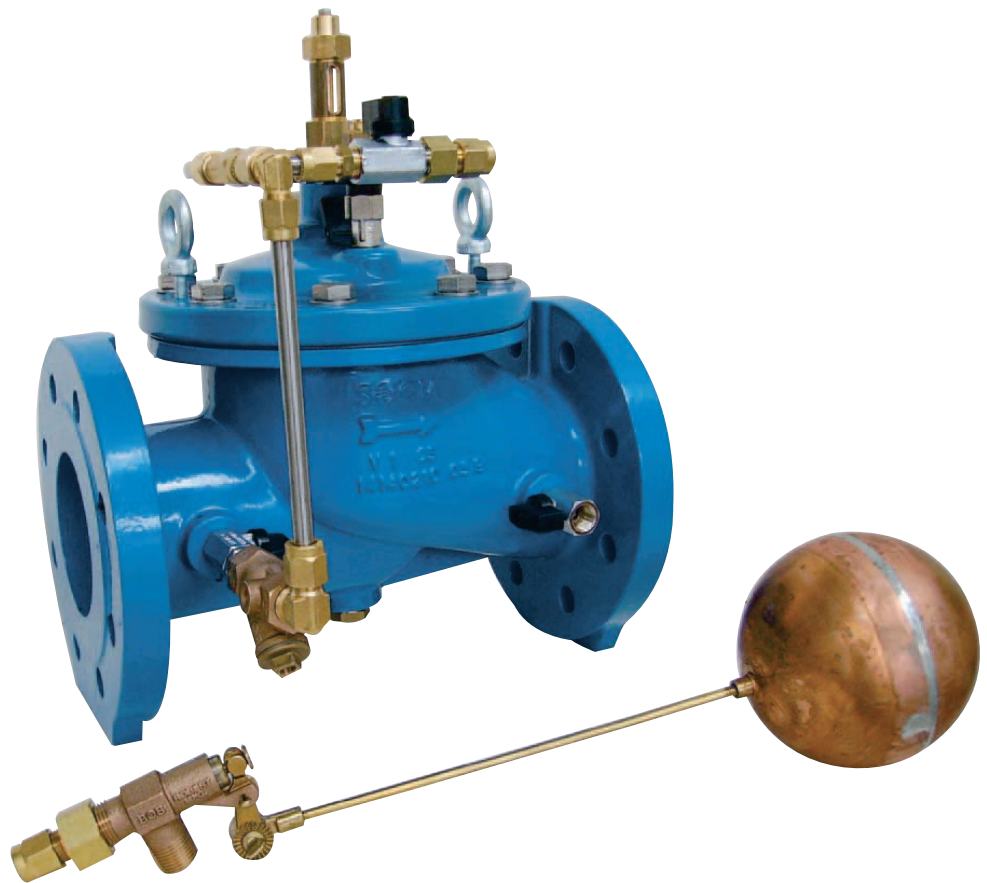


# C 701

Control valves

Altitude valve float operated

## Technical Data Sheet



## Description

The control valves C 701 prevents from overflowing and maintains a constant level in the tank thanks to a float. Openings and closings are very progressive, a few centimeters from the required level.



### C 701

Control valves - Altitude valve float operated

DN mm	PN	PFA in bar	PS				Cat	Ref.	Weight* Kg
			L1	L2	G1	G2			
40	10	10	10	10	x	x	4.3	<b>149B010458</b>	12
50	10	10	10	10	x	x	4.3	<b>149B010463</b>	13
65	10	10	10	10	x	x	4.3	<b>149B70106N</b>	21
80	10	10	10	10	x	x	4.3	<b>149B70108N</b>	26
100	10	10	10	10	x	x	4.3	<b>149B70110N</b>	39
125	10	10	10	10	x	x	4.3	<b>149B70111N</b>	59
150	10	10	10	10	x	x	4.3	<b>149B70112N</b>	73
200	10	10	10	10	x	x	4.3	<b>149B70114N</b>	122
250	10	10	10	10	x	x	I	<b>149B70115N</b>	208
300	10	10	10	10	x	x	I	<b>149B70116N</b>	328

\* Weight of valve alone

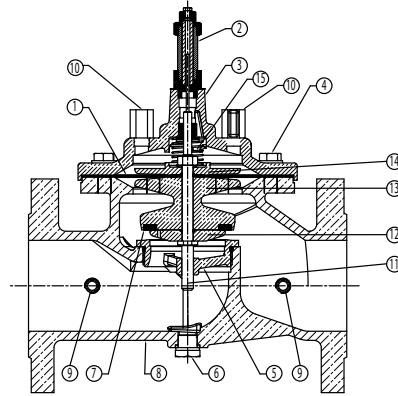
#### Important notice :

The indicated pressure for the different categories of fluids (L1/L2/G1/G2) is under no condition a guarantee of use. Therefore, it is essential to validate the use of products under given operating conditions.

Technical features	
Operating temperature	-10°C to 80°C, for temperatures over 80°C, consult us
Upstream pressure	Mini. : 1 bar / Maxi. : 10 bar
Connection	DN 40 to 300 mm : with flange PN (see table above) DN 1"1/2 : threaded F/F
Mediums	Clear water 2 mm
Vertical mounting	In optional

## Nomenclature and materials

N°	Description	Materials
1	Membrane	EPDM / Polyamide
2	Position indicator with purge	Brass and stainless steel
3	Valve head high pressure	Ductile iron / Epoxy Int/Ext
4	Nuts and bolts	Stainless steel
5	Removable streamlined	Stainless steel
6	Body drain plug	Brass
7	Reversible seal	EPDM
8	Body high pressure	Ductile iron / Epoxy Int/Ext 150μ ± 50μ
9-10	Valve	Chromed brass
11	Stem	Stainless steel
12	Flange	Stainless steel
13	Seal carrier	Bronze (DN40-50) Cast iron / Epoxy
14	Plate	Bronze (DN40-50) Cast iron / Epoxy
15	Spring	Stainless steel



standard flow valve

## Approvals



### International construction Standards :

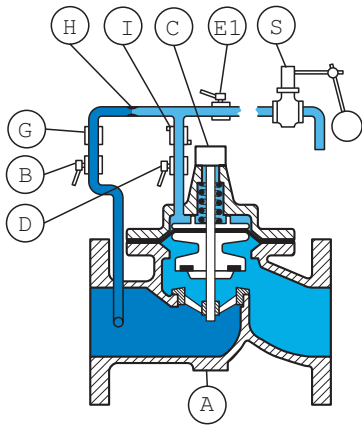
Directive 2014/68/UE

Connection with flange PN according to EN 1092-2

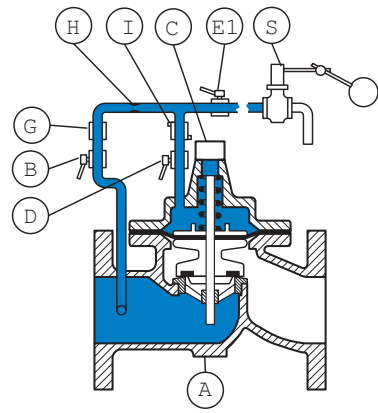
## Application

The control valves C 701 preferably installed at the bottom of the tank or close to it.

# Operation

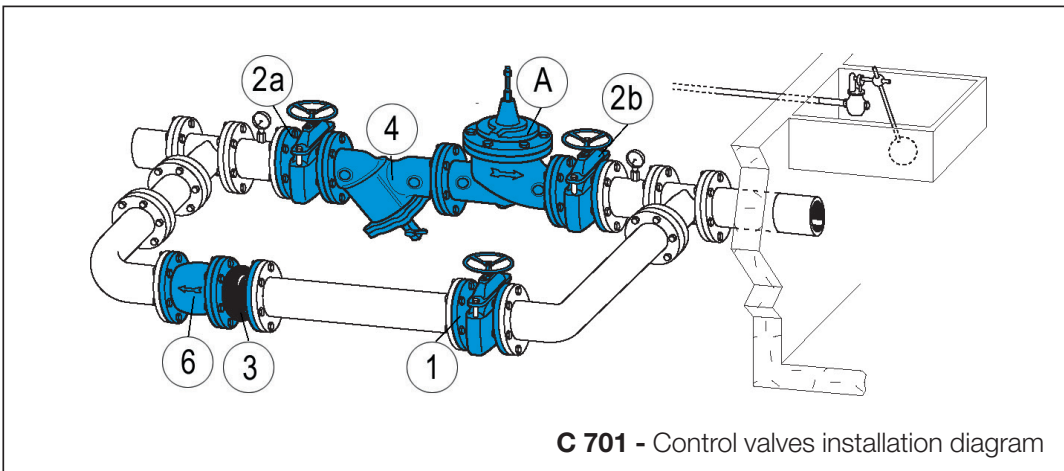


The level in the tank is low and the float switch (S) is fully open. The valve (A) is wide open and supplies the tank.



The float is in intermediary position, the float (S) switch is half closed. Consequently, the head loss increases the pressure in the upper chamber, the valve (A) will close. It will be completely closed as soon as no flow runs out from the float (S) switch in high position.

# Installation



N°	Description
A	Main valve
B	Upstream isolation valve
C	Position indicator with drain
D	Chamber isolation valve
E1	Isolation valve of pilot C701
G	Filter
H	Orifice-needle valve
I	Flow control
S	Float switch pilot C701
1	Isolation valve of the by-pass
2a	Upstream isolation valve of the main water pipe
2b	Downstream isolation valve of the main water pipe
3	Rubber expansion joint
4	Filter
6	Check valve of the by-pass

**Pilot setting ranges :**

- Regulation on the first centimeters.
- Working travel : 15 cm

**Installation :**

- Install a strainer upstream
- Install an air relief valve down-stream or at the high point near the control valve
- Vertical setting up : change the spring of the main valve (option 7)

**Other types :**

- C702

**NB : Connecting pipe 10/12mm from the pressure tap to the valve not included.**

## Maintenance

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We recommend a maintenance programme of between 6 to 12 months according to the quality of the water and to the pressure :

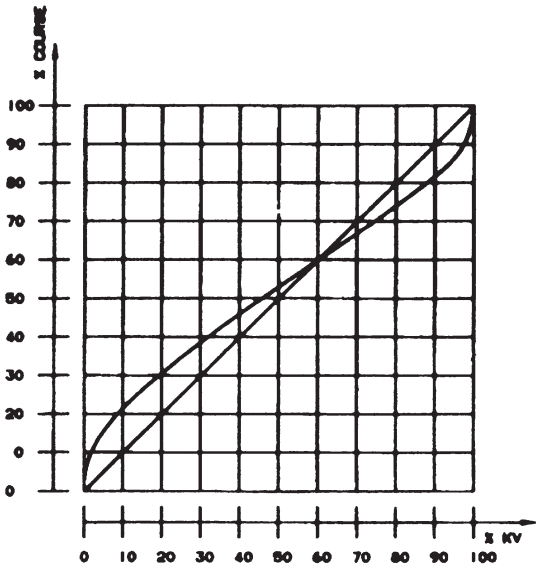
- Purging the upper chamber
- Flushing the valves not frequently used
- Checking and cleaning filters of the pilot circuit and main piping system.
- Checking the working (pressures)

Every 5 years, general maintenance is advisable :

- Dismantling
- Cleaning of main valve and pilot valve
- Preventive removing of the seals (set available - please consult us)
- Reassembling and tests.

# Operating characteristics

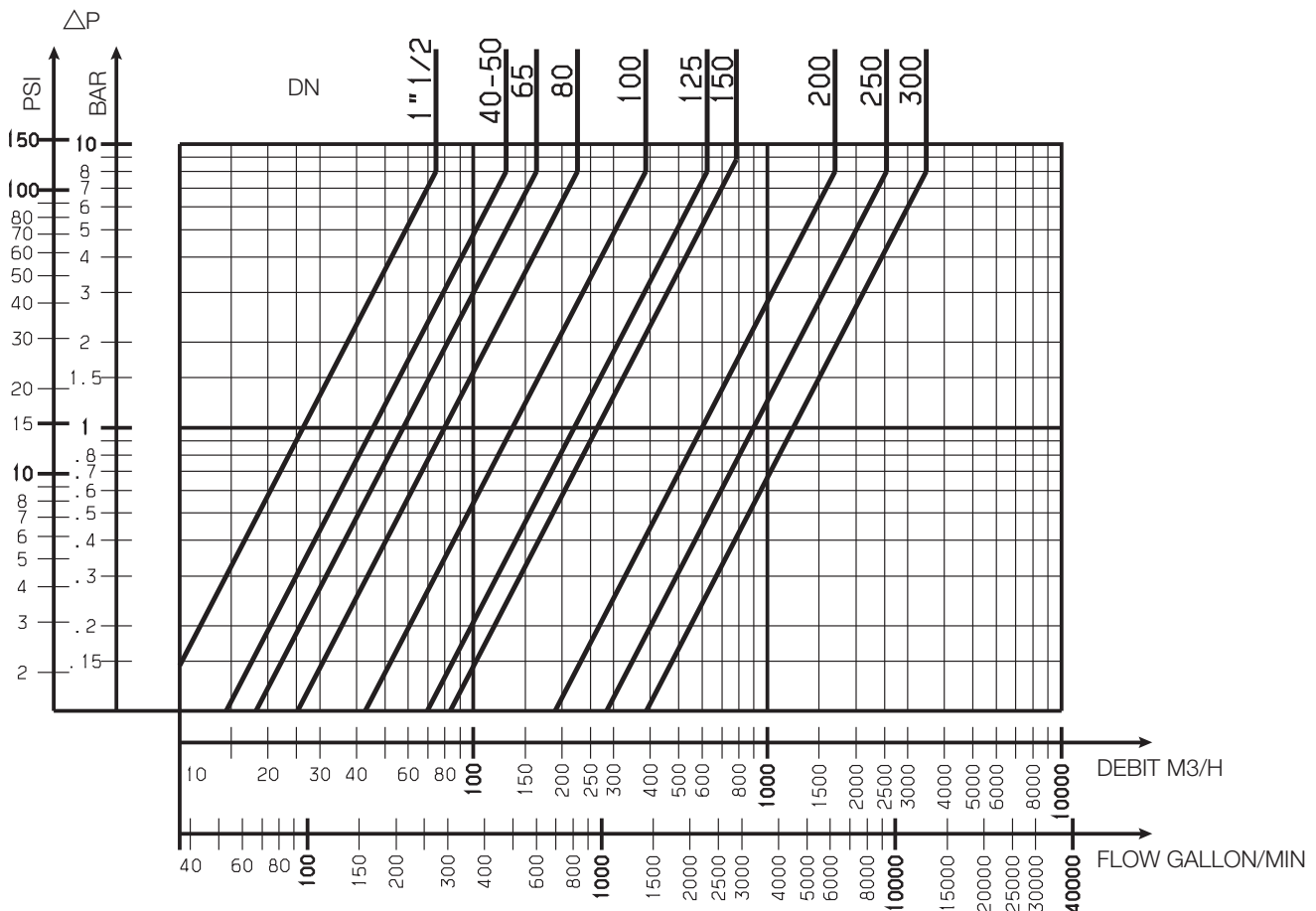
## Choice of base valve



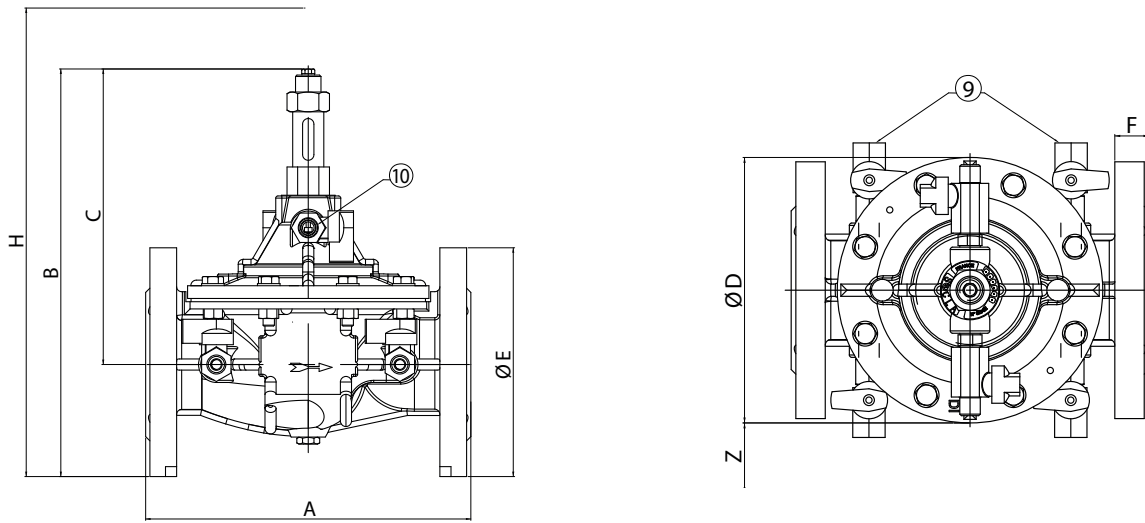
DN mm	Mini m³/h	Maxi m³/h	KV		ζ	PN bar	PFA bar	PN bar	PFA bar	PN bar	PFA bar
			m³/h	L/s							
40	0,675	32,00	45,66	12,68	1,93	10/16	16	25	25	-	-
50	0,675	32,00	45,66	12,68	4,70	10/16	16	25	25	-	-
65	0,855	54,00	57,75	16,08	8,39	10/16	16	25	25	-	-
80	1,600	82,00	80,00	22,22	10,00	10/16	16	25	25	-	-
100	2,720	127,00	136,00	37,78	8,47	10/16	16	25	25	-	-
125	4,400	199,00	220,00	61,11	7,90	10/16	16	25	25	-	-
150	5,280	286,00	264,00	73,33	11,38	10/16	16	25	25	-	-
200	13,500	509,00	600,00	66,67	6,96	10	10	25	25	16	16
250	25,000	795,00	900,00	50,00	7,56	10	10	25	25	16	16
300	40,900	1145,00	1224,00	40,00	8,47	10	10	25	25	16	16

## Headloss chart

Solid line : Base valve completely open



# Sizing



**standard flow valve**

DN	A	B	C	Ø D	Ø E	F	H	Z	9	10
mm	mm	mm	mm	mm	mm	mm	mm	mm	"	"
40	230	285	210	170	152	23	400	254	1/4	3/8
50	230	285	210	170	161	23	400	254	1/4	3/8
65	290	352	257	200	185	24	470	254	3/8	1/4
80	310	372	272	217	200	26	500	254	3/8	3/8
100	350	423	302	241	235	28	510	254	3/8	3/8
125	400	506	371	296	270	30	570	254	3/8	3/8
150	480	551	401	363	300	20	650	254	3/8	3/8
200	600	709	529	467	360	22	750	254	3/8	3/8
250	730	844	631	587	425	24	900	254	1/2	1/2
300	850	975	730	680	486	27	1100	254	1/2	1/2

(1) 78/plats

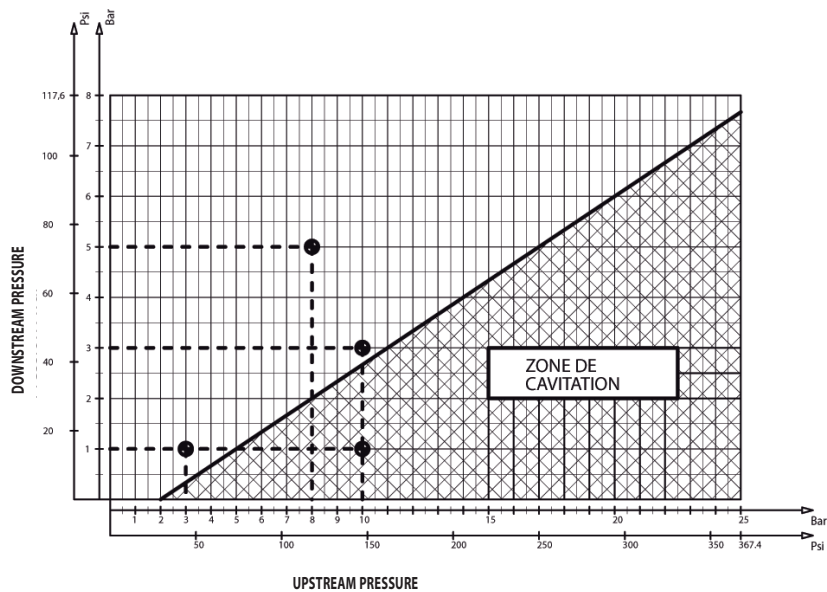
## Other operating characteristics

### Cavitation

A too large differential pressure and a low downstream pressure may result in damage to the valve by cavitation.

To avoid it, refer to the cavitation curve and if needed, reduce the differential pressure by installing and connecting two or more control valves in same line (consult us).

Stainless steel seat and counter seat are standard.



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