COMAR line

CVDN

Control valves DN 15 - 40, PN 16

Specification

Valves cvdn COMAR control valves are compact design with male thread. They are characterized by minimal dimensions and weight, and reliable control function and high tightness in the closed state. Thanks to its unique, optimized for the control of thermodynamic processes LDMspline flow characteristics make them ideal for heating and air conditioning® systems. With the simple design of the internal parts and the long lifetime of the gland they meet all requirements for maintenance-free long-term operation. The fittings are designed as a direct two-way or a three-way valve. Supplied with fittings that enable alternatively threaded, flanged or Schweißan-circuit as well as a quick and easy installation of the valve to the system. In conjunction with electro-mechanical drives allow the valves a settlement with three-position or modulating control. Included is a hand wheel, which can be used to mount the drive for manual control.

Application

The materials used for the throttle system materials - cone made of stainless steel of high quality and soft seals for hermetic closure in both branches - allow the use of these valves are not only in the usual warm and hot water loops in the heating industry, but also some characteristic media properties, z . as in the refrigeration and air conditioning technology.

Working media

Valves series cvdn suitable for the control of water or air, and cooling of mixtures and other non-aggressive liquids and gases in the temperature range of +2 ° C to +150 ° C. The sealing surfaces of the throttle system are resistant to normal dirt, upon the occurrence of abrasive admixtures it is to ensure a reliable function, however, necessary to put a filter in front of the valve.

Installation positions

The valves can be mounted in any position except in cases where the drive is mounted below the valve. The flow direction is indicated by the marking on the body determines the entrances are designated by the letters A and B, starting with the AB.

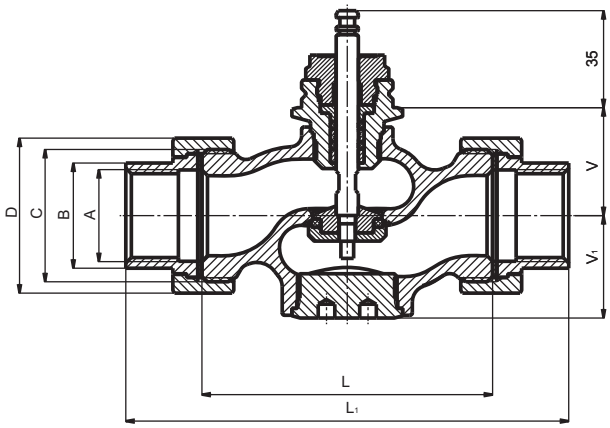
Technical Parameters

Series	CVDN	
Execution	Through control valve, reverse	Three-way control valve
Size range	DN 15 bis 40	
Nominal pressure	PN 16	
Material body	Cast iron EN-JL 1030	
Plug material	Stainless steel 1.4021 / 17 022.6	
Operating temperature range	+2 bis +150°C	
Types of connection	Externally threaded fitting + Flange with raised faces Externally threaded coupling + weld	
Weld material	DN 15 bis 32 ... 1.0036 / 11 373.0 DN 40 ... 1.0308 / 11 353.0	
Cone Type	Shaped or cylindrical, with soft seat sealing	
Flow characteristics	LDMspline®, linear	Linear / linear
Kvs values	0.16 bis 25 m^3/h	0.25 bis 25 m^3/h
Leakage rate	Klasse IV. - S1 nach ČSN-EN 1349 (5/2001) (<0.0005 % Kvs)	
Rangeability r	min 50 : 1	
Packing box	O - Ring EPDM	

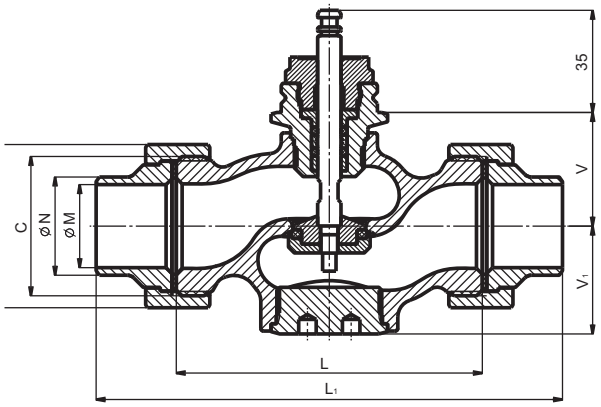
CVDN valves ... / T with threaded ends and CVDN ... / W with weld - Dimensions and weight

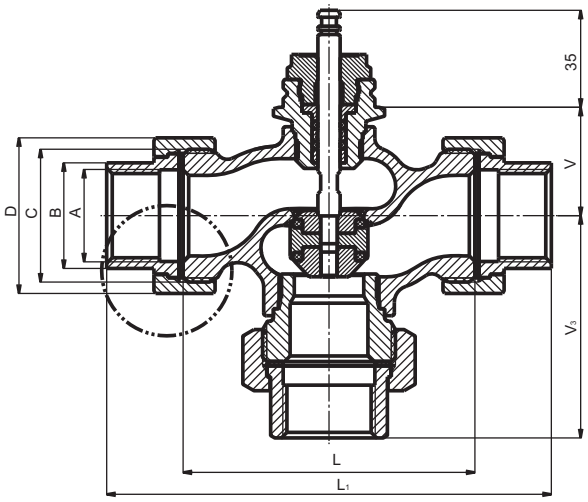
DN	L	L_1	V	V_1	V_3	A	B	C	D	∅ M	∅ N	H	m 2-Wege	m 3-Wege
	mm	mm	mm	mm	mm		mm		mm	mm	mm	mm	kg	kg
15	100	146	39	36.5	73	Rp 1/2	25	G 1	41	16.1	21.3		1.15	1.35
20	100	149	39	36.5	74.5	Rp 3/4	32	G 1 1/4	51	21.7	26.9		1.45	1.75
25	105	160	39	37	80	Rp 1	38	G 1 1/2	56	29.5	33.7	5,5	1.7	2.15
32	130	193	50	49	96.5	Rp 1 1/4	47	G 2	71	37.2	42.4		3.0	3.8
40	140	207	50	49		Rp 1 1/2	53	G 2 1/4	76	43.1	48.3		3.5	4.4

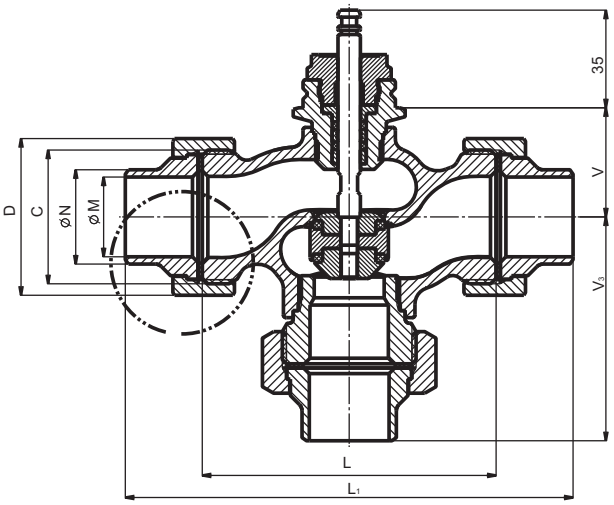
CVDN valves ... / T with screw



CVDN valves ... / W with weld



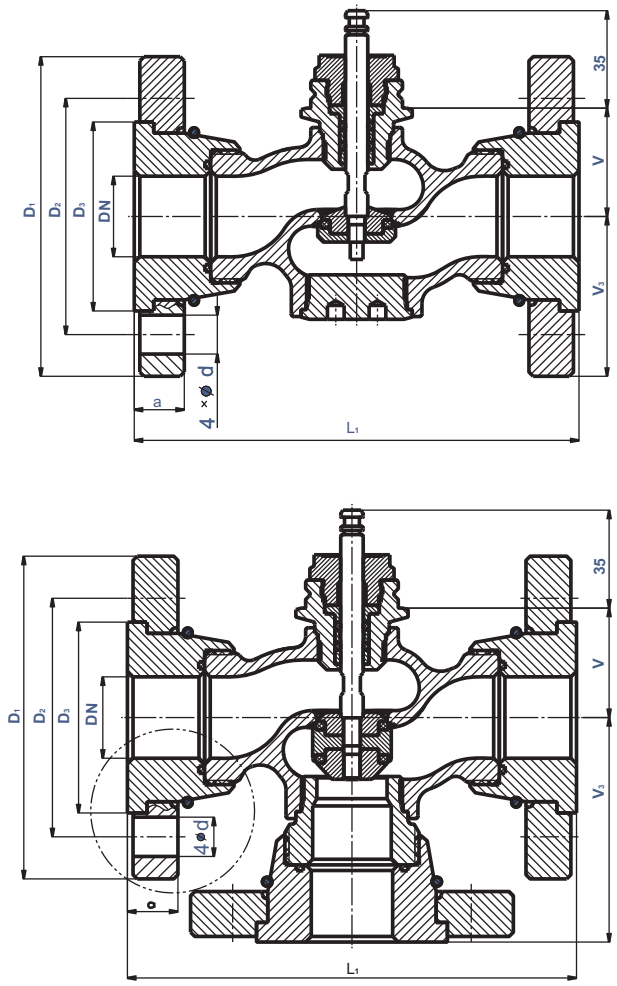




CVDN valves ... / F in flange - Dimensions

DN	L_1	V	V_2	V_3	∅ D_1	∅ D_2	∅ D_3	a	∅d	H	m 2-Wege	m 3-Wege
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
15	130	39	42.5	65	95	65	45	16	14		2.3	3.1
20	150	39	52.5	75	105	75	58	16	14		3.2	4.4
25	160	39	57.5	80	115	85	68	18	14	5,5	3.8	5.3
32	180	50	70	90	140	100	78	18	18		5.9	8.1
40	200	50	75	100	150	110	88	19	18		6.9	9.5

CVDN valves ... / F in flange with raised faces



Durchflußkoeffizienten Kvs and differential pressure

	Kvs [m³/ h]								Δp_{max}
DN	1	2	3	4	5	6	7	8	kPa
15	4.0	2.5	1.6	1.0	0.63	0.4	0.25	0.16 [1)]	1600
20	6.3	---	---	---	---	---	---	---	1300
25	10.0	---	---	---	---	---	---	---	800
32	16.0	---	---	---	---	---	---	---	500
40	25.0	---	---	---	---	---	---	---	300

Globe Valve DN 15 to 25 characteristic LDM®spline, DN 32 and 40 linear characteristic.

Three-way valve - characteristics in both arms straight, only applies to two-way design.

Available actuators

FRAKTA	Actuator VA250.1 oder VA500C.1	AC 24 V, 3-Point control, Reg. 0..10V, 2..10V
	Actuator VA250.2 oder VA500C.2	AC 230 V, 3-Point control

Schalterkodierung Codage de commutation Swith coding Codifica di intervento Codificación de conmutación Kodomkopplare Schakelcodering	Laufzeit für 5,5 mm Hub Temps de marche pour une course de 5,5 mm Running time for 5,5 mm of stroke Tempo di marcia per corsa 5,5 mm Tiempo de funcionamiento para carrera de 5,5 mm Gångtid pr. 5,5 mm slaglängd Looptijd voor 5,5 mm slag
1 2 3 On Off	25 s ± 2
1 2 3 On Off	40 s ± 3
1 2 3 On Off On Off	80 s ± 6