C 906

Control valves

Over speed protection

Technical Data Sheet

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Description

The control valves C 906 is a safety valve which closes when the flow speed exceeds a preset value. Protects against downstream pipe breakage. Re-set manually. Over speed protection : it closes and keeps closed in case of defect in the pipe work (breakage downstream). It will be re-set manually after repairing or cancellation of the defect on the main pipe work.

C 906

Over speed protection

DN	PN	PFA in bar	PS				Cat	Ref.	Weight* Kg
mm			L1	L2	G1	G2			
40	10/16/25	25	25	25	x	x	4.3	**149B022653**	15
50	10/16/25	25	25	25	x	x	4.3	**149B015519**	16
65	10/16/25	25	25	25	x	x	4.3	**149B90606N**	24
80	10/16/25	25	25	25	x	x	4.3	**149B90608N**	29
100	10/16	16	16	16	x	x	4.3	**149B90610N**	42
125	10/16	16	16	16	x	x	4.3	**149B90611N**	63
150	10/16	16	16	16	x	x	4.3	**149B90612N**	77
200	10	10	10	10	x	x	4.3	**149B90614N**	127
250	10	10	10	10	x	x	I	**-**	218
300	10	10	10	10	x	x	I	**149B90616N**	348

* Weight of valve alone

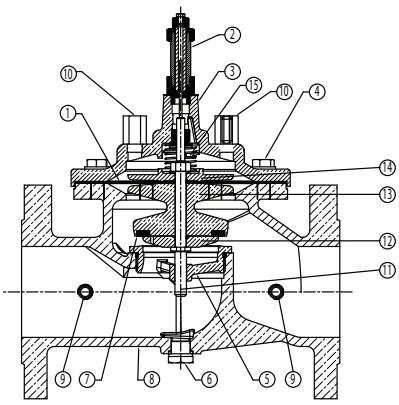
Important notice :

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 to 80°C, for temperatures over 80°C consult us
Upstream pressure	Mini. : 1,5 bar / Maxi. : 25 bar (see table above)
Connection	With flange PN (see table above)
Mediums	Clear water 2 mm
Viscosity	< to 40 cst
Vertical mounting	See option n°7

Nomenclature and materials

N°	Description	Materials
1	Membrane	EPDM / Polyamide
2	Position indicator with drain	Brass and stainless steel
3	Valve head high pressure	Cast iron / Epoxy Int/Ext
4	Nuts and bolts	Stainless steel
5	Removable seat	Stainless steel
6	Body drain plug and valve	Brass
7	Reversible seat seal	EPDM
8	Body high pressure	Cast iron / Epoxy Int/Ext 200µ ± 40µ
9-10	Pressure connection drilling	Chromed brass
11	Stem	Stainless steel
12	Flange	Stainless steel
13	Seal carrier	Bronze (DN40-50) Ductile iron / Epoxy
14	Plate	Bronze (DN40-50) Ductile iron / Epoxy
15	Spring	Stainless steel



standard flow valve C 900

Approvals

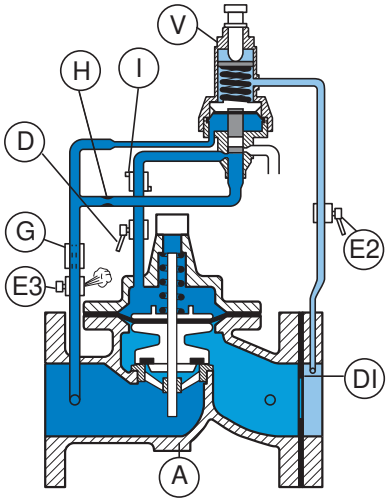
CE PED 2014/68/UE

International construction Standards :
Directive 2014/68/UE
Connection with flange PN according to EN 1092-2

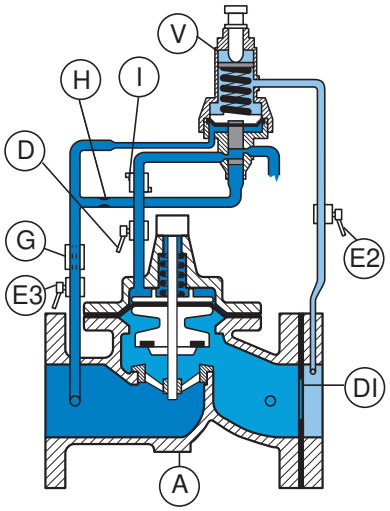
Application

The control valves C 906 is used when over flow protection is required (pressure pipeline, outlet of barrage) or to protect against failure in downstream pipe work (irrigation).

Operation

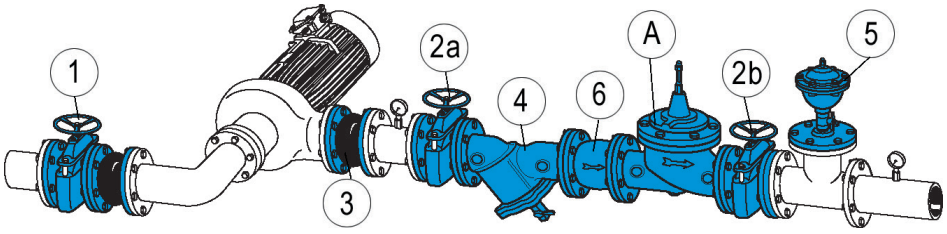


When the flow rate is smaller than the flow rate when cut off, the head loss at the diaphragm (DI) + valve (A) is smaller than the pre-set value of the spring.
The drawer of pilot (V) allows the chamber to be put to the atmosphere.
Valve (A) opens.



When the safety flow rate is reached, or by down-stream pipe breakage, the head loss at the diaphragm (DI) + valve (A) becomes higher than the preset value of pilot (V).
The drawer of pilot allows to put the chamber under pressure.
The valve (A) will be locked. Action on (E3) to unlock.

Installation



C 906 - Control valves installation diagram

N°	Description
A	Main valve
E3	Unlocking valve
D	Chamber isolation valve
D1	Diaphragm
E2	Diaphragm isolation valve
G	Filter
H	Orifice-needle valve
I	Flow control
V	Pilot C906
1	Isolation valve of the pump
2a	Upstream isolation valve of the main pipe and of the pump
2b	Downstream isolation valve of the main water pipe
3	Rubber expansion joint
4	Filter
5	Single function air valve
6	Non return valve of the pump

Setting range :

- 0,2 to 0,5 bar
- 0,6 to 0,8 bar
- 0,9 to 6 bar

Installation :

- install a strainer upstream
- install an air relief valve downstream or at the high point near the control valve.
- horizontal setting up : the cap of the valve should be oriented to the top and inclined at 45° maximum
- vertical mounting : change the spring of the main valve (option 7)
- keep a downstream pressure

Other types :

- C916

Maintenance

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.

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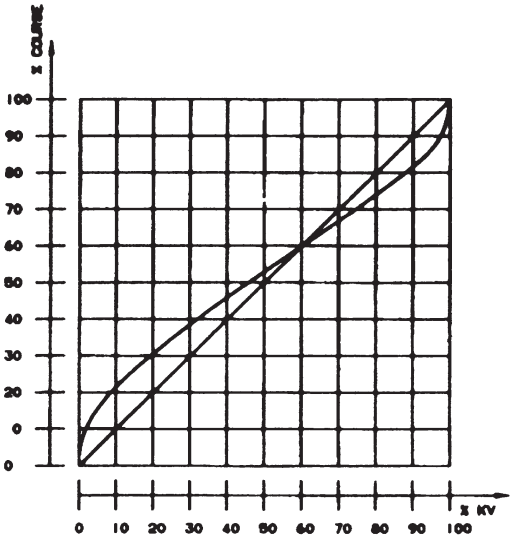
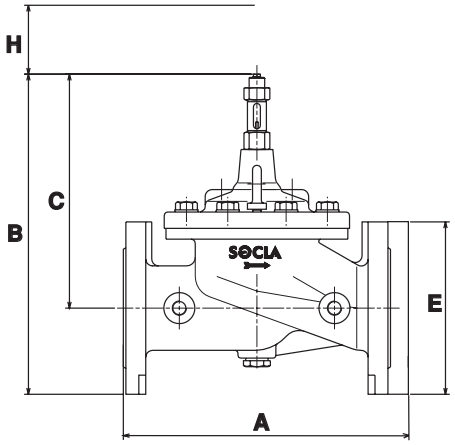
Operating characteristics

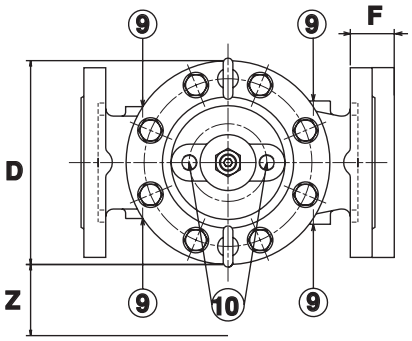
Choice of base valve



DN	Mini	Maxi	KV		ζ	PN	PFA	PN	PFA	PN	PFA
mm	m³/h	m³/h	m³/h	L/s		bar	bar	bar	bar	bar	bar
40	4,5	32,00	45,66	12,68	1,93	10/16	16	25	25	-	-
50	7	32,00	45,66	12,68	4,70	10/16	16	25	25	-	-
65	12	54,00	57,75	16,08	8,39	10/16	16	25	25	-	-
80	18	82,00	80,00	22,22	10,00	10/16	16	25	25	-	-
100	28	127,00	136,00	37,78	8,47	10/16	16	25	25	-	-
125	44	199,00	220,00	61,11	7,90	10/16	16	25	25	-	-
150	64	286,00	264,00	73,33	11,38	10/16	16	25	25	-	-
200	113	509,00	600,00	166,67	6,96	10	10	25	25	16	16
250	177	795,00	900,00	250,00	7,56	10	10	25	25	16	16
300	255	1145,00	1224,00	340,00	8,47	10	10	25	25	16	16

Sizing





standard flow valve C 900

DN	A	B	C	D	E	F	G	H	Z	9	10
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	”	”
40	274	285	210	170	152	23	57	55	254	1/4	1/4
50	274	285	210	170	161	23	57	55	254	1/4	1/4
60	314	352	257	200	185	24	48	76	254	3/8	1/4
65	334	372	272	217	200	26	50	90	254	3/8	3/8
100	374	423	302	241	235	28	52	90	254	3/8	3/8
125	430	506	371	296	270	30	60	100	254	3/8	3/8
150	512	551	401	363	300	20	52	100	254	3/8	3/8
200	626	709	529	467	360	22	48	114	254	3/8	3/8
250	760	844	631	587	425	24	54	127	254	1/2	1/2
300	880	975	730	680	486	27	57	140	254	1/2	1/2

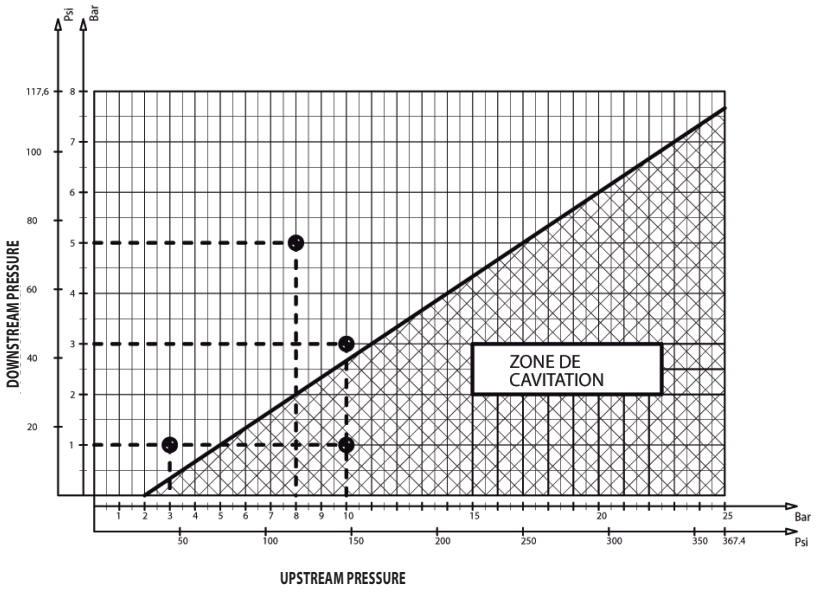
Other operating characteristics

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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