



CE

## Butterfly valves BVG, BVA, BVH

- // For gas, air, hot air and flue gas
- // Low leakage rate and pressure loss
- // High control accuracy
- // BVG and BVA with reduced nominal diameters
- // Butterfly valve can be mounted directly onto the actuators IC 20 or IC 40
- // Suitable for intermittent operation
- // Low-maintenance operation
- // BVG: EC type-tested and certified



*BVG for gas,  
BVA for air.  
These butterfly valves  
can be fitted with a  
lever, an adapter set  
with square shaft or  
with free shaft end,  
etc..*



**BVG, BVA**



**BVH, BVHM, BVHS**

*BVH, BVHM, BVHS  
for hot air and flue  
gas.*

### Application

The butterfly valves BVG, BVA, BVH, BVHM and BVHS are designed to adjust volumes of gas, cold and hot air and flue gas on various appliances and flue gas lines. They are designed for control ratios up to 1:10, and with the mounted actuator IC 20 or IC 40 they are suitable for regulating flow rates for modulating or stage-controlled combustion processes.

Flow rates can be set and fixed using a lever, for example to limit the high-fire rate on the burner. A scale indicates the set angle of opening.

### BVG, BVA

Butterfly valves with reduced nominal diameter (reduced by up to two nominal sizes) can be used to achieve higher control accuracy. This will mean that complex reducing fittings will no longer be required.

### BVH, BVHM

The butterfly valve BVH is used for processes that require the very precise adjustment of the flow rate or low leakage. In conjunction with the stop bar, the patented TWINDISC® valve disc ensures very low leakage rates.

BVH: Using a spiral spring which compensates for the play in combination with the actuator IC 40 it is possible to move the valve disc to the required angle with almost zero hysteresis.

BVHM: Well suited to intermittent operation due to the large number of operating cycles in conjunction with the solenoid actuator M..B.

### BVHS

The butterfly valve BVHS with safety closing function is used with the actuator IC 40S in systems where it is important that in the event of a mains voltage failure the valve closes preventing air streaming into the furnace without being under control.



*Butterfly valve with  
actuator.*

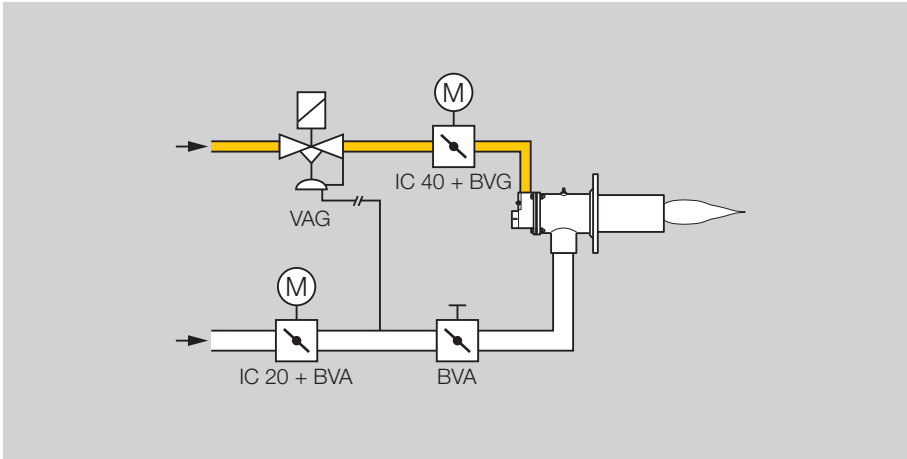


*Roller hearth kiln in  
the ceramics industry.*



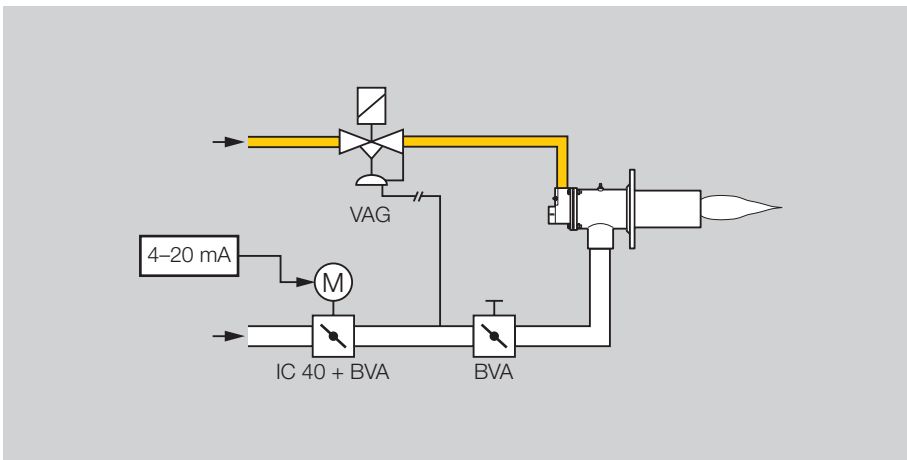
*Forging furnace.*

**Application examples**



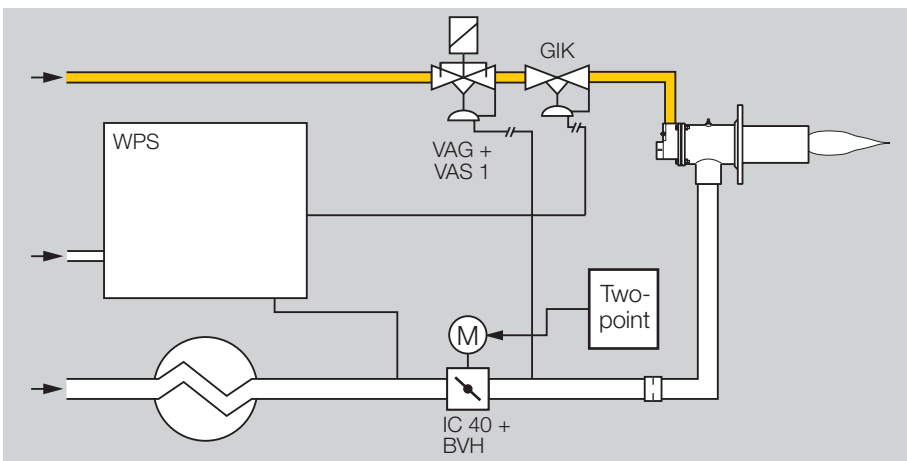
**BVG, lambda correction**

If the burner is to be operated with excess gas or air for process reasons, the butterfly valve BVG can be used to correct the lambda value.



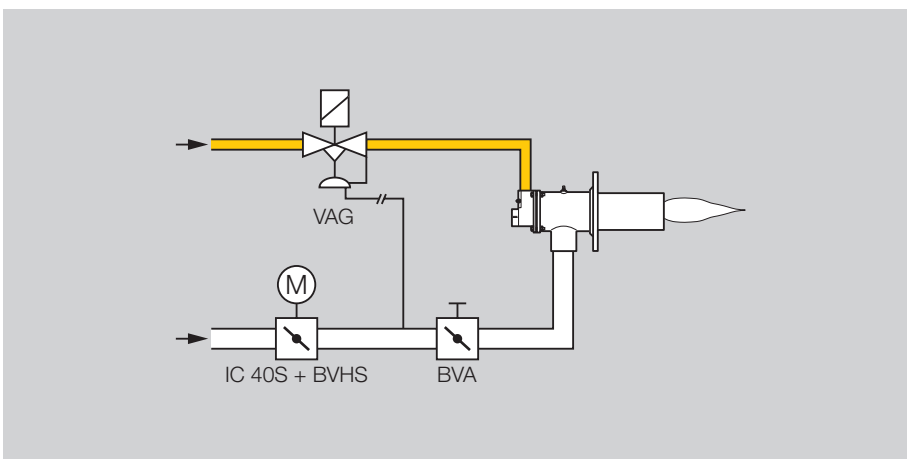
**BVA, adjusting the burner output**

In pneumatic systems the butterfly valve with mounted actuator IC 40 determines the air volume for the required burner output. The butterfly valve with manual adjustment is used to adjust the high-fire rate.



**BVH, hot air compensation**

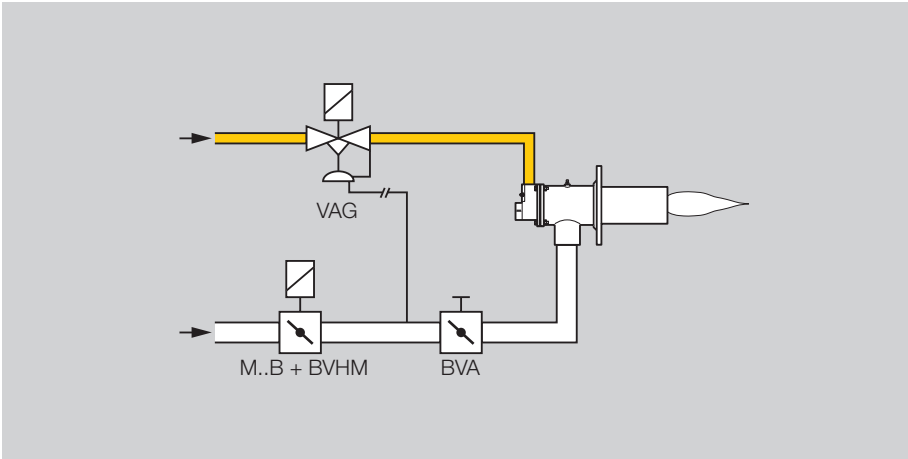
The butterfly valve BVH is used on burners that are operated with preheated combustion air at temperatures of up to 450°C (840°F).



**BVHS, safety closing function in the event of a mains voltage failure**

The safety closing function ensures that in the event of a mains voltage failure air cannot stream into the furnace without being under control.

In conjunction with the actuator IC 40S, the BVHS can also be used for the above applications on the side of the air.



**BVHM, large number of operating cycles for intermittent operation**

Valve with flow adjustment for minimum and maximum flow rate. The valve stop ensures low leakage rates. With fitted solenoid actuator M..B, the valve is suitable for intermittent operation.

**Technical data****BVG, BVA**

Gas type:  
BVG: Natural gas, town gas, LPG and other non-aggressive fuel gas,  
BVA: Air.  
Housing material: AISI,  
Valve disc: Aluminium,  
Drive shaft: Stainless steel,  
Seals: NBR.  
DN: 40 to 150,  
reduction by 2 nominal sizes is possible.  
Inlet pressure  $p_e$ :  
max. 500 mbar (7.25 psi).  
Pressure differential between inlet pressure  $p_e$  and outlet pressure  $p_a$ :  
max. 150 mbar (2.16 psi).  
Medium temperature:  
-20 to +60°C (-4 to +140°F),  
Ambient temperature:  
-20 to +60°C (-4 to +140°F).

**BVH, BVHM, BVHS**

Gas type: Air and flue gas.  
DN: 40 to 100.  
Housing material: GGG,  
Valve disc: Stainless steel,  
Drive shaft: Stainless steel.  
Inlet pressure  $p_e$ :  
max. 150 mbar (2.16 psi).  
Pressure differential between inlet pressure  $p_e$  and outlet pressure  $p_a$ :  
max. 150 mbar (2.16 psi).  
Medium temperature:  
-20 to 450°C (-4 to +840°F),  
Ambient temperature:  
-20 to +60°C (-4 to +140°F).

**Certification****BVG**

The butterfly valve BVG is EC type-tested and certified pursuant to  
– Gas Appliances Directive (90/396/EEC)  
on the basis of EN 13611/EN 161.

**BVG, BVH, BVHM**

UL approval for butterfly valves BVG, BVH and BVHM is currently being prepared.

**Maintenance cycles**

The butterfly valves BVG, BVA, BVH, BVHM and BVHS require little servicing.  
We recommend a function check once a year.

**Selection**

BVG: Butterfly valve for gas

BVA: Butterfly valve for air

BVH: Butterfly valve for hot air and flue gas up to 450°C (840°F)

BVHM: Butterfly valve for hot air and flue gas up to 450°C (840°F) (only in conjunction with solenoid actuator M..B)

BVHS: Butterfly valve for hot air and flue gas up to 450°C (840°F) with safety closing function (only in conjunction with actuator IC 40S)

**Order example**  
BVA 50Z05

	40	50	65	80	100	125	150	/25- /125	T	Z	W	01	05	A*
BVG	●	●	●	●	●	●	●	●		●			●	
BVG	●	●	●	●	●	●	●	●	●		●		●	
BVA	●	●	●	●	●	●	●	●		●			●	
BVH	●	●	●	●	●					●				●
BVH	●	●	●	●	●				●		●			●
BVHS	●	●	●	●	●				●				●	●
BVHS	●	●	●	●	●				●		●			●
BVHM	●	●	●	●	●				●		●			●
BVHM	●	●	●	●	●				●		●			●
Type														
Nominal size DN = 40, 50, 65, 80, 100, 125, 150														
Reduced to nominal diameter DN = /25- /125														
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*														

● = standard  
○ = available

\* If "none", this specification is omitted.

**Detailed information on this product**

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