

Rodless cylinders → Bellow actuator

Bellow actuator with cover, series BCS

Brochure



Rodless cylinders → Bellow actuator

Bellow actuator with cover, series BCS

Bellow actuator, Series BCS
▶ single ▶ Stroke: 34 - 107 mm

3

Bellow actuator, Series BCS
▶ double ▶ Stroke: 108 - 223 mm

9

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

► single ► Stroke: 34 - 107 mm



00134742

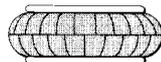
Version	Bellow actuator with cover
Functional principle	Single-acting, retracted without pressure
Max. Angle of tilt	10 ° - 20 °
Working pressure min./max.	0 bar / 8 bar
Ambient temperature min./max.	-40°C / +70°C
Medium temperature	-40°C / +70°C
Medium	Compressed air
Pressure for determining forces	6 bar
Materials:	
Bellow	caoutchouc/butadiene caoutchouc
Front cover	Stainless steel
End cover	Stainless steel

Technical Remarks

- Compliance with the min. height Hmin. (B) and max. stroke (A) must be ensured with end stops.
- Use at operating height ≥ Hmax: only permitted upon approval by Bosch Rexroth
- For information on vibration insulators, see "Technical Information"
- reduced service life at a temperature greater than: 50 °C

	Compressed air connection G	Stroke [mm]	Cover diameter [mm]	Min. installation space [mm]	Weight [kg]	Force min./max. [kN]	Fig.	Part No.
	G 1/4	34	108	165	1.2	3.5 - 6.9	Fig. 1	R412010215
	G 3/4	107	141	250	1.9	7 - 14	Fig. 1	R412010217
	G 3/4	74	161	265	2.3	9.3 - 17.3	Fig. 2	R412010218
	G 3/4	89	228	340	3.9	19.4 - 33.3	Fig. 2	R412010219
	G 3/4	104	287	400	5.9	26.1 - 50	Fig. 3	R412010220

bellow type



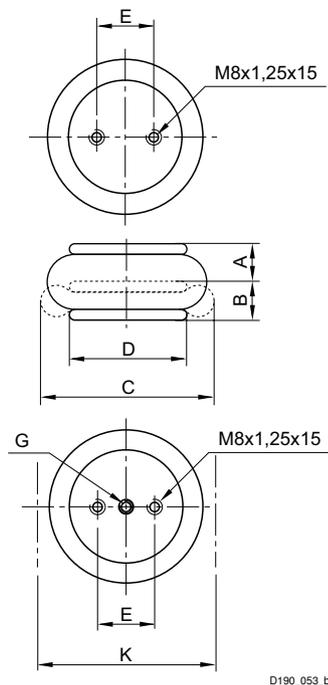
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Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

▶ single ▶ Stroke: 34 - 107 mm

Dimensions, Fig. 1



D190_053_b

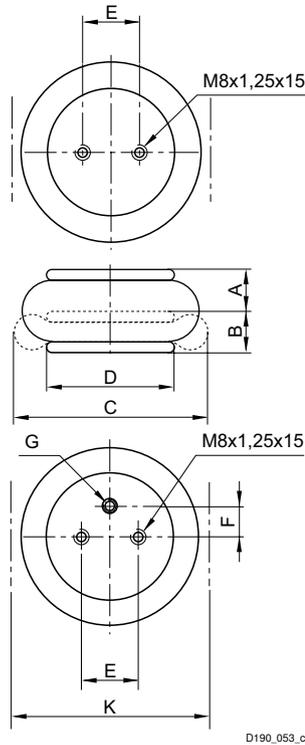
Part No.	Compressed air connection G	A [mm]	B [mm]	C [mm]	D [mm]	E ±0,5 [mm]	K [mm]	Return force, min. [N]			
R412010215	G 1/4	34	51	150	108	44.5	165	250			
R412010217	G 3/4	107	51	235	141	70	250	200			

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

► single ► Stroke: 34 - 107 mm

Dimensions, Fig. 2



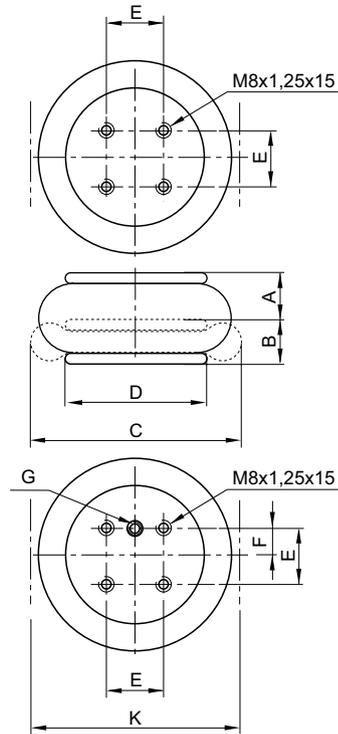
Part No.	Compressed air connection G	A [mm]	B [mm]	C [mm]	D [mm]	E ±0,5 [mm]	F ±0,5 [mm]	K [mm]	Return force, min. [N]		
R412010218	G 3/4	74	51	250	161	89	38.1	265	200		
R412010219	G 3/4	89	51	325	228	157.5	73	340	300		

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

▶ single ▶ Stroke: 34 - 107 mm

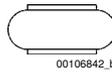
Dimensions, Fig. 3



D190_053_d

Part No.	Compressed air connection G	A [mm]	B [mm]	C [mm]	D [mm]	E ±0,5 [mm]	F ±0,5 [mm]	K [mm]	Return force, min. [N]		
R412010220	G 3/4	104	51	385	287	158.8	79.4	400	300		

force-displacement diagram for simple bellow actuators



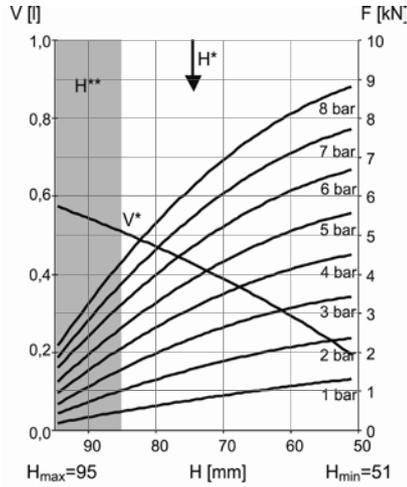
max. permissible parallel movement between the covers: 10 mm

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

► single ► Stroke: 34 - 107 mm

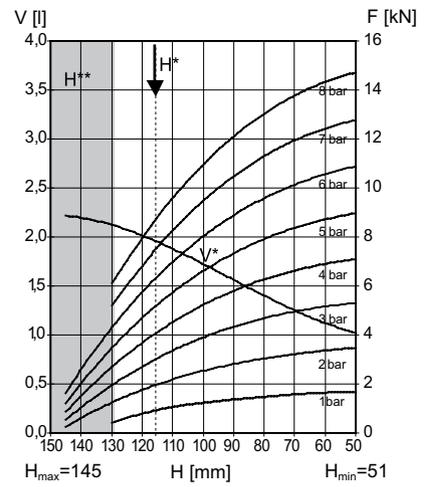
force-displacement diagram, R412010215



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V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

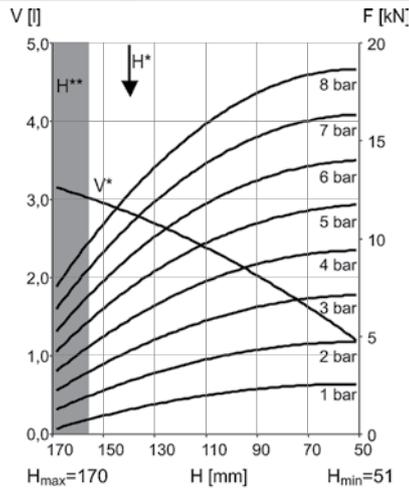
force-displacement diagram, R412010216



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V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

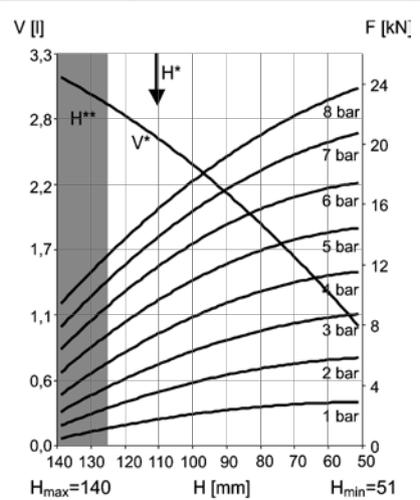
force-displacement diagram, R412010217



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V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, R412010218



00112467

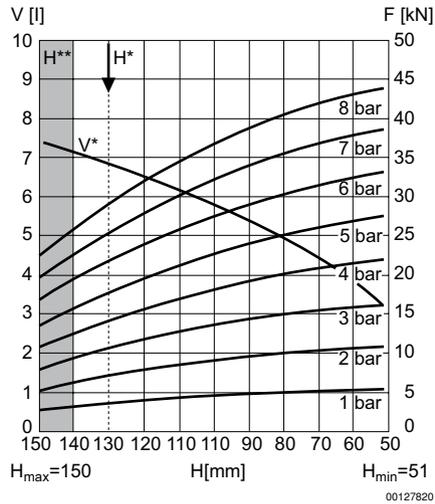
V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

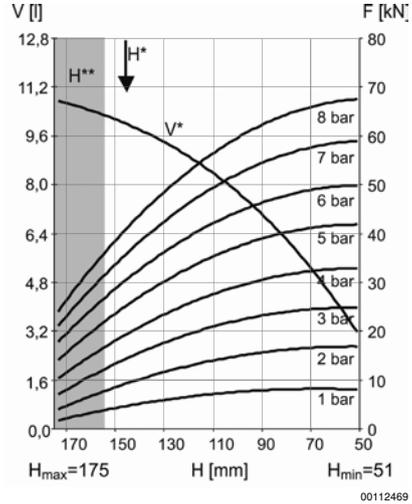
Bellow actuator, Series BCS

▶ single ▶ Stroke: 34 - 107 mm

force-displacement diagram, R412010219



force-displacement diagram, R412010220



V* = volume

H* = recommended operating height for vibration insulators

H** = use permitted only upon approval by Bosch Rexroth

V* = volume

H* = recommended operating height for vibration insulators

H** = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

► double ► Stroke: 108 - 223 mm



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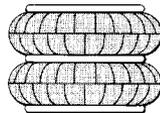
Version	Bellow actuator with cover
Functional principle	Single-acting, retracted without pressure
Max. Angle of tilt	15 ° - 25 °
Working pressure min./max.	0 bar / 8 bar
Ambient temperature min./max.	-40°C / +70°C
Medium temperature	-40°C / +70°C
Medium	Compressed air
Pressure for determining forces	6 bar
Materials:	
Bellow	caoutchouc/butadiene caoutchouc
Front cover	Stainless steel
End cover	Stainless steel

Technical Remarks

- Compliance with the min. height Hmin. (B) and max. stroke (A) must be ensured with end stops.
- Use at operating height ≥ Hmax: only permitted upon approval by Bosch Rexroth
- For information on vibration insulators, see "Technical Information"
- reduced service life at a temperature greater than: 50 °C

	Compressed air connection G	Stroke	Cover diameter	Min. installation space	Weight	Force min./max.	Fig.	Part No.
		[mm]	[mm]	[mm]	[kg]	[kN]		
	G 1/4	108	108	180	1.5	3.5 - 8.7	Fig. 1	R412010221
	G 3/4	153	141	235	2.3	7.7 - 14.8	Fig. 1	R412010222
	G 3/4	223	161	275	3.5	8.2 - 19.5	Fig. 2	R412010223
	G 3/4	223	228	355	5.1	20.5 - 36.8	Fig. 2	R412010224
	G 3/4	223	287	415	7.3	27.8 - 52.6	Fig. 3	R412010225

bellow type



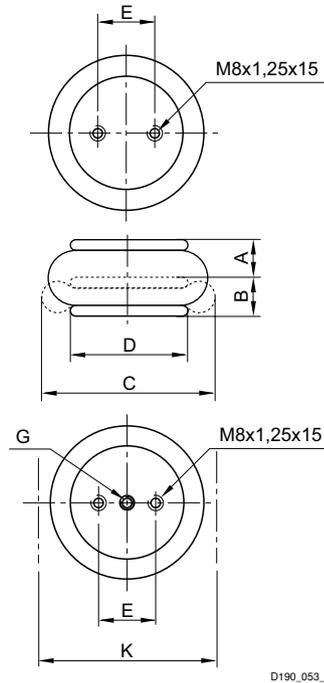
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Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

► double ► Stroke: 108 - 223 mm

Dimensions, Fig. 1



D190_053_b

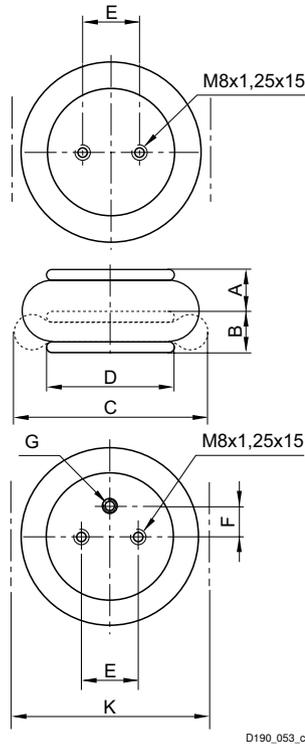
Part No.	Compressed air connection G	A [mm]	B [mm]	C [mm]	D [mm]	E ±0,5 [mm]	K [mm]	Return force, min. [N]			
R412010221	G 1/4	108	72	165	108	44.5	180	200			
R412010222	G 3/4	153	77	218	141	70	235	200			

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

► double ► Stroke: 108 - 223 mm

Dimensions, Fig. 2



D190_053_c

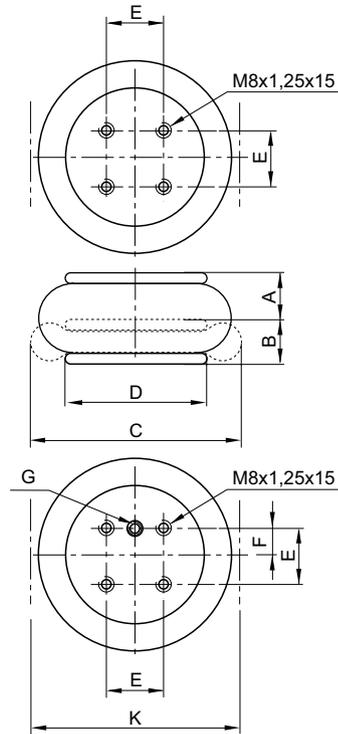
Part No.	Compressed air connection G	A [mm]	B [mm]	C [mm]	D [mm]	E ±0,5 [mm]	F ±0,5 [mm]	K [mm]	Return force, min. [N]		
R412010223	G 3/4	223	77	260	161	89	38.1	275	250		
R412010224	G 3/4	223	77	340	228	157.5	73	355	300		

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

▶ double ▶ Stroke: 108 - 223 mm

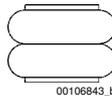
Dimensions, Fig. 3



D190_053_d

Part No.	Compressed air connection G	A [mm]	B [mm]	C [mm]	D [mm]	E ±0,5 [mm]	F ±0,5 [mm]	K [mm]	Return force, min. [N]		
R412010225	G 3/4	223	77	400	287	158.8	79.4	415	400		

force-displacement diagram for double bellow actuators



00106843_b

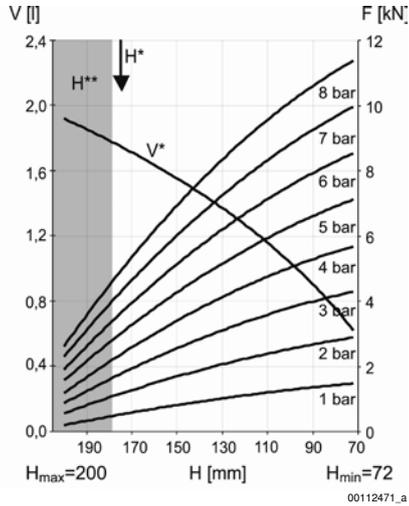
max. permissible parallel movement between the covers: 20 mm

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

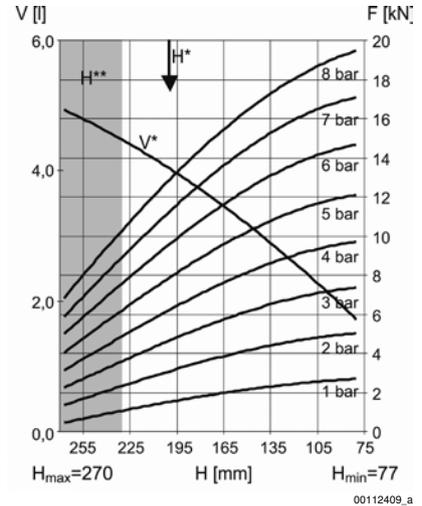
► double ► Stroke: 108 - 223 mm

force-displacement diagram, R412010221



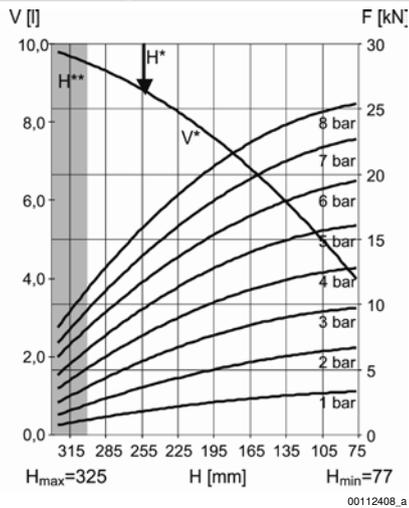
V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, R412010222



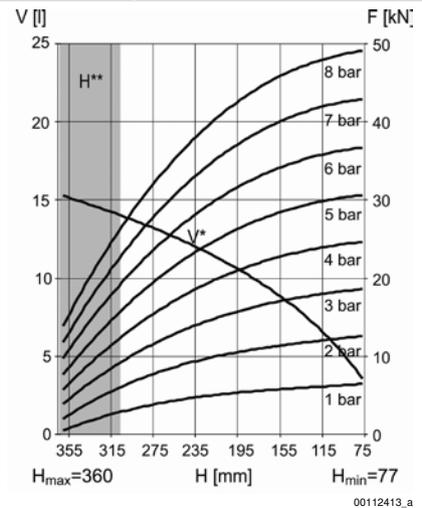
V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, R412010223



V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, R412010224

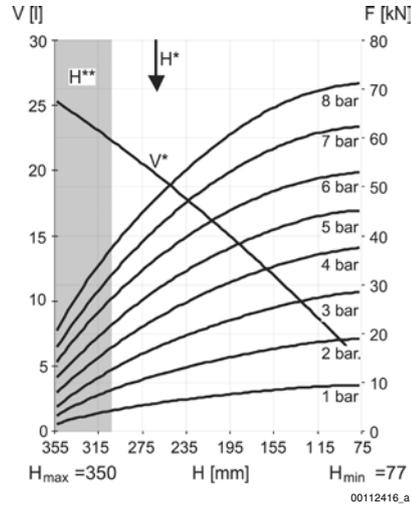


V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCS

▶ double ▶ Stroke: 108 - 223 mm

force-displacement diagram, R412010225 V^* = volume H^* = recommended operating height for vibration insulators H^{**} = use permitted only upon approval by Bosch Rexroth

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