2-way Regulating Valves Type H2F
Cast Steel, PN 40, DN 20...80 mm^{Ø}

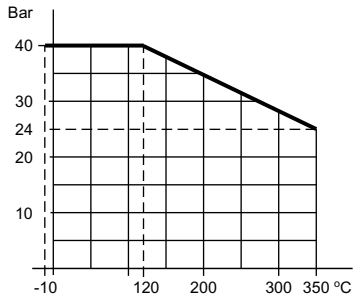
Characteristics

- Nominal pressure PN 40
- Regulating capability $\frac{k_{vs}}{k_{vr}} > 25$
- Double-seated
- Adjustable seat interspace
- Quadratic characteristic

Applications

Regulating valves type H2F are designed for regulating hot water, steam and hot oil systems.
The double-seated valves are used in installations where the system pressure necessitates a closing force greater than available in the actuator programme for a single-seated valve.
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.

Pressure/Temperature Diagram
According to DIN 2401



Dimensioning

For sizing of control valves and selection of actuators please see "Quick Choice" leaflet No. 9.0.00.

Design

The valve components - spindle, seats and cone - are made of stainless steel.
The valve body is made of cast steel 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 and designed for tight closure. The leakage rate is less than 0.5% of the full flow (according to VDI/VDE 2174).

Quality assurance

All valves are manufactured under an ISO 9001 certification and are pressure and leakage tested before shipment.
For marine applications the valves can be supplied with relevant test certificates from recognized classification societies.

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 thermostats or electronic actuators, the valves will close at rising temperatures. For cooling circuits a reverse acting valve can be used.
The quadratic characteristic will not cease, until the flow has dropped below 4% of the full flow.

Technical Data

Materials:	
- Valve body	Cast steel GS-C25
- Components	Stainless steel
- Nuts	24 CrMo 5/A4
- Bolts	24 CrMo 5/A4
Nominal pressure	PN 40
Seating	Double-seated
Valve characteristic	Quadratic
Regulating capability	$\frac{k_{vs}}{k_{vr}} > 25$
Function	Closing with pressure on spindle
Leakage rate	≤ 0.5 % of k_{vs}
Temperature range	See pressure/temperature diagram
Mounting	See page 2
Flanges drilled according to	EN 1092-1
Counter flanges	DIN 2635
Colour	Green

Subject to changes without notice.

Specifications

Type	Flange Connection	Opening DN in mm	k_{vs}-value m³/h	Lifting Height mm	Weight kg
20 H2F	20 mm	20	5	6.5	5
25 H2F	25 mm	25	7.5	7	6.5
32 H2F	32 mm	32	12.5	8	9
40 H2F	40 mm	40	20	9	11
50 H2F	50 mm	50	30	10	16
65 H2F	65 mm	65	50	11	21
80 H2F	80 mm	80	80	13	38

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Definition of k_{vs}-value

The k_{vs}-value is identical to the IEC flow coefficient k_v and defined as the water flow rate in m^3/h through the fully open valve by a constant differential pressure, Δp_v, of 1 bar.

Mounting

The valves can be installed with vertical as well as horizontal spindles. For valve temperatures of max. 150°C, the thermostat/actuator can be fitted below or above the valve. For valve temperatures above 150°C, a cooling unit of type KS has to be applied with connection downwards - according to the following instructions:

Valve Temperature	Cooling Unit	Suitable for
150°C - 250°C	KS-4	All actuators
250°C - 300°C	KS-5	Thermostats
250°C - 300°C	KS-6	Valve Motors

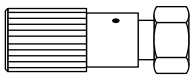
KS-5 or KS-6 must be applied to hot oil systems.

Strainer

It is recommended to use a strainer in front of the regulating valve if the liquid contains suspended particles.

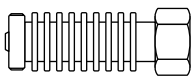
Accessories

Manual Adjusting Device



The device has a built-in stuffing box. For sealing and manual operation of valves when an actuator has not been fitted, e.g. during periods of construction.

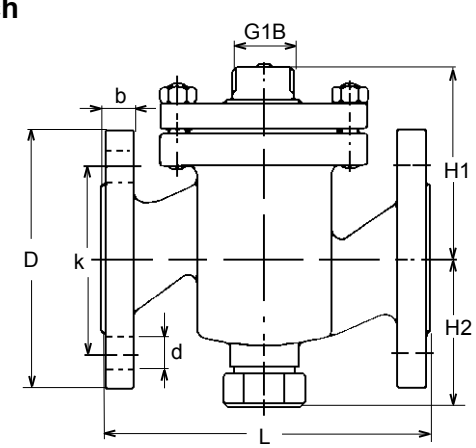
Cooling Unit KS-4



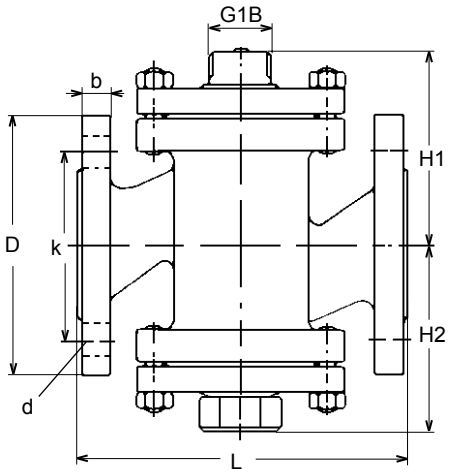
Cooling unit protecting the stuffing box of the motor/thermostat. To be applied at valve temperatures between 150°C and 250°C.

Dimension Sketch

DN 20-65



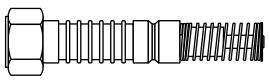
DN 80



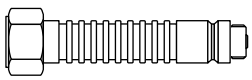
Dimensions

Type	L mm	H1 mm	H2 mm	b mm	D (dia.) mm	k (dia.) mm	d mm dia. (number)
20 H2F	150	85	70	18	105	75	14x(4)
25 H2F	160	95	77	18	115	85	14x(4)
32 H2F	180	105	82	18	140	100	18x(4)
40 H2F	200	110	92	18	150	110	18x(4)
50 H2F	230	125	102	20	165	125	18x(4)
65 H2F	290	135	120	22	185	145	18x(8)
80 H2F	310	145	165	24	200	160	18x(8)

Cooling Unit KS-5



Cooling Unit KS-6



Cooling units with built-in bellow glands, replacing stuffing box of thermostat (KS-5) or valve motor (KS-6). Must be applied at valve temperatures above 250°C and in hot oil systems.

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