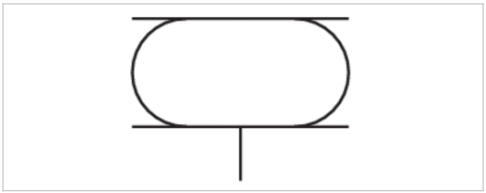
Series BRB

AVENTICS™ Series BRB

EMERSON.

Rolling bellow, series BRB

- Stroke 26-100 mm



Version	Flexible rolling bellow
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	See table below
Ambient temperature min./max.	-30 ... 90 °C
Medium	Compressed air
Permissible angle of tilt max.	15 °
Pressure for determining forces	6 bar
Weight	See table below

Technical data

Part No.	Cover diameter	Compressed air connection	Max. effective stroke
		G	
2719060300	34 mm	G 1/8	26 mm
1909041000	61 mm	G 1/8	37 mm
2999300100	61 mm	G 1/8	62 mm
0822419120	76.5 mm	G 3/8	100 mm
0822419121	86.5 mm	G 3/8	95 mm
0822419122	106.5 mm	G 3/8	85 mm
0822419123	126.5 mm	G 3/8	85 mm
0822419124	147.9 mm	G 3/8	90 mm

Part No.	Min. radial installation space	Working pressure min./max.	Material	Force min./max.
			clamping ring	
2719060300	78 mm	0 ... 8 bar	Aluminum	620 ... 1070 N
1909041000	100 mm	0 ... 8 bar	Steel	1840 ... 2250 N
2999300100	100 mm	0 ... 8 bar	Steel	1610 ... 2300 N
0822419120	100 mm	0.9 ... 8 bar	Steel	1710 ... 1700 N
0822419121	115 mm	0.9 ... 8 bar	Steel	2410 ... 2460 N
0822419122	140 mm	0.9 ... 8 bar	Steel	4260 ... 4220 N
0822419123	170 mm	0.9 ... 8 bar	Steel	5220 ... 5830 N
0822419124	190 mm	0.9 ... 8 bar	Steel	7540 ... 8230 N

Part No.	Weight	Fig.
2719060300	0.07 kg	Fig. 1
1909041000	0.25 kg	Fig. 3
2999300100	0.27 kg	Fig. 3

Part No.	Weight	Fig.
0822419120	0.4 kg	Fig. 2
0822419121	0.5 kg	Fig. 2
0822419122	0.65 kg	Fig. 2
0822419123	0.7 kg	Fig. 2
0822419124	1 kg	Fig. 2

delivery with lock nut M30x1.5

Technical information

Compliance with the minimum height H min. as well as the maximum height H max. must be ensured with end stops.
Use at operating height ≥ Hmax: only permitted upon approval by AVENTICS
Further information on vibration isolation can be found in the “Technical information” document (available in the MediaCentre).
Rolling bellows cylinders may only be moved or pushed together under pressure, otherwise this can damage the bellows.

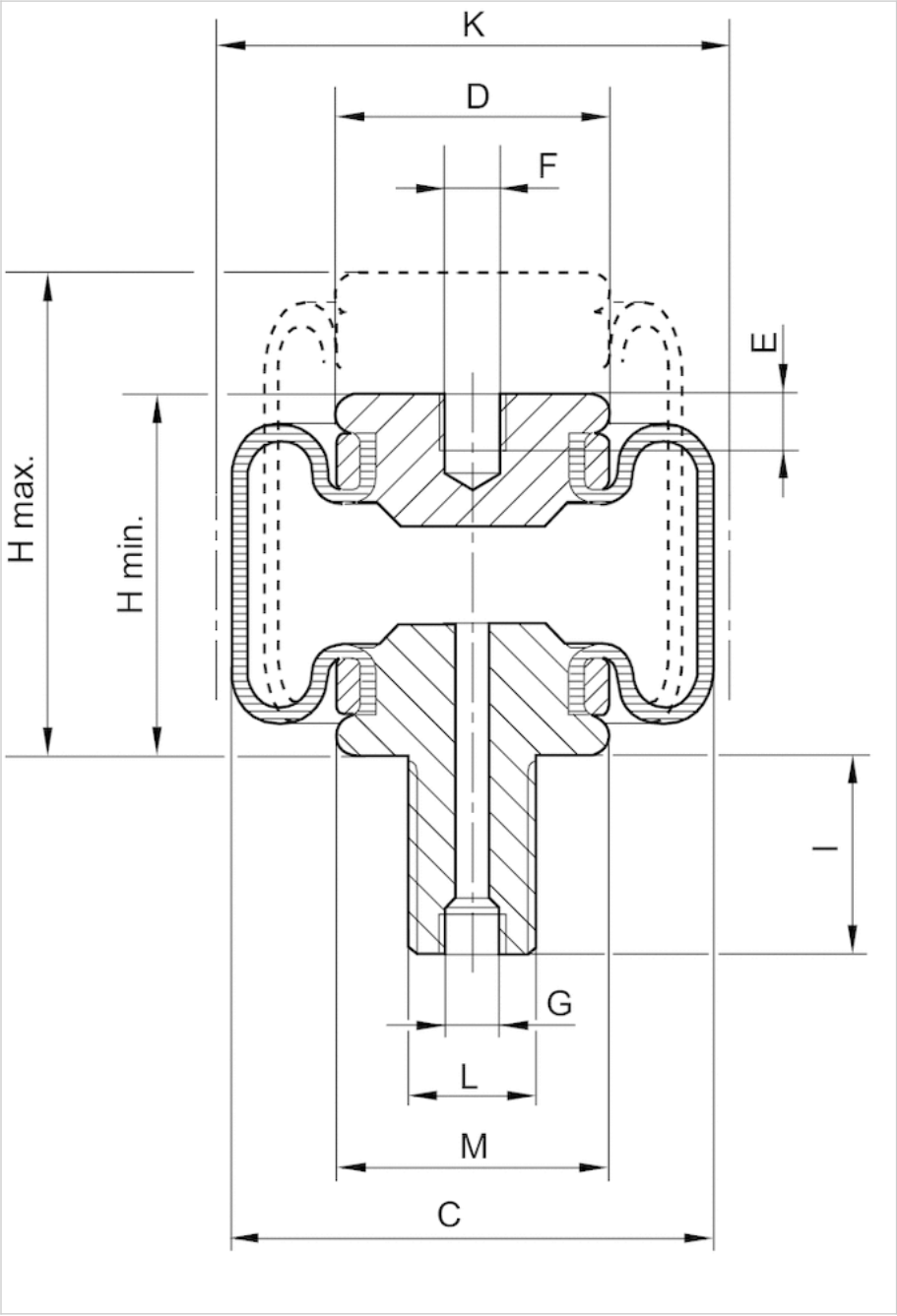
Reduced service life at a temperature greater than 70 °C

Technical information

Material	
Bellow	Chloroprene rubber
Front cover	Polyamide fiber-glass reinforced
End cover	Polyamide fiber-glass reinforced
Piston	Polyamide fiber-glass reinforced
clamping ring	Aluminum Steel

Dimensions

Fig. 1



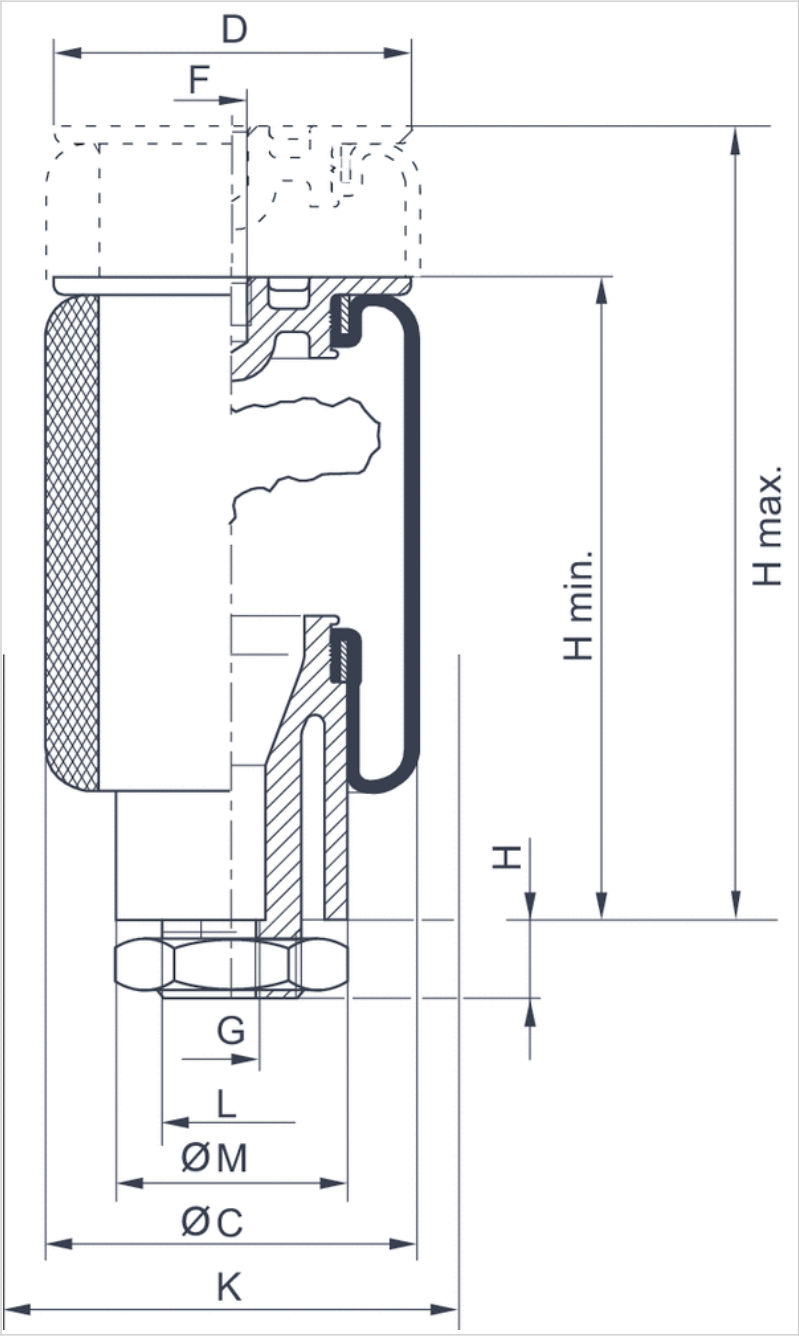
Dimensions

Part No.	Compressed air connection G	H min. mm	H max. mm	C mm	D mm
2719060300	G 1/8	30 mm	56 mm	60 mm	34 mm

E [mm]	F	I [mm]	K mm	L	Ø M [mm]	Return force, min. N
7	M8	25	78 mm	M16	34	46 N

Dimensions

Fig. 2



Dimensions

Part No.	Compressed air connection G	H min. mm	H max. mm	C mm	D mm
0822419120	G 3/8	95 mm	195 mm	80 mm	76.5 mm
0822419121	G 3/8	95 mm	190 mm	97 mm	86.5 mm
0822419122	G 3/8	95 mm	180 mm	123 mm	106.5 mm
0822419123	G 3/8	95 mm	180 mm	151 mm	126.5 mm
0822419124	G 3/8	95 mm	185 mm	173 mm	147.9 mm

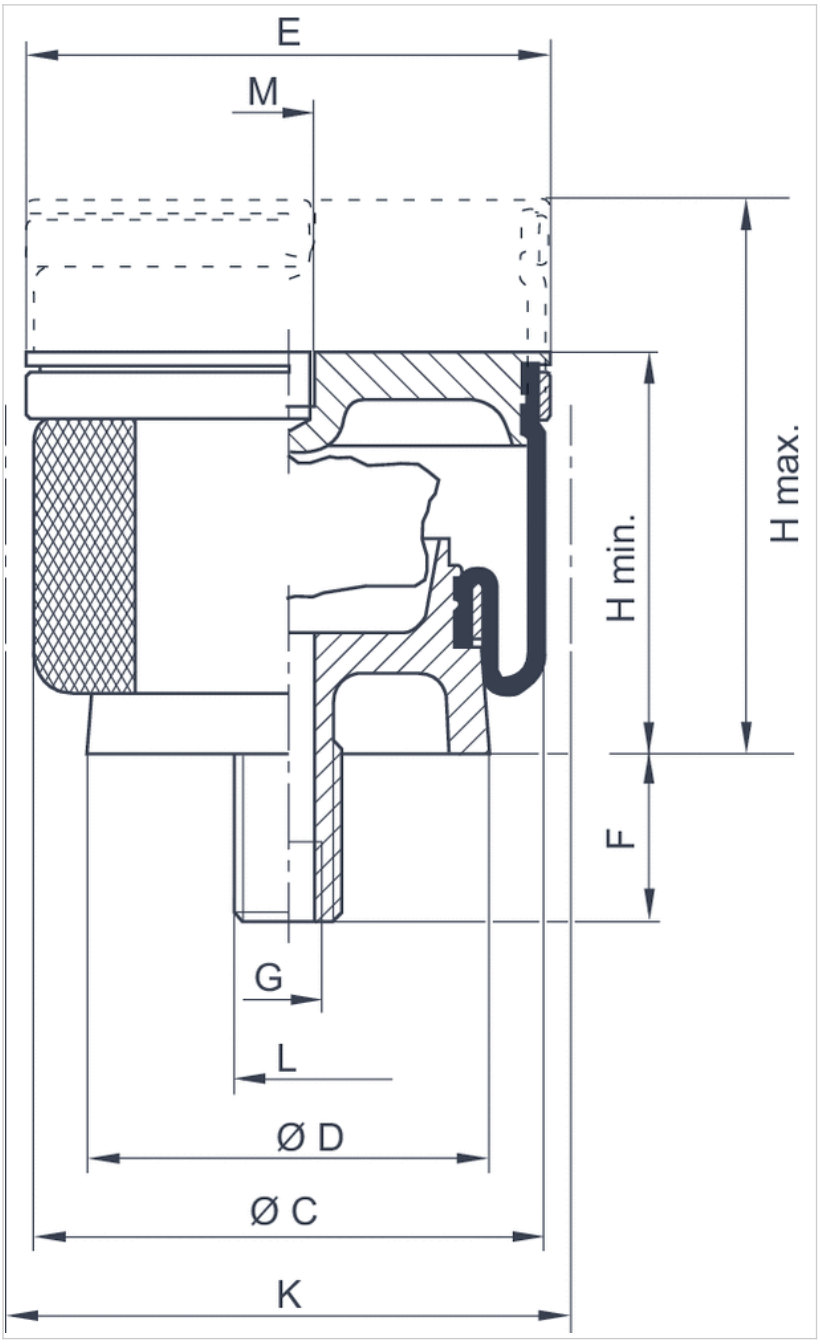
F	K mm	L	Ø M [mm]	Return force, min. N

F	K mm	L	Ø M [mm]	Return force, min. N
M8 t=10	100 mm	M30x1.5	50	350 N
M8 t=10	115 mm	M30x1.5	60.5	450 N
M8 t=10	140 mm	M30x1.5	81	700 N
M8 t=10	170 mm	M30x1.5	89	900 N
M8 t=10	190 mm	M30x1.5	114	1300 N

t = depth of thread

Dimensions

Fig. 3



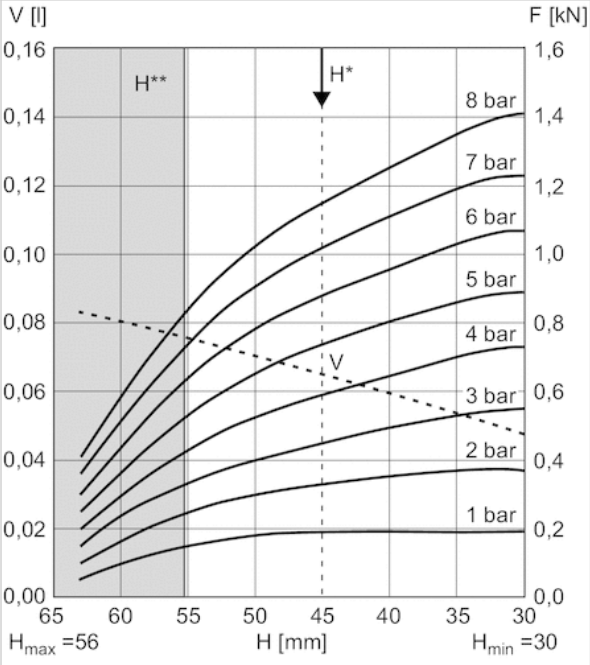
Dimensions

Part No.	Compressed air connection G	H min. mm	H max. mm	C mm	D mm	L
1909041000	G 1/8	38 mm	75 mm	88 mm	61 mm	M16
2999300100	G 1/8	38 mm	100 mm	88 mm	61 mm	M16

Ø E mm	M	F mm	K mm	Return force, min. mm
76	M8	25	100 mm	150 N
76	M8	25	100 mm	150 N

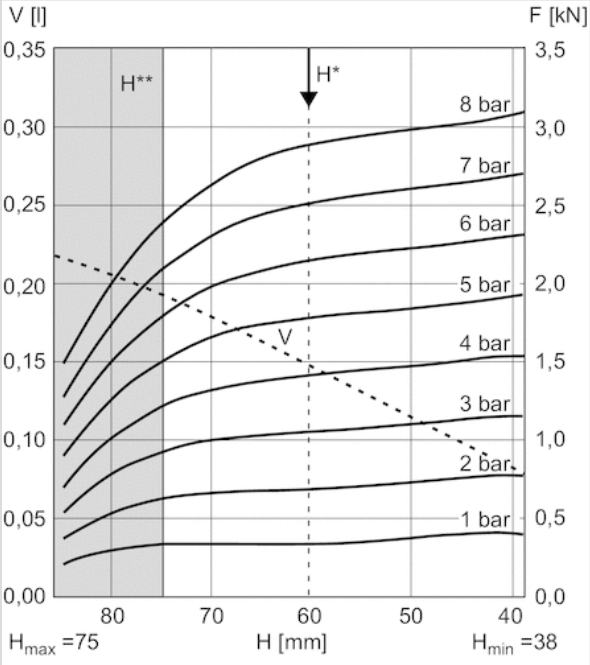
Diagrams

Force-displacement diagram, 2719060300



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, 1909041000



V = volume
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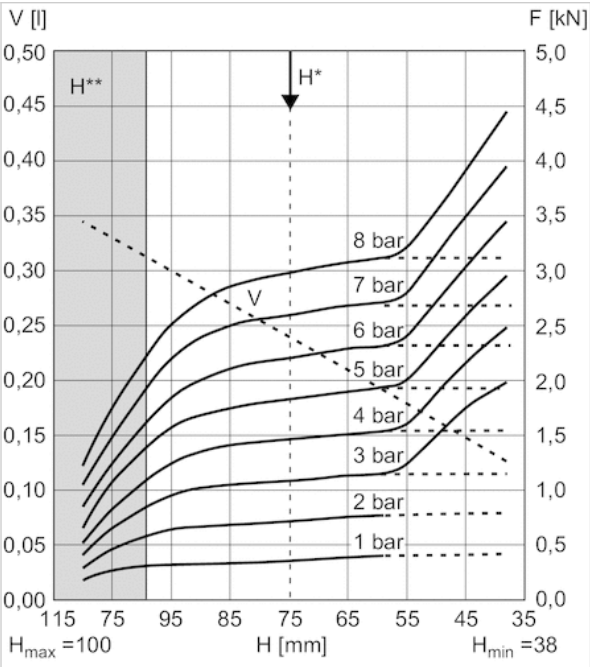
Force-displacement diagram, 2999300100



V = volume
H = height
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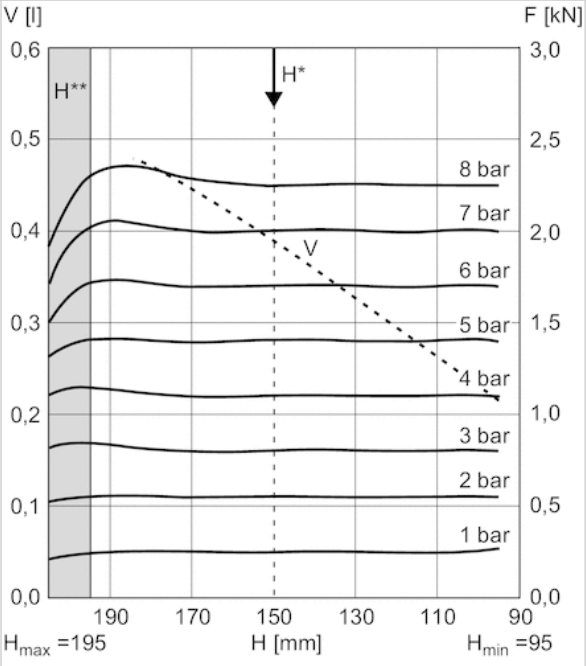
The dashed lines show the force of the bellow actuator with an additional cylindrical extension of 15 mm underneath the piston. This extension is not provided! Without extension, at a height of less than approx. 55 cm , the bellow will touch the underlying fastenings - this can lead to increased abrasion on the pneumatic spring bellows and should therefore be avoided. The minimum pressure for operation without extension is 3 bar .

1 kN = 1000 N

Force-displacement diagram, 0822419120



V = volume
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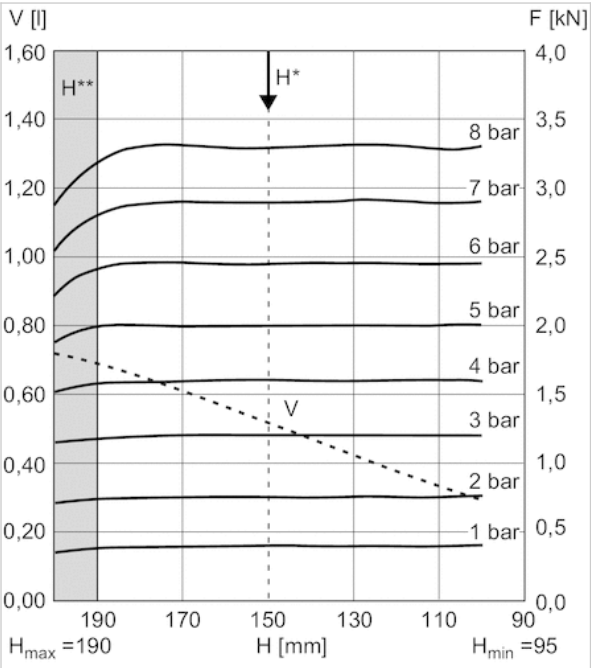
Force-displacement diagram, 0822419121



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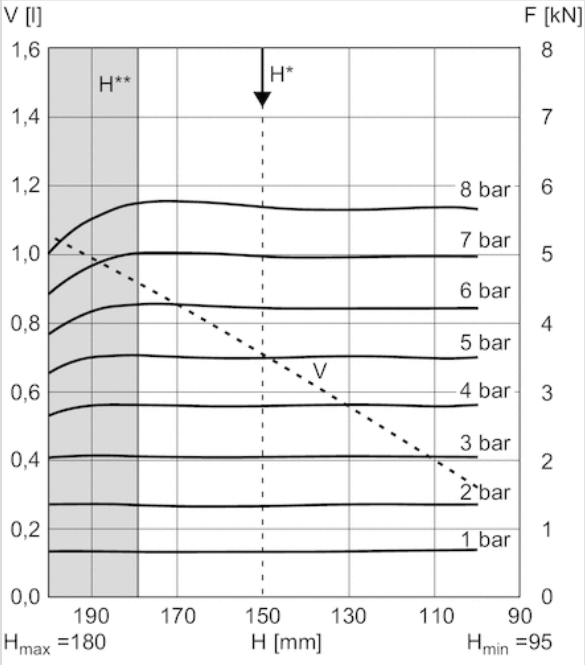
Force-displacement diagram, 0822419122



V = volume
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H* = recommended operating height for vibration isolation
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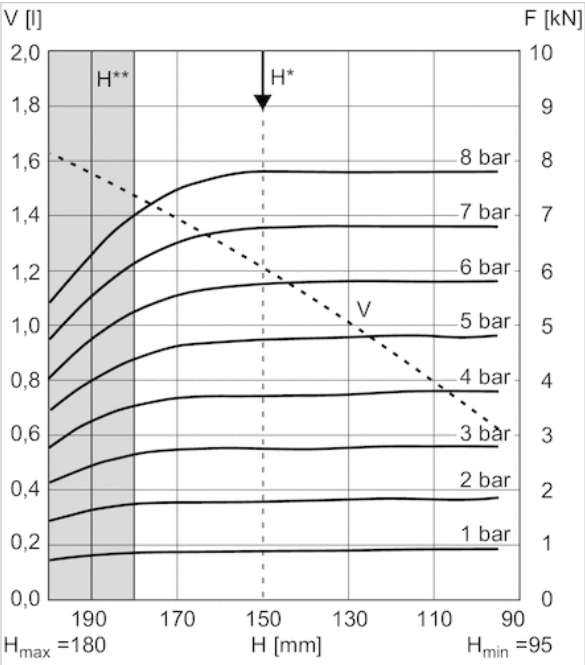
1 kN = 1000 N

Force-displacement diagram, 0822419123



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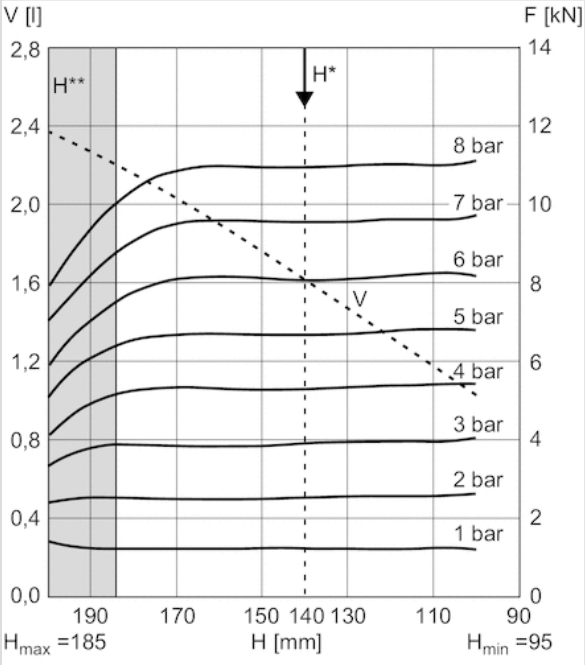
H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram, 0822419124



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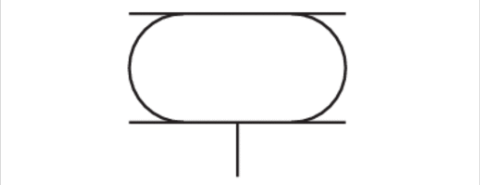
H** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Rolling bellow, series BRB - inch

- Stroke 1.3-71.12 mm



Version	Flexible rolling bellow
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	0 ... 8 bar
Ambient temperature min./max.	-30 ... 90 °C
Medium	Compressed air
Permissible angle of tilt max.	15 °
Pressure for determining forces	6 bar
Weight	See table below

Technical data

Part No.	Cover diameter	Compressed air connection	Max. effective stroke
		G	
R432039318	34 mm	1/8 NPT	1.3 mm
R432039320	61 mm	1/8 NPT	45.72 mm
R432039321	61 mm	1/8 NPT	71.12 mm

Part No.	Min. radial installation space	Material	Force min./max.	Weight	Fig.
		clamping ring			
R432039318	78 mm	Aluminum	620 ... 1070 N	0.07 kg	Fig. 1
R432039320	100 mm	Steel	1610 ... 2300 N	0.27 kg	Fig. 2
R432039321	100 mm	Steel	1610 ... 2300 N	0.27 kg	Fig. 2

Technical information

Compliance with the minimum height H min. as well as the maximum height H max. must be ensured with end stops.
Use at operating height ≥ Hmax: only permitted upon approval by AVENTICS
Further information on vibration isolation can be found in the “Technical information” document (available in the MediaCentre).
Rolling bellows cylinders may only be moved or pushed together under pressure, otherwise this can damage the bellows.

Reduced service life at a temperature greater than 70 °C

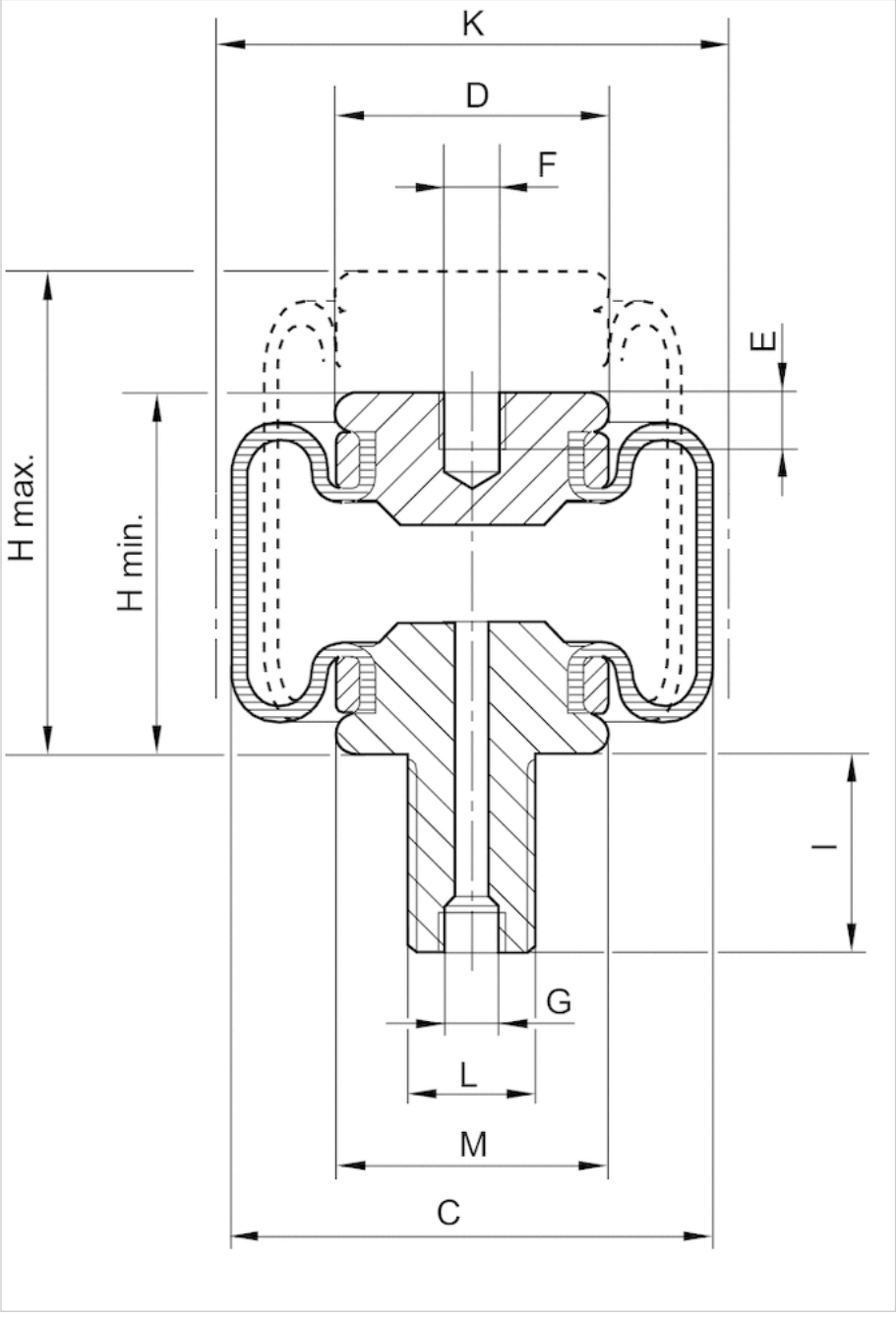
Technical information

Material	
Bellow	Chloroprene rubber
Front cover	Polyamide fiber-glass reinforced

Material	
End cover	Polyamide fiber-glass reinforced
Piston	Polyamide fiber-glass reinforced
clamping ring	Aluminum Steel

Dimensions

Fig. 1



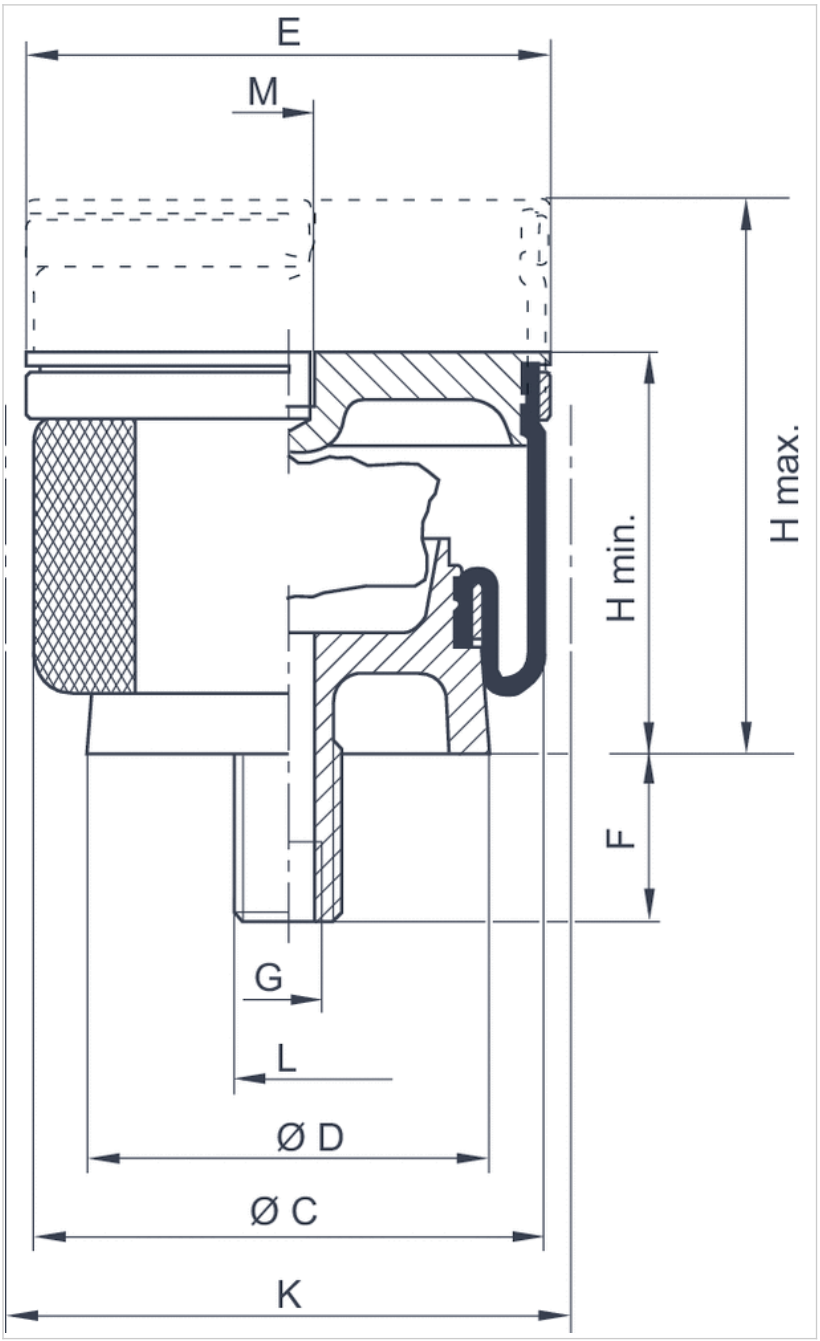
Dimensions

Part No.	Compressed air connection G	H min.	H max.	C	D	E
R432039318	1/8 NPT	30.48 mm	63.5 mm	60 mm	34 mm	0.27

F	I	K	L	Ø M	Return force, min.
5/16-18 UNC	0,98	78 mm	5/18-11 UNC	1.34	46 N

Dimensions

Fig. 2



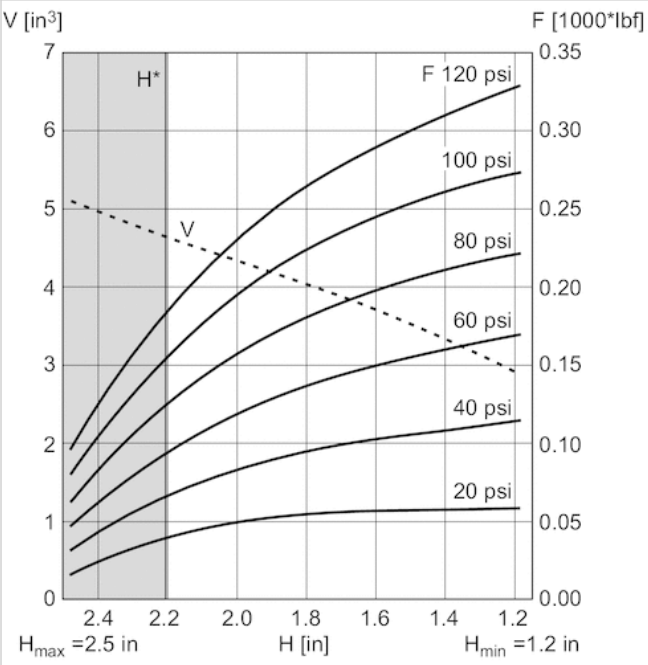
Dimensions

Part No.	Compressed air connection G	H min.	H max.	C	D	L
R432039320	1/8 NPT	38 mm	83.82 mm	88 mm	61 mm	5/8-11 UNC
R432039321	1/8 NPT	38 mm	109.22 mm	88 mm	61 mm	5/8-11 UNC

Ø E	M	F	K	Return force, min.
2,99	5/16-18 UNC	0,98	100 mm	150 N
2,99	5/16-18 UNC	0,98	100 mm	150 N

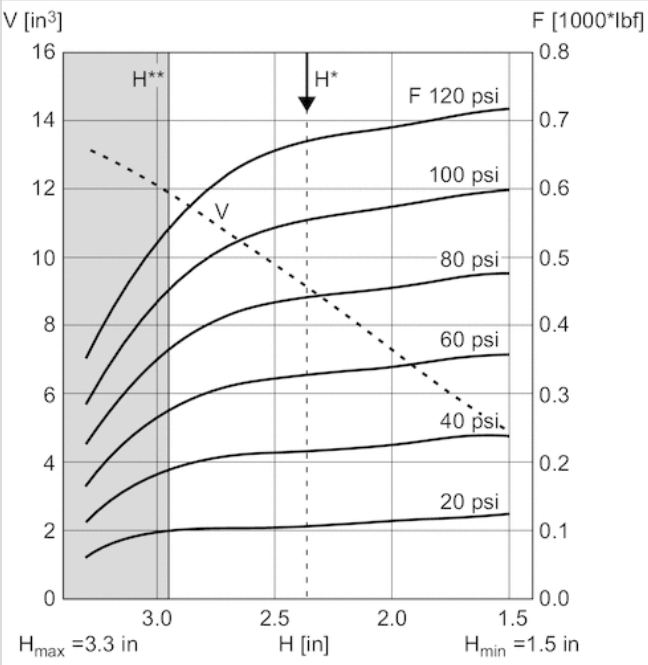
Diagrams

Force-displacement diagram, R432039318



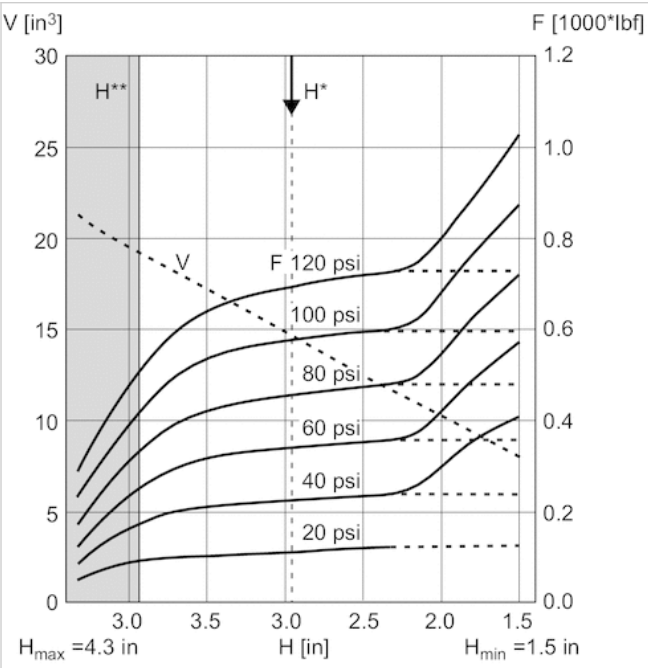
V = volume
H = height
H* = recommended operating height for vibration isolation
H** = use permitted only upon approval by AVENTICS

Force-displacement diagram, R432039320



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

Force-displacement diagram, R432039321



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

Filler neck

- Enables use of bellow actuators for vibration isolation
- G 1/8 G 1/4 1/4 - 18 NPTF

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

Technical data

Part No.	Port G	Fig.
R412007945	G 1/8	Fig. 1
3900040040	G 1/4	Fig. 2
R412010046	1/4 - 18 NPTF	Fig. 3

Technical information

Material	
Material	Brass

Dimensions

Fig. 1

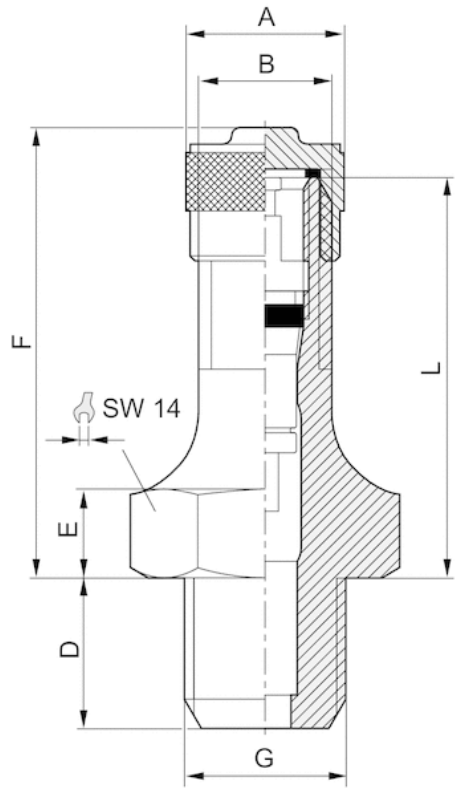


Fig. 2

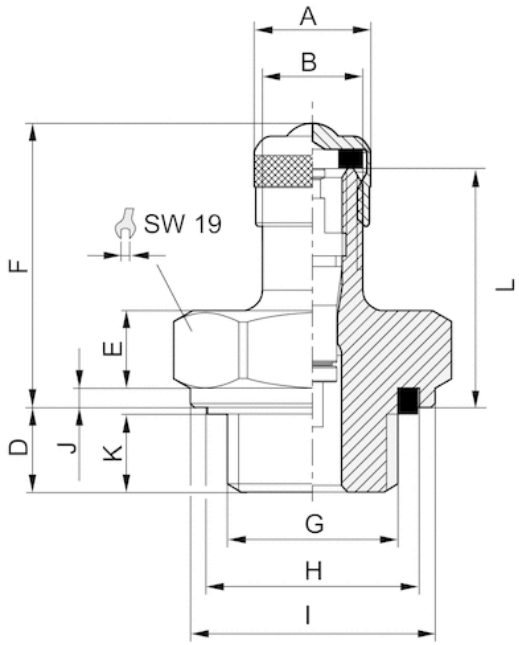
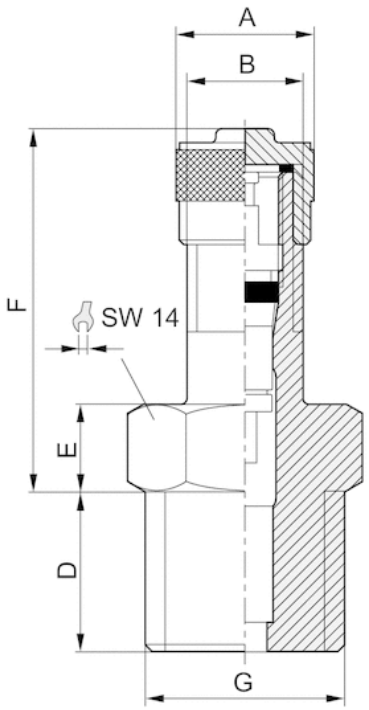


Fig. 3



Dimensions

Part No.	Port G	ØA	B 1)	D	E	F	H	I	J	K 2)	L	Fig.
R412007945	G 1/8	9.5	8	9	5	27	-	-	-	-	24	Fig. 1
3900040040	G 1/4	9	8	6.5	6	22	16.5	18.9	1.5	5.5	18.5	Fig. 2
R412010046	1/4 - 18 NPTF	9.5	8	11	6	25	-	-	-	-	-	Fig. 3

1) 8V1-1↩ETRTO V0.07.3

2) Min.

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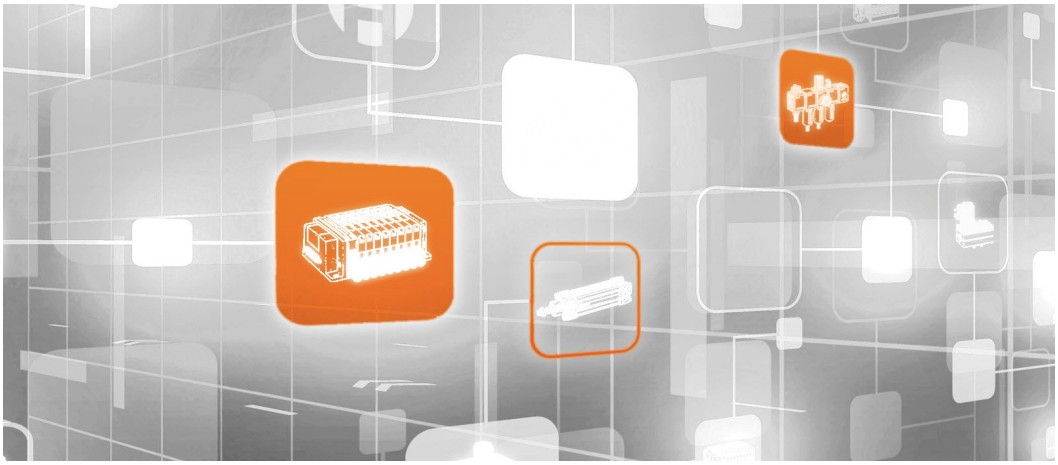

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