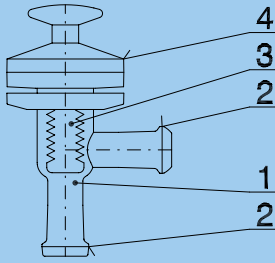




3

## VALVES AND COCKS





- 1 valve body with seat
- 2 connecting endings
- 3 teflon bellows with sealing cone
- 4 control head

### 3 VALVES AND COCKS

Glass fittings are used in assemblies of piping lines and apparatuses. The assortment of glass fittings includes:

**valves** – closing element is teflon bellows

**ball cocks** – closing element is glass ball

**cone cocks** – closing element is glass cone

#### Glass valves

The valves close passage of fluids by teflon cone bearing against body glass seat. The cone is a part of teflon wavy piece which enables its lifting and, at the same time, it safely (with no gland) separates the control part from the processed matter. Corrosion and temperature resistance of the valve complete is given by properties of the glass SIMAX, material PTFE and materials of the control part. The processed matters may not contain solid particles which could permanently damage the sealing surface of the teflon cone.

Glass bodies of valves are manufactured in the following types:

- a) straight
- b) angle
- c) closable branch

The valves are supplied with manual or pneumatic control.

Pneumatic valves can also be controlled manually. The endings are of types KZ, RK and as olive for hose connection.

#### Built-in valves

The closing valves DN 25 and 50 are composed of valve glass body and manual or pneumatic built-in control part.

DN	type	Order number
25	manual	632 921 600 118
25	pneumatic	018
50	manual	057
50	pneumatic	157

### Closing valves DN 25 with manual control

The valve head with manual control wheel is made of plastic based on poly (phenylene sulfide) (PPS) with heat resistance up to 140 °C and high chemical resistance. Maximum operating pressure is 350 kPa.

Ending type ①	②	③	L mm	Weight kg	Order number
straight valves					
KZB	KZA		200	1.1	632 611 637 942
KZA	KZB		200	1.1	851
RK	RK		200	1.1	977
olive Ø 33	KZB		225	1.1	960
olive Ø 33	RK		225	1.1	870
angle valves					
KZB	KZA		100	1.1	632 611 637 952
KZA	KZB		100	1.1	853
RK	RK		100	1.1	983
olive Ø 22	KZB		100	1.1	872
olive Ø 22	RK		100	1.1	873
olive Ø 33	KZB		100	1.1	871
valves with branch					
KZA	KZB	KZA	100	1.1	632 611 637 931
KZB	KZB	KZA	100	1.1	932
RK	RK	RK	100	1.1	992

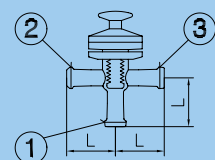
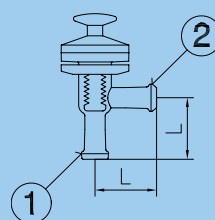
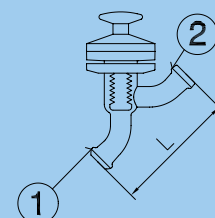
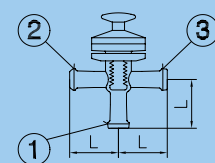
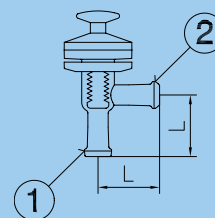
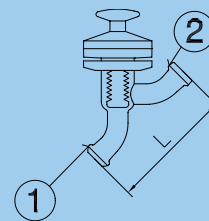
### Closing valves DN 25 with pneumatic control

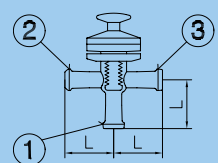
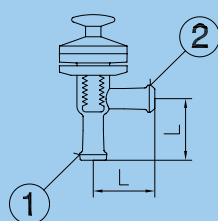
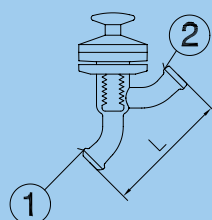
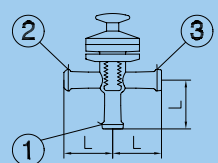
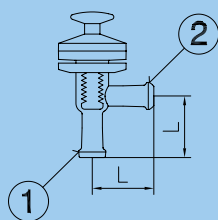
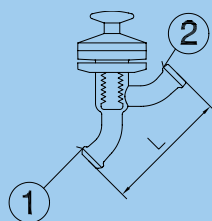
The plastic valve head has connection to a source of compressed air (air pressure 150 kPa – pressure opens) and hand wheel for emergency control. Maximum operating pressure is 350 kPa.

Ending type ①	②	③	L mm	Weight kg	Order number
straight valves					
KZB	KZA		200	1.1	632 611 637 943
KZA	KZB		200	1.1	852
RK	RK		200	1.1	976
olive Ø 33	KZB		225	1.1	906
angle valves					
KZB	KZA		100	1.1	632 611 637 953
KZA	KZB		100	1.1	854
RK	RK		100	1.1	984
valves with branch					
KZA	KZB	KZA	100	1.1	632 611 637 934
KZB	KZB	KZA	100	1.1	933
RK	RK	RK	100	1.1	993

### Spare parts for valves DN 25

bellows DN 25 PTFE	1 427
membrane DN 25	632 921 516 101





### Closing valves DN 50 with manual control

Maximum operating pressure is 250 kPa.

Ending type			L mm	Weight kg	Order number
①	②	③			
straight valves					
KZB	KZA		400	3.5	632 611 637 302
KZA	KZB		400	3.5	301
RK	RK		400	3.5	303
angle valves					
KZB	KZA		150	3.5	632 611 637 305
KZA	KZB		150	3.5	304
RK	RK		150	3.5	306
valves with branch					
KZB	KZB	KZA	150	3.5	632 611 637 308
KZA	KZB	KZA	150	3.5	307
RK	RK	RK	150	3.5	309

### Closing valves DN 50 with pneumatic control

The plastic valve head has connection to a source of compressed air (air pressure 150 kPa – pressure opens) and hand wheel for emergency control. Maximum operating pressure is 250 kPa.

Ending type			L mm	Weight kg	Order number
①	②	③			
straight valves					
KZB	KZA		400	3.5	632 611 637 947
KZA	KZB		400	3.5	856
RK	RK		400	3.5	980
angle valves					
KZB	KZA		150	3.5	632 611 637 957
KZA	KZB		150	3.5	855
RK	RK		150	3.5	988
valves with branch					
KZB	KZB	KZA	150	3.5	632 611 637 937
KZA	KZB	KZA	150	3.5	938
RK	RK	RK	150	3.5	997

### Spare parts for valves DN 50

bellows DN 50 PTFE	1 428
membrane DN 50	632 921 516 102

### Non-return valve DN 25

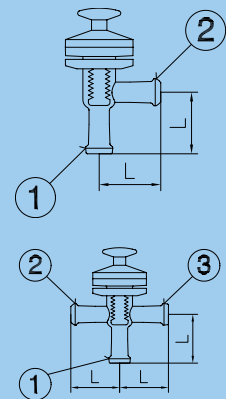
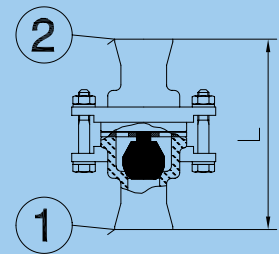
It is assembled from parts of glass dosing pump (two glass bodies and teflon sealing cone with guiding plate). It can only be fitted in vertical position with feeding from the bottom as passage is closed by the cone weight. Connecting endings DN 25 RK are face-ground so that hard packing can also be used for connection.

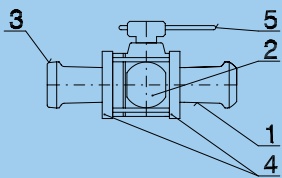
Ending type			L mm	Weight kg	Order number
①	②	③			
straight valves					
RK	RK		130	1.1	426 928 041 918

### Regulating valves with manual control DN 25

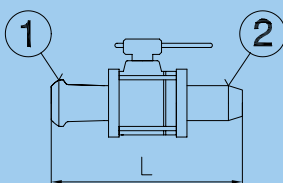
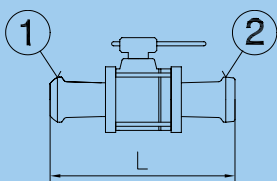
For a continuous regulation of fluid flowrate, the glass bodies of valves are fitted with bored seats 8 mm. Closing teflon cones are of parabolic shape which is designed so that the dependence between the cone lift and fluid flowrate is linear. The cone is lifted manually with mechanical indication of position. Regulating valve should not be used as closing valve to prevent permanent deformation of the cone.

Ending type			L mm	Weight kg	Order number
①	②	③			
angle valves					
KZB	KZA		100	1.1	632 611 637 891
valves with branch					
KZB	KZA	KZB	100	1.1	632 611 637 892





- 1 cock body with ground joint
- 2 glass or teflon ball
- 3 connecting ending
- 4 flange
- 5 control lever



### Ball cocks DN 25

Ball cocks are fittings appropriate for closing passage of fluids, including dirty fluids. Seats, spring-back seats, packing between glass bodies are made of teflon. Packing of the ball control stem is made of rubber or plastic. The valve is controlled manually by slewing the lever by 90°. Maximum operating pressure is 0.2 MPa, maximum operating temperature is 100 °C.

### Straight-way ball cocks

Ending type ①	②	type těsnění	L mm	Weight kg	Order number
KZB	KZA	M	175	0.7	632 611 048 827
KZA	KZB	V	175	0.7	840
RK	RK	M	175	0.7	826
RK	RK	V	175	0.7	841

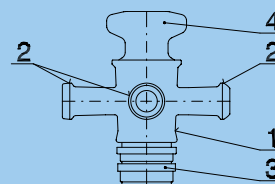
### Discharge ball cocks

Ending type ①	②	type těsnění	L mm	Weight kg	Order number
KZB	olive Ø 33	M	175	0.7	632 611 048 825
KZB	olive Ø 33	V	175	0.7	842
RK	olive Ø 33	M	175	0.7	824
RK	olive Ø 33	V	175	0.7	843

M rubber resistant to swelling  
V Viton

## Cone cocks

They are used in apparatus sets for closing passage of processed matter. They are manually controlled by slewing the glass cone. Tightness of the cock is given by fine grinding of surface of the cone and glass body. The processed matter comes into contact with glass only. The cone is pushed into the body by securing plastic nut. Maximum operating pressure is 0.15 MPa, maximum operating temperature is 120 °C. To provide for a faultless function of the cock, the cone should be taken out from the body from time to time and smeared on its entire ground surface with an appropriate lubricant (silicone grease).



- 1 cock body
- 2 connecting ending
- 3 securing nut
- 4 cone with knob

## Straight-way passage cone cocks

Slouží k uzavírání průtoku média v potrubních rozvodech a aparaturách.

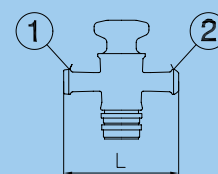
Ending type			L	Weight	Order number
①	②	③	mm	kg	

### Straight-way passage cocks DN 25

KZB	KZA		200	0.95	632 613 641 201
RK	RK		200	0.95	200

### Straight-way passage cocks DN 50

KZB	KZA		250	1.8	632 613 641 501
RK	RK		250	1.8	500



## Straight-way discharge cone cocks

They are used for closing piping ends, piping discharges and branches, for closing discharge, venting and other openings in apparatus.

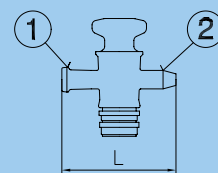
Ending type			L	Weight	Order number
①	②	③	mm	kg	

### Straight-way discharge cocks DN 25

KZB	olive Ø 22		200	0.8	632 613 642 202
RK	olive Ø 22		200	0.8	207

### Straight-way discharge cocks DN 50

KZB	olive Ø 33		250	1.8	632 613 642 502
RK	olive Ø 33		250	1.8	507



## Angle discharge cone cocks

Their function is the same as for the straight-way discharge cocks; they just change direction of discharge by 90 °C. They are not intended for connecting a hose.

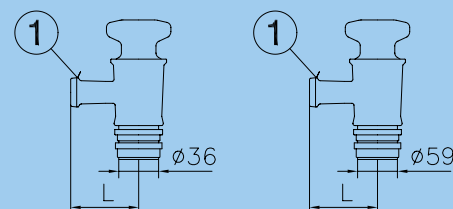
Ending type			L	Weight	Order number
①	②	③	mm	kg	

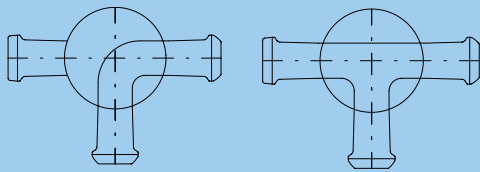
### Angle discharge cocks DN 25/ Ø 36

KZB			100	0.8	632 613 645 202
RK			100	0.8	207

### Angle discharge cocks DN 50/ Ø 59

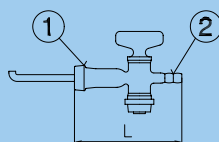
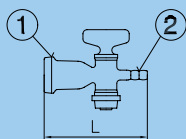
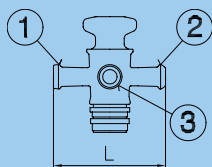
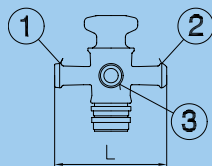
KZB			125	1.8	632 613 645 502
RK			125	1.8	507





Type „L“

Type „T“



### Three-way cone cocks

They are used to change direction of medium passage by slewing the cock cone. They are made in "L" and "T" types.

### Three-way cone cocks with "L" boring

Ending type			L mm	Weight kg	Order number
①	②	③			
<b>Three-way cocks DN 25</b>					
KZB	KZA	KZA	200	1	632 613 643 212
KZB	KZA	KZB	200	1	222
RK	RK	RK	200	1	272

### Three-way cocks DN 50

KZB	KZA	KZA	250	1.9	632 613 643 512
KZB	KZA	KZB	250	1.9	522
RK	RK	RK	250	1.9	572

### Three-way cone cocks with "T" boring

Ending type			L mm	Weight kg	Order number
①	②	③			
<b>Three-way cocks DN 25</b>					
KZB	KZA	KZA	200	1	632 613 643 210
KZB	KZA	KZB	200	1	220
RK	RK	RK	200	1	270

### Three-way cocks DN 50

KZB	KZA	KZA	250	1.9	632 613 643 510
KZB	KZA	KZB	250	1.9	520
RK	RK	RK	250	1.9	570

### Venting cone cocks

They are intended for controlled aeration of evacuated apparatus, e.g. after terminating the operation.

Ending type			L mm	Weight kg	Order number
①	②	③			
<b>Venting cocks DN 25</b>					
KZB	olive Ø 11		125	0.3	632 613 049 213

### Cone cocks for aeration

They are used to ensure permanent agitation of process solution in apparatus running under vacuum and to prevent bumping.

Ending type			L mm	Weight kg	Order number
①	②	③			
<b>Venting cocks DN 15</b>					
KZB	olive Ø 11		125	0.2	632 613 050 162

