Válvula Termostática Autoactuada L1SB

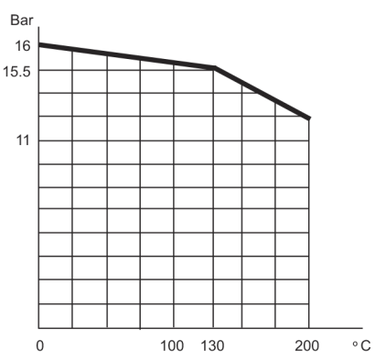
2-way Control Valves type L1SB
Gun Metal, PN 16, DN 20 – 32 mm

2.2.04-F
GB-1

Characteristics
- Nominal pressure PN 16
- Regulating capability $\frac{k_{vs}}{k_{vr}} > 25$
- Single seated, balanced
- Quadratic characteristic

Applications
Control valves type L1SB are designed for regulation of hot water, steam and lubricating oils.
The valves are installed combined with our self-acting thermostats, pressure differential regulators or electric valve actuators for regulation in central heating plants, industrial plants, industrial processes or marine installations.

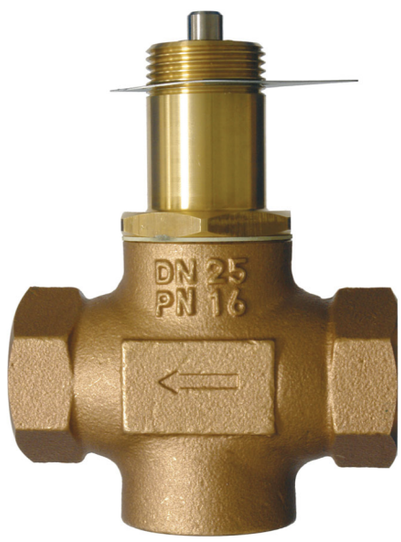
Pressure/Temperature diagram



Design
The valve components - spindle, seats and cone - are made of stainless steel.
The valve body is made of gun metal RG 5.
The thread for the actuator connection is G1B ISO 228. The valve is single seated, balanced. The leakage rate is less than 0.05% 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.

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 the valves will close at rising temperatures.
In connection with our electric valve actuators the valves will either close or open depending on the application.
The quadratic characteristic will not cease, until the flow has dropped below 4% of the full flow.



Technical data

Materials:	
- valve body	Gun metal RG 5
- components	Stainless steel
Nominal pressure	PN 16
Seating	Single seated
Valve characteristic	Quadratic
Leakage	≤ 0.05% of k_{vs}
Temperature range	See pressure/ temperature diagram
Mounting	See page 2
Internal connection threads	ISO 7/1

Specifications

Type	Connection threads	DN mm	Opening mm	k_{vs}-value m^3/h	Lifting height mm	Weight kg
20 L1SB	Rp ¾	20	20	5	6.5	1.3
25 L1SB	Rp 1	25	25	7.5	7	1.6
32 L1SB	Rp 1¼	32	32	12.5	8	2.9

Subject to change without notice.

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

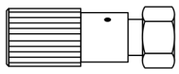
Up to 170ºC the valve can be installed vertically as well as horizontally. For media temperature above 170ºC, a cooling unit of type KS-4 has to be applied. It must then be installed with electric actuator/ thermostat downwards.

Strainer

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

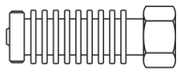
Accessories

Manual Adjusting Device



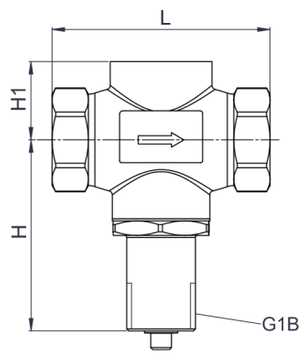
The device has a built-in stuffing box. For sealing and manual operation of valves when an actuator has not been fitted, e.g. during periods of construction (max. 170ºC).

Cooling Unit KS-4



Cooling unit protecting the stuffing box of the electric actuator/thermostat. To be applied at valve temperatures between 170ºC and 250ºC.

Dimension sketch



Type	L mm	H mm	H1 mm
20 L1SB	95	94	35
25 L1SB	105	92	40
32 L1SB	138	94	54

Dimensioning

Type	Water / Steam			Thermostats		Valve actuators	Pressure differential controllers	
				V2	V4	VB/VBA	TD66-4	TD66-8
DN 20	**Water:**	Δp_L & max. p_1	bar	7.5	16	16	16	16
	Steam:	Δp_L & max. p_1	bar	6.5				
DN 25	**Water:**	Δp_L & max. p_1	bar	6				
	Steam:	Δp_L & max. p_1	bar	5				
DN 32	**Water:**	Δp_L & max. p_1	bar	7				
	Steam:	Δp_L & max. p_1	bar	6				

Subject to change without notice.