

## PRESSURE REGULATORS RCW-2

### FUNCTION

Pressure regulators are designed to maintain set-up, constant pressure in process installations, which are connected to regulator`s valve outlet, regardless of fluctuation of supply pressure. Regulators are used in water- pipe networks in order to prevent the installation against excess pressure increase. Other applications need to be consulted with the Manufacturer.

### CONSTRUCTION

Regulator comprises three main units:

- a single-seated valve (1), which is differential pressure balanced,
- actuator (2),
- and adjuster set (3).

Regulator features 0% leakage owing to 100% tightness of trim shut-off (metal/EPDM sealing). Safe operation of a regular, as well as the manufacturer`s. Warranty, are conditioned upon installation of a strainer on the supply side.



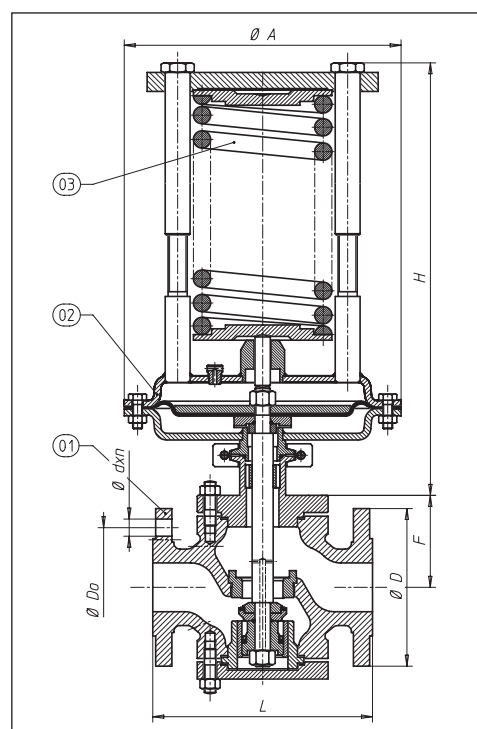
### PRINCIPLE OF OPERATION

Fluid flowing through the valve constitutes the driving force of the regulator. The impulse of regulated pressure, as measured downstream the valve, is applied to the actuator pressure chamber (2). The resulting pressure on the actuator diaphragm is counterbalanced by the spring tension in the adjuster set (3). Thus, a change in the regulated pressure causes valve (1) opening or closing, and allows for keeping the reduced pressure constant at the valve outlet.

Specifications	
Nominal pressure valve	PN16
Max. fluid pressure	16 bar
Max. temperatura czynnika	0/100°C
Szczelność zamknięcia	VI kl. wg. PN-EN 60534-4
Proportionality range	Xp=16%

## SPECIFICATION OF MATERIALS

	Materials		Norm
Body	EN-GJL-250		PN-EN 1561
Body DN20-50	GP240GH	1.0619	PN-EN 10213-2
	GX5CrNiMo19-11-2	1.4408	PN-EN 10213-4
Bonnet	C15E		EN 10084
Plug, Seat	X17CrNi16-2		PN EN 10088
Steam	X17CrNi16-2		
Plug seating	PTFE+ B		
	EPDM		
	NBR		
Diaphragm	EPDM with polyester insert		



## DIMENSIONS

Regulator's Size DN	20	22	32	40	50	65	80	100	150	200	
Max. coefficient Kvs <sup>1)</sup>	5	8	12,5	20	34	50	80	115	175	250	
Dimensions [mm]	D [mm]	105	115	140	150	165	185	200	220	285	340
	L [mm]	184	184	200	222,5	254	290	310	350	451	543
	D <sub>0</sub> [mm]	75	85	100	110	125	145	160	180	240	295
	d [mm]	14	14	18	18	18	18	18	18	22	22
	n	4	4	4	4	4	4	8	8	8	12
	F [mm]	98,5	98,5	98,5	101,5	116	132	165	180	241	283
Regulator's weight [kg]	18	22	28	34	42	55	73	106	154	215	

1) Other Kvs coefficients available on request

## SETTING RANGES OF REGULATED PRESSURE<sup>2)</sup>

Actuator		Setting ranges [kPa]								
Area [cm <sup>2</sup> ]	Ø A									
80	190	200-950		200-1100						
100	190	150-750								
160	230	30-160	50-240	60-300	80-400	100-480	100-560			
320	290	10-40		15-80	30-160	50-280		80-375	100-550	
Max. height	H	400								625

2) Other setting ranges available on request

## INSTALLATION

Regulator should be mounted on a horizontal pipeline with the spring facing upwards. Direction of fluid flow must be as indicated on the regulator's valve body. It is recommended to install strainer type FS in front of the regulator.