

Solenoid actuator MB 7 and butterfly valves BVHM

Product brochure · GB
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CE

krom
schroder

- For gas, air, hot air and flue gas
- Low leakage rate and pressure loss
- Robust design for a long service life
- Simple installation using fastening set
- Valve disc position indicator
- Burner output adjustment by integrated air volume control for minimum and maximum flow rate
- Suitable for intermittent operation due to large number of operating cycles





*Solenoid actuator
MB 7, quick or slow
opening*

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.

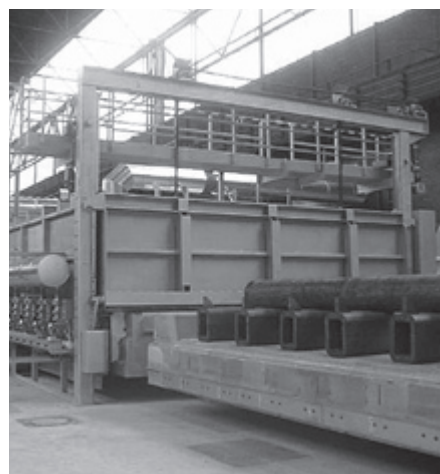
Due to the large number of operating cycles of solenoid actuator MB 7, the butterfly valve BVHM is suitable for intermittent operation.



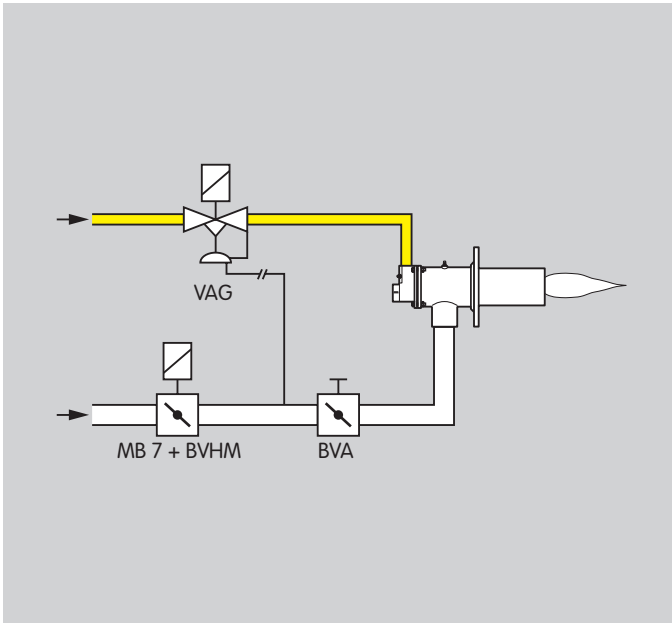
*Solenoid actuator MB
7 on butterfly valve
BVHM for staged con-
trol of hot or cold air*



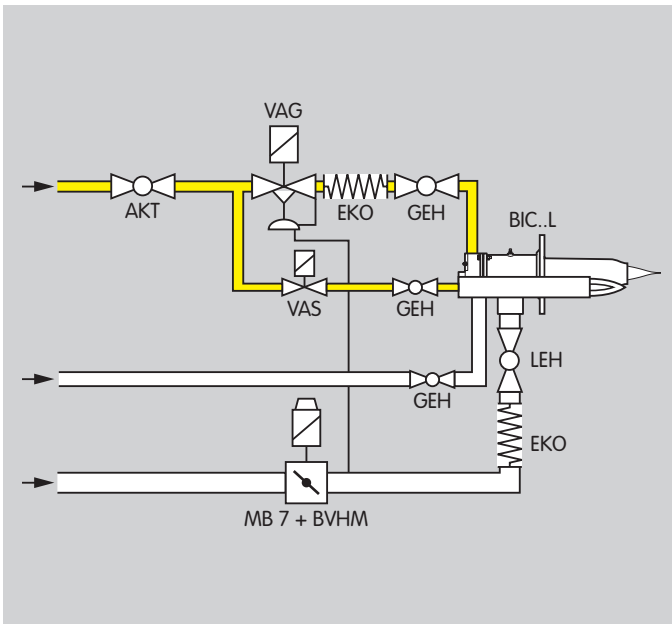
*Butterfly valve BVHM
on forging furnace to
reduce the oxygen
level*



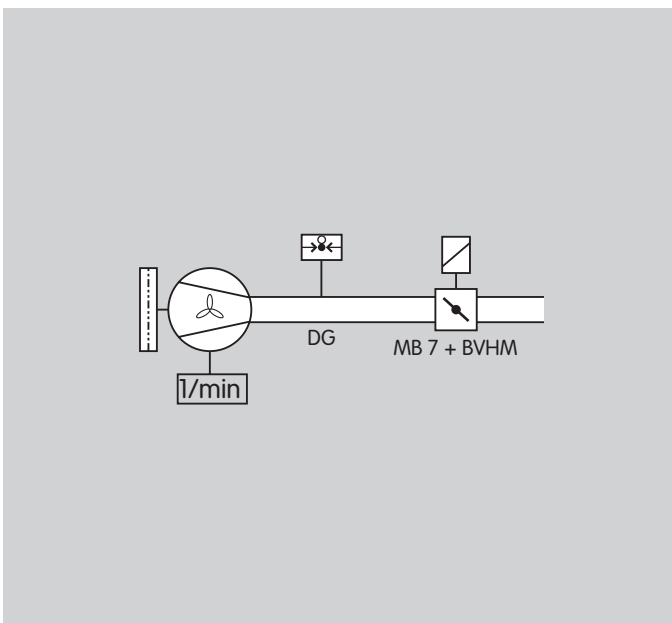
*Bogie hearth
annealing furnace*



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.



Cooling air for annealing 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.

Replacement possibility for solenoid actuator

M is to be replaced by MB 7*

| M | Solenoid actuator for butterfly valve K | Solenoid actuator for butterfly valve BVHM | MB |
|----|---|--|----|
| 5 | Actuator size | Actuator size | 7 |
| 6 | | | 7 |
| R | Slow opening, slow closing | Slow opening, slow closing | R |
| L | Slow opening, quick closing | Slow opening, quick closing | L |
| N | Quick opening, quick closing | Quick opening, quick closing | N |
| T | Mains voltage: 220/240 V AC, 50/60 Hz | Mains voltage: 230 V AC, 50/60 Hz | W |
| Q | 110/120 V AC, 50/60 Hz | 120 V AC, 50/60 Hz | Q |
| | | 24 V DC | K |
| 3 | Electrical connection via terminals | Electrical connection via terminals | 3 |
| 6 | With 3-pin standard socket | With 3-pin standard socket | 6 |
| 6L | With 3-pin standard socket, with lamp | | – |
| 9 | Metal connection box | | – |

M 6LT3

Example

Example

MB 7LW3

* For possibilities to replace butterfly valve K by BVHM, see Technical Information BVG, BVA, BVH, BVHM (www.docuthek.com).

Replacement possibility for butterfly valve K

K is to be replaced by BVHM

| K | Valve | Butterfly valve for solenoid actuator M..B | BVHM |
|-----|--|--|------|
| 40* | | | 40 |
| 50 | | | 50 |
| 65 | Nominal diameter DN | Nominal diameter DN | 65 |
| 80 | | | 80 |
| 100 | | | 100 |
| T | T-product | T-product | T |
| Z | For fitting between two DIN flanges | For fitting between two flanges to EN-1092 | Z |
| W | For fitting between two ANSI flanges | For fitting between two ANSI flanges | W |
| ● | p_e max. 130 mbar (1.89 psig) | p_e max. 150 mbar (2.18 psig) | 01 |
| ● | Temperature range 0–550 °C (0–1020 °F) | Temperature range 0–450 °C (0–840 °F) | ● |
| A | With stop | With stop | A |

K 80ZA

Example

Example

BVHM 80Z01A

*Nominal size DN 40 only with disc clearance

● standard, ○ available

Selection

Solenoid actuator MB 7 for butterfly valve BVHM

Example

MB 7LW6

| | 7 | R | L | N | W | Q | K | 3 | 6 |
|--|---|---|---|---|---|---|---|---|---|
| MB | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Type | | | | | | | | | |
| Actuator size 7 for DN 40–100 | | | | | | | | | |
| Slow opening, slow closing = R | | | | | | | | | |
| Slow opening, quick closing = L | | | | | | | | | |
| Quick opening, quick closing = N | | | | | | | | | |
| Mains voltage: | | | | | | | | | |
| 230 V AC, 50/60 Hz = W | | | | | | | | | |
| 120 V AC, 50/60 Hz = Q | | | | | | | | | |
| 24 V DC = K | | | | | | | | | |
| Electrical connection: | | | | | | | | | |
| Terminal connection box, IP 54 = 3 | | | | | | | | | |
| Terminal box with 3-pin standard socket, IP 54 = 6 | | | | | | | | | |

BVHM: Butterfly valve for hot air and flue gas up to 450°C (only in conjunction with solenoid actuator M..B)

Example

BVHM 50Z01

| | 40 | 50 | 65 | 80 | 100 | T | Z | W | 01 | A* |
|--|----|----|----|----|-----|---|---|---|----|----|
| BVHM | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| BVHM | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Type | | | | | | | | | | |
| Nominal diameter DN = 40, 50, 65, 80, 100 | | | | | | | | | | |
| T-product = T | | | | | | | | | | |
| For fitting between two flanges to EN-1092 = Z | | | | | | | | | | |
| For fitting between two ANSI flanges = W | | | | | | | | | | |
| Max. inlet pressure p_e max. | | | | | | | | | | |
| 150 mbar (2.18 psi) = 01 | | | | | | | | | | |
| 500 mbar (7.25 psi) = 05 | | | | | | | | | | |
| With stop bar = A* | | | | | | | | | | |

* If "none", this specification is omitted.

Technical data

MB 7

Number of operating cycles: High

Actuator MB 7 for valve housing BVHM 40 to BVHM 100

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.

| Power consumption | |
|-------------------|------|
| 230 V AC | 83 W |
| 120 V AC | 90 W |
| 24 V DC | 75 W |

Ambient temperature:
-20 to +60°C (-4 to +140°F).

Enclosure: IP 65.

MB 7..R

Slow opening: approx. 2–4 s,
Slow closing: approx. 2–4 s.

MB 7..N

Quick opening: > 0.5 s,
Quick closing: > 0.5 s.

MB 7..L

Slow opening: approx. 2–4 s,
Quick closing: > 0.5 s.

BVHM

Gas type: Air and flue gas.

DN: 40 to 100.

Housing material: GGG,
Valve disc: Stainless steel,
Drive shaft: Stainless steel.

Inlet pressure p_a :
max. 150 mbar (2.16 psig).

Pressure differential between inlet pressure p_e and outlet pressure p_d :
max. 150 mbar (2.16 psig).

Medium temperature:
-20 to 450 °C (-4 to +840 °F),
Ambient temperature:
-20 to +60 °C (-4 to +140 °F).

Certification

MB 7

Kromschroder AG hereby certifies conformity with the following EU Directives:

- Low Voltage Directive (73/23/EEC) on the basis of EN 60730-1,
- Electromagnetic Compatibility Directive (89/336/EEC) on the basis of EN 50082-2 and EN 50081-1.

FM approval

In preparation.

UL approval

In preparation.

BVHM

UL approval for butterfly valve BVHM is currently being prepared.

Maintenance cycles

BVHM

The butterfly valve BVHM require little maintenance.

We recommend a function check once a year.

Detailed information on this product

www.docuthek.com

Contact

www.kromschroeder.com → Sales

Elster GmbH
Postfach 2809 · 49018 Osnabrück
Strothweg 1 · 49504 Lotte (Büren)
Germany

T +49 541 1214-0
F +49 541 1214-370
info@kromschroeder.com
www.kromschroeder.com
www.elster.com

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