



VALFONTA

PNEUMATIC CONTROL VALVES

SERIES C1

C1-19A-ENG

Control valve are designed to control of gases, vapors and liquids according to the European Pressure Equipment Directive and certificated ISO 9001 quality assurance system.

Globe body, top entry, single seated, two way, direct or reverse action, multi spring pneumatic actuator. The modular concept of valve and a wide range of different trims available, allows a lot of combinations.

When used in conjunction with the pneumatic actuator they provide modulating control or on/off service. Actuator can be changed to direct or reverse actuation on line quickly.

The body shape gives optimum flow characteristics.

VALVE FEATURES

DN15 to DN100

DN125 and DN150 (balanced inlet pressure)

DIN PN25 Nodular Iron GJS-400-18-LT (0.7043)

DIN PN25 Bronze RG-10 (EN-1982 CuSn10-CC480K)

DIN PN40 Carbon steel GP240GHN (1.0619)

DIN PN40 Stainless steel CF3M (1.4408)

Plug types equal percentage, linear or ON/OFF

Top guided standard construction

Connection Flanged Face Form B1 (acc. to EN 1092-1)

On request: Threaded BSP or NPT, BW, SW,...

Shut off capabilities:

- Class IV (metal to metal)
- Class VI (PTFE+GR seat)
-

On request, PEEK, NBR, EPDM seal, stellite faced seat,...

Double V-Rings packing as standard

Full port as standard. Reduced port on request

Low noise and anticavitation cage available

NAMUR IEC 534.6 clamp as standard



Figure 1

ACTUATOR FEATURES

Steel 1.0335 epoxy painted

Diaphragm NBR + reinforced fabric

Temperature -20°C to +70°C

Allowable air pressure up to 4 barg (Conn. 1/4" BSP-F)

4 actuator sizes: D205, D275, D360 and D430

OPTIONS

Electro pneumatic (Ex) positioner transmitter 4-20 mA, Smart positioner, Air filter regulator, Top-work manual hand wheel, stainless steel construction, solenoid valves, alarm contacts, ...



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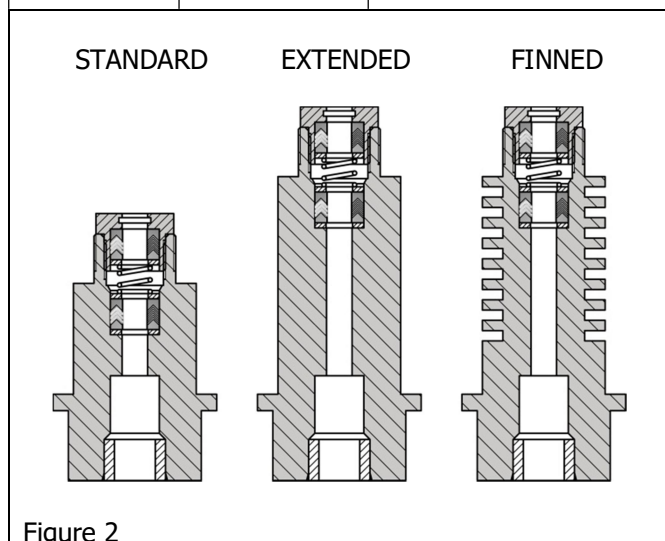
C1-19A-ENG

PRESSURE – TEMPERATURE RATINGS (according to EN12516-1 and EN 1092-2)

Nominal Pressure	Body material	Services temp.	°C	-10	50	100	150	200	250	300	350
PN25 – Class 150	Nodular Iron (0.7043) EN-GJS-400-18	Working pressure	bar	25	25	25	24	23	21	20	17
PN40 – Class 300	Carbon steel GP240GH (1.0619)		bar	40	40	36	35	34	33	30	29
PN40 – Class 300	Stainless steel AISI 316L (1.4408)		bar	40	38	33	30	28	26	25	24

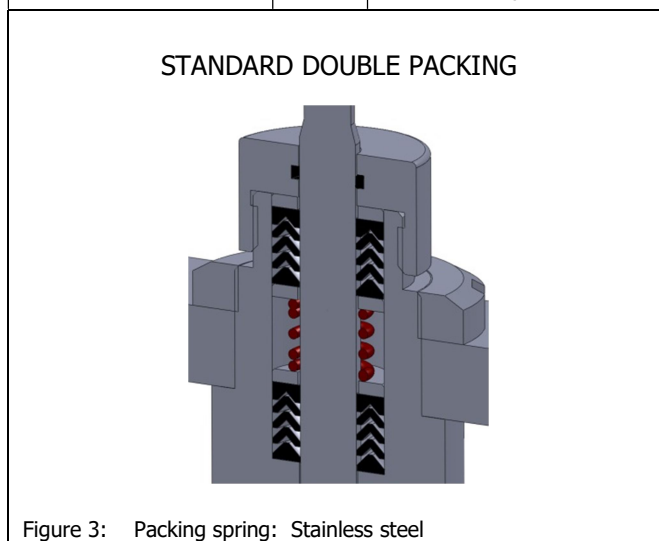
BONNET

Bonnet	Working Temperature	Material
Standard	-5 to +200°C	* Zinc plated Steel 1.1191
Finned	> +200°C	
Extended	< -5°C	Stainless steel AISI 316 (1.4408)
Bellow seal	Consult us	



STEM SEALING

Material	PN	Working Temperature
* PTFE+GR V-Rings (spring loaded)	50	Up to +200°C
PTFE V-Rings	50	Up to +150°C
Graphite Rings	50	Up to +350°C
Bellow seal	25	N/A





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VALVE DIMENSIONS, WEIGHT AND Kv VALUES

DN	15	20	25	32	40	50	65	80	100	125	150
Kv (m³/h)	3.5	5	9	15	22	35	60	85	130	200	260
Cv (gpm)	4	5.8	10.4	17.5	25	41	70	100	152	234	304
Stroke (mm)	20						30			40	
A (EN 558-1) (mm)	130	150	160	180	200	230	290	310	350	400	480
A ANSI150 (mm) (inches)	○	○	184 7,25"	-	222 8,75"	254 10"	276 10,86"	298.5 11,75"	352.5 13,88"	-	451 17,75"
A ANSI300 (mm) (inches)	○	○	197 7,76"	-	235 9,25"	267 10,51"	292 11,5"	317.5 12,50"	368 14,49"	-	-
L (with HF.275) (mm)	330	330	395	395	420	420	455	455	475	-	-
L (with HF.430) (mm)	360	360	425	425	450	450	485	485	505	-	-
Valve Weight (without actuator) (kg)	5	6	7	8	12	15	20	25	40	-	-

○ Available under request

L2 = L + 50 mm

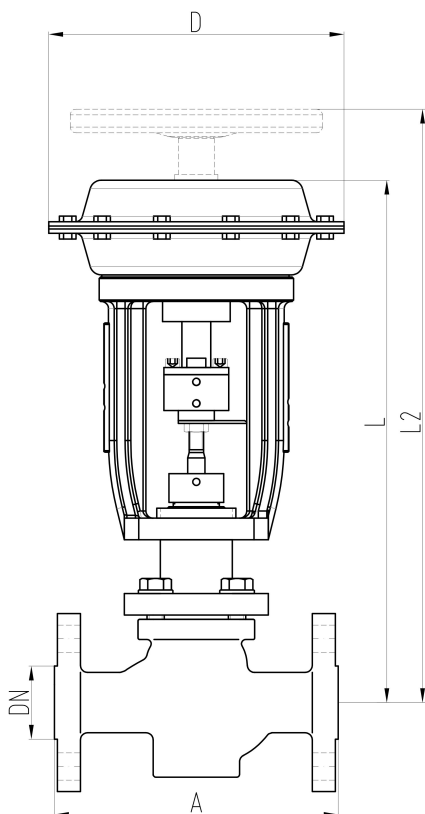


Figure 4

ACTUATOR DIMENSIONS AND WEIGHT

	HF.205	HF.275	HF.360	HF.430
D (mm)	205	275	360	430
Superficie (cm²)	140	310	550	800
Weight (Kg)	10	13	18	25

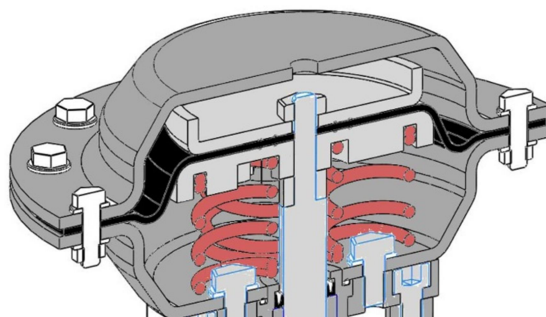


Figure 5



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	Description	Material		Description	Material
1	Body	Nodular Iron GGG40.3, Bronze RG10 Carbon steel WCB Stainless steel CF3M-316L	11	Blocking Nut	Stainless steel A2-70
2	Seat	Stainless steel AISI 316L	12	Packing cap nut	Stainless steel AISI 316L
3	Guide	Stainless steel AISI 316L	13	Clamping nut	Zinc plated steel 1.1191
4	Seal	PTFE+Graphite / SS316L / consult	14	Bonnet	See Bonnet table
5	Support seal	Stainless steel AISI 316L	15	Washer	Zinc plated steel 1.1191 Stainless steel A-2
6	Block Pin	Stainless steel AISI 316L	16	Bonnet cover	Zinc plated steel 1.1191
7	Bolts	Zinc plated steel 1.1191 Stainless steel A2-70	17	Plug stem	Stainless steel AISI 316L
8	Stem	Stainless steel AISI 316L	18	Gasket	Graphite
9	Packing group	(See stem sealing table – pag. 2)	19	Guide	Stainless steel AISI 316L + Ni
10	O-ring	Viton	20	Block Pin	Stainless steel AISI 316L

Recommended spare parts



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VALVE PARTS

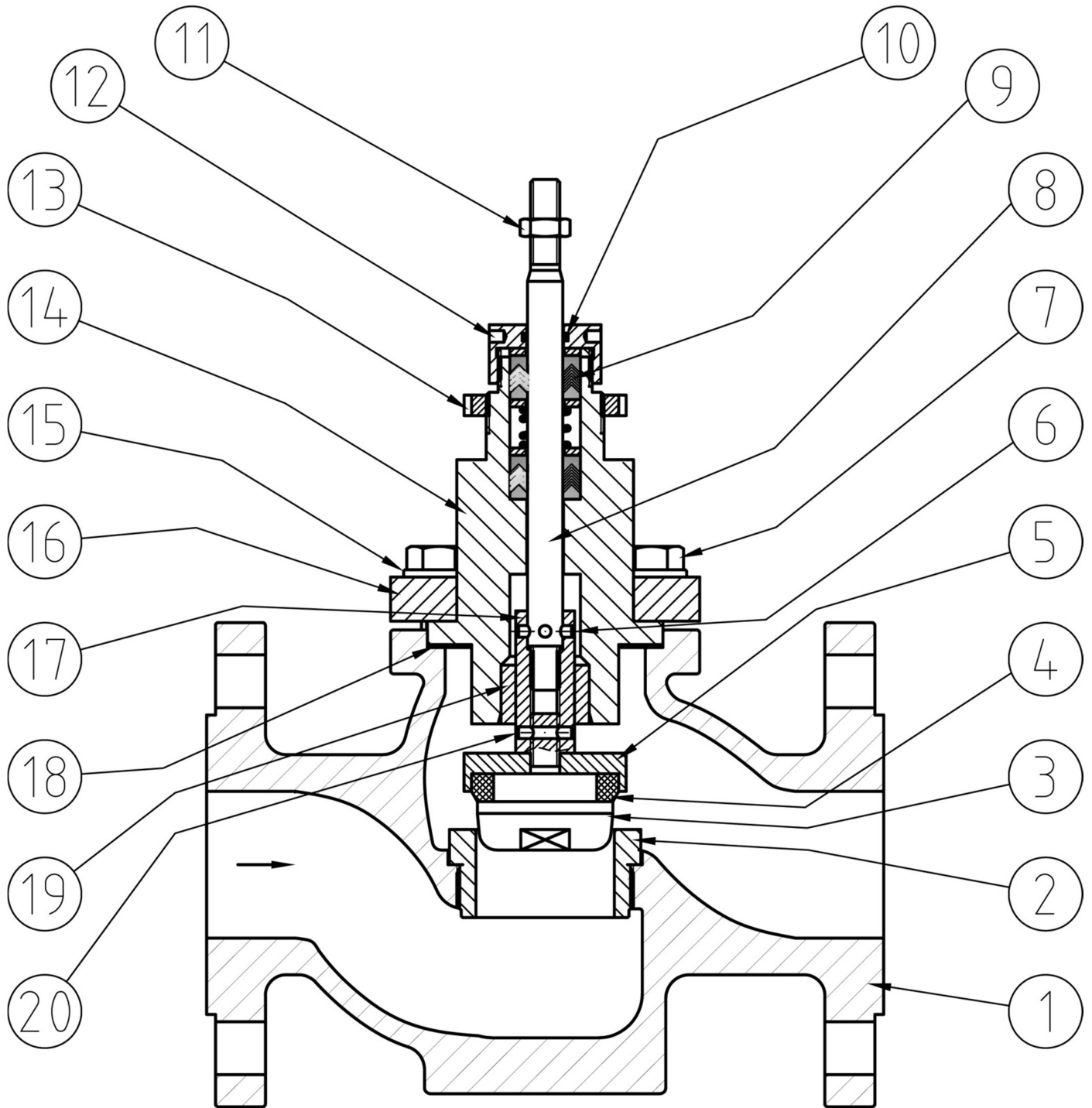


FIGURE 6



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FLOW RATE COEFFICIENTS (Kv = Flowrate in m³/h with 1 bar of differential pressure)

Kv	15	20	25	32	40	50	65	80	100	125	150
0.1 to 2	○	○	○	-	-	-	-	-	-	-	-
3.5	●	○	○	○	○	-	-	-	-	-	-
5	-	●	○	○	○	-	-	-	-	-	-
9	-	-	●	○	○	○	-	-	-	-	-
15	-	-	-	●	○	○	○	-	-	-	-
22	-	-	-	-	●	○	○	○	-	-	-
35	-	-	-	-	-	●	○	○	○	-	-
60	-	-	-	-	-	-	●	○	○	○	-
85	-	-	-	-	-	-	-	●	○	○	○
130	-	-	-	-	-	-	-	-	●	○	○
200	-	-	-	-	-	-	-	-	-	●	○
260	-	-	-	-	-	-	-	-	-	-	●

● Standard

○ Available under request

- Not available

MAXIMUM ADMISSIBLE PRESSURE DROPS WHEN FLUID OPENS (bar)

Actuator	Signal	Minim air supply	Kv								
			3.5 (DN15)	5 (DN20)	9 (DN25)	15 (DN32)	22 (DN40)	35 (DN50)	60 (DN65)	85 (DN80)	130 (DN100)
Stroke (mm)			20						30		
HF 205	0.2÷1	1.2	15	8	5						
	0.4÷1.2	1.4	21	11	9						
	0.4÷2	2.5	31	17	11						
HF 275	0.2÷1	1.2	40	32	19	11	7	4			
	0.4÷1.2	1.4	40	40	29	17	11	6			
	0.4÷2	2.5	40	40	39	23	15	8			
HF 360	0.2÷1	1.2					16	9	5	3.5	2.2
	0.4÷1.2	1.4					25	14	8	5	3.3
	0.4÷2	2.5					33	19	10.5	7	4.3
	1,5÷3,2	4						31	18	12	7.5
HF 430	0.2÷1	1.2						10	6	4	2.5
	0.4÷1.2	1.4						15	9	7	4
	0.4÷2	2.5						20	12.5	8	5
	1,5÷3,2	4							22	15	9.5