



Badger Meter Europa

Badger Meter Europa GmbH
Nürtinger Str. 76
72639 Neuffen (Germany)
Tel. +49-7025-9208-0
Fax +49-7025-9208-15
www.badgermeter.de
badger@badgermeter.de



Standard angle control valve RC220



Features

- Control valve in sizes 1", 3/4", 1/2" and 1/4"
- Angle barstock body
- Maximum allowable pressure 340 bar
- Suitable for control of medium and low flow.
- Many variations not listed here

Applications

Suitable for control of liquids, gases or steam, in industrial applications, research, and process pilot plants. Its compact size makes it an ideal choice for additive injection, sampling, low flow hydraulic systems or wherever precise control is an important factor or physical constraints limit valve weight or size.

Connections

Standard is NPT-internal thread.
For other types, see **Data Sheet CON.**

Guiding

Standard as pictured on page 2 or optional medium and heavy duty guiding **Data Sheet GDG.**

Bonnet

Standard as pictured on page 2. Other types available as for example:
Cooling fin bonnet **Data Sheet CFG**
Bellows sealed bonnet **Data Sheet BLW**

Packing

Standard are PTFE chevron rings.
For other type, see Data Sheet PCK.

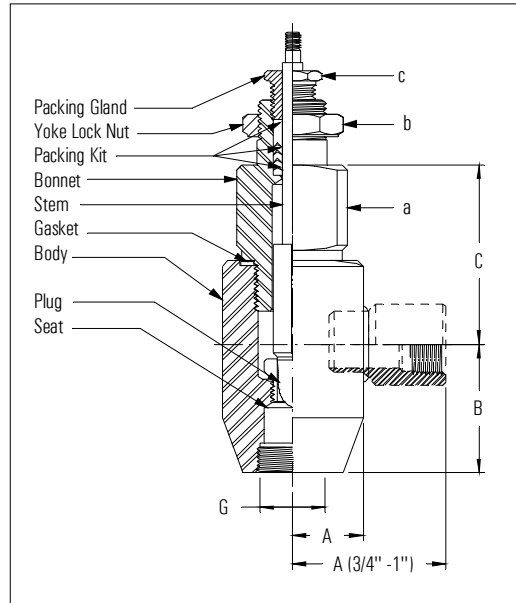
Pneumatic actuator

Die cast Aluminium with Epoxy paint, optional 316L S/S (Stainless Steel) but only for 1/2" valves.
Standard actuator "Spring to close" **Data Sheet AC-OS**
Standard actuator "Spring to open" **Data Sheet AC-CS**
With integrated pneumatic positioner:
Standard actuator "Spring to close" **Data Sheet AC-OP**
Standard actuator "Spring to open" **Data Sheet AC-CP**
Various accessories on request.

Electric actuator

Various special types available: explosion proof,
Safety position "Spring to open" or "Spring to close".
Electric **Data Sheet AC-HH500 AC-M60WE**
Electronic **Data Sheet AC-EVA1 AC-MC60**

Dimensions



G	A	B	C	a	b	c	Lift
1" NPT	76	76	86	1-3/4"	1-1/8"	1/2"	14,3
3/4" NPT	60	48	80	1-1/2"	1-1/8"	1/2"	14,3
1/2" NPT	22	40	55	1-1/4"	1-1/8"	1/2"	14,3
1/4" NPT	16	31	39	7/8"	7/8"	7/16"	11.1

Valve materials

Body	Bonnet
1.4571 barstock	1.4571 barstock
316 SS barstock	316 SS barstock
Monel barstock	Monel barstock
Alloy-20 barstock	Alloy20 barstock
Alloy-B barstock	Alloy-B barstock
Alloy-C barstock	Alloy-C barstock

For further materials, see type RC250

Innervale materials

Size	Plug	Seat
V - 0	316 SS	316 SS
V - P18	Stellite ⁽¹⁾	416 SS
V - P18	Stellite ⁽¹⁾	316 SS stellite ⁽¹⁾
A - 0	Tantal	Tantal
V - P5	Monel	Monel
V - P9	Alloy-20	Alloy-20
V - P9	Alloy-B	Alloy-B
V - P13	Alloy-C276	Alloy-C276
V - P13	Additional Titanium nitride coating	

Other materials available on request. Up to now over 140 materials and materials combinations have been used. (316 SS ~ 1.4571).

⁽¹⁾ Stellite[®] is a registered trademark of Deloro Stellite Holdings Corporation.

Pressure-temperature rating body

	°C	1.4571	Alloy-B	Alloy-C	Monel	Alloy20	Length bonnet
1" CONTROL VALVE	20	100	see type RC250	-	see type RC250	see type RC250	ST D
	100	99		-			
	200	82		-			
	300	55		-			
	400	17		-			
	500	-		-			
	600	-		-			
3/4" CONTROL VALVE	20	100	See type RC250	-	See type RC250	See type RC250	ST D
	100	99		-			
	200	82		-			
	300	73		-			
	400	48		-			
	500	-		-			
	600	-		-			
1/2" CONTROL VALVE	20	345	345	345	276	345	ST D
	100	324	345	345	258	344	
	200	269	345	345	236	335	
	300	242	336	336	234	302	
	400	226	311	311	184	382	
	500	191	-	285	116	174	
	600	-	-	231	-	-	
1/4" CONTROL VALVE	20	345	345	345	276	345	ST D
	100	343	345	345	275	345	
	200	292	345	345	260	325	
	300	267	335	335	258	295	
	400	249	329	329	249	262	
	500	159	-	299	128	174	
	600	-	-	237	-	-	

max. pressure in bar

STD = standard bonnet. Details about bonnet length CF and EF, see Data Sheet CFG

The above pressure ratings alone are not sufficient to determine if a valve is suitable for an application. You can find help for selection of innervale, material combinations, guiding, bonnet and actuator in the "instruction for valve selection" and the Data Sheets TRM, GDG, CFL resp. AC.



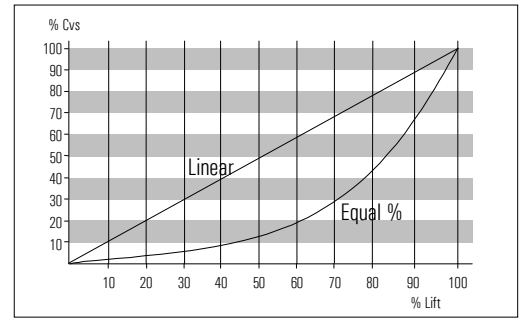
Innervolve chart

NW	Size	Cvs	NW	Size	Cvs
	V	6,0		O	0,003
	U	5,0		P1	2,0 E-03
	T	4,5		P2	1,3 E-03
	S	4,0		P3	1,0 E-03
	R	3,5		P4	6,0 E-04
	A	2,5		P5	4,0 E-04
	B	2,0		P6	2,7 E-04
	C	1,25		P7	1,8 E-04
	D	0,80		P8	1,2 E-04
	E	0,50		P9	8,0 E-05
	F	0,32		P10	5,0 E-05
	G	0,20		P11	3,6 E-05
	H	0,13		P12	2,4 E-05
	I	0,08		P13	1,6 E-05
	J	0,05		P14	1,0 E-05
	K	0,03		P15	6,0 E-06
	L	0,02		P16	4,0 E-06
	M	0,01		P17	2,7 E-06
	N	0,006		P18	1,8 E-06

Size 1" 3/4" 1/2" 1/4"

For detailed information, see Data Sheet TRM

Innervolve characteristic



Seat leakage

0.01% of Cvs for "O" and larger ANSI Class IV

0.1% of Cvs for "P1" and smaller ANSI Class III

Optional: Metallic or soft seated (PTFE or Kel-F).