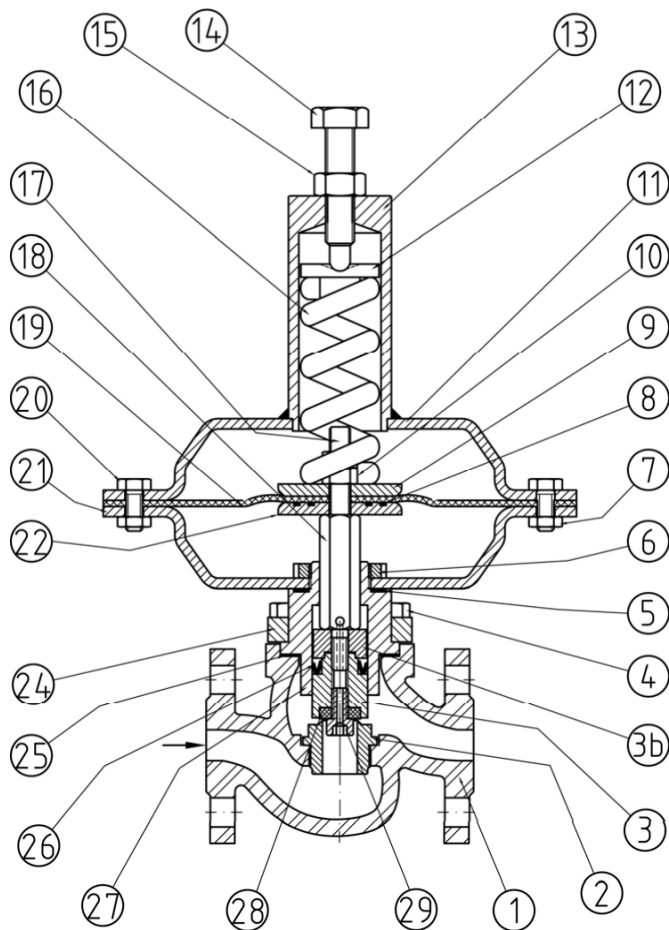


Pressure Reducing Valve - Model S2

BASIC INFORMATION

Type	Self-operated pressure reducing valve by diaphragm	Kv	3,5 – 115 [m ³ /h]·[bar]
Operation	Valve closes when outlet pressure increases	Cv	4.0 – 135 [gpm]·[psi]
Model	S2	Temperature	-10 to 180 [°C]
Connections	Flanged (DIN - ANSI) or Threaded (BSP - NPT)		14 to 356 [°F]
Ends	RF – RF, NPT, BSP	Inlet max. pressure	40 [barg] up to DN50 (2")
Ratings	PN25 - PN40 (150# - 300#)	Outlet pressure	25 [barg] up to DN100 (4")
Sizes	DN15 to DN100 [mm] (1/2" to 4")		
Suitable for	Liquids, compressed air, neutral gases and steam		

PARTS



REF.	PART	MATERIAL	
		ANSI / ASTM	DIN / EN
1	Body	Ductile iron (A536) Bronze (RG10) C. S. (A216WCB) S.S. (AISI 316)	Ductile iron (GGG40.3) Bronze (1705) C. S. (1.0619) S. S. (1.4408)
2	Seat	S.S. (AISI 304L) S. S. (AISI 316L)	S. S.(1.4307) S. S. (1.4404)
3	Stem	S.S. (AISI 304L) S. S. (AISI 316L)	S. S.(1.4307) S. S. (1.4404)
3b	Bushing guide	S.S. (AISI 304L) S. S. (AISI 316L)	S. S.(1.4307) S. S. (1.4404)
4	Screw	S. S. (AISI 304)	S.S (1.4301)
5	Gasket	PTFE (D-792)	PTFE (53749)
6	Nut KM-6	C.S. (AISI 1045)	C.S. (1.1191)
7	Nut	S. S. (AISI 304)	S.S (1.4301)
8	O-ring	NBR (D-1418) FKM (D-1418)	NBR (1629) FKM (1629)
9	Support spring	C.S. (A1011)	C.S. (1.0335)
10	Nut	S.S. (AISI 304)	S.S. (1.1191)
11	Upper actuator	C.S. ((A1011) painted in epoxy)) S.S (ASI 316)	C.S. ((1.0335) painted in epoxy)) S.S. (1.4401)
12	Spring guide	C.S. (AISI 1045)	C.S. (1.1191)
13	Spring cover	C.S. (AISI 1045) epoxy painted	C.S. (1.1191) epoxy painted
14	Regulation screw	C.S. (F568M class 8.8)	C.S. (ISO 898-1 class 8.8)
15	Regulation nut	C.S. (F568M class 8.8)	C.S. (ISO 898-1 class 8.8)
16	Regulation spring	C.S. (52SiCrNi5)	C.S. (1.7117)
17	Screw	S.S. (AISI 304)	S.S. (1.4301)
18	Diaphragm screw	S.S. (AISI 316L)	S. S. (1.4404)
19	Diaphragm	EPDM (D-1418) EPDM (D-1418) +PTFE (D-792)	EPDM (1629) EPDM (1629) + PTFE (53749)
20	Hexagonal screw M8	S. S. (AISI 304)	S.S (1.4301)
21	Lower actuator	C.S. ((A1011) painted in epoxy)) S.S (ASI 316)	C.S. ((1.0335) painted in epoxy)) S.S. (1.4401)
22	Lower actuator dia.	S.S. (AISI 304L) S.S. (AISI 316L)	S.S. (14307) S.S. (1.4404)
24	Cover	S.S. (AISI 1015)	S.S (1.1141)
25	Gasket	Graphite	
26	Gasket	Graphite with metal	
27	Stem guide	S.S. (AISI 304L) S.S. (AISI 316L)	S.S. (14307) S.S. (1.4404)
28	Seal	PTFE (D-792) NBR (D-1418) PEEK (D-792) EPDM (D-1418)	PTFE (53749) NBR (1629) PEEK (53479) EPDM (1629)
29	Seal screw	S.S. (AISI 304)	S.S. (1.4301)
31	Support seal washer	S.S. (AISI 304L) S.S. (AISI 316L)	S.S. (14307) S.S. (1.4404)

Recommended spare parts

STANDARD CONFIGURATIONS

DN [mm]	15	20	25	32	40	50	65	80	100
Kv [m ³ /h]·[bar]	3,5	5	9	13,5	22	32	57	82	115

NPS [inch]	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Cv [gpm]·[psi]	4	6	10	16	25	37	66	95	133

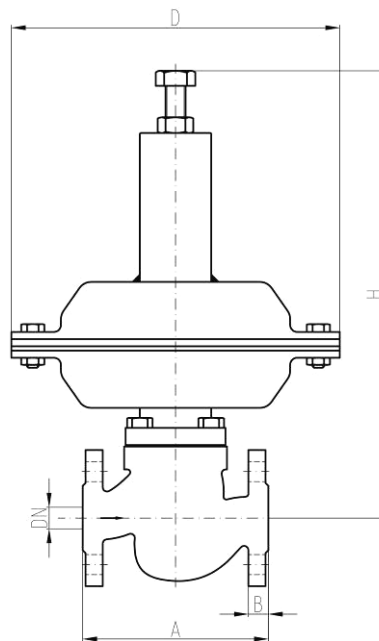
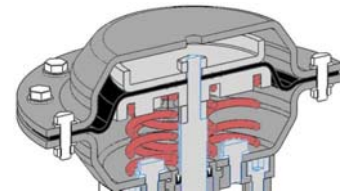
A [mm] EN	130	150	160	180	200	230	290	310	350
A [mm] ANSI 150	o	o	184	-	222	254	276	298.5	352.5
A [mm] ANSI 300	o	o	197	-	235	267	292	317.5	368
H [mm]	315	315	325	325	360	360	390	390	410
Weight [Kg]	8	9	12	13	15	20	30	42	55

o available on request

IMPORTANT NOTE: Kv or CV reduced is available

ACTUATOR DIAMETER ACCORDING TO REQUIRED OUTLET PRESSURE: D [mm]

Outlet Range [barg]	DN15 DN20	DN25 DN32	DN40 DN50	DN65	DN80	DN100
0.02 – 0.04	350	350	-	-	-	-
0.03 – 0.10	295	295	350	-	-	-
0.8 – 3	195	195	195	230	230	230
2 – 8	175	175	175	195	195	195
5 – 20	175	175	175	175	175	175



CAGE ANTI CAVITATION (OPTIONAL)



MAIN DESIGN STANDARDS

STANDARD	DESCRIPTION
EN 558-1	Face-to-face dimensions flanges drilled acc. to EN 1092-1
EN 1092-1, 2	Flanges and their joints
ISA 75.03	Face-to-face dimensions flanges drilled acc. to ASME B16.5 or EN 558-2
ASME B16.5	Flanges and Flanged Ratings for Class 150, 300, etc.
EN 10226-1	Requirements for BSP thread
ANSI/ASME B1.20.1	National Pipe Thread Taper
EN 12516-1	Shell design strength - Tabulation method for steel valve shells
EN 60534-2-3	Industrial control valves - Flow capacity - Test procedure
EN 12266-1	Pressure tests, test procedures and acceptance criteria

OPERATION

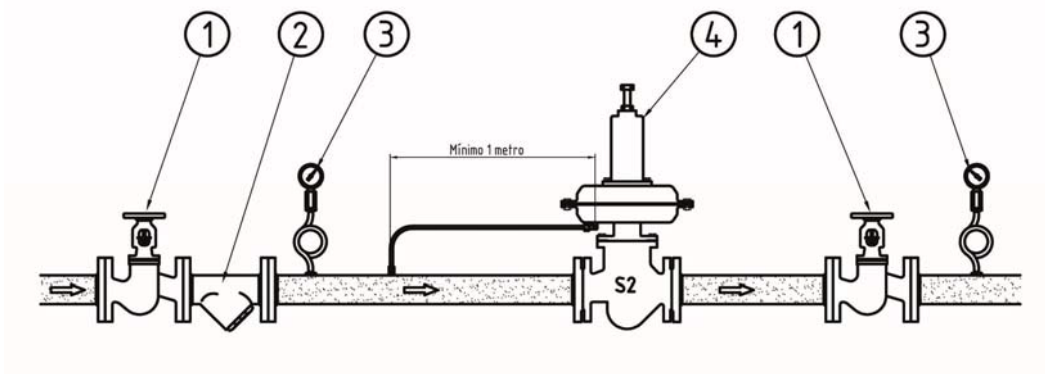
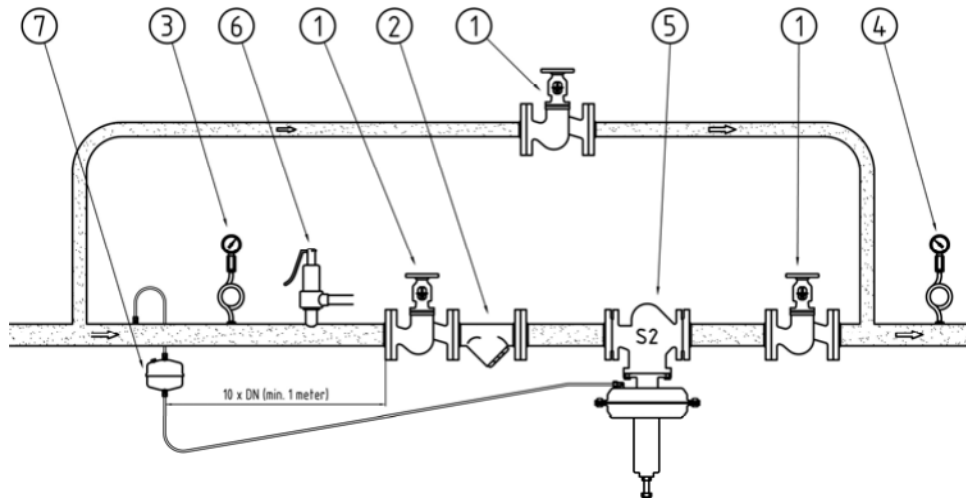
The excess pressure valves S2 model works with direct action principle.

The forces at the plug caused by the upstream and downstream pressures are eliminated by the balancing gasket. The plug is fully balanced.

When the force resulting from the upstream pressure p_1 (via external control line or internal) exceeds the spring force adjusted at the set point springs, the valve opens proportionally to the change in pressure.

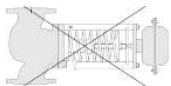
The spring force is adjustable at the set point bolt (item 14).

STANDARD INSTALLATIONS



- | | |
|----|-----------------------|
| 1. | Check Valve |
| 2. | Filter |
| 3. | Inlet pressure gauge |
| 4. | Outlet pressure gauge |
| 5. | Reducing valve M1 |
| 6. | Safety valve |
| 7. | Tank |

Don't assembly this way



Disclaimer

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