2-way control valve type H2FR

Cast steel, PN 25, DN 100 – 125 mm / PN 16, DN 150 mm, Reverse acting

0-2.4.10-G

APPLICATIONS

Valves type H2FR are mainly intended for control of cooling systems. The valves are used in conjunction with temperature- or pressure differential regulators. As the reverse acting valves are held in closed position by means of a built-in spring, the max. differential pressure, Δp_L, against which a valve can close depends on the spring and when opening the valve, the actuator has to overcome the spring force.On the next page please find the max. allowable values of Δp_L as well as the max. allowable inlet pressures for opening the valves, p_{1max} for various actuator forces.

DESIGN

The valve components - spindle, seats and cone - are made of stainless steel. The valve body is made of cast steel GP240GH (GS-C25) with flanges drilled according to EN 1092-1. The connection thread for the actuator is G1B ISO 228. The valves are double-seated. The leakage rate is less than 0.5% of the full flow (according to VDI/VDE 2174).

FUNCTION
REVERSE ACTING

Without an actuator being connected, the valve is held in closed position by means of a spring. With pressure on the spindle the valve opens. In connection with our actuators, the valves act as “cooling” valves, i.e. they open at rising temperatures. The linear characteristic will not cease until the flow has dropped below 4% of the full flow.

TECHNICAL DATA

Materials:	
- Valve body	Cast steel GP240GH (GS-C25)
- Trim	Stainless steel CuSn5Zn5Pb5-C
- Bolts, nuts	24 CrMo 4/A4
- Gasket	**S**tainless steel foil Copper
Nominal pressure	PN 25
Seating	Double seated
Flow characteristic	Almost quadratic
Function	Opens by pressing the spindle
Leakage rate	≤ 0.5% of Kvs
Regulating capability	Kvs/Kvr > 25
Flanges	EN 1092-1 PN 25
Counter flanges	DIN 2635/DS625

Reverse acting (normally closed)

For cooling water and lubrications

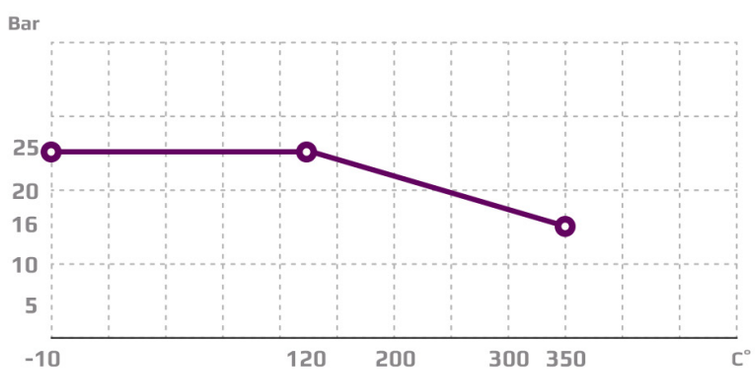
Important note
All Clorius valves are approved in accordance to the Pressure Equipment Directive (PED). Valve type 150 H2FR in only approved for nominal pressure PN 16, but for applications not effected by the PED, valve type 150 H2FR can be delivered for nominal pressure PN 25.

FEATURES

- Simple design secures reliable controls.
- Location of the pack box in the actuator makes the valve service friendly
- Reliable and secure due to internal parts of stainless steel

PRESSURE/TEMPERATURE DIAGRAM

According to DIN 2401

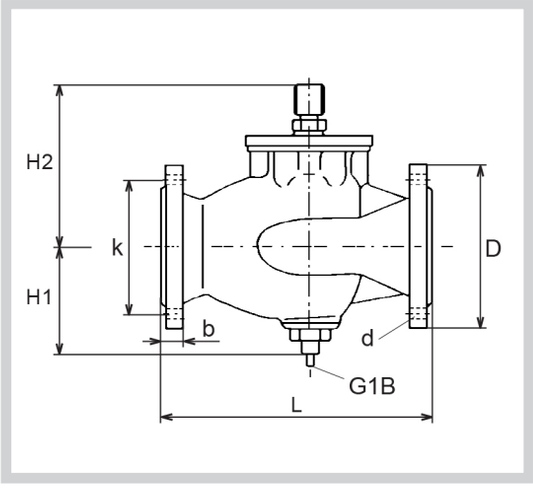


Subject to change without notice.

MOUNTING

The valve can be installed with vertical as well as horizontal spindles. For valve temperatures of max. 170 ºC, the thermostat/ actuator can be fitted below or above the valve. For valve mounted with thermostats in media temperatures above 170 ºC, a cooling unit has to be applied with connection downwards (please refer to data sheet for thermostat accessories). For electric actuators a high temperature adaptor must be used (please refer to datasheets for the electric actuators).

DIMENSION SKETCH



Type	**L** mm	**H1** mm	**H2** mm	**D** (dia.) mm	**b** mm	**k** (dia.) mm	**d** mm dia. (number)
100 M2FR	350	145	240	220	24	190	23x(8)
125 M2FR	400	180	290	250	26	220	27x(8)
150 M2FR	400	180	290	285	28	250	27x(8)

SPECIFICATIONS

Type	**Flange connection** Dn in mm	**Opening** mm	**k_{vs}-value** m^3/h	**Lifting height** mm	**Max. Δp_L** bar	**Actuat. force** N	**Weight** kg
100 H2FR	100	100	125	20	12.1	800	39
125 H2FR	125	125	215	20	9	800	73
150 H2FR	150	150	310	20	7.5	800	76