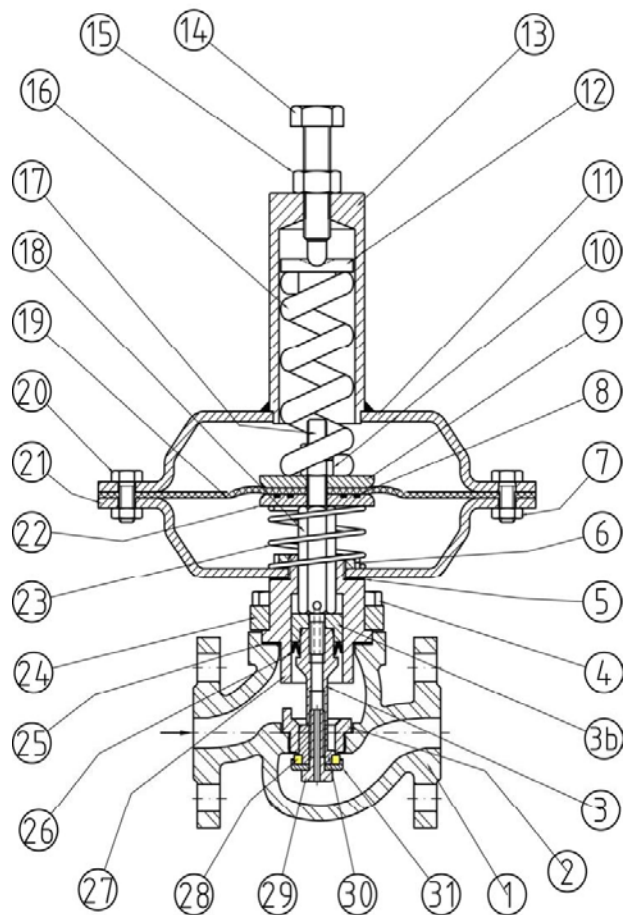


Pressure Reducing Valve - Model M2

BASIC INFORMATION

Type	Self-operated pressure reducing valve		Suitable for	Liquids, air, neutral gases and steam	
Operation	Valve closes when outlet pressure increases		Kv	3,8 – 115	[m ³ /h]·[bar]
Model	M2		Cv	4.4 – 133	[gpm]·[psi]
Connections	Flanged (DIN - ANSI) or Threaded (BSP - NPT)		Temperature	-20 to 180	[°C]
Ends	RF – RF, NPT, BSP			-4 to 356	[°F]
Ratings	PN16 - PN40	(150# - 300#)	Inlet max. pressure	16	[barg]
Sizes	DN15 to DN65 [mm]	(1/2" to 2 1/2")	Outlet pressure	0,02 - 8	[barg]

PARTS



MATERIALS

REF.	PART	MATERIAL	
		ANSI / ASTM	DIN / EN
1	Body	Ductile iron (A536) Bronze (RG10) C. S. (A216WCB) S.S. (AISI 316)	Ductile iron (1693) 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 (53479)
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	FKM (D 1418) NBR (D-1418)	FPM (1629) NBR (1629)
9	Support spring	C.S. (A1011)	C.S. (1.0335)
10	Nut	S. S. (AISI 304)	S.S (1.4301)
11	Upper Actuator	C.S. ((A1011) painted in epoxy)) S.S (AISI 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) painted in epoxy))	C.S. (1.1191) painted in epoxy))
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	Stem	S.S. (AISI 316L)	S.S. (1.4404)
19	Diaphragm	EPDM (D-1418) EPDM + PTFE (D-1418 + D-792)	EPDM ((1629) EPDM + PTFE (1620 + 53749)
20	M8 Screw	S. S. (AISI 304)	S.S (1.4301)
21	Lower actuator	C.S. ((A1011) painted in epoxy)) S.S (AISI 316)	C.S. ((1.0335) painted in epoxy)) S.S. (1.4401)
22	Lower support dia.	S.S. (AISI 304L) S.S. (AISI 316L)	S.S. (14307) S.S. (1.4404)
23	Support spring	S.S. (AISI 302)	S.S (1.43)
24	Cover	S.S. (AISI 1015)	S.S (1.1141)
25	Gasket	Graphite	
26	Gasket	Graphite PTFE S. S. (AISI 304)	Graphite PTFE S.S (1.4301)
27	Guide Stem	S.S. (AISI 304L) S. S. (AISI 316L)	S. S.(1.4307) S. S. (1.4404)
28	Seal	Graphite PTFE	
29	Seal screw	S. S. (AISI 304)	S.S (1.4301)
30	Guide seal	S.S. (AISI 304L) S. S. (AISI 316L)	S. S.(1.4307) S. S. (1.4404)
31	Support seal	S.S. (AISI 304L) S. S. (AISI 316L)	S. S.(1.4307) S. S. (1.4404)

STANDARD CONFIGURATIONS

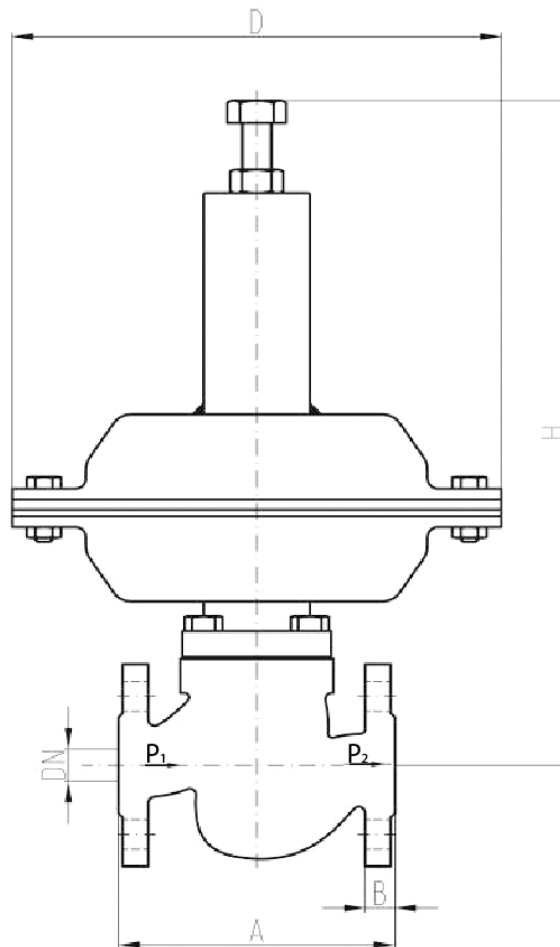
DN [mm]	15	20	25	32	40	50	65	80	100
Kv [m ³ /h]·[bar]	3,5	5	9	13,5	22	32	57	82	115

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	423
Weight [Kg]	8	9	12	13	15	20	30	45	56

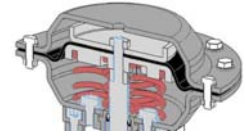
IMPORTANT NOTE: Kv or CV reduced is available

o available on request



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

Outlet Range [barg]	15 (1/2")	20 (3/4")	25 (1")	32 (1 1/4")	40 (1 1/2")	50 (2")	65 (2 1/2")	80 (3")	100 (4")
0,02 – 0,04	350	350	350	o	o	o	o	o	o
0,03 – 0,1	295	295	295	350	350	350	350	o	o
0,08 – 0,3	295	295	295	295	295	295	295	o	o
0,2 – 1,2	230	230	230	230	230	230	230	o	o
0,8 – 3	195	195	195	195	195	195	195	o	o
2 – 8	175	175	175	175	175	175	175	o	o
5 - 20	o	o	o	o	o	o	o	o	o



o available on request

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 medium flows through the valve as indicated by the arrow. The position of the valve plug and the area released between the plug and seat determine the flow rate.

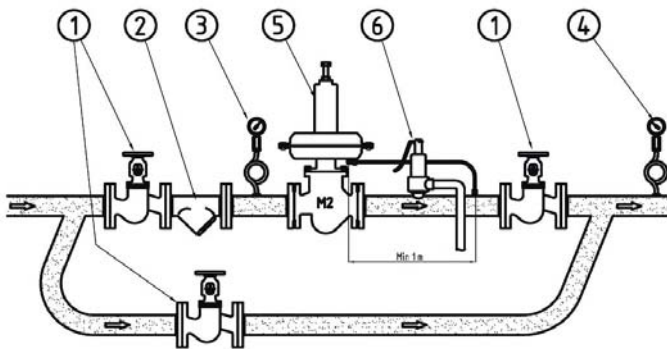
In the pressureless state (control line not connected and no pressure applied) the valve is opened by the force of the set point spring.

The downstream pressure P_2 to be controlled is tapped downstream of the valve and transmitted over the control line to the actuator where it is converted into a positioning force. This force is used to move the valve plug according to the force of the set point spring.

The spring force can be adjusted at the set point adjuster. When the force resulting from the downstream pressure P_2 rises above the adjusted set point, the valve closes proportionally to the change in pressure.

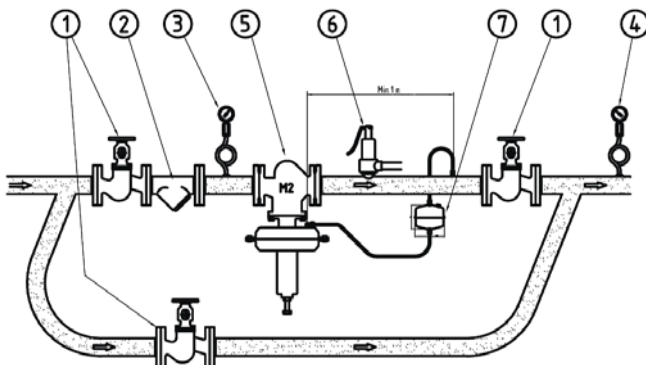
STANDARD INSTALLATIONS

Liquids and neutral gases drawing

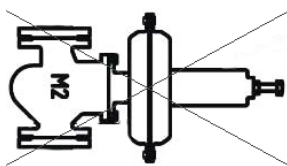


1. Check Valve
2. Filter
3. Inlet pressure gauge
4. Outlet pressure gauge
5. Reducing valve M2
6. Safety valve
7. Tank

Steam drawing



Don't assembly this way



ATEX approved

Disclaimer

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