



MB 7

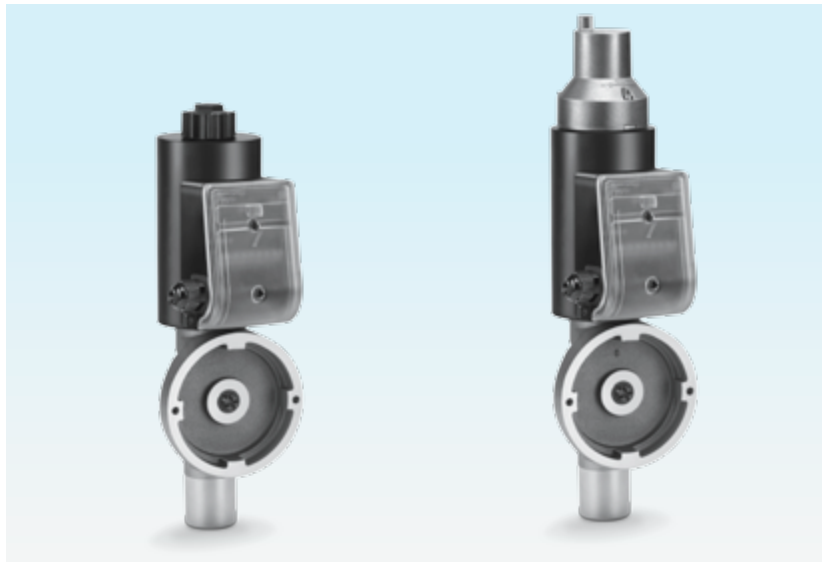


EARC CE

Solenoid actuator

- Robust design for a long service life
- Simple installation using fastening set
- Valve disc position indicator
- Burner capacity adjustment by integrated air volume control for low-fire and high-fire rate
- Suitable for intermittent operation due to large number of operating cycles

*MB 7N:
quick opening,
quick closing*



*MB 7L:
slow opening,
quick closing*

*MB 7R:
slow opening,
slow closing*

Application

The solenoid actuator MB 7 serves as a drive for the butterfly valve BVHM. The unit made up of solenoid actuator MB 7 and butterfly valve BVHM can be used for staged control of industrial installations in cold- or hot-air operating mode.

Solenoid actuator MB 7 indicates the position of the valve disc. The air volumes for low and high fire can be controlled independently.

Due to the large number of operating cycles of solenoid actuator MB 7, the butterfly valve BVHM is suitable for intermittent operation.



*Solenoid actuator MB 7
on butterfly valve BVHM
for staged control of hot
or cold air*



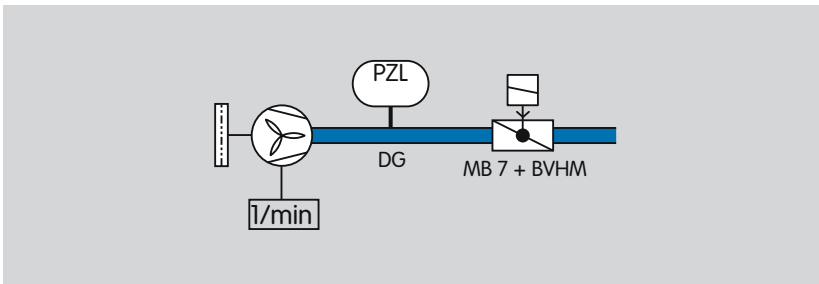
*Butterfly valve BVHM on
forging furnace to re-
duce the oxygen level*



*Bogie hearth
annealing furnace*

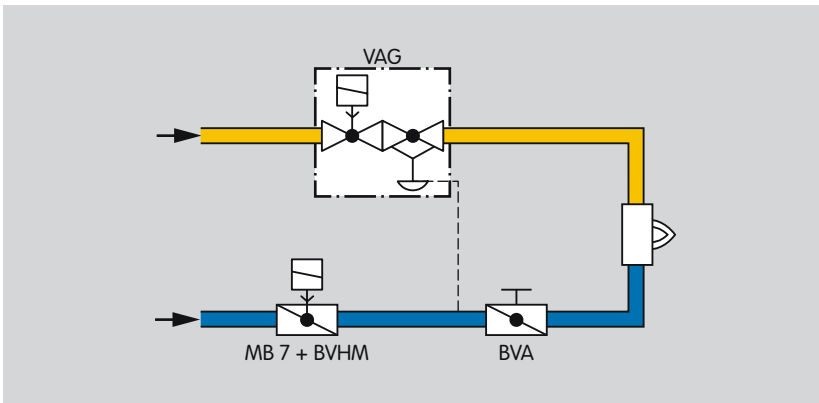
Examples of application

Cooling air for bogie hearth furnace



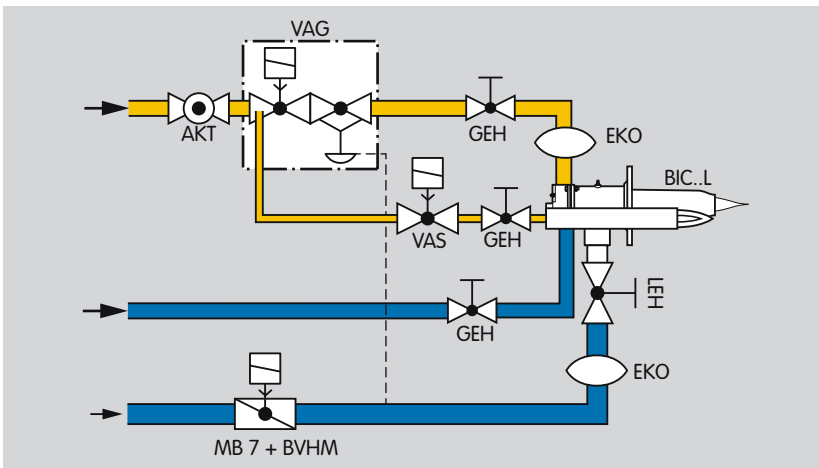
A fan introduces additional cooling air into the furnace through air nozzles. The air volume is controlled by the solenoid actuator MB 7 without damping unit and the butterfly valve BVHM.

Large number of operating cycles for intermittent operation



Solenoid actuator MB 7 with butterfly valve BVHM is suitable for intermittent operation. The air volumes for low and high fire can be set independently on the solenoid actuator MB 7.

Air supply to forging furnace



The air supply to the forging furnace is controlled by the solenoid actuator MB 7 with slow opening and slow closing damping unit in conjunction with the butterfly valve BVHM. Since the valve disc is provided with a stop, the oxygen level in the furnace atmosphere is reduced in order to prevent scale formation on the material to be treated to an even larger extent.

Technical data

Mains voltage:

230 V AC, +10/-15%, 50/60 Hz,

120 V AC, +10/-15%, 50/60 Hz,

24 V DC, +20/-20%.

The electrical power is the same, both when switching on and in continuous operation.

Voltage	Power
230 V AC	83 W
120 V AC	90 W
24 V DC	75 W

Current consumption:

$$\text{Current } I = \frac{\text{power consumption } VA}{\text{voltage } V}$$

Ambient temperature:

-20 to +60°C (-4 to +140°F).

Long-term use in the upper ambient temperature range accelerates the ageing of the elastomer materials and reduces the service life (please contact manufacturer).

Storage temperature:

-20 to +40°C (-4 to +104°F).

Enclosure: IP 65.

MB 7R

Slow opening: approx. 2 to 4 s

Slow closing: approx. 2 to 4 s

MB 7N

Quick opening: < 1 s

Quick closing: < 1 s

MB 7L

Slow opening: approx. 2 to 4 s,

Quick closing: < 1 s

Number of operating cycles

The solenoid actuators have been designed for a typical number of operating cycles as described below, pursuant to Elster internal design and construction specifications.

These values are purely for information purposes and are not intended by Elster to be legally binding. Elster cannot accept liability for the durability or condition of the product beyond the scope described in the Standards.

The information given refers to an ambient temperature of +20°C (+68°F).

Type	Switching operations	Δp
MB 7 + BVHM 40	5,000,000	150 mbar (2.18 psi)
MB 7 + BVHM 50	4,000,000	130 mbar (1.88 psi)
MB 7 + BVHM 65	3,000,000	95 mbar (1.38 psi)
MB 7 + BVHM 80	2,000,000	55 mbar (0.80 psi)
MB 7 + BVHM 100	1,000,000	20 mbar (0.29 psi)

Type code

Code	Description
MB	Solenoid actuator
7	Actuator size 7 for DN 40 – 100
R L N	Slow opening, slow closing Slow opening, quick closing Quick opening, quick closing
W Q K	Mains voltage: 230 V AC, 50/60 Hz 120 V AC, 50/60 Hz 24 V DC
3 6	Electrical connection: terminal connection box, IP 65 terminal box with 3-pin standard socket, IP 65

Maintenance cycles

The butterfly valve BVHM require little maintenance.

We recommend a function check once a year.