



Technical data sheet; Control valve series 94

General Data

Series	94
Nominal bore DN	25, 40, 50
Nominal pressure PN	16/10
Characteristics	equal percentage, linear or On / Off
Rangeability	50:1 (kvs-value > 4 to ≤ 63), 30:1 (kvs-value ≤ 4 and > 63)
Plug guide	stem guided, optional: seat guided (K-plug, V-plug)
Leakage rate	IEC 60534-4 leakage rate class VI
Flanges	according to DIN EN 1092-2, Form B
Bellows	standard PTFE-bellows or antistatic bellows
Seat and plug	standard PTFE or antistatic, Hastelloy upon request
Range of application	- 10°C bis + 180°C operating temperature 10 bar operating pressure
Certificates	ATEX, SIL, FDA, EN10204-2.1, 2.2 and 3.1



Technical data sheet; Control valve series 94

Materials

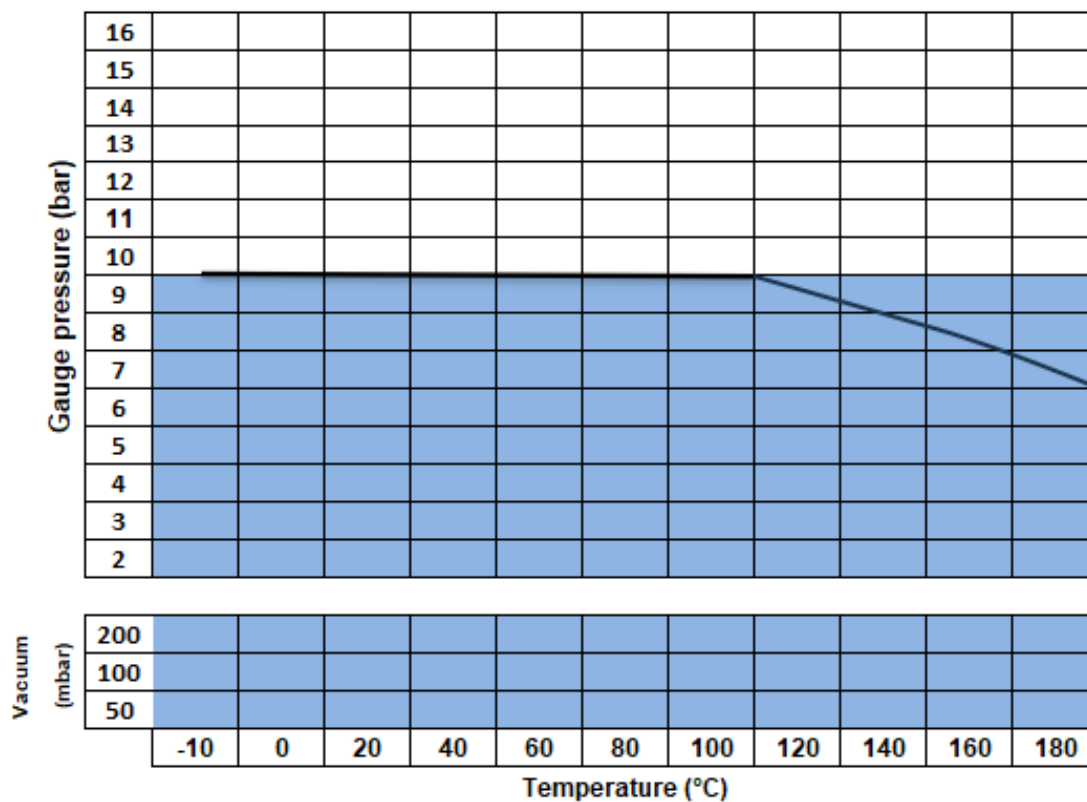
Body material		EN		Temperatures		ASTM	Temperatures
		0.7043 EN- JS 1049 (GGG40.3)		-10 to 180°C		A395	-10 to 180°C
Lining		standard: AFPS standard (white) optional: AFPA antistatic (black)					
Trim materials							
Var.	Plug	K-Plug	V-Plug	Seat	Bellows	Max. permissible medium temperatur °C	
1	PTFE	---	---	PTFE	PTFE	-10 to 180°C	
2	---	PTFE	---	PTFE	PTFE	-10 to 180°C	
3	PTFE-AS	---	---	PTFE-AS	PTFE-AS	-10 to 180°C	
4	---	PTFE-AS	---	PTFE-AS	PTFE-AS	-10 to 180°C	

AS= antistatic



Technical data sheet; Control valve series 94

Pressure- vacuum- temperature- range





Technical data sheet; Control valve series 94

Actuator allocation and admissible differential pressures Δp

Control valves with PTFE-packing and Po actuator,
Flow against closing direction, spring closes.

Actuator Po										Minimum air pressure (bar)		1.4	1.4	2	3	4	5				
										Air pressure range (bar)		0.3 - 1.1	-	-	-	-	-				
										Actuator size MA9...		21 A6 3R 31 B6 3B	21 A6 1S 31 B6 1S	21 A6 2S 31 B6 2S	21 A6 4S 31 B6 3S	21 A6 5S	21 A6 7S				
										No. of springs											
Spring closes										Spring type											
Valve										Maximal differential pressures in (bar) for type of sealing											
										soft-sealing (PTFE)		soft-sealing (PTFE)		soft-sealing (PTFE)		soft-sealing (PTFE)		soft-sealing (PTFE)		soft-sealing (PTFE)	
Nominal bores										Actuator											
25		40		50		kvs m³/h	cv gpm	ø mm	stroke ↑ mm	size MA9.											
						0.1	0.12	4	16	21 A6	10	10									
						0.16	0.19			21 A6	10	10									
						0.25	0.29	5	16	21 A6	10	10									
						0.4	0.46			21 A6	10	10									
						0.63	0.73			21 A6	10	10									
						1	1.2			21 A6	10	6									
						1.6	1.9	10	16	21 A6	10	2									
										31 B6	10	10									
						2.5	2.9	12	16	21 A6	10	-									
										31 B6	10	10									
						4	4.7	15	16	21 A6	10	-									
										31 B6	10	10									
						6.3	7.3	20	16	21 A6	7	-	10	10							
										31 B6	10	2	10	10							
						10	11.5	25	16	21 A6	4	-	10	10							
										31 B6	10	-	10	10							
						16	19	28/30	16	21 A6	-	-	2	10							
										31 B6	10	-	10	10							
						25	29	36	16	21 A6	-	-	-	10							
										31 B6	-	-	10	10							
						40	46	46	16	21 A6	-	-	-	6	10						
										31 B6	-	-	2	10							



Technical data sheet; Control valve series 94

Actuator allocation and admissible differential pressures Δp

Control valves with PTFE-packing and Ps actuator,
Flow against closing direction, spring opens.

Actuator Ps		Minimum air pressure (bar)				1.4	2	3	4	5				
Spring opens		Air pressure range (bar)				-	-	-	-	-				
		Actuator size MA9...				21 A6 3R								
		No. of springs				31 B6 3B								
		Spring type												
Valve										Maximal differential pressures in (bar) for type of sealing				
Nominal bores				kvs	cv	seat	stroke	Actuator	soft-sealing (PTFE)	soft-sealing (PTFE)	soft-sealing (PTFE)	soft-sealing (PTFE)	soft-sealing (PTFE)	
	25	40	50		m³/h	gpm	ø mm	↑ mm	size MA9.					
					0.1	0.12	4	16	21 A6	10	10			
					0.16	0.19			21 A6	10	10			
					0.25	0.29			21 A6	10	10			
					0.4	0.46	5	16	21 A6	10	10			
					0.63	0.73			21 A6	10	10			
					1	1.2	8	16	21 A6	10	10			
					1.6	1.9	10	16	21 A6	10	10			
									21 A6	10	10			
					2.5	2.9	12	16	21 A6	10	10			
									21 A6	10	10			
					4	4.7	15	16	21 A6	10	10			
									21 A6	10	10			
					6.3	7.3	20	16	21 A6	10	10			
									31 B6	10	10			
					10	11.5	25	16	21 A6	8	10			
									31 B6	10	10			
					16	19	28/30	16	21 A6	6	6	10		
									31 B6	10	10	10		
					25	29	36	16	21 A6	4	8	10		
									31 B6	10	10	10		
					40	46	46	16	21 A6	2	6	10		
									31 B6	6	10	10		



Technical data sheet; Control valve series 94

Small- kvs- values (linear and equal percentage characteristics)

DN		K _{v100} m ³ /h	seat-ø mm						
DIN/ISO (mm)	ANSI (Inch)		DN 25 (1"): Seat ø 10mm						
DN 25	1	K _{v100}	1.0	0.63	0.4	0.25	0.16	0.1	< 0.1 with Hastelloy

Other sizes and kvs- values on request

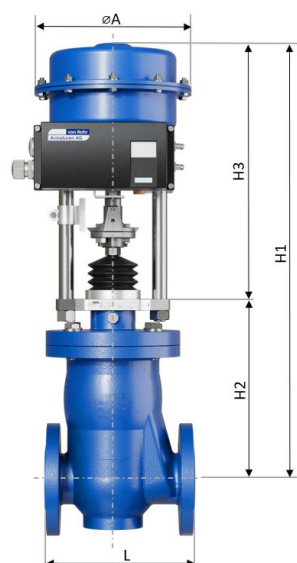




Technical data sheet; Control valve series 94

Dimensions and weights (in mm and kg)

Valve 94 (dimensions with flanges according to DIN EN 1092-2 respectively ANSI Class 150/300 RF)														
DN (mm)			15	20	25	40	50	65	80	100	150			
ANSI NPS (Inch)			1/2"	3/4"	1"	1½"	2"	-	3"	4"	6"			
L	PN 16		-	-	160	200	230	-	-	-	-			
L	Class 150 RF		-	-	-	-	-	-	-	-	-			
L	Class 300 RF		-	-	-	-	-	-	-	-	-			
H2	(mm)		-	-	205	243	248	-	-	-	-			
G	weight (kg)		-	-	13.5	22.5	24	-	-	-	-			
Actuator														
Type	G	ØA	H3	H6	H7	H1								
9.21 A6...	7	210	303	-	-	-	-	508	546	551	-	-	-	-
9.31 A6...	16	310	332	-	-	-	-	537	575	580	-	-	-	-
9.31 B6...	16	310	315	-	-	-	-	520	558	563	-	-	-	-
9.31 C6...	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.41 A6...	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.41 B6...	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.41 C6...	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Swiss precision for fluids and flow control

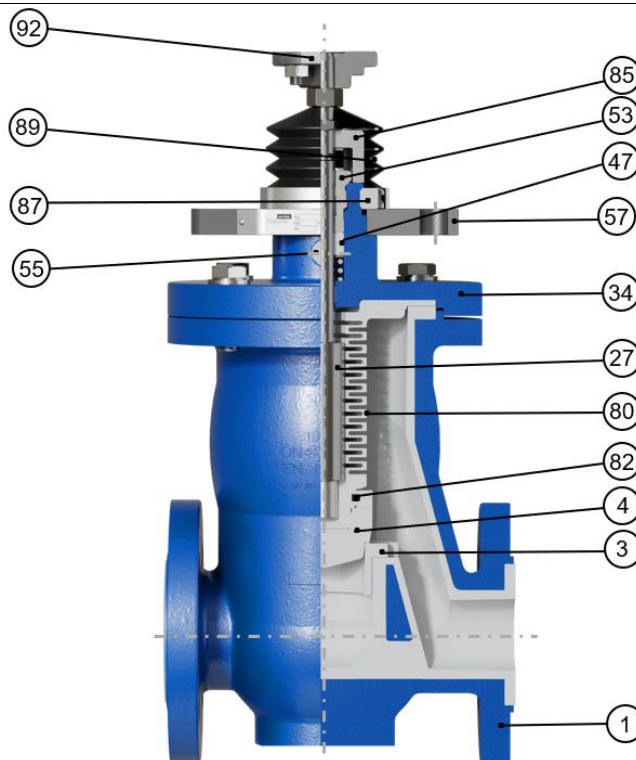
von Rohr Armaturen AG • Member of the **ARCIS** Group

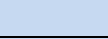
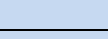
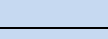
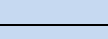
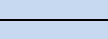
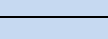
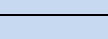
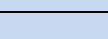
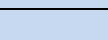
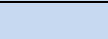
Fichtenhagstrasse 4 • CH-4132 Muttenz • Tel. +41 (0)61 467 91 20 • Fax +41 (0)61 467 91 21 • info@von-rohr.ch • www.von-rohr.ch



Technical data sheet; Control valve series 94

Spare parts



Pos		Picture	Body: ductile cast iron EN-JS 1049 (ASTM A395)	Lining: AFPS, optional AFPA antistatic
1	Body			
3	Seat		PTFE / PTFE antistatic	
4	Plug		PTFE / PTFE antistatic	
27	Stem		stainless steel	
34	Cover		Ductile cast iron EN-JS 1049 (ASTM A395)	
47	Packing (Kit)		PTFE	
53	Stuffing box screw		stainless steel	
55	Locking screw		stainless steel	
57	Traverse		steel galvanized / stainless steel	
80	Bellows		PTFE / PTFE antistatic	
82	Round cord		PTFE	
85	Stroke limitation		stainless steel	
87	Union nut		steel galvanized	
89	Protection bellows		Rubber conductive	
92	Coupling		stainless steel	