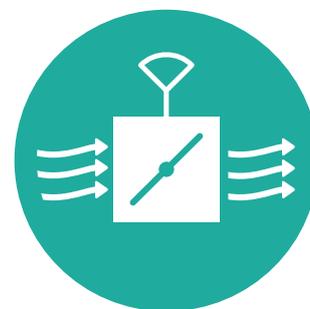


# BVAPd-3

Rectangular constant pressure  
holding damper



VAV, CAV & FLOW  
MEASURING DAMPERS



26/04/2018

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**BVAPd-3**  
Regulating



**BVAPd-3**  
Regulating with spring return



## Quick facts

- Sizes from 200-200 mm to 2000-2000 mm
- Pressure sensor range 0-300 Pa
- Adjustable setpoint on site
- Display shows the current pressure
- Modbus communication is available as an option

## Use

BVAPd is an electronic damper for constant pressure holding in all types of ventilation systems. The BVAPd consists of a damper with a regulating actuator featuring an integrated static pressure sensor or a regulating actuator with spring return and a regulator with static pressure sensor. You can easily set the desired setpoint using the rotary control and read the current pressure on the display. Modbus communication is available as an option.

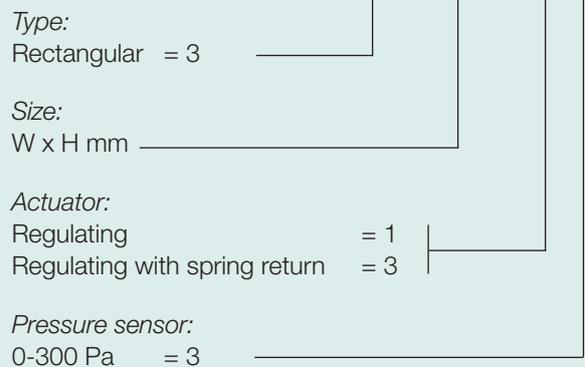
## Materials and surface treatment

Casing and components of hot-dip galvanized sheet steel according to corrosion class C3.

The damper is supplied as standard in pressure class A and leakage class 1. Alternative casing and component materials available on request for higher pressures and environmental requirements.

## Specification

Example: **Constant pressure holding damper**  
**BVAPd - 3 - 400 - 200 - 1 - 3**



Accessories:

**Silencer**



Dimensions

**Regulating**

W = 200 - 2000 mm  
H = 200 - 2000 mm  
(large dampers are equipped with guac + actuator)

**Regulating with spring return**

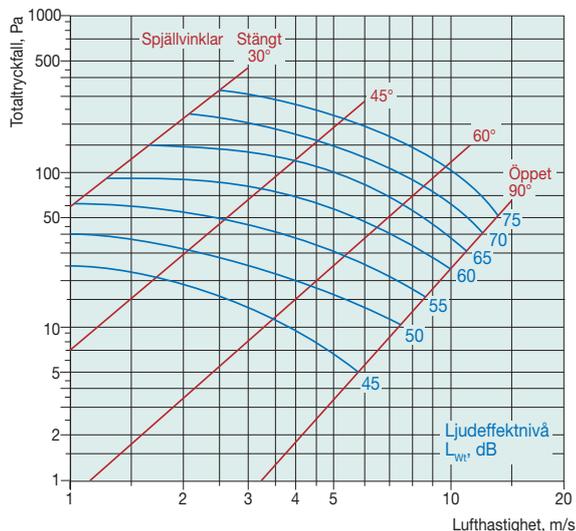
W = 200 - 2000 mm  
H = 200 - 500 mm

**Regulating with spring return**

W = 200 - 2000 mm  
H = 600 - 2000 mm

| Size W or H | Number of blades |
|-------------|------------------|
| 100         | 1                |
| 150         | 1                |
| 200         | 2                |
| 250         | 2                |
| 300         | 3                |
| 400         | 4                |
| 500         | 5                |
| 600         | 6                |
| 700         | 7                |
| 800         | 8                |
| 900         | 9                |
| 1000        | 10               |
| 1100        | 11               |
| 1200        | 12               |
| 1300        | 13               |
| 1400        | 14               |
| 1500        | 15               |
| 1600        | 16               |
| 1700        | 17               |
| 1800        | 18               |
| 1900        | 19               |
| 2000        | 20               |

Technical data



Correction of sound effect level,  $L_{w'}$ , for different sizes

$$L_w = L_{w'} + K_1$$

| Damper-area, m <sup>2</sup> | 0,04 | 0,2 | 0,36 | 0,64 | 1 | 2 | 3  | 4  |
|-----------------------------|------|-----|------|------|---|---|----|----|
| $K_1$                       | -2   | -1  | 0    | 2,5  | 5 | 8 | 11 | 15 |

Correction of sound power level,  $L_{wok}$ , in octave band

$$L_{wok} = L_w + K_{ok}$$

Correction,  $K_{ok}$

| Opening angle | Mid frequency Hz |     |     |     |      |      |      |      |
|---------------|------------------|-----|-----|-----|------|------|------|------|
|               | 63               | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 90°           | -2               | -7  | -15 | -18 | -18  | -23  | -29  | -33  |
| 60°           | -2               | -8  | -14 | -18 | -19  | -22  | -28  | -34  |
| 45°           | -4               | -8  | -10 | -13 | -18  | -22  | -26  | -32  |
| 30°           | -5               | -7  | -9  | -11 | -14  | -19  | -22  | -29  |
| Tol. ± dB     | 3                | 2   | 3   | 4   | 5    | 5    | 6    | 4    |



# Constant pressure holding damper BVAPd-3

## Electrical data

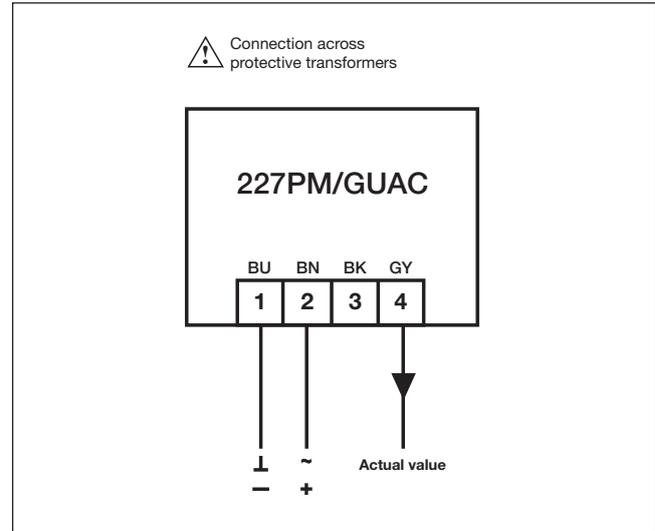
### BVAPd-3, regulating actuator

Supply voltage: 24V AC/DC +-20%  
 Output: 3 W (5,5 VA)  
 Sound level: 35 dB(A)  
 Ambient temp.: 0°C - 50°C

### BVAPd-3, regulating actuator with spring return

Supply voltage: 24V AC/DC +-20%  
 Power actuator: 8 W (11,5 VA)  
 Power GUAC: 0,6 W (1,3 VA)  
 Sound level motor: 35 dB(A)  
 Sound level spring: 65 dB(A)  
 Ambient temp.: 0°C - 50°C

## Wiring diagram



## Function, Connection

BVAPd with its static pressure sensor does not need to be calibrated from the factory. The maximum pressure is set to 0 Pa during installation and the desired setpoint is adjusted on the minimum pressure for constant pressure holding. The actual value signal can be forwarded for external monitoring of the current pressure.

## Installation

The pressure sensor is mounted in an appropriate position in the duct downstream of the damper, with the arrow in the direction of the airflow. Ensure that the metering tube is secured to both the pressure sensor in the duct and on the static sensor on the damper. If the damper is mounted in an extract air duct, the metering tube should be moved to the negative nipple on the static pressure sensor.

