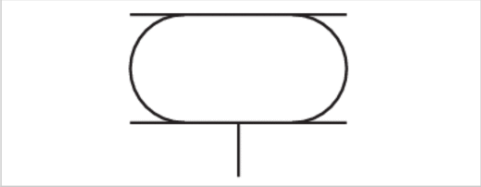
Series BCR

- single
- Stroke 92-131 mm



Version	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	0 ... 8 bar
Ambient temperature min./max.	-40 ... 70 °C
Medium	Compressed air
Permissible angle of tilt max.	20 °
Pressure for determining forces	6 bar
Weight	See table below

Technical data

Part No.	Cover diameter	Max. effective stroke	Min. radial installation space	Force min./max.	Weight
2999697410	384 mm	107 mm	490 mm	41000 ... 78000 N	5 kg
2999696600	451 mm	92 mm	570 mm	67000 ... 107000 N	7,3 kg
2999697310	517 mm	98 mm	625 mm	90000 ... 137000 N	8,7 kg
1971132000	638 mm	131 mm	770 mm	131000 ... 229000 N	11,1 kg
2999699610	890 mm	116 mm	1000 mm	265000 ... 390000 N	22 kg

Scope of delivery: incl. threaded bolts

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).

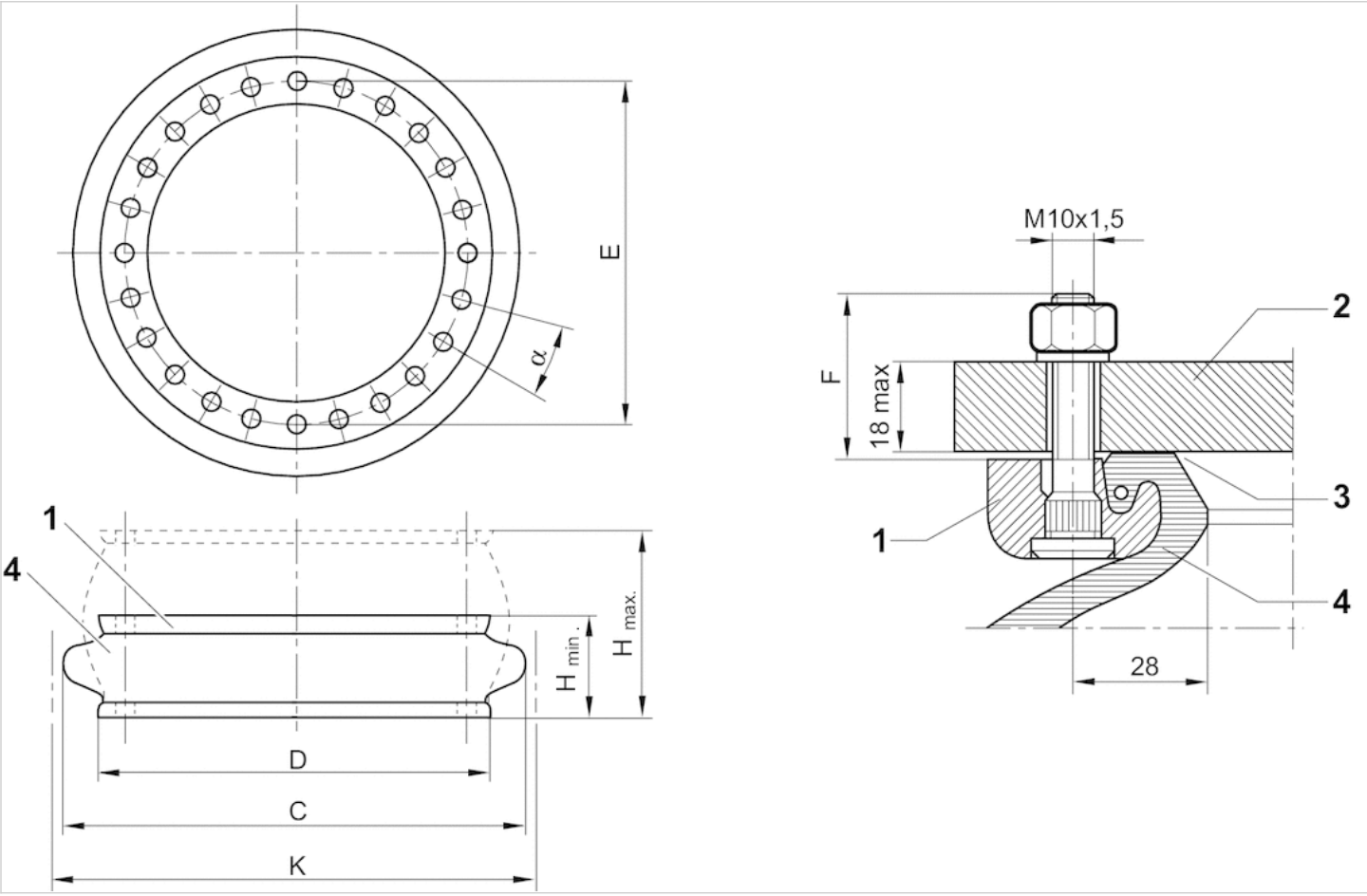
Reduced service life at a temperature greater than 50 °C

Technical information

Material	
Bellow	caoutchouc/butadiene caoutchouc
clamping ring	Aluminum
Mounting ring	Aluminum

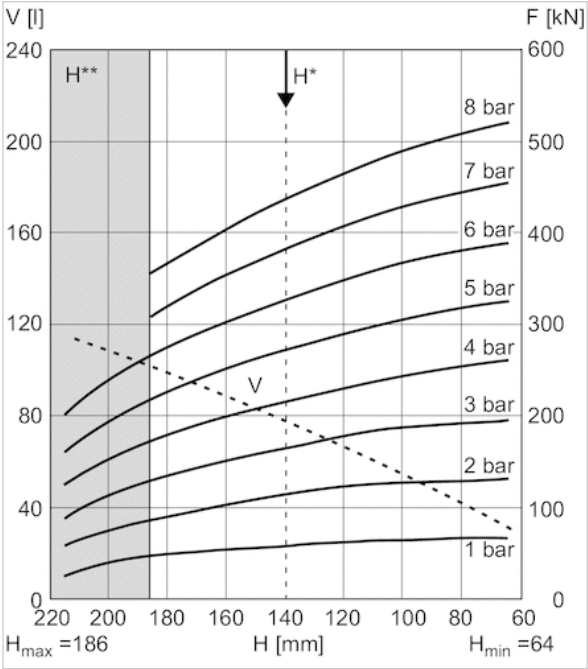
Dimensions

Dimensions



section of mounted bead ring with staybolt1. mounting ring2. machine part3. sealing surface *)4. bellow* recommendation for surface finish:if the surface is turned or cylindrically ground: Ra 6if the surface is milled or surface ground: Ra 0,8suitable tightening torque M8: 25 Nm; M10: 40 Nm; M16: 70 Nmair connection in the mounting part

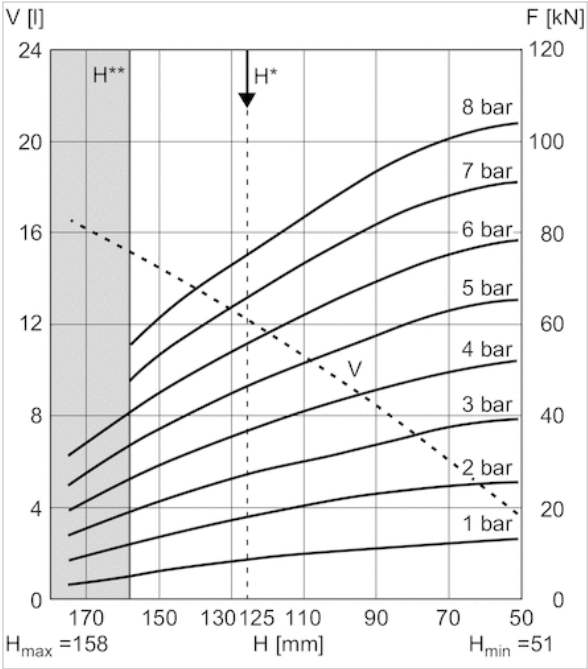
Force-displacement diagram 2999699610



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

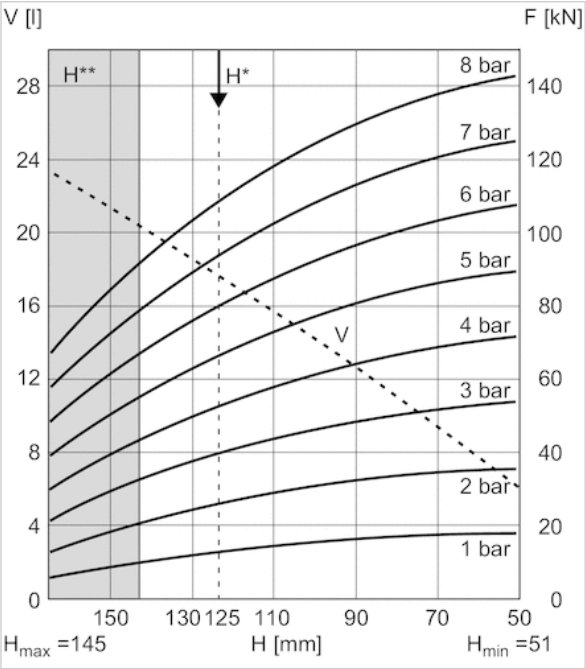
Diagrams

Force-displacement diagram 2999697410



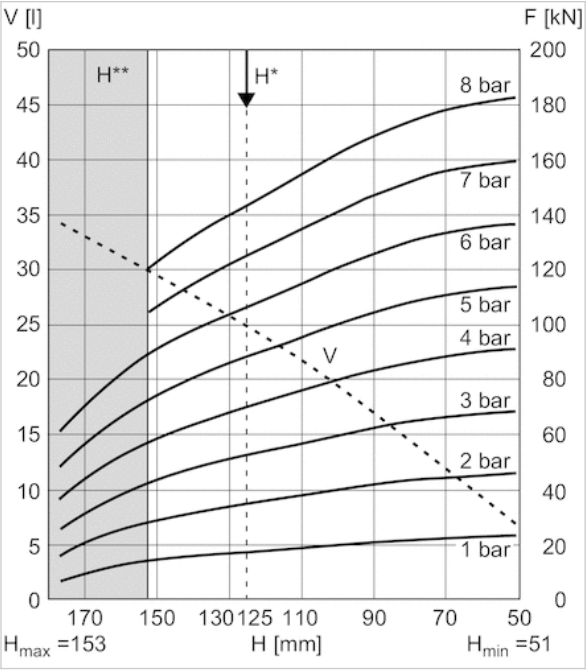
V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram 2999696600



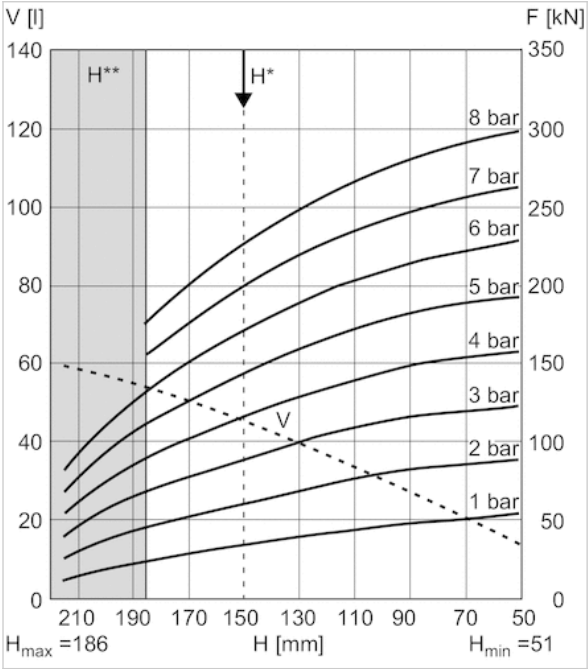
V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram 2999697310



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

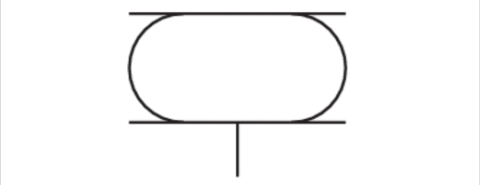
Force-displacement diagram 1971132000



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCR

- double
- Stroke 185-233 mm



Version	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	0 ... 8 bar
Ambient temperature min./max.	-40 ... 70 °C
Medium	Compressed air
Permissible angle of tilt max.	25 °
Pressure for determining forces	6 bar
Weight	See table below

Technical data

Part No.	Cover diameter	Max. effective stroke	Min. radial installation space	Force min./max.	Weight
1944182000	384 mm	185 mm	495 mm	44000 ... 80000 N	8,6 kg
1951182000	451 mm	200 mm	575 mm	64000 ... 108000 N	10,2 kg
1957192000	517 mm	200 mm	633 mm	84000 ... 141000 N	12 kg
1971232000	638 mm	221 mm	770 mm	136000 ... 207000 N	15,4 kg
2999697010	890 mm	233 mm	1000 mm	257000 ... 390000 N	32,9 kg

Scope of delivery: incl. threaded bolts

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).

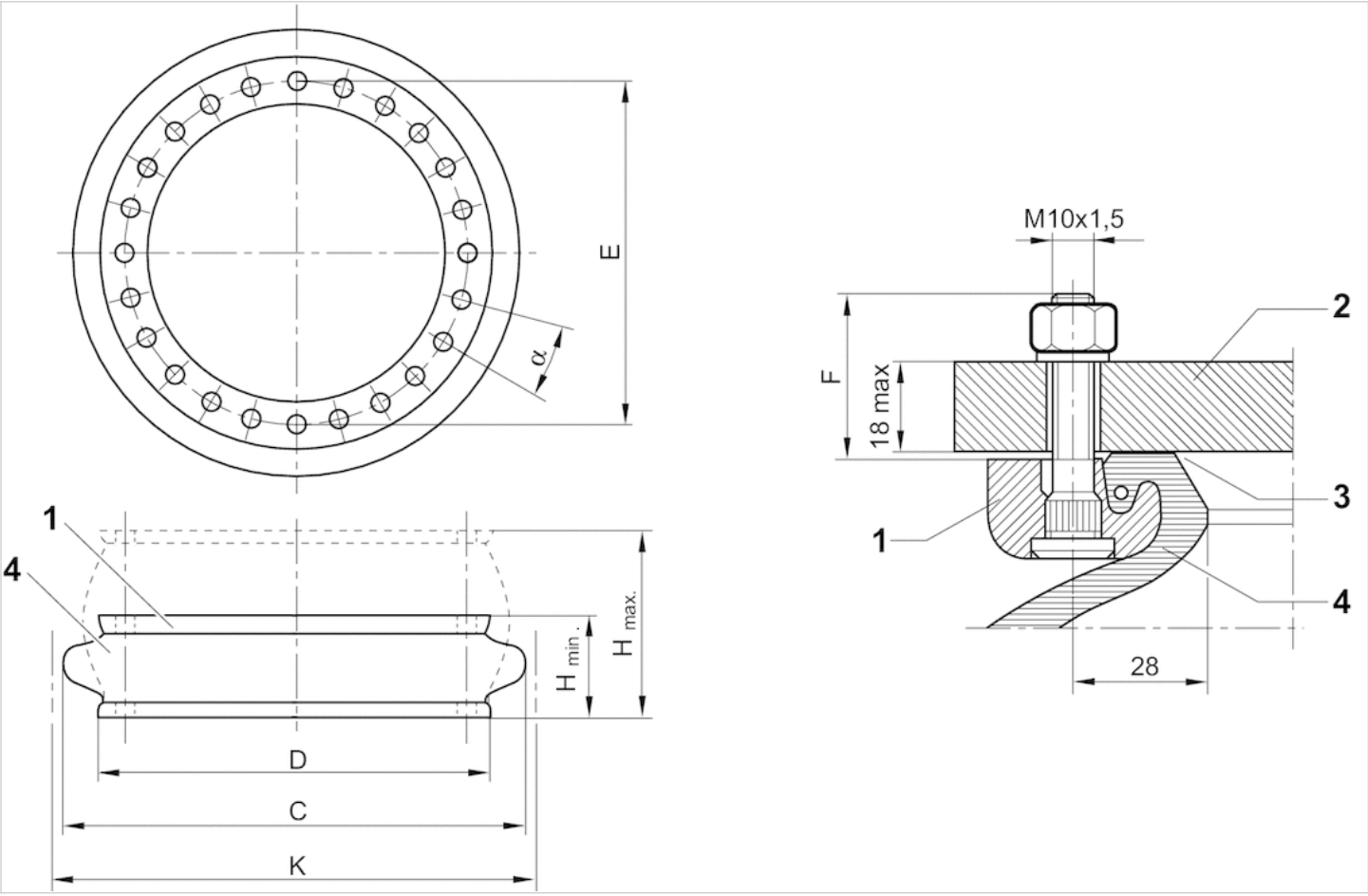
Reduced service life at a temperature greater than 50 °C

Technical information

Material	
Bellow	caoutchouc/butadiene caoutchouc
clamping ring	Aluminum
Mounting ring	Aluminum

Dimensions

Dimensions



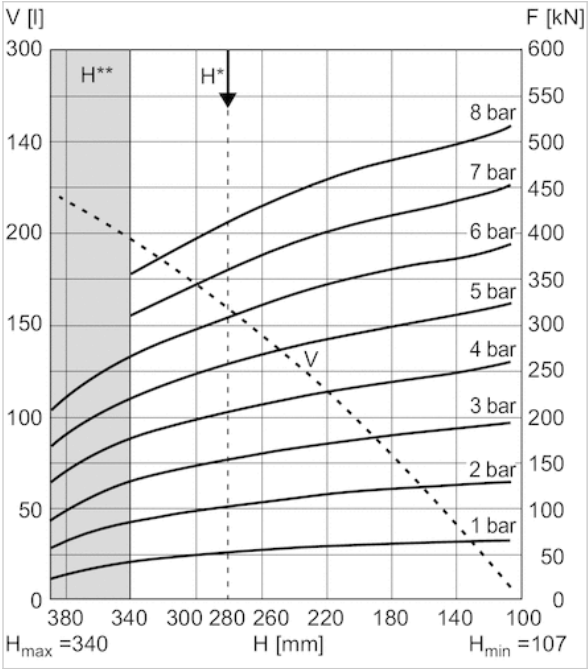
section of mounted bead ring with staybolt1. mounting ring2. machine part3. sealing surface *)4. bellow* recommendation for surface finish:if the surface is turned or cylindrically ground: Ra 6if the surface is milled or surface ground: Ra 0,8suitable tightening torque M8: 25 Nm; M10: 40 Nm; M16: 70 Nmair connection in the mounting part

Dimensions

Part No.	H min.	H max.	C	D	E ±2	F	α°	K mm
1944182000	84 mm	269 mm	450 mm	384 mm	350	31,8	20	495 mm
1951182000	84 mm	284 mm	525 mm	451 mm	419	31,8	15	575 mm
1957192000	84 mm	284 mm	590 mm	517 mm	482	31,8	15	633 mm
1971232000	89 mm	310 mm	720 mm	638 mm	596	31,8	11.25	770 mm
2999697010	107 mm	340 mm	950 mm	890 mm	830	26.8	9	1000 mm

Return force, min. N
200 N
200 N
440 N
700 N
5500 N

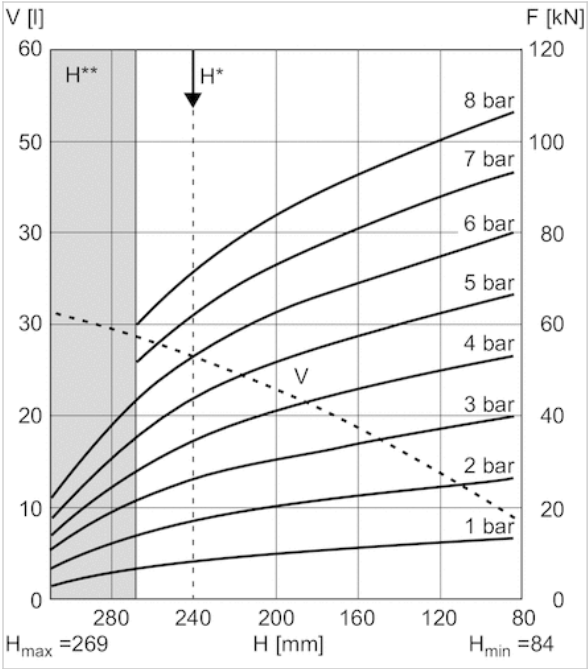
Force-displacement diagram 2999697010



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

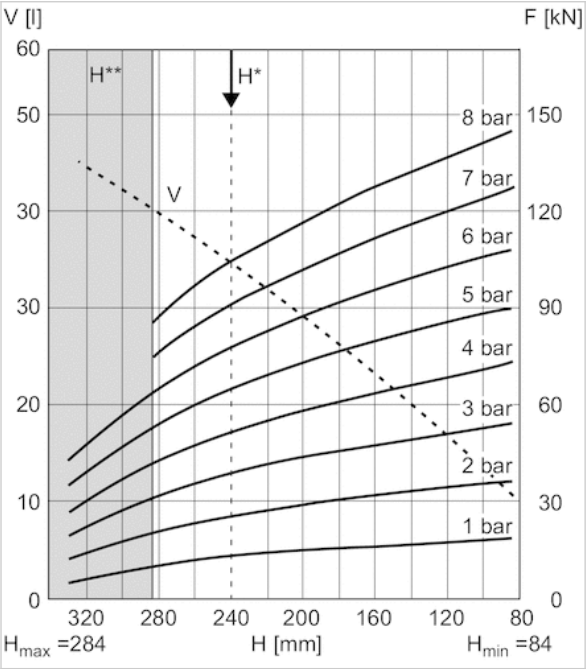
Diagrams

Force-displacement diagram 1944182000



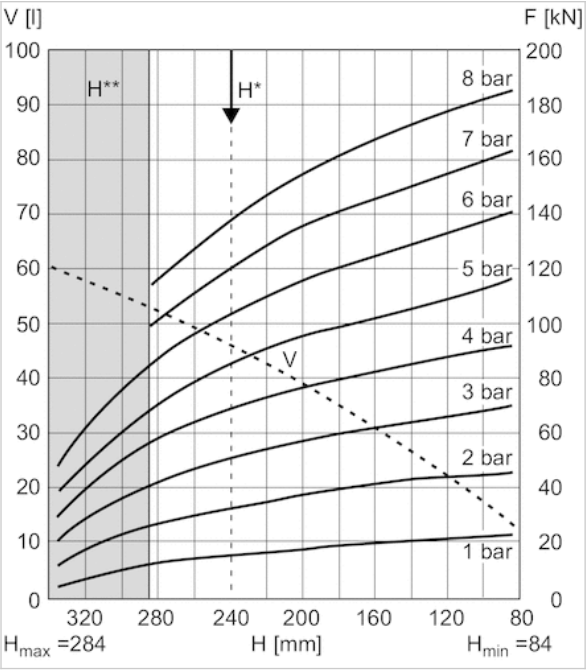
V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram 1951182000



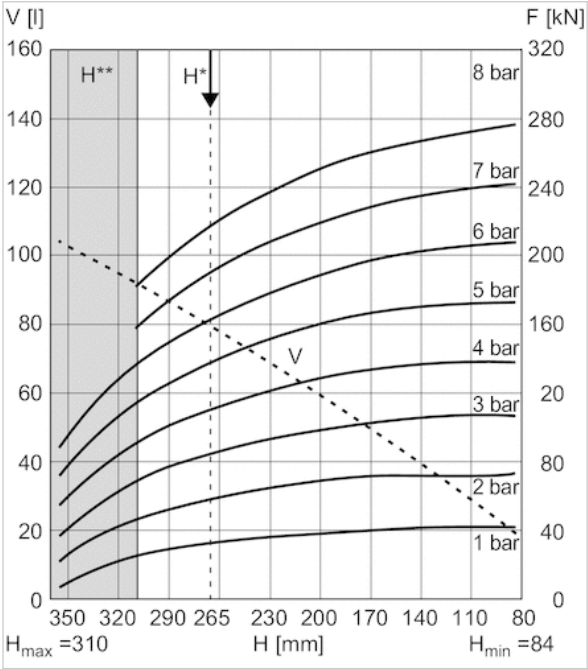
V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram 1957192000



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

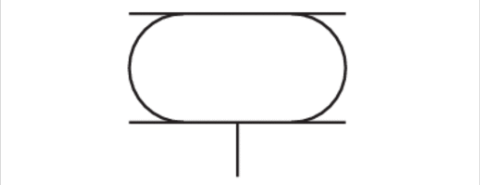
Force-displacement diagram 1971232000



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Series BCR

- triple
- Stroke 286-354 mm



Version	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	0 ... 8 bar
Ambient temperature min./max.	-40 ... 70 °C
Medium	Compressed air
Permissible angle of tilt max.	30 °
Pressure for determining forces	6 bar
Weight	See table below

Technical data

Part No.	Cover diameter	Max. effective stroke	Min. radial installation space	Force min./max.	Weight
1946272000	384 mm	290 mm	510 mm	43000 ... 81000 N	9,3 kg
1951282000	451 mm	286 mm	570 mm	65000 ... 114000 N	12,5 kg
2999698310	517 mm	305 mm	650 mm	84000 ... 140000 N	14,5 kg
1971372000	638 mm	354 mm	775 mm	124000 ... 219000 N	17 kg
2999697110	890 mm	350 mm	1000 mm	277000 ... 390000 N	44 kg

Scope of delivery: incl. threaded bolts

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).

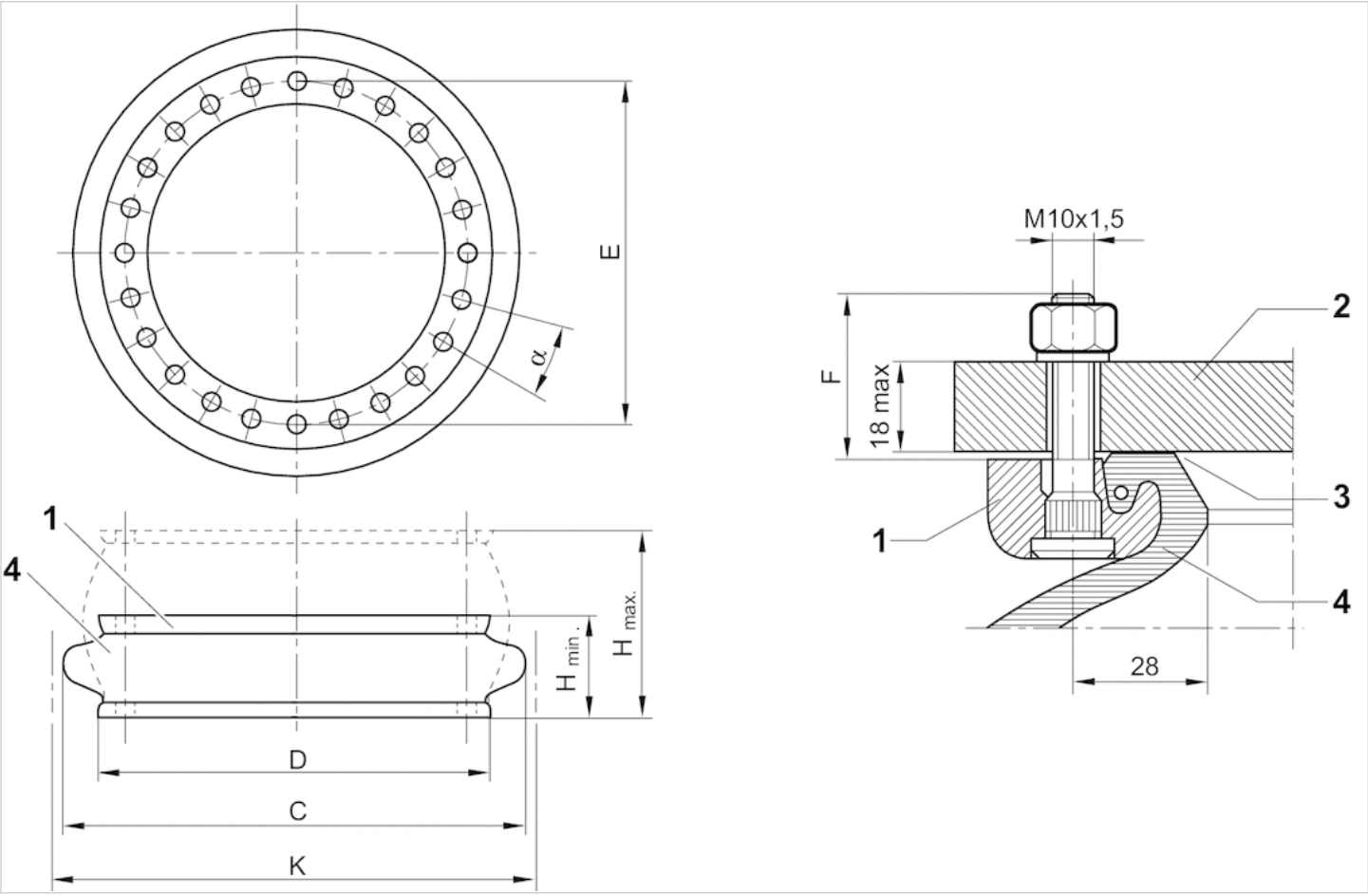
Reduced service life at a temperature greater than 50 °C

Technical information

Material	
Bellow	caoutchouc/butadiene caoutchouc
clamping ring	Aluminum
Mounting ring	Aluminum

Dimensions

Dimensions



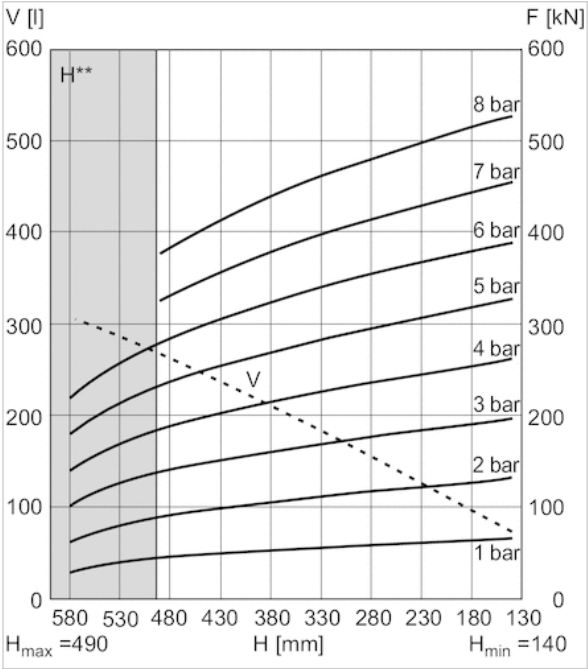
section of mounted bead ring with staybolt1. mounting ring2. machine part3. sealing surface *)4. bellow* recommendation for surface finish:if the surface is turned or cylindrically ground: Ra 6if the surface is milled or surface ground: Ra 0,8suitable tightening torque M8: 25 Nm; M10: 40 Nm; M16: 70 Nmair connection in the mounting part

Dimensions

Part No.	H min.	H max.	C	D	E ±2	F	α°	K
1946272000	114 mm	404 mm	462 mm	384 mm	350	31,8	20	510 mm
1951282000	114 mm	400 mm	521 mm	451 mm	419	31,8	15	570 mm
2999698310	114 mm	419 mm	600 mm	517 mm	482	31,8	15	650 mm
1971372000	126 mm	480 mm	725 mm	638 mm	596	31,8	11,25	775 mm
2999697110	140 mm	490 mm	950 mm	890 mm	830	26,8	9	1000 mm

Return force, min.
600 N
420 N
400 N
800 N
7500 N

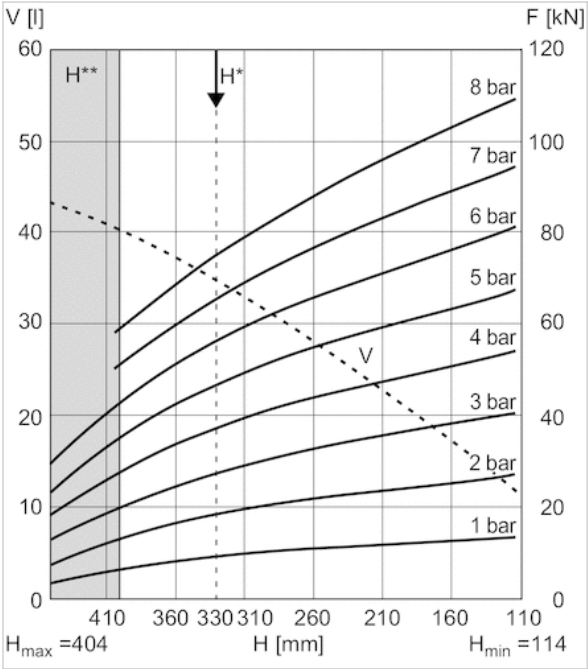
Force-displacement diagram 2999697110



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

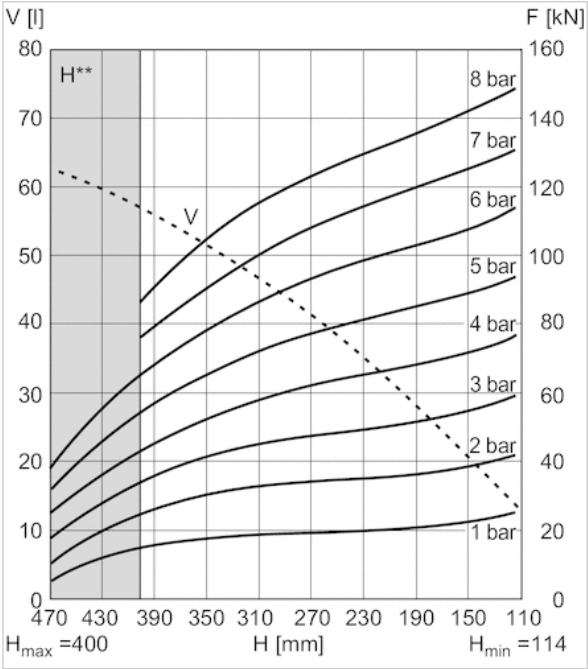
Diagrams

Force-displacement diagram 1946272000



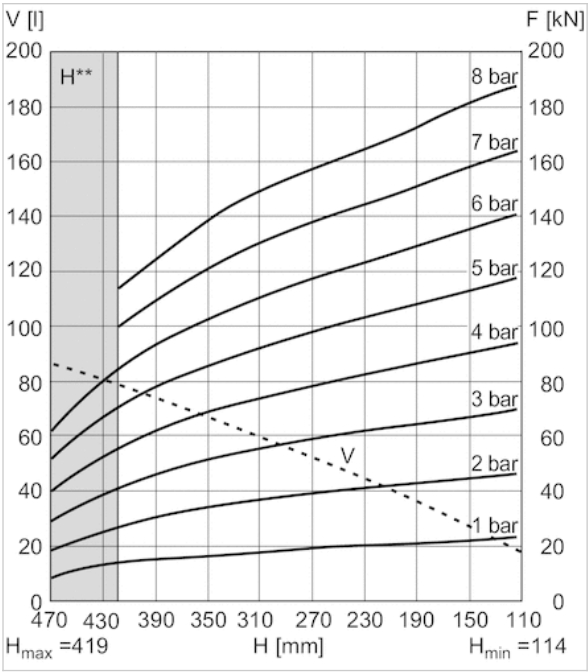
V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram 1951282000



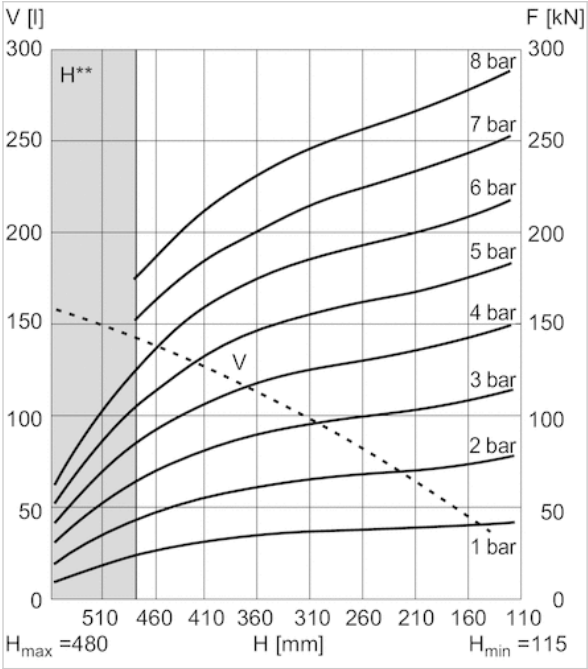
V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram 2999698310



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Force-displacement diagram 1971372000



V = volumeH = heightH* = recommended operating height for vibration isolationH** = use permitted only upon approval by AVENTICS
1 kN = 1000 N

Filler neck

- Enables use of bellow actuators for vibration isolation
- 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.
3900040040	G 1/4	Fig. 2
R412010046	1/4 - 18 NPTF	Fig. 3

Technical information

Material	
Material	Brass

Dimensions

Fig. 1

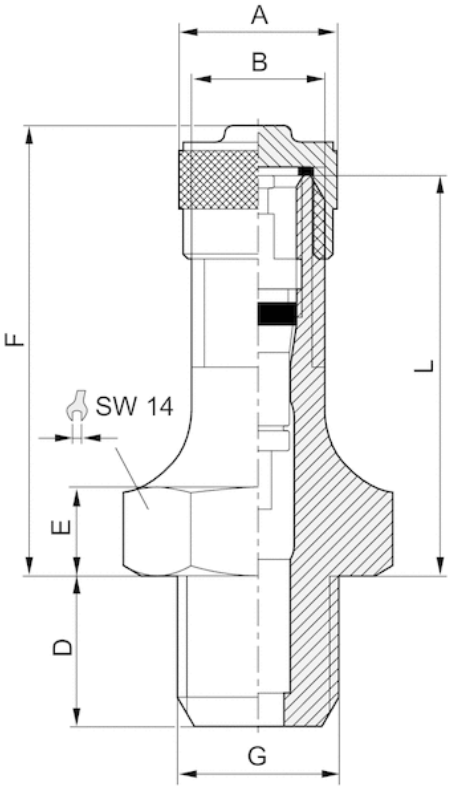


Fig. 3

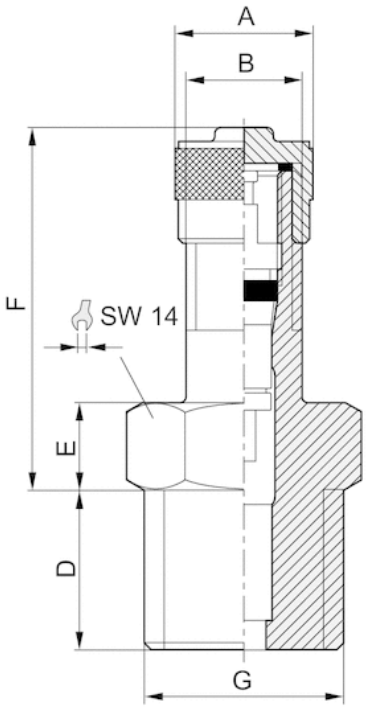
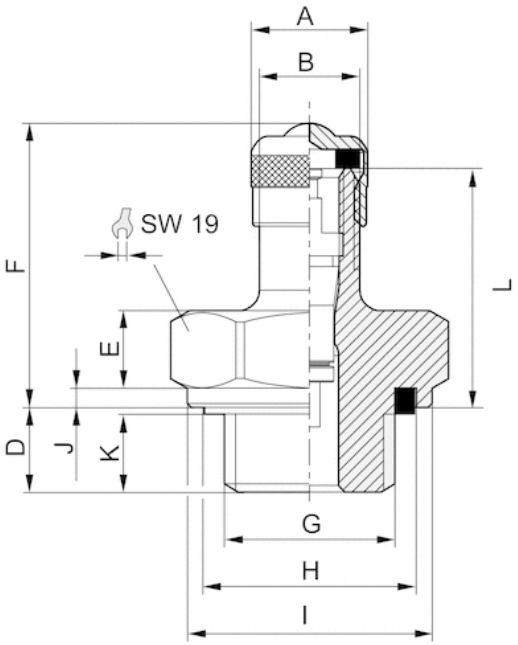


Fig. 2



Dimensions

Part No.	Port G	ØA	B 1)	D	E	F	H	I	J	K 2)	L	Fig.
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.