Product Information

3/2-way drain valve, DN 50, vacuum controlled

A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

A.u.K. Müller GmbH & Co. KG
Dresdener Str. 162
D-40595 Düsseldorf/Germany

Tel.: +49(0)211-7391-0
Fax: +49(0)211-7391-281

e-mail: info@akmueller.de
Internet: www.akmueller.de

Series 04.050.114



Characteristics

- 3/2-way switching valve
- Vacuum controlled
- Direct acting
- Optional PVDF or stainless steel valve body
- Long term performance capability
- Max. medium temperature 90°C (PVDF 50 °C)
- No minimum pressure required
- Suitable for spray- and jet water
- High operating safety through the use of high quality materials and 100% final testing of the products

Applications

- Industrial washing machines and dishwashers
- Cleaning devices for medical equipment
- Cleaning and disinfection systems in the dairy industry and process engineering

Description

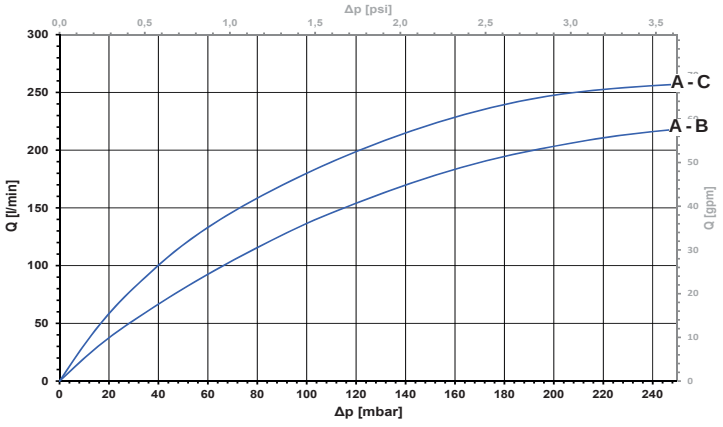
3/2-way direct acting dump valve of nominal diameter DN 50 for controlling low aggressive media, such as cleaning or disinfection agents.

Valves of this type have a medium separated control pressure chamber. They can be manufactured in various materials and equipped with threaded or hose connections.

Valve housing made of PPE or stainless steel are suitable for hot water. Valve housing made of PVDF have a higher resistance to chemicals where stainless steel has both features.

The smooth internal shape improves liquid flow and avoids dirt traps. The valve bodies can be equipped with an additional flush spout.

Typical performance curve

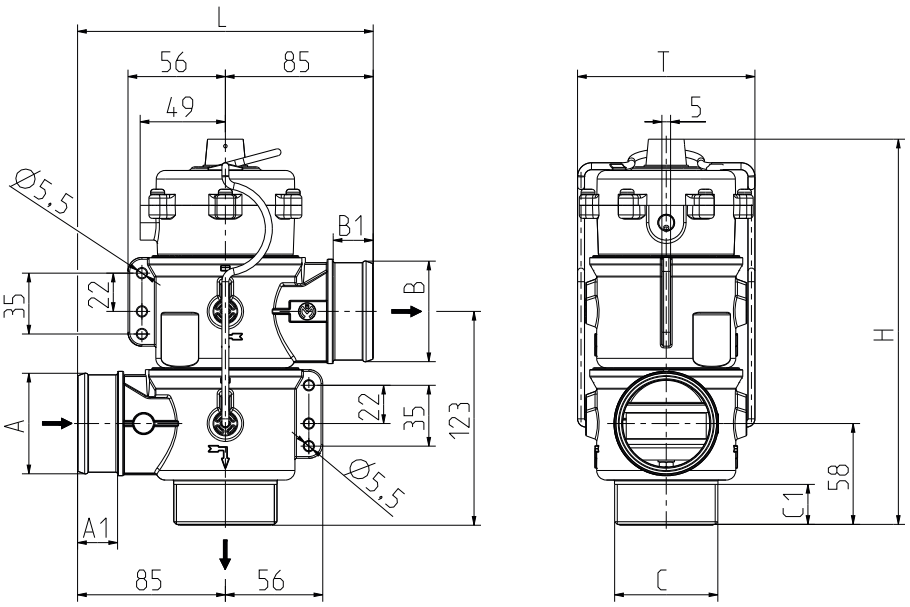


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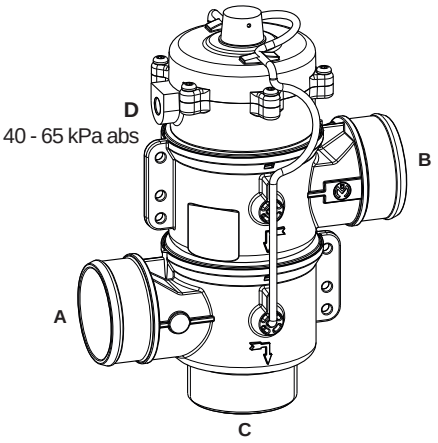


Technical Data

Type	drain valve, vacuum controlled	
Construction	3/2-way switching valve, 2-chamber valve, direct acting	
Fitting position	any, preferably upwardly	
Media	low aggressive media, such as cleaning or disinfection agents in water	
T-Medium	90	°C max.
T-Ambient	50	°C max.
DN	50	mm
p-Operating	0 - 250	mbar max.
Control vacuum range (port D)	40 - 65 -0,4 - - 0,65	kPa abs. bar rel.

Materials

Valve body	PPE, PVDF or stainless steel on request
Control chamber	PPE
Plunger guide	Stainless steel
Plunger	Stainless steel
Sealings	EPDM FKM (on request) NBR (on request)



D - inactive	A - C A - B	open closed
D - active	A - C A - B	closed open

Control port **D** can be rotated by 180° to direction **A** on request.

⚠ To prevent moisture entries in the vacuum chamber, appropriate measures should be provided.

⚠ It must be ensured that both outlets of the valve have free flow.

Options

ID	Material							Length	Height	Depth
		Ø A	A1	Ø B	B1	Ø C	C1	L	H	T
51590	PPE	nozzle 2“	23	nozzle 2“	23	G 2	23	170	222	102
51591		nozzle 2“		nozzle 2“		nozzle 2“				
on request		G 2		nozzle 2“		nozzle 2“				
		G 2		G 2		nozzle 2“				
		nozzle 2“		G 2		G 2				

* PVDF or stainless steel valve housing on request.

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International vacuum/pressure conversion table

Unit	bar	N/cm²	kPa	atm., kp/cm², m H2O	Torr, mm Hg	psi
bar	1	10	100	1,0197	750,06	14,5
N/cm²	0,1	1	10	0,1019	75,006	1,45
kPa	0,01	0,1	1	0,0102	7,5006	0,145
atm., kp/cm²; m H2O	0,9807	9,807	98,07	1	735,56	14,22
Torr, mm Hg	0,00133	0,0133	0,1333	0,00136	1	0,0193
psi(a)	0,0689	0,6896	6,896	0,0703	51,68	1

International vacuum/ pressure conversion table comparing absolute and relative values

Relative vacuum	Residual pressure absolute		Relative pressure					
%	kPa	bar	bar	N/cm²	kPa	atm., kp/cm², m H2O	Torr, mm Hg	psi
10	90	0,9	-0,101	-1,01	-10,1	-0,1	-76	-1,47
20	80	0,8	-0,203	-2,03	-20,3	-0,2	-152	-2,94
30	70	0,7	-0,304	-3,04	-30,4	-0,3	-228	-4,41
40	60	0,6	-0,405	-4,05	-40,5	-0,4	-304	-5,88
50	50	0,5	-0,507	-5,07	-50,7	-0,5	-380	-7,35
60	40	0,4	-0,608	-6,08	-60,8	-0,6	-456	-8,82
70	30	0,3	-0,709	-7,09	-70,9	-0,7	-532	-10,28
80	20	0,2	-0,811	-8,11	-81,1	-0,8	-608	-11,75
90	10	0,1	-0,912	-9,12	-91,2	-0,9	-684	-13,22

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