

**Product Description****M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Connection**

M300KY for AC 24 V mains voltage with DC 0 V to 10 V continuous control for two-way and three-way valves.



Änderungen vorbehalten - Contents subject to change - Sous réserve de modifications - Reservado el derecho a modificación - Wijzigingen voorbehouden - Con riserva di modifiche - Innehåll som skall ändras - Změny vyhrazeny - Zmiany zastrzeżone - Возможны изменения - A változtatások jogát fenntartjuk - 保留未经通知而改动的权力

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

<b>Content</b>	<b>Page</b>
Important Information Regarding Product Safety .....	3
M300KY Actuator .....	4
Application .....	4
Item .....	4
Technical Data .....	4
Accessories (not included in delivery) .....	4
Dimensions .....	5
Connection .....	5
Manual/Automatic Mode .....	6
Installation .....	7
RK65..100(-BF)M300KY Three-Way/Two-Way Valves with Actuator .....	9
Types .....	9
Technical Data: RK..(-BF) Valves .....	9
RF65..100(-BF)M300KY Three-Way/Two-Way Valves with Actuator .....	11
Types .....	11
Technical Data: RK..(-BF) Valves .....	11
RD65..100M300KY Two-Way Valve with Actuator .....	13
Types .....	9
Technical Data: RD.. Valves .....	13
RWD65..100M300KY Three-Way Valves with Actuator .....	15
Types .....	9
Technical Data: RWD.. Valves .....	15
RGD50..100M300KY Two-Way Valves with Actuator .....	17
Types .....	9
Technical Data: RGD.. Valves .....	17
RWG50..100M300KY Three-Way Valves with Actuator .....	19
Types .....	9
Technical Data: RWG.. Valves .....	19
Valve Installation .....	21
Valve Cross-Sections with Flow Directions .....	22
Installation of the M300KY Actuator .....	23
Commissioning .....	24
General Information .....	24
Adapting the Y control signal to the nominal stroke of the fixture after drive installation .....	24
Change of Direction .....	26

**Product Description****M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series**Important Information Regarding Product Safety****Safety Instructions**

This data sheet contains information on installing and commissioning the product "M300KY". Each person who carries out work on this product must have read and understood this data sheet. If you have any questions that are not resolved by this data sheet, you can obtain further information from the supplier or manufacturer.

If the product is not used in accordance with this data sheet, the protection provided will be impaired.

Applicable regulations must be observed when installing and using the device. Within the EU, these include regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies). If the device is used in other countries, it is the responsibility of the system installer or operator to comply with local regulations.

Mounting, installation and commissioning work on the devices may only be carried out by qualified technicians. Qualified technicians are persons who are familiar with the described product and who can assess given tasks and recognize possible dangers due to technical training, knowledge and experience as well as knowledge of the appropriate regulations.

**Legend****WARNING**

Indicates a hazard of medium risk which can result in death or severe bodily injury if it is not avoided.

**CAUTION**

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

**CAUTION**

Indicates a hazard of medium risk which can result in material damage or malfunctions if it is not avoided.

**NOTE**

Indicates additional information that can simplify the work with the product for you.

**Notes on Disposal**

For disposal, the product is considered waste from electrical and electronic equipment (electronic waste) and must not be disposed of as household waste. Special treatment for specific components may be legally binding or ecologically sensible. The local and currently applicable legislation must be observed.

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

**M300KY Actuator**

**Application**

The M300KY compact actuator, with a positioning force of 2,200 N, is used for fine stroke adjustment of two-way and three-way valves of types RK65..100(-BF), RF65..100(-BK), RD65..100(-BF), RWD65..100, RGD50..100 and RWG50..100.  
Control is handled using a constant Y signal of DC 0 to 10 V.



**Item**

M300KY AC 24 V actuator with DC 0 V to 10 V continuous control for two-way and three-way valves.

**Technical Data**

Nominal voltage	AC 24 V ± 10%, 10.6 VA
Actuator	Reversible synchronous motor
Limit stop	Force-dependent motor switch-off via micro-switches at the valve end positions
Control	Continuous with control voltage Y DC 0 V to 10 V, 0.1 mA, invertible
Stroke	30 mm max.
Position indication	Bridge within the position marks on the actuator
Position feedback	DC 0 V to 10 V, 5 mA for 100% nominal stroke
Travel time	6.6 s/mm nominal stroke, approx. 200 s for 30 mm nominal stroke
Positioning force	2.200 N
Ambient temp.	0 °C to 50 °C
Degree of protection	IP54
Protection class	III in accordance with EN 60730 I in acc. with EN 60730 with end switch E
Installation position	Anywhere from vertical above the valve to a horizontal position
Manual mode	By means of lifting button and handwheel on actuator
Maintenance	The working drive is maintenance-free. Depending on the operating conditions, the threaded spindle should be greased as needed.
Weight	4.9 kg

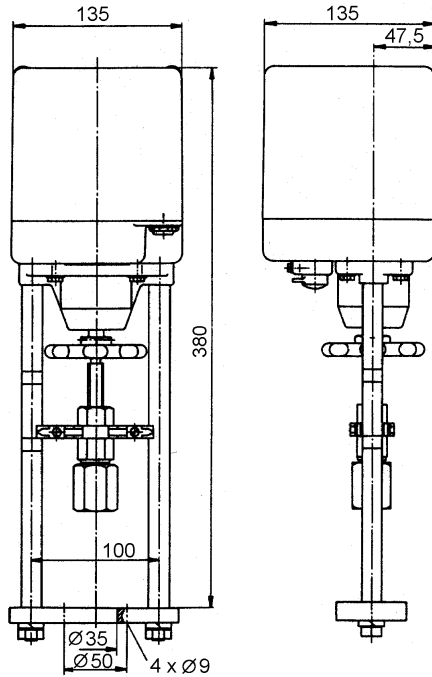
**Accessories (not included in delivery)**

E/M200-M300 Switch module with two additional end switches, voltage-free, max. AC 250 V, 3 A for feedback about both valve end positions (open/closed).

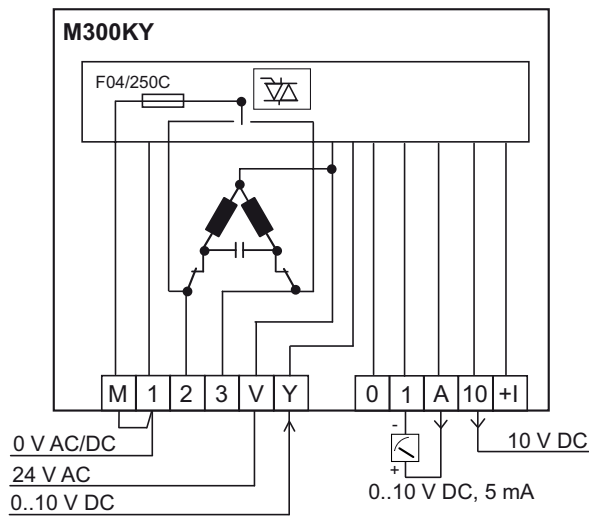
**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

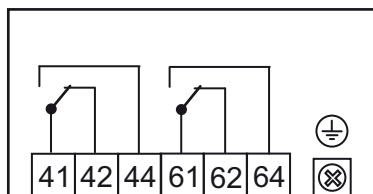
**Dimensions**



**Connection**



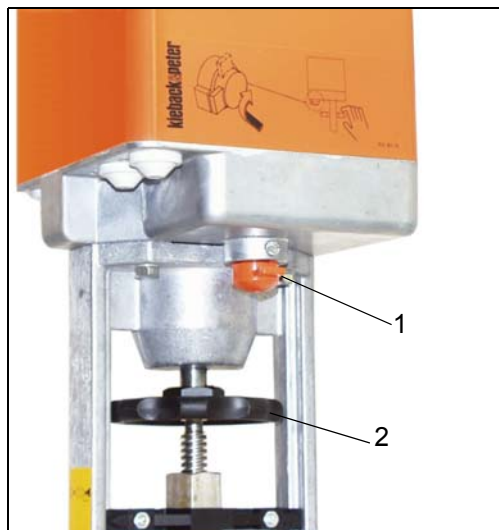
**Connecting accessories**



Additional end switches E/M200-M300, max. AC 250V, 3A

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description****Manual/Automatic Mode**

(1) Lifting button  
(2) Handwheel

- ▶ Press the red lifting button (1) and engage (quarter turn) for manual mode.
- ▶ Adjust manually by turning the handwheel (2).
- ▶ To return to automatic mode, the lifting button (1) must be disengaged again.

**Product Description****M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series**Installation****WARNING****Warning: Mains voltage AC 230 V.**

Electrical installation and unit connection may only be carried out by qualified technicians.

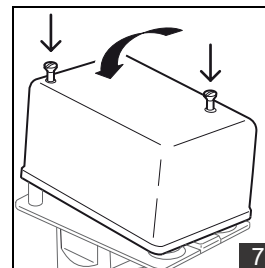
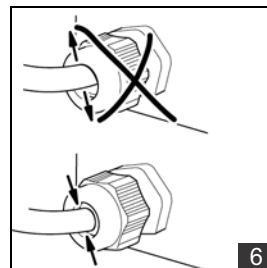
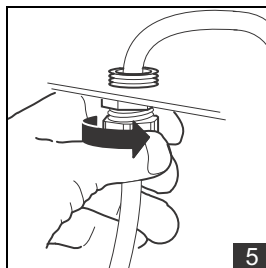
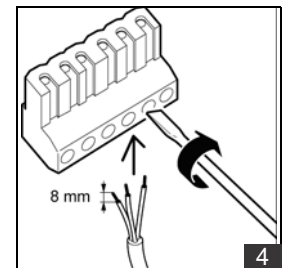
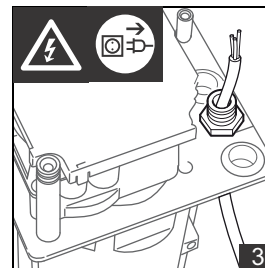
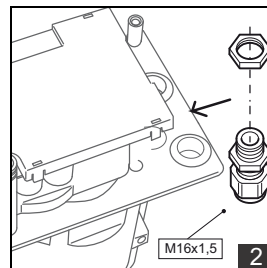
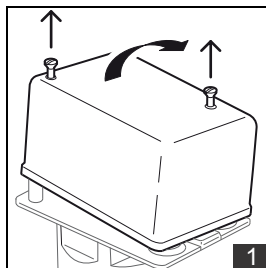
The mains supply may only be connected after the electrical installation.

Be sure to comply with VDE guidelines and local wiring regulations.

The device is connected according to the obligatory wiring diagram.

**CAUTION****The actuator must be electrically connected as a fixed installation.**

An M16 x 1.5 screw fitting (included in the scope of delivery of the actuator) is to be used as a strain relief device. The electrical connection is to be made using plug-in screw terminals (connection diameter 0.3 mm to 2.3 mm). Cables between the low voltage lines (AC 230 V) and the other lines (e.g. positioning feedback connection) must be routed separately.



**M300KY Actuator**

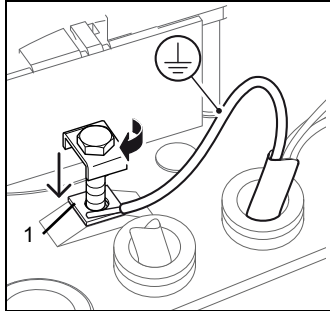
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description****WARNING**

If low voltage (AC 230 V) is applied, the device must be installed to meet the requirements of protection class I.

The contacts on the end switches must only be used with voltages of the same installation category.

The wiring of the PE terminal must be connected between the terminal clip and the square washer (Cupal washer), with the copper-coated side of the washer facing the terminal clip.



Copper-coated side (1) of the square washer (Cupal washer)



**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**RK65..100(-BF)M300KY Three-Way/Two-Way Valves with Actuator****Application**

The gray cast iron three-way valves and two-way valves with M300KY actuator are used for the precise mixing and flow rate control of liquids.

The valves are used as two-way valves with the BF blank flange on gate B. Control is handled using a constant Y signal of DC 0 to 10 V.

**Types**

RK.. gray cast-iron 3-way valves with M300KY actuator for water up to 120 °C, 6 bar

	<b>DN</b>	<b>PN</b>	<b>kvs</b>	<b>Δp (bar)</b>	<b>Travel time (s)</b>	<b>Weight (kg)</b>
RK65/50M300KY	65	6	50	5.6	132	19.6
RK65M300KY	65	6	63	5.6	132	19.6
RK80/80M300KY	80	6	80	3.6	200	26.9
RK80M300KY	80	6	100	3.6	200	26.9
RK100/125M300KY	100	6	125	2.5	200	35.9
RK100M300KY	100	6	160	2.5	200	35.9



RK..-BF gray cast-iron 2-way valves with M300KY actuator for water up to 120 °C, 6 bar

	<b>DN</b>	<b>PN</b>	<b>kvs</b>	<b>Δp (bar)</b>	<b>Travel time (s)</b>	<b>Weight (kg)</b>
RK65/50-BFM300KY	65	6	50	5.6	132	22.8
RK65-BFM300KY	65	6	63	5.6	132	22.8
RK80/80-BFM300KY	80	6	80	3.6	200	31.2
RK80-BFM300KY	80	6	100	3.6	200	31.2
RK100/125-BFM300KY	100	6	125	2.5	200	42.0
RK100-BFM300KY	100	6	160	2.5	200	42.0

**Technical Data: RK..(-BF) Valves**

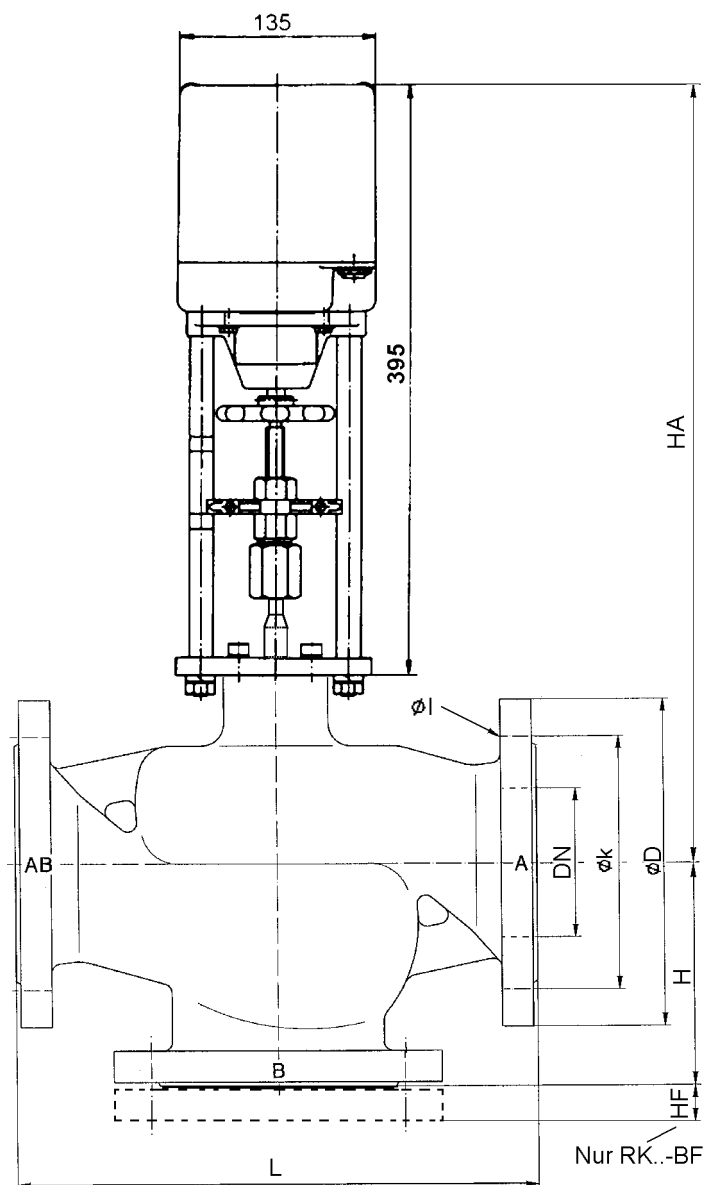
Nominal diameter	DN65 to 100
Pressure rating	PN 6
Connection	Flange in accordance with EN 1092-2 Type 21
Characteristic curve	RK.. Gates A → AB = same percentage Gates B → AB = linear RK..-BF Gates A → AB = same percentage
Nominal stroke	RK65(-BF): 20 mm RK80..100(-BF): 30 mm
Leak rate	In accordance with EN 1349, leakage class VI
Medium temperature	0 °C to 130 °C (max. 120 °C at 6 bar)
Housing	Gray cast-iron EN-JL1040
Cone	Brass CW614N
Valve spindle	CrMo steel 1.4122
Spindle seal	EPDM O-rings, maintenance-free

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

**Dimensions**



DN	L	H	HA	HF (RK..-BF)	Ø D	Ø k	Ø I
65	290	120	502	ca. 16	160	130	4x Ø 14
80	310	130	514	ca. 18	190	150	8x Ø 18
100	350	150	521	ca. 18	210	170	8x Ø 18
Dimensions L to I in mm							

**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**RF65..100(-BF)M300KY Three-Way/Two-Way Valves with Actuator****Application**

The gray cast iron three-way valves and two-way valves with M300KY actuator are used for the precise mixing and flow rate control of liquids.

The valves are used as two-way valves with the BF blank flange on gate B.  
Control is handled using a constant Y signal of DC 0 to 10 V.

**Types**

RF.. gray cast-iron 3-way valves with M300KY actuator for water up to 120 °C, 16 bar

	DN	PN	kvs	$\Delta p$ (bar)	Travel time (s)	Weight (kg)
RF65/50M300KY	65	16	50	5.6	132	24.9
RF65M300KY	65	16	63	5.6	132	24.9
RF80/80M300KY	80	16	80	3.6	200	28.9
RF80M300KY	80	16	100	3.6	200	28.9
RF100/125M300KY	100	16	125	2.3	200	40.9
RF100M300KY	100	16	160	2.3	200	40.9

RK..-BF gray cast-iron 2-way valves with M300KY actuator for water up to 120 °C, 16 bar

	DN	PN	kvs	$\Delta p$ (bar)	Travel time (s)	Weight (kg)
RF65/50-BFM300KY	65	16	50	5.6	132	29.7
RF65-BFM300KY	65	16	63	5.6	132	29.7
RF80/80-BFM300KY	80	16	80	3.6	200	34.7
RF80-BFM300KY	80	16	100	3.6	200	34.7
RF100/125-BFM300KY	100	16	125	2.3	200	47.8
RF100-BFM300KY	100	16	160	2.3	200	47.8

**Technical Data: RK..(-BF) Valves**

Nominal diameter	DN65 to 100
Pressure rating	PN 16
CE marking	CE marking, notified body: 0045
Connection	Flange in accordance with EN 1092-2 Type 21
Characteristic curve	RF.. Gates A → AB = same percentage Gates B → AB = linear RF..-BF Gates A → AB = same percentage
Nominal stroke	RF65(-BF): 20 mm RF80..100(-BF): 30 mm
Leak rate	In accordance with EN 1349, leakage class V
Medium temperature	0 °C to 130 °C
Housing	Gray cast-iron EN-JL1040
Cone	Brass CW614N
Valve spindle	CrMo steel 1.4122
Spindle seal	EPDM O-rings, maintenance-free

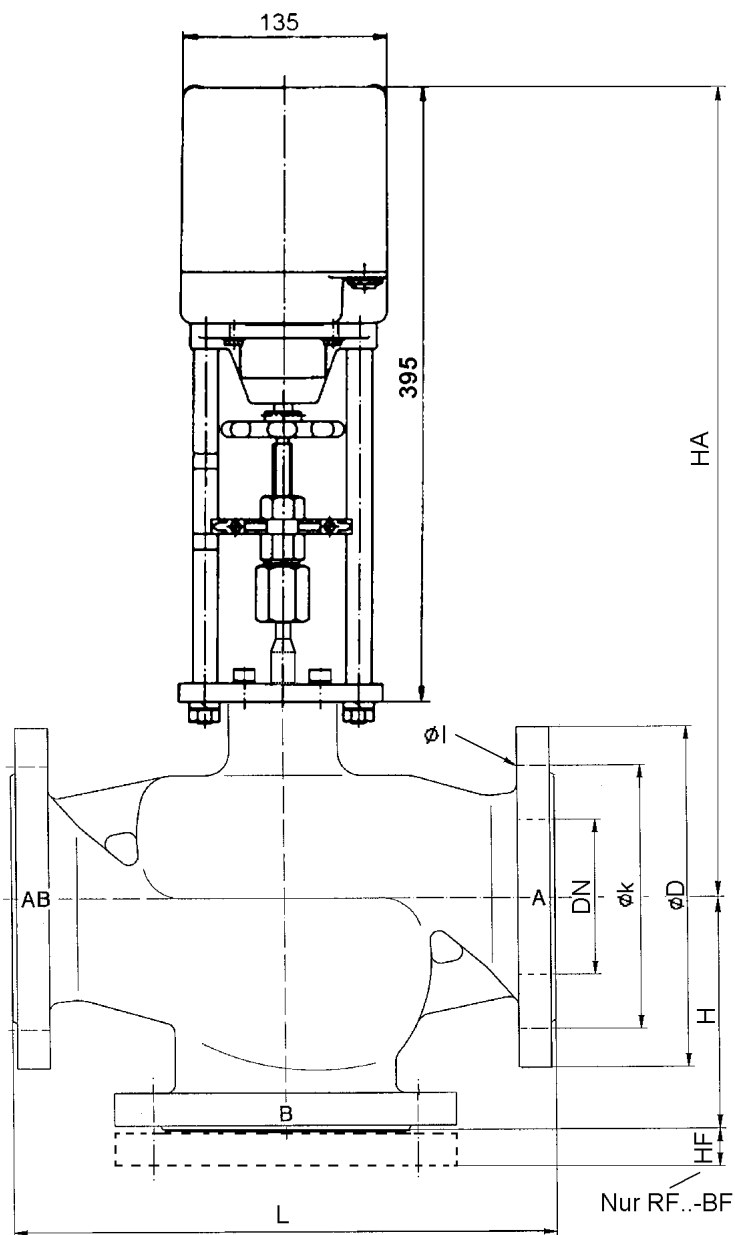


**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

**Dimensions**



DN	L	H	HA	HF (RK..-BF)	Ø D	Ø k	Ø I
65	290	120	502	ca. 20	185	145	4x Ø 18
80	310	130	514	ca. 22	200	160	8x Ø 18
100	350	150	521	ca. 22	220	180	8x Ø 18
Dimensions L to I in mm							

**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**RD65..100M300KY Two-Way Valve with Actuator****Application**

The nodular iron two-way valves with M300KY actuator are used for mixing liquids, gases and vapors precisely.

Control is handled using a constant Y signal of DC 0 to 10 V.

**Types**

RD.. nodular iron two-way valves with M300KY actuator for water up to 120 °C, 16 bar, as well as for hot water and steam up to 200 °C, 13 bar

	<b>DN</b>	<b>PN</b>	<b>kvs</b>	<b>Δp (bar)</b>	<b>Travel time (s)</b>	<b>Weight (kg)</b>
RD65M300KY	65	16	63	3	200	22.6
RD100M300KY	100	16	160	1	200	44.6

**Technical Data: RD.. Valves**

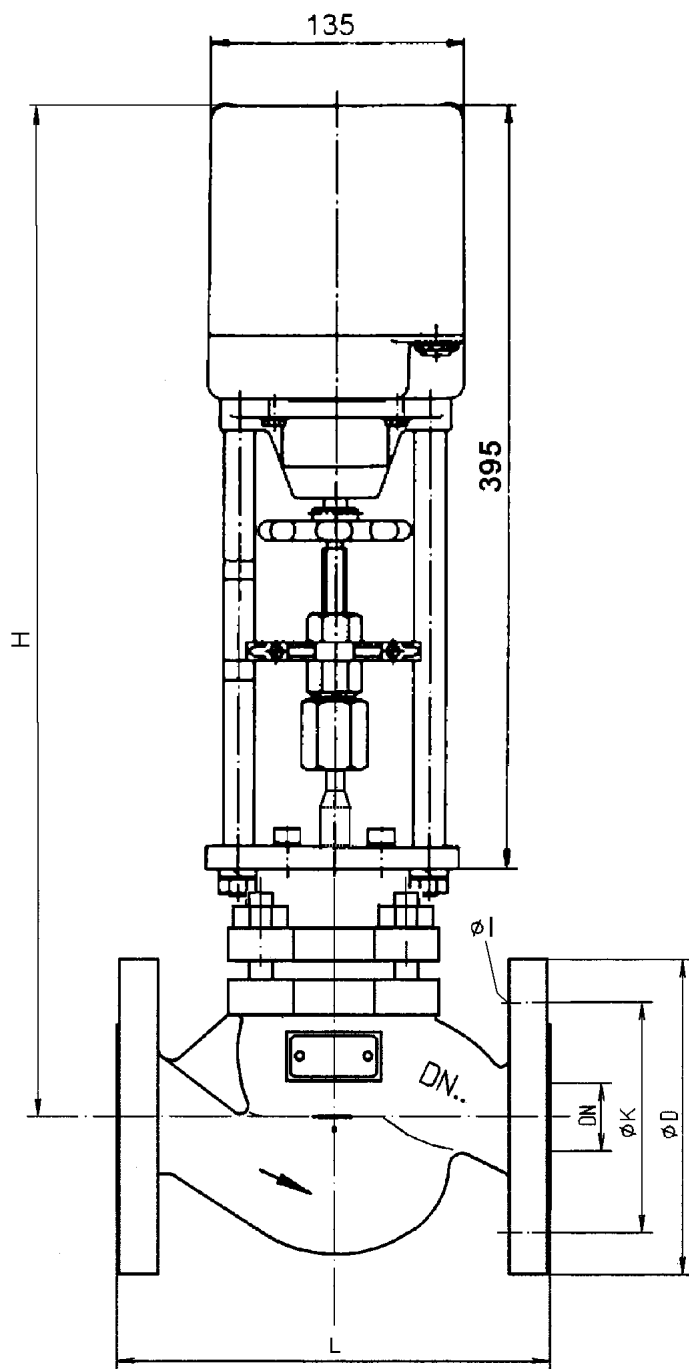
Nominal diameter	DN65 to 100
Pressure rating	PN16
CE marking	CE marking, notified body: 0045
Connection	Flange according to DIN, PN16
Characteristic curve	Equal percentage
Nominal stroke	30 mm
Leak rate	In acc. with EN 1349, leakage class IV
Medium temperature	0 °C to 200 °C
Housing	Nodular ironGGG-40.3
Seat ring	Stainless steel 1.4021
Cone	Stainless steel 1.4021
Valve spindle	Stainless steel 1.4021
Spindle seal	Univerdit gaskets with PTFE sleeve

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

**Dimensions**



DN	L	H	Ø D	Ø K	Ø I
65	290	517.5	185	145	4x Ø 18
100	350	552	220	180	8x Ø 18
Dimensions L to I in mm					

**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**RWD65..100M300KY Three-Way Valves with Actuator****Application**

The nodular iron three-way valves with M300KY actuator are used for precisely regulating liquid flowrates.

Control is handled using a constant Y signal of DC 0 to 10 V.

**Types**

RWD.. nodular iron 3-way valves with M300KY actuator for water up to 120 °C, 16 bar, as well as for hot water and steam up to 200 °C, 13 bar

	<b>DN</b>	<b>PN</b>	<b>kvs</b>	<b>Δp (bar)</b>	<b>Travel time (s)</b>	<b>Weight (kg)</b>
RWD65M300KY	65	16	63	3	200	32.6
RWD100M300KY	100	16	160	1	200	51.6

**Technical Data: RWD.. Valves**

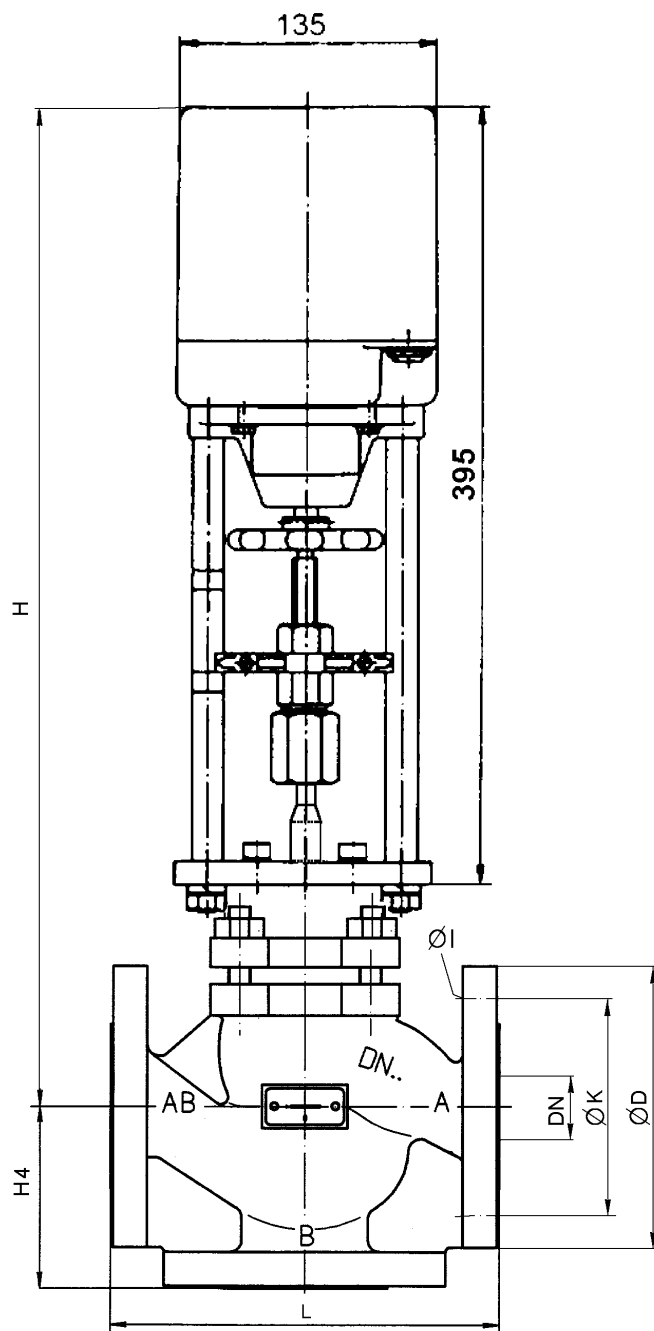
Nominal diameter	DN65 to 100
Pressure rating	PN 16
CE marking	CE marking, notified body: 0045
Connection	Flange according to DIN, PN16
Characteristic curve	Gates A → AB = same percentage Gates B → AB = linear
Nominal stroke	30 mm
Leak rate	In accordance with EN 1349, leakage class VI
Medium temperature	0 °C to 200 °C
Housing	Nodular iron GG-40.3
Seat ring	Stainless steel 1.4021
Cone	Stainless steel 1.4021
Valve spindle	Stainless steel 1.45711
Spindle seal	Gaskets Univerdit with PTFE sleeve

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

**Dimensions**



DN	L	H	H4	Ø D	Ø K	Ø I
65	290	561	120	185	145	4x Ø 18
100	350	595.5	150	220	180	8x Ø 18
Dimensions L to I in mm						



**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**RGD50..100M300KY Two-Way Valves with Actuator****Application**

The nodular iron two-way valves with M300KY actuator are used for precisely regulating liquid and vapor flowrates.

Control is handled using a constant Y signal of DC 0 to 10 V.

**Types**

RGD.. nodular iron two-way valves with M300KY actuator for water up to 120 °C, 25 bar, as well as for hot water and steam up to 200 °C, 20 bar

	<b>DN</b>	<b>PN</b>	<b>kvs</b>	<b>Δp (bar)</b>	<b>Travel time (s)</b>	<b>Weight (kg)</b>
RGD50M300KY	50	25	40	8.3	200	16.1
RGD65M300KY	65	25	63	4.6	200	20.4
RGD80M300KY	80	25	100	2.9	200	26.4
RGD100M300KY	100	25	160	1.7	200	39.9

**Technical Data: RGD.. Valves**

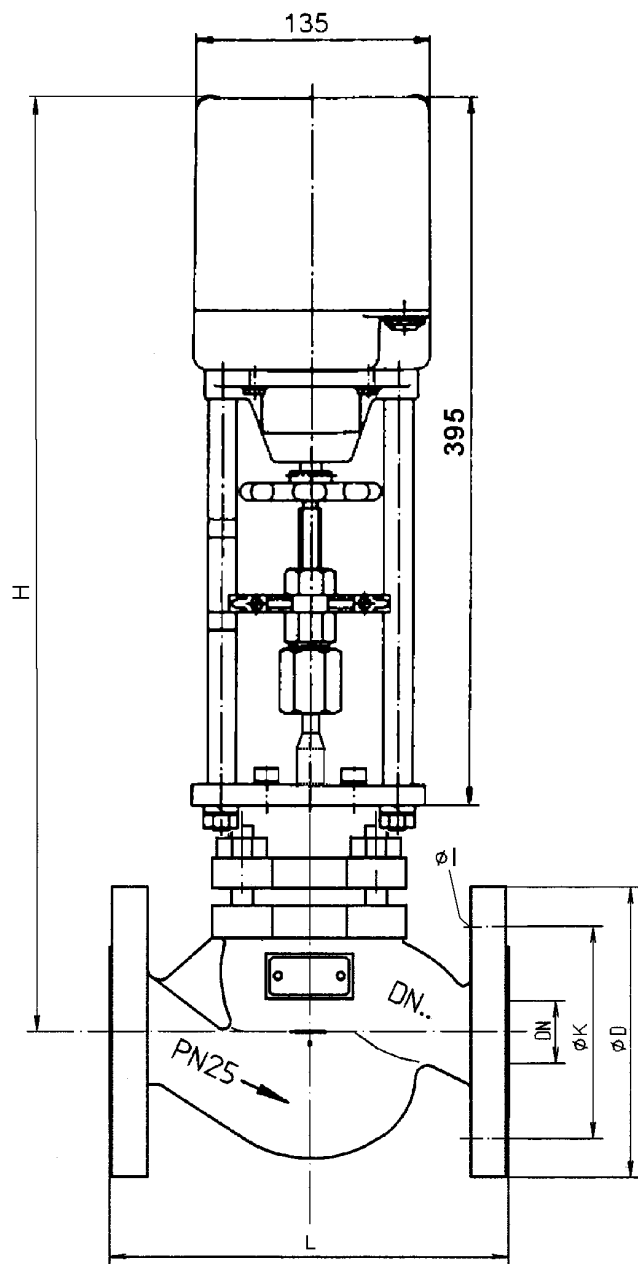
Nominal diameter	DN65 to 100
Pressure rating	PN 25
CE marking	CE marking starting from DN32, notified body: 0525
Connection	Flange according to DIN, PN25
Characteristic curve	Equal percentage
Nominal stroke	30 mm
Leak rate	In accordance with EN 1349, leakage class VI
Medium temperature	0 °C to 200 °C
Housing	Nodular ironGGG-40.3
Seat ring	Stainless steel 1.4021
Cone	Stainless steel 1.4571
Valve spindle	Stainless steel 1.4571
Spindle seal	Univerdit gaskets with PTFE sleeve

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

**Dimensions**



DN	L	H	Ø D	Ø K	Ø I
50	230	502	165	125	4x Ø 18
65	290	517.5	185	145	8x Ø 18
80	310	533.5	200	160	8x Ø 18
100	350	552	235	190	8x Ø 22
Dimensions L to I in mm					

**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**RWG50..100M300KY Three-Way Valves with Actuator****Application**

The nodular iron three-way valves with M300KY actuator are used for precisely regulating liquid flowrates.

Control is handled using a constant Y signal of DC 0 to 10 V.

**Types**

RWG.. nodular iron 3-way valves with M300KY actuator for water up to 120 °C, 25 bar, as well as for hot water and steam up to 200 °C, 20 bar

	<b>DN</b>	<b>PN</b>	<b>kvs</b>	<b>Δp (bar)</b>	<b>Travel time (s)</b>	<b>Weight (kg)</b>
RWG50M300KY	50	25	40	8.3	200	20.7
RWG65M300KY	65	25	63	4.6	200	28.3
RWG80M300KY	80	25	100	2.9	200	34.9
RWG100M300KY	100	25	160	1.7	200	51.3

**Technical Data: RWG.. Valves**

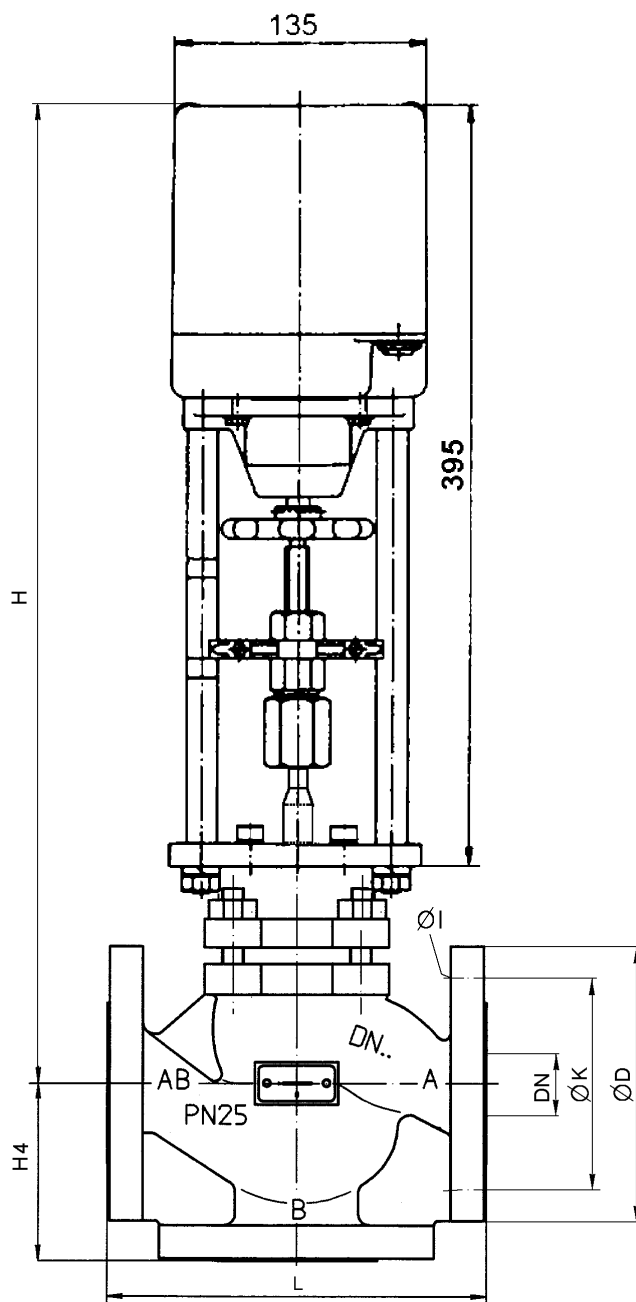
Nominal diameter	DN50 to 100
Pressure rating	PN 25
CE marking	CE marking, notified body: 0045
Connection	Flange according to DIN, PN25
Characteristic curve	Gates A → AB = same percentage Gates B → AB = linear
Nominal stroke	30 mm
Leak rate	In accordance with EN 1349, leakage class VI
Medium temperature	0 °C to 200 °C
Housing	Nodular iron GGG-40.3
Seat ring	Stainless steel 1.4021
Cone	CrNi steel 1.4021
Valve spindle	Stainless steel 1.4571
Spindle seal	Univerdit gaskets with PTFE sleeve (maintenance-free)

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

**Dimensions**



DN	L	H	Ø D	Ø K	Ø I
50	230	502	165	125	4 x Ø18
65	290	515.5	185	145	8 x Ø18
80	310	533.5	200	160	8 x Ø18
100	350	552	235	190	8 x Ø22
Dimensions L to I in mm					

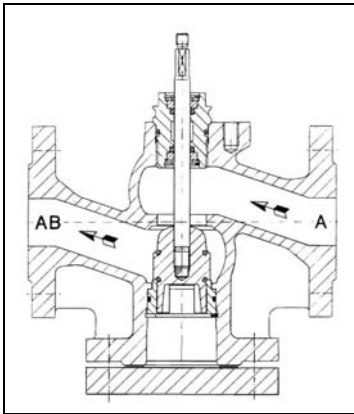
**Product Description****M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series**Valve Installation****CAUTION**

The valve may only be installed by qualified technicians. In addition to the generally valid installation guidelines, the following points are to be observed:

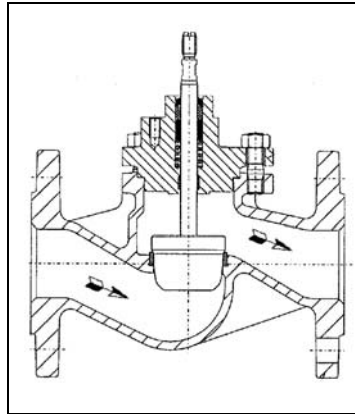
- The valve ports come with protective caps to protect against contamination. They are to be removed before installing the valves.
- The pipeline system and the interior of the fitting must be free of foreign objects. In the event of contaminated media, dirt collectors are to be inserted upstream of the valves.
- There must be no tension between the valve and the pipeline connection.
- Use only perfectly fitting flange seals, inserted centrally in the valve flanges.
- 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.
- When mounting, the permissible max. pressure difference  $\Delta p$  and the specified direction of flow must be taken into account (see table in "Types" section, as well as the "Valve Principle").
- The three-way valves are to be used as mixing valves. Pay attention to the direction of flow (see fig. "Valve Principle").
- The actuator can be installed vertically above the fixture, or in any position as far as a horizontal position. When installed horizontally, the drive pillars must be one upon the other. Where applicable, turn the cross member after loosening the retaining nut.
- To remove the actuator hood, approx. 180 mm of free space is required above the drive.
- The actuator is delivered with a protective box. Up until commissioning, this cover protects the drive during the installation phase and pipeline work.
- Observe the direction of flow arrow on the valve body. Inverting the direction of flow impairs control behavior.

**Valve Cross-Sections with Flow Directions**

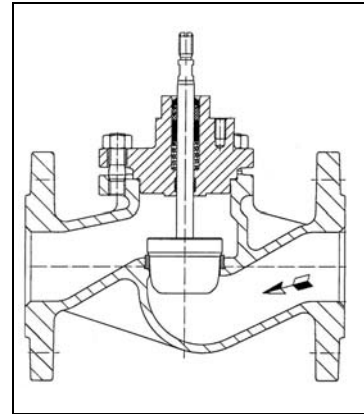
Two-way valves



RK/RF..-BF

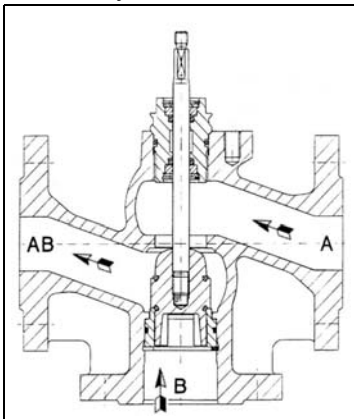


RD..

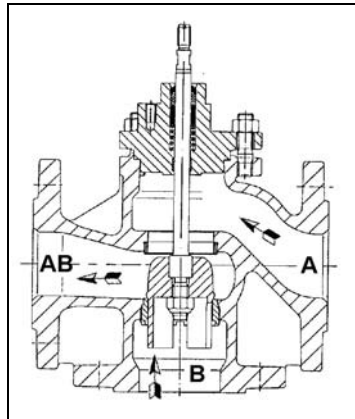


RGD..

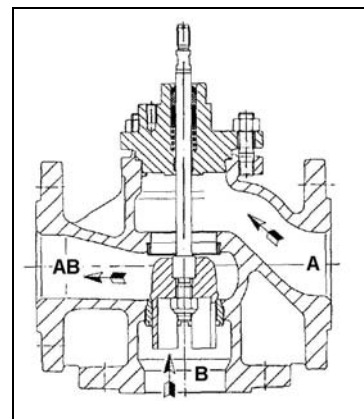
Three-way valves



RK/RF..



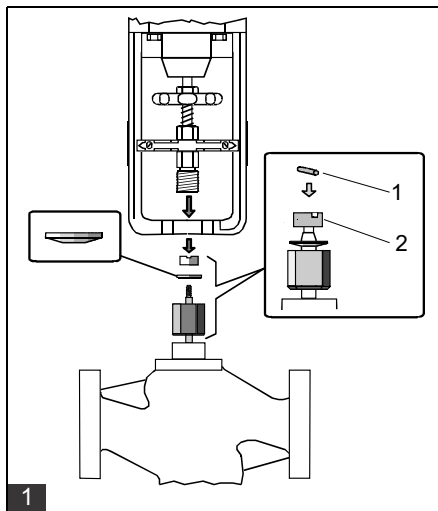
RWD..



RWG..

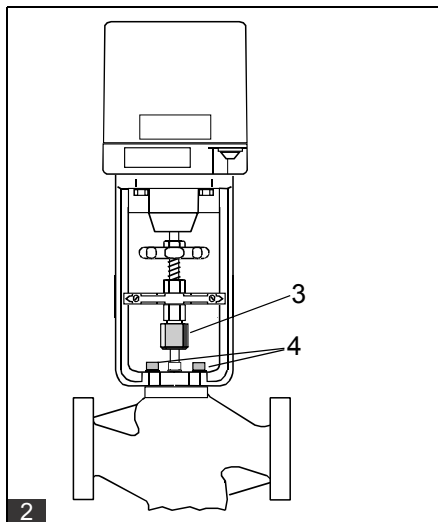
**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Installation of the M300KY Actuator**

(1) Pin  
(2) Threaded ring

- ▶ Screw upper surface of threaded ring (2) flush to upper surface of the valve stem. When doing this, align the slot of the threaded ring (2) with the slot of the valve stem so that the pin (1) can be inserted.
- ▶ Secure the threaded ring (2) with the pin (1).



(3) Union nut  
(4) Screws (2 or 3 screws depending on type of valve)

- ▶ Fasten the actuator in the valve flange with the screws (4) depending on the number of bores.
- ▶ Tighten the union nut (3) with the SW30 open-end wrench

**Installation instructions**

- If the valve is installed in the plant, ensure that no differential pressure builds up in the valve body before beginning work. If necessary, close the gate valve and switch off pumps.
- After the pipeline has cooled off, the actuator can be installed.
- The actuator is dismantled in reverse order.

**Commissioning**

**General Information**

The commissioning process may change if accessories are installed. In such cases, commissioning is described in the data sheet of the accessory that is being used.



**WARNING**

Caution: AC 230 V mains voltage may be present at the connection terminals of the switch module when the E/M200-M300 switch module is used.

**Adapting the Y control signal to the nominal stroke of the fixture after drive installation**

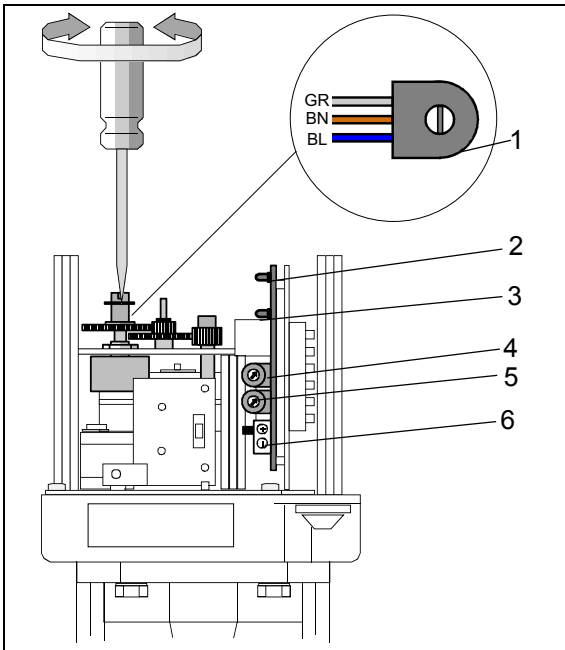


**NOTE**

When the actuator is delivered with the fixture installed, the Y actuating signal for the nominal stroke has already been set at the factory.

When the drive is delivered without the fixture, the Y actuating signal of the actuator is set to a basic setting.

- ▶ After the drive is installed and the device connected, the control for both valve end positions as well as some intermediate positions should be checked using the actuating signal Y= DC 0..10 V. To do this, control the actuator using the manual function of the loop controller or control system (actuating signal Y DC 0..10 V = valve stroke 0..100%).
- ▶ If required, the Y actuating signal must be adapted to the nominal stroke of the installed fixture.



- (1) Potentiometer connection
- (2) LED D17
- (3) LED D18
- (4) Trimmer P3
- (5) Trimmer P2
- (6) Direction switch

- ▶ Set the actuator to manual mode (push lifting button and engage)?, switch off the AC 24 V power supply and remove the actuator cover.
- ▶ Connect nominal voltage to terminal "V" = AC 24 V and terminal "2" = AC 0 V. Set the continuous Y signal from the loop controller to 0 V DC or disconnect terminal "Y" from the actuator.
- ▶ Switch on the power supply and set actuator to automatic mode (disengage lifting button). Actuator runs to the upper valve end position.

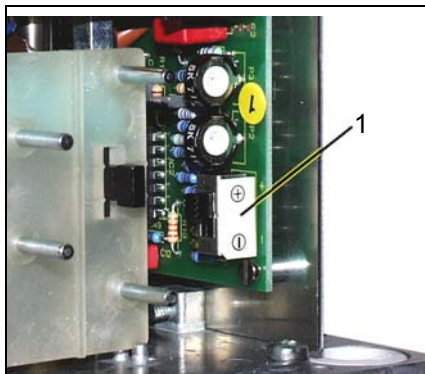


**CAUTION**

Danger of crushing, rotating parts

- ▶ Once the upper end position has been reached, set the actuator to manual mode (push lifting button and engage).
- ▶ Turn trimmers P2 (5) and P3 (4) to the right stop. Switch the direction switch to (-).
- ▶ Set potentiometer to 10  $\Omega$  to 20  $\Omega$  (measured between brown/blue connection lines).
- ▶ Switch off mains supply.
- ▶ Connect nominal voltage for normal operation (control mode) to terminal "V" = AC 24 V and terminal "1" = AC 0 V.
- ▶ Switch on mains supply. LED D17 (2) is illuminated.
- ▶ Slowly rotate trimmer P2 (5) to the left until LED D17 (2) goes out. Slowly rotate trimmer P2 (5) back to the right until LED D17 (2) just lights up again.
- ▶ Set actuator to automatic mode (disengage lifting button).
- ▶ Switch the direction switch to "+". LED D18 (3) is illuminated, LED D17 (2) is off. Actuator runs to lower valve end position.
  
- ▶ Once the lower end position has been reached, set the actuator to manual mode (push lifting button and engage).
- ▶ Slowly rotate trimmer P3 (4) to the left until LED D18 (3) goes out. Slowly rotate trimmer P3 (4) back to the right until LED D18 (3) just lights up again.
- ▶ Set the direction switch to "+" or "-" according to the valve function. See the Commissioning section.
- ▶ Set the loop controller back to automatic mode or reconnect the continuous Y signal to terminal "Y".
- ▶ Put the cover on and set actuator to automatic mode (disengage lifting button).
- ▶ Carry out function tests in loop controller manual and automatic modes.

**Change of Direction**



(1) Direction switch

- ▶ Switch off the power supply and take off the actuator cover.
- ▶ Set the direction switch (1) in the actuator to the direction you require.
- ▶ Replace the actuator cover and screw tightly into place.
- ▶ Switch on the power supply and check function.

Actuating direction	Two-way valve	Three-way valve
Switch position "+" Y= 10 V DC/ 20 mA		
Switch position "-" Y= 10 V DC/20 mA		
= open		= closed
		= flanged off

---

**Product Description**

**M300KY Actuator**  
with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

---

---

**M300KY Actuator**

with Two-Way/Three-Way Valves of the RK/RF/RD/RWD/RGD/RWG Series

**Product Description**

---