



Actuators and control valves –
Energy efficiency drives us

kieback&peter

Technology for Building Automation

Kieback&Peter actuators and control valves

Innovative for over 80 years

Electrical actuators from Kieback&Peter set the standard with their intelligent functions, high technical quality and robust, maintenance-free mechanics. They offer flexibility in their range of functions and high performance. In combination with valves of high quality they constitute control valves that meet the highest demands for installation engineering.

From large to small – a strong family

Control valves from Kieback&Peter are suitable for a wide range of applications: they regulate water cycles, water-glycol mixtures and gaseous media.

Whether in primary control cycles, in safety-related heating systems with hot water or steam, in drinking water systems or in zone control and room automation – Kieback&Peter offers customized solutions everywhere.

All actuators, from globe valves to zone valves to radiator valves, are

designed to suit their specific application perfectly.

Energy efficiency with consistency!

High control accuracy, zero leakage rates, distinctive control characteristics, fast response times and a high adjustment ratio characterize the control valves from Kieback&Peter.

Optimally controlled through sophisticated electronics, they provide energy efficiency already at the level of field devices. It has very low energy consumption due to a sophisticated electronic layout and state-of-the-art components. This is consistently applied energy efficiency.

In a time-tested tradition

For generations control valves from Kieback&Peter have proven their quality – then as now, they save energy and money. These fit smoothly into intelligent building and room automation and support efficient building operation.



MD15 small actuator and RZ, RWZ zone valve awarded the 2009 GebäudeEffizienz (Building Efficiency) Award

Honored for energy efficiency

The MD15 small actuator and the RZ, RWZ zone valve were recognized with the "Building Efficiency Award 2009" for the best product application due to their energy efficiency, their many application benefits and their high control accuracy.



Actuators from Kieback&Peter are part of more than 80 years of tradition. Wherever they are used, they perform their tasks reliably and efficiently.



With actuators from Kieback&Peter everything fits – in planning, installation and operation.

Then as now Your benefit is our drive

Kieback&Peter valve actuators offer many advantages and significant benefits – in planning and installation and in routine operations. They are the right choice when it comes to efficient and energy saving operation of technical building equipment.

High functionality – flexibly adjustable

According to the concept of “not as much as possible, but rather as much as needed”, the actuators are systematically constructed in a modular manner. With retrofitable modules, the functionality is precisely adapted to the particular system configuration. Intelligent, variable software functions support this flexibility. This results in a large degree of freedom in planning.

Suitable for generations

Due to the connection concept proven and preserved for generations, the retrofitting and expansion of existing installations is possible without any problems. Even in the future it is guaranteed that

at Kieback&Peter “everything fits”. Robust control valves can thus always be equipped with the latest drive technology without interfering with the hydraulics.

Easy, cost-saving installation

The installation of actuators from Kieback&Peter is simple, fast and safe – with user-friendly features such as pluggable cable inputs and connecting terminals and automatic initialization. The small actuators of type MD15 and compact actuators of type MD50 are supplied as units ready for wiring – just connect them and you’re done. An automatic coupler provides a safe and convenient connection between actuator and control valve – a must for modern drive technology.

Tightly closing – because it matters!

The slightest leakage rates and the resulting gradual circulations lead to energy losses or even failures with the equipment. Tightly closing control valves from Kieback&Peter guarantee the highest precision and energy efficiency with absolute zero leakage rates in normal operation.

Quality of control – because we take it seriously!

Fast response times and high control accuracy conserve energy. 1 K temperature difference in technical building equipment can mean up to 6 percent more in primary energy use. This makes clear how important control quality is.



Your advantages

- High functionality
- High control accuracy
- Reduced energy losses
- Freedom in planning
- Modular construction
- Easy handling
- Maintenance free

MD and MF actuators

Well equipped for reliable operation

The MD and MF actuator series are well equipped for reliable and efficient operation.

Protection against wear and deposits

Special algorithms reduce the setting movements without loss of control quality. This minimizes wear. The valve design is designed so that dirt and debris deposits are avoided.

Zero crossing

To minimize control errors caused by voltage drop through long cable lengths, the zero crossing software function is constantly active in all the controlled actuators. The low cost 3-wire connection has become standard.

Dynamic hysteresis

The dynamic hysteresis software feature suppresses unnecessary external impulse interference on the control line caused by adjusting movements. Thus, even with unfavorable wiring the operational performance is stable.

Valve adjustment

Automatic calibration is started with the "Init" button. This determines the exact valve flow and nominal stroke. The data is permanently stored in an EPROM. The nominal stroke of 3 to 30 mm is then accurately recorded and set.

Valve block protection

The valve block protection function prevents the cone and spindle from jamming after being dormant for a longer period of time. This feature can be enabled if operational measures allow it. The activation is maintained even after power failure.

Valve monitoring

A blockage in the valve stroke is indicated by a feedback signal $> 10V$. Subsequently, the valve lock is automatically removed according to a special algorithm.

Control

Alternatively, the classic 3-point control and continuous control by means of $0/2..10VDC$ or $0/4..20mA$ is possible, but also direct control via bus communication.

Direct activation

The connections for the direct control of valve OPEN/STOP/CLOSE always have priority over the automatic mode through internal priority selection in manual mode. Components such as frost guard can thus be added directly and parallel to the control.

Manual operation

Using manual control elements, such as a hand switch, manual operation is activated. The valve can then be permanently placed in any stroke position.



Dust protection

Through structural measures, e.g. a protective clip or rubber bellows, mechanism outside the housing, such as the drive spindle, are permanently protected from dirt. This also prevents premature wear.



Tested quality and environmental protection

Certified according to ISO 9001 and ISO 14001

Quality assurance is of greatest importance for Kieback&Peter. The certified quality management system based on DIN EN ISO 9001 guarantees high standards in product quality.

The subject of the environment also plays a central role for Kieback&Peter. The goal is to develop products that maximize resource conservation, and to produce and market with environmental friendliness. The certification according to DIN EN ISO 14001 is evidence that all legal standards are met and that the products, starting from their manufacturing to their disposal, comply with the environmental regulations. The constant improvement of product and service quality and environmental protection are part of Kieback&Peter's declared company policy.

The highest safety standards in accordance with DIN EN 14597

The MF200(Y), MF201(Y) series satisfy the requirements for actuators with safety functions according to DIN EN 14597. As part of the EC type approval compliance in a unit with numerous valve types, such as RFH district heating valves, the RGD and RWG control valves, or even the RGDE pressure-relief valves are tested and confirmed.

"Drinking water" a highly valued essential!

The RB..T valve series is DVGW certified and meets the stringent requirements of the German Association for Gas and Water (DVGW) and thus also the drinking water ordinance.

DVGW-certified drinking water hygiene

The components and the sealing materials which come into contact with drinking water meet the DVGW W270 requirements and

the KTW recommendations of the German Federal Health Journal. The RB ..T valves are designed to be virtually gap-free and tightly sealed. Stagnation areas, dead zones and slow circulation – the habitat for legionella – are avoided.

System solutions for food quality and safety

With coordinated systems technology in control strategy and components (such as actuators with certification) Kieback&Peter offers true "one-stop safety" for health and food quality.



Actuators and valves

Overview

MD15.. Positioning force 150 N	MD50.. Positioning force 500 N
	

Voltage	Control signal	Emergency function		
24V AC	0..10V	No	MD15	MD50
	0..10V/0..20mA	Yes		
	Fieldbus 0..100%	No		
230V AC	3-point	No	MD15	MD50
	3-point	No	MD15/230	MD50/230
	3-point	Yes		

	Type	DN	cvs	Δp_s (bar)	Positioning time (s)	Δp_s (bar)	Positioning time (s)
PN16 Brass Water $\leq 90^\circ\text{C}$ Two-way valve (RZ) Three-way valve (RWZ) 	RZ15..	15	0.25/0.4/0.63/1/1.6	6	140		
	RZ15..	15	2.5	3	140		
	RZ20..	20	4	3	140		
	RZ25..	25	6.3/8	1.5	140		
	RWZ15..	15	0.25/0.4/0.63/1/1.6	6	140		
	RWZ15..	15	2.5	3	140		
	RWZ20..	20	4	3	140		
	RWZ25..	25	6.3/8	1.5	140		
PN16 Gunmetal Water $\leq 120^\circ\text{C}$ BK = two-way valve 	RBK15..(-BK)	15	0.63/1/1.6/2.5			12.1	220
	RBK20..(-BK)	20	4/6.3			9.2	220
	RBK25..(-BK)	25	6.3/8/10			5.0	220
	RBK32..(-BK)	32	10/16			3.5	220
	RBK40..(-BK)	40	25			1.5	220
	RBK50..(-BK)	50	35			0.7	220
PN16 Gunmetal/stainless steel Drinking/service water $\leq 130^\circ\text{C}$ BK = two-way valve T = DVGW certified design for drinking water 	RB15../RB15..T(-BK)	15	0.63/1/1.6/2.5/4				
	RB20../RB20..T(-BK)	20	6.3				
	RB25../RB25..T(-BK)	25	10				
	RB32../RB32..T(-BK)	32	16				
	RB40../RB40..T(-BK)	40	25				
	RB50../RB50..T(-BK)	50	40				
PN6 Gray cast iron GG-25 Water $\leq 130^\circ\text{C}$ BF = two-way valve 	RK15..(-BF)	15	0.63/1/1.6/2.5/4				
	RK20..(-BF)	20	6.3				
	RK25..(-BF)	25	10				
	RK32..(-BF)	32	16				
	RK40..(-BF)	40	25				
	RK50..(-BF)	50	40				
	RK65K..(-BF)	65	63				
	RK65..(-BF)	65	63				
	RK80..(-BF)	80	100				
	RK100..(-BF)	100	160				
PN16 Gray cast iron GG-25 Water $\leq 130^\circ\text{C}$ BF = two-way valve 	RF15..(-BF)	15	0.63/1/1.6/2.5/4				
	RF20..(-BF)	20	6.3				
	RF25..(-BF)	25	10				
	RF32..(-BF)	32	16				
	RF40..(-BF)	40	25				
	RF50..(-BF)	50	40				
	RF65K..(-BF)	65	63				
	RF65..(-BF)	65	63				
	RF80..(-BF)	80	100				
	RF100..(-BF)	100	160				
PN25 Nodular graphite cast iron GGG-40.3 Water $\leq 120^\circ\text{C}$ Hot water + steam $\leq 200^\circ\text{C}$ Two-way valve (RGD) Three-way valve (RWG) 	RGD15..	15	0.4/0.63				
	RGD15../RWG15..	15	1/1.6/2.5/4				
	RGD25../RWG25..	25	6.3/10				
	RGD32/RWG32	32	16				
	RGD40/RWG40	40	25				
	RGD50/RWG50	50	40				
	RGD65/RWG65	65	63				
	RGD80/RWG80	80	100				
RGD100/RWG100	100	160					
PN25 Nodular graphite cast iron GGG-40.3 Water $\leq 120^\circ\text{C}$ Hot water + steam $\leq 200^\circ\text{C}$ Pressure-compensated two-way valve 	RGDE25	25	10				
	RGDE32	32	16				
	RGDE40	40	25				
	RGDE50	50	40				
	RGDE65	65	63				
	RGDE80	80	100				
	RGDE100	100	160				
PN25 Gunmetal, Water $\leq 120^\circ\text{C}$ Hot water + steam $\leq 200^\circ\text{C}$ Two-way valve 	RFH15..	15	0.25/0.4/0.63				
	RFH15..	15	1/1.6				
	RFH20..	20	2.5				
	RFH20..	20	4				
	RFH25	25	6.3				
PN40 Cast steel GS Water $\leq 120^\circ\text{C}$ Hot water + steam $\leq 200^\circ\text{C}$ Two-way valve (RDH) Three-way valve (RWH) 	RDH15../RWH15..	15	0.63/1/1.6/2.5/4				
	RDH25../RWH25..	25	6.3/10				
	RDH32/RWH32	32	16				
	RDH40/RWH40	40	25				
	RDH50/RWH50	50	40				
	RDH65/RWH65	65	63				
	RDH80/RWH80	80	100				
RDH100/RWH100	100	160					

The MD15, MD50 platform

Small, compact and efficient

MD15 small actuators and MD50 compact actuators are based on a common hardware and software platform. Together with the zone and compact valves of the RZ, RWZ and RBK series, these are tailored for use in modern room automation and zone control. As an ideal complement to room automation systems and compact controllers they meet the demanding requirements of modern climate control in buildings.

Your advantages

- Automatic coupling for form-fitting connection and rapid installation and dismantling
- An actuator for everything! Operating performance automatically adapts to the type of control
- Large valve stroke
- High plant reliability by means of continuous status feedback
- Highest control quality by means of valves with a distinctive cone profile and equal percentage control characteristic
- MD15 – flexible for commercially available zone valves



Simple and reliable installation

An automatic coupling creates the mechanical connection between the actuator and the control valve. The form-fitting connection guarantees that the control valve's nominal stroke is performing as required and the volume flow rate is optimally controlled.

RZ and RWZ zone valves with high control quality

Its construction and an optimized cone profile guarantee an optimal valve curve. Further characteristics of this modern valve technology for energy-efficient plants include zero leakage rates, a high adjustment ratio and an unusually large valve stroke.

An actuator for everything

The MD15 and MD50 automatically identify the type of control and optimize its operating performance accordingly. The MD15 and MD50 are always the right solution whether for continuous or 3-point activation, or for 24VAC or 24VDC. The MD15 small actuator can also optionally

The MD2xx series of actuators

Intelligent and communicative

be provided with an open adjustable switch contact or with 230VAC.

Heating and cooling

Zone valves with MD15 and MD50 actuators are optimally applicable for heating and cooling circuits. This is made possible by the wide range of Cvs values.

Intelligent software functions

Intelligent software functions, such as adjustable valve block protection or continuous status feedback provide reliable operation. The sticking of valves after long shut-downs, for example, is thus prevented.

Which valve should be used?

The consistent design of the MD15, MD50 drive platform as a modular system allows for adaptation to commercially available radiator valves, zone valves and compact valves. The advantages of modern actuator technology are able to be combined with standard valve product lines from different suppliers. It doesn't matter if it is for renovation, modernization or new plant construction – MD15 and MD50 play to their strengths everywhere.



The MD200(Y) and MD210(Y) actuators from the MD series are designed for a wide range of applications. The device types differ in positioning force, actuating speed, the amount of intelligent functions and technical features.

MD210(Y) for rapid control processes

The high-speed MD210 variant of the MD200, and the high-speed MD210Y variant of the MD200Y are specially designed for use in rapid control processes. With an actuating speed of 2 s/mm, these high-speed variants compensate for control deviations in the shortest response time.

Modular building blocks for all requirements

The MD series is designed on a building block principle. Additional functionality is enabled through various retrofittable hardware modules. Each actuator can be tailored with these retrofittable modules to specific requirements for system configuration. The MD series thus offers an unusually high degree of planning freedom.

Intelligent software functions

Intelligent, flexible software functions are integrated into the electronics. This allows an optimal adaptation to different plant conditions.

Reliability and functionality

Common to all actuators of the MD series are the robust and functionally reliable mechanics. Advanced algorithms minimize wear and optimize reliability and functionality.





Emergency actuators from the MF Series Assuredly good!

For heat producing or thermotechnical plants, actuators from the MF series with safety functions assure the extra plus in functionality and safety.

Safety on the highest level

In combination with the largest variety of control valves, the actuators meet the Europe-wide safety requirements according to DIN EN 14597. They represent the current and future safety standards for control valves with safety functions. Their conformity according to DIN EN 14597 is certified and verified by an independent named testing body.

Surely your drive

Whether in district heating systems, industrial plants, or classic building automation with heating, ventilation and air conditioning – in combination with a control valve the MF series will surely present the best solution.

Adaptable and flexible – fits securely

The MF actuators have a consistent modular structure. With the retro-

fittable modules, the functionality is exactly adapted to the system – the actuator receives as much functionality as necessary. This saves costs.

With its flexibility in operating voltage (230V and 24V), the type of controls and the actuating speed, the MF series adjusts to all varieties of system configurations.

Easy installation, reliable operation

Assembly with the automatic coupling is easy and time-saving. Practically with just a “click”, a solid connection is made between the valve spindle and the actuator.

It’s just as easy to release the automatic coupling and separate the actuator from the valve.

The design provides robust operational modes. Intelligent algorithms prevent debris from settling in the valve body and affecting the functionality.

Certainly no one will be left out in the cold

Qualified personnel can bring the actuator manually into any stroke position at any time. With this, a temporary emergency heat energy supply for the system or consumer is assured at all times.

Your advantages

- Meets the highest safety requirements of DIN EN 14597
- Flexible functionality
- Very easy to assemble
- Up to 30mm valve stroke
- High closing pressure
- Integrated heating function at ambient temperatures below 0°C





MD200BUS

Communication is not everything yet

MD200BUS – has a say, right from the start

With its integrated field bus interface, the MD200BUS actuator is fully integrated into the communications network and beyond the classic actuator it provides the numerous additional functions of an active information platform. Direct link chains of the drive parameters in the DDC system allow the use and evaluation of all relevant data and functions.

Direct connection of analog and binary transducers. This way, standard sensors are bus-compatible!

MD200BUS provides the possibility of connecting cost-saving transducers. Up to two transducers can be connected directly with KP10 sensing elements or standard signal 0..10V (e.g. for temperature, humidity and pressure measurement). In addition, MD200BUS can add three binary transducers as signal contacts or for pulse counting. Due to short cable runs the installation cost is low. Integrated software features (such as sensor calibration) makes system adaptation possible.

Make use of communication advantages!

The transducer's data is available as a DDC parameter in the entire automation system. Costly analog/digital converters and elaborate sensor wiring are not necessary.

No tools – simple parameterization

Parameterization with no special parameterization software is possible via the building management system and automation stations. Monitoring functions at the management and automation level make remote monitoring and trend recording easy to implement.

Switching via bus communication – networking actuators and pumps

With 2 programmable switching outputs for direct control of other field devices such as heating pumps, the MD200BUS is easily expanded. Even their control via remote parameterization is easy via bus communication.

Decentralized functionality for measuring + positioning + switching + reporting

As a direct communication station, the actuators are suitable for networks with a spread of up to 2000 meters. Up to 63 MD200BUS units can be connected via the DDC automation station's bus interface – connected only by a four-wire cable. This way, actuators become decentralized functional units for measuring, positioning, switching and reporting with full transparency to the building management system.

Talk to us ...



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