



Kieback&Peter

OPERATING INSTRUCTIONS

MF15-R-Q ACTUATOR

**WITH ELECTRICAL EMERGENCY
REGULATION FUNCTION FOR
RBQ15..32 COMBO VALVES**

This document replaces all versions with an older release date. This version is not updated automatically. Subject to change.

The original operating instructions were composed in German.

Operating instructions in other languages have been translated from German.

Copyright © 2022 Kieback&Peter GmbH & Co. KG

All rights reserved. No part of this document may be reproduced in any form (by printing, photocopying or otherwise) or processed, copied or distributed using electronic systems without written permission from Kieback&Peter.

Kieback&Peter GmbH & Co. KG

Tempelhofer Weg 50, 12347 Berlin, Germany

Phone: +49 30 60095-0, Fax: +49 30 60095-164

info@kieback-peter.de, www.kieback-peter.de

IMPORTANT

READ CAREFULLY BEFORE USE

RETAIN FOR LATER REFERENCE

Table of Contents

Content	Page
1 Notes on these operating instructions	5
1.1 Validity of the operating instructions	5
1.2 Display elements	5
2 Safety	6
2.1 Explanation of safety instructions and warnings	6
2.2 Basic safety instructions	7
2.3 Responsibilities of the Operator	8
2.4 Qualification of personnel	8
2.5 Intended use	9
3 Description	10
3.1 Product identification	10
3.2 Actuator	11
3.2.1 Structure	11
3.2.2 Technical specifications	12
3.3 RBQ15..32 valves	13
3.3.1 Types	13
3.3.2 Technical Data	14
3.3.3 Dimensions	14
3.3.4 Accessories	15
4 Scope of delivery, transportation and storage	15
5 Mounting	16
5.1 Installation conditions	16
5.2 Installing the valve	16
5.3 Setting the maximum volume flow rate	17
5.4 Mount the actuator on a RBQ15..32 valve	18
5.5 Reinstalling the actuator	18
6 Connecting the actuator and putting it into operation	19
6.1 Electrical connection	19
6.2 Commissioning	19
6.3 Adapting actuator functions	20
6.3.1 Reinitialization	22
7 Operation	22

7.1	After triggering the emergency regulation function	22
8	Maintenance	22
9	Faults and remedial measures	23
10	Repair	24
11	Decommissioning, Removal and Disposal	24
11.1	Taking the actuator out of operation	24
11.2	Dismounting the actuator from the RBQ 15..32	25
11.3	Disassembling the valve	25
11.4	Note on disposal	25
12	Contact persons	26
13	Declarations of conformity	27
14	Index	29

1 Notes on these operating instructions



NOTE

If you have any questions that cannot be clarified with these operating instructions, you can obtain further information from your Kieback&Peter contact person.

1.1 Validity of the operating instructions

These operating instructions are a part of the MF15-R-Q actuator for RBQ15..32 two-way or three-way valves and apply only to this actuator and these valves.

To make the document easier to read, the MF15-R-Q actuator is referred to in the text below as the “actuator.” The RBQ15..32 two-way and three-way valves are referred to in the text as the “valve.”

1.2 Display elements



NOTE

Notes provide you with important information.

You can find the following display elements in these instructions:

- List point
- ▶ Step or measure for avoiding danger

2 Safety

IMPORTANT
READ CAREFULLY BEFORE USE
RETAIN FOR LATER REFERENCE

2.1 Explanation of safety instructions and warnings

The basic safety information includes general instructions for the safe use of the actuator with valve or instructions to maintain its safe condition.

Action-related warnings of residual risks are indicated prior to performing dangerous actions.

Presentation and structure of warnings

The warnings are action-related and are structured as follows.



CAUTION

Type and source of danger!

Potential consequences when the danger occurs or the warning is not observed.

▶ Measures to avoid the danger.

Warnings are classified according to the severity of the hazard. The hazard levels and their corresponding signal words and warning symbols are described below:



WARNING

Indicates a hazard of medium risk which can result in **death or serious bodily injury** if not avoided.



CAUTION

Indicates a hazard of low risk which can result in **minor or medium bodily injury** if not avoided.



CAUTION

Indicates a hazard which can result in **material damage or malfunctions** if not avoided.

2.2 Basic safety instructions

Safety in the workplace depends on the attention, care and rationality of all the persons involved. To prevent damage and injury, read and follow the safety instructions below, the safety instructions in the documentation on using the components and the applicable local regulations.

Sharp edges and corners

There is a risk of skin abrasions and cutting injuries due to sharp edges and corners, such as those on cast iron bodies and the outer threads of the valves and individual parts of the actuators.

- ▶ Proceed with care.
- ▶ Wear protective gloves.

Toppling, falling and ejected parts

Severe injury and substantial damage to property due to:

- Toppling or falling valve or actuator parts
- Ejected parts in the event of impermissible pressure increases (bursting components)
- Impermissible drop in pressure (e.g. when using tensioning devices)
- ▶ Secure the protected area against access by unauthorized persons.
- ▶ Secure parts to prevent toppling and falling.
- ▶ Do not exceed the maximum valve operating pressure.

Pressurized liquids

There is a risk of severe burns and injuries caused by liquid jets due to incorrect connections.

- ▶ Do not exceed the maximum valve operating pressure.
- ▶ Check all connections before filling the system.
- ▶ Secure the protected area against access by unauthorized persons.

Hot and cold surfaces

There is a risk of severe burns or hypothermia from contact with hot or cold surfaces on the valves and pipelines.

- ▶ Before starting work, wait until the temperature of the pipelines and valves is between roughly 10 to 40 °C.

Musculoskeletal disorders

There is a risk of severe musculoskeletal disorders (e.g. back injuries) due to incorrect posture or excessive exertion (e.g. due to weight loads).

- ▶ Proceed with care.

2.3 Responsibilities of the Operator

The actuator and valve must be operated only when in a technically sound and safe condition. The operator must observe the following points:

- Ensure that the operating instructions are available to all persons who perform work on the actuator and valve.
- Ensure that all persons have read and understood the operating instructions before working on the actuator and valve.
- Ensure the required ambient conditions and clearances at the mounting location.
- Ensure that mounting, installation and commissioning are carried out only by a fitter or specialist electrician, according to the tasks. NOT DEFINED
- Inform your Kieback&Peter contact person in the event of damage to the actuator and/or valve.
- Ensure that personnel receive the personal protective equipment (PPE) stipulated in the specific country and use this equipment at all times.

2.4 Qualification of personnel

Fitter

The fitter is familiar with heating, ventilation and air conditioning systems. Based on his or her technical training and appropriate knowledge and experience, he or she is familiar with the described actuator and valve. The fitter knows the applicable regulations, can assess his or her assigned tasks and identify potential dangers.

Electrical specialist

The electrical specialist is familiar with the described actuator. Based on his or her professional training, knowledge and experience, he or she has a very good command of tasks related to cables, lines and laying systems and a good level of knowledge in the fields of electrical engineering and electrical machines and actuators. The electrical specialist knows the applicable regulations, can assess his or her assigned tasks and identify potential dangers.

His or her professional qualification as an electrical specialist is usually proven through the successful completion of training as, for example, an electrical engineer or electrical technician. Training may also be proven through several years of working in the field with theoretical and practical training following an assessment by an electrical specialist.

Who is permitted to perform which tasks?

Task	Fitter	Electrical specialist
Mounting		
Assembling the valve	x	
Setting the maximum flow rate	x	
Assembling the actuator	x	
Commissioning		
Electrical connection		x
Adapting actuator functions		x
Reinitialization		x
Faults and remedial measures based on fault type		
Searching for and correcting faults	x	x
Decommissioning, disassembly and disposal		
Disconnecting the electrical supply		x
Disassembling the actuator	x	
Disassembling the valve	x	
Disposal	x	

2.5 Intended use

- The actuator with valve is designed to control the flow or precise mixture of liquids for heating, ventilation and air conditioning systems.
- Operate the actuator only with one of the specified valves and the original valve accessories.
- The actuator with valve is intended only for industrial and commercial use; never operate the actuator with valve in the private sphere or in households.
- Only operate the actuator with valve indoors.
- Maintain the specified ambient conditions during operation, transport and storage.
- Use a suitable operating medium.
- Only operate the actuator with valve in its original condition. Modifications to the actuator and/or valve may result in unforeseeable dangers and are thus prohibited.

3 Description

The MF15-R-Q actuator with electrical emergency regulation function and position feedback is used with two-way and three-way valves from the RBQ15..32 compact valve series.

The electric emergency function ensures that the valve is set to a safe preset valve position following failure of the actuator supply voltage. By default, the 0% position (valve closed) is set as the emergency position.

Once commissioning is complete, you can readjust the emergency control position.

The electrical emergency function is only available when the internal energy storage unit is fully charged and the actuator has detected the valve end positions during the initialization run. Readiness for operation is signaled by a constant green light on the LED.

The charging time for the internal memory storage unit is up to 2.5 minutes.

If the emergency regulation function is triggered, a voltage of DC 0 V is output by the feedback signal.

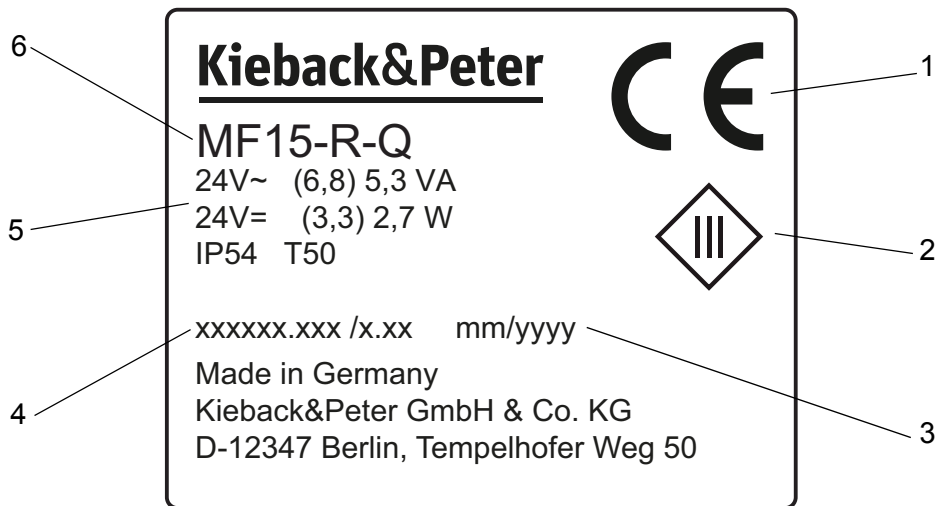
If the emergency regulation function was triggered and the nominal voltage is restored, the energy storage unit is fully charged up again.

The actuator remains in the preset emergency control end position until the charging level is reached.

The actuator then follows the control signal, and the emergency regulation function is available again.

3.1 Product identification

The type plate is attached on the underside of the actuator housing.



3-1: Type plate of the actuator

- 1 CE marking
- 2 Protection class
- 3 Month, year of construction
- 4 Serial number/revision number
- 5 Nominal voltage and power consumption
- 6 Item number



NOTE

Information on the type of valve can be found on the cast body of the valve.

3.2 Actuator

3.2.1 Structure



3-2: Actuator layout

- 1 Inspection cover
- 2 Housing
- 3 Position indicator
- 4 Union nut



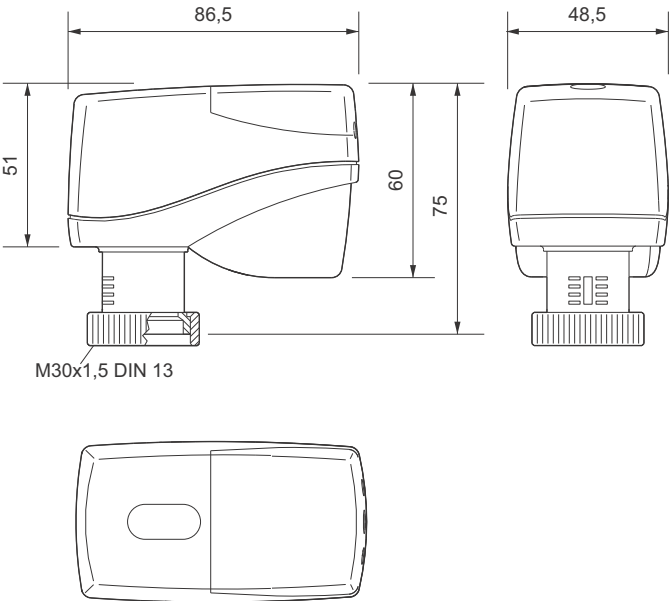
3-3: Displays and controls on the actuator

- 5 Switches for setting the actuator function
- 6 Status LED

3.2.2 Technical specifications

Nominal voltage	AC 24 V $\pm 10\%$; 50/60 Hz; DC 24 V $\pm 10\%$
Dimensioning	6.8 VA (AC 24 V); 3.3 W (DC 24 V)
Power consumption	Nominal: 5.3 VA (AC 24 V); 2.7 W (DC 24 V) Sleep mode: 0.7 VA (AC); 0.3 W (DC)
Switch-on current	Briefly max. 12 A < 1 ms; < 0.144 A ² s
Control	Continuous control DC 0(2)..10 V; < 0.5 mA
Connection	Built-in cable 1.5 m; 5 x 0.5 mm ²
Sound power	< 23 dB (A) during normal operation
Positioning stroke	4 mm max.
Positioning time	22 s/mm
Emergency positioning time	Approx. 5 s/mm
Emergency control position	configurable
Positioning force	Nominal 150 N
Position feedback	DC 2..10 V; 5 mA for 0..100% positioning stroke
Emergency control function	Adjustable emergency control end position
Permitted medium temperature in the valve	0..+120 °C
Ambient temperature	0..+50 °C
Degree of protection	IP54 only with the appropriate installation position (see page)
Ambient humidity	0..85% r.h., non-condensing
Protection class	III
Installation position	360°
Maintenance	Maintenance-free
Weight	250 g

Dimensions



3-4: Actuator dimensions

Other properties

Display	LED display for operating voltage and status
Position indicator	Stroke range scale
Valve exercise	Can be switched on

3.3 RBQ15..32 valves

Combo valves for automatic control of the flow direction, independent of the differential pressure (hydraulic balancing).

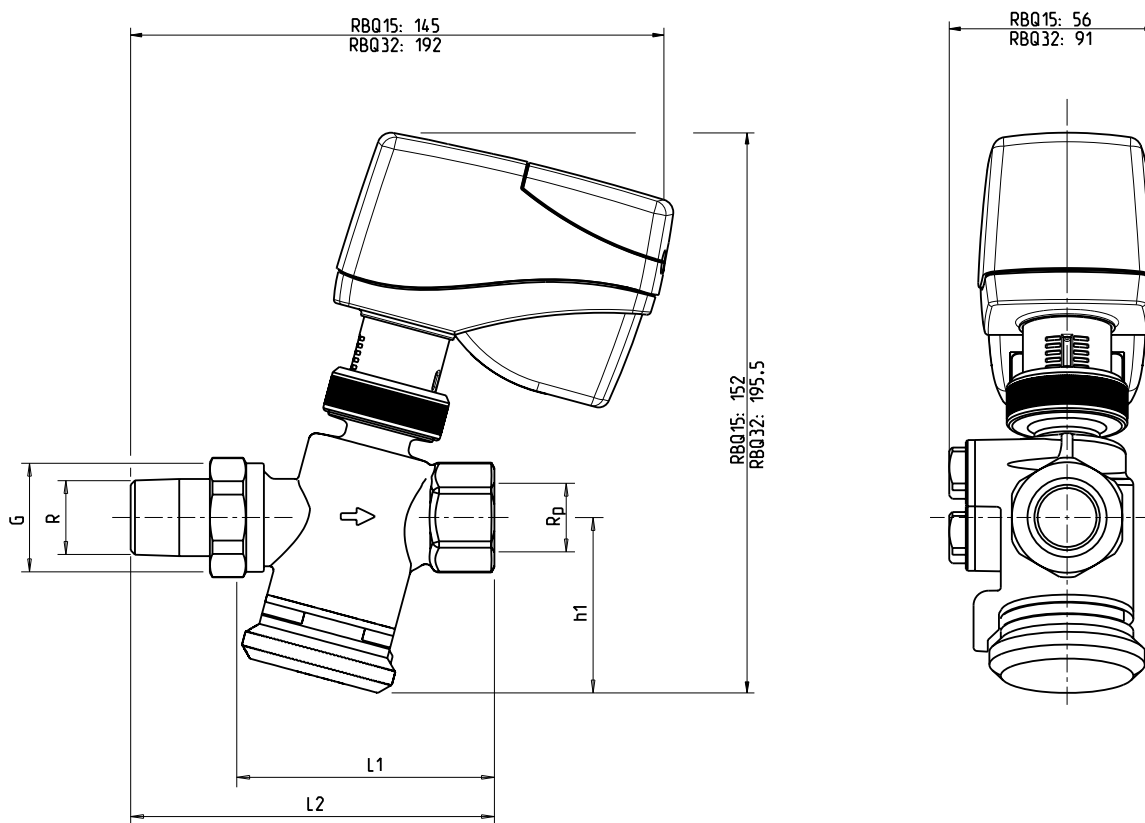
3.3.1 Types

Type	DN	PN	Volume flow range [l/h]	Control range [kPa]	Connection [inches]	Weight [kg]
RBQ15/0.5	15	16	30..210	20..400	G 3/4; Rp 1/2	0.45
RBQ15/1.1	15	16	90..450	20..400	G 3/4; Rp 1/2	0.45
RBQ15/1.8	15	16	150..1050	20..400	G 3/4; Rp 1/2	0.45
RBQ20/1.8	20	16	150..1050	20..400	G 1; Rp 3/4	0.52
RBQ20/2.5	20	16	180..1300	15..400	G 1; Rp 3/4	0.73
RBQ25/4.0	25	16	300..2000	15..400	G 1 1/4; Rp 1	1.8
RBQ32/6.0	32	16	600..3600	15..400	G 1 3/4; Rp 1/4	1.9

3.3.2 Technical Data

Operating temperature	RBQ15..32, -10 to +120 °C
Max. operating pressure	16 bar (1600 kPa)
Max. differential pressure	4 bar (400 kPa)
Leak rate	0.01% from Kvs
Nominal stroke	DN15, DN20 (150 to 1050 l/h): 2.8 mm DN20 (180 to 1300 l/h): 3.5 mm DN25, DN32: 4 mm
Medium	Water or water-propylene glycol mixtures and water-ethylene glycol mixtures (max. 50%, ph value 6.5 to 10)
Housing	DN15 to DN32: dezincification resistant brass
Seals	Made of EPDM or PTFE

3.3.3 Dimensions

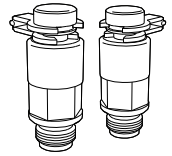


DN	L1 [mm]	L2 [mm]	h1 [mm]	G	R [Inch]	Rp [Inch]	Δp [bar]
15	70	98.5	48	G 3/4	R 1/2	Rp 1/2	0.2 to 4
20 (150 to 1050 l/h)	74	106	48	G 1	R 3/4	Rp 3/4	0.2 to 4
20 (130 to 1300 l/h)	85.5	117.5	54.5	G 1	R 3/4	Rp 3/4	0.15 to 4
25	118	154	79	G 1 1/4	R 1	Rp 1	0.15 to 4
32	124	165	79	G 1 3/4	R 1 1/4	Rp 1 1/4	0.15 to 4

3.3.4 Accessories

Not included in the scope of delivery.

Z221 Measuring valves



4 Scope of delivery, transportation and storage

Scope of delivery

The actuator can be supplied in different configurations with a valve and valve accessories or as an individual part.

The maximum scope of delivery includes:

- MF15-R-Q Actuator
- RBQ15..32 two-way or three-way valves
- “MF15-R-Q small actuator with electrical emergency regulation function for RBQ15..32” operating instructions
- “MF15-R-Q” mounting instructions

Fittings for RBQ15..32, not included in the standard scope of delivery.

Unpacking and repacking the device

The delivery is shipped in a cardboard box.

- ▶ Unpack it carefully.
- ▶ Use suitable packaging material to repack it.

Transport

- ▶ Transport the actuator, valve and valve accessories in suitable packaging.
- ▶ Avoid shocks and mechanical damage.
- ▶ Do not throw the product or allow it to fall.
- ▶ Maintain the specified ambient temperature of -25..+60 °C and ambient humidity of 0..85% r.h., non-condensing.

Storage

- ▶ Store the actuator, valve and valve accessories only indoors.
- ▶ Avoid shocks and mechanical damage.
- ▶ Maintain the specified ambient temperature of -20..+60 °C and ambient humidity of 0..85% r.h., non-condensing.

5 Mounting

5.1 Installation conditions

- Any protective caps on the valve gates should be removed before assembling the valves.
- No grease or oil may be used during assembly because these could destroy the valve seals.
- The pipeline system and the interior of the fitting must be free of foreign objects, particles of dirt, and grease and oil residues. Rinse them out if necessary.
- There must be no tension between the fixture and the pipeline connection.
- To avoid eddy formations in the valve body, the valve should be installed in a straight section of the pipe. A distance of 10 times the nominal diameter is recommended between the valve flange and manifold or other similar parts.
- The installation location is to be selected so that the ambient temperature at the actuator is kept between 0 °C and +50 °C.
- If the operating medium is contaminated, a strainer must be installed in the supply pipe. For maintenance purposes, we recommend to install shut-off valves both upstream and downstream of the valve or plant section.
- When carrying out installation, the permissible maximum differential pressure Δp must be observed.
- Above the valve, note that 150 mm of free space is required for installing the actuator and removing the connection cover.
- Always observe the direction of flow arrow on the valve body. Inverting the flow direction impairs control behavior.

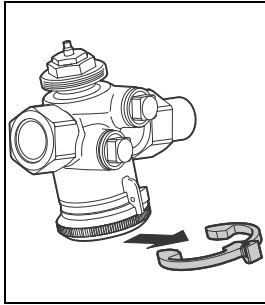
5.2 Installing the valve

Personnel qualifications: **Fitter**

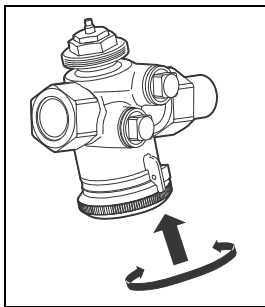
- ▶ No differential pressure must occur on the valve body. Close the gate valve and turn off pumps.
- ▶ Screw the valve connections onto the pipelines.

5.3 Setting the maximum volume flow rate

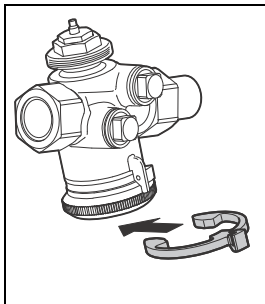
Personnel qualifications: **Fitter**



- ▶ Remove the blocking ring.



- ▶ Set the setpoint of the maximum volume flow to the desired value by turning the handwheel.

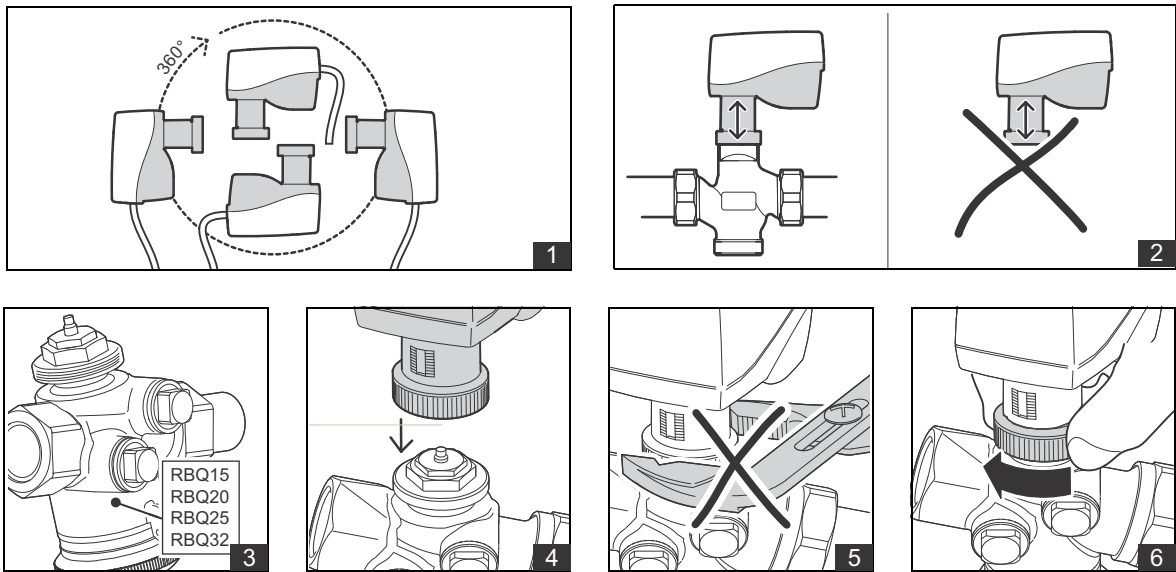


- ▶ Reinsert the blocking ring.

5.4 Mount the actuator on a RBQ15..32 valve

Personnel qualifications:

Fitter



- ▶ **1** Any actuator installation positions in which the cabling runs downward are permitted.
- ▶ **2** CAUTION! Do not operate the actuator without a valve.
- ▶ **4** Set the actuator onto the threaded connection on the valve.
- ▶ **5** CAUTION! Do not use a pipe wrench. This may damage the actuator and valve.
- ▶ **6** Tighten the union nut by hand.

5.5 Reinstalling the actuator

Personnel qualifications:

Electrical specialist



NOTE

The actuator can be installed only if the spindle is in the upper end position.

- ▶ Switch on the actuator operating voltage. The energy storage unit is charged up.
- ▶ After approx. 2.5 minutes, move the actuator to the upper end position using a 100% control signal.
- ▶ Other installation steps:

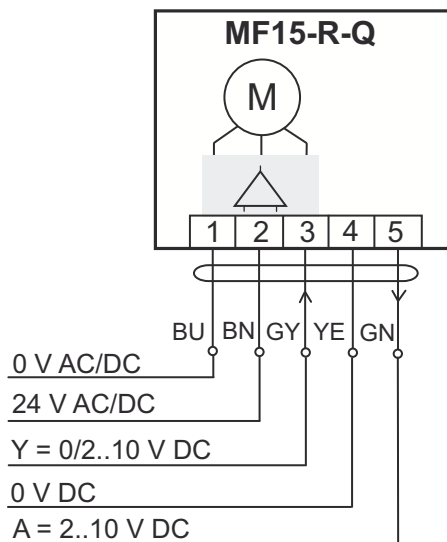
6 Connecting the actuator and putting it into operation

6.1 Electrical connection

Personnel qualifications: **Electrical specialist**

- ▶ Refer to the circuit diagram.

Continuous control



6-1: Actuator circuit diagram

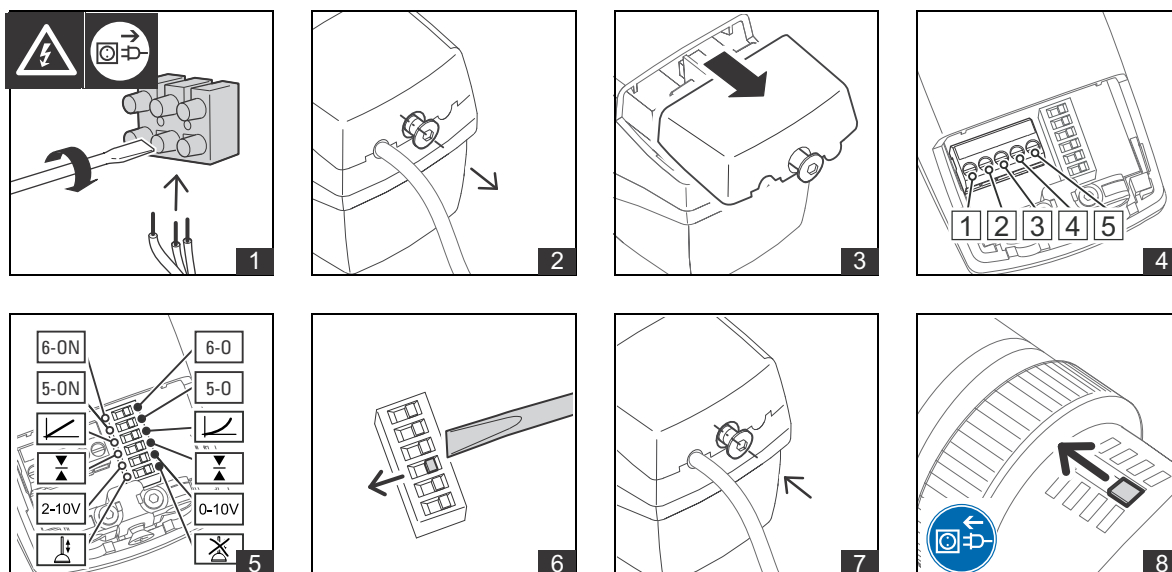
- ▶ Carry out the electrical connection of the actuator as a fixed installation.

6.2 Commissioning



CAUTION

Switching on the actuator may briefly result in peak loads of up to 12 A. To prevent malfunctions or damage on switching parts (the controller output, for instance), they must be checked to ensure they have the appropriate performance capacity.



- ▶ **1** Carry out the electrical connection of the actuator as a fixed installation.
- ▶ **2 3** Remove the inspection cover.
- ▶ **4** Refer to the circuit diagram.
- ▶ **5 6** Adapt the actuator functions with switches 1 to 6.
- ▶ **7** Mount the inspection cover.
- ▶ **8** Automatic initialization takes place once the supply voltage has been switched on for the first time. The actuator first travels to the upper end position and then to the lower end position. The actuator will not respond to the control signal until the initialization run is complete.



NOTE

This initialization can be performed manually by switching switches 4, 5 or 6 back and forth.

6.3 Adapting actuator functions

Personnel qualifications: **Electrical specialist**



CAUTION

Switching on the actuator may briefly result in peak loads of up to 12 A. To prevent malfunctions or damage on switching parts (the controller output, for instance), they must be checked to ensure they have the appropriate performance capacity.



CAUTION

Short circuit caused by charged energy storage unit!

Due to the charged energy storage unit, pressing the switches with a conductive object may result in burns even if the voltage supply is separated.

- ▶ Remove and set down conductive jewellery from your hand or arm.
- ▶ Do not use any conductive tools to press the switches.

- ▶ Remove the inspection cover from the housing.

The drive functions are adjusted with the switches 1 to 6:

Actuator function	Switch	Actuator function
RBQxx volume flow range (on)		RBQxx volume flow range (off)
RBQxx volume flow range (on)		RBQxx volume flow range (off)
Linear characteristic curve		Equal-percentage characteristic curve
Emergency control end position setting		Emergency control end position setting
DC 2..10 V		DC 0..10 V
Valve exercise (on)		Valve exercise (off)

Switch 1: Valve exercise

If plant specifications permit, the valve exercise feature can be activated during commissioning.

Valve exercise prevents the cone from jamming when the valve is not moved for a long period of time, e.g. for heating systems during the summer.

If valve exercise is activated, the valve cone is raised for a few seconds when there is no stroke movement for 21 days.

Default setting: "Off"

Switch 2: Control range

Switch 2 is used to set the control range for the continuous actuating signal to DC 0 V to 10 V or DC 2 V to 10 V.

Default setting: DC 0..10 V

Switch 3: Emergency control end position

Setting for the emergency control end position to which the actuator moves when it does not have power.

For this purpose, the actuator is moved to the desired position using the DC 0(2)..10 V control signal. You must then press the switch (change the switch position).

Default setting: no power, spindle extended

Switch 4: Characteristic curve compensation

Adjustment of the valve characteristic curve linear  or equal percentage .

Changing the switch position triggers an initialization run.

Default setting: Equal-percentage characteristic curve 

Switches 5 and 6: Volume flow range

To adjust the actuator to the default setting of the volume flow range of the valve, proceed as per the table below:

	Volume flow range [l/h]	Switch 5	Switch 6
RBQ15/0,5 30..210 l/h	30..90	OFF	ON
	91..210	OFF	OFF
RBQ15/1,1 90..450 l/h	90..150	OFF	ON
	151..450	OFF	OFF
RBQ15/1,8 150..1050 l/h	150..300	OFF	ON
	301..1050	OFF	OFF
RBQ20/1,8 150..1050 l/h	150..300	OFF	ON
	301..1050	OFF	OFF
RBQ20/2,5 180..1300 l/h	180..400	OFF	ON
	401..600	OFF	OFF
	601..1300	ON	ON
RBQ25/4,0 300..2000 l/h	300..400	OFF	ON
	401..900	OFF	OFF
	901..1400	ON	ON
	1401..2000	ON	OFF
RBQ32/6,0 600..3600 l/h	600	OFF	ON
	601..1600	ON	ON
	1601..3600	ON	OFF

Changing the switch position triggers an initialization run.

- ▶ Close the inspection cover.
- ▶ Switch on the actuator operating voltage.



NOTE

Charging the energy storage unit is given priority over the actuator functions and takes approx. 2.5 minutes. When the energy storage unit is fully charged, the initialization run is performed. During this process, the actuator automatically moves to the lower end position and then follows the control signal predefined by the control system.

6.3.1 Reinitialization

Personnel qualifications: **Electrical specialist**

When the actuator is reinstalled, the valve stroke must be reinitialized.

- ▶ Open the inspection cover.
- ▶ Switch one of switches 4 to 6 back and forth.
- ▶ Close the inspection cover.

7 Operation

7.1 After triggering the emergency regulation function

If the emergency regulation function is triggered, a voltage of DC 0 V is output by the feedback signal.

If the emergency regulation function was triggered and the nominal voltage is restored, the energy storage unit is fully charged up again first. The actuator remains in the preset emergency control end position until then. After that, the actuator moves to the lower end position and then follows the control signal.

8 Maintenance

Maintenance

The actuator does not require maintenance.

Cleaning

The actuator does not require cleaning.

9 Faults and remedial measures



WARNING

Hot and cold surfaces!

If a hardware or software error occurs, there may be unexpected movements and the valve may open. There is a risk of severe burns or hypothermia from contact with hot or cold surfaces on the valves and pipelines.

- ▶ Wear protective gloves



CAUTION

Short circuit caused by charged energy storage unit!

Due to the charged energy storage unit, pressing the switches with a conductive object may result in burns even if the voltage supply is separated.

- ▶ Remove and set down conductive jewelry from your hand or arm.
- ▶ Do not use any conductive tools to press the switches.

Personnel qualifications: **Fitter and/or electrical specialist**

Error	Cause	Remedy
No actuator control in automatic mode	Power failure	▶ Identify and correct the cause.
	Actuator is incorrectly connected	▶ Check and correct the connection.
	Short circuit due to incorrect connection	▶ Check and correct the connection.
Actuator runs unstably	Voltage drop because the electrical connection line is too long and/or the cross section is too small	▶ Measure the operating voltage. Recalculate and replace the connection lines.
	Mains fluctuations greater than the permitted tolerance	▶ Improve the mains conditions.
Actuator stops intermittently	Supply line has a loose connection	▶ Check and tighten the connections on the terminal strip.
Actuator does not move or does not correctly move to the valve position specified by the input signal; valve does not close or open.	Valve jams	▶ Ensure that the valve moves freely or replace the valve.
	Differential pressure is too high	▶ Set the differential pressure correctly.
	Main board is defective	▶ Contact your Kieback&Peter contact person.

LED states

LED flashes green in 1 s cycle	Initialization is running or initialization was not completed successfully
LED flashes red in 1 s cycle	Energy storage unit is being charged
LED lights up green permanently	Initialization was successfully completed, control operation
LED lights up red permanently	Blockage, intervention necessary
	Trigger initialization or briefly interrupt power supply

10 Repair

At the installation location, the valve/actuator combination can only be repaired by replacing the valve or actuator. Contact your Kieback&Peter contact person.

11 Decommissioning, Removal and Disposal

11.1 Taking the actuator out of operation

Personnel qualifications: **Electrical specialist**



WARNING

Hot and cold surfaces!

If a hardware or software error occurs, there may be unexpected movements and the valve may open. There is a risk of severe burns or hypothermia from contact with hot or cold surfaces on the valves and pipelines.

- ▶ Wear protective gloves
-



CAUTION

Short circuit caused by charged energy storage unit!

Due to the charged energy storage unit, pressing the switches with a conductive object may result in burns even if the voltage supply is separated.

- ▶ Remove and set down conductive jewellery from your hand or arm.
 - ▶ Do not use any conductive tools to press the switches.
-



CAUTION

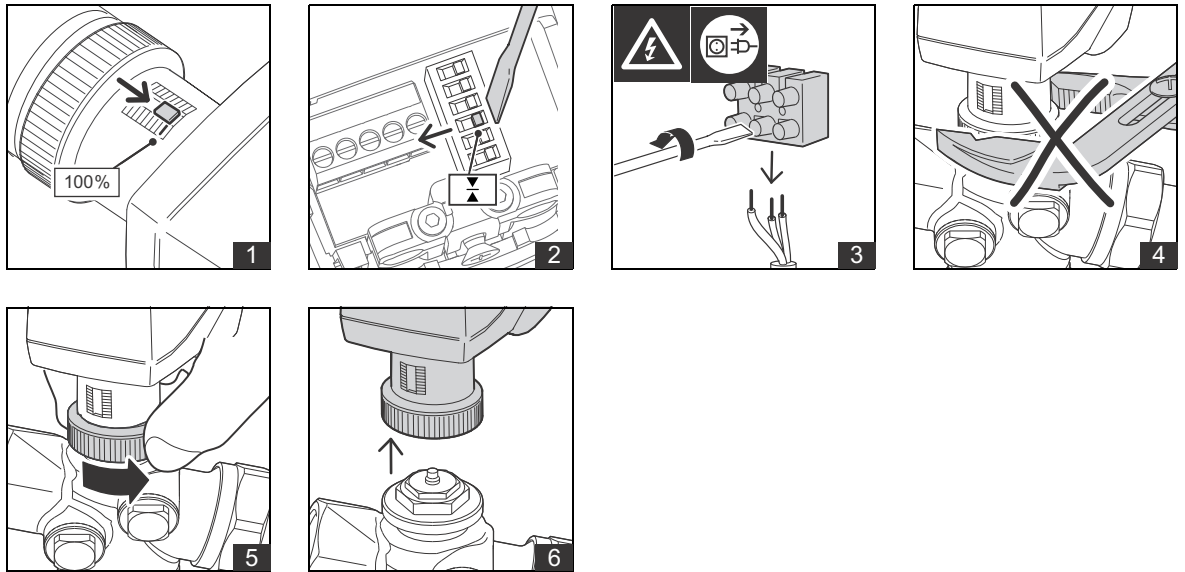
Without the nominal voltage, the actuator may move onto the valve with the maximum positioning force. The union nut can then no longer be loosened by hand.

To make it easier to loosen the union nut, move the actuator to the upper end position before commencing disassembly work.

-
- ▶ Move the actuator to the upper end position using a control signal.
 - ▶ Press switch 3 (change the switch position).
 - ▶ Ensure that there is no power.
 - ▶ Remove the connection cable from the terminal.
-

11.2 Dismounting the actuator from the RBQ 15..32

Personnel qualifications: **Fitter**



- ▶ **1** Move the actuator to the top position using a control signal.
- ▶ **2** Press switch 3 (for changing the switch position).
- ▶ **3** Disconnect the actuator from the power supply and disconnect all electrical cables.
- ▶ **4** CAUTION! Do not use a pipe wrench. Actuator and valve may be damaged.
- ▶ **5** Loosen the union nut.
- ▶ **6** Remove the actuator from the valve.

11.3 Disassembling the valve

Personnel qualifications: **Fitter**

- ▶ No differential pressure must occur on the valve body. Close the gate valve and turn off pumps.
- ▶ Loosen the screw fittings between the pipeline and the valve connections.
- ▶ Remove the valve from the pipeline.

11.4 Note on disposal

In accordance with the applicable laws and directives of the European Union countries, the product should not be disposed of with household waste. This ensures environmental protection and sustainable recycling or raw materials. Commercial users should contact their supplier and observe the conditions of the purchase agreement. This device may not be disposed of together with other commercial waste.

12 Contact persons

Orders and questions

If you want to submit an order, have questions or require technical information, please contact your Kieback&Peter contact person.

Repair service

If your device has a defect, firstly contact your Kieback&Peter contact person to clarify how to proceed.

Repair queries must include a delivery note in which the defect is clearly described and which contains a contact address for any further issues. The package must have sufficient postage paid and is to be sent to:

Kieback&Peter GmbH & Co. KG
Dahmestrasse 18-19, 15749 Mittenwalde/Germany

13 Declarations of conformity

Kieback&Peter

EU-KONFORMITÄTSERKLÄRUNG EU-DECLARATION OF CONFORMITY



Kieback&Peter GmbH & Co. KG

Tempelhofer Weg 50
12347 Berlin / Germany

Dokumentationsbevollmächtigte/
Authorized Representative for Documentation:
Lydia Bruchno / Eva Franke

bestätigt in alleiniger Verantwortung, dass das
bezeichnete Produkt

declares in sole responsibility that the designated
product

Stellantrieb

Actuator

MF15-R-Q

in Verbindung mit Ventilen der Serie

in combination with valves from the series

RBQ15..32

auf das sich diese Erklärung bezieht, den
Anforderungen entspricht, die in den folgenden
europäischen Richtlinien festgelegt sind:

to which this declaration refers, corresponds to the
requirements which are stipulated in the following
European directives:

- **2006/42/EG** Maschinenrichtlinie
- **2014/35/EU** Niederspannungsrichtlinie
- **2014/30/EU** elektromagnetische
Verträglichkeit
- **2011/65/EU** RoHS-Richtlinie
- **2006/42/EC** Directive Machinery
- **2014/35/EU** Low Voltage Directive
- **2014/30/EU** electromagnetic compatibility
- **2011/65/EU** Restriction of certain Hazardous
Substances

Angewendete harmonisierte Normen:

Harmonised standards applied:

DIN EN 60730-2-14:2009-06
DIN EN ISO 12100:2011-03

Unterzeichnet für und im Namen von:

Signed for and on behalf of:

Berlin,
17 April 2020

(ppa. Rainer Mahling)

Geschäftsleitung
Solution & Support Center

Managing Director
Solution & Support Center

(i.V. Frank Külich)

Bereichsleitung
Produktentwicklung

Head of
Product Development

14 Index

A

Accessories	15
Actuator dimensions	13
Adapting actuator functions	20

C

Contact persons	26
---------------------------	----

D

Declaration of conformity	27
Decommissioning	24
Dimensions of the actuator with valve	14
Disposal	25

E

Electrical connection	19
Emergency regulation function	22

F

Faults and remedial measures	23
--	----

I

Installation	16
Installation conditions	16
Intended use	9

M

Maintenance	22
-----------------------	----

P

Personnel qualifications	
Electrical engineering specialist	8
Fitter	8

Q

Qualification of personnel	8
--------------------------------------	---

R

RBQ15..32 valves	13
Reinitialization	22
Repair service	26

S

Scope of delivery	15
Storage	15
Switch	
Control range	21
Switches	
Characteristic curve compensation	21
Emergency control end position	21
Valve exercise	21
Volume flow range	21

T

Technical data	12
Transport	15

W

Wiring diagrams	19
---------------------------	----

