



Solenoid actuator 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

Product brochure · GB 3 Edition 04.16 l



MB 7N: quick opening, quick 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.

MB 7L: slow opening, quick closing

MB 7R: slow opening slow closing



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



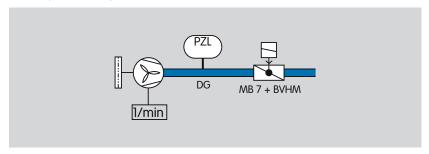
Butterfly valve BVHM on forging furnace to reduce the oxygen level



Bogie hearth annealing furnace

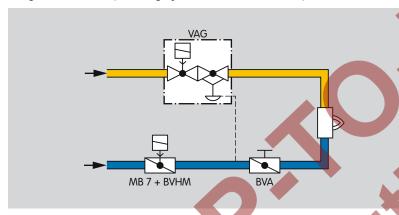
Examples of application

Cooling air for bogie hearth furnace



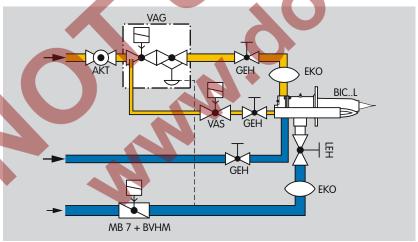
A fan introduces additional cooling air into the furnace through air nozzles. The air volume is controlled by the solenoid actuator MB 7 without damping unit and the butterfly valve BVHM.

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:

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:

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

MB7L

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 $+20^{\circ}\text{C}$ ($+68^{\circ}\text{F}$).

| Туре | 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 open in g, 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.

Contact

www.kromschroeder.com

Technical Information bulletin for this product

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