

# 2-way Control Valve type H1F

Cast steel, PN 40, DN 15/4 – 50 mm

0-2.4.02-K



## TECHNICAL DATA

<b>Materials:</b>	
- Valve body	Cast steel GP240GH (G5-C25)
- Trim	Stainless steel
- Bolts, nuts	24 CrMo 4/A4
- Gasket	Graphite and stainless steel foil
Nominal pressure	PN 40
Seating	Single seated, tight closing
Flow characteristic	Quadratic
Leakage rate	≤ 0.05% of Kvs
Regulating capability	Kvs/Kvr > 25
Flanges drilled according to	EN 1092-1 PN 40 or ANSI B16.5 Class 150
Counter flanges	DIN 2635

Subject to change without notice.

## APPLICATIONS

Control valves type H1F are designed for regulating hot water, steam and hot oil systems. The valves are used in conjunction with our temperature or pressure differential regulators for controlling industrial processes, district or central heating plants or marine installations.

## DESIGN

The valve components - spindle, seat and cone - are made of stainless steel. The valve body is made of cast steel GP240GH (G5-C25) with flanges drilled according to EN 1092-1 or ANSI B16.5 Class 150. The thread for the actuator connection is G1B ISO 228. The valves are single-seated. The leakage rate is less than 0.05% of the full flow (according to VDI/VDE 2174).

## FUNCTION

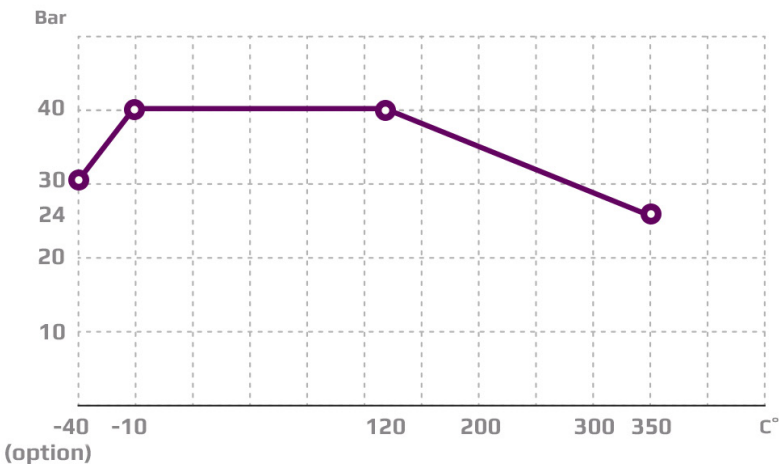
Without the actuator being connected, the valve is held in open position by means of a spring. With pressure on the spindle the valve will close. In connection with our thermostats, electric or pneumatic actuators, the valves will close at rising temperatures. For cooling circuits the valve can be used in conjunction with a reverse acting electric actuator. Alternatively a reverse acting valve can be used with our self-acting thermostats. The quadratic characteristic will not cease until the flow has dropped below 4% of the full flow.

## 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
- Low leakage rate reduces the risk of overheating

## PRESSURE/TEMPERATURE DIAGRAM

According to DIN 2401

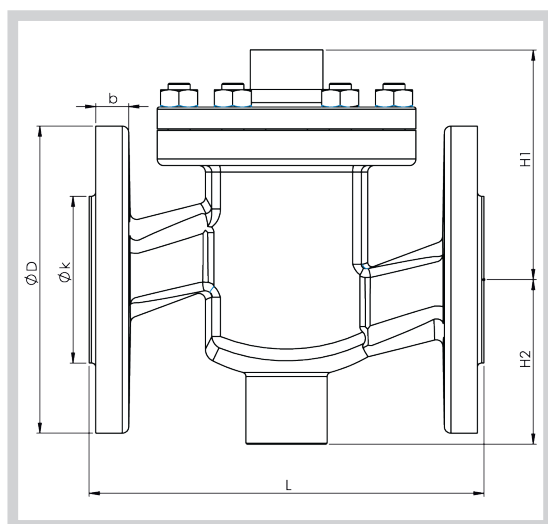


## MOUNTING

The valve can be installed with vertical as well as horizontal spindles. For valve temperatures of max. 170 °C, the thermostat/ actuator can be fitted below or above the valve. For valve mounted with thermostats in media temperatures above 170 °C, 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 data-sheets for the electric actuators).

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## DIMENSION SKETCH



## SPECIFICATIONS

Type	Flange connection DN in mm	Opening (mm)	$k_{vs}$ -value $m^3/h$	Lifting height (mm)	Weight (kg)
15/4 H1F	15	4	0.20	6	3.3
15/6 H1F	15	6	0.45	6	3.3
15/9 H1F	15	9	0.95	6	3.4
15/12 H1F	15	12	1.7	6	3.4
15 H1F	15	15	2.75	6	3.4
20/4 H1F	20	4	0.2	6.5	4.7
20/6 H1F	20	6	0.45	6.5	4.7
20/9 H1F	20	9	0.95	6.5	4.7
20 H1F	20	20	5	6.5	4.9
25 H1F	25	25	7.5	7	6.1
32 H1F	32	32	12.5	8	9.0
40 H1F	40	40	20	9	10.8
50 H1F	50	50	30	10	15.5

Type	L (mm)	H1 (mm)	H2 (mm)	b (mm)	EN 1092-1			ANSI B16.5 Class 150		
					D (dia.) (mm)	k (dia.) (mm)	d mm dia. (number)	D (dia.) (mm)	k (dia.) (mm)	d mm dia. (number)
15/4 H1F	130	80	60	16	95	65	14x(4)	89	61	16x(4)
15/6 H1F	130	80	60	16	95	65	14x(4)	89	61	16x(4)
15/9 H1F	130	80	60	16	95	65	14x(4)	89	61	16x(4)
15/12 H1F	130	80	60	16	95	65	14x(4)	89	61	16x(4)
15 H1F	130	80	60	16	95	65	14x(4)	89	61	16x(4)
20/4 H1F	150	85	65	18	105	75	14x(4)	98	70	16x(4)
20/6 H1F	150	85	65	18	105	75	14x(4)	98	70	16x(4)
20/9 H1F	150	85	65	18	105	75	14x(4)	98	70	16x(4)
20 H1F	150	85	65	18	105	75	14x(4)	98	70	16x(4)
25 H1F	160	95	70	18	115	85	14x(4)	108	79	16x(4)
32 H1F	180	105	75	18	140	100	18x(4)	118	89	16x(4)
40 H1F	200	110	85	18	150	110	18x(4)	127	98	16x(4)
50 H1F	230	125	95	20	165	125	18x(4)	153	121	19x(4)