

Series BCC



AVENTICS™

**AVENTICS Series BCC Bellow
actuators**


EMERSON™

Series BCC

The AVENTICS Series BCC cylinders are bellow cylinders with removable mounting parts. Users have the option of replacing the rubber bellows themselves. Mounting via internal thread or threaded bolt.

- Bellows actuators with removable connectors
- Permit high forces in small installation space
- Enables angular movements and axial offset

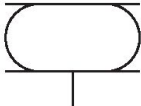


Product overview

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Series BCC

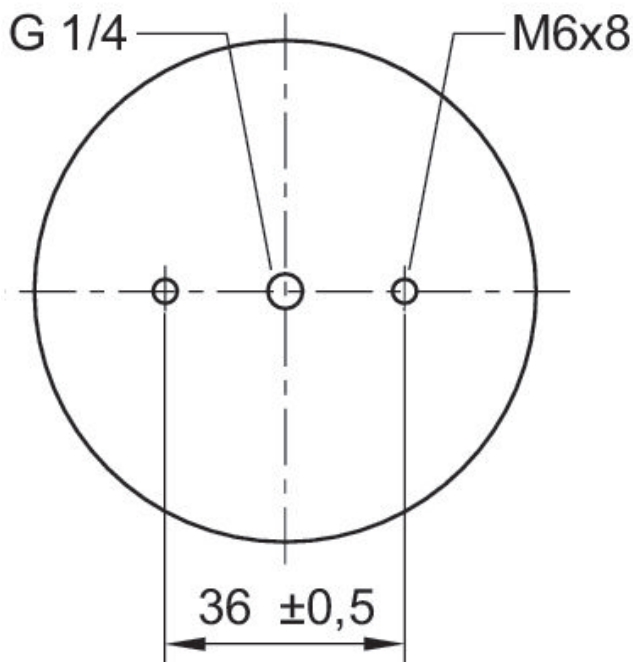
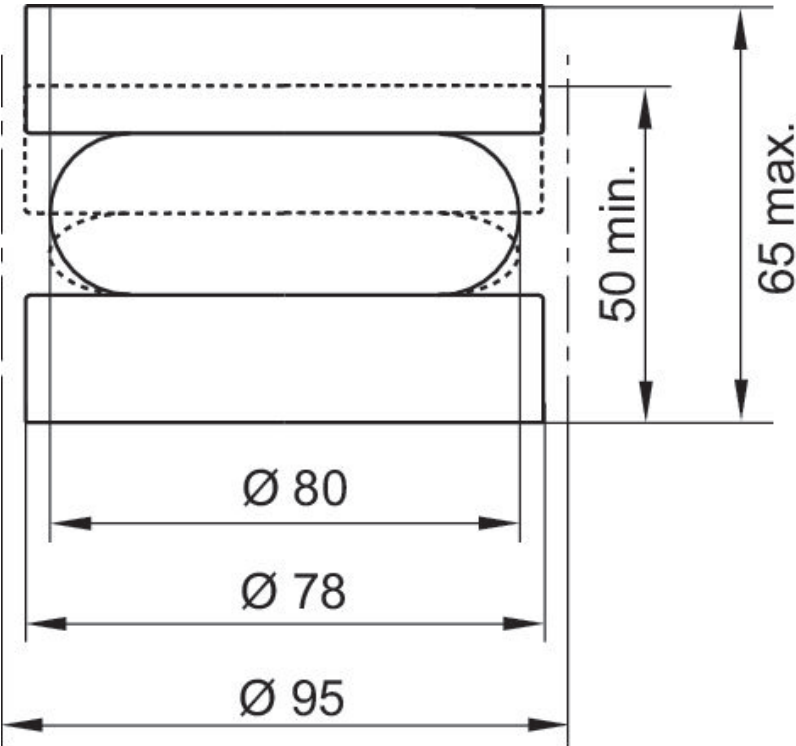
: single
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 20 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



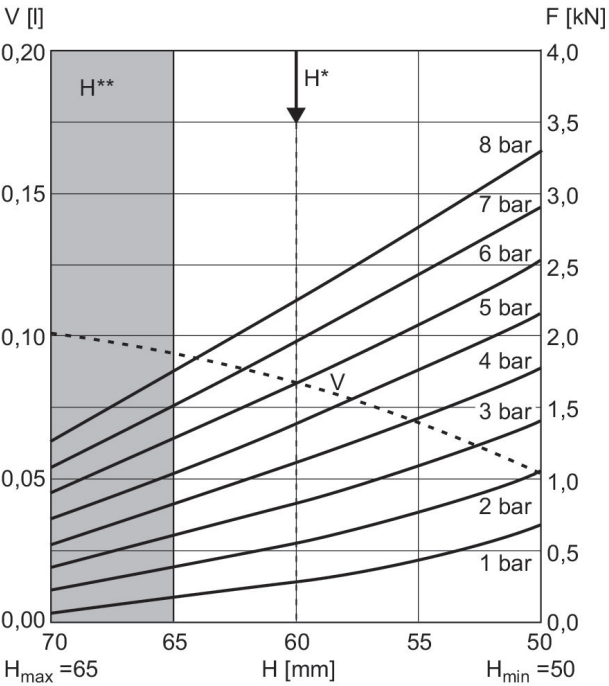
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
78	G 1/4	15	95	2 3/4x1	Chloroprene rubber	Aluminum	1300, 2600	R412020583

Weight [kg]	Part No.
0.45	R412020583

Dimensions



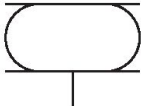
Force-displacement diagram R412020583



V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

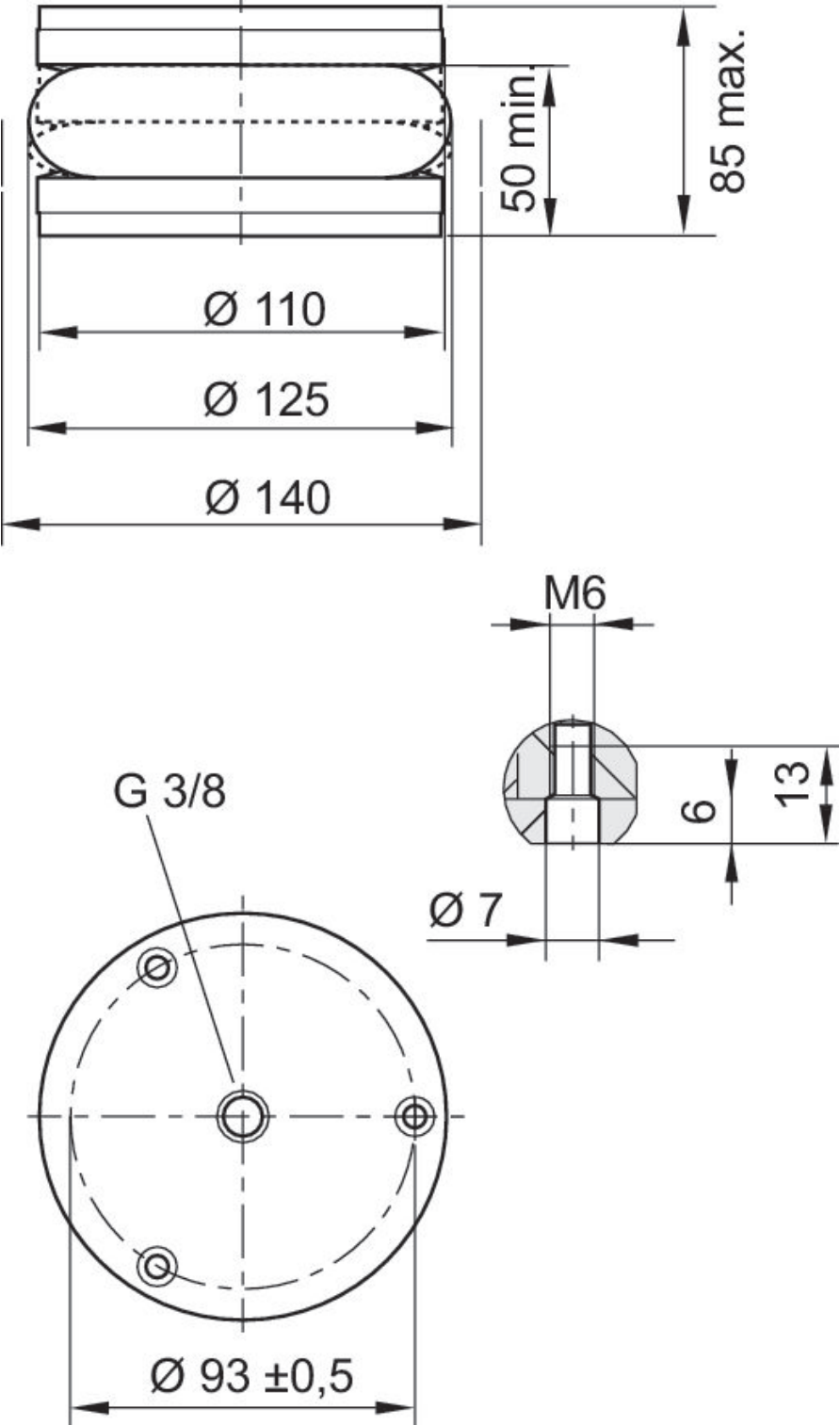
: single
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 20 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



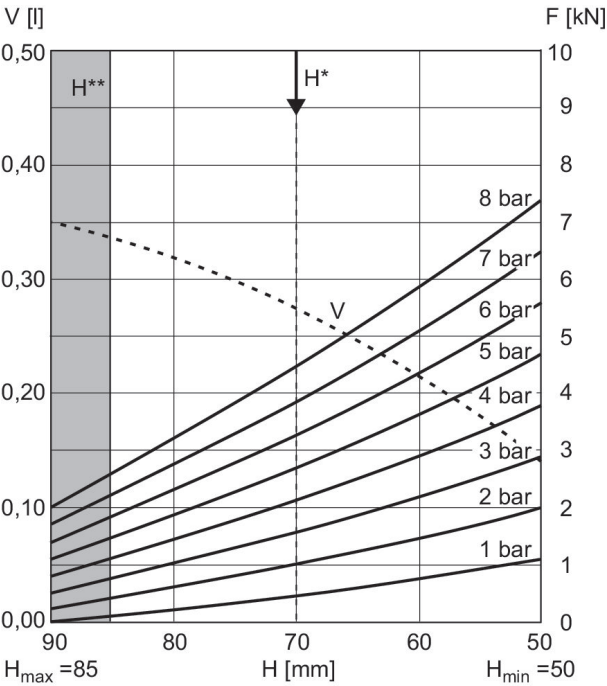
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
110	G 3/8	35	140	4 1/2x1	Chloroprene rubber	Aluminum	1900, 5600	R412020584

Weight [kg]	Part No.
0.7	R412020584

Dimensions



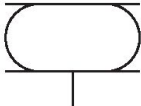
Force-displacement diagram R412020584



V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

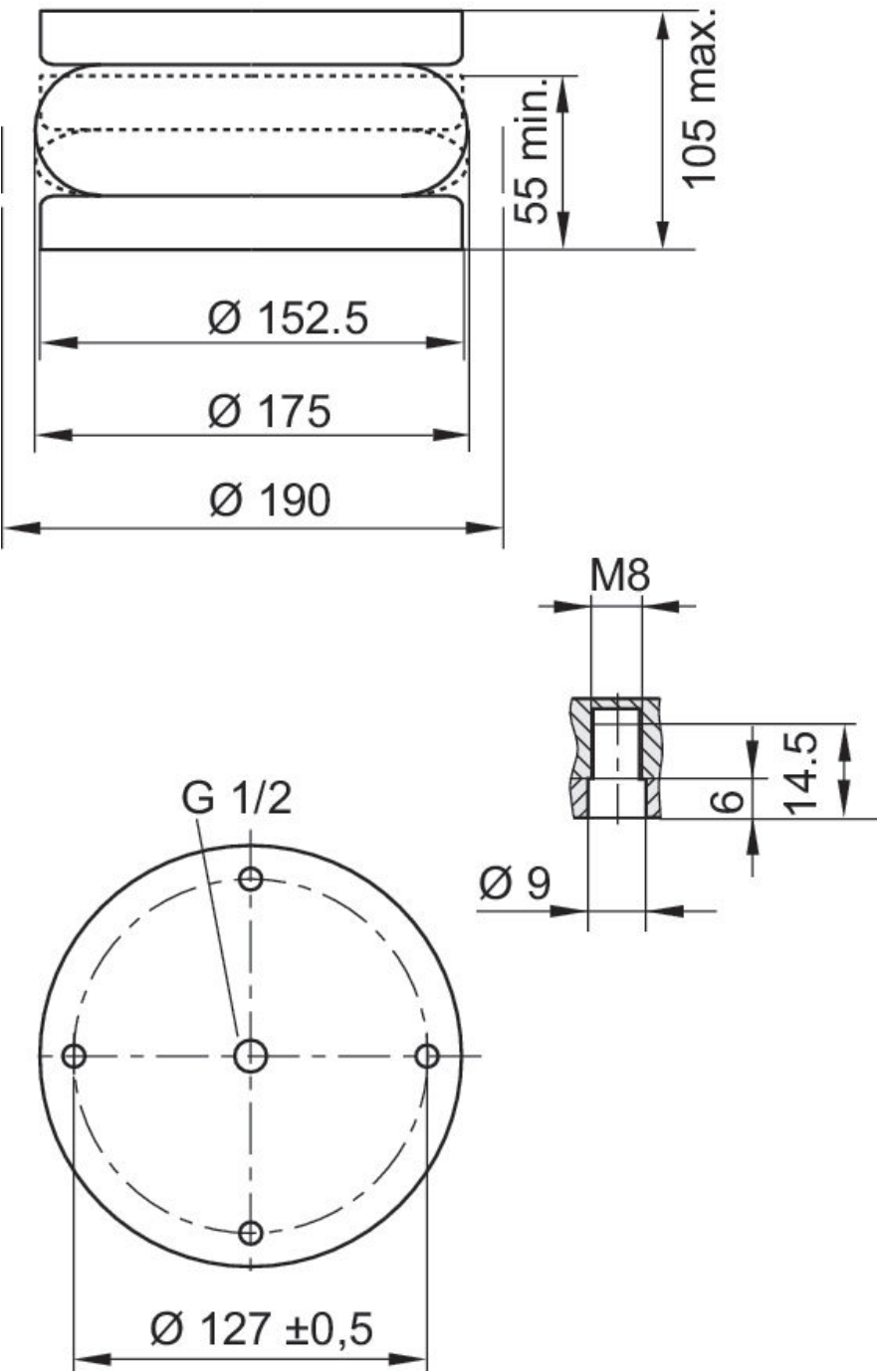
: single
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 20 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



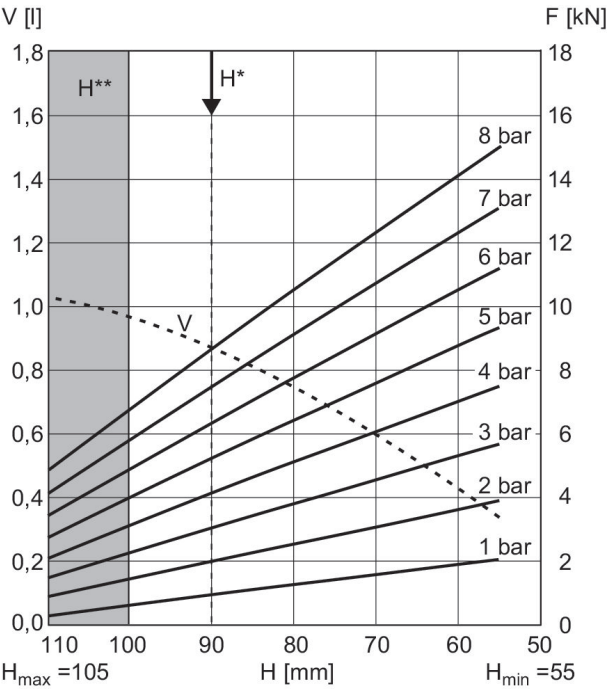
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
152.5	G 1/2	50	190	6x1	Chloroprene rubber	Aluminum	4900, 11900	R414000177

Weight [kg]	Part No.
1.6	R414000177

Dimensions



Force-displacement diagram R414000177



V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

: single

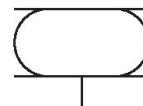
Type: Bellow actuator with mounting ring and cover

Functional principle: Single-acting, retracted without pressure

Max. permissible angle of tilt: 20 °

Ambient temperature min./max.: -40 °C ... 70 °C

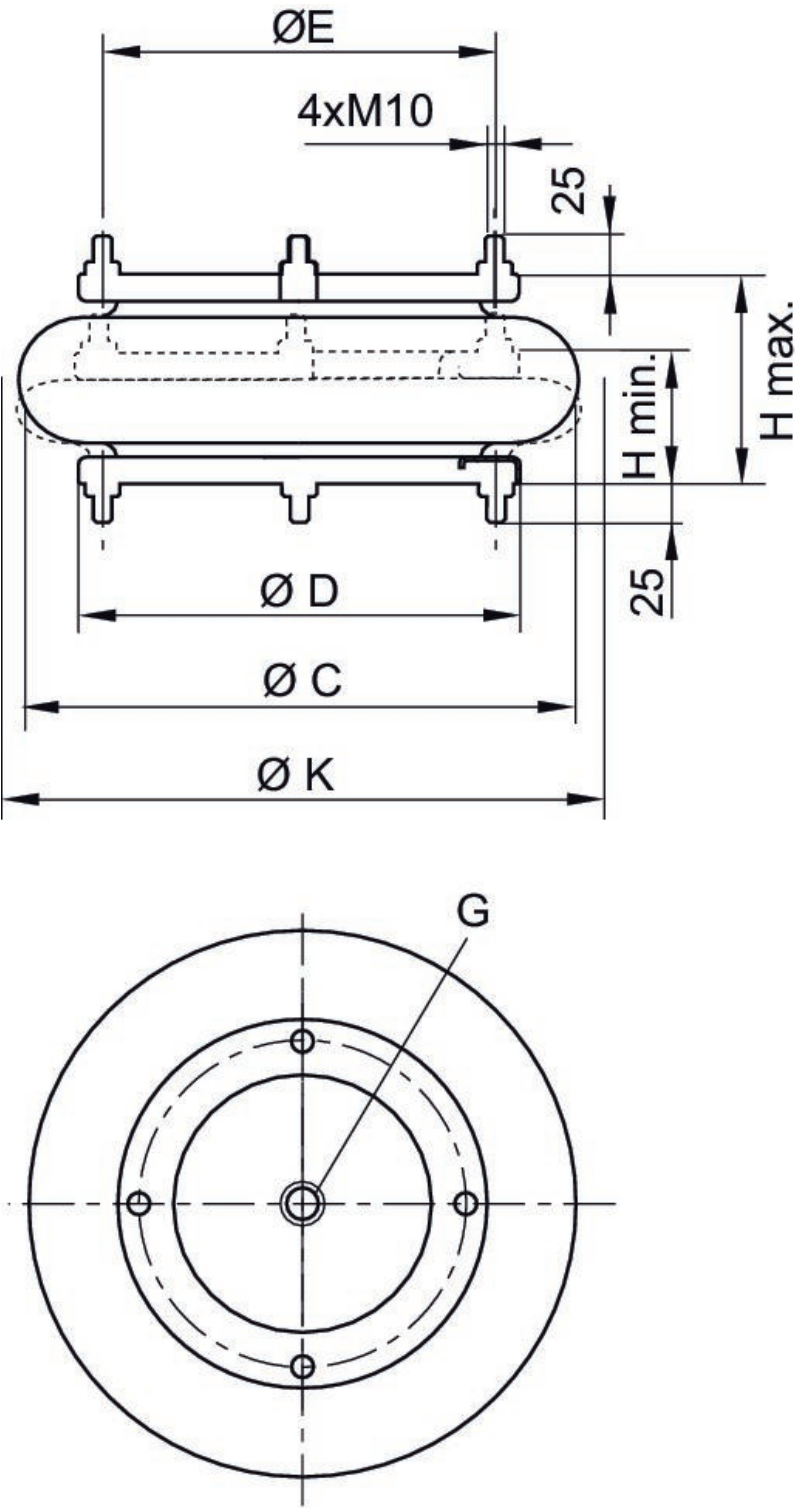
Working pressure min./max.: 0 bar ... 8 bar



Cover diameter [mm]	Compressed air connection	Max. effective stroke [mm]	Min. radial installation space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
153.5	G 1/2	45	190	6x1	Chloroprene rubber	Steel, chrome-plated	4900, 11200	R412020585
184	G 1/2	65	245	8x1	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	8000, 18000	R412020586
210	G 1/2	85	300	10x1	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	12000, 25500	R412020587
260	G 1/2	85	350	12x1	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	18000, 38000	R412020588
310	G 1/2	100	425	14 1/2x1	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	28000, 58000	R412020589
310	G 1/2	125	445	16x1	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	38000, 61000	R412020590

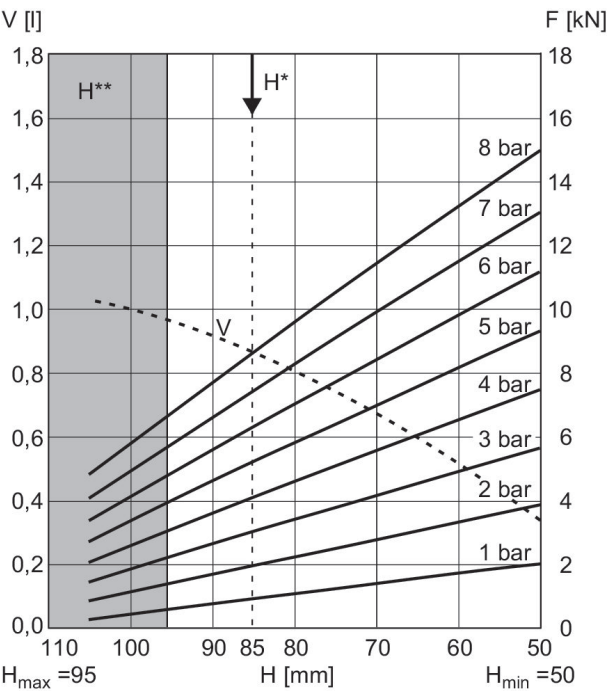
Weight [kg]	Part No.
2.5	R412020585
3.1	R412020586
4.1	R412020587
5.4	R412020588
7.1	R412020589
7.6	R412020590

Dimensions



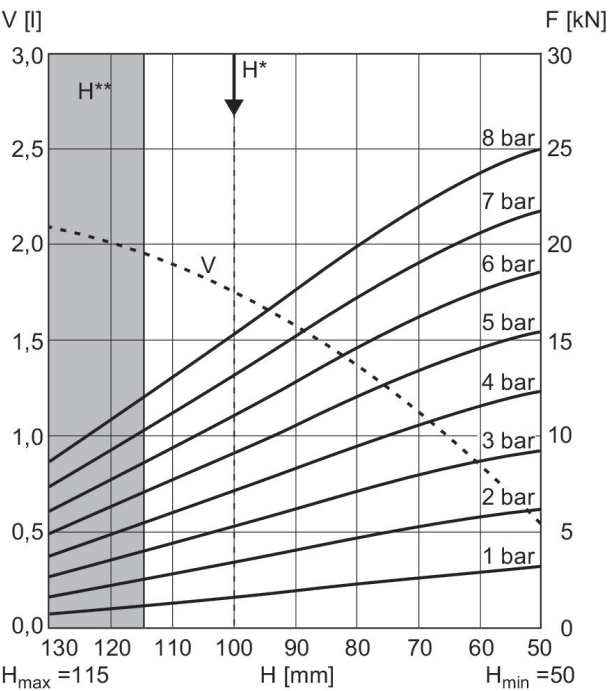
Part No.	Compressed air connection G	H min.	H max.	C	D	E	K	Min. return force
R412020585	G 1/2	50	95	175	153,5	127	190	320
R412020586	G 1/2	50	115	230	184	155.5	245	290
R412020587	G 1/2	50	135	270	210	181	300	150
R412020588	G 1/2	50	135	330	260	232	350	200
R412020589	G 1/2	50	150	400	310	282.5	425	230
R412020590	G 1/2	50	175	420	310	282.5	445	30

Force-displacement diagram R412020585



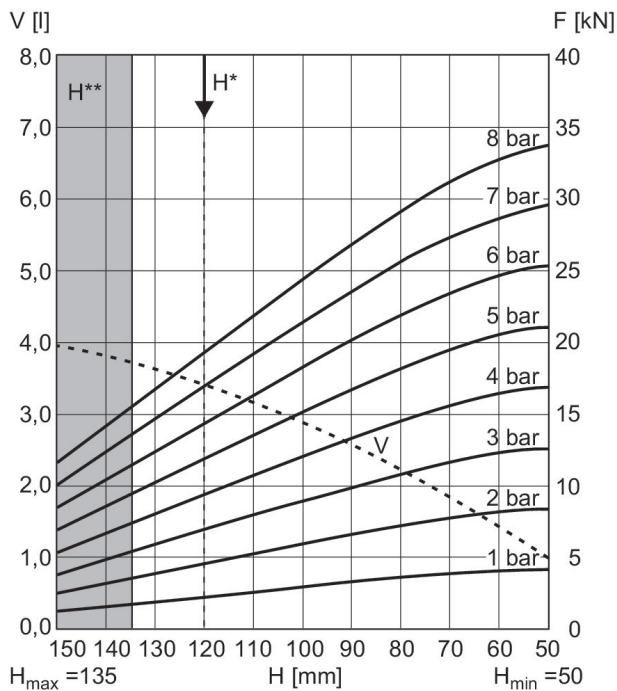
V = volume H = height H* = recommended operating height for vibration isolation H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram R412020586



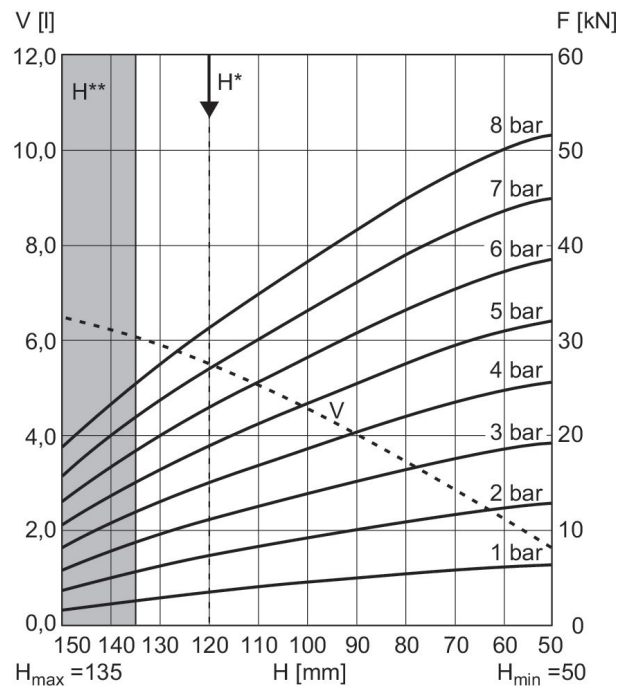
V = volume H = height H* = recommended operating height for vibration isolation H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram R412020587



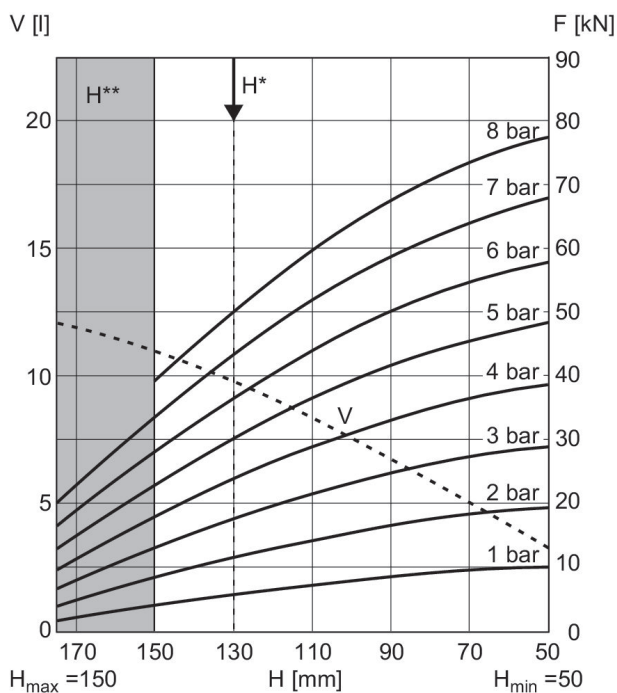
V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram R412020588



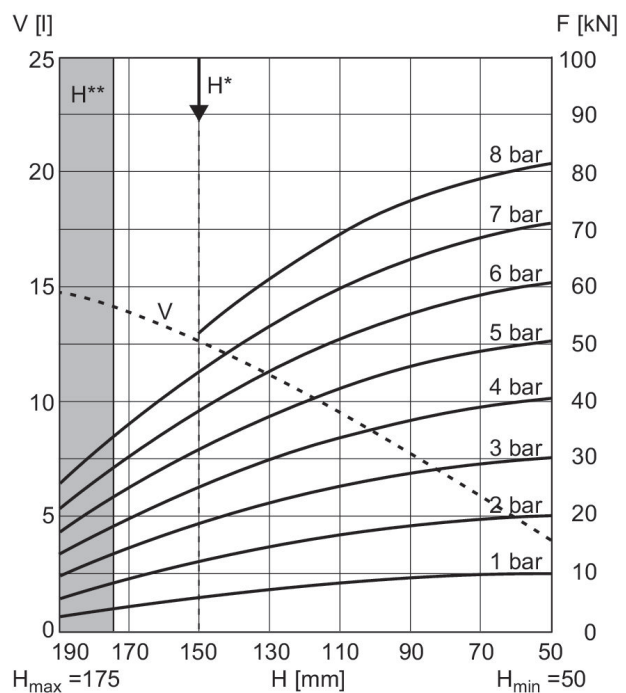
V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram R412020589



V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

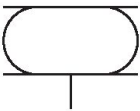
Force-displacement diagram R412020590



V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

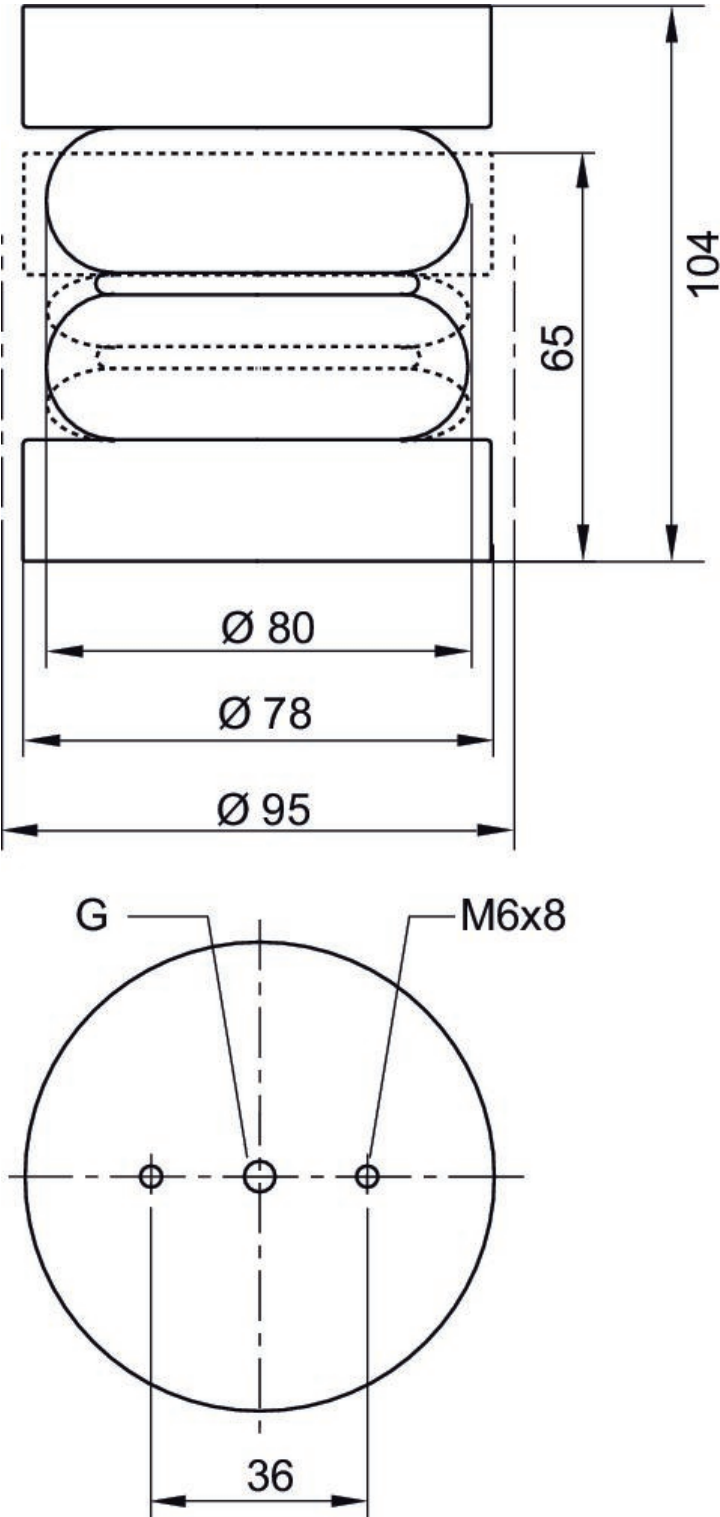
: double
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 25 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



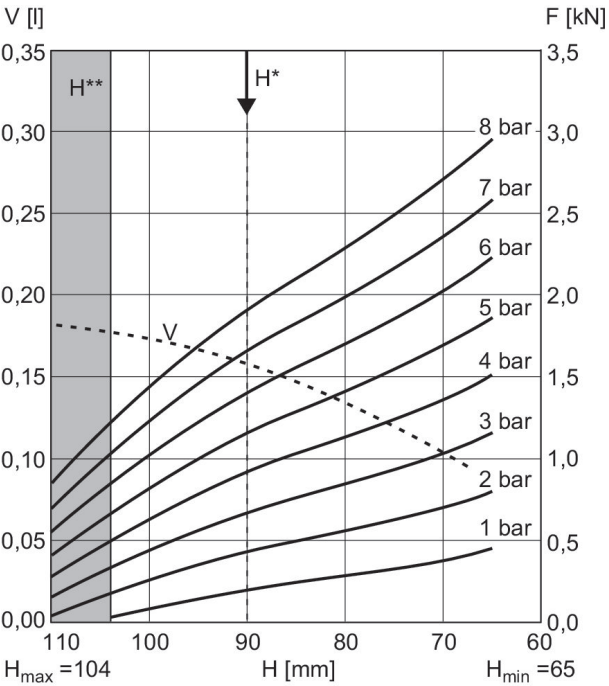
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
78	G 1/4	39	95	2 3/4x2	Chloroprene rubber	Aluminum	800, 2200	R412020591

Weight [kg]	Part No.
0.5	R412020591

Dimensions



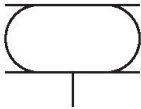
Force-displacement diagram R412020591



V = volume H = height H* = recommended operating height for vibration isolation H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

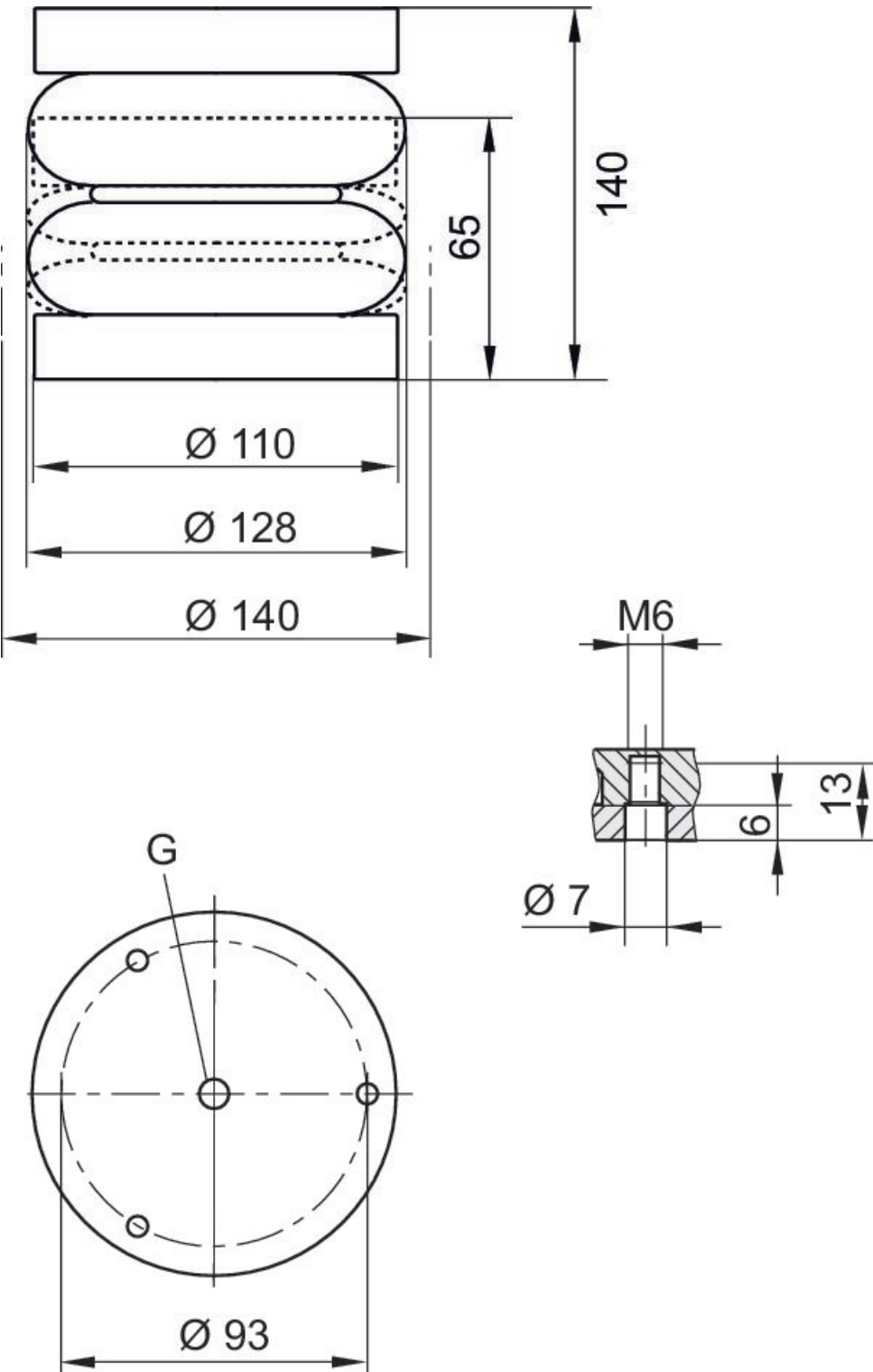
: double
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 25 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



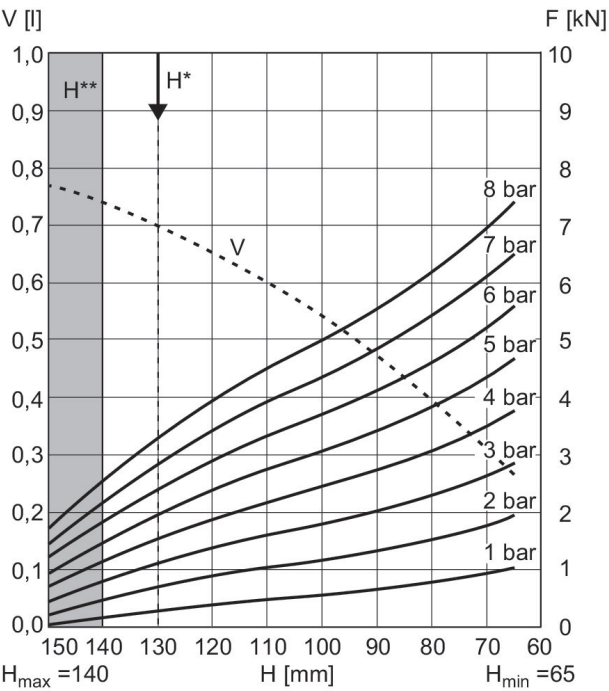
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
110	G 3/8	75	140	4 1/2x2	Chloroprene rubber	Aluminum	2400, 5700	R414000188

Weight [kg]	Part No.
1	R414000188

Dimensions



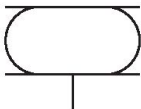
Force-displacement diagram R414000188



V = volume H = height H^* = recommended operating height for vibration isolation H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

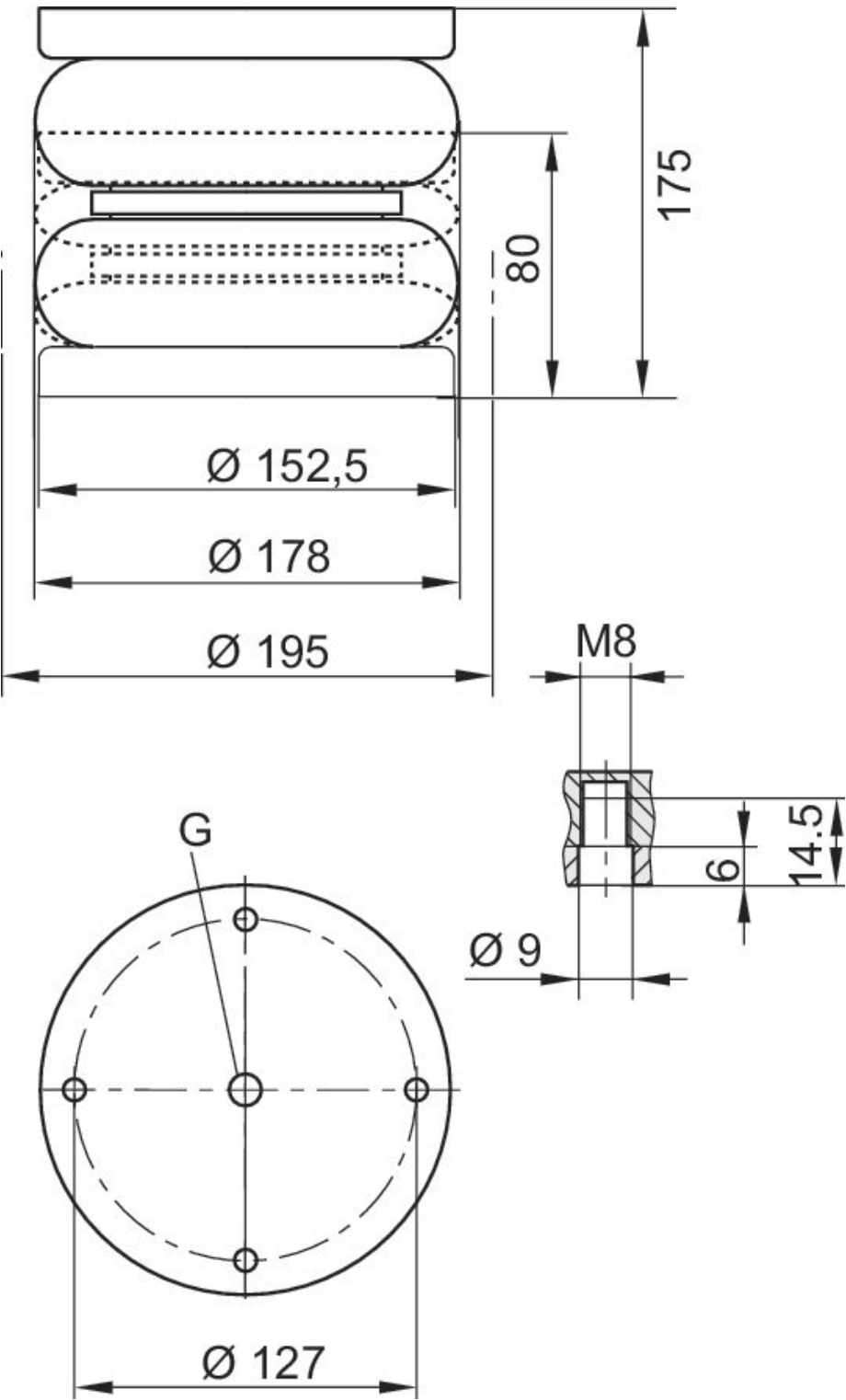
: double
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 25 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



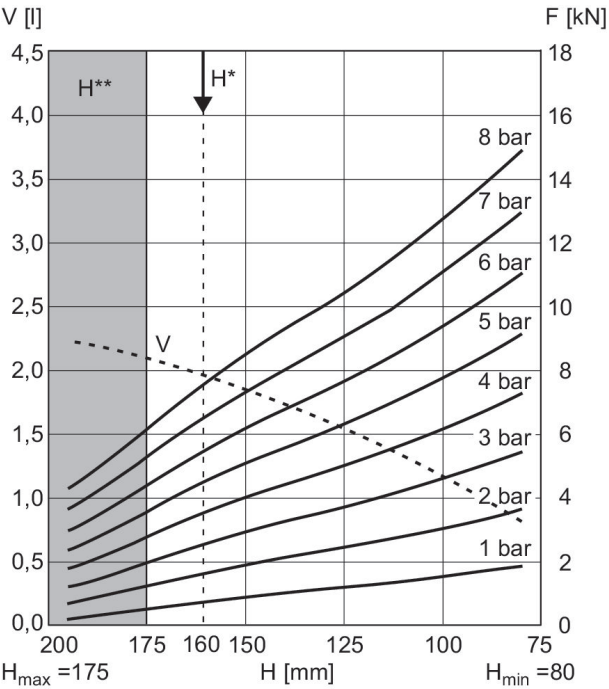
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
152.5	G 1/2	95	195	6x2	Chloroprene rubber	Aluminum	4200, 11000	3999791030

Weight [kg]	Part No.
1.8	3999791030

Dimensions



Force-displacement diagram 3999791030



V = volume H = height H* = recommended operating height for vibration isolation H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

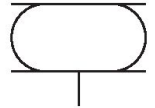
: double

Type: Bellow actuator with mounting ring and cover

Functional principle: Single-acting, retracted without pressure

Max. permissible angle of tilt: 25 °

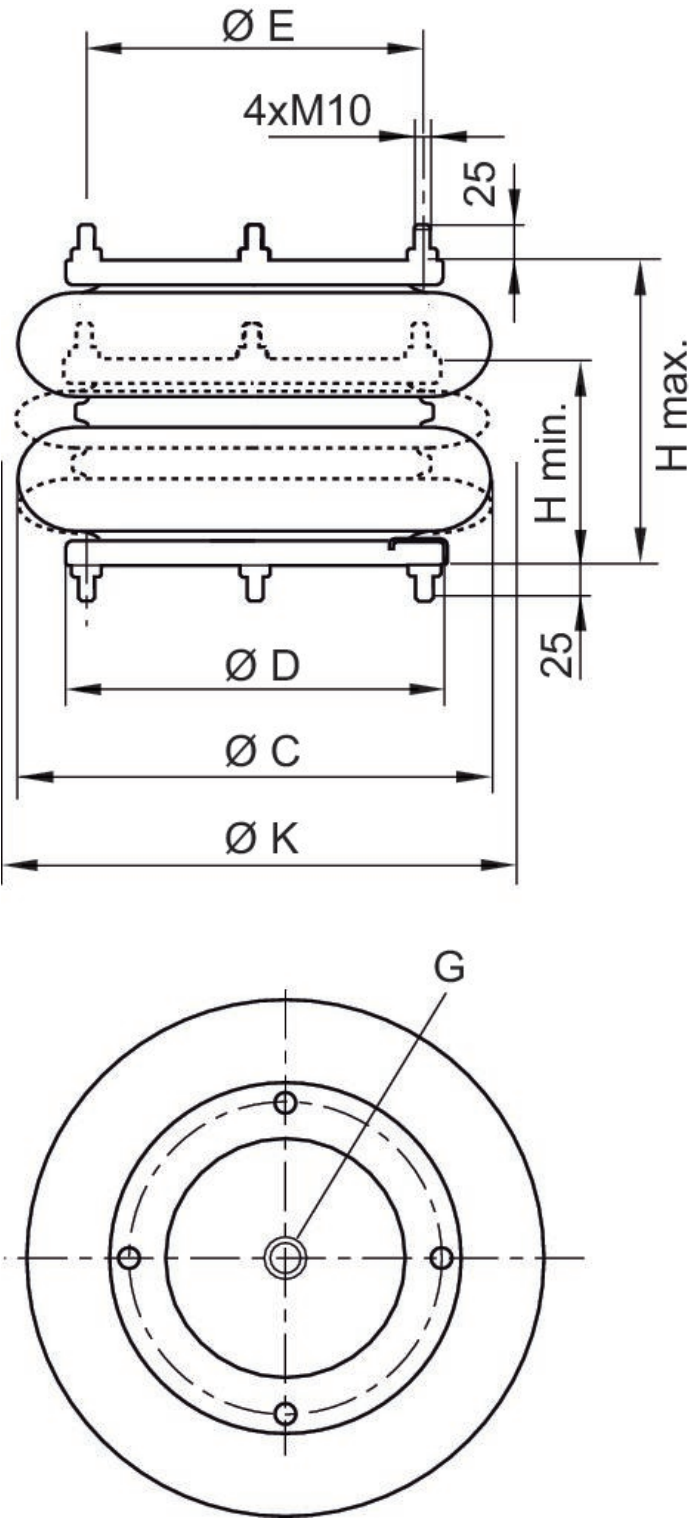
Working pressure min./max.: 0 bar ... 8 bar



Cover diameter [mm]	Compressed air connection	Max. effective stroke [mm]	Min. radial installation space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
153.5	G 1/2	95	195	6x2	Chloroprene rubber	Steel, chrome-plated	4800, 10800	R412020592
184	G 1/2	145	245	8x2	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	6500, 18000	R412020593
210	G 1/2	170	300	10x2	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	12000, 26000	R412020594
260	G 1/2	170	350	12x2	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	20000, 39500	R412020595
310	G 1/2	215	425	14 1/2x2	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	29000, 59500	R412020596
310	G 1/2	275	460	16x2	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	36000, 62500	R412020597

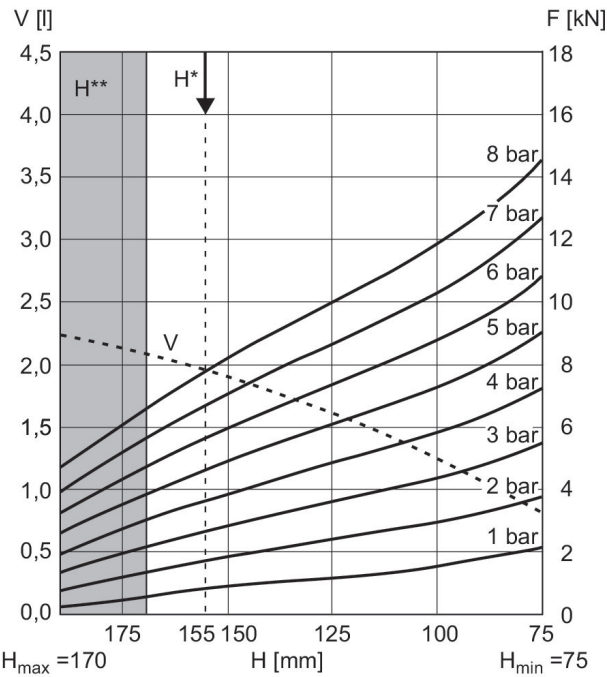
Weight [kg]	Part No.
2.6	R412020592
3.5	R412020593
4.7	R412020594
6.6	R412020595
8.3	R412020596
8.8	R412020597

Dimensions



Part No.	Compressed air connection	H min. mm	H max. mm	C mm	D mm	E	K mm	Min. return force N
R412020592	G 1/2	75	170	178	153,5	127	195	180
R412020593	G 1/2	75	220	230	184	155.5	245	300
R412020594	G 1/2	75	245	270	210	270	300	220
R412020595	G 1/2	75	245	330	260	232	350	250
R412020596	G 1/2	75	290	400	310	282.5	425	280
R412020597	G 1/2	75	350	435	310	282.5	460	250

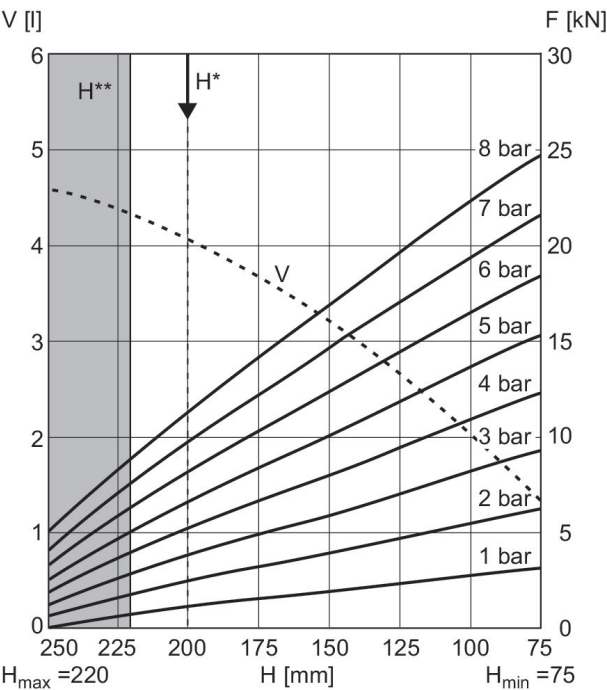
Force-displacement diagram R412020592



V = volume H = height H* = recommended operating height for vibration isolation H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

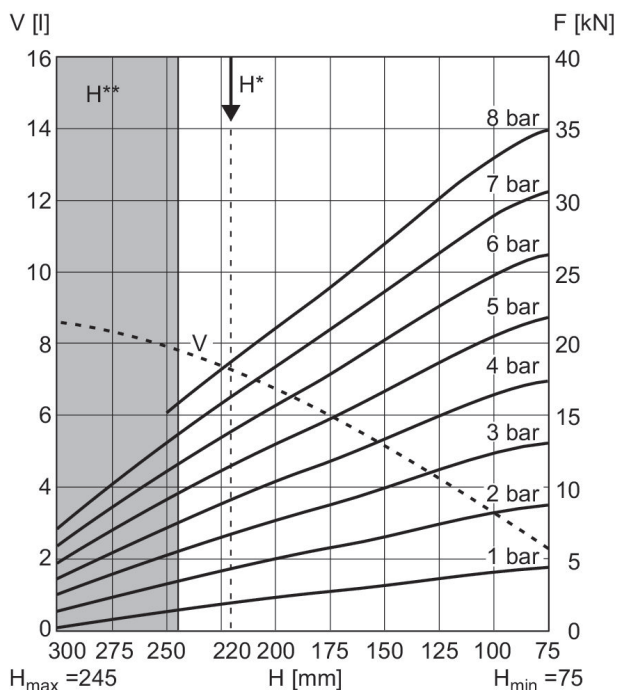
Force-displacement diagram R432039308

R412020593

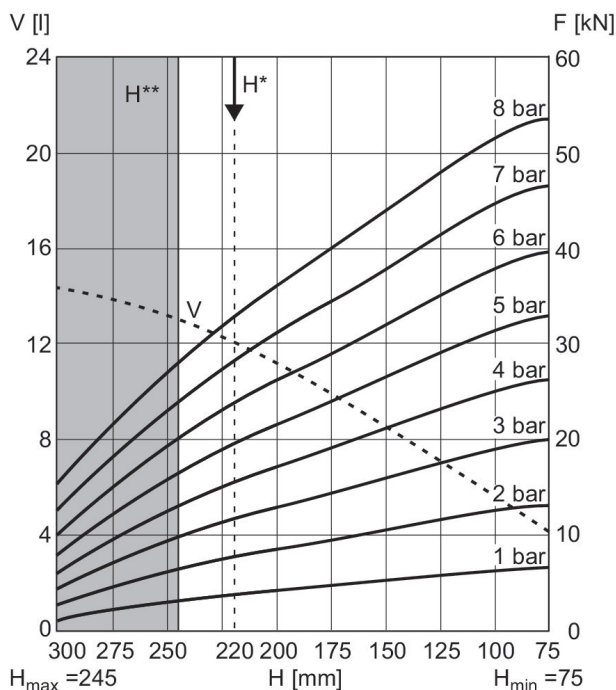


V = volume H = height H* = recommended operating height for vibration isolation H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

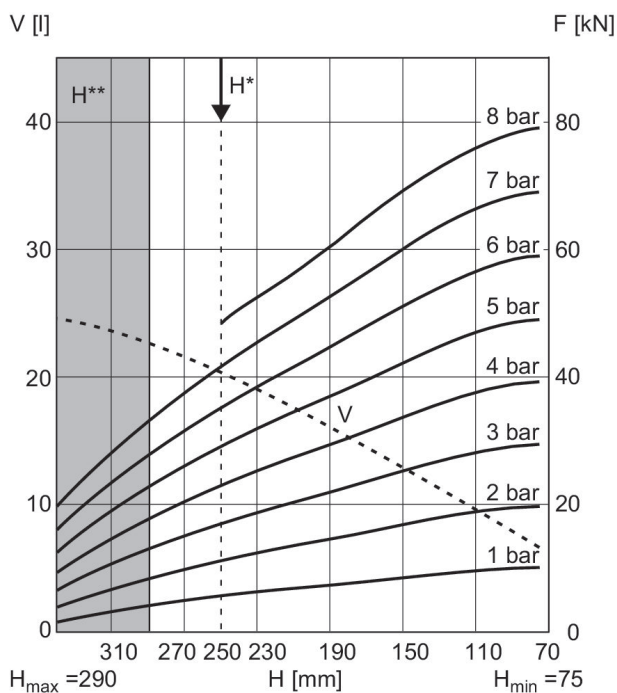
Force-displacement diagram R412020594



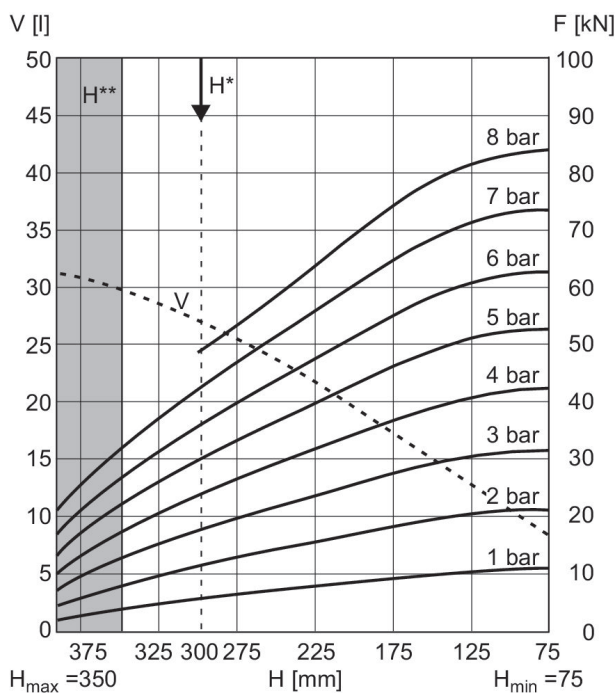
Force-displacement diagram R412020595



Force-displacement diagram R412020596

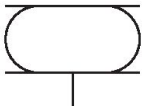


Force-displacement diagram R412020597



Series BCC

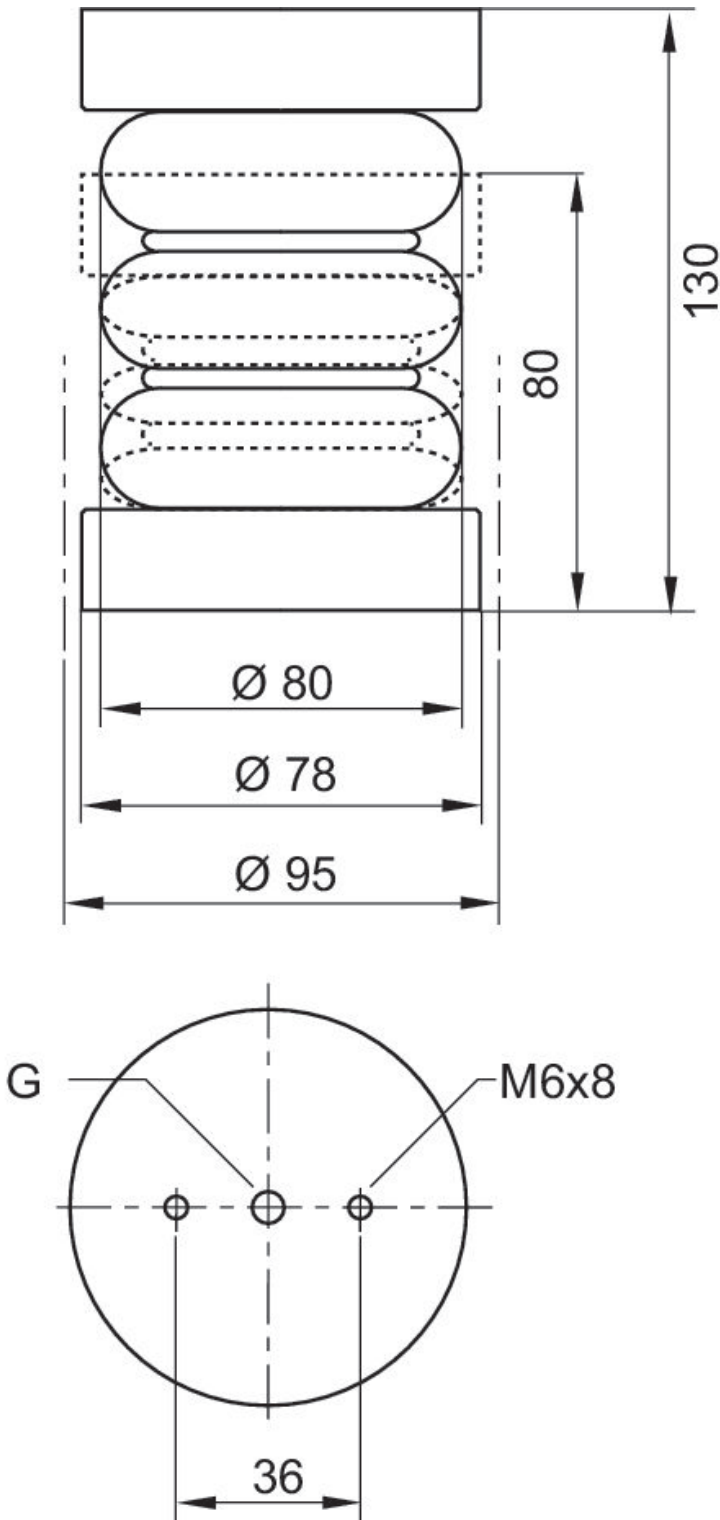
: triple
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 30 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



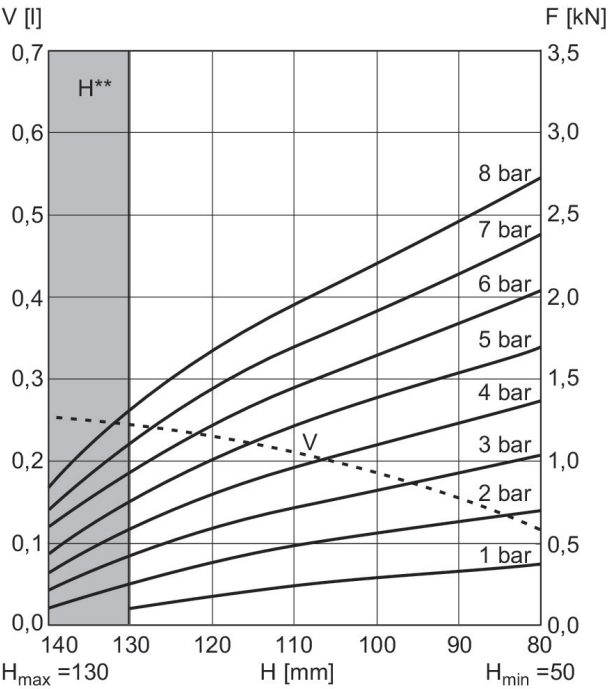
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
78	G 1/4	50	95	2 3/4x3	Chloroprene rubber	Aluminum	900, 2050	R412020598

Weight [kg]	Part No.
0.55	R412020598

Dimensions



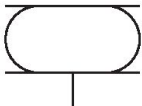
Force-displacement diagram R412020598



V = volume H = height H**= use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

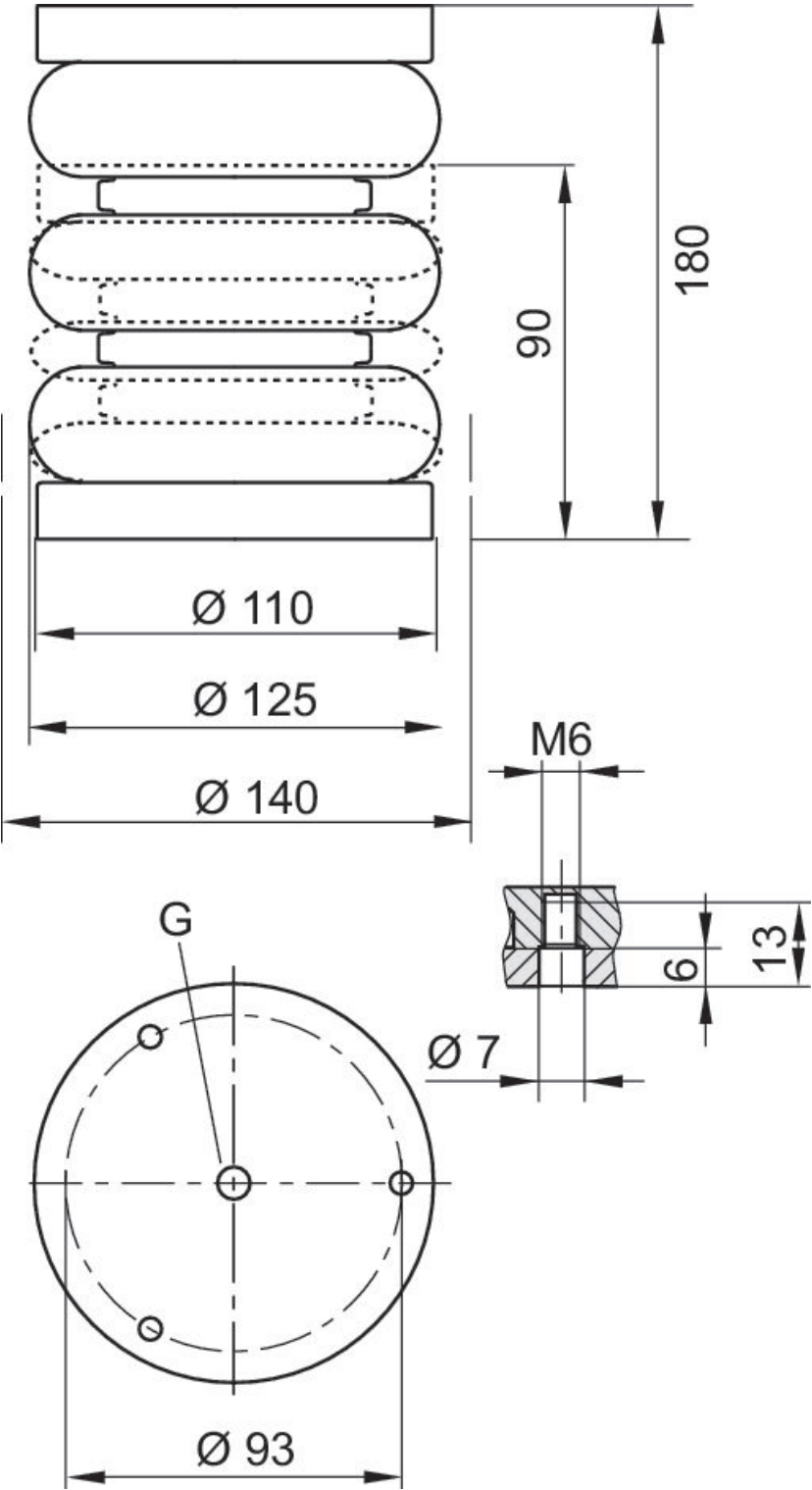
: triple
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 30 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



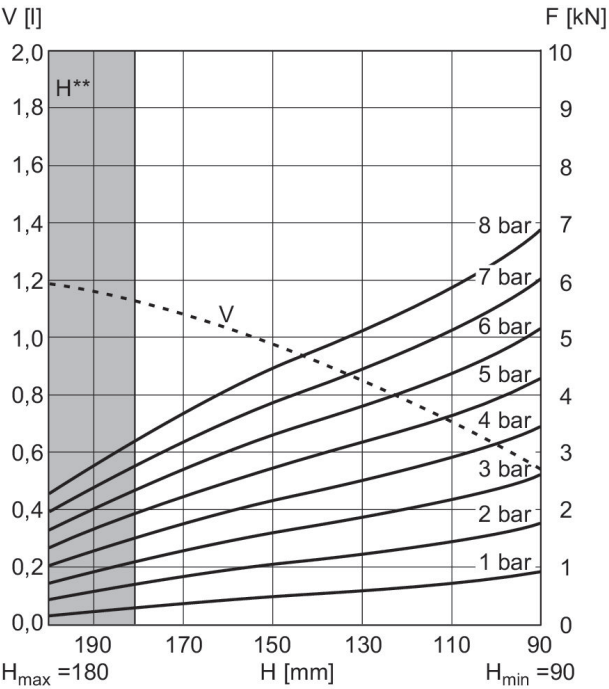
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
110	G 3/8	90	140	4 1/2x3	Chloroprene rubber	Aluminum	2400, 5100	R412020599

Weight [kg]	Part No.
1.1	R412020599

Dimensions



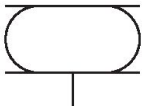
Force-displacement diagram R412020599



V = volume H = height H^{**} = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

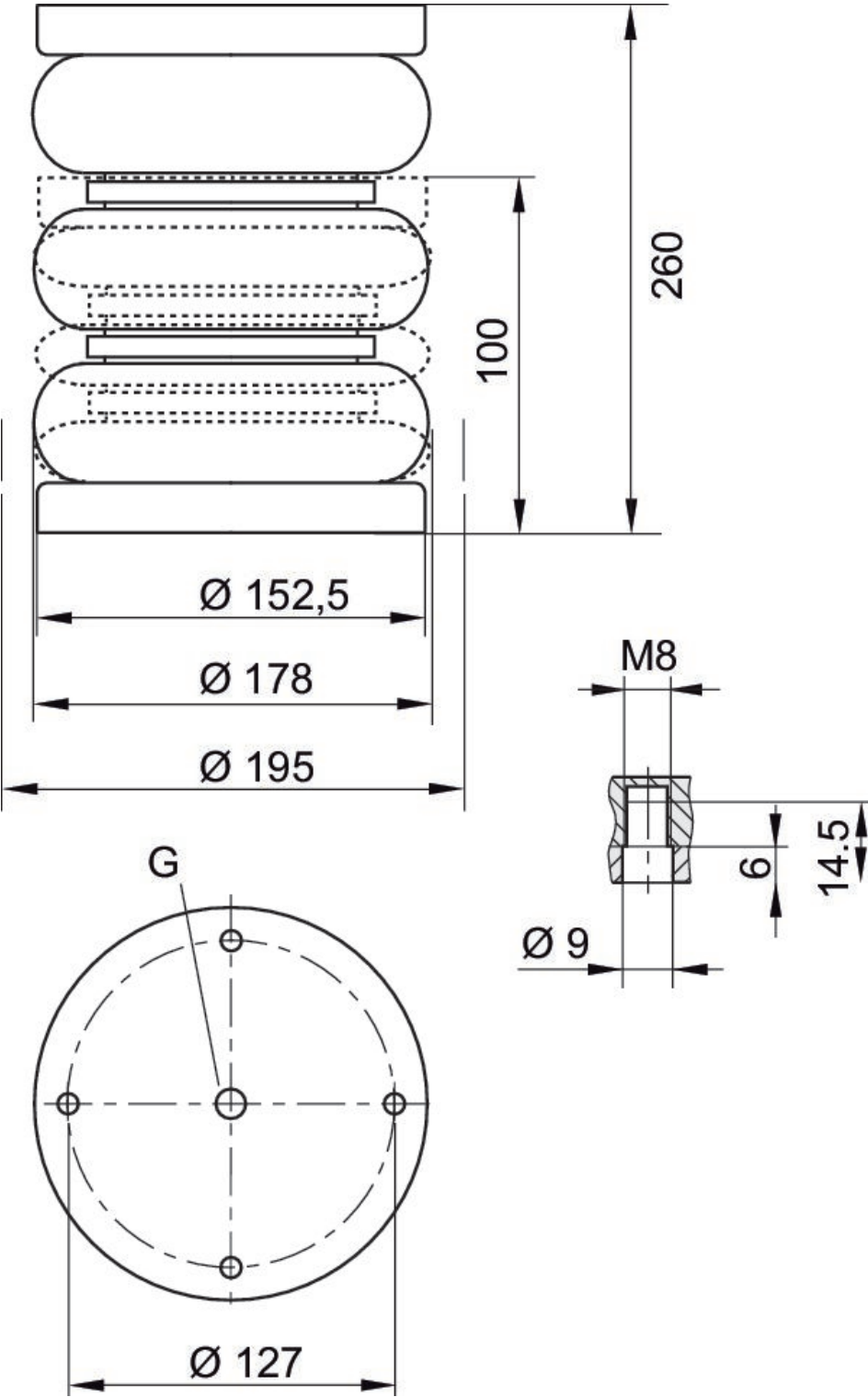
: triple
Type: Bellow actuator with mounting ring and cover
Functional principle: Single-acting, retracted without pressure
Max. permissible angle of tilt: 30 °
Ambient temperature min./max.: -30 °C ... 90 °C
Working pressure min./max.: 0 bar ... 8 bar



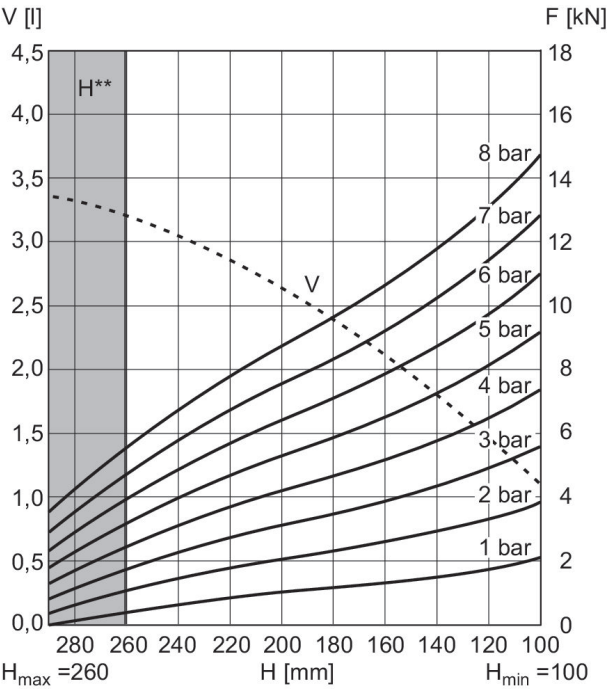
Cover di- ameter [mm]	Compressed air con- nection	Max. effec- tive stroke [mm]	Min. radi- al installa- tion space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
152.5	G 1/2	160	195	6x3	Chloroprene rubber	Aluminum	4000, 11000	R412019469

Weight [kg]	Part No.
2	R412019469

Dimensions



Force-displacement diagram R412019469



V = volume H = height H**= use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCC

: triple

Type: Bellow actuator with mounting ring and cover

Functional principle: Single-acting, retracted without pressure

Max. permissible angle of tilt: 30 °

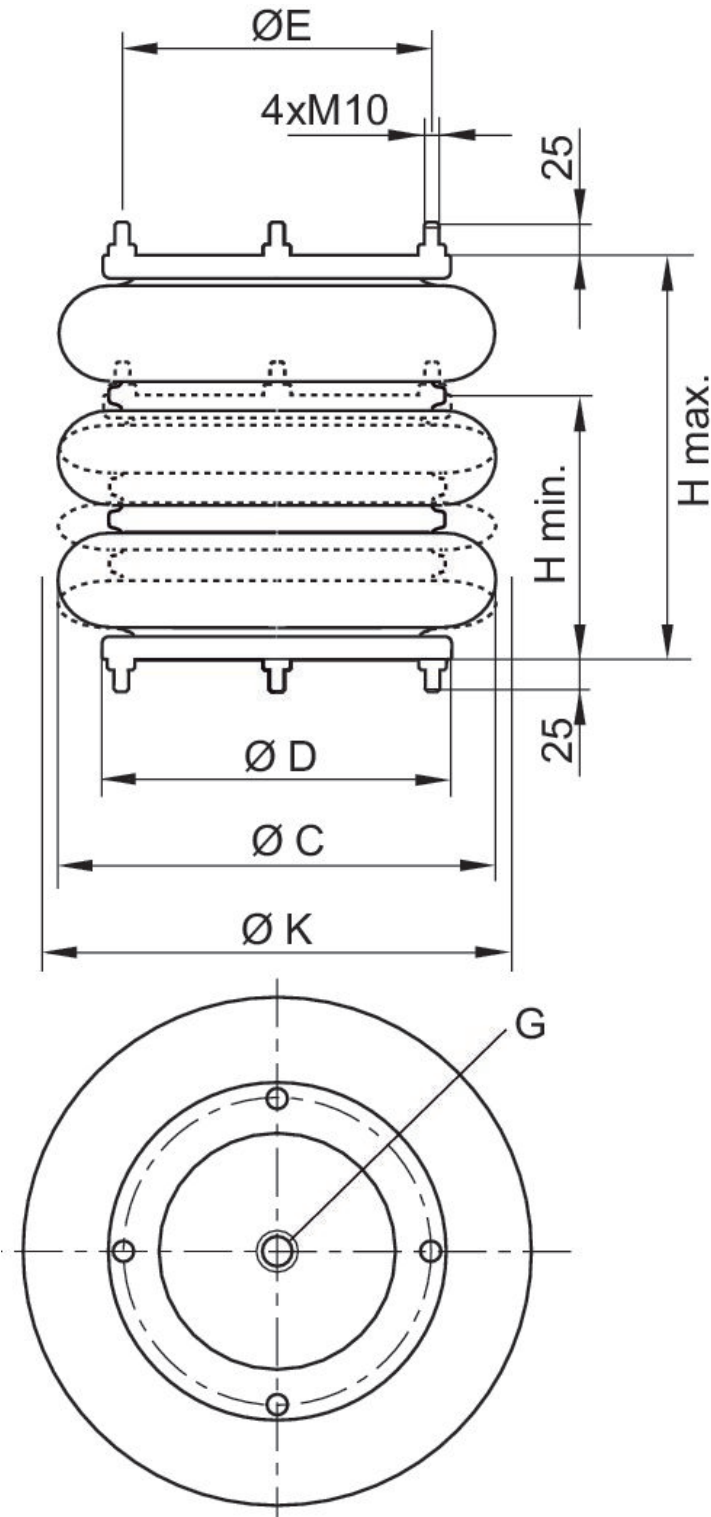
Working pressure min./max.: 0 bar ... 8 bar



Cover diameter [mm]	Compressed air connection	Max. effective stroke [mm]	Min. radial installation space [mm]	Feature	Material bellow	Material front cover	Force min./max. [N]	Part No.
153.5	G 1/2	160	195	6x3	Chloroprene rubber	Steel, chrome-plated	3900, 11000	R412020600
184	G 1/2	205	245	8x3	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	7500, 18000	R412020601
210	G 1/2	250	300	10x3	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	12000, 26000	R412000012
260	G 1/2	250	350	12x3	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	21000, 41000	R412020602
310	G 1/2	320	425	14 1/2x3	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	25000, 59000	R412020603
310	G 1/2	355	455	16x3	caoutchouc/butadiene caoutchouc	Steel, chrome-plated	31000, 63000	R412020604

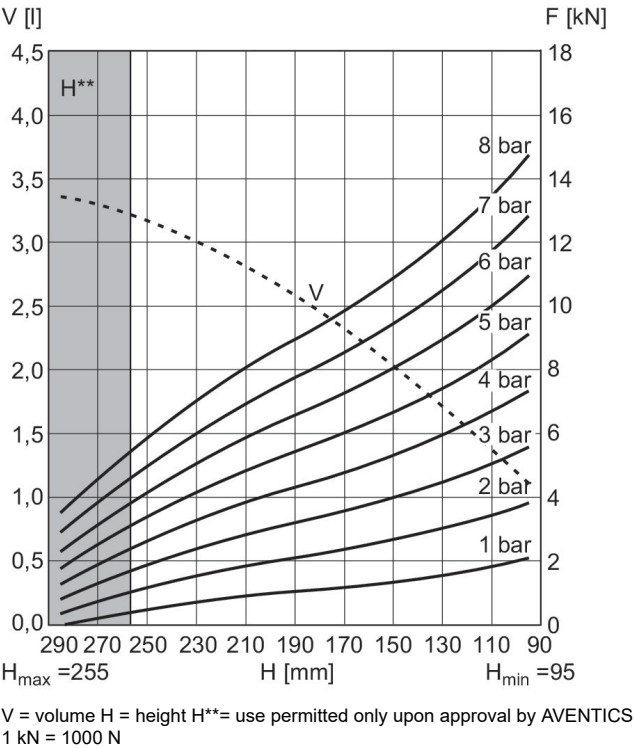
Weight [kg]	Part No.
2.8	R412020600
4.2	R412020601
5.2	R412000012
6.9	R412020602
9.6	R412020603
10.4	R412020604

Dimensions

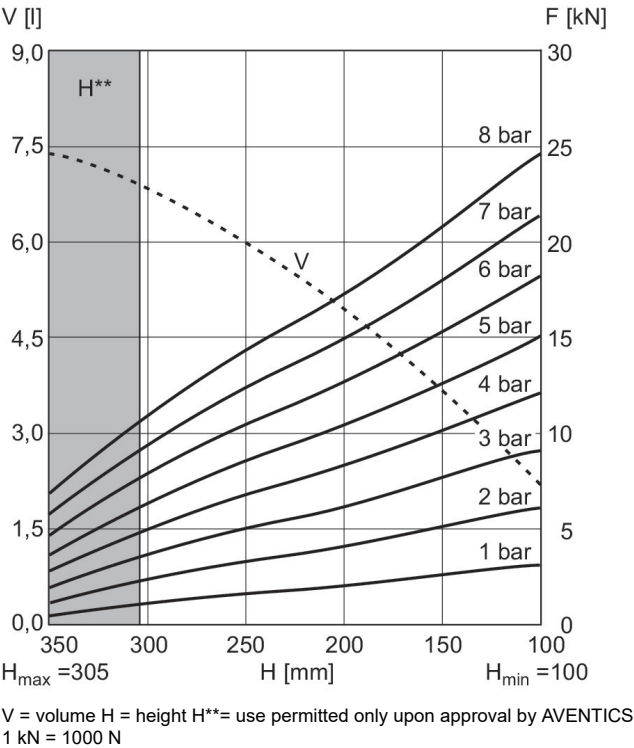


Part No.	Compressed air connection G	H min. mm	H max. mm	C mm	D mm	E mm	K mm	Min. return force N
R412020600	G 1/2	95	255	178	153,5	127	195	250
R412020601	G 1/2	100	305	230	184	155.5	245	350
R412000012	G 1/2	100	350	270	210	181	300	250
R412020602	G 1/2	100	350	330	260	232	350	250
R412020603	G 1/2	100	420	400	310	282.5	425	330
R412020604	G 1/2	120	475	430	310	282.5	455	100

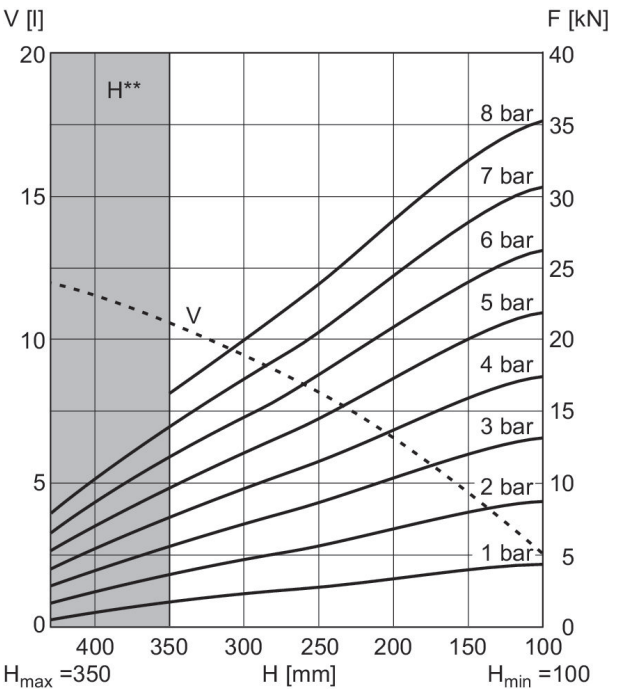
Force-displacement diagram R412020600



Force-displacement diagram R412020601

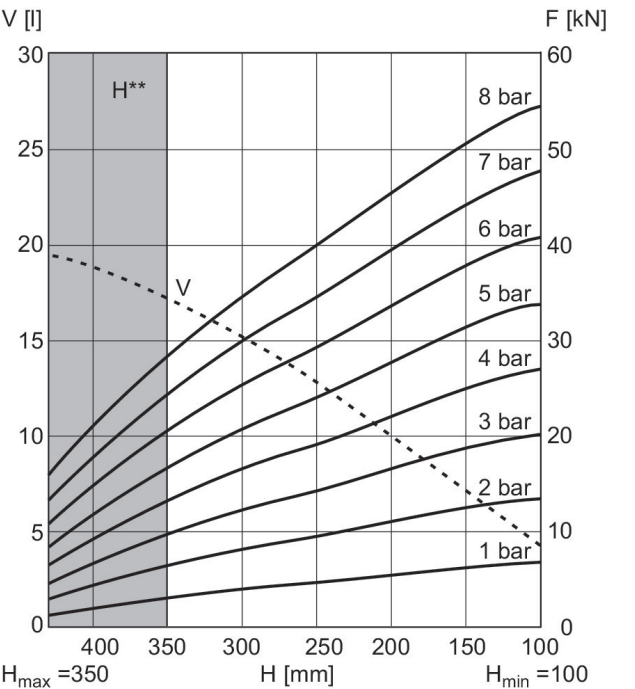


Force-displacement diagram R412000012



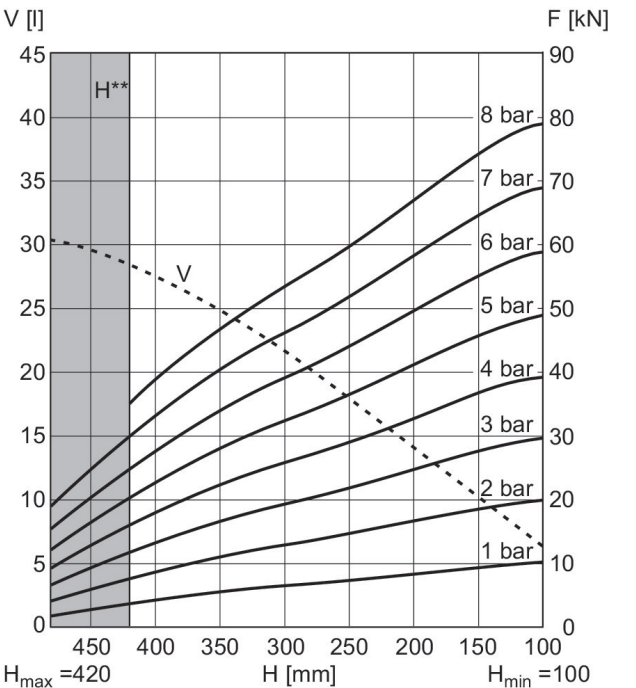
V = volume H = height H**= use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram R412020602



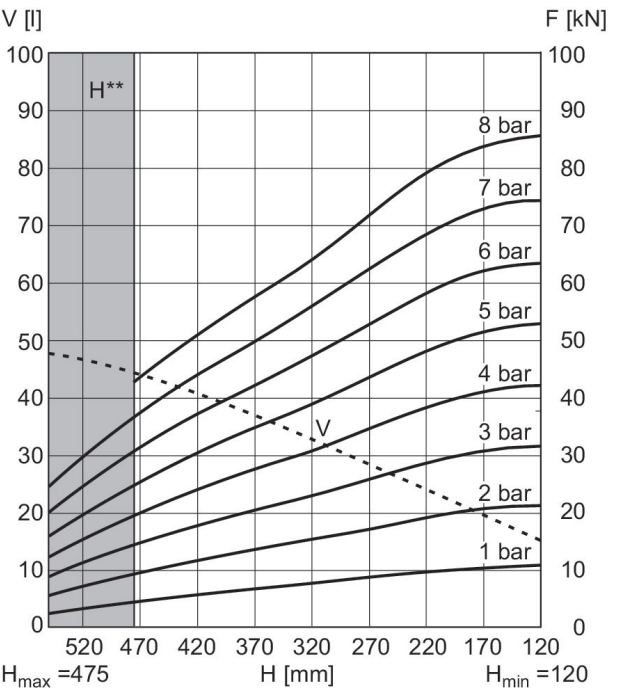
V = volume H = height H**= use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram R412020603



V = volume H = height H**= use permitted only upon approval by AVENTICS
1 kN = 1000 N

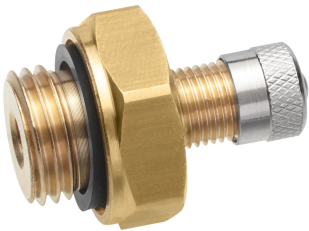
Force-displacement diagram R412020604



V = volume H = height H**= use permitted only upon approval by AVENTICS
1 kN = 1000 N

Filler neck

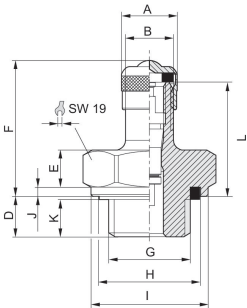
Ambient temperature min./max.: -50 °C ... 130 °C
Working pressure min./max.: 0 bar ... 20 bar



G	Part No.
G 1/4	3900040040
1/4 - 18 NPTF	R412010046

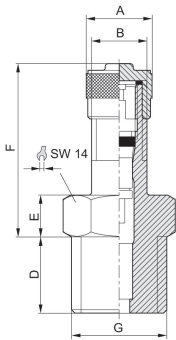
3900040040

Dimensions



R412010046

Dimensions



Efficient pneumatic solutions, our program:
cylinders and drives, valves and valve systems,
air supply management, proportional pressure
control valves



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