



**KICK  
AND DROP  
TECHNOLOGY**

# Controlling while saving energy

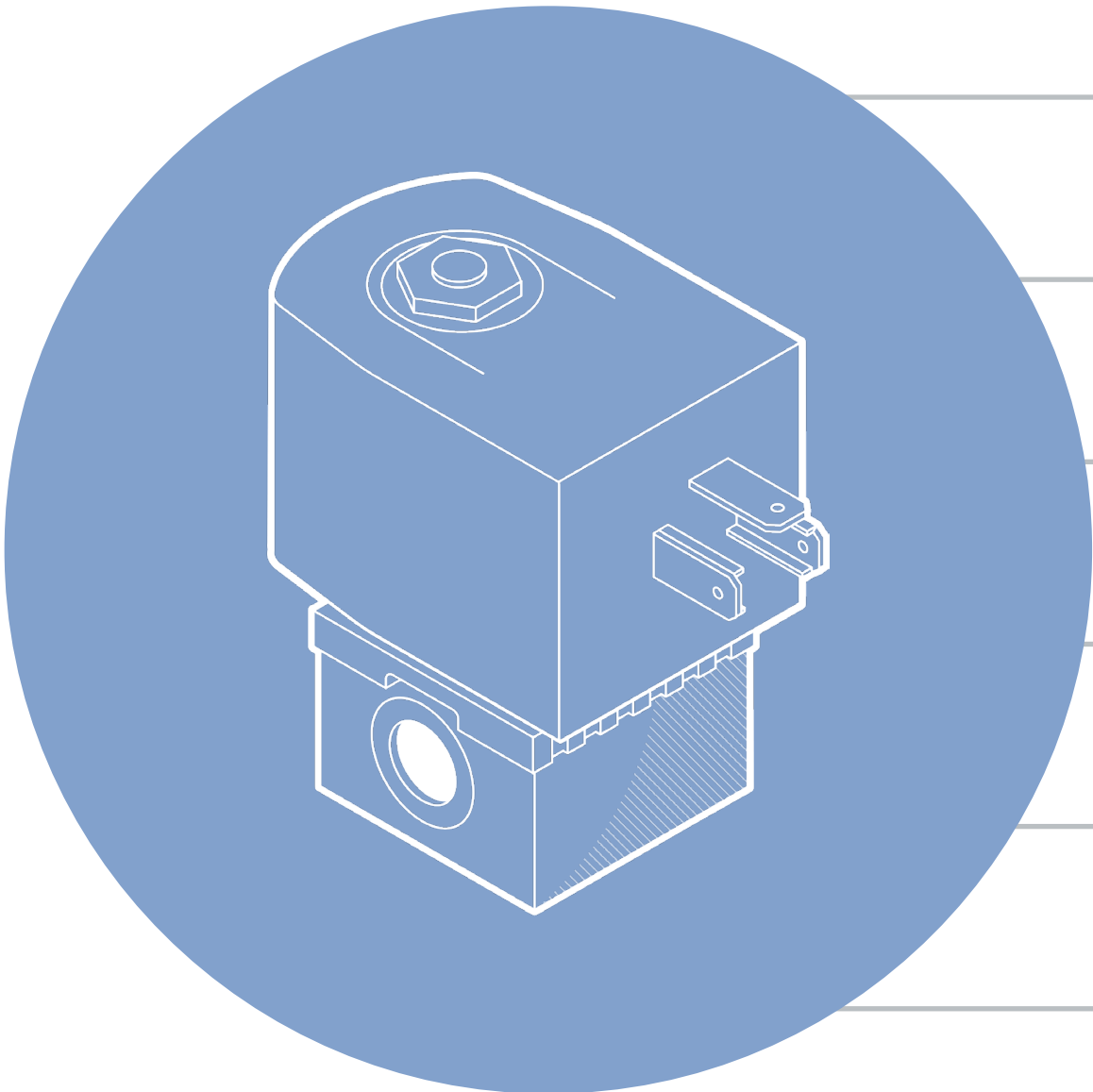
**SOLENOID VALVES WITH ELECTRICITY-SAVING  
KICK AND DROP TECHNOLOGY**

We make ideas flow.

**bürkert**  
FLUID CONTROL SYSTEMS

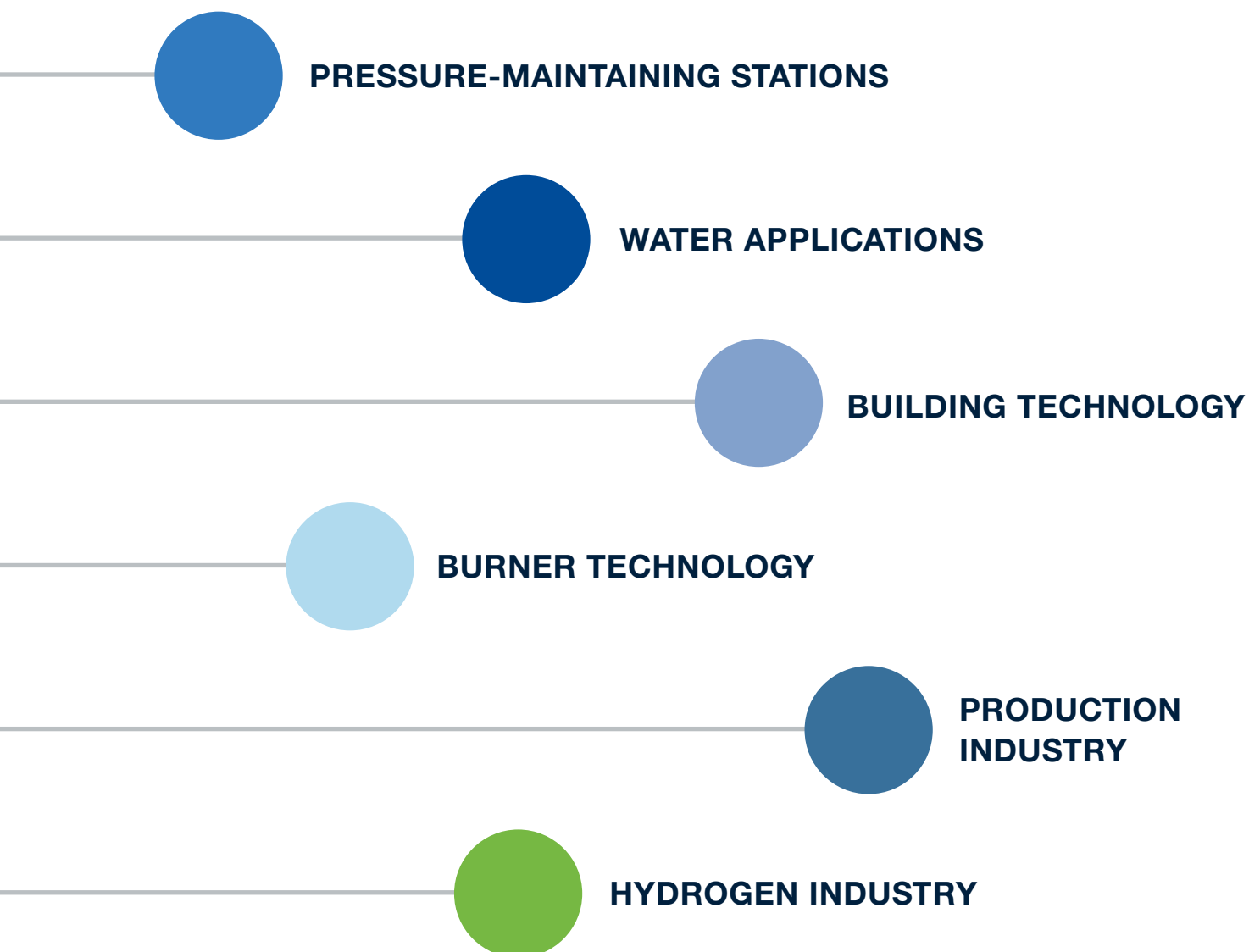
# Controlling economically and sustainably

Valves with electromagnetic coil systems are widespread in order to automatically control gaseous and liquid media. The current demands are therefore to save as much energy as possible across industries, and to use more sustainable, low-maintenance solutions. Switching pressures and requirements for low noise emissions also come into play. Bürkert is supplying the future-proof answer to these questions with solenoid valves based on the Kick and Drop coil technology.



# Bring your industry into the future

Kick and Drop coils are ideal when long duty cycles and high pressures are required, such as for gas or tap water protection valves. They also ensure safe operation in electromagnetically sensitive environments – and anywhere where water containing lime poses a problem.



# From the idea to the series

If you want sustainable solutions for your individual requirements, Bürkert is your partner. Our experience teams combine the necessary know-how from applications, development and series production.

We will support you throughout the entire value-added chain – from the first idea to start-up and controlled operation. We can therefore guarantee maximum cost and process reliability. We will considerably shorten your time-to-market with our great production depth.



## Idea & concept

- Demonstrably creative, quick, reliable, integrated and economical
- With guide price offer and project plan

# 1

## System development

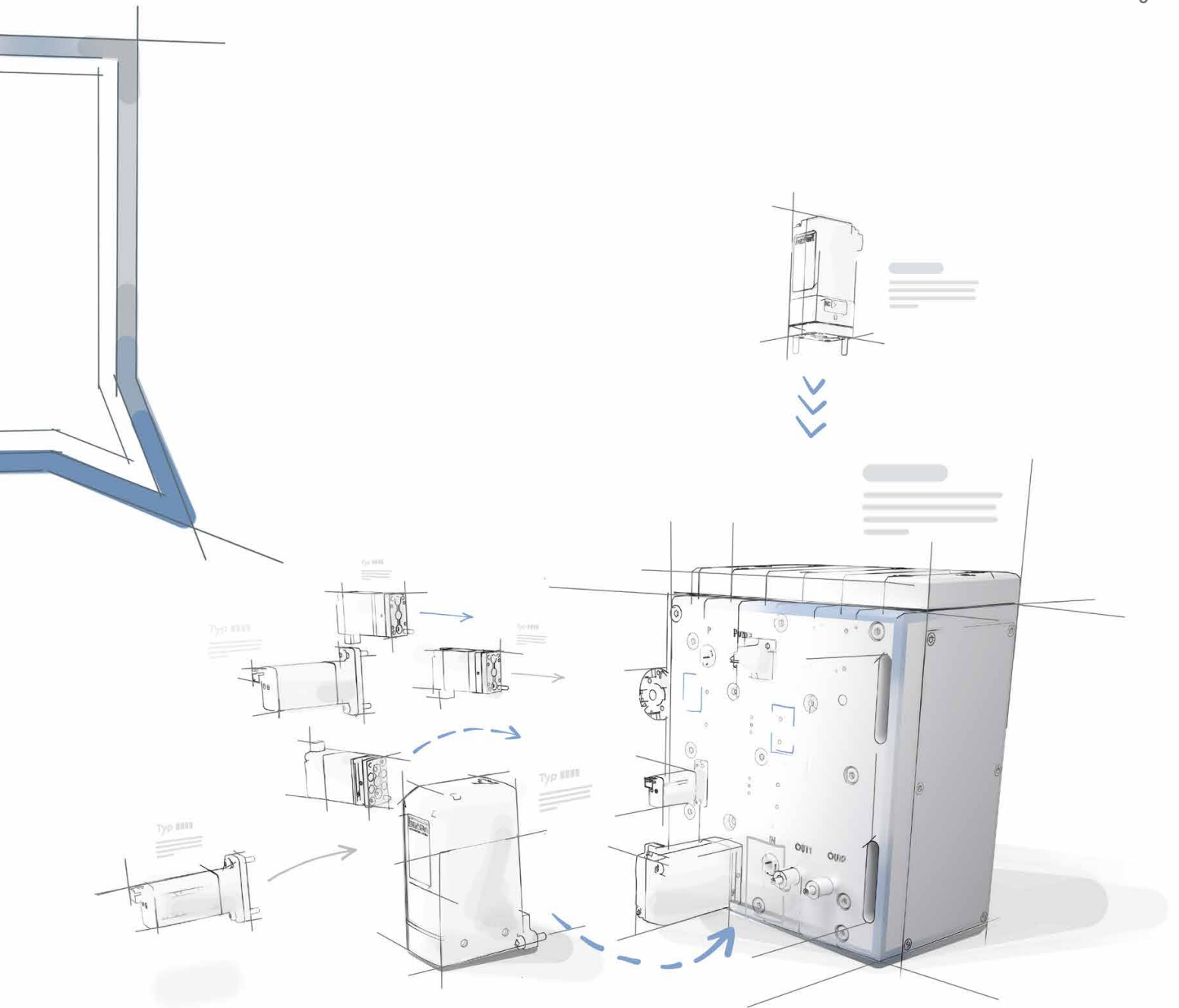
- Series design
- Pilot series and tool production

# 3

## Prototyping & simulation

- Prototype and design
- Specifications
- Series offer

# 2



## System implementation

- Implementation of logistics
- Production handover

# 4

## System & process qualification

- Zero series
- Preparation for series production

# 5

# 6

## Controlled operation

- Customer training
- Installation and start-up

**“DON’T WASTE  
VALUABLE ENERGY  
ANYMORE.”**





# The coil that cuts costs

Durable, silent and energy-saving: with the Kick and Drop coil, you will not only save money, but also protect the environment in the long term.



The Kick and Drop coil can be operated at 50 or 60Hz with direct or alternating voltage. This reduces the diversity of variants for your solenoid valves, and makes storage and product handling easier. This will help you to stay flexible in the long term. The compact valves can also be easily retrofitted into existing systems.



## REDUCE YOUR ANNUAL ENERGY OUTPUTS

The Kick and Drop coil enables impressive energy savings, compared to typical coils: it reduces energy consumption by up to 80%. At the same time, solenoid valves with this technology enable up to three times the switching pressure of conventional valves. Our portfolio includes three coil variants with different power ranges to suit your application.



### AC10 Kick and Drop

Saving power with Kick and Drop technology

- 0.6W instead of 12W
- 2W instead of 20W
- 7W instead of 65W



### AC19 Kick and Drop

Saving power with Kick and Drop technology

- 8.5W instead of 85W
- 6.5W instead of 44W



### ACP Kick and Drop

Saving power with Kick and Drop technology

- 3W instead of 45W

## Sample calculation

80 conventional valves (10W) are replaced with **80 solenoid valves**. (Type 6013 with Kick and Drop coil AC10 0.6W)

= **93.75 %** energy saved

$$\frac{10\text{ W}}{0.6\text{ W}} = 16.67$$

$$= \mathbf{9.4\text{ W}} \quad \times 80 \text{ valves}$$

$$= \mathbf{752\text{ W}} \quad \times 2400 \text{ h}$$

= **1.8 MW/h**

At a gross electricity price of 30 cent/kWh, the surcharge of the coil will be paid off after approx. 3 years.

Over the 10-year service life of the coil, this is equivalent to:

**8.73**

tons of CO<sub>2</sub> reduction per year\* (at 485g/kWh)

**700**

trees (at 12.5 kg CO<sub>2</sub>/year per tree)

**8**

years CO<sub>2</sub> emissions of a commuter

**9**

minutes of operation and the resulting CO<sub>2</sub> emission of a gas power plant

\* Source: UBA estimate 2021, CO<sub>2</sub>-equivalent emission factor with upstream chains (g/kWh)

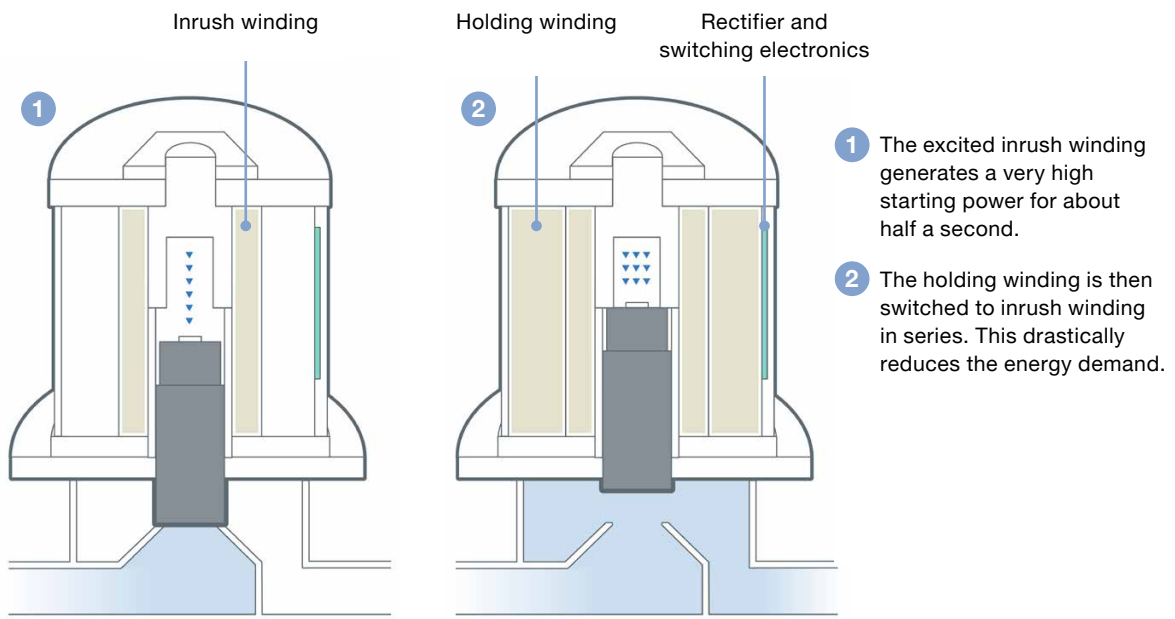
## KICK AND DROP: THE TECHNOLOGY THAT MAKES IT POSSIBLE



Coils with Kick and Drop technology consist of inrush winding and holding winding. We have completely rethought the tried-and-tested technology with our solenoid valves: rectifier and switching electronics are directly located in the coil. Proprietary control units can be consigned to the cable plugs of the past. This saves time during start-up and ensures longer maintenance intervals for the valve.

A short current pulse generates the required starting power to open the valve. About half a second later, the holding winding is changed to inrush winding in series. This then reduces the required power and ensures that holding operation will save an enormous amount of energy.

### Functionality



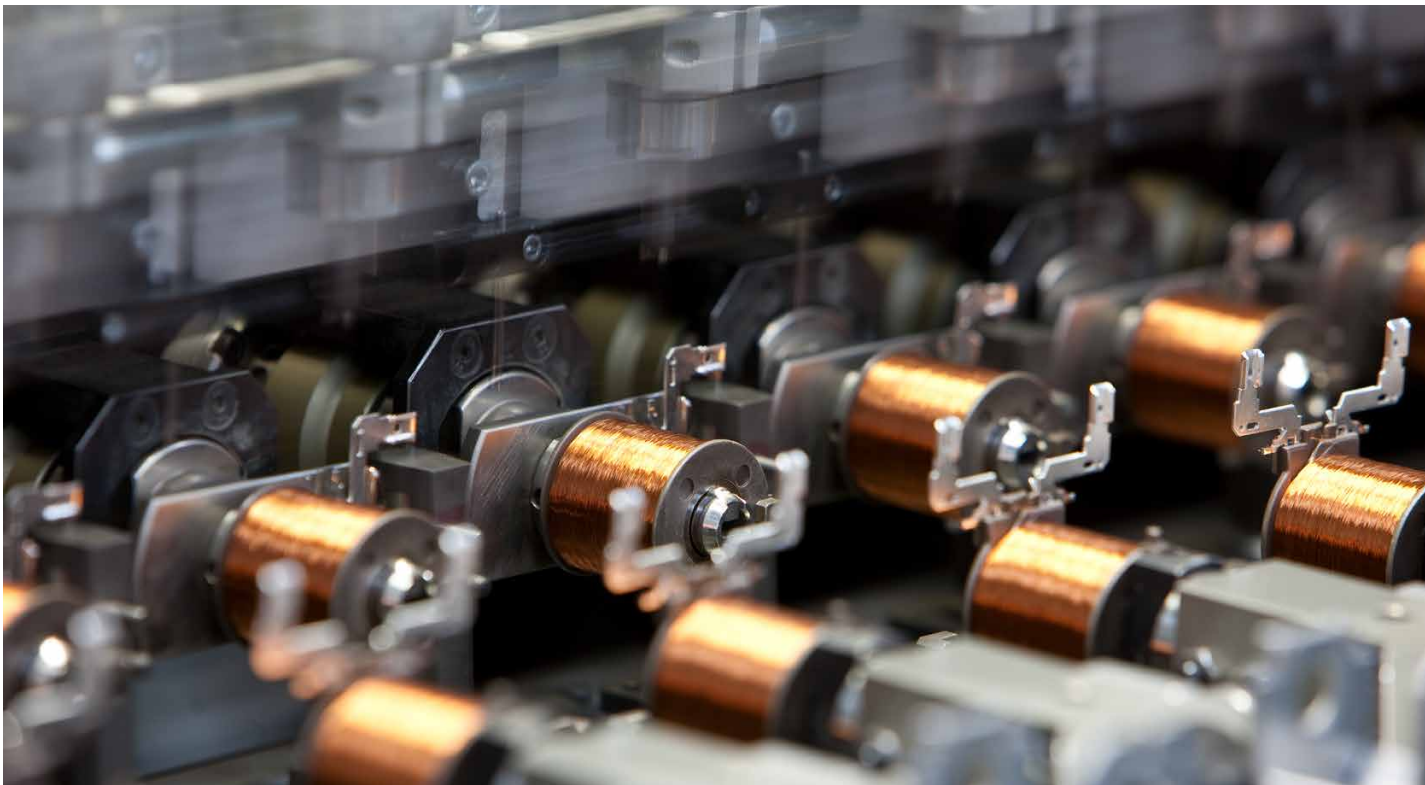
## CONTROLLED QUALITY, SECURELY DELIVERED

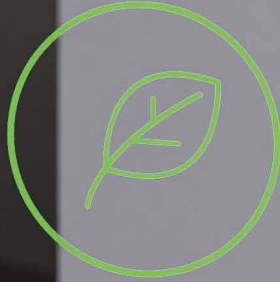
We wind, encapsulate and test our coils ourselves. This independence ensures that solenoid valve production is traceable. An automatic function test of all coil takes place after each production step.



### Properties

- Voltages: AC 50 Hz, AC 60 Hz, DC
- Electromagnetic compatibility in accordance with EN61000-6-3
- Highly media-resistance epoxy coil in Isolation Class H
- Degree of protection IP65, IP67 possible on request (with cable plug Type 2518)
- Explosion protection approvals for Europe, North America, Asia and Pacific

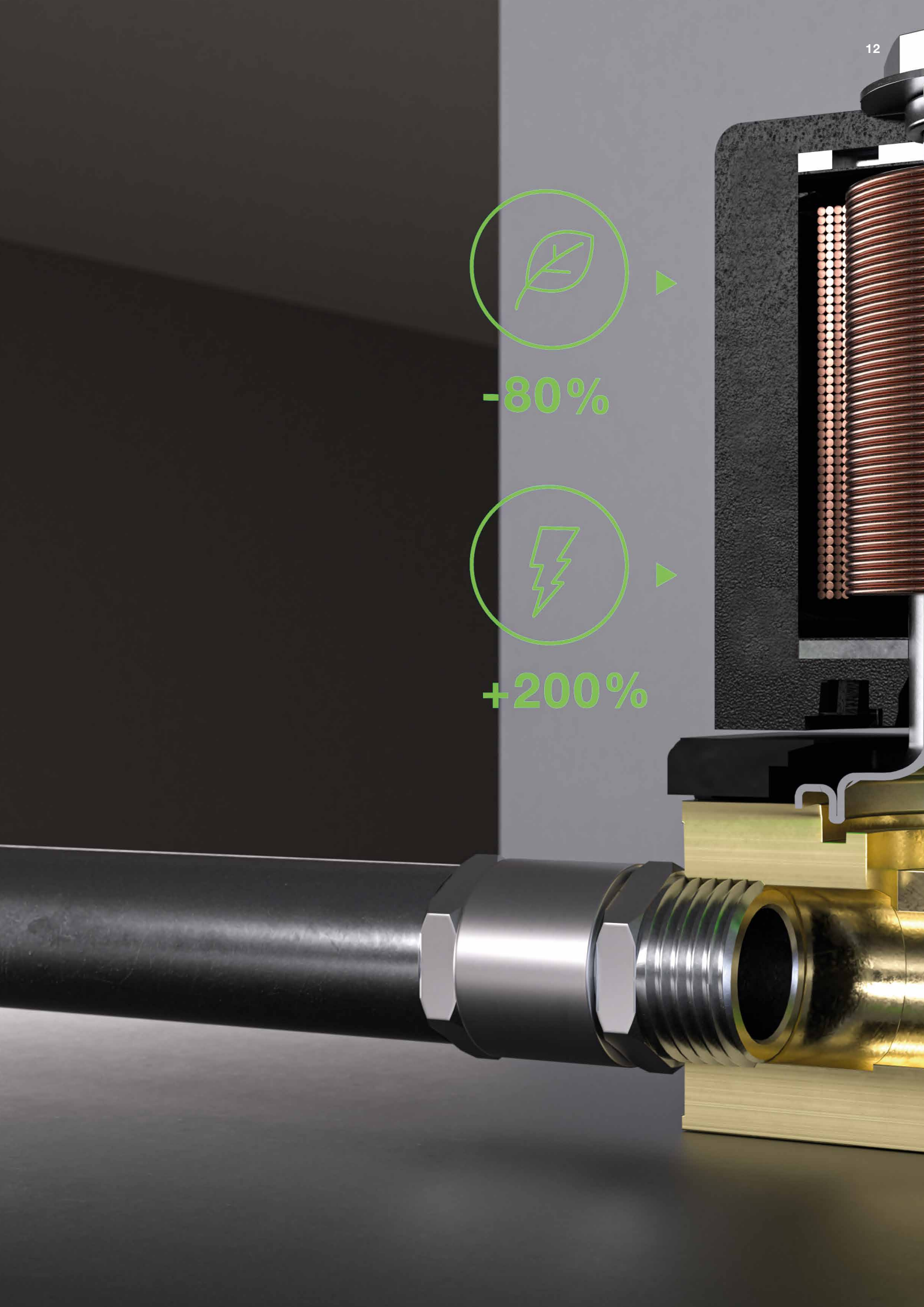




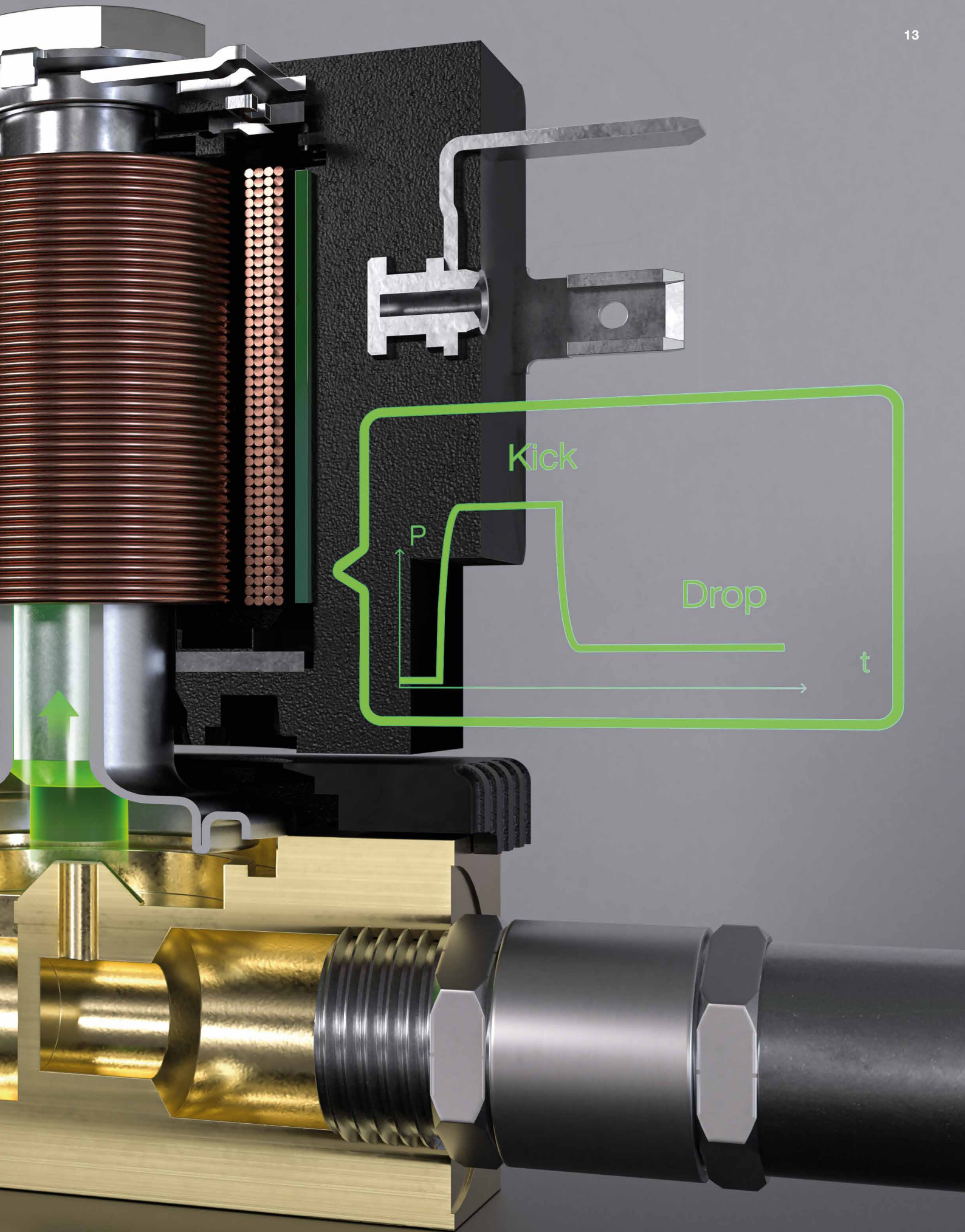
-80%



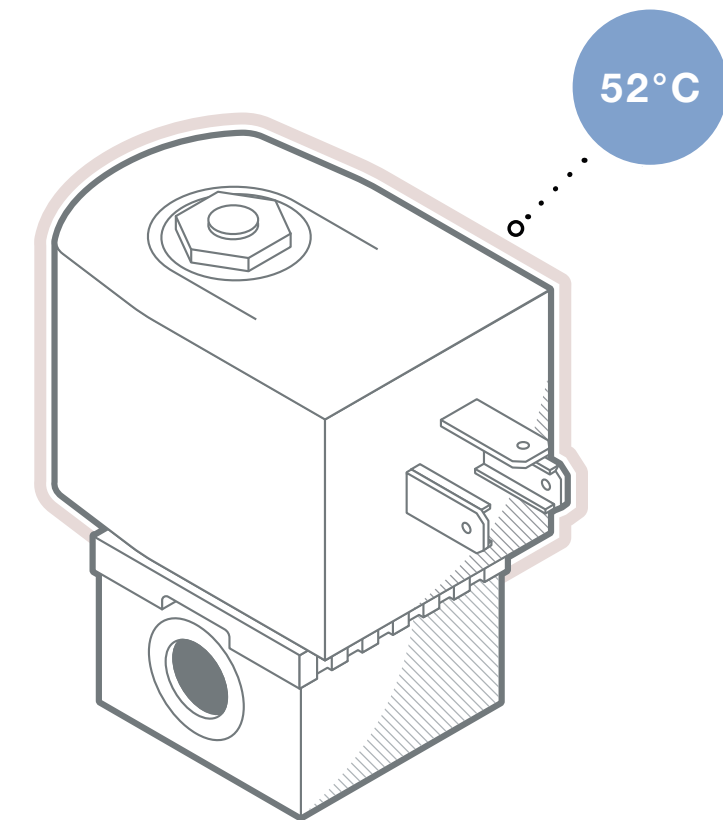
+200%







# One coil – many advantages



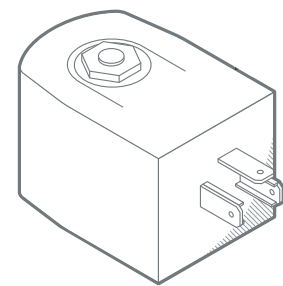
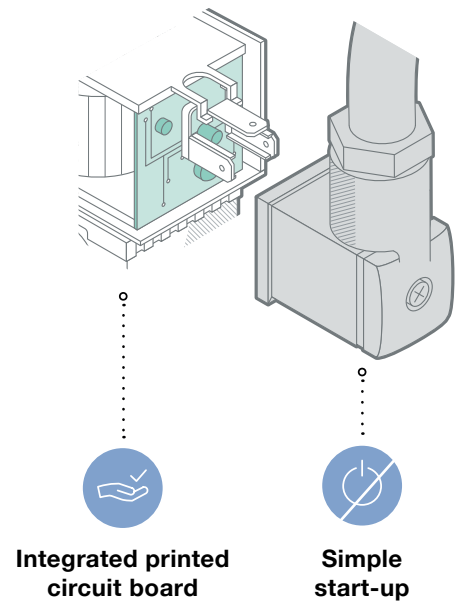
  
**Less calcification**

  
**Reduced burns risk**

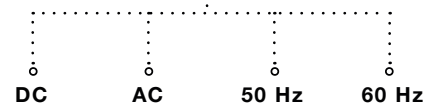
  
**No disruptive noises**

  
**Minimum space required**

  
**Long maintenance intervals**



**All in one**

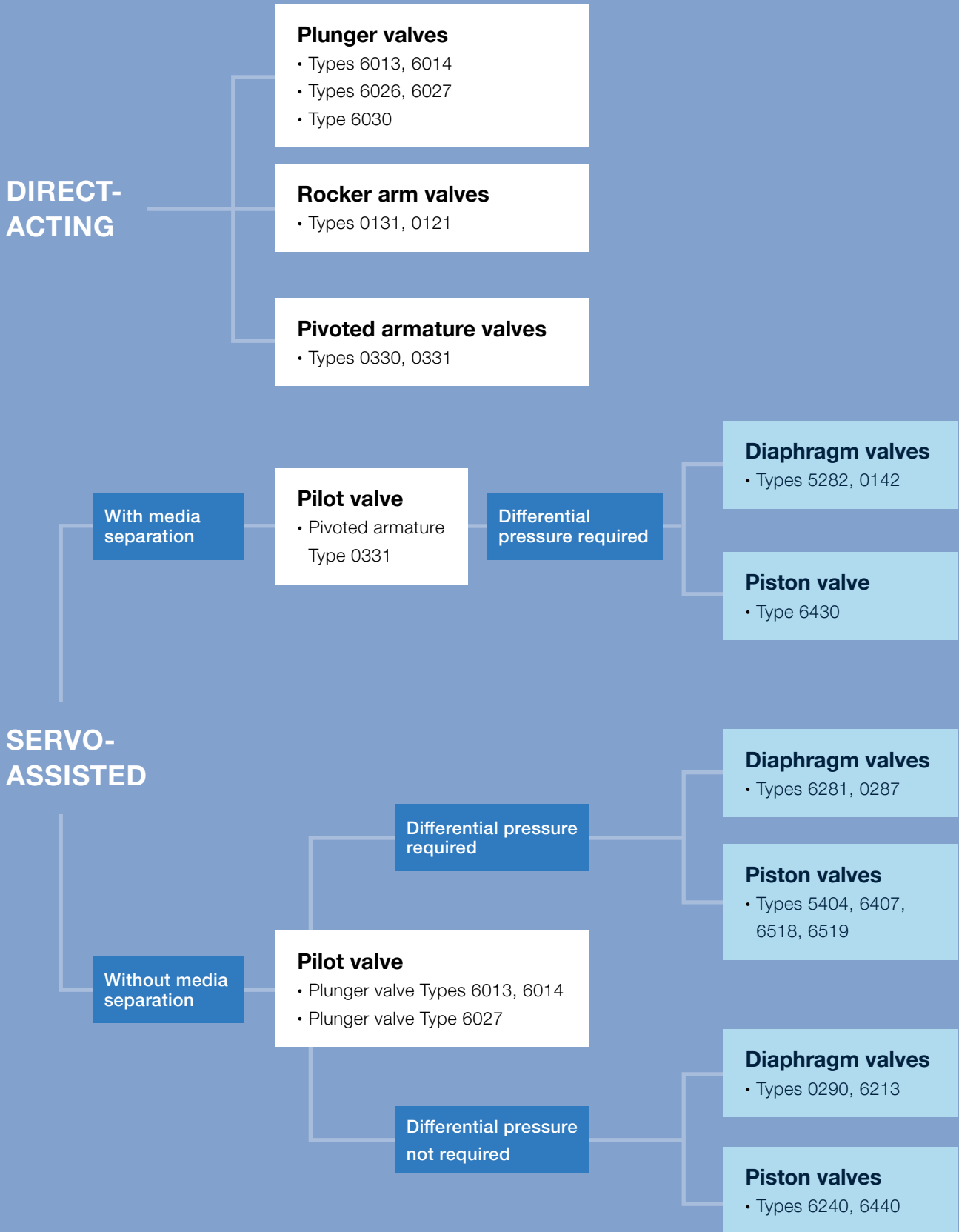


  
**Freely selectable cable plugs**

  
**Reduction of the diversity of variants**



# Which coil is suitable for your application?



[www.burkert.com/kickanddrop](http://www.burkert.com/kickanddrop)

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