

# Pressure Reducing Valves



*Clorius*  
Controls A/S

- ensures reliable  
control of heating, cooling  
and ventilation systems.

# Pressure Reducing Valves type

## Application

This unit is designed for maintaining the pressure downstream of the valve to an adjusted set point value.

## Characteristics

- Exact regulating accuracy
- Nominal pressure PN 25
- Self-acting
- Easy to use

## Design

The pressure reducing valve is a self acting unit consisting of:

- Valve
- Two or three springs
- Diaphragm in the actuator
- One capillary tube on upper side of the actuator
- Compensation chamber (for steam applications)

## Function

The medium flows through the free area between the seat and cone in the direction indicated by the arrow on the body. The position of the valve cone determines the flow rate and consequently the pressure ratio across the valve.

The downstream pressure is transmitted through the compensation chamber and the capillary to the diaphragm, where it is converted into a positioning force. This positioning force is adjusting the cone with dependence on the force of the operating springs. The spring force can be adjusted by using the set point adjuster.

The valve cone is pressure balanced.

The fluid pressure acts onto the bottom and top surfaces of the cone at the same time. In this way, the forces produced by the fluid pressure on the cone, are compensated.

# G1PR and H1PR

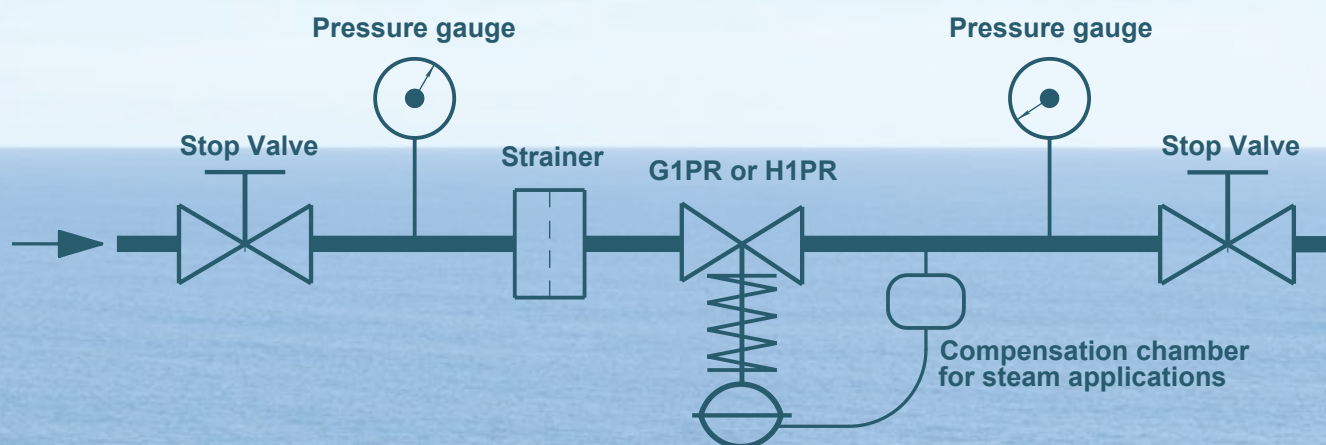
## Specifications

Type	Flange connection DN in mm	$k_{vs}$ -value m <sup>3</sup> /h	Lifting height mm	Weight kg
15 G/H1PR	15	2.75	6	21
20 G/H1PR	20	5	6.5	23
25 G/H1PR	25	7.5	7	24
32 G/H1PR	32	12.5	8	27
40 G/H1PR	40	20	9	29
50 G/H1PR	50	30	10	33
65 G/H1PR	65	50	13	38
80 G/H1PR	80	80	16	55

<b>Set point</b>	bar	0.4 - 1.2	0.8 - 2.5	2 - 5	4.5 - 10	8 - 16
<b>Spring force</b>	N	5097	4281	4281	4281	7014



## Installation example



# Complete control systems

Clorius Controls offers a complete range of tested and reliable equipment for control of heating, cooling and ventilation systems, all with the purpose of achieving the highest reliability and saving energy.

## Specialists in selected areas



## Residences and institutions

Equipment for control and regulation of heating and ventilation systems



## Industry

Valves and thermostats for the regulation of heating, cooling and process heat



## Maritime industry

Certified valves, thermostats and motors



## Control valves

Clorius valves are simple and reliable for regulation of temperature and pressure differences in heating, cooling and ventilation systems for maritime industry, general industry, institutions and residences.



## Controllers

Clorius Controls offers a wide range of electronic controllers for heating, cooling and ventilation systems. The controllers are available for systems in the maritime industry, general industry, institutions and residences. Clorius Controls offers controllers for simple stand-alone solutions or for larger BMS-plants.



## Motors

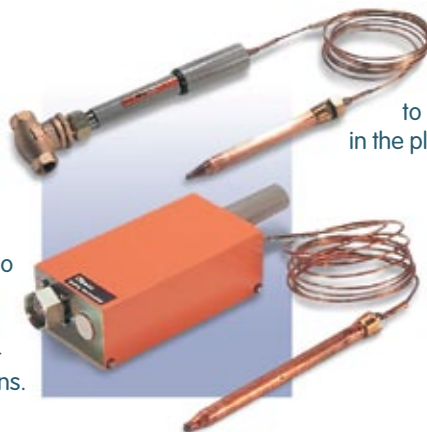
Clorius Controls offers a large program of conventional regulation motors and analogue motors. This includes special motors for maritime use, which are designed to withstand vibrations.

## Balancing valves

With Ballorex balancing valves the water flow in the individual heating circuits can be balanced and regulated.

## Thermostats

Self-acting thermostats from Clorius Controls are direct-acting and available with sensors for air or liquids. They are also available as safety thermostats for the protection of secondary pipe installations.



## Pressure differential controllers

The controllers from Clorius Controls lower large and variable pump pressure to stabilize the flow in the plant.



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