

# Series BCR

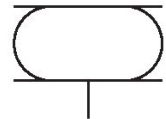
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AVENTICS  
Series BCR  
Bellow  
actuators

2024-03-15

## AVENTICS Series BCR Bellow actuators

The AVENTICS Series BCR bellow cylinders are designed for applications that require very high forces with a mounting ring (no covers) and bellows made of natural rubber elastomer for direct mounting to suitable connection surfaces in the system. Therefore, the connection geometry is freely configurable.



## Technical data

Industry	Industrial
Bellows	triple
Type	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Cover diameter	890 mm
Max. permissible angle of tilt	30 °
Max. effective stroke	350 mm
Min. radial installation space	1000 mm
Min. installation height	140 mm
Max. installation height	490 mm
Min. force	277000 N
Max. force	390000 N
Min. working pressure	0 bar
Max. working pressure	8 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air
Reduced service life at a temperature greater than	50 °C
Pressure for determining forces	6 bar

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Weight 44 kg

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## Material

Material bellow	caoutchouc/butadiene caoutchouc
Material mounting ring	Aluminum
Material clamping ring	Aluminum
Part No.	2999697110

## 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  $\geq H_{max}$ : only permitted upon approval by AVENTICS

Further information on vibration isolation can be found in the "Technical information" document (available in the MediaCentre).

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

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

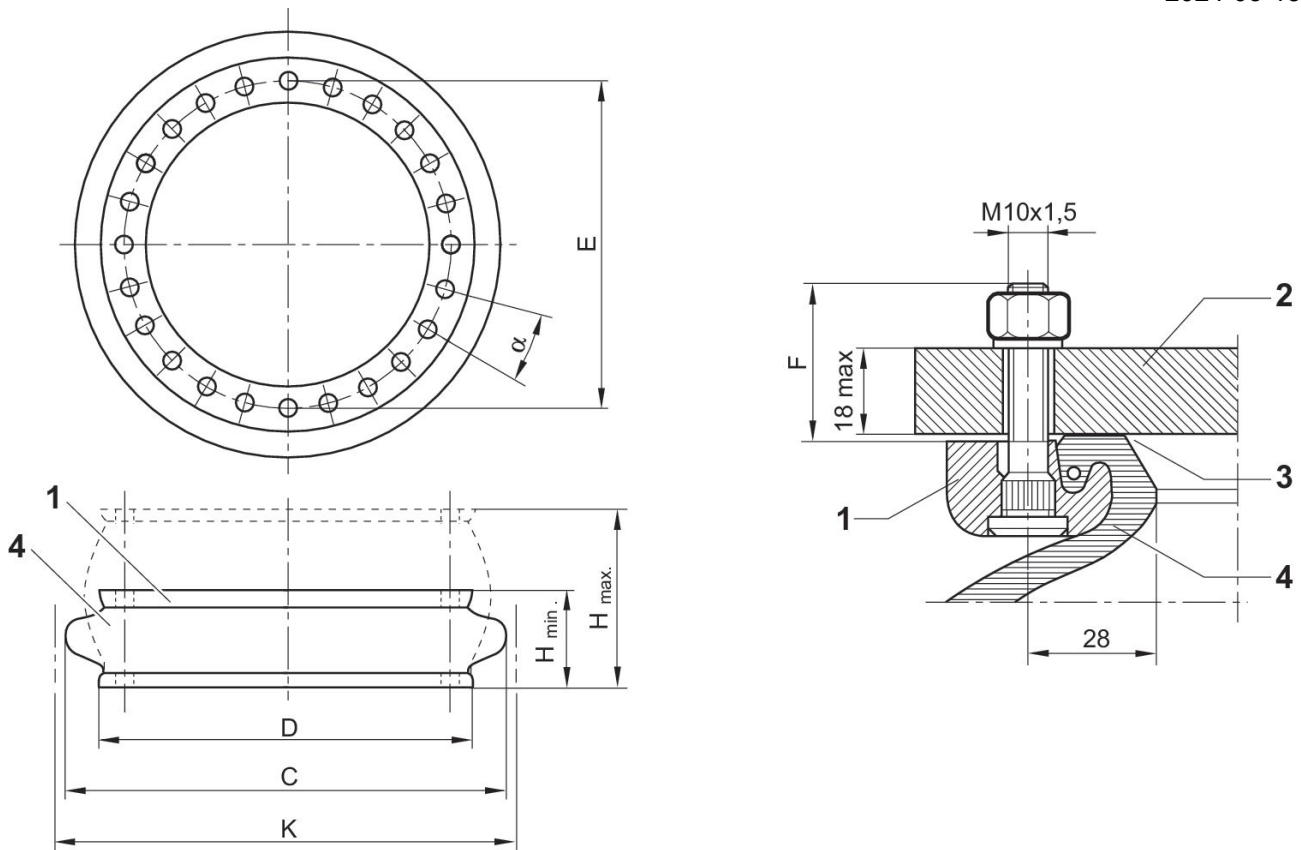
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## Dimensions



section of mounted bead ring with staybolt 1. mounting ring 2. machine part 3. sealing surface \*) 4. bellow \* recommendation for surface finish: if the surface is turned or cylindrically ground: Ra 6 if the surface is milled or surface ground: Ra 0,8 suitable tightening torque M8: 25 Nm, M10: 40 Nm, M16: 70 Nm air connection in the mounting part

Part No.	H min.	H max.	C	D	E ±2	F	α°	K	Min. re- turn force
1946272000	114	404	462	384	350	31,8	20	510	600
1951282000	114	400	521	451	419	31,8	15	570	420
2999698310	114	419	600	517	482	31,8	15	650	400
1971372000	126	480	725	638	596	31,8	11,25	775	800
2999697110	140	490	950	890	830	26,8	9	1000	7500

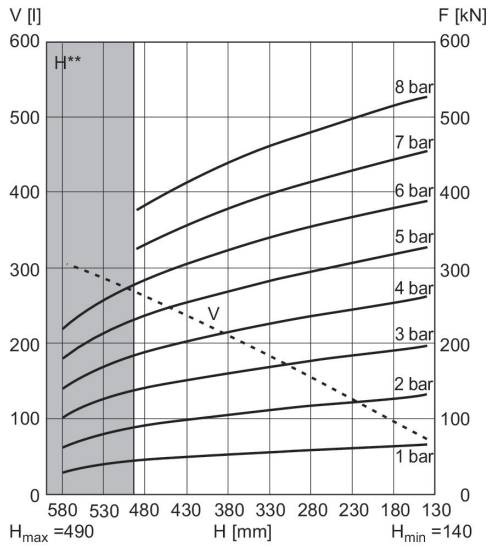
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## Force-displacement diagram

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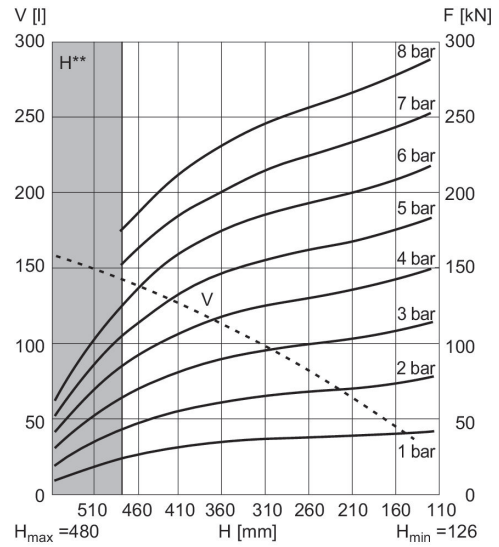


V = volume H = height H\* = recommended operating height for vibration isolation H\*\* = use permitted only upon approval by AVENTICS  
1 kN = 1000 N

## Force-displacement diagram

1971372000

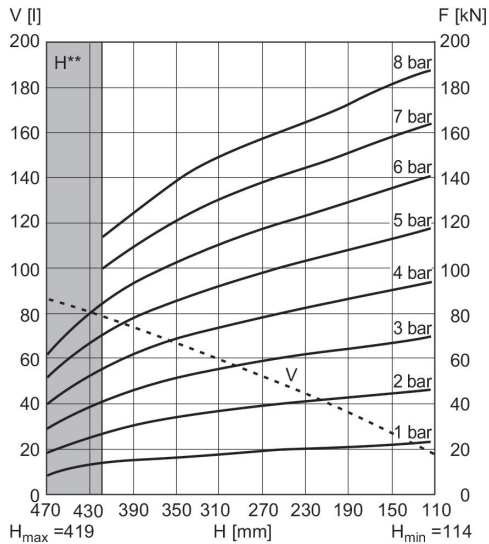
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1 kN = 1000 N

## Force-displacement diagram

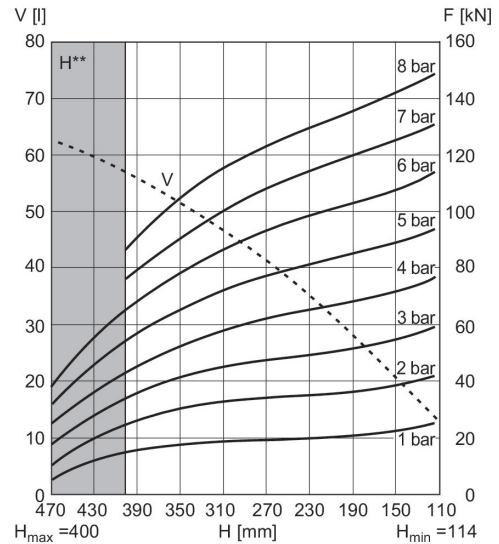
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V = volume H = height H\* = recommended operating height for vibration isolation H\*\* = use permitted only upon approval by AVENTICS  
1 kN = 1000 N

## Force-displacement diagram

1951282000



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

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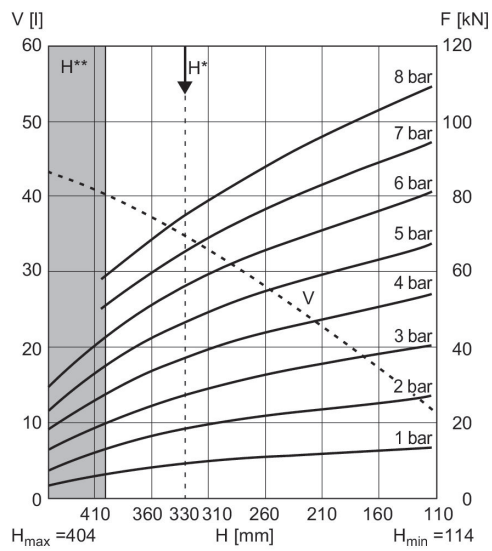
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## Force-displacement diagram

1946272000

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1 kN = 1000 N