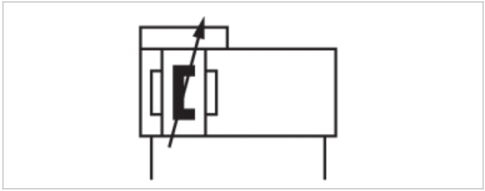
UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

Rodless cylinder, Series RTC-CG

- Ø 16-40 mm
- Ports M7 G 1/8 G 1/4
- double-acting
- with magnetic piston
- ball rail guide
- Compact Guide
- Cushioning Pneumatically adjustable
- Easy2Combine capable with connection kit



Working pressure min./max.	2 ... 8 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m³
Pressure for determining piston forces	6.3 bar

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

Technical data

Piston Ø	16 mm	25 mm	32 mm	40 mm
Stroke 200	R480148169	R480146993	R480154848	R480156966
300	R480148470	R480146765	R480154708	R480150407
400	R480153838	R480147184	R480148680	R480153577
500	R480147715	R480146182	R480146674	R480146348
600	R480146105	R480147519	R480146692	R480149794
700	R480156308	R480146193	R480146396	R480156967
800	-	R480148254	R480153429	R480146347
900	-	-	R480156962	R480156968
1000	-	-	R480153428	R480147888

Technical data

Piston Ø	16 mm	25 mm	32 mm	40 mm
Piston force	127 N	309 N	507 N	792 N
Cushioning length	20 mm	20 mm	20 mm	20 mm
Cushioning energy	1,5 J	4 J	7 J	10 J

UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

Piston Ø	16 mm	25 mm	32 mm	40 mm
Speed max.	2 m/s	2 m/s	2 m/s	2 m/s
Weight 0 mm stroke	0,94 kg	1,64 kg	2,43 kg	3,92 kg
+10 mm stroke	0,026 kg	0,041 kg	0,056 kg	0,075 kg
Stroke max.	1800 mm	1800 mm	1800 mm	2000 mm

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.
Use hydraulic shock absorbers for precise end position adjustment.

Technical information

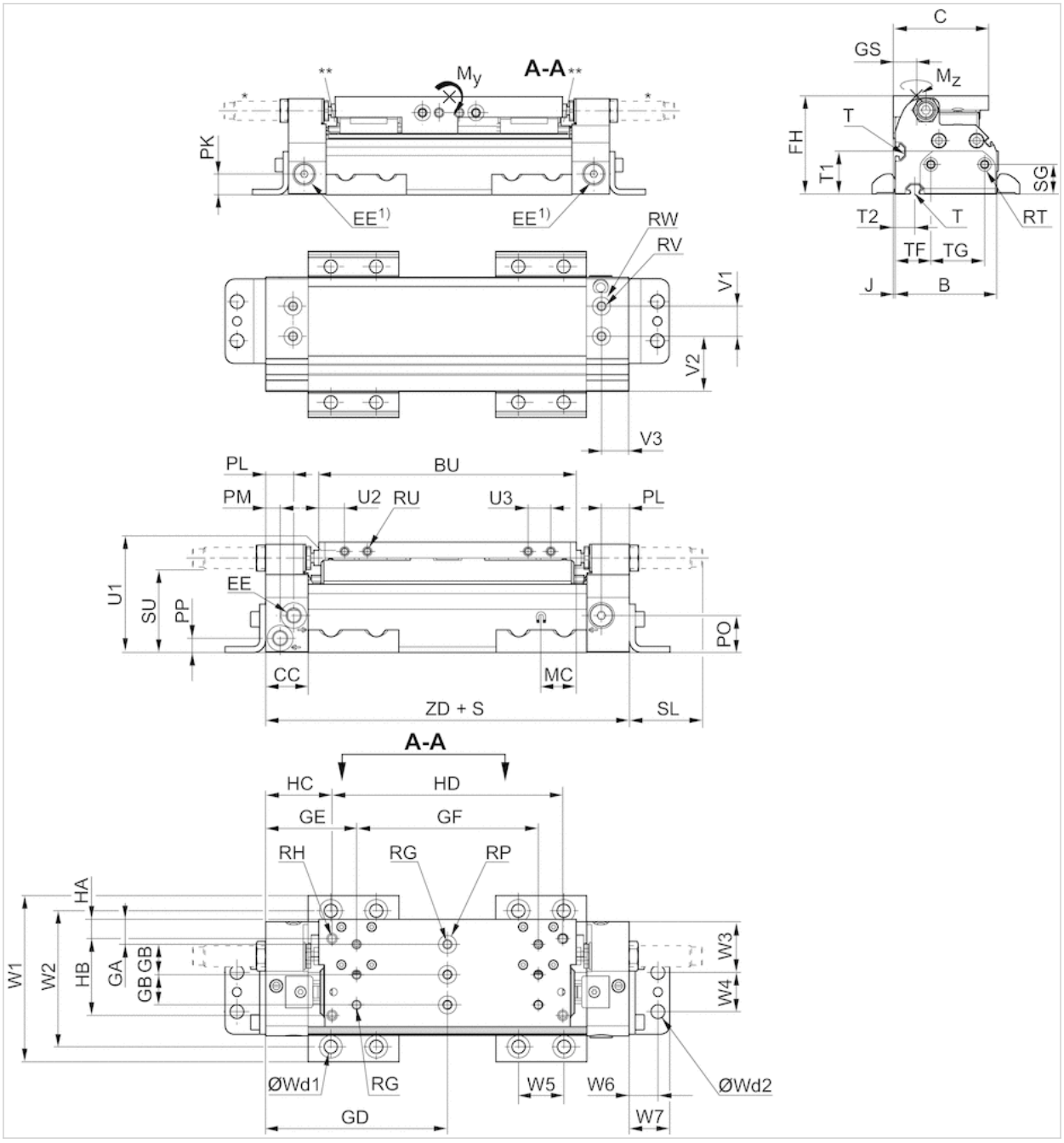
Material	
Cylinder tube	Aluminum, anodized
Cap	Aluminum, anodized
Seal	Polyurethane
Sealing strips	Polyurethane Stainless steel
Ball rail table	Aluminum, anodized
Guide rail	Steel, hardened

UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

Dimensions

Dimensions



S = stroke
T = Type of t-groove nut
1) Auxiliary air feeding
An example configuration is illustrated. The delivered product may thus deviate from the illustration.
* Shock absorber optional in end cover for diameters 16-40
** RTC-CG 16 & 25: 2x Lube ports on each runner block, RTC-CG 32 & 40: Lube nipple of funnel type with thread connection M3

UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

Dimensions

Piston Ø	B	C	BU	CC	EE	FH	GA	GB	GD	GE	GF	GS	HA	HB	HC	HD	J	MC
16 mm	50	51	122	28	3xM7	54	7	20	93.5	38.5	110	11.5	7.6	38.1	68.1	50.8	2	12
25 mm	62.5	58.1	147	28	3xG 1/8	65	6	20	107.5	53.5	108	15	5.1	45.7	38.9	137.2	1.5	15
32 mm	75.5	71	170	28	3xG 1/8	73	16.5	20	120	60	120	17.5	12.7	50.8	43.8	152.4	1.5	20
40 mm	85.5	74	186	28	3xG 1/4	94.4	16.5	20	131.6	71.6	120	18.5	12.7	50.8	55.4	152.4	1.5	17

PK	PL	PM	PN	PO	PP	RG 1)	RH 2)	RP	RT 3)	RU 4)	RV	RW	SG	SL
11.9	18	7	7	13.3	7.3	M5	UNC 1/4-20	Ø 9	M5	M5	M5x8	Ø 9H8x1,6	17.3	33.2
10.1	20	8	9	21.5	9.3	M5	UNC 1/4-20	Ø 9	M5	M6	M5x8	Ø 9H8x1,6	17.3	49.3
15	18.5	9.5	12	24.5	9.5	M6	UNC 1/4-20	Ø 12	M6	M6	M6x10	Ø 12H8x2,1	22	48.3
18	18	10	11	31.5	10.5	M6	UNC 1/4-20	Ø 12	M6	M6	M6x10	Ø 12H8x2,1	22	45.1

SU	T	V1	V2	V3	W1	W2	W3	W4	W5	W6	W7	Wd1	Wd2	T1	T2	TF	TG	U1	U2	U3
38.6	N4	20	6	14	78.4	61.4	24	18	30	13.5	19.8	M6	M6	18.5	10.5	25.5	19	48	13	15
47.1	N6	20	26.5	18	90.9	73.9	31.5	18	30	13.5	19.8	M6	M6	26.6	13.5	31	19	59	12.5	27
55.5	N6	20	36.5	18	109.9	89.9	33.5	26	30	19	26.8	M8	M8	31.5	14.5	26.5	40	67	17	34
73.4	N6	20	40.5	18	119.9	99.9	37.5	26	30	19	26.8	M8	M8	41.4	13	30.5	40	79.4	25	34

ZD	M [kg] 5)
187	0.22
215	0.4
240	0.47
263.1	0.97

1) thread depth: 12 mm for piston Ø 16, 25 & 40 mm; 10,5 mm for piston Ø 32

2) thread depth: 12,7 mm for piston Ø 16–40 mm

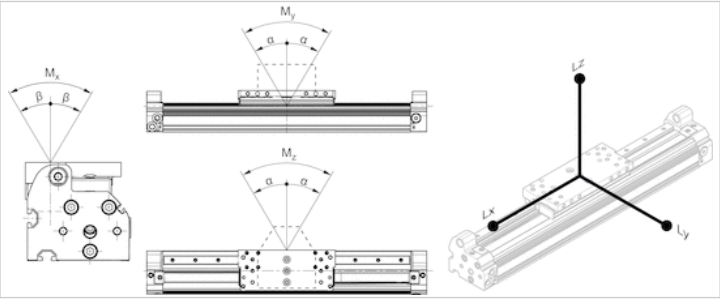
3) thread depth: 9 mm for piston Ø 16–40 mm

4) thread depth: 10 mm for piston Ø 16–40 mm

5) M = moving mass

Dimensions

Max. play and recommended max. lever arm length



L = lever arm
M = Torques

UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

Dimensions

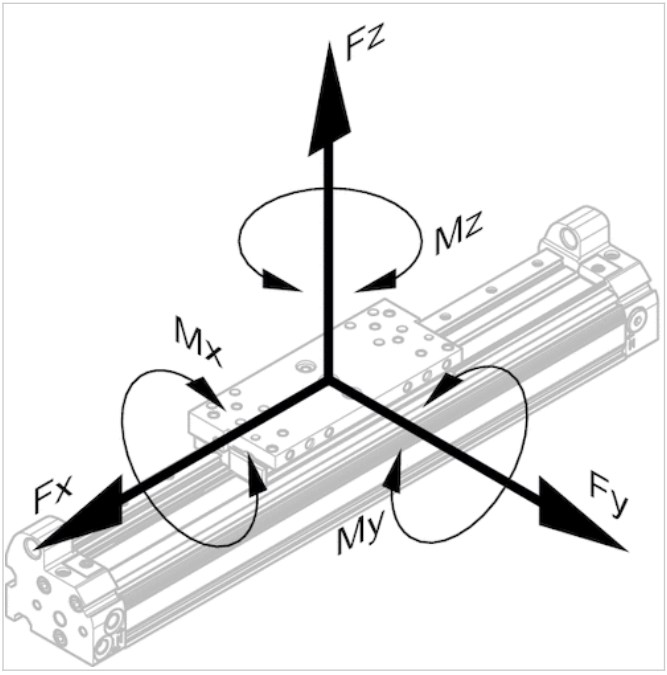
Piston Ø	α	β	Lx	Ly	Lz
16 mm	0,1°	0,2°	328	328	328
25 mm	0,1°	0,2°	424	424	424
32 mm	0,1°	0,2°	480	480	480
40 mm	0,1°	0,2°	532	532	532

Dimensions

Permissible forces Fx Fy Fz and torques Mx My Mz

$$\frac{Mx}{Mx_{max.}} + \frac{My}{My_{max.}} + \frac{Mz}{Mz_{max.}} \leq 1$$

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.



dynamic

Piston Ø	Mx [Nm]	My [Nm]	Mz [Nm]
16 mm	4	30	30
25 mm	10	78	78
32 mm	22	158	110
40 mm	36	284	109

UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

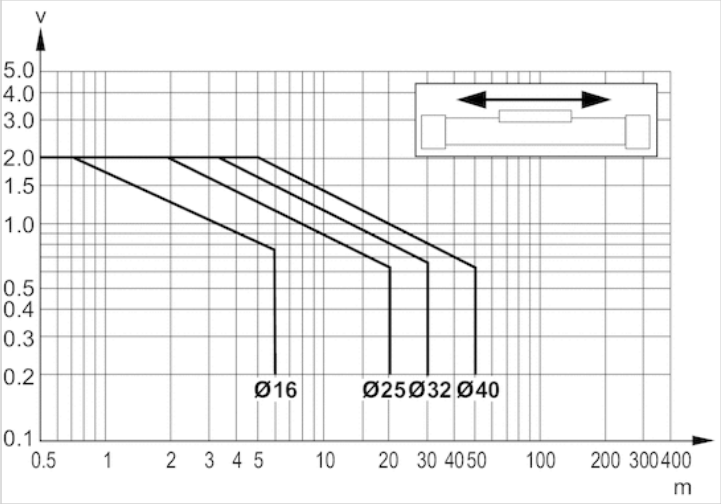
European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

static

Piston Ø	Fx [N]	Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]
16 mm	744	744	744	4	30	30
25 mm	1456	1456	1456	10	78	78
32 mm	1840	1840	2646	22	158	110
40 mm	1640	1640	4284	36	284	109

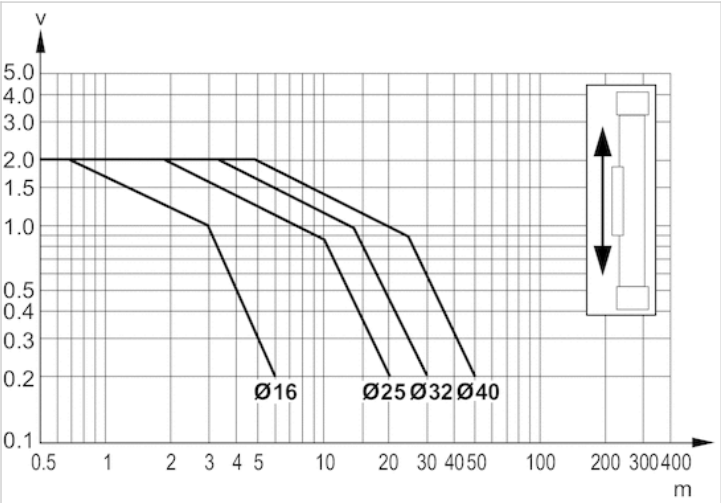
Diagrams

Limit diagram for pneumatic cushioning with horizontal mounting



v = Piston velocity [m/s]m = Cushionable mass [kg]
The values for the cushionable mass m and piston velocity v must be on or below the graph for the selected piston diameter.

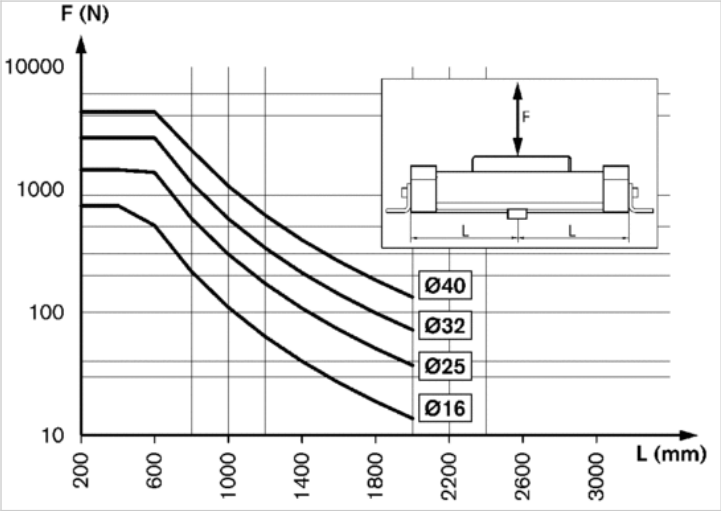
Limit diagram for pneumatic cushioning with vertical mounting



UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

Support span



Max. support span L [mm] as a function of F [N] at a deflection of 0.5 mm