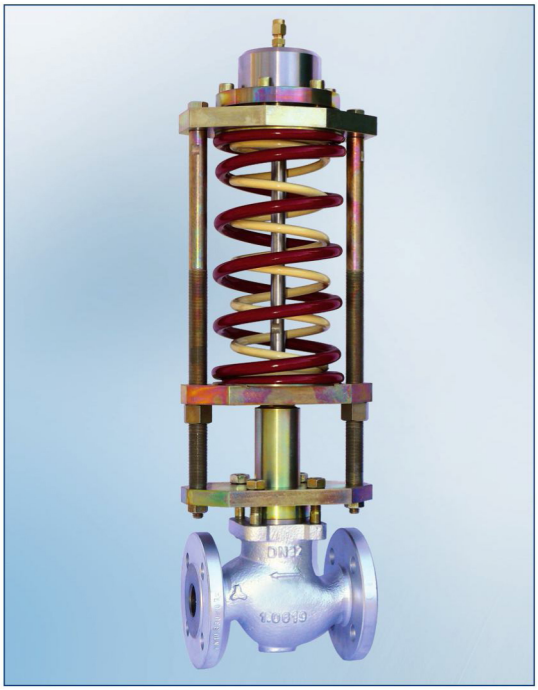
PRESSURE REDUCER TYPE **RCP-8T**

FUNCTION



The reducer with a piston actuator is designed to maintain a constant pressure value downstream the reducer's valve regardless of fluctuations in the supply pressure. It is used in steam, cold and hot water, air and gas installations in order to protect them from excessive pressure increase. It is especially suited for the above mentioned media at higher pressure ranges. Reducer can also be used for other media provided that it is agreed with the Manufacturer.

CONSTRUCTION

The reducer comprises three main sets:

- valve (01) with pressure - balanced plug and stem with bellows seal;
- piston actuator (02);
- control pressure adjuster (03).

CHARECTERISTICS

- steel and stainless steel materials used
- piston actuator designed for higher pressure ranges
- high tightness of the shut-off due to the application of plugs with PTFE, EPDM and NBR sealings
- design reducing the noise level or increasing the resistance to cavitation

PRINCIPLE OF OPERATION

The reducer's valve is open under normal operating conditions; the increase in regulated pressure causes the valve to close. The self-actuating pressure reducer is a regulating device which is driven by the flowing medium that provides the necessary energy to control the valve's operation.

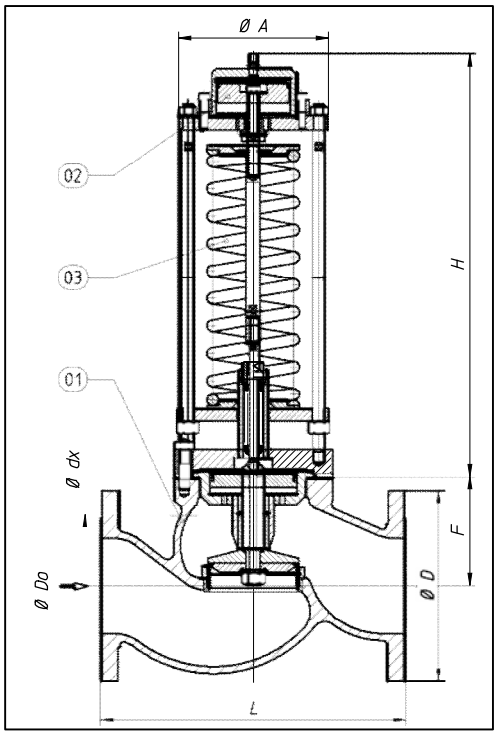
The impulse of regulated pressure, as measured downstream the valve (01), is applied to the actuator chamber (02) and the force acting on the piston, which is caused by the regulated pressure, is counterbalanced by the spring(s) tension in the adjuster set (03).Thus, the change in the regulated pressure value in relation to that one set by the adjuster causes a proportional change in the position of the valve plug until reaching the regulated pressure setpoint value.

Pressure		
Nominal Pressure	body	PN40
	flanges	PN16/40
Max. medium pressure		4,0 MPa
Proportionality range		Xp=16%

Medium	Max. medium temperature	Shut-off tightness
Air, Gases	90°C	VI Cl. as per PN-EN 60534-4
Water	130°C	VI Cl. as per PN-EN 60534-4
Steam	240°C	VI Cl. as per PN-EN 60534-4

MATERIALS

	Materials		Ref. Standard
Body	GP240GH	1.0619	PN-EN 10213-2
	GX5CrNiMo19-11-2	1.4408	PN-EN 10213-4
Bonnet	C15E	1.1141	EN 10084
	X6CrNiTi 18-10	1.4541	PN-EN 10088
Plug, Seat	C17CrNi 16-2	1.4057	
	X6CrNiTi 18-10	1.4541	
Stem	C17CrNi 16-2	1.4057	
	X6CrNiTi 18-10	1.4541	
Cylinder, Piston	X17CrNi16-2	1.4057	
Bellows	X6CrNiMoTi17-12-2	1.4571	
Plug sealing	PTFE+ bronze or graphite		
	EPDM		
	NBR		



DIMENSIONS

Reducer's size DN			15	20	25	32	40	50	65	80	100	125	150	200
Kvs coefficient[1)]			4	5	6,5	13,5	22	33	46	66	94	130	170	250
DIMENSIONS [mm]	D [mm]	PN16	95	105	115	140	150	165	185	200	220	250	285	340
		PN25-40									235	270	300	375
	L [mm]	PN 16-40	130	150	160	180	200	230	290	310	350	400	480	600
	D_0 [mm]	PN16	65	75	85	100	110	125	145	160	180	210	240	295
		PN25-40									190	220	250	320
	d [mm]	PN16	14	14	14	18	18	18	18	18	18	18	22	22
		PN25-40									22	26	26	30
	n	PN16	4	4	4	4	4	4	4	8	8	8	8	12
		PN25-40							8					
	F [mm]		63	63	63	80	82	86	118	118	124	150	173	216
	Reducer's weight [kg]		18	20	30	33	38	41	49	58	75	110	157	220

1) Other Kvs coefficients available on request

SETTING RANGES OF THE REGULATED PRESSURE[2)]

Actuator Diaphragm effective area [cm²]		Setting range [kPa]	
22	53	1000-3500	1000-3600
37	69	400-2000 500-2200	500-3200
65	91	200-1100 500-1300	500-2600
106	116		500-1800
Max. Height	H	400	625

1) Other setting ranges available on request

INSTALLATION

Reducer is to be installed on a horizontal pipeline. Medium flow direction must conform to the arrow on the valve body. It is necessary to install a strainer upstream the reducer.