

MH32F, MH42F: Control valve with flange connection, PN 6

Improving energy efficiency

Supply from both sides and the linear characteristic enable energy-efficient working

Areas of use

Continuous control of the supply temperature in heating systems in which a certain loss through leakage is desired.

Features

- MH32F: 3-way valves with nominal diameters DN 20...150
- MH42F: 4-way valves with nominal diameters DN 32...50
- Can be combined with the AR30 and ASM 105, 115, 124 motorised actuators
- Manual adjustment by a lever
- Body made of grey cast iron; brass gate
- Spindle made of brass up to DN 25 or stainless steel from DN 32
- Stuffing box with double O-ring guarantees the tightness of the seal at the spindle

Technical data

Parameters	
Nominal pressure	6 bar
Angle of rotation	90°
Valve characteristic	Linear

Ambient conditions	
Operating temperature	2...110 °C
Operating pressure	Max. 6 bar

Overview of types				
Type	Nominal diameter	k_{vs} value	Leakage rate in % of k_{vs}	Weight
MH32F20F200	DN 20	12 m³/h	1 %	2.7 kg
MH32F25F200	DN 25	18 m³/h	1 %	3.5 kg
MH32F32F200	DN 32	28 m³/h	1 %	4.6 kg
MH32F40F200	DN 40	44 m³/h	1 %	5.6 kg
MH32F50F200	DN 50	66 m³/h	1 %	7.9 kg
MH32F65F200	DN 65	100 m³/h	1 %	9.2 kg
MH32F80F200	DN 80	150 m³/h	1 %	14.2 kg
MH32F100F200	DN 100	225 m³/h	1 %	19 kg
MH32F125F200	DN 125	310 m³/h	1 %	25.8 kg
MH32F150F200	DN 150	420 m³/h	1 %	35.5 kg
MH42F32F200	DN 32	28 m³/h	1.5 %	5.7 kg
MH42F40F200	DN 40	44 m³/h	1.5 %	7.1 kg
MH42F50F200	DN 50	66 m³/h	1.5 %	8.3 kg

💡 MH32F20...25: 3-way valve: Zinc cover, brass spindle

💡 MH32F32...150: 3-way valve: Cover of grey cast iron, spindle of stainless steel

💡 MH42F32...50: 4-way valve: Cover of grey cast iron, spindle of stainless steel

Accessories

Type	Description
0360392020	Welding flange, DN 20, smooth, PN 6, incl. asbestos-free seal
0360392025	Welding flange, DN 25, smooth, PN 6, incl. asbestos-free seal
0360392032	Welding flange, DN 32, smooth, PN 6, incl. asbestos-free seal
0360392040	Welding flange, DN 40, smooth, PN 6, incl. asbestos-free seal
0360392050	Welding flange, DN 50, smooth, PN 6, incl. asbestos-free seal
0360392065	Welding flange, DN 65, smooth, PN 6, incl. asbestos-free seal
0360392080	Welding flange, DN 80, smooth, PN 6, incl. asbestos-free seal
0360392100	Welding flange, DN 100, smooth, PN 6, incl. asbestos-free seal



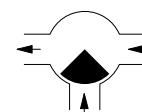
MH32F40F200



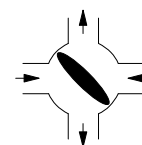
MH32F**F200



MH42F**F200



3-way valve



4-way valve



Type	Description
0360392125	Welding flange, DN 125, smooth, PN 6, incl. asbestos-free seal
0360392150	Welding flange, DN 150, smooth, PN 6, incl. asbestos-free seal
0361775000	Assembly materials for M3R/M4R, MH32F/MH42F with AR30
0361977001	Assembly materials for M3R/M4R, MH32F/MH42F with ASM 124
0361977002	Assembly materials for M3R/M4R, MH32F/MH42F with ASM 105, 115

Combination of MH32F/MH42F with electric actuators

i *Warranty: The technical data and pressure differences indicated here are applicable only in combination with SAUTER valve actuators. The warranty does not apply if used with valve actuators from other manufacturers.*

i **Definition of Δp_s :** Max. admissible pressure drop in the event of a malfunction (pipe break after control valve) at which the actuator reliably closes the control valve using the return spring.

i **Definition of Δp_{max} :** Maximum admissible pressure drop in control mode at which the actuator reliably opens and closes the valve.

Pressure differences

Actuator	ASM105F100	ASM105F120 ASM105F122	ASM105SF132	ASM115F120 ASM115F122	ASM115SF132
Torque	5 Nm	5 Nm	5 Nm	10 Nm	10 Nm
Control signal	2-/3-point	2-/3-point	2-/3-point, 0...10 V	2-/3-point	2-/3-point, 0...10 V
Running time	30 s	120 s	35/60/120 s	120 s	60/120 s

Δp [bar]

As control valve	Δp_{max}	Δp_{max}	Δp_{max}	Δp_{max}	Δp_{max}
MH32F20F200 MH32F25F200 MH32F32F200 MH32F40F200	1.0	1.0	1.0	1.0	1.0
MH32F50F200 MH32F65F200 MH32F80F200	–	–	–	0.5	0.5

Cannot be used as distribution valve

Actuator	AR30W23F001	AR30W23F020	AR30W23SF020	ASM124SF132	ASM124F120 ASM124F122
Torque	–	15 Nm	15 Nm	15 Nm	18 Nm
Control signal	3-point	3-point	0...10 V	2-/3-point, 0...10 V	2-/3-point
Running time	120 s	120 s	120 s	60/120 s	120 s

Δp [bar]

As control valve	Δp_{max}	Δp_{max}	Δp_{max}	Δp_{max}	Δp_{max}
MH32F20F200 MH32F25F200 MH32F32F200 MH32F40F200 MH42F32F200 MH42F40F200	1.0	1.0	1.0	1.0	1.0
MH32F50F200 MH32F65F200 MH32F80F200 MH32F100F200 MH32F125F200 MH32F150F200 MH42F50F200	0.5	0.5	0.5	0.5	0.5

Cannot be used as distribution valve

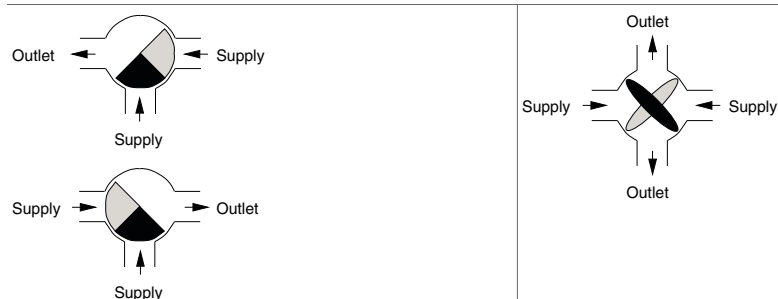
⚠ *Accessories required: Assembly materials; see accessories. With ASM124, it is not possible to fit auxiliary contacts or a potentiometer*

Description of operation

When the spindle is turned, the hot-water inlet is opened continuously and the cold-water inlet (heater return flow) is closed to the same degree. As a result, the temperature of the mixed water increases (heating supply) with a practically constant flow rate.

When the hot-water inlet is closed, a by-pass to the boiler return is simultaneously opened at the 4-way valve so that thermal circulation is possible.

A reversible actuator with a 90° angle of rotation is suitable for automatic activation. After the coupling is disengaged, the gate can be adjusted manually.



Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the "Description of operation" section.

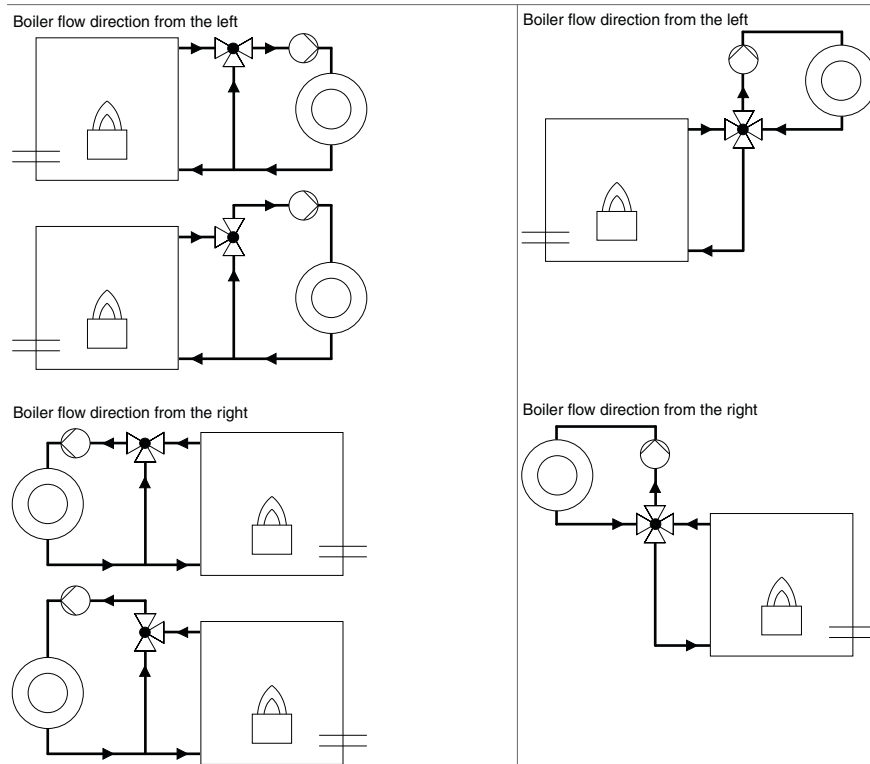
All related product documents must also be adhered to. Changing or converting the product is not admissible.

Additional technical data

Body dark grey, RAL 7021. Flange as per VSM 18643 (DIN 2501). Threaded holes for mounting the console and the motorised actuator. Lever for manual adjustment made of steel with plastic handle. Scale labelled on both sides for the installation types: Boiler supply from left or boiler supply from right.

Engineering and fitting notes

Requirements for water quality as per VDI 2035.



Disposal

When disposing of the product, observe the currently applicable local laws.

More information on materials can be found in the Declaration on materials and the environment for this product.

Dimension drawings 5M106

MH32F								MH42F							
DN	H	C	L	D	k	b	d	DN	H	C	L	D	k	b	d
20	76	37	140	90	65	14	11,5 (4x)	32	98	40	160	120	90	16	15 (4x)
25	76	37	150	100	75	14	11,5 (4x)	40	98	40	175	130	100	16	15 (4x)
32	98	40	160	120	90	16	15 (4x)	65	116	55	200	160	130	16	15 (4x)
40	98	40	175	130	100	16	15 (4x)	80	123	62	240	190	150	16	18 (4x)
50	112	51	195	140	110	16	15 (4x)	100	133	72	265	210	170	18	18 (4x)
65	116	55	200	160	130	16	15 (4x)	125	142	81	300	240	200	20	18 (8x)
80	123	62	240	190	150	16	18 (4x)	150	149	88	350	265	225	20	18 (8x)

Combinations

MH32F and MH42F with actuator AR30	MH32F and MH42F with actuator ASM 124
<p>MH32F with actuator ASM 105, 115</p> <p>DN20 to DN80</p>	

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