

# Series BCR

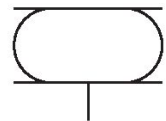
2999697010

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	double
Type	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Cover diameter	890 mm
Max. permissible angle of tilt	25 °
Max. effective stroke	233 mm
Min. radial installation space	1000 mm
Min. installation height	107 mm
Max. installation height	340 mm
Min. force	257000 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 32.9 kg

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## Material

Material bellow	caoutchouc/butadiene caoutchouc
Material mounting ring	Aluminum
Material clamping ring	Aluminum
Part No.	2999697010

## 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>).

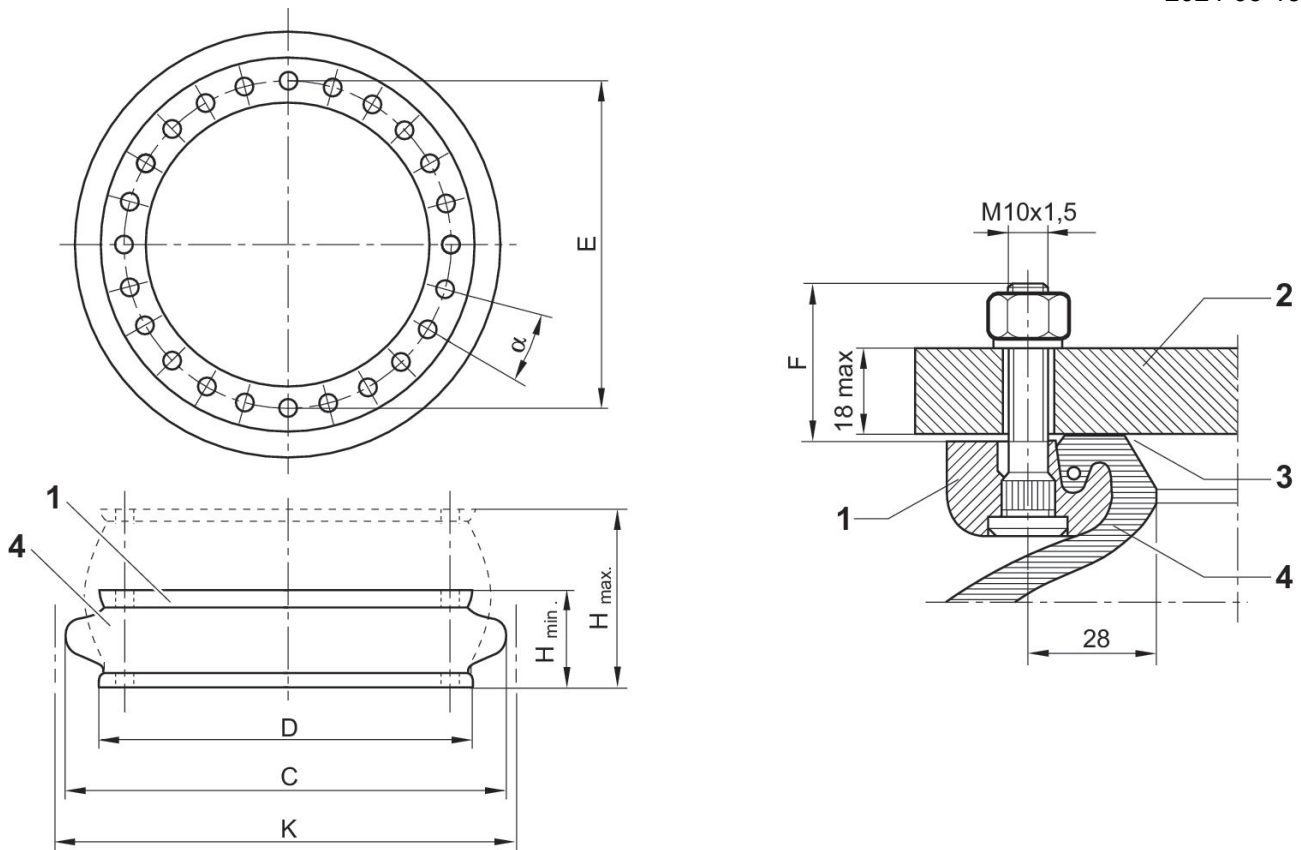
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## Dimensions



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 mm	Min. return force N
1944182000	84	269	450	384	350	31,8	20	495	200
1951182000	84	284	525	451	419	31,8	15	575	200
1957192000	84	284	590	517	482	31,8	15	633	440
1971232000	89	310	720	638	596	31,8	11.25	770	700
2999697010	107	340	950	890	830	26.8	9	1000	5500

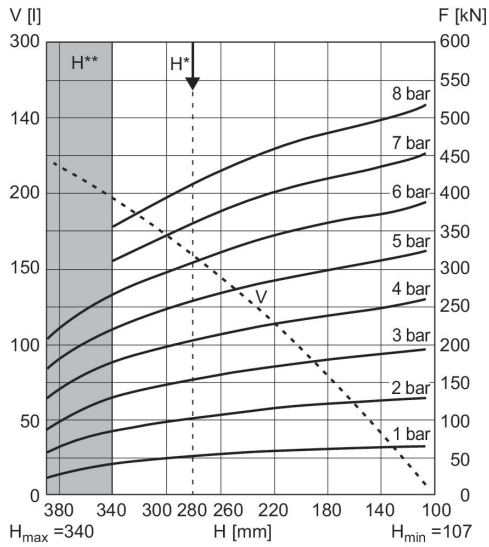
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## Force-displacement diagram

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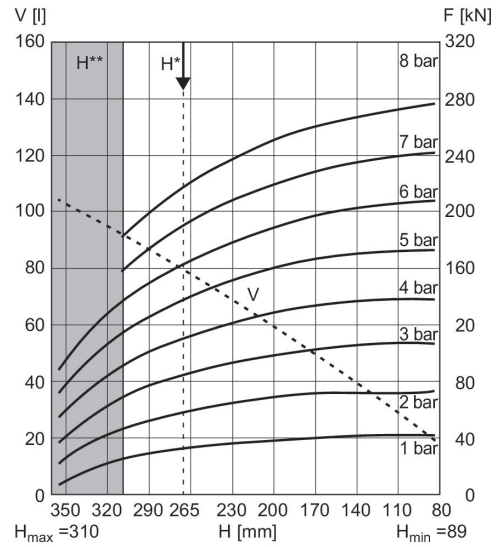


V = volume H = height H\* = recommended operating height for vibration isolation H\*\* = use permitted only upon approval by AVENTICS  
1 kN = 1000 N

## Force-displacement diagram

1971232000

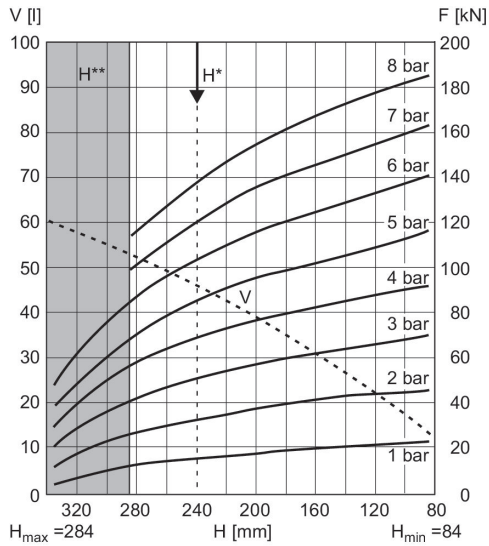
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1 kN = 1000 N

## Force-displacement diagram

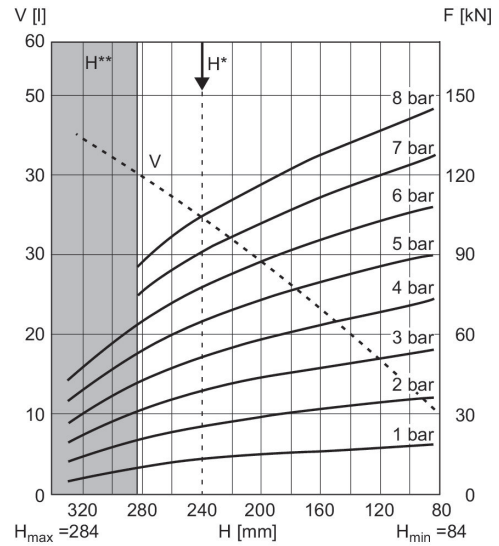
1957192000



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

1951182000



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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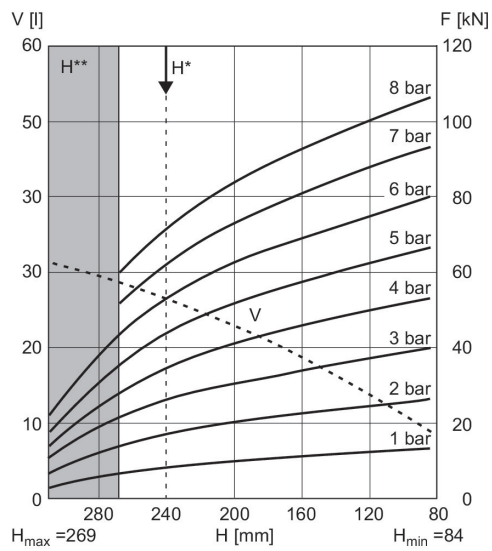
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## Force-displacement diagram

1944182000

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1 kN = 1000 N