





**Device Description**

**F200/F200Y Electrokinematic Actuator with Emergency Function**  
With two-way valve (RD/RGD/RGDE)



Subject to change

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**Information about the device description**

The description contains information on the use, installation and commissioning of F200 and F200Y electrokinematic actuators with the valve series RD65, RGD15 to RGD80 and RGDE25 to RGDE80.

If you have any questions that are not covered by the device description, contact the supplier or manufacturer for further information.

The specified regulations/guidelines for installation and mounting are applicable for the Federal Republic of Germany.

When the actuating devices/valves/water jet pumps are used abroad, the local regulations are to be complied with at the personal responsibility of the system installer or operator.

Operating personnel are to be instructed according to the description of the technical data sheet.

**Safety instructions**

Adhere to applicable regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies) when mounting and using the actuators/motor valves.

Each person who uses the devices must have read and understood the descriptions on the technical data sheet.

Commissioning and servicing work on the actuator or valve may only be carried out by qualified technicians.

The actuator must be safely disconnected from the mains before removing the actuator cover.

When work is being carried out on the valves, the pipeline is to be depressurized and blocked before beginning work. Work may only be started when the medium has cooled down to the point that burning/scalding cannot occur.

Meanings of symbols on the technical data sheet:



Warning of dangerous electric voltage

Danger



General hazard warning

Danger



General warning; information in note must be observed

Caution



Additional note to be observed

Note

**Danger** Means that non-observance could lead to mortal danger, serious bodily injury or major material damage.

**Caution** Means that non-observance could risk injury or material damage.

**Note** Means that the information requires special attention.

**Qualified technicians**

Qualified technicians in the context of the technical data sheet are persons who are familiar with the described devices and have the necessary qualifications for their job.

This includes, for example:

- Authorization to connect the devices in accordance with VDE regulations and the local power company's regulations, as well as authorization to switch on, off and enable devices according to in-house regulations.
- Knowledge of accident prevention regulations.
- Knowledge of the use of devices within the system.
- etc.

**Device Description**

**F200/F200Y Electrokinematic Actuator with Emergency Function**  
With two-way valve (RD/RGD/RGDE)

**F200/F200Y electrokinematic actuator with emergency function**

**Application**

The F200 and F200Y electrokinematic actuators with emergency function are used to finely adjust the position of RD65, RGD15–RGD80 and RGDE15–RGDE80 two-way valves thanks to their thrust of 1000N.

The actuators have an emergency function, which uses spring force to automatically close the two-way valves when the power supply is interrupted.

F200 actuators are controlled with a 230V AC 3-point signal.

F200Y actuators are controlled for a 24V AC mains supply with a 0V to 10V DC “Y” control signal.

**Types**

F200	Electrokinematic actuator for 230V AC 3-point control; emergency function: two-way valve closed without power
F200Y	Electrokinematic actuator for 24V AC with constant 0V to 10V DC control; emergency function: two-way valve closed without power

**Technical data – F200**

Power	230V AC ±10%, 50Hz, 13.4VA at nominal voltage
Control	3-point control (open/stop/closed)
Emergency function	Two-way valve closed without power when the power supply is interrupted
Drive	Reversible synchronous motor
End switch	Force-dependent motor switch-off via micro-switch at the valve end positions
Actuating stroke	Max. 30mm
Actuating time	Approx. 4s/mm stroke
Emergency actuating time	With power supply interruption = 1s to 12s
Thrust	≥ 1000N
Position indicator	Bridge within the position marks
Installation position	From vertical above the valve to horizontal position
Ambient temp.	10°C to 50°C at the actuator
Degree of protection	IP54
Maintenance	Maintenance-free

**Technical data – F200Y**

Power	24V AC ±10%, 50Hz, 15.8VA at nominal voltage
Control	Continuous with “Y” control signal 0V to 10V DC, 0.5mA
Emergency function	Two-way valve closed without power when the power supply is interrupted
Drive	Reversible synchronous motor
End switch	Force-dependent motor switch-off via micro-switch at the valve end positions
Actuating stroke	Max. 30mm
Actuating time	Approx. 4s/mm stroke
Emergency actuating time	With power supply interruption = 1s to 12s
Thrust	≥ 1000N
Position indicator	Bridge within the position marks
Actuating feedback	0V to 10V DC, 0.5mA for 100% actuating stroke (0V = Two-way valve open, 10V = Two-way valve closed)
Installation position	From vertical above the valve to horizontal position
Ambient temp.	10°C to 50°C at the actuator
Degree of protection	IP54
Protection class	III in accordance with EN 60730 (F200Y) I in accordance with EN 60730 (F200 and F200Y with end switch E)
Maintenance	Maintenance-free

**Accessories not included in delivery**

E	Additional end switch on both sides, floating, max. load 250V AC, 3A
R1/1000	F200 only: 1000Ω feedback resistance for position feedback



F200 for RD/RG two-way valves



F200 for RGDE two-way valves

**F200/F200Y electrokinematic actuator with emergency function**

**Installation**



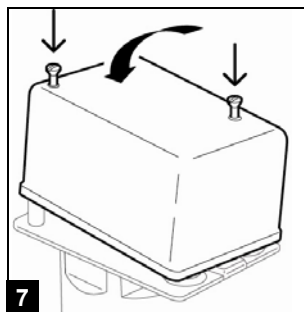
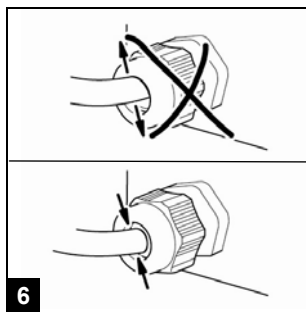
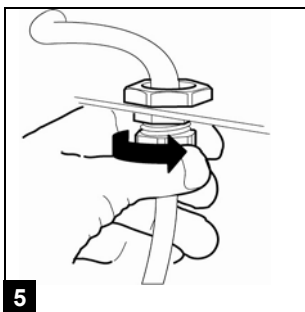
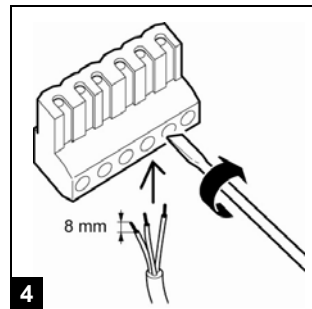
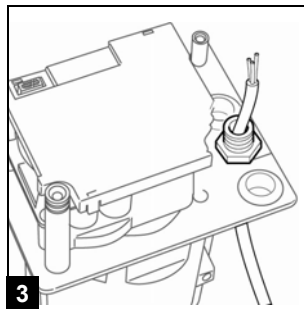
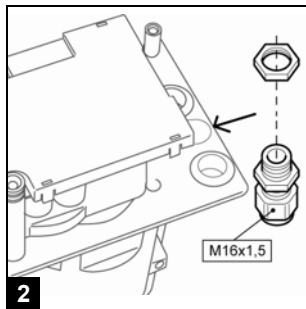
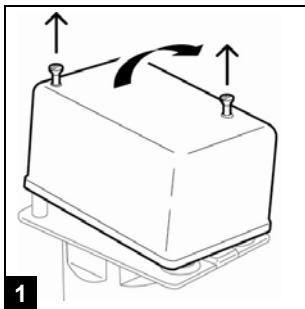
**Caution: 230V mains voltage on F200 actuators or the additional end switches (F200Y).**  
 Electrical installation and device connection may only be carried out by qualified technicians (e.g. an electrician).  
 The mains supply may only be connected during commissioning.



The emergency function of the F200/F200Y actuator closes the valve using high spring force when the power supply is interrupted.  
 The complete actuating device (actuator with valve) is delivered with a safety device between the actuator and valve. This locks the emergency function in the opened valve position.  
 The device may only be removed during commissioning after the mains power is switched on.  
 Ensure that the installation process complies with VDE guidelines and local wiring regulations.  
 The device is connected according to the obligatory wiring diagram.



**The electrical connection of the actuator must be carried out as a fixed installation.**  
 An M16x1.5 screw fitting is enclosed in the scope of delivery of the actuator to be used as a strain relief device. The electrical connection is to be made on the screw terminals (connection diameter 0.3mm – 2.3mm).

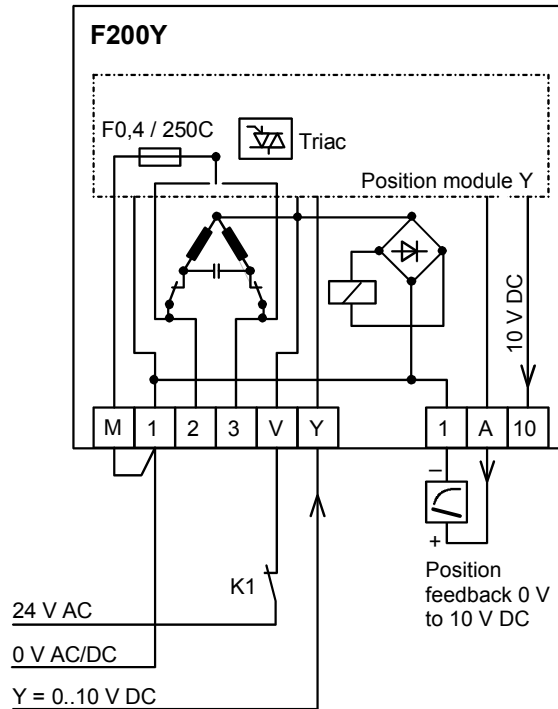


Device Description

F200/F200Y Electrokinematic Actuator with Emergency Function  
With two-way valve (RD/RGD/RGDE)

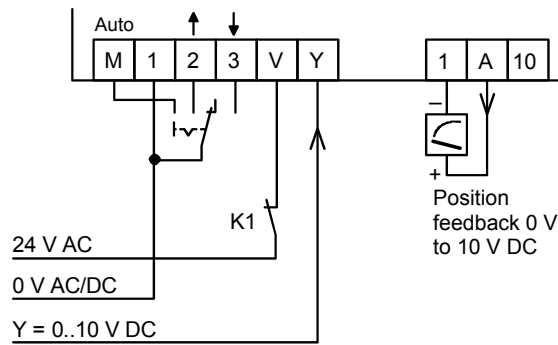
F200/F200Y electrokinematic actuator with emergency function

F200 connection

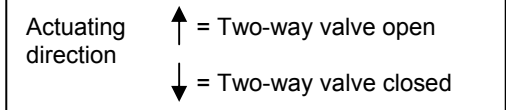


K1 = closed: Automatic operation  
K1 = open: Emergency function

Connection with manual switch – automatic/open/stop/closed

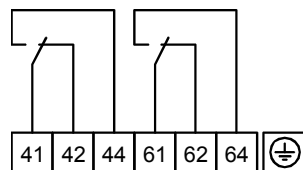


K1 = closed: Automatic operation  
K1 = open: Emergency function



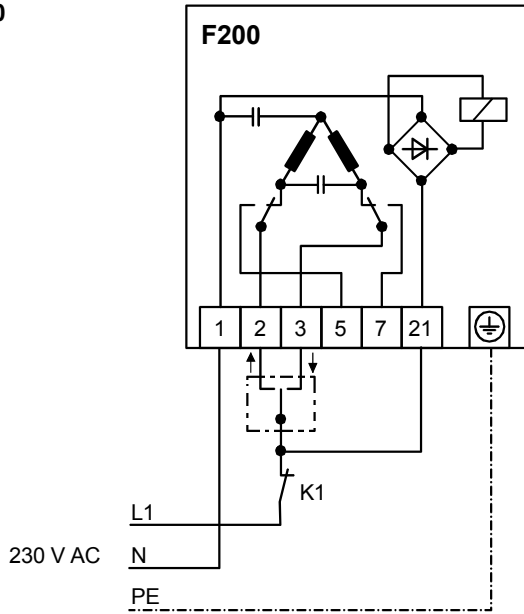
Connecting the optional accessories (F200Y)

Additional end switch E  
Max. 250 V AC, 3 A



**F200/F200Y electrokinematic actuator with emergency function**

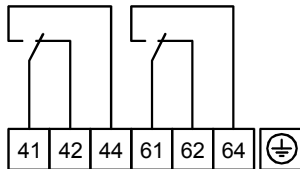
**Connection F200**



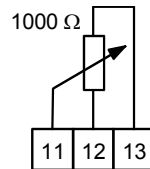
K1 = closed: Automatic operation  
K1 = open: Emergency function

**Connecting the optional accessories (F200)**

Additional end switch E  
Max. 250V AC, 3A



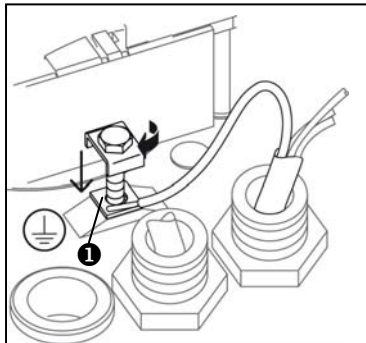
Feedback resistor R1/1000



**If low voltage (230V AC) 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.



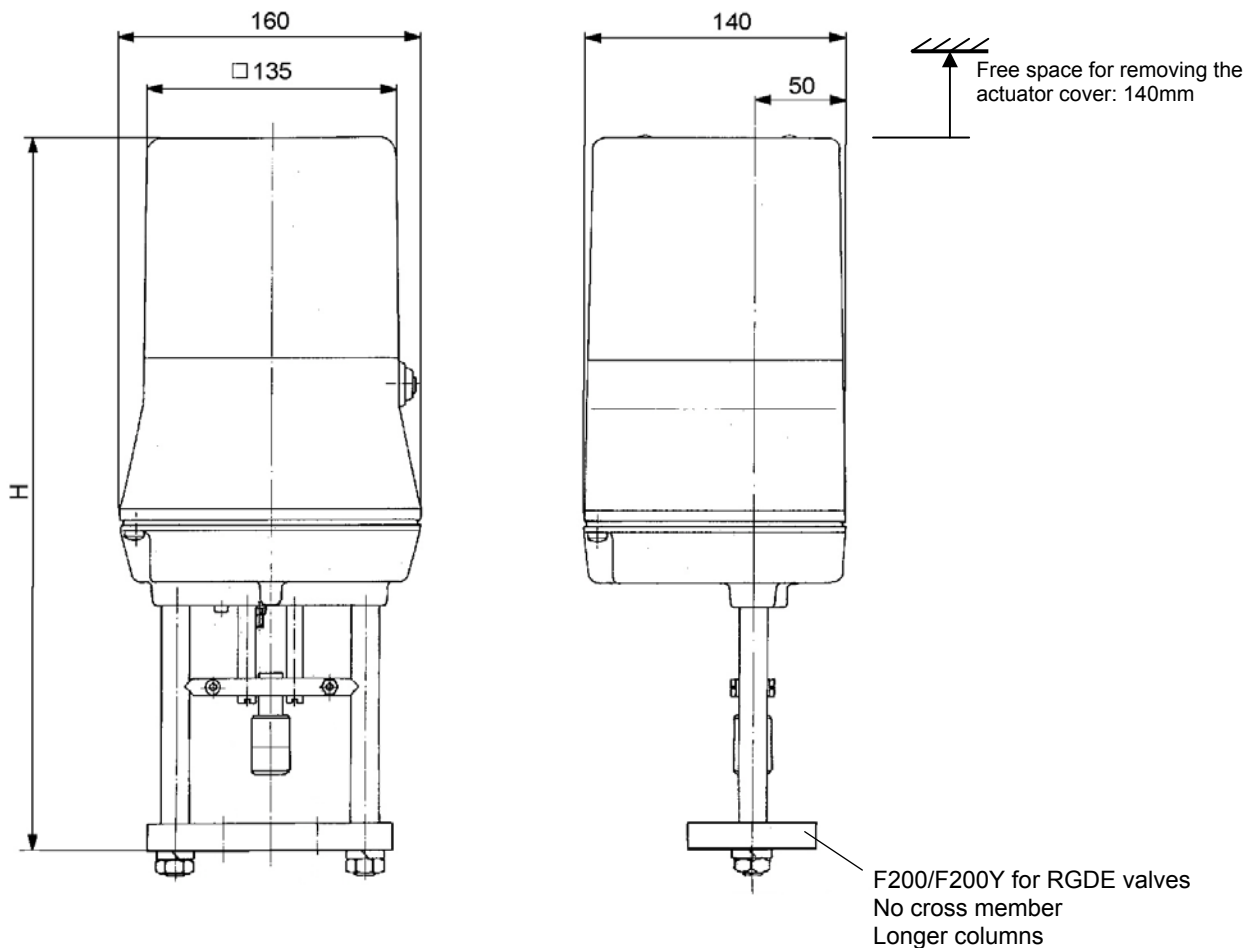
① Copper-coated side of the square washer (Cupal washer)

Device Description

**F200/F200Y Electrokinematic Actuator with Emergency Function**  
With two-way valve (RD/RGD/RGDE)

**F200/F200Y electrokinematic actuator with emergency function**

Dimensions



	H
F200/F200Y for RD/RGD	380mm
F200/F200Y for RGDE	445mm





**Device Description**

**F200/F200Y Electrokinematic Actuator with Emergency Function**  
With two-way valve (RD/RGD/RGDE)

**Two-way valve with electrokinematic actuator RD65F200/F200Y**

**PN16**

**Application**

The RD65 nodular graphite cast-iron two-way valve with F200 or F200Y electrokinematic actuator with emergency function.

The unit with emergency function is used for precisely regulating liquid and vapor flow rates.

The emergency function of the F200 or F200Y electrokinematic actuator closes the two-way valve with 100% thrust when the power supply is interrupted.

The F200 actuator is controlled using a 230V AC 3-point signal (open/stop/closed).

The F200Y actuator for the 24V AC mains connection is constantly controlled with a 0V to 10V DC "Y" control signal.

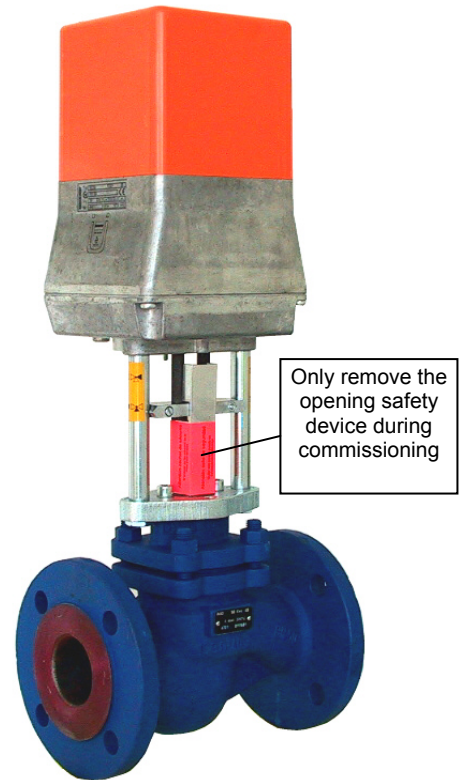
**Types**

RD65 nodular graphite cast-iron two-way valve with the F200 actuator for 3-point control (230V AC) for water up to 100°C, 16 bar, as well as for hot water and steam up to 200°C, 13 bar

	DN	PN	cvs	Δp (bar)	Actuating time (s)	Weight (kg)
RD65F200	65	16	63.0	1.7	120	23.2

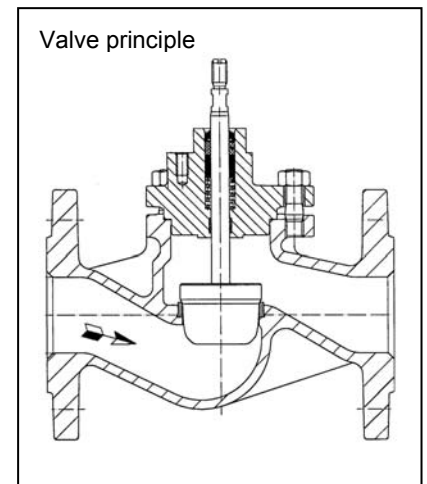
RD65 nodular graphite cast-iron two-way valve with the F200Y actuator for constant control (0V to 10V DC) for water up to 100°C, 16 bar, as well as for hot water and steam up to 200°C, 13 bar

	DN	PN (bar)	cvs	Δp (s)	Actuating time (kg)	Weight (kg)
RD65F200Y	65	16	63.0	1.7	120	23.5



**Technical data – RD65 two-way valve**

Nominal diameter	DN65	
Pressure rating	PN16	
CE	CE marking, notified body: 0525	
cvs	63m <sup>3</sup> /h	
Max.pressure diff.	Δp 1.7 bar	
Connection	Flange according to DIN, PN16	
Characteristic curve	Same percentage	
Stroke	30mm	
Leak rate	In acc. with EN 1349, leakage class IV	
Medium temperature	0 to 200°C	
Housing	Nodular graphite cast-iron	GGG-40.3
Seat ring	Niro steel	1.4021
Cone	Niro steel	1.4021
Valve spindle	Niro steel	1.4571
Spindle seal	Gaskets	Univerdit with PTFE sleeve, maintenance-free

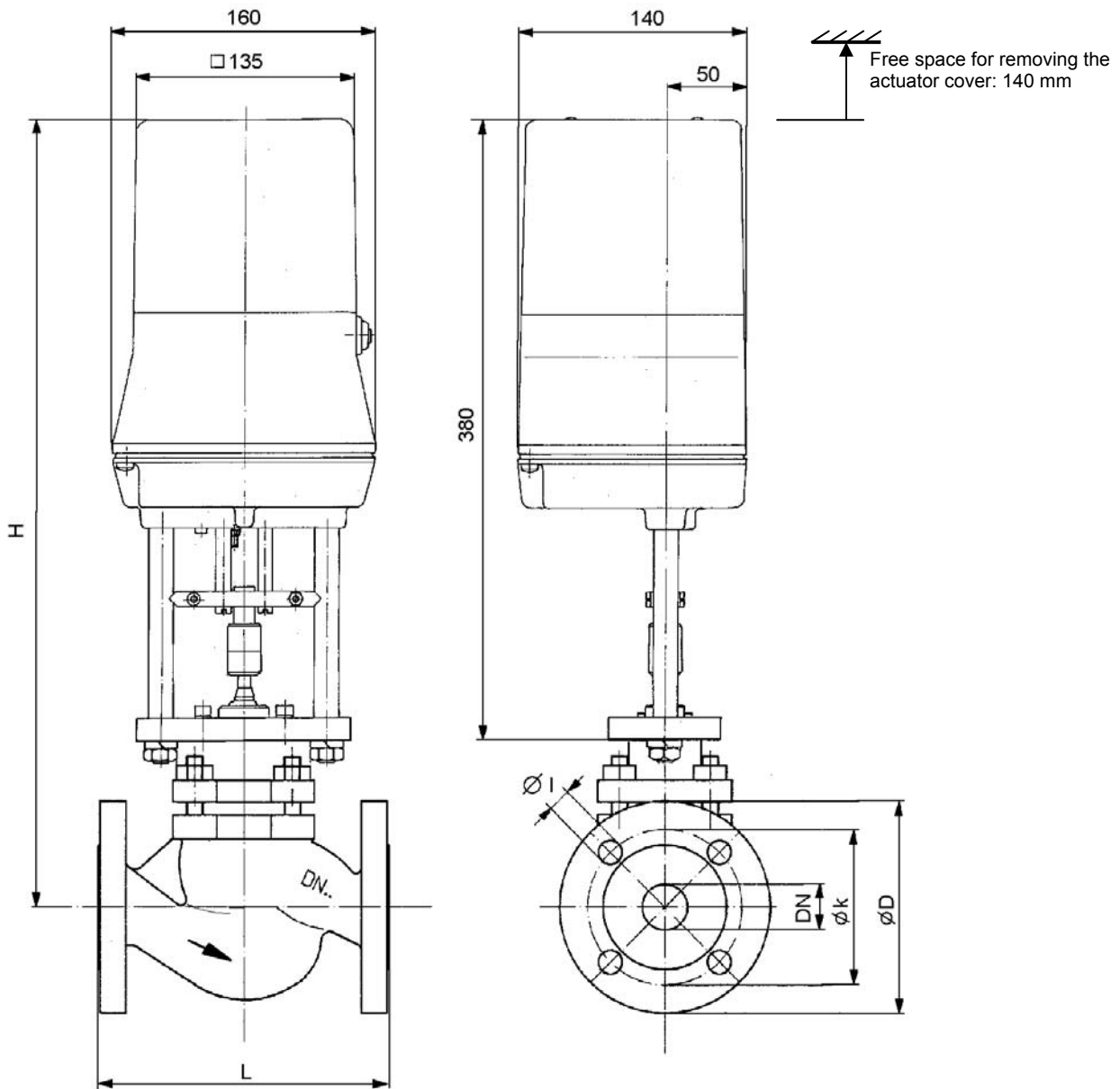


The technical data with the electrical installation of the F200/F200Y electrokinematic actuator is found on pages 3 to 5.

**Two-way valve with electrokinematic actuator RD65F200/F200Y**

**PN16**

**Dimensions**



DN	H	L	Ø I	Ø k	Ø D
65	502.5	290	4xØ18	145	185

H to Ø D in mm, flange according to DIN, PN16

## Device Description

## F200/F200Y Electrokinematic Actuator with Emergency Function With two-way valve (RD/RGD/RGDE)

### Two-way valve with electrokinematic actuator RGD15–80F200/F200Y

**PN25**

#### Application

The RGD15 to RGD80 nodular graphite cast-iron two-way valves with F200 or F200Y electrokinematic actuators with emergency function.

The units with emergency function are used for precisely regulating liquid and vapor flow rates.

The emergency function of the F200 or F200Y electrokinematic actuator closes the two-way valve with 100% thrust when the power supply is interrupted.

The F200 actuator is controlled using a 230V AC 3-point signal (open/stop/closed).

The F200Y actuator for the 24V AC mains connection is constantly controlled with a 0V to 10V DC "Y" control signal.

#### Types

RGD nodular graphite cast-iron two-way valve with the F200 actuator for 3-point control (230 V AC) for water up to 120 °C, 25 bar, as well as for hot water and steam up to 200 °C, 20 bar

	DN	PN	cvs	$\Delta p$ (bar)	Actuating time (s)	Weight (kg)
RGD15/0,4F200	15	25	0.4	25	60	10
RGD15/0,63F200	15	25	0.63	25	60	10
RGD15/1,0F200	15	25	1.0	20	60	10
RGD15/1,6F200	15	25	1.6	20	60	10
RGD15F200	15	25	4.0	20	60	10
RGD25/6,3F200	25	25	6.3	11	60	11.5
RGD25F200	25	25	10.0	11	60	11.5
RGD32F200	32	25	16.0	7	60	13
RGD40F200	40	25	25.0	4.5	60	15.4
RGD50F200	50	25	40.0	2.5	120	17.9
RGD65F200	65	25	63.0	1.7	120	23.2
RGD80F200	80	25	100.0	1.1	120	28

RGD nodular graphite cast-iron two-way valve with the F200Y actuator (24V AC mains power with constant 0V to 10V DC control) for water up to 120°C, 25 bar, as well as for hot water and steam up to 200°C, 20 bar

	DN	PN	cvs	$\Delta p$ (bar)	Actuating time (s)	Weight (kg)
RGD50F200Y	50	25	40	2.5	120	18.2
RGD65F200Y	65	25	63.0	1.7	120	23.5
RGD80F200Y	80	25	100.0	1.1	120	28.3

#### Technical data – RGD15 to RGD80 two-way valves

Nominal diameter DN15 to DN80

Pressure rating PN 25

For cvs values and the maximum pressure difference ( $\Delta p$ ) see the "Types" section

CE marking from DN32, notified body: 0525

Connection Flange according to DIN, PN25

Characteristic curve Same percentage

Stroke DN15 to DN40 = 15mm, DN50 to DN80 = 30mm

Leak rate In acc. with EN 1349, leakage class IV

Medium temperature 0°C to 200°C

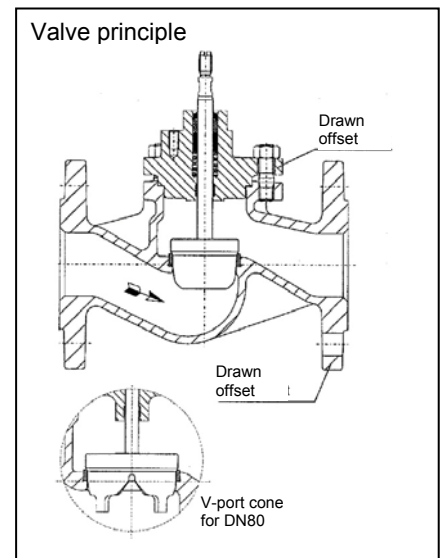
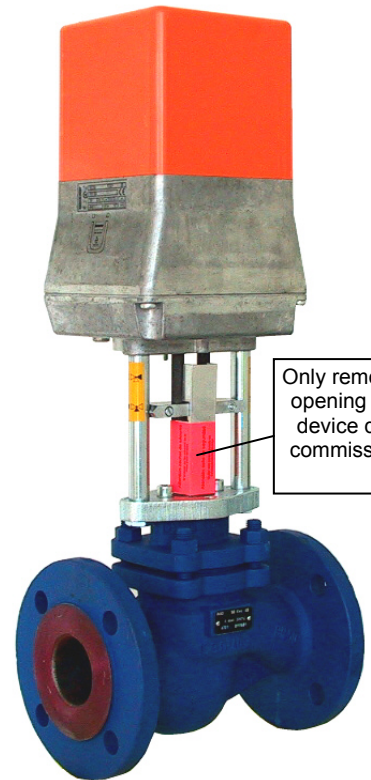
Housing Nodular graphite cast-iron GGG-40.3

Seat ring Niro steel 1.4021

Cone DN15 to DN32: Niro steel 1.4571, DN40 to DN80: Niro steel 1.4021

Valve spindle Niro steel 1.4571

Spindle seal Gaskets Univerdit with PTFE sleeve, maintenance-free

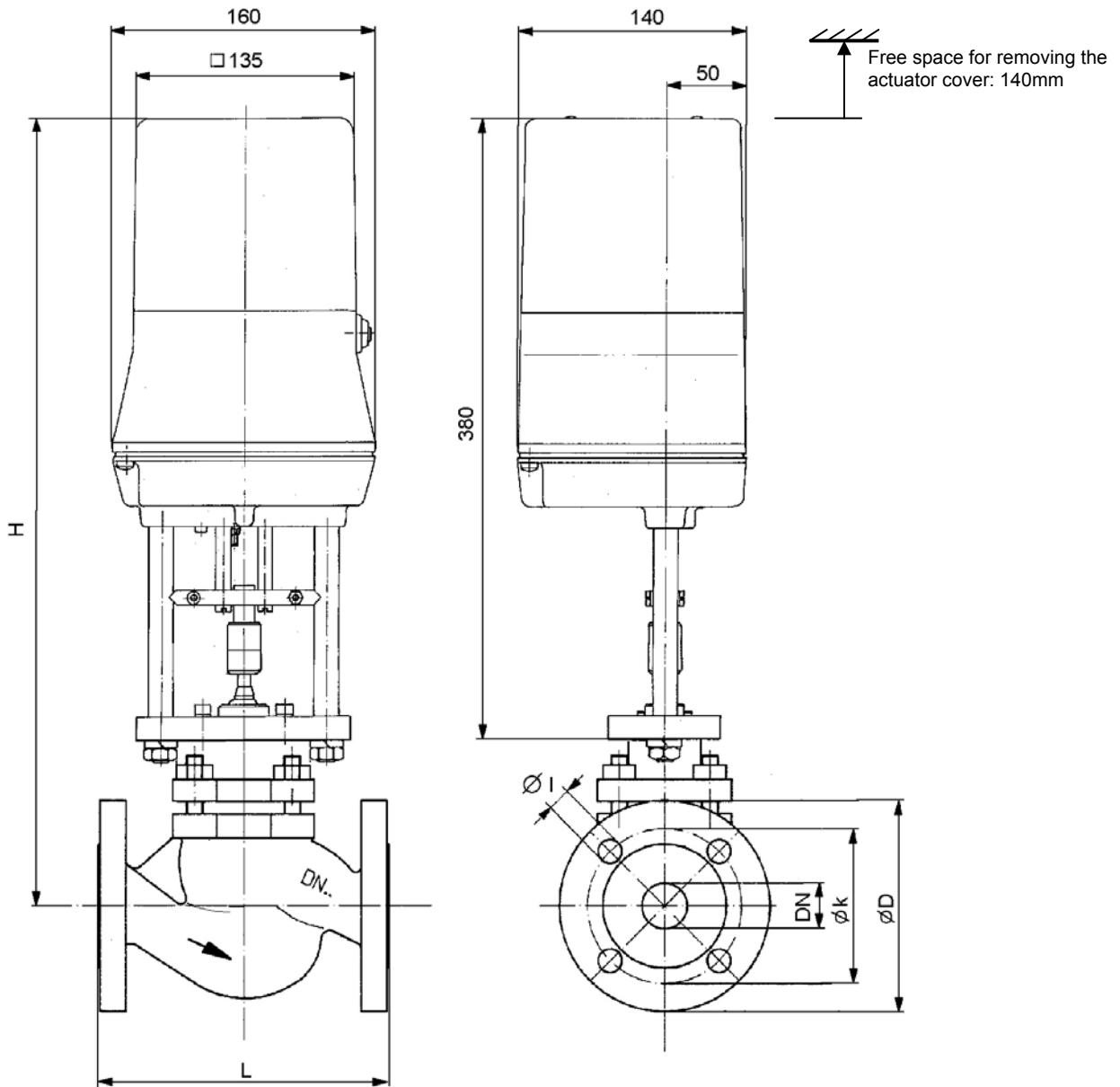


The technical data with the electrical installation of the F200/F200Y actuator is found on pages 3 to 5.

**Two-way valve with electrokinematic actuator RGD15–80F200/F200Y**

**PN25**

**Dimensions**



DN	H	L	Øl	Øk	ØD
15	465	130	4xØ14	65	95
25	473	160	4xØ14	85	115
32	473	180	4xØ18	100	140
40	484	200	4xØ18	110	150
50	487	230	4xØ18	125	165
65	502.5	290	8xØ18	145	185
80	518.5	310	8xØ18	160	200

H to Ø D in mm, flange according to DIN, PN25

## Device Description

## F200/F200Y Electrokinematic Actuator with Emergency Function With two-way valve (RD/RGD/RGDE)

### Two-way valve with electrokinematic actuator RGDE25–80F200/F200Y

**PN25**

#### Application

The RGDE pressure-relieved flange two-way valve with F200/F200Y electrokinematic actuator with emergency function

The unit with emergency function is used for precisely regulating liquid and vapor flow rates.

The emergency function of the F200 or F200Y electrokinematic actuator closes the two-way valve with 100% thrust when the power supply is interrupted.

The F200 actuator is controlled with a 230V AC 3-point signal (open/stop/closed).

The F200Y actuator for the 24V AC mains connection is constantly controlled with a 0 V to 10V DC "Y" control signal.

#### Types

RGDE nodular graphite cast-iron two-way valve with pressure relief and F200 actuator for 3-point control (230V AC) for water up to 120°C, 25 bar, and hot water and steam up to 200°C, 20 bar

	DN	PN	cvs	p1 max (bar)	Δp (bar)	Actuating time (s)	Weight (approx. kg)
RGDE25F200	25	25	10.0	25	20	80	12.5
RGDE32F200	32	25	16.0	25	20	80	14
RGDE40F200	40	25	25.0	25	20	80	16.5
RGDE50F200	50	25	40.0	25	16	80	18.5
RGDE65F200	65	25	63.0	15	13	120	23.4
RGDE80F200	80	25	100.0	8	6	120	31.1

p1 max: Maximum pressure in front of valve  
Δp: Maximum pressure drop in valve

RGDE nodular graphite cast-iron two-way valve with pressure relief and F200Y actuator (24V AC mains power with constant 0V to 10V DC control) for water up to 120°C, 25 bar, and hot water and steam up to 200°C, 20 bar

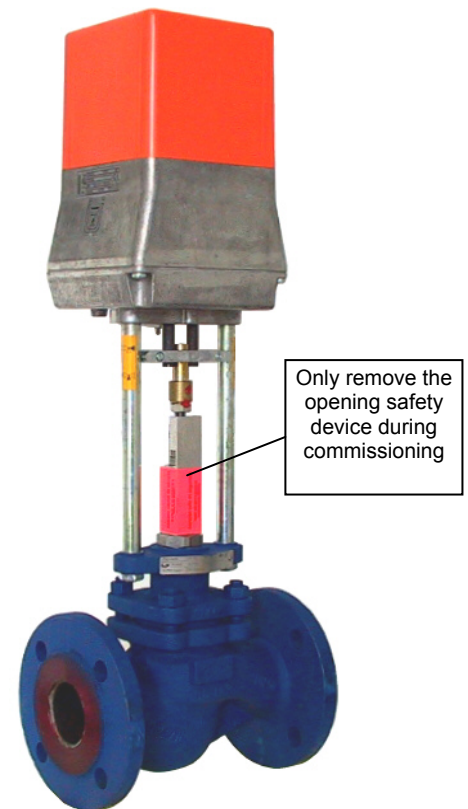
	DN	PN	cvs	p1 max (bar)	Δp (bar)	Actuating time (s)	Weight (approx. kg)
RGDE25F200Y	25	25	10.0	25	20	80	12.5
RGDE32F200Y	32	25	16.0	25	20	80	14
RGDE40F200Y	40	25	25.0	25	20	80	16.5
RGDE50F200Y	50	25	40.0	25	16	80	18.5
RGDE65F200Y	65	25	63.0	15	13	120	23.7
RGDE80F200Y	80	25	100.0	8	6	120	31.4

p1 max: Maximum pressure in front of valve  
Δp: Maximum pressure drop in valve

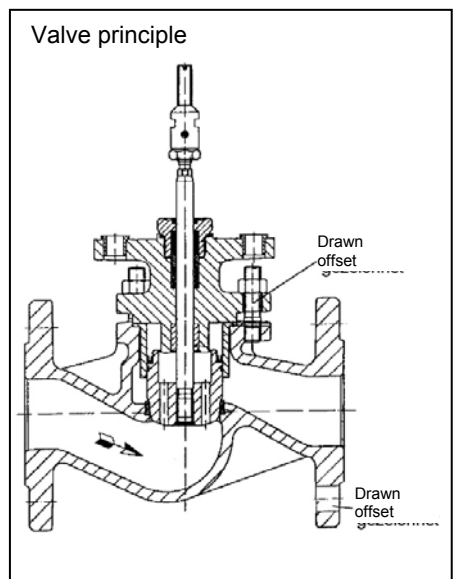
#### Technical data – RGDE two-way valves

Nominal diameter	DN25 to DN80	
Pressure rating	PN25	
CE	CE marking from DN32, notified body: 0525	
Connection	Flange according to DIN, PN25	
Characteristic curve	Same percentage	
Stroke	DN25 to DN50 = 20mm, DN65 to DN80 = 30mm	
Leak rate	In acc. with EN 1349, leakage class IV	
Medium temperature	0°C to 200°C	
Housing	Nodular graphite cast-iron	GGG-40.3
Seat ring	Niro steel	1.4021
Cone	Niro steel	1.4021, metallicly sealed, Pressure-relief piston seal made from PTFE with stainless steel insert (max. 200°C)
Valve spindle	Niro steel	1.4571
Spindle seal	PTFE gaskets, maintenance-free	

The technical data with the electrical installation of the F200/F200Y actuator is found on pages 3 to 5.



RGDE50F200Y

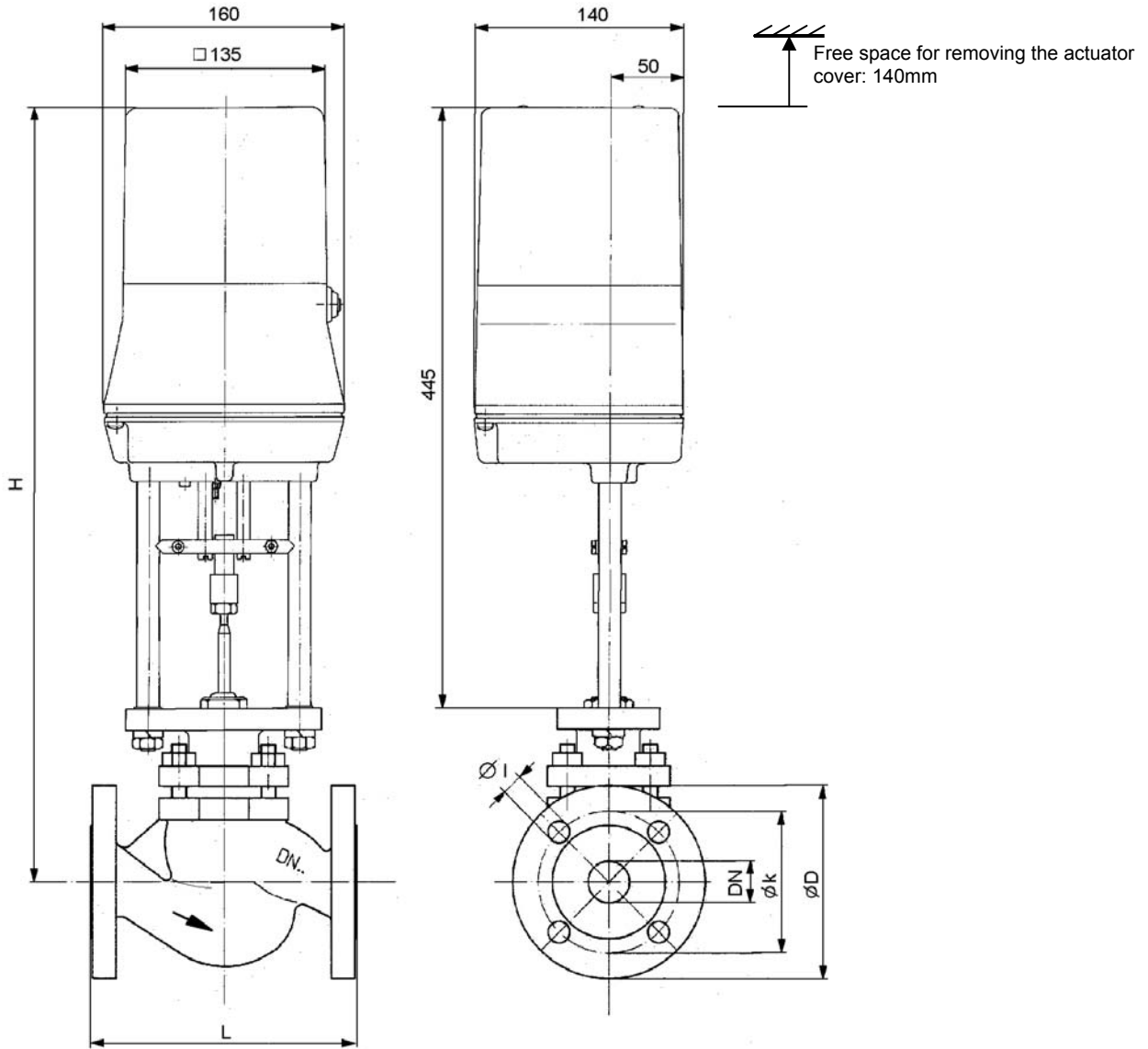




**Two-way valve with electrokinematic actuator RGDE25–80F200/F200Y**

**PN25**

**Dimensions**



DN	H	L	Ø l	Ø k	Ø D
25	561.5	160	4xØ14	85	115
32	561.5	180	4xØ18	100	140
40	568.5	200	4xØ18	110	150
50	574.5	230	4xØ18	125	165
65	587.5	290	8xØ18	145	185
80	603	310	8xØ18	160	200

H to Ø D in mm, flange according to DIN, PN25

## Device Description

F200/F200Y Electrokinematic Actuator with Emergency Function  
With two-way valve (RD/RGD/RGDE)

## Installing the electrokinematic actuator (F200/F200Y)



Danger

The actuator closes with a high spring force during emergency operation.

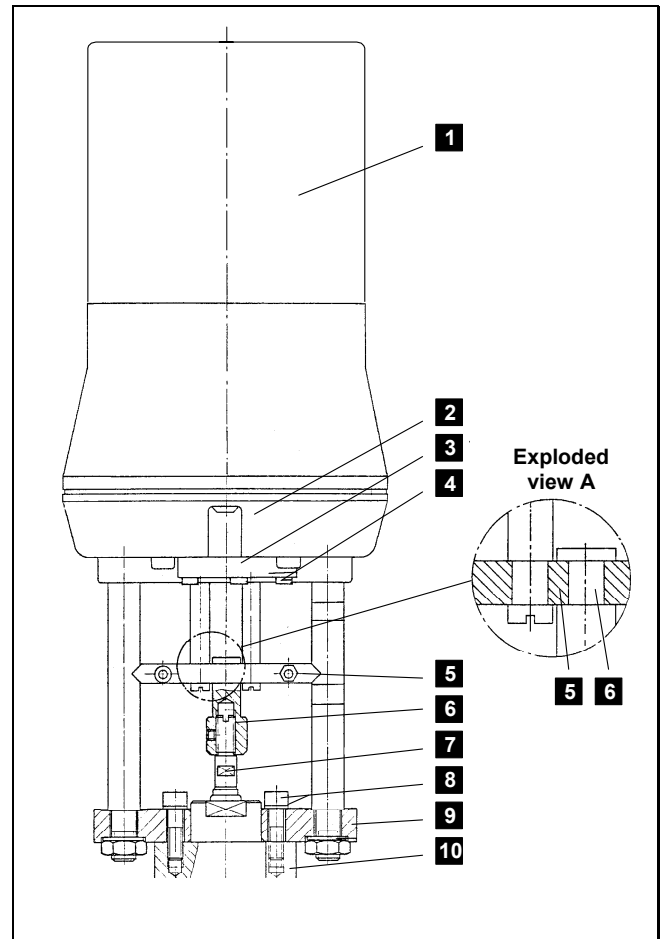
Installation of the F200/F200Y actuator may only be carried out by qualified technicians (e.g. the commissioning technician) in the prescribed sequence.

Installation of the F200/F200Y on valve types RD/RGD/RGDE

1. If the valve is installed in the system, make sure that no differential pressure builds up in the valve body. Switch off the pump and close the gate valve.
2. Check the correct installation layout of the valve. The medium must flow onto the valve ball from below. The valve must close against the primary pressure of the system.
3. Screw the enclosed coupling **6** up to the stop on the valve spindle **7** and secure it with the stud screw.
  - RGD15 to RGD40: Coupling with M6 female thread and free counterbore  $\varnothing$  8.2mm deep.
  - RD65, RGD50 to RGD80, RGDE25 to RGDE80: Coupling with M10 female thread.
4.
  - RD/RGD: Position the actuator on the valve **10**. On the RGD15 to RGD40, the enclosed spacer ring must be attached between the cross member **9** and valve neck. Fasten the actuator with the two hexagon socket screws and safety washers **8**. When using the spacer ring, also place the large washer under the lock washer.
  - RGDE: Unscrew the cross member **9** and screw the drive pillars directly onto the valve cross member.

Carry out further installation after electrical connection, as the actuator may be damaged otherwise.

5. Remove the cover **1**, connect the F200/F200Y actuator to the power supply with the mains disconnected and then reattach the cover. **Pay attention to the installation section on pages 4 and 5.**
6. Switch on the mains power supply, then open the valve electrically by 5mm to 10mm.
7. Attach the bridge **5** with the two screws and nuts. The coupling pin **6** must mesh with the bridge **5** without any tension (see diagram excerpt A). If this is not the case, loosen the actuator on the cross member **9**, align it and then fasten it again.
8. Carry out the electrical function check using the emergency function (mains power supply off). When using the emergency function, the valve must drive up to 2mm to 3mm in front of the close position in a damped fashion. The valve closes freely (non-dampened) in the last 2mm to 3mm.
  - **Non-dampened emergency function < 2mm:**  
Unscrew the three hexagon socket screws **4** with washers and spacer sleeves from the brake pot **3** in the close position. Rotate the brake pot resting on the housing tray **2** to the right by one hole spacing (120°) and refasten it. If needed, repeat the process after another function check until the non-dampened emergency function reaches at least 2mm.
  - **Non-dampened emergency function > 3mm:**  
Proceed as described above, but rotate the brake pot **3** to the left by one hole spacing. If needed, repeat the process after another function check until the non-dampened emergency function reaches at least 3mm.
9. **F200Y only:** F200Y actuators without valves are delivered with a preset valve stroke setting. After installing the actuator, check the control of both valve end positions using the “Y” control signal. The 0 V to 10 V “Y” control signal corresponds to the valve stroke 0 -100% = Valve open – closed. If required, the F200Y actuator can be adjusted to the valve stroke (see reverse side).
10. When the parts engage as described in section 1, reset the pipeline system to its functional state.



**Installing the electrokinematic actuator (F200/F200Y)**

**F200Y only:** Adjusting the 0V to 10V DC “Y” control signal to the valve stroke



**Using the emergency function, the F200Y actuator automatically closes the valve using high spring force when the power supply is interrupted. Adjustment of the F200Y actuator may only be carried out by qualified technicians (e.g. the commissioning technician) in the prescribed sequence.**

**For safety reasons, ensure that the mains connection on terminals V and 1 is not interrupted during the settings described in section 6 to 9.**

The adjustment of the 0V to 10V DC “Y” control signal to the stroke of the attached valve is made in the order described below:

1. Switch off the mains power supply.



**Warning:** Actuator closes with very high spring force

2. Remove the cover and connect the F200Y as follows:  
24V AC (phase) to terminal V  
24V AC (zero) to terminal 1  
Bridge to terminals 1 and M  
(disconnect the connection line for the 0V to 10V DC “Y” control signal)

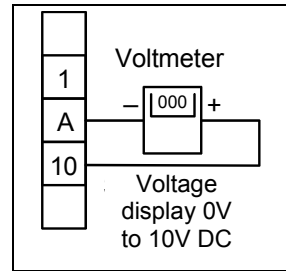


Fig. 1

3. Connect the voltmeter to clamps A and 10 (see fig. 1).
4. Turn trimmers P2 and P3 to the right stop.
5. Switch the direction switch to (+).
6. Switch on the mains power supply. The D18 LED lights up and the actuator moves to the lower valve end position.
7. When the lower valve end position has been reached, slowly turn trimmer P3 to the left until the voltmeter shows 0.2V DC. The D18 LED must not go out during this process.

**Note** If the voltage with trimmer P3 cannot be set to 0.2V, rotate the potentiometer to the right or left until the displayed voltage reaches 0.2V.

8. Switch the direction switch to (-). The D17 LED lights up and the actuator moves to the upper valve end position.
9. When the upper valve end position has been reached, slowly turn trimmer P2 to the left until the voltmeter shows 9.8V DC. The D17 LED must not go out during this process.

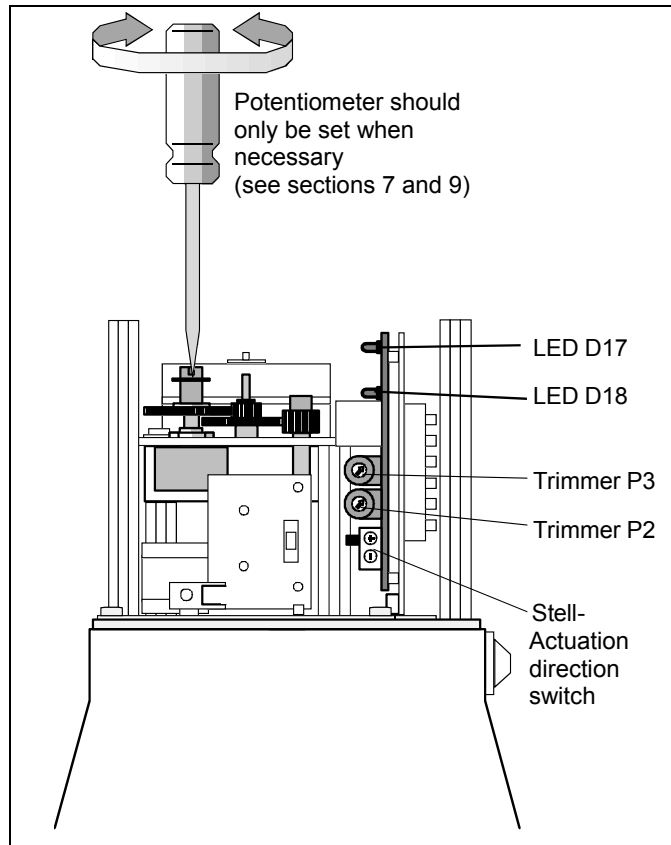
**Note** If the voltage with trimmer P2 cannot be set to 9.8V, rotate the potentiometer to the right or left until the displayed voltage reaches 9.8V. When correcting the potentiometer, repeat the setting of the lower valve end position (see section 7).

10. Switch off the mains power supply.



**Warning:** Actuator closes with very high spring force

11. Disconnect the voltmeter and attach the F200Y actuator according to the connection or wiring diagram.
12. Set the actuating direction switch to (+) or (-) according to the valve function. For more information on actuating directions and changing them, see the “Commissioning” section.
13. Attach the cover, switch on the mains power supply and carry out function checks in controller manual and automatic modes. Also check the emergency function.





## Installing the valve with actuator (RD/RGD/RGDE - F200/F200Y)



Danger

Installation may only be carried out by qualified technicians.

In addition to the generally applicable installation guidelines, the following items are to be observed:

- Valves with F200/F200Y electrokinematic actuators are delivered with a safety device for minimum opening of the valve.

In this way, the pipeline can be rinsed and tested under pressure.



Note

**The safety device may only be replaced during commissioning after electrical connection has been made (i.e. when the valve is opened).**

- 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 valve interior 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 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 connection and pipe manifold or other similar parts.
- The installation location is to be selected so that the ambient temperature at the actuator is kept between 10°C and 50°C.
- When carrying out installation, the maximum pressure difference  $\Delta p$  (see "Types" section) and the specified flow direction (arrows on valve body) are to be observed.
- The valve can be installed with the actuator vertically above the fixture as far as the horizontal position.  
To avoid deflection on the columns during horizontal installation, these must be positioned vertically above one another.
- To remove the actuator cover, approx. 140mm of room is required above the base of the cover.
- The actuator is delivered with a protective box.  
Up until commissioning, this cover protects the drive during the installation phase and pipeline work.

**Commissioning**



Danger

**230V mains voltage on F200 actuators or the additional end switches (F200Y).**



Danger

**The emergency function of the F200/F200Y electrokinematic actuator closes the valve using high spring force when the power supply is interrupted.**

**Commissioning may only be carried out by qualified technicians (e.g. the commissioning technician).**

- The correct valve installation position and the electrical connections must be checked before commissioning (see the "Installation" section).
- Open the valve electrically and remove the minimum-opening safety device between the actuator and valve.
- Check the regulator control and actuation direction (valve open/closed) and the emergency function in the event of interruption to the power supply (valve closed).

**Proceed with caution when changing the actuation direction.**

**When the mains power supply is switched off, the actuator executes the emergency functions.**

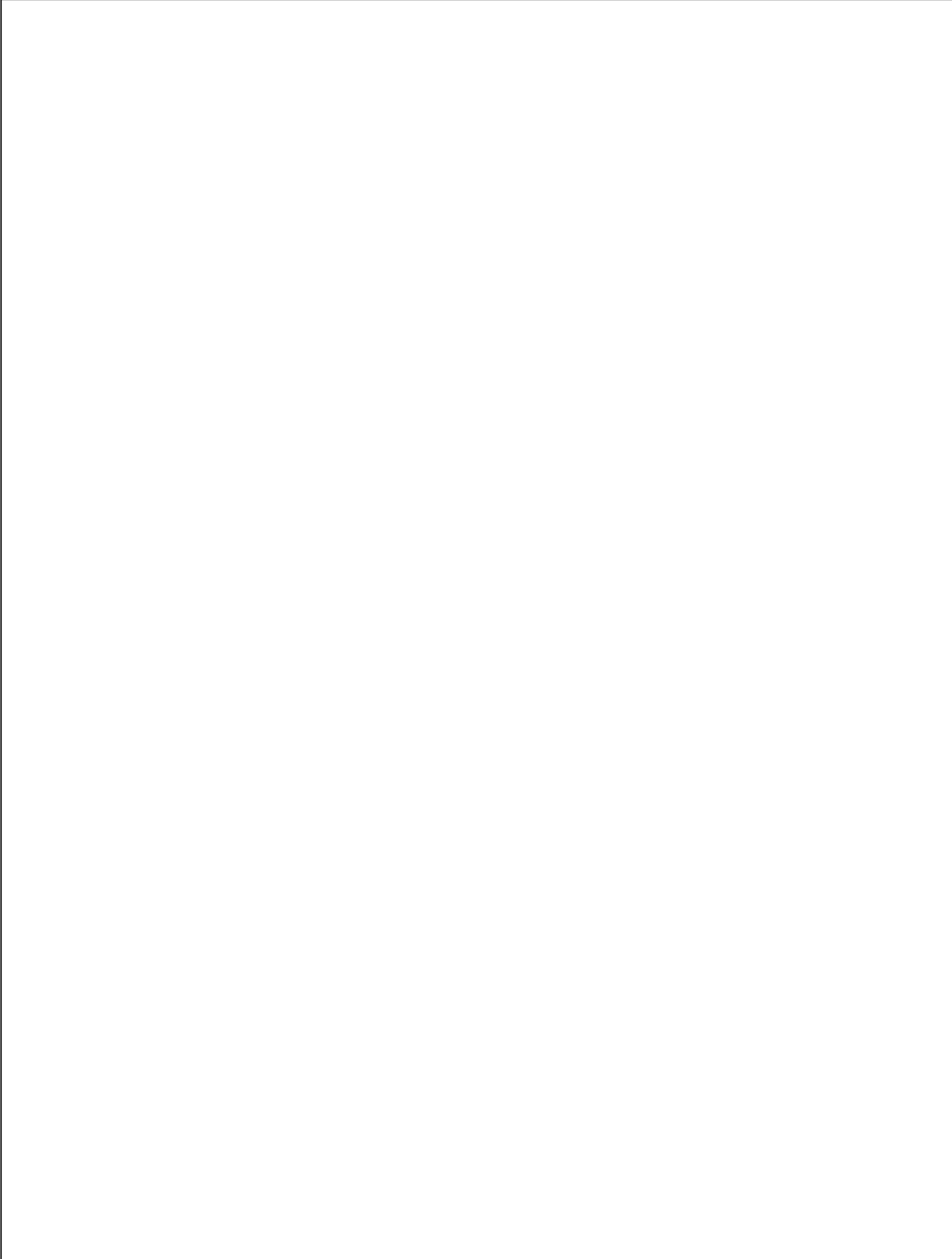
F200 – Actuating direction on delivery	
230V AC voltage on terminals 1-2 = Actuating direction:	
230V AC voltage on terminals 1-3 = Actuating direction:	
<b>Changing the actuating direction:</b>	Disconnect the power supply, remove the cover and switch the connection lines on terminal 2 and 3.

F200Y – Actuating direction on delivery	
10V DC control signal on terminal Y = Actuating direction:	
0V DC control signal on terminal Y = Actuating direction:	
<b>Changing the actuating direction:</b>	Disconnect the power supply, remove the cover and switch the actuating direction switch on the electronic card of the F200Y to (-). 

- The emergency function (valve closed) is not affected by a change in actuation direction.

**Device Description**

**F200/F200Y Electrokinematic Actuator with Emergency Function**  
With two-way valve (RD/RGD/RGDE)



**Notes**