

# Series BCR

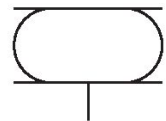
2999697410

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	single
Type	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Cover diameter	384 mm
Max. permissible angle of tilt	20 °
Max. effective stroke	107 mm
Min. radial installation space	490 mm
Min. installation height	51 mm
Max. installation height	158 mm
Min. force	41000 N
Max. force	78000 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

# Series BCR

2999697410

AVENTICS  
Series BCR  
Bellow  
actuators

Weight 5 kg

2024-03-15

---

## Material

Material bellow	caoutchouc/butadiene caoutchouc
Material mounting ring	Aluminum
Material clamping ring	Aluminum
Part No.	2999697410

## 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>).

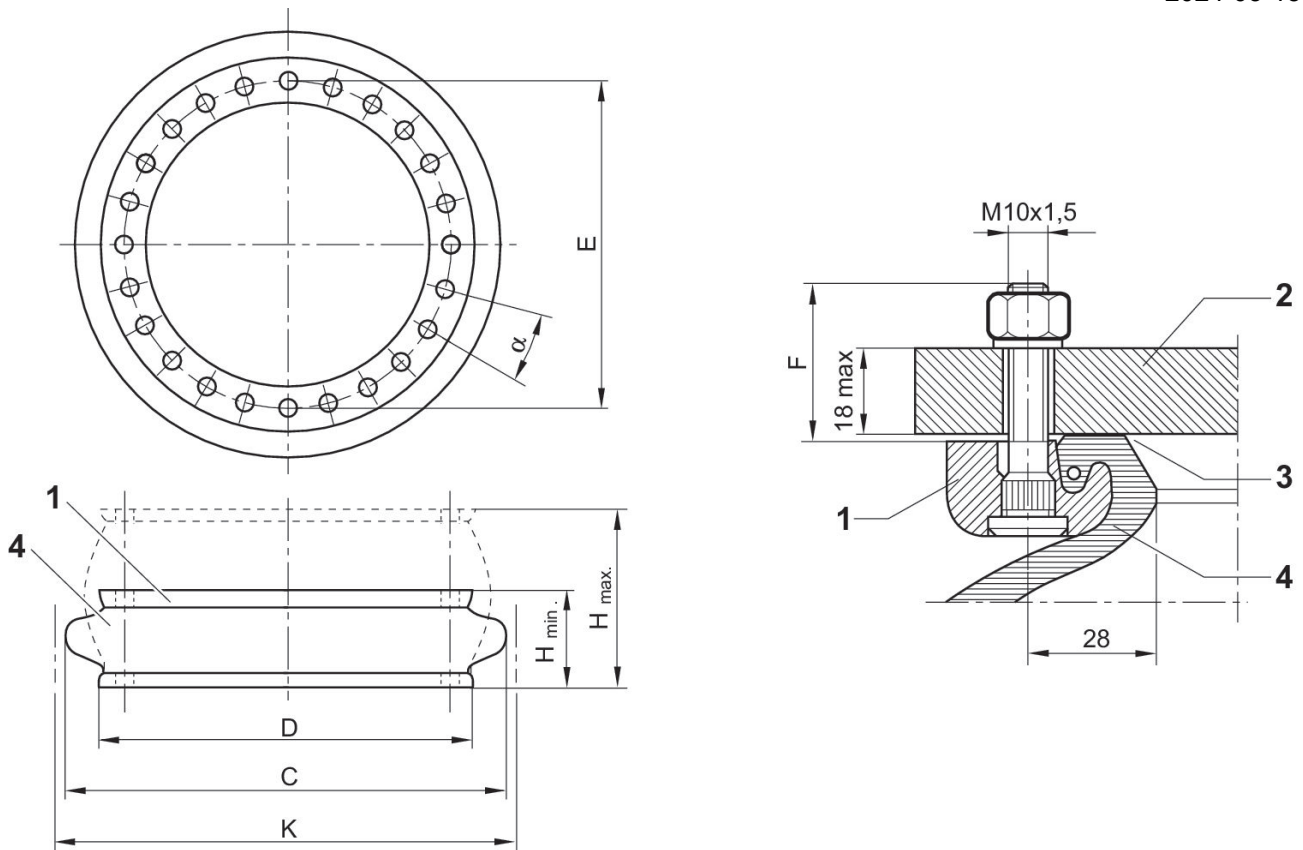
# Series BCR

2999697410

AVENTICS  
Series BCR  
Bellow  
actuators

2024-03-15

## 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	K	Min. re- turn force
2999697410	51	158	452	384	490	400
2999696600	53	145	530	451	570	90
2999697310	55	153	585	517	625	730
1971132000	55	186	725	638	770	670
2999699610	70	186	950	890	1000	1500

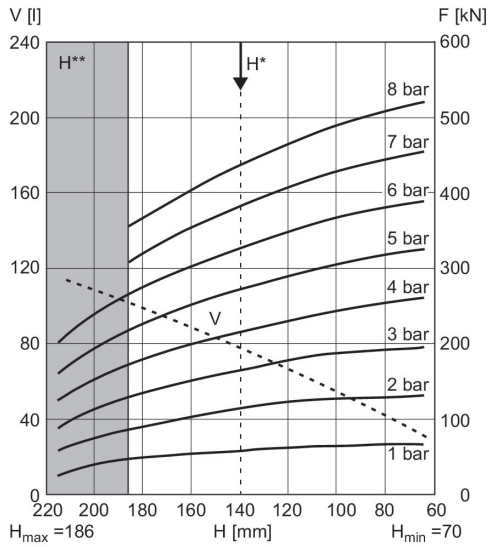
# Series BCR

2999697410

AVENTICS  
Series BCR  
Bellow  
actuators

## Force-displacement diagram

2999699610

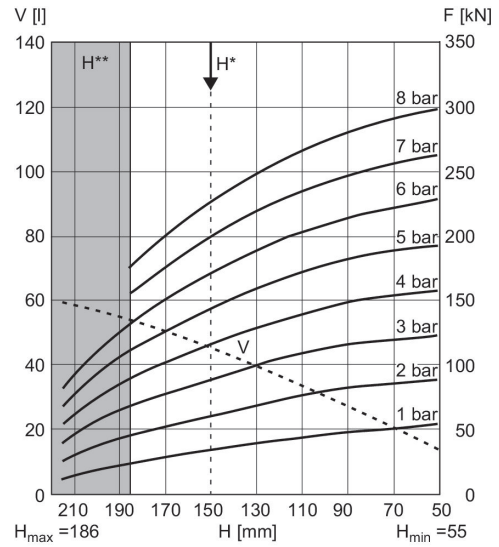


V = volume H = height H\* = recommended operating height for vibration isolation H\*\* = use permitted only upon approval by AVENTICS  
1 kN = 1000 N

## Force-displacement diagram

1971132000

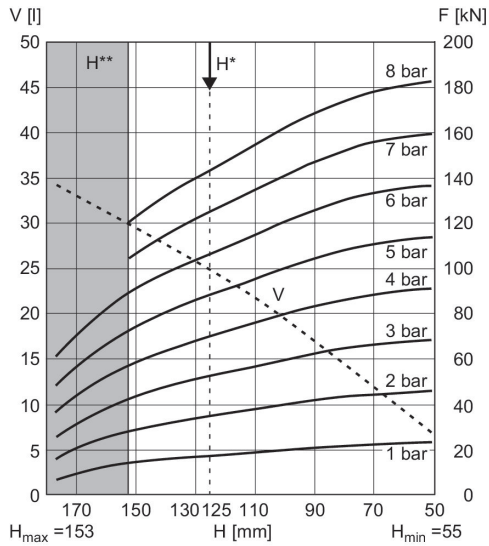
2024-03-15



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

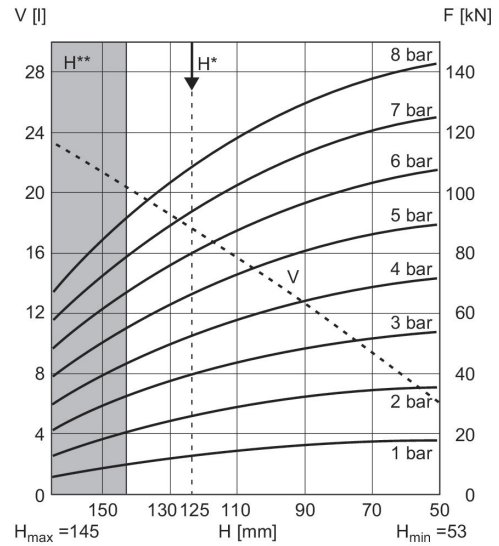
2999697310



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

2999696600



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

# Series BCR

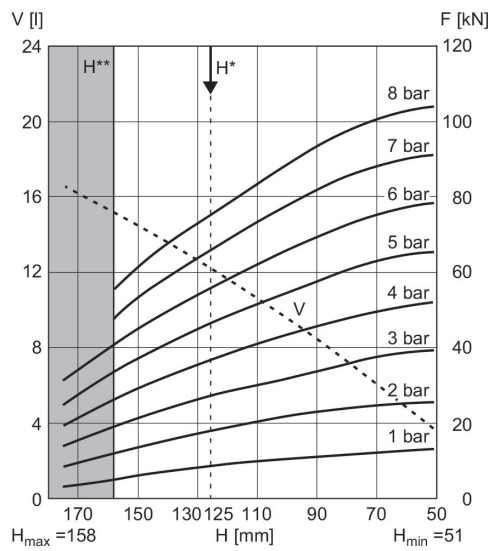
2999697410

AVENTICS  
Series BCR  
Bellow  
actuators

## Force-displacement diagram

2999697410

2024-03-15



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