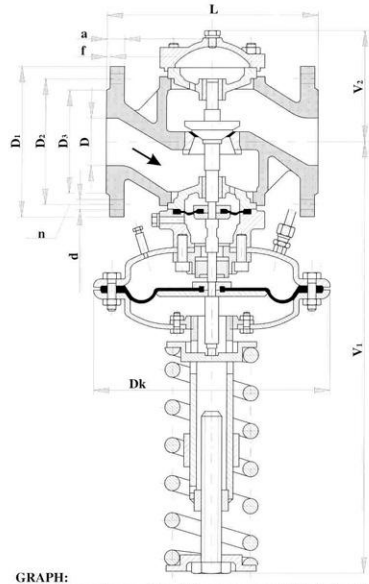
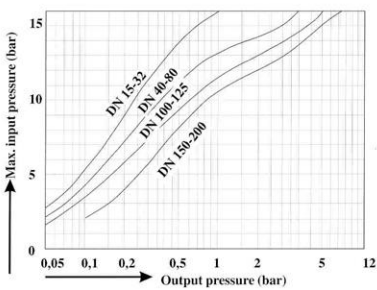
Output pressure controller

2350 PN 16



GRAPH:
Dependence of max. allowable pressure on inlet (p_1) and outlet (p_2) for fluids.



Application
Controller is intended for regulation of input (unsteady) pressure to a constant output pressure. This type is for water and air, for maximum pressures up to PN 16 and temperatures up to 130°C. Controller cannot be used for flammable and toxic fluids. Reduced (output) pressure is adjusted and controlled by a spring (each spring is for fixed expanse pressure). Kv number is volume rate of service fluid (in m^3/h - water volume flow rate with water density $100kg/m^3$, when valve pressure drop is 1 bar).

Minimum differential pressure

$$\frac{p1\ (abs.)}{p2\ (abs.)} > 1{,}2$$

Set values of output pressure (p_2) and maximum allowable pressure load of a diaphragm (bar) are given in the table below.

Connecting and face-to-face dimensions
Face-to-face dimensions are given in the table below.

Material

Body	GG 25
Seat, conical disk	chrome steel
Valve bushing	brass (CuZn40)
Membrane	EPDM

Installation
Pressure controller is installed in horizontal piping with spring in vertical position under the axis of pipeline. The correct flow direction is indicated by an arrow on the body. The stop valve must be set upstream the strainer, which is set upstream the controller. The stop valve must have the same nominal inside diameter as the controller. Safety valve must be set in specified distance downstream the controller and stop valve must not be set between these elements.

Temperature [°C]	Pressure [MPa]
130	16

DN	D	L	V_1	V_2	D_1	D_2	D_3	a	f	d	n	kg	kg	kg	kg
15	15	130	565	135	95	65	45	14	2	14	4	18	18	-	-
20	20	150	565	135	105	75	58	16	2	14	4	18	18	-	-
25	25	160	565	135	115	85	68	16	2	14	4	19	19	-	-
32	32	180	565	135	140	100	78	18	2	18	4	21	21	-	-
40	40	200	625	130	150	110	88	18	3	18	4	28	30	33	-
50	50	230	625	130	165	125	102	20	3	18	4	32	34	37	-
65	65	290	625	130	185	145	122	20	3	18	4	34	36	39	-
80	80	310	645	150	200	160	138	22	3	18	8	36	38	41	-
100	100	350	745	185	220	180	158	24	3	18	8	59	61	67	77
125	125	400	745	185	250	210	188	26	3	18	8	66	38	74	84
150	150	480	790	230	285	240	212	26	3	22	8	87	89	96	106
200	200	600	790	230	340	295	268	30	3	22	12	112	114	121	131
Size of diaphragm												160	225	330	430
Dk												196	260	370	466

Technical data

Leakage of a closed valve: 0,1% Kvs
Permeability: 5 - 100% of Kvs

DN	15	20	25	32	40	50	65	80	100	125	150	200
Kvs	0,63	3,15	5	8	12,5	20	31,5	50	80	125	180	180
	2	-	-	-	-	-	-	-	-	-	-	-

Set values of output pressure (p_2) and maximum diaphragm pressure load (bar):

DN	15 - 32		40 - 80			100 - 200			
Scope of output pressure p_2 (bar)	2,2 -6	0,05-1,3	5-9	1,3-2	0,05-0,4	5-8	1,4-2		0,1-0,4
	6-9	1,3-2,2	9-12	2-3,5	0,4-0,7	8-10	2-3,5		0,4-0,9
	9-12			3,5-5	0,7-1,3	10-12	3,5-5	0,9-1,4	
Max. load on membrane (bar)	16	7	16	7	3	16	7	3	p_2 + 1 bar
Membrane size Kvs	160	225	160	225	330	160	225	330	430