

DRP 16 and DRP 40 PRESSURE REDUCING VALVES

GENERAL CHARACTERISTICS

The RP16 and RP40 models are single seated pressure regulators and proportional reducers with balanced forces, operating by themselves with no additional energy. Securely manufactured, the pressure reducing valves are used in industrial environment such as the regulation of steam, air, water or any other compatible fluid. The downstream pressure is set by manipulating the spring. The servo-motor has to be connected to the downstream pressure with the adapted kit.

AVAILABLE MODELS

DN 15 to DN 100

Cast iron body GS, flanged connections PN16

Carbon and stainless steel, flanged connections PN40

LIMITS OF USE

Cast iron model:

Steam : 13 bar / 200°C

Water : 16 bar / 120°C

Carbon and stainless steel models:

Steam : 20 bar / 215°C

Water : 20 bar / 120°C

External Temperature 60°C



PRESSURE RANGES

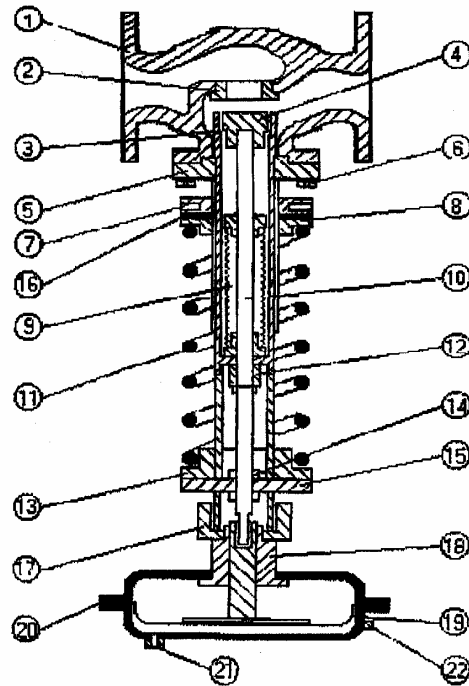
D20	D10	D8	D6	D4	D3	D1
8-20 bar	1-10 bar	1,2-6 bar	2-10 bar	1-4 bar	0,1-1 bar	0,2-1,5 bar
ΔP max = 10 bar						

KVs VALUES (m³/h)

DN	15	20	25	32	40	50	65	80	100
KVs	3	5.5	10	14	17.5	29	48	72	107

This information is given informally. It can be modified at any time

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CONSTRUCTION

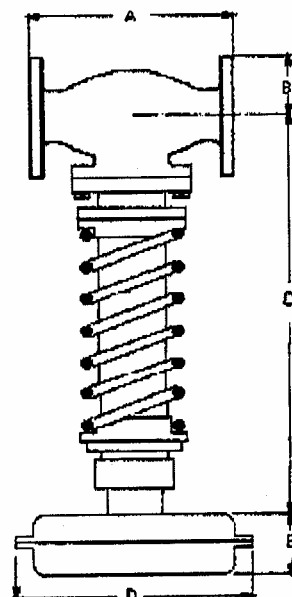
Item	Cast Iron GS	Carbon Steel	Stainless Steel
1 Body	GGG40.3	A216 WCB	A 351 CF8M
2 Seat	AISI 316	AISI 316	AISI 316
3 Bonnet	Carbon steel	Carbon steel	Carbon steel
4 Plug	AISI 316	AISI 316	AISI 316
5 Cover	Carbon steel	Carbon steel	Carbon steel
6 Bolts	Steel	Steel	Steel
7 Adjuster	Bronze	Bronze	Bronze
8 Guide	Carbon steel	Carbon steel	Carbon steel
9 Bellow	AISI 316	AISI 316	AISI 316
10 Stem	AISI 316	AISI 316	AISI 316
11 Spring	Steel	Steel	Steel
12 Bolt	Steel	Steel	Steel
13 Spring plate	Steel	Steel	Steel
14 Bolts	Steel	Steel	Steel
15 Cover	Carbon steel	Carbon steel	Carbon steel
16 Spacer	Carbon steel	Carbon steel	Carbon steel
17 Clamp	Carbon steel	Carbon steel	Carbon steel
18 Dist.	Carbon steel	Carbon steel	Carbon steel
19 Diaphragm	reinforced EPDM	reinforced EPDM	reinforced EPDM
20 Actuator	Steel	Steel	Steel
22 Nuts	Steel	Steel	Steel

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DIMENSIONS (mm)

DN	A	B	C
15	150	48	480
20	150	53	490
25	160	58	495
32	180	70	505
40	200	75	525
50	230	83	555
65	290	93	570
80	310	100	635
100	350	110	650



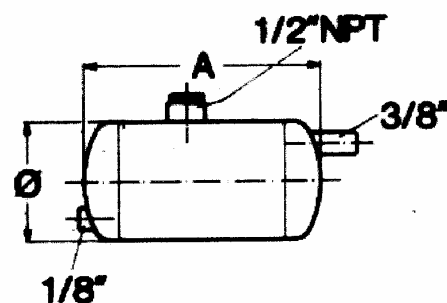
ACTUATOR

Size	D20	D10	D8	D6	D4	D3	D1
D	136	136	-	160	180	-	270
E	91	91	-	58	70	-	75
Pot	BCS-1			BCS-2			

CONNECTION KIT

Connection kit for steam : the condensation pot has to be mounted between the actuator and the downstream tube connection in order to protect the diaphragm with a water joint.

Type	A	Ø	Racc.
BCS-1	130	110	3/8"
BCS-2	165	155	1/2"

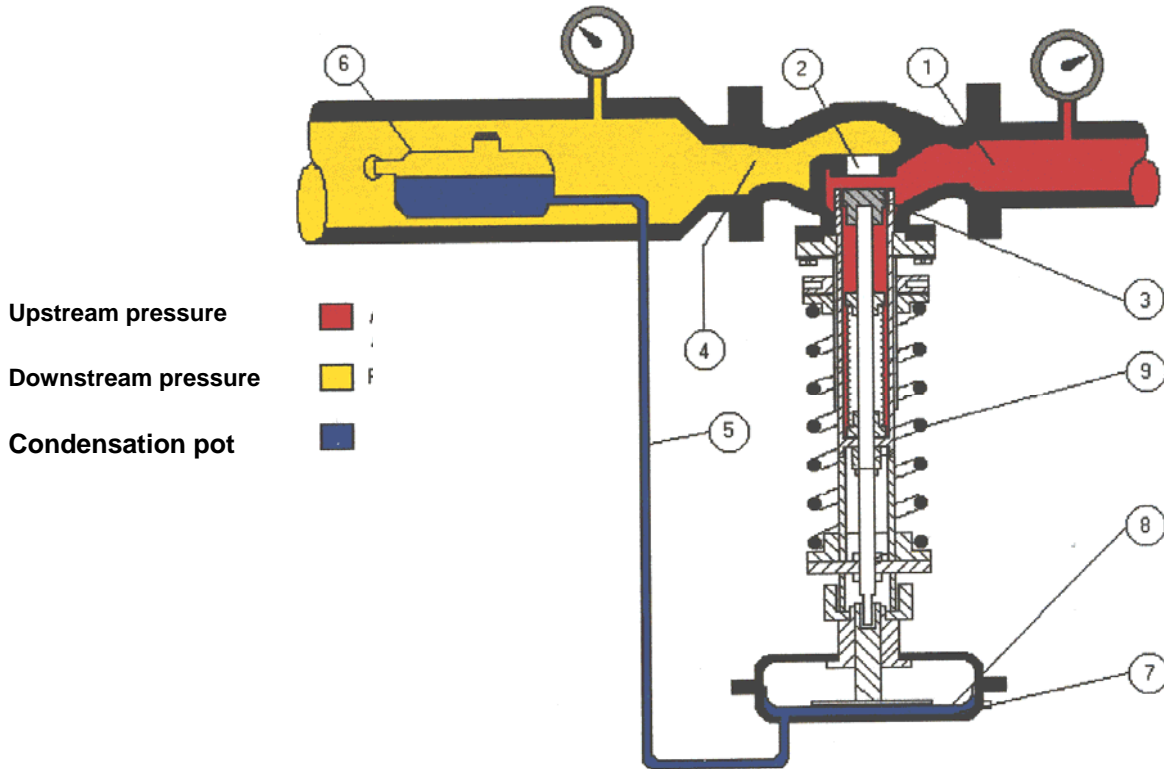


SELECTION OF THE ACTUATOR

DN	15	20	25	32	40	50	65	80	100	
8-20 bar	D 20						D 10			
1-10 bar	D 10						D 6			
1,2-6 bar	D 8						D 4			
2-10 bar	D 6						D 4			
1-4 bar	D 4						D 3			
0,1-1 bar	D 3						D 1			
0,2-1,5 bar	D 1									

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INSTALLATION AND ADJUSTMENTS

The reducer has to be installed horizontally respecting the arrow on the valve's body. For fluids with a temperature less than 100°C, the actuator may be mounted over the valve's body. For fluids over 100°C, the actuator has to be mounted with its head beneath the valve as shown on the scheme. You have to firstly mount the valve on the piping (respecting the arrow's direction).

Installation of the condensation pot

Make a connection of 3/8" or 1/2" on the downstream piping. Connect the pot to it with the appropriate pipe. Connect then the lowest point of the pot to the piquage on the actuator. Open the plug of the exhaust pot and fill in with water. Do not go over the lower level of the piquage on the downstreams piping. Use the exhaust plugs /caps on the actuator to eliminate the air.

Set control of the downstream pressure

This operation can only be done when everything is installed. Open the upstream isolation valve and take the downstream pressure with a manometer. Adjust the wished pressure with the adjuster (number 7 on the scheme)

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Maintenance

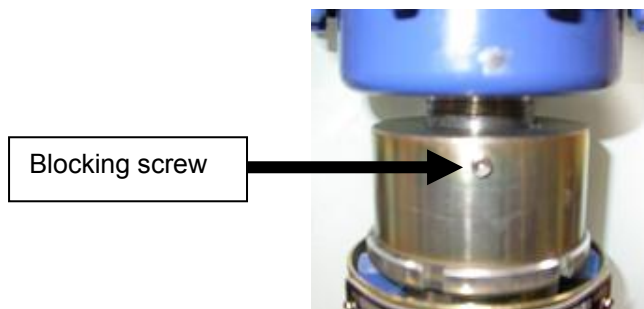
This reducer does not need any maintenance. However, it is recommended to plan a checking visit every 12 to 18 months in order to control the internal parts. Before dismantling the valve, close the upstream and downstream isolation valves. Distress the adjusting spring and depressurise the circuit. On hot fluids, wait until the temperature has come back to ambient temperature. You can then dismantle the reducer. Control particularly the state of the seat and of the plug.

Replacing the actuator's diaphragm

Close the upstream and downstream isolation valves. Distress the adjusting spring and depressurise the circuit. On hot fluids, wait until the temperature has come back to ambient temperature. Make sure that there is no more pressure on the downstream piping (number 5 on the scheme). Empty the exhaust pot if necessary. Dismount the downstream gauge's fitting. Dismount the bonnet of the actuator. Take the membrane and clean the joint's seat. Put a new membrane, reassemble the actuator and mount the pressure set again (number 21 on the scheme). If there is a condensation pot, you have to make the water joint again and make the necessary purge on the actuator.

Replacing the actuator

Close the upstream and downstream isolation valves. Distress the adjusting spring and depressurise the circuit. On hot fluids, wait until the temperature has come back to ambient temperature. Make sure that there is no more pressure on the downstream piping (number 5 on the scheme). Empty the exhaust pot if necessary. Dismount the gauge. Unscrew the actuator's blocking screw which is on the hand side (number 18 on the scheme). Unscrew the actuator anticlockwise. Install the new actuator by screwing it clockwise until it touches the support. Screw the blocking screw. Connect the pressure gauge again (number 21 on the scheme). If there is a condensation pot, you have to make the water joint again and make the necessary purge on the actuator.



Spare parts

Scheme's mark	Description
4	Plug + diaphragm
9+10	Stem + below + gasket
11	Spring
19	Actuator's diaphragm
20	Actuator

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