 800 N to 10,000 N
Material: Nickel-plated steel
Temperature range: 20°C to +80°C
Operating pressure: 5.5 to 8 bar
Switching time: 40 to 60 ms
Clamping surface hardness: 60 to 62 HRC

**M5 Air connection**

We recommend the use of
a compressed air hose $\varnothing 6 \times 4$



	Rail	Holding force N																
TYPES		M	S	E	D	A mm	B mm	D mm	F mm	G mm	H mm	L mm	P mm	Q mm	R	S mm	T mm	
LKDPH15S	15 S	800	1300	1300	2100	61	56	21,5	15	15	20,5	94	5	5	M4x4	16,2	16,2	
LKDPH15T	15 T	800	1300	1300	2100	61	56	21,5	15	15	20,5	94	5	5,2	M4x4	17	17	
LKDPH20S	20 S	1200	2000	2000	3200	70	51	27	20	27	12	95	6,5	6,5	M5x6	16,1	15,8	
LKDPH20T	20 T	1200	2000	2000	3200	73	51	25,5	20	27	12	95	5	5	M5x6	16,1	15,8	
LKDPH25S	25 S	1500	2400	2400	3900	75	51	32,5	20	20	15,5	100	5	7,25	M6x7	25,5	5	
LKDPH25T	25 T	1500	2400	2400	3900	78	51	32,5	20	20	15,5	100	5	7,25	M6x7	20,5	5	
LKDPH30S	30 S	2100	3500	3500	5600	90	50	38	22	22	14	108	9	5	M8x10	12	25	
LKDPH30T	30 T	2100	3500	3500	5600	93	50	38	22	22	14	108	9	5	M8x10	20,5	5	
LKDPH35S	35 S	2100	3500	3500	5600	97	50	40	24	24	13	108	11	8	M8x15	25	12	
LKDPH35S	35 S	2500	4000	4000	6500	101	57,6	42	24	24	16,8	97/6	10,5	6,5	M8x15	28,8	5	
LKDPH35S	35 S	3000	4600	4600	7600	106	57,6	43,5	24	24	16,8	121,6	10,5	6,5	M8x15	28,8	6	
LKDPH35T	35 T	2500	4000	4000	6500	109	60,8	43,5	24	24	18,4	124,6	7	5	M8x16	30,4	5	
LKDPH45S	45 S	3000	4600	4600	7600	120	60,8	55	26	26	17,4	124,8	12	7	M10x18	30,4	5	
LKDPH45T	45 T	3000	4600	4600	7600	120	60,8	49,3	26	26	17,4	124,8	12,3	7	M10x19	30,4	5	
LKDPH55S	55 S	4000	6000	6000	10000	128	60	59	30	30	15	126	18	8	M10X20	30	23,5	
LKDPH55T	55 T	4000	6000	6000	10000	136	60	54	30	30	15	126	13	8	M10X20	27	23,5	

LOCKED-LK25DPM

Pneumatic clamping and braking element with integrated springs

Clamping and braking element with high closing force. The material and shape of the The material and shape of the contact-guiding part enable a high closing force without damaging the guide.



- Closed without pressurisation
- High clamping force thanks to double piston system
- Short reaction time
- Compact and rigid body
- Clamps in unpressurised state
- Clamps in case of EMERGENCY STOP

TECHNICAL DATA

Holding forces M and D

Operating state: Closed without pressure

Rail size: 25 mm to 35 mm

Holding forces M and D: 1,300 N to 6,000 N

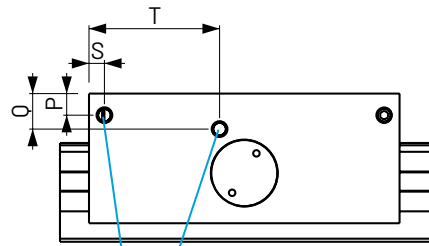
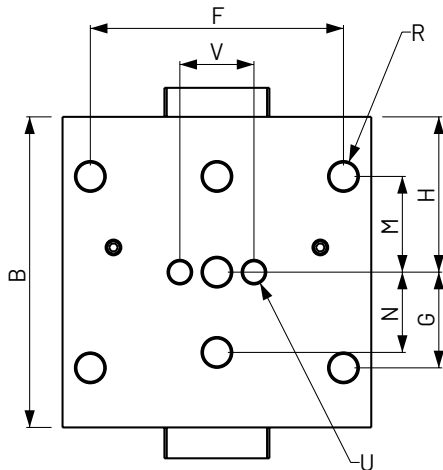
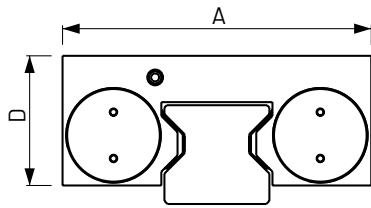
Material: Nickel-plated steel

Temperature range: 20°C to +80°C

Operating pressure: 5.5 to 8 bar

Switching time: 40 to 60 ms

Clamping surface hardness: 60 to 62 HRC



M5 Air connection

We recommend the use of a compressed air hose $\varnothing 6 \times 4$

	Rail	Holding force N																
TYPES		M	D	A mm	B mm	D mm	F mm	G mm	H mm	M mm	N mm	P mm	Q mm	R	S mm	T mm	U	V mm
LKDPM25S	25 S	1500	3900	70	99	32,5	57	22,5	49,5	22,5	20	7,75	5,25	M8x7	5	56	M6x7	20
LKDPM25T	25 T	1500	3900	72	99	32,5	57	22,5	49,5	22,5	20	7,75	7,75	M8x7	5	43	M6x7	20
LKDPM30S	30 S	2100	5600	87	99	38	72	26	49,5	26	22	5	5	M10x8	5	42	M8x8	22
LKDPM30T	30 T	2100	5600	90	99	38	72	26	49,5	26	22	5	5	M10x8	5	42	M8x8	22
LKDPM35S	35 S	2600	6600	100	100,6	42	82	31	50,3	31	26	11,5	11,5	M10x10	5	42,5	M8x10	24
LKDPM35T	35 T	2600	6600	108	100,6	42	82	31	50,3	31	26	11,5	11,5	M10x10	5	42,5	M8x10	24

LOCKED-LKDI

Pneumatic clamping and braking element with integrated springs

Clamping and braking element with high closing force. The material and shape of the The material and shape of the contact-guiding part enable a high closing force without damaging the guide..

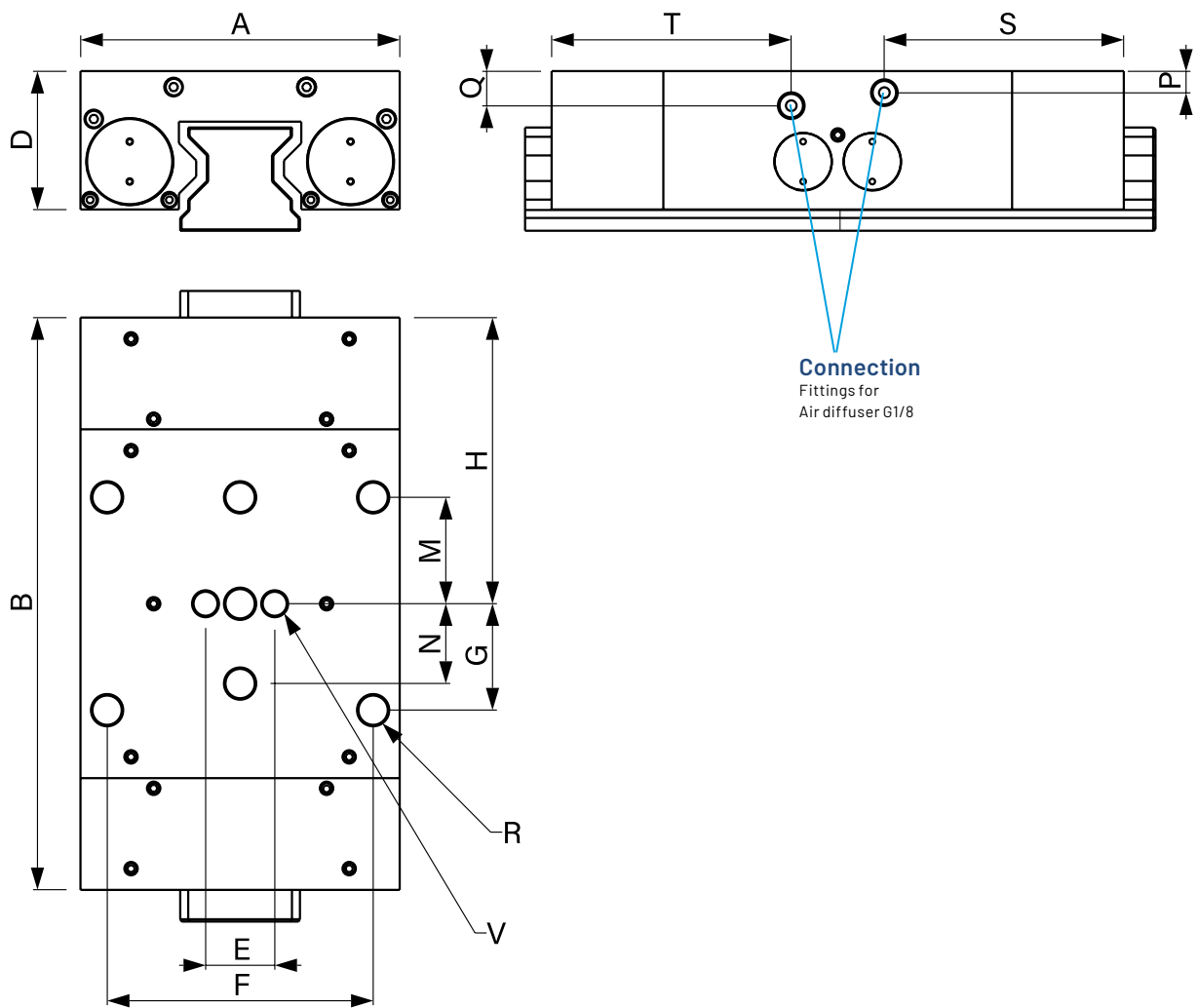


- Closed without pressurisation
- High clamping force thanks to double piston system
- Short reaction time
- Compact and rigid body
- Clamps in unpressurised state
- Version with proximity sensor possible

TECHNICAL DATA

Holding forces M and D

Operating state: Depressurised closed
Rail size: 45 mm to 55 mm
Holding forces M and D: 6,000 N to 9,200 N
Material: Nickel-plated steel
Temperature range: -20°C to +80°C
Operating pressure: 5.5 to 8 bar



TYPES	Rail	Holding force N															
		M	D	A mm	B mm	D mm	F mm	G mm	H mm	M mm	N mm	P mm	Q mm	R	S mm	T mm	V
LKDI45S	45 S	6000	8000	120	215	52	100	40	107,55	40	30	8,1	92	M12x12	90	90	M10x12
LKDI55S	55 S	7700	9200	140	219	59	-	47,5	109,5	47,5	35	10	92	M14x14	92	92	-

LOCKED-LKMC

Single-piston clamping elements

Compact and cost-effective locking element.

It ensures optimum clamping despite possible dimensional deviations with drawn guide rails. Locking is achieved thanks to the body's floating system. It guarantees:

- the clamping of the guide by the clamping pad on the one hand and by the body itself on the other;
- asymmetrical distribution of the clamping force on the linear guide;
- absolute freedom from friction between the linear guide with the body and with the contact section in the open operating state.



- Version with proximity sensor possible



- Version with proximity sensor possible

TECHNICAL DATA

Holding forces S and E

Operating state: Open without pressure

Rail size: 15 mm to 25 mm

Holding forces S and E: 320 N to 500 N

Material: Nickel-plated steel

Temperature range: -20°C to +80°C

Operating pressure: 5.5 to 8 bar

Switching time: 40 to 60 ms

Clamping surface hardness: 60 to 62 HRC

TECHNICAL DATA

Holding forces M and D

Operating state: Closed without pressure

Rail size: 15 mm to 25 mm

Holding forces M and D: 200 N to 800 N

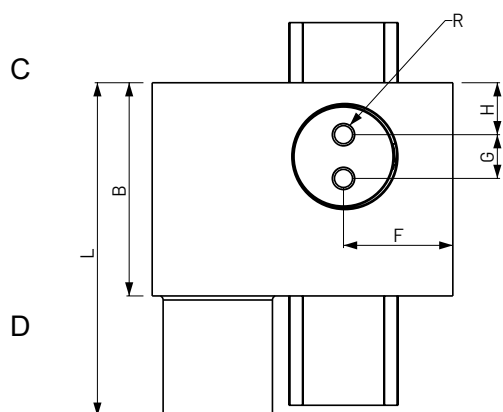
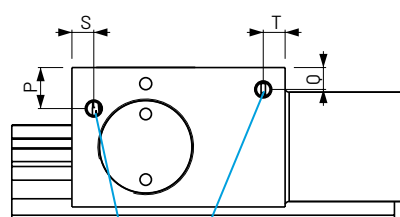
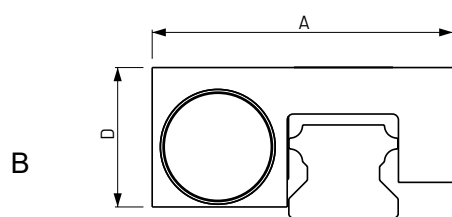
Material: Nickel-plated steel

Temperature range: -20°C to +80°C

Operating pressure: 5.5 to 8 bar

Switching time: 40 to 60 ms

Clamping surface hardness: 60 to 62 HRC



M3/M5 Air connection

We recommend the use of a compressed air hose $\varnothing 6 \times 4$

	Rail	Holding force N																
TYPES		M	S	E	D	A mm	B mm	D mm	F mm	G mm	H mm	L mm	P mm	Q mm	R	S mm	T mm	
LKMC15T0	15 T0	200	320	320	520	41,5	36	18	14,25	7	8,9	55	4	4	M4x4.5	3	4,5	
LKMC20S0	20 S0	300	500	500	800	55	39	27	21	8	9,5	61	5	4	M4x5.8	4	4	
LKMC20T0	20 T0	300	500	500	800	55	39	25,5	21	8	9,5	61	5	4	M4x5.8	4	4	
LKMC25S0	25 S0	375	600	600	975	60,5	39	30	22	14	12,5	63,5	5	7,5	M4x5.8	5	5	
LKMC25T0	25 T0	375	600	600	975	60,5	39	30	22	14	12,5	63,5	5	7,5	M4x5.8	5	5	
LKMC25T5	25 T5	300	500	500	800	58	35	28	23	12	11,5	57	6	5	M5x7	5	5	

LOCKED-LKMCE

Electrical braking and clamping element for guideways

Bistable clamping element.

No operating voltage is required for maintenance of the clamping element.



- Compact design
- Self-locking
- 5-pin plug
- Bidirectional action
- Version with proximity sensor possible

TECHNICAL DATA

Rail size: 20 mm to 25 mm

Holding forces: 1,000 N to 1,400 N

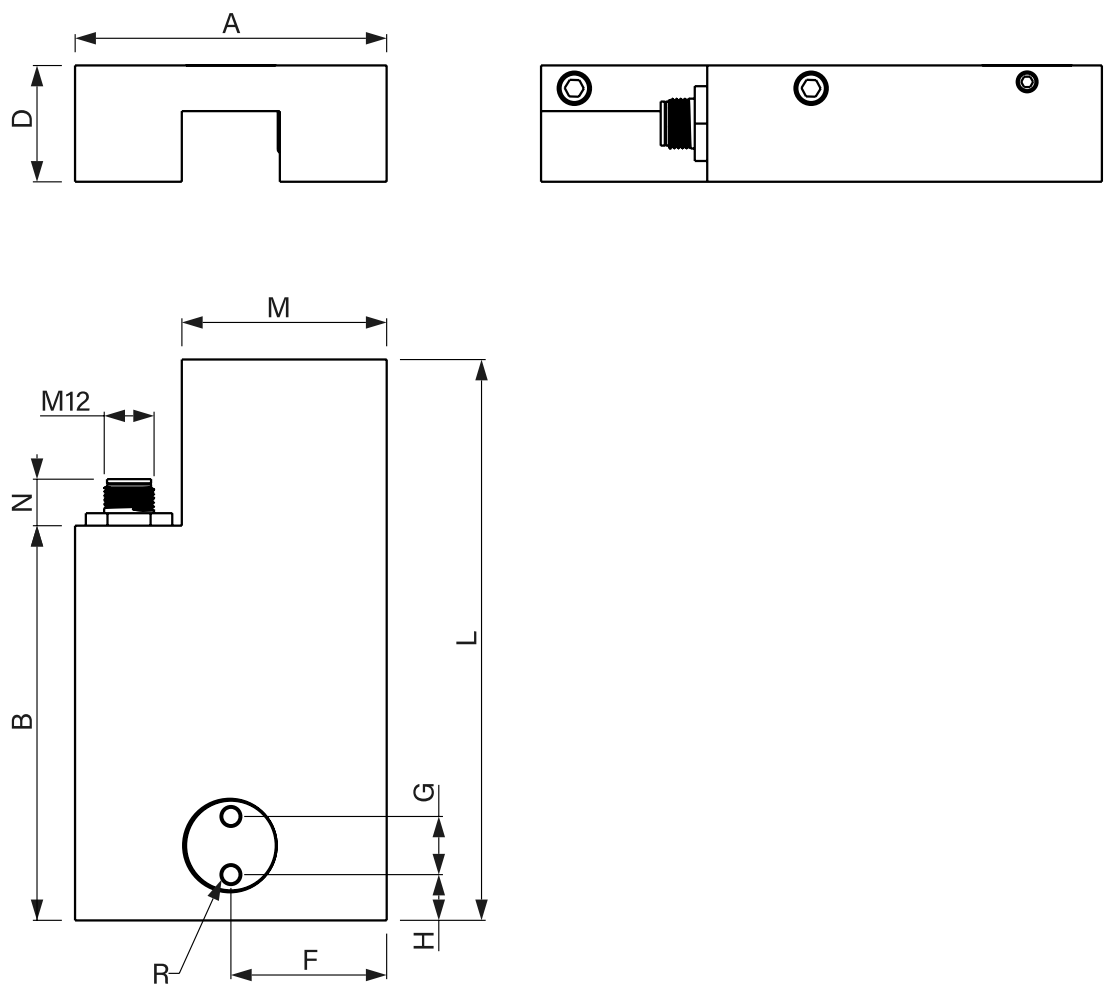
Material: Nickel-plated steel

Temperature range: -10°C to +70°C

DC voltage: 24 V

Closing time: < 3 s

Opening times: < 1.5 s



TYPES	Rail	Holding force N	A mm	B mm	D mm	F mm	G mm	H mm	L mm	M mm	N mm	R
LKMCE20T0	20 T0	1000	60	80	24	29,75	8	14	115	40,3	11,2	M4x5
LKMCE25T0	25 T0	1400	75	120	28	37,5	14	11	135	49,3	11,2	M5x7



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- Specialized industrial brands with unique solutions and expertise for each market.
- Wide product range – from simple to complex requirements across all industries.
- Broad global presence that closely connects us with all markets.



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Experienced provider of customized and special gas springs with very fast time to market.



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Experienced manufacturer of elastomeric vibration isolators and shock mounts.





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