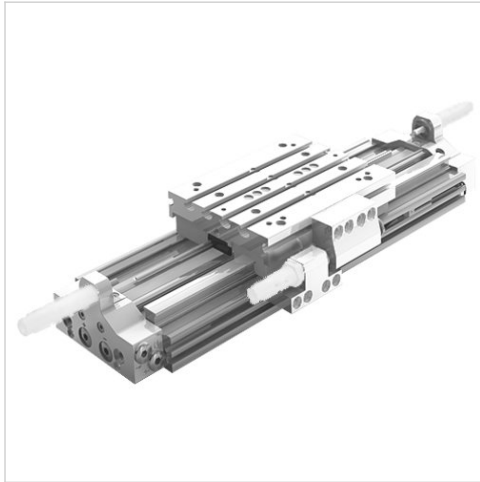


# Rodless cylinder, Series CKP-CL

- Ø 16 mm
- Ports M7
- double-acting
- with magnetic piston
- ball rail guide
- Cushioning Pneumatically adjustable
- Easy2Combine capable with electrical axes



Working pressure min./max.	3 ... 8 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Max. particle size	5 µm
Pressure for determining piston forces	6.3 bar
Weight	See table

An example configuration is illustrated.  
The delivered product may thus deviate  
from the illustration.

## Technical data

Piston Ø	16 mm	25 mm	32 mm
Stroke 200	R480163968	R480163978	R480163988
320	R480163969	R480163979	R480163989
400	R480163970	R480163980	R480163990
520	R480163971	R480163981	R480163991
600	R480163972	R480163982	R480163992
800	R480163973	R480163983	R480163993
1000	R480163974	R480163984	R480163994
1240	R480163975	R480163985	R480163995

## Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The delivered product is lubricated for lifetime.

This product may only be operated with oil-free, dry compressed air.

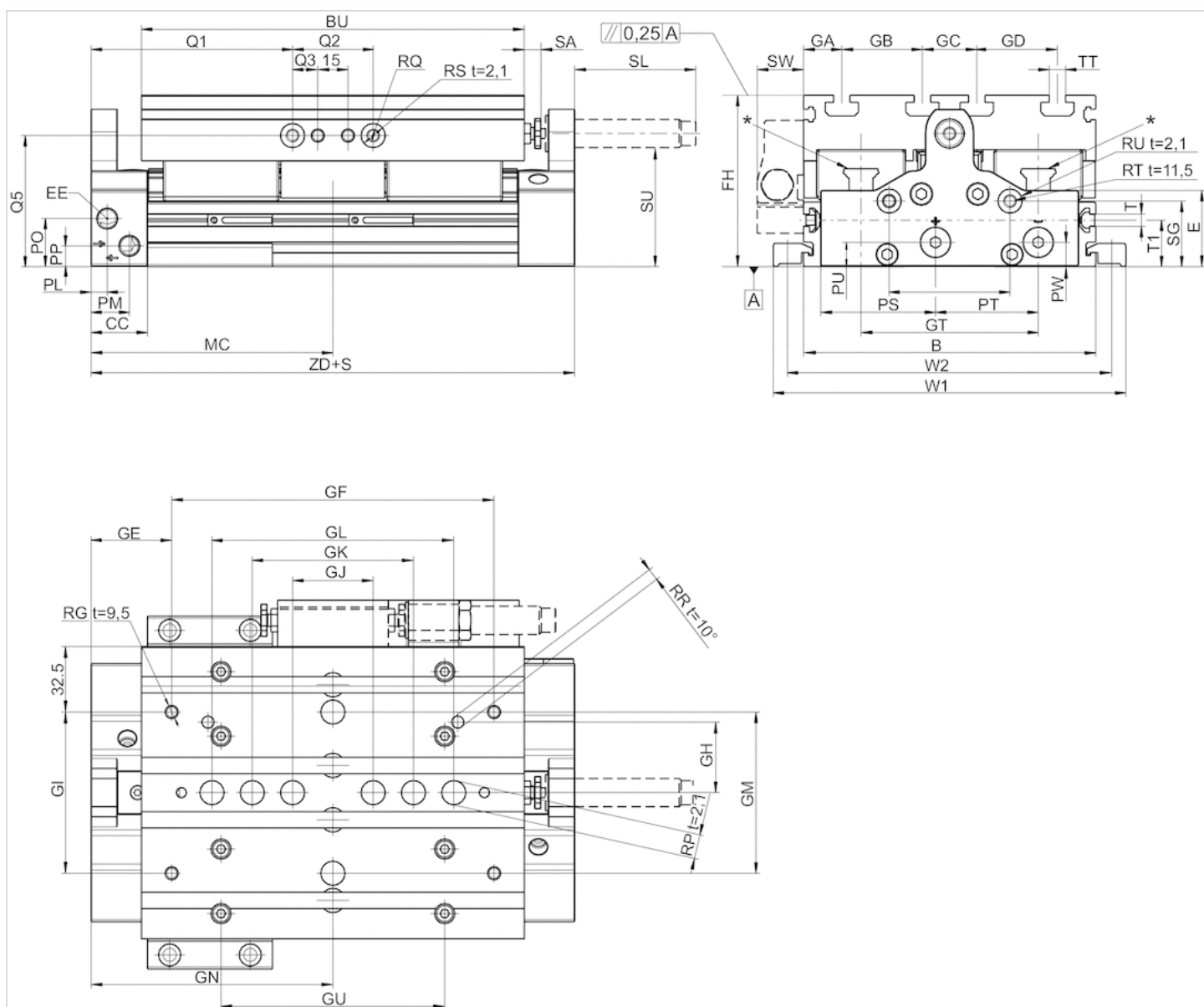
	16 mm	25 mm	32 mm
Cushioning energy	1,5 J	4 J	7 J
Speed max.	2 m/s	2 m/s	2 m/s
Stroke max.	1400 mm	1400 mm	1400 mm

## Technical information

Material	
Cap	Aluminum, anodized
Seal	Polyurethane
Sealing strips	Polyurethane Stainless steel
Ball rail table	Aluminum, anodized
Guide rail	Steel, hardened

## Dimensions

### Dimensions



t = depth

\* CKP 16: 2x Lube ports on each runner block, CKP 25 / 30: Lube nipple of funnel type with thread connection M3

## Dimensions

Piston Ø	B	E	BU	CC	EE	FH	GA	GB	GC	GD	GN	GE	GF	GH	GI	GJ	GK	GL	GM	GT	GU
16 mm	90	27.3	125	28	M7	56	15	20	20	20	93.5	38.5	110	20	40	40	60	80	-	57	80
16 mm	90	27.3	125	28	M7	56	15	20	20	20	93.5	38.5	110	20	40	40	60	80	-	57	80
25 mm	110	31.4	155	28	G 1/8	66	25	20	20	20	107.5	47.5	120	42	80	40	60	80	-	66	106
32 mm	145	37.8	190	28	G 1/8	85	19	40	27	40	120	40	160	35	80	40	80	120	80	88	111

Piston Ø	MC	PL	PM	PO	PP	PS	PT	PU	PW	Q1	Q2	Q3	RG	Ø RP	RQ	Ø RR
16 mm	93.5	8	21	12.8	6.8	33	29.8	6.8	6	73.5	40	-	M5	9 F7	M5 t=10,5	4 F7
16 mm	93.5	8	21	12.8	6.8	33	29.8	6.8	6	73.5	40	-	M5	9 F7	M5 t=10,5	4 F7
25 mm	107.5	8	20	22	10.5	37.5	24	10.5	10.5	87.5	40	12.5	M5	9 F7	M6 t=14,5	5 F7
32 mm	120	8	19	23.8	10.3	57	51	12	12	100	40	12.5	M6	12 F7	M6 t=14,5	6 F7

Piston Ø	Ø RS	RT	Ø RU	SG	SL	SU	SW	T	TT	W1	W2	T1	ZD	SA	m [kg]1)
16 mm	9 F7	M6	12 F7	20.3	43	37	20	M4	N6	112	102	16	187	0-10	0.64
16 mm	9 F7	M6	12 F7	20.3	43	37	20	M4	N6	112	102	16	187	0-10	0.64
25 mm	12 F7	M6	12 F7	14	60	43	23	N6	N6	140	126	20	215	0-10	1.11
32 mm	12 F7	M6	12 F7	32.5	60	59	23	N6	N8	175	161	23	240	0-10	2.62

t = depth

1) m = moving mass

SA = stroke adjustment with use of shock absorber. ↔ Adjustment made with adjustment screw. ↔ Shock absorber can be replaced without readjustment of end position.

## Weight [kg]

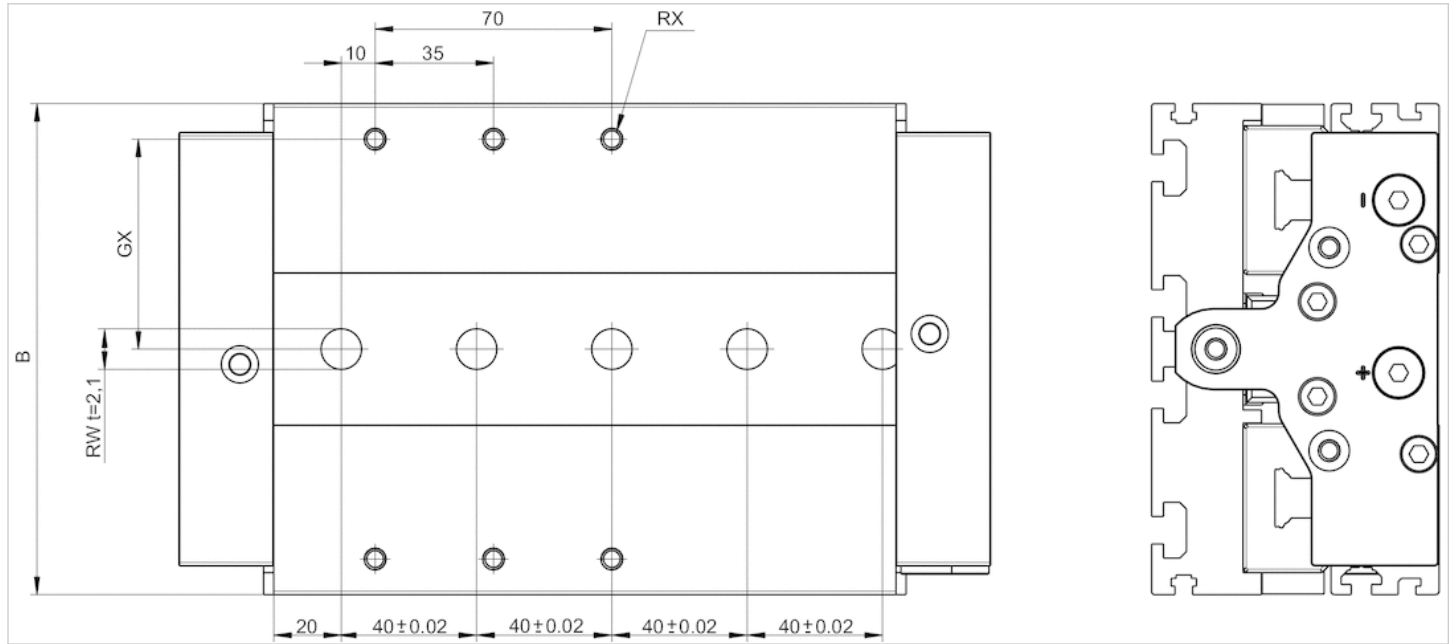
Piston Ø	S	Weight kg
16 mm	200	2,65 kg
16 mm	320	3,22 kg
16 mm	400	3,6 kg
16 mm	520	4,18 kg
16 mm	600	4,56 kg
16 mm	800	5,51 kg
16 mm	1000	6,46 kg
16 mm	1240	7,6 kg
25 mm	200	4,69 kg
25 mm	320	5,65 kg
25 mm	400	6,29 kg
25 mm	520	7,26 kg
25 mm	600	7,9 kg
25 mm	800	9,5 kg
25 mm	1000	11,11 kg
25 mm	1240	13,04 kg
32 mm	200	8,77 kg
32 mm	320	10,29 kg
32 mm	400	11,31 kg
32 mm	520	12,83 kg
32 mm	600	13,85 kg
32 mm	800	16,39 kg

Piston Ø	S	Weight kg
32 mm	1000	18,93 kg
32 mm	1240	21,98 kg

S = stroke

## Dimensions

Additional Easy2Combine interface on CKP-CL



## Dimensions

Piston Ø	B	Ø RW	RX	GX
16 mm	90	9 H7 t=2,1	M4 t=7,5	38
16 mm	90	9 H7 t=2,1	M4 t=7,5	38
25 mm	110	9 H7 t=2,1	M5 t=9	46
32 mm	145	12 H7 t=2,1	M6 t=13	62

t = depth

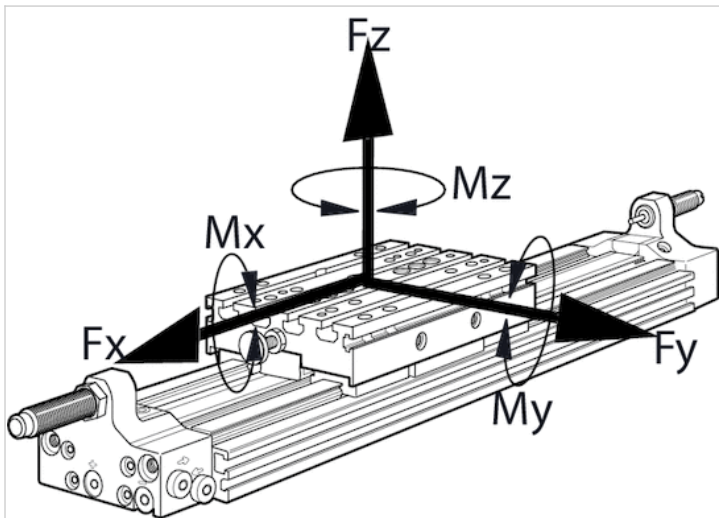
## Dimensions

Permissible forces Fx Fy Fz and torques Mx My Mz

$$\frac{M_x}{M_{x_{max.}}} + \frac{M_y}{M_{y_{max.}}} + \frac{M_z}{M_{z_{max.}}} \leq 1$$

With simultaneously moments on the cylinder this equation must be used in addition to the maximum moments check. In the cushioning phase of the movement additional forces occur and must be considered. Please use our calculation tool for rodless cylinders on the <http://www.aventics.com>.

Permissible forces  $F_x$   $F_y$   $F_z$  and torques  $M_x$   $M_y$   $M_z$



With simultaneously moments on the cylinder this equation must be used in addition to the maximum moments check. In the cushioning phase of the movement additional forces occur and must be considered. Please use our calculation tool for rodless cylinders on the <http://www.aventics.com>.

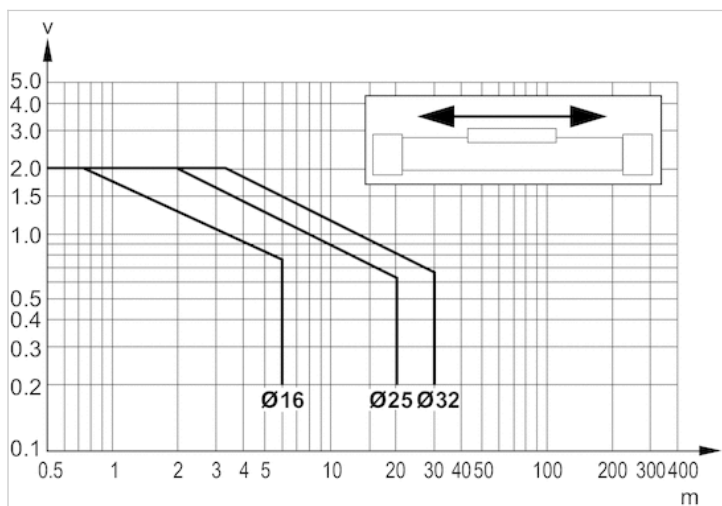
Max. dynamic forces and torques

Piston Ø	$F_x$ [N]	$F_y$ [N]	$F_z$ [N]	$M_x$ [Nm]	$M_y$ [Nm]	$M_z$ [Nm]
16 mm	2912	2912	2912	83	116	143
16 mm	2912	2912	2912	83	116	143
25 mm	3280	3280	8568	283	454	205
32 mm	5280	5280	15620	687	867	374

Recommended values for an expected lifetime of 3200 km

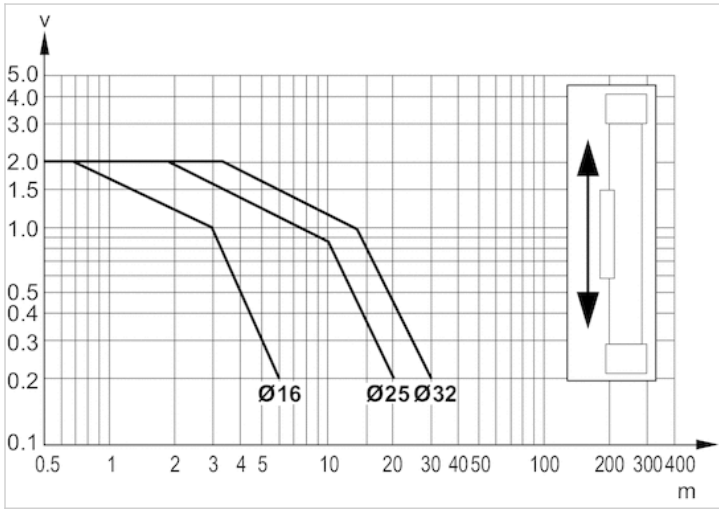
Diagrams

Horizontally mounted with pneumatic cushioning



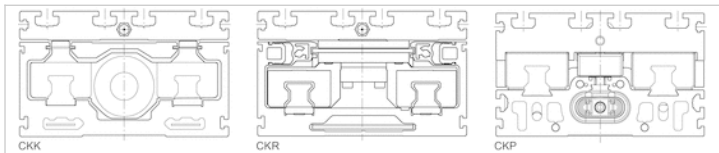
$v$  = Piston velocity [m/s]  $m$  = Cushionable mass [kg]

Vertically mounted with pneumatic cushioning



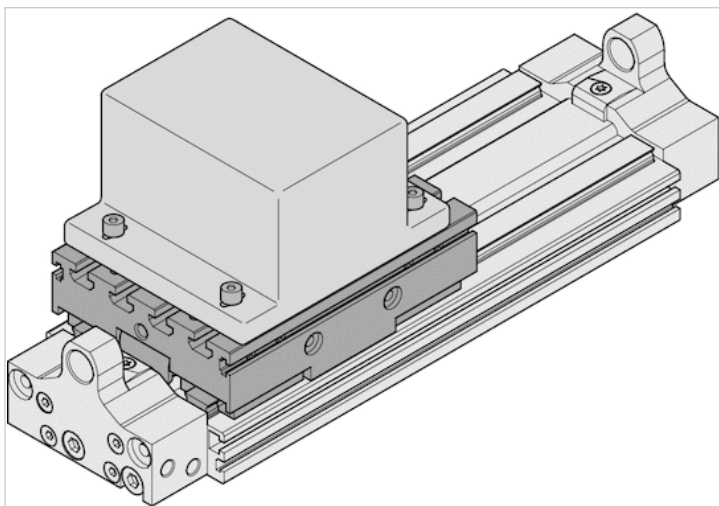
$v$  = Piston velocity [m/s]  $m$  = Cushionable mass [kg]

CRP is part of the compact module family.

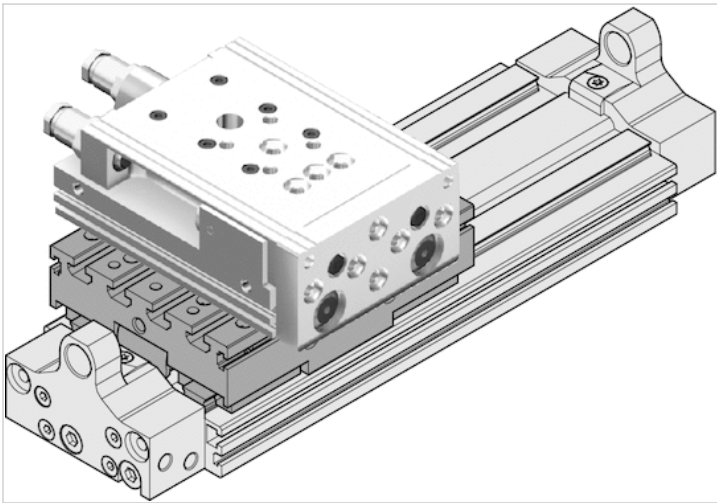


Further information can be found in the operating instructions.

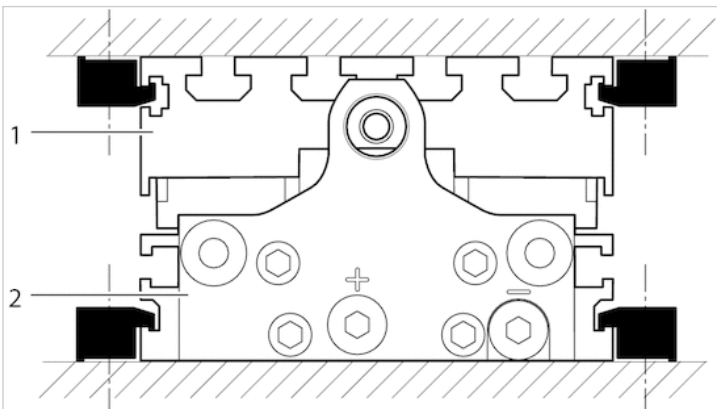
fastening a customer attachment onto the CRP with T-groove nuts.



fastening of automation system Easy2Combine to CKP using center rings and T-groove nuts



fastening of CKP to customer-built mounting base via clamping fixtures



fastening of CKP on BME (Basic mechanical elements) profile construction via connection plates

