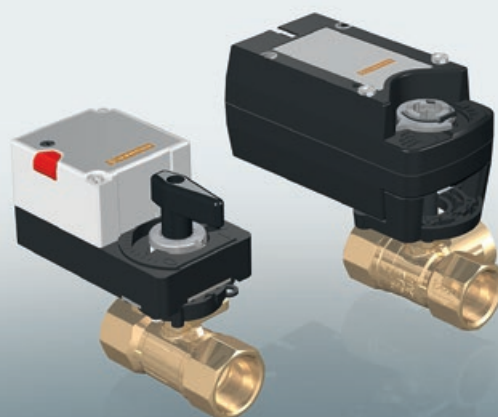


Flexibility flows.

Actuators from Gruner –
Product overview drives for ball valves



When a suitable alternative is needed ...

High-quality actuators, from classic to customized.

The Slinky was invented in 1945 by Richard James. It conveys the full fascination of physics – and simultaneously symbolizes pure flexibility. This symbolism is reflected in the core values of Gruner AG. The actuators represent cost efficiency and the greatest possible flexibility in building management. Here they cover all requirements – from classic to air-volume control, and from very speedy actuators to small spindle drives.



Typical applications:

- For motorized control of dampers, ball and butterfly valves
- Mixed air and shut-off damper control for primary HVAC air-handling and zone units
- For controlling central and peripheral ventilation systems
- For smoke and waste gas dampers
- Motorvalve for drinking, cooling, tap water, condense water, air (f. ex. as zone valve)
- All actuators correspond to the DIN-VDE-standards and CE-directives



Ball valve actuators.



Type 224

Type 225

Type 227

2-way ball valve (inner thread)

| Size | k_{vs} [m ³ /h] | Control | Supply | Running time motor | Actuators |
|------|------------------------------|--------------------------|--------------------------------|--------------------|---------------|
| DN15 | 1,0 / 1,6 / 2,5 / 4,6 / 10,1 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 20...150 s / 90° | 225, 227, 341 |
| DN20 | 4,1 / 6,1 / 10,1 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 20...150 s / 90° | 225, 227, 341 |
| DN25 | 6,4 / 10,1 / 16,2 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 20...150 s / 90° | 225, 227, 341 |
| DN32 | 10,1 / 16,2 / 25,3 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 75...150 s / 90° | 227 |
| DN40 | 16,2 / 25,3 / 40,5 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 75...150 s / 90° | 227 |
| DN50 | 25,3 / 40,5 / 63,8 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 75...150 s / 90° | 227 |

3-way ball valve (inner thread)

| Size | k_{vs} [m ³ /h] | Control | Supply | Running time motor | Actuators |
|------|------------------------------|--------------------------|--------------------------------|--------------------|---------------|
| DN15 | 1,0 / 1,6 / 2,5 / 4,6 / 10,1 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 20...150 s / 90° | 225, 227, 341 |
| DN20 | 4,1 / 6,1 / 10,1 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 20...150 s / 90° | 225, 227, 341 |
| DN25 | 6,4 / 10,1 / 16,2 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 20...150 s / 90° | 225, 227, 341 |
| DN32 | 10,1 / 16,2 / 25,3 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 75...150 s / 90° | 227 |
| DN40 | 16,2 / 25,3 / 40,5 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 75...150 s / 90° | 227 |
| DN50 | 25,3 / 40,5 / 63,8 | (0)2...10V 2-/3-Point | 24 V AC/DC 80...265 V AC/DC | 75...150 s / 90° | 227 |



Type 341

2-way shut-off ball valve (inner thread)

| Size | Control | Supply | Running time motor | Actuators |
|-------------|---------------------------|---------------------------------|--------------------|--------------------|
| DN15 | (0)2 ...10V 2-/3-Point | 24 V AC/DC 80 ...265 V AC/DC | 20 ... 150 s / 90° | 224, 225, 227, 341 |
| DN20 | (0)2 ...10V 2-/3-Point | 24 V AC/DC 80 ...265 V AC/DC | 20 ... 150 s / 90° | 224, 225, 227, 341 |
| DN25 | (0)2 ...10V 2-/3-Point | 24 V AC/DC 80 ...265 V AC/DC | 20 ... 150 s / 90° | 224, 225, 227, 341 |
| DN32 | (0)2 ...10V 2-/3-Point | 24 V AC/DC 80 ...265 V AC/DC | 75 ... 150 s / 90° | 224, 227 |
| DN40 | (0)2 ...10V 2-/3-Point | 24 V AC/DC 80 ...265 V AC/DC | 75 ... 150 s / 90° | 227 |
| DN50 | (0)2 ...10V 2-/3-Point | 24 V AC/DC 80 ...265 V AC/DC | 75 ... 150 s / 90° | 227 |

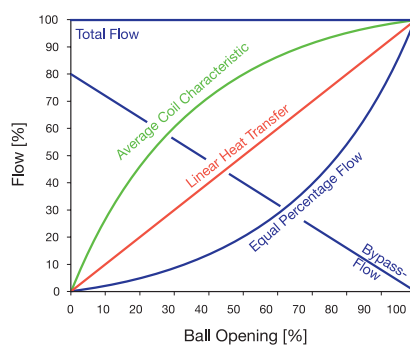
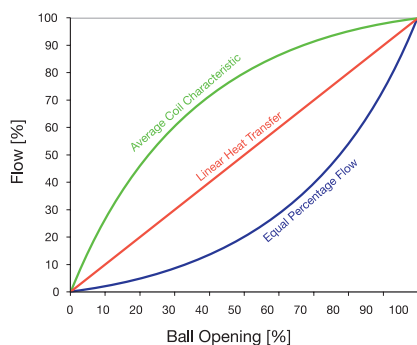
Flexible and efficient ...



Cost-effective alternatives with characterised control valves.

Gruner control valves feature a parabolic port which is a permanent part of the ball. The parabolic port provides a wide range of k_{vs} choices while maintaining equal percentage flow in 2-way valves. In 3-way valves a true linear heat transfer is accomplished. The design features also a bypass k_{vs} not exceeding 80% of the straight through k_{vs} . This keeps always enough pressure to control and saves pumping expenses.

- Nominal widths from DN 15 to DN 50
- k_{vs} values from 0.38 to 310 m³/h



The perfect fit ...

Relays, solenoids and actuators from Gruner.

Gruner stands for flexibility, innovation and openness to electronic applications in the energy management, building management, drive technology and automotive sectors. As well as actuators, the product range also includes solenoids and relays. With locations in Germany, Tunisia, Serbia and India, the company has a worldwide presence. Find out more about the comprehensive Gruner portfolio online at www.gruner.de

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Schalten und Bewegen