

# BALL VALVE

## C 200 PROP / C 200 DOS



Nominal size DN 10–50  
Nominal size 3/8"–2"  
Nominal pressure PN 10–16 bar



C 200 PROP

### Additional options on request

- Silicone free

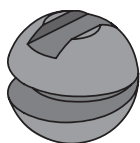
[www.asv-stuebbe.com/products/instrumentation](http://www.asv-stuebbe.com/products/instrumentation)

### Characteristics C 200 PROP

- Proportional ball valve based on the C 200
- Patented ball geometry with proportional characteristic curve (linearised connection of flow quantity and opening angle)
- Simple automation using electric variable speed actuators
- Reproducible settings by means of 90° scale disk / scale division 5°
- Flow rate max. 51,000 l/h (DN 50)



Nominal size DN 10–25  
Nominal size 3/8"–1"  
Nominal pressure PN 10–16 bar



C 200 DOS

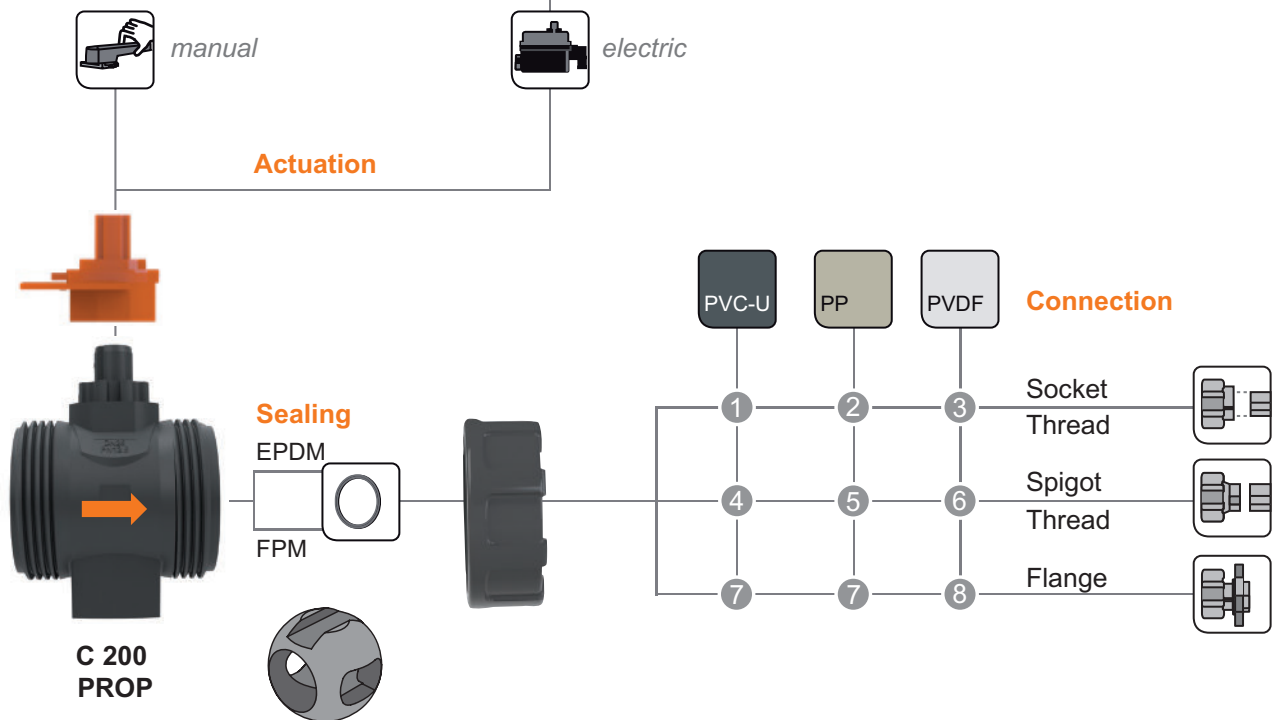
### Characteristics C 200 DOS

- Dosing ball valve based on the C 200
- Finely adjustable using 180° opening angle
- Reproducible settings by means of 180° scale disk / scale division 5°
- Simple automation using electric variable speed actuators
- Flow rate max. 2,000 l/h (DN 25)

# Pictograph Ball valve C 200 PROP

## Options

- ... **Makes:** Valpes I (J&J)
- ... **Wide-range voltage ranges:**  
15 – 30 V AC/DC  
100 – 240 V AC/DC
- ... **Heating**
- ... **Failsafe**



## Basic Nominal Sizes:

DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300	DN 350	DN 400
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● available  
○ not available

**On request**  
» silicone free

## Connection Material (process connection)

① **PVC-U** socket **DIN\***  
socket **ANSI, BS, JIS**  
female thread Rp  
**1.4571** female thread Rp  
male thread R  
**2.0401** female thread Rp  
male thread R

② **PP** socket **DIN\***  
female thread Rp

③ **PVDF** socket **DIN\***  
\* incl. DN 10

④ **PE** spigot (90 mm)

⑤ **PP** spigot IR  
**PE** spigot (90 mm)

⑥ **PVDF** spigot IR

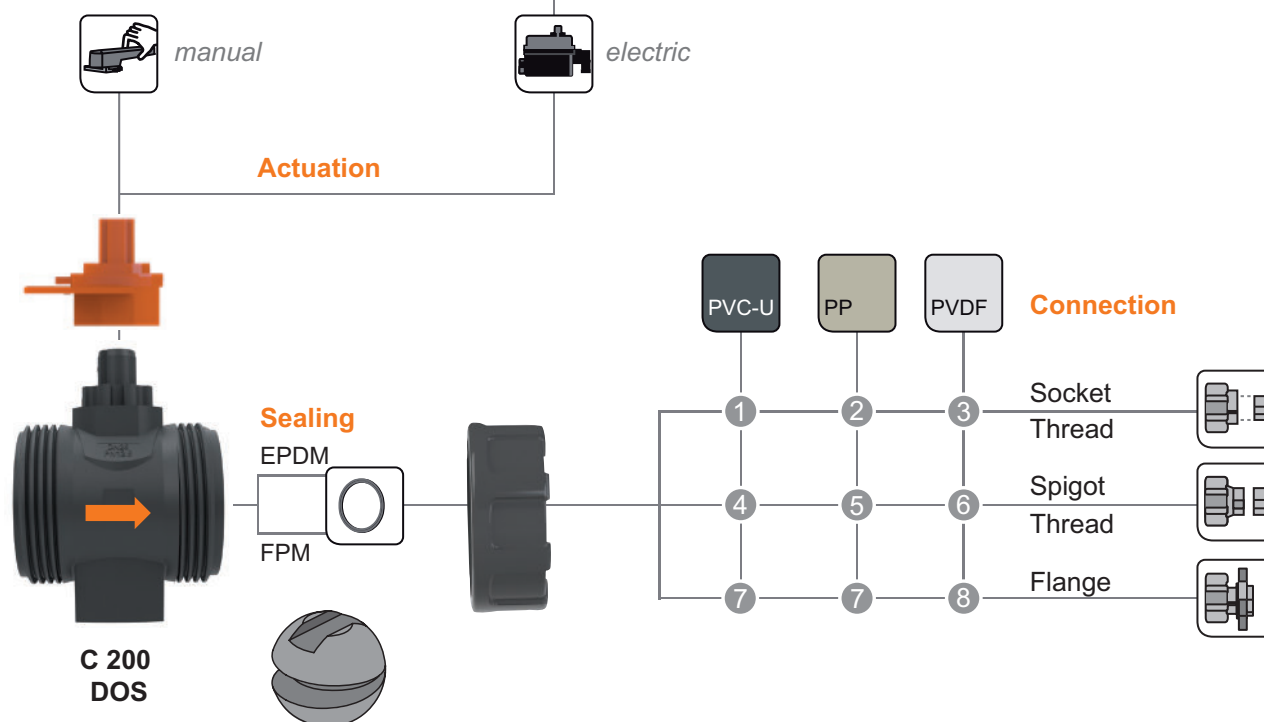
⑦ **PP/St.** flange **ANSI**  
**GFK** flange **DIN**

⑧ **PP/St.** flange **DIN, ANSI**

# Pictograph Ball valve C 200 DOS

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- not available

**On request**  
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female thread Rp  
**1.4571** female thread Rp  
male thread R  
**2.0401** female thread Rp  
male thread R

- ② **PP** socket **DIN\***  
female thread Rp

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\* incl. DN 10

- ④ **PE** spigot (90 mm)

- ⑤ **PP** spigot IR  
**PE** spigot (90 mm)

- ⑥ **PVDF** spigot IR

- ⑦ **PP/St.** flange **ANSI**  
**GFK** flange **DIN**

- ⑧ **PP/St.** flange **DIN, ANSI**

## Use

- Chemical and industrial plant engineering

## Application

Proportional ball valve C 200 PROP:

- For precise and reproducible dosing of neutral or aggressive fluids free of solid particles
- for medium-strength volume flows
- for dosing applications with high linearity demands
- as an alternative for diaphragm valves
- manual or electric automation

Dosing ball valve C 200 DOS

- For precise and reproducible dosing of neutral or aggressive fluids free of solid particles
- for low-strength volume flows and high dosing accuracy
- manual or electric automation

## Testing

- Requirements and testing according to DIN EN ISO 16135 and ISO 9393
- Not suitable as a stop cock due to the system design

## Flow medium

- Neutral and aggressive fluid or gaseous media free of solid particles, provided that the valve components coming into contact with the media are resistant at the operating temperature in accordance with the ASV resistance guide.

## Flow direction

- marked with arrow on the housing

## ASV resistance guide

[www.asv-stuebbe.de/pdf\\_resistance/300051.pdf](http://www.asv-stuebbe.de/pdf_resistance/300051.pdf)

## Process temperature

- see pressure/temperature diagram

## Process pressure

- see pressure/temperature diagram

## Nominal pressure (H<sub>2</sub>O, 20 °C)

- PN 10–16 bar

## Size

C 200 PROP:

- DN 10–50

C 200 DOS:

- DN 10–25

## Actuation

- manual: with hand lever
- electric: with electric variable speed actuator, DIN EN ISO 5211 (additional option)

## Connection

- Union nut with connection thread suitable for plastic materials

## Material with medium contact

Housing:

- PVC-U, PP, PVDF

Ball:

- PVC-U, PP, PVDF

Ball pivot:

- PVC-U, PP glass fibre reinforced, PVDF

Ball seal:

- PTFE

Sealing element, O-ring:

- FPM, EPDM

## Material without medium contact

Hand lever, scale disc:

- ASA

## Fastening

- via two threaded inserts (Ensate inserts) in the mounting base

## Mounting position

- any; however, observe the flow direction

## Basic valve colour

- Housing: PVC-U, grey, RAL 7011
- Housing: PP, grey, RAL 7032
- Housing: PVDF, opaque, yellowish-white
- Hand lever: black, RAL 9005
- Hand lever inlay: orange, RAL 2004
- Scale disc: orange, RAL 2004

## Device connection

- see pictograph

## Additional options

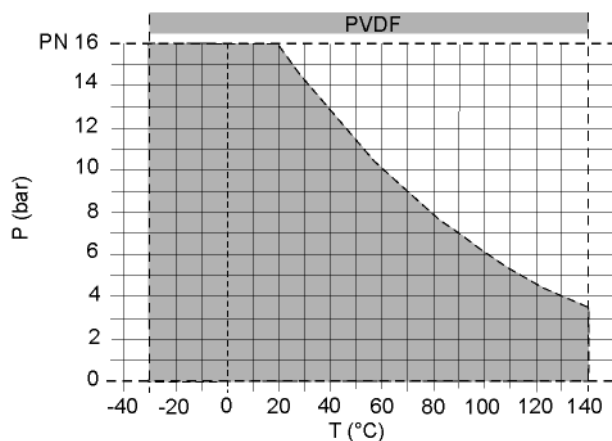
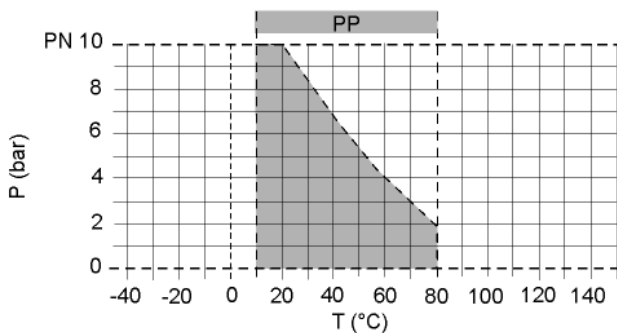
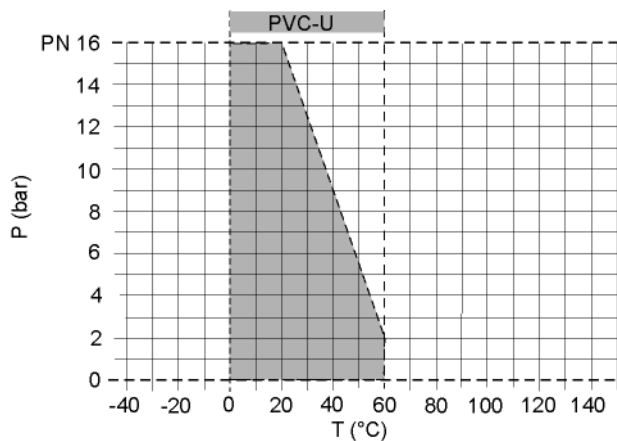
- Electric variable speed actuator Valpes
- Electric variable speed actuator J+

## Accessories

- Retrofitting set for automatic valves

# Ball valve C 200 PROP / C 200 DOS

## Pressure/temperature diagram



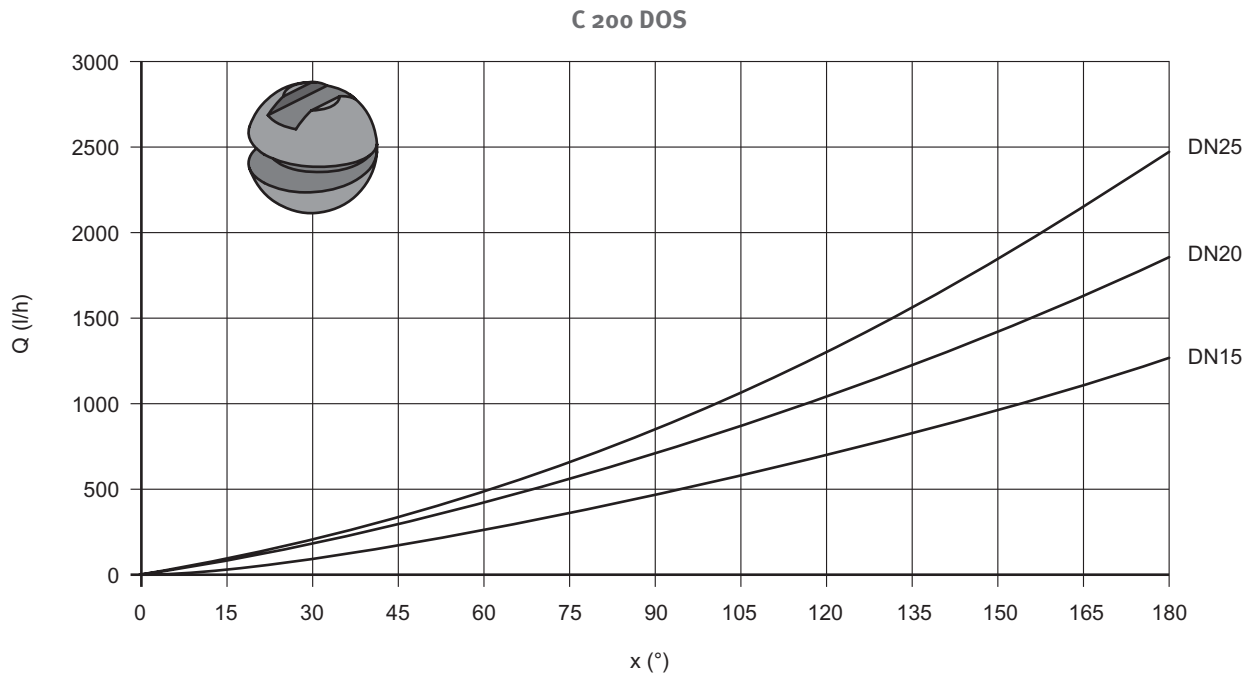
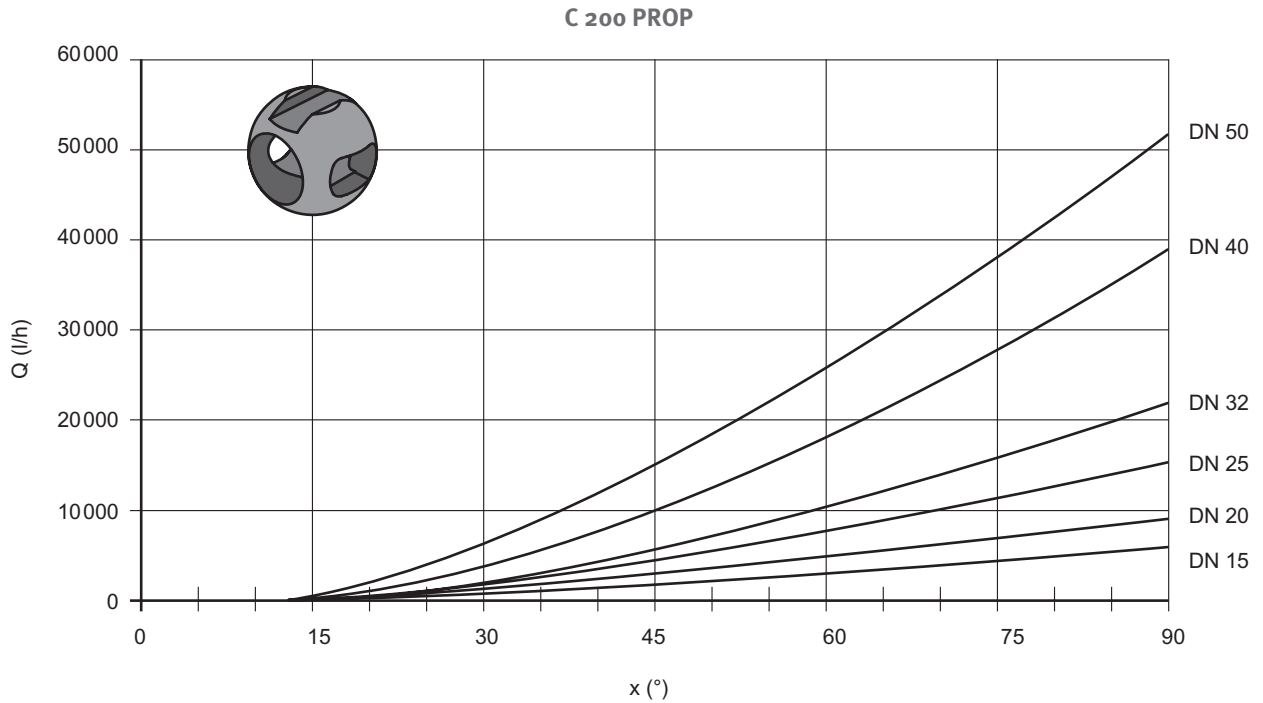
The pressure/temperature limits of the materials are valid for the stated nominal pressures and a service life of 25 years. These values are guide values for flow medium types which do not negatively impact the physical and chemical characteristics of the valve material. It may be necessary to take diminution factors into consideration. The operating life of the wear parts depends on the conditions of use.

### Description

P	Operating pressure
T	Temperature

# Ball valve C 200 PROP / C 200 DOS

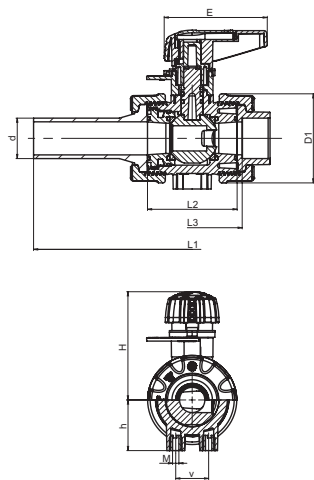
## Flow Q at delta p 1 bar



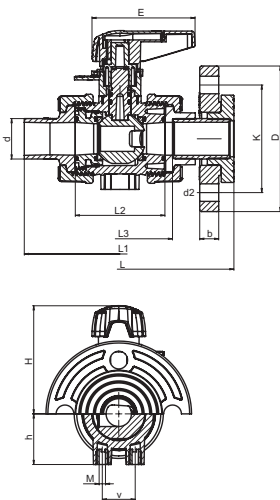
Description	
Q	Flow
X	Scale graduation

# Ball valve C 200 PROP / C 200 DOS with hand lever

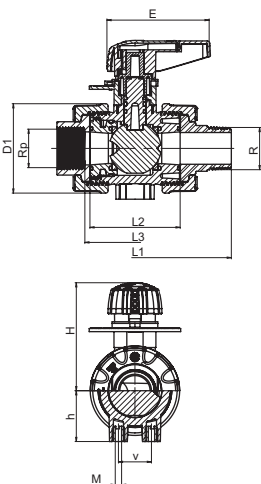
## Connection, PE spigot / socket



## Connection, PP-(PVDF)-spigot end / flange



## Connection female thread / male thread



## Basic valve dimensions

d (mm)	20	25	32	40	50	63
DN (mm)	15	20	25	32	40	50
DN (inch)	1/2	3/4	1	1 1/4	1 1/2	2

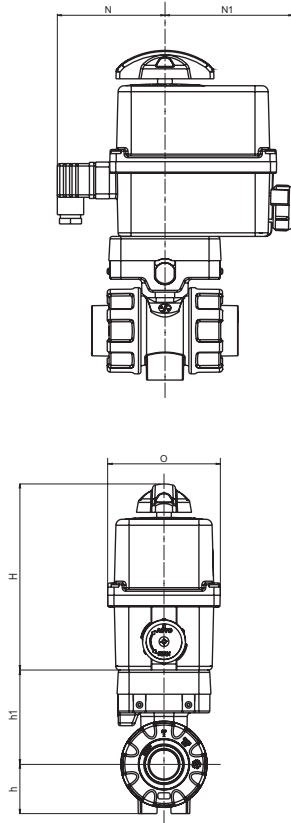
Dimension	Housing material	Union end variant						
b	PVDF	PP/St.-flange DIN	13	14.5	15.5	17.5	17.5	19
	PP/PVC-U	GFK-flange DIN	12	14	15	17	17	18.5
	PP/PVC-U/PVDF	PP/St.-flange ANSI	12	12	16	16	18	18
d2	PVDF	PP/St.-flange DIN	14	14	14	18	18	18
	PP/PVC-U	GFK-flange DIN	14	14	14	18	18	18
	PP/PVC-U/PVDF	PP/St.-flange ANSI	16	16	16	16	16	20
D	PVDF	PP/St.-flange DIN	96	106	116	141	151	166
	PP/PVC-U	GFK-flange DIN	96.5	106	115	142	152	168
	PP/PVC-U/PVDF	PP/St.-flange ANSI	95	105	113	130	133	160
D1	PP/PVC-U/PVDF		50.5	59	70.5	86	99.5	126
E			66.5	81.5	81.5	91.5	91.5	143
h			27	30	40	46	55	70
H	PP/PVC-U/PVDF		63	77	86	110	116	151
K	PVDF	PP/St.-flange DIN	65	75	85	100	110	125
	PP/PVC-U	GFK-flange DIN	65	75	85	100	110	125
	PP/PVC-U/PVDF	PP/St.-flange ANSI	60	70	80	89	98	121
L	PP/PVC-U/PVDF	PP/St.-flange DIN/ANSI	150	170	180	210	230	278
		GFK-flange DIN						
L1	PVDF	PVDF-spigot end	130	143	150	171.5	191.5	220
		PP-spigot end	131	143.5	152	172	192	222
	PVC-U	PE-spigot end	236.5	245	251	265.5	269	281
		Male thread R 1.4571/2.0401	125	138	151.5	178	185	212
L2	PVDF	-	56	65	71	85.5	89.5	101
	PP	-	56.5	65	71	85.5	89	101
	PVC-U	-	56	65	71	85	89	101
L3	PVDF	PVDF-socket DIN	66	77	83	99.5	105.5	117
		PP-socket DIN	67	77	83	100	106	117
	PVC-U	PP-female thread Rp	63.5	72	81	99	106	117
		PVC-U-socket DIN	63	72	79	94	96	108
		PVC-U-socket ANSI	63	72	79	94	96	108
		PVC-U-socket BS	62	71	77	91	95	107
		PVC-U-socket JIS	62	71	77	91	96.5	107
		PVC-U-female thread Rp	63	72	79	94	96	108
1.4571/2.0401-female thread Rp	63	72	79	94	96	108		
M	PP/PVC-U/PVDF		M5	M5	M6	M8	M8	M8
R*		1.4571/2.0401-male thread R	1/2	3/4	1	1 1/4	1 1/2	2
Rp*		1.4571/2.0401/PP/PVC-U-female thread Rp	1/2	3/4	1	1 1/4	1 1/2	2
v	PP/PVC-U/PVDF		25	25	26	45	45	45

all dimensions in mm / \* dimensions in inch

## Additional options Ball valve C 200 PROP / C 200 DOS

Electric variable speed actuator with basic valve

### Variable speed actuator Valpes



### Dimensions, variable speed actuator Valpes

d (mm)	16	20	25	32	40	50	63
DN (mm)	10	15	20	25	32	40	50
DN (inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
h	27.0	27.0	30.0	40.0	46.0	55.0	70.0
h1	63.5	63.5	69.0	77.0	86.5	92.5	108.0
H	152.0	152.0	152.0	152.0	152.0	152.0	152.0
N	88.0	88.0	88.0	88.0	88.0	88.0	88.0
N1	105.0	105.0	105.0	105.0	105.0	105.0	105.0
O	92.0	92.0	92.0	92.0	92.0	92.0	92.0

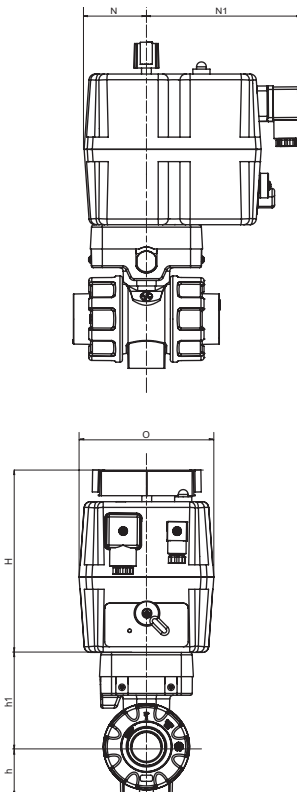
### Dimensions, variable speed actuator J&J

d (mm)	16	20	25	32	40	50	63
DN (mm)	10	15	20	25	32	40	50
DN (inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
h	27.0	27.0	30.0	40.0	46.0	55.0	70.0
h1	63.5	63.5	69.0	77.0	86.5	92.5	108.0
H	148.0	148.0	148.0	148.0	148.0	148.0	148.0
N	51.0	51.0	51.0	51.0	51.0	51.0	51.0
N1	130.0	130.0	130.0	130.0	130.0	130.0	130.0
O	110.0	110.0	110.0	110.0	110.0	110.0	110.0

### Note

Electric actuators may not be installed in an over-head position!

### Variable speed actuator J&J





## Additional options Ball valve C 200 PROP / C 200 DOS

Electric variable speed actuator Valpes

### Technical data

Manufacturer: Valpes ER

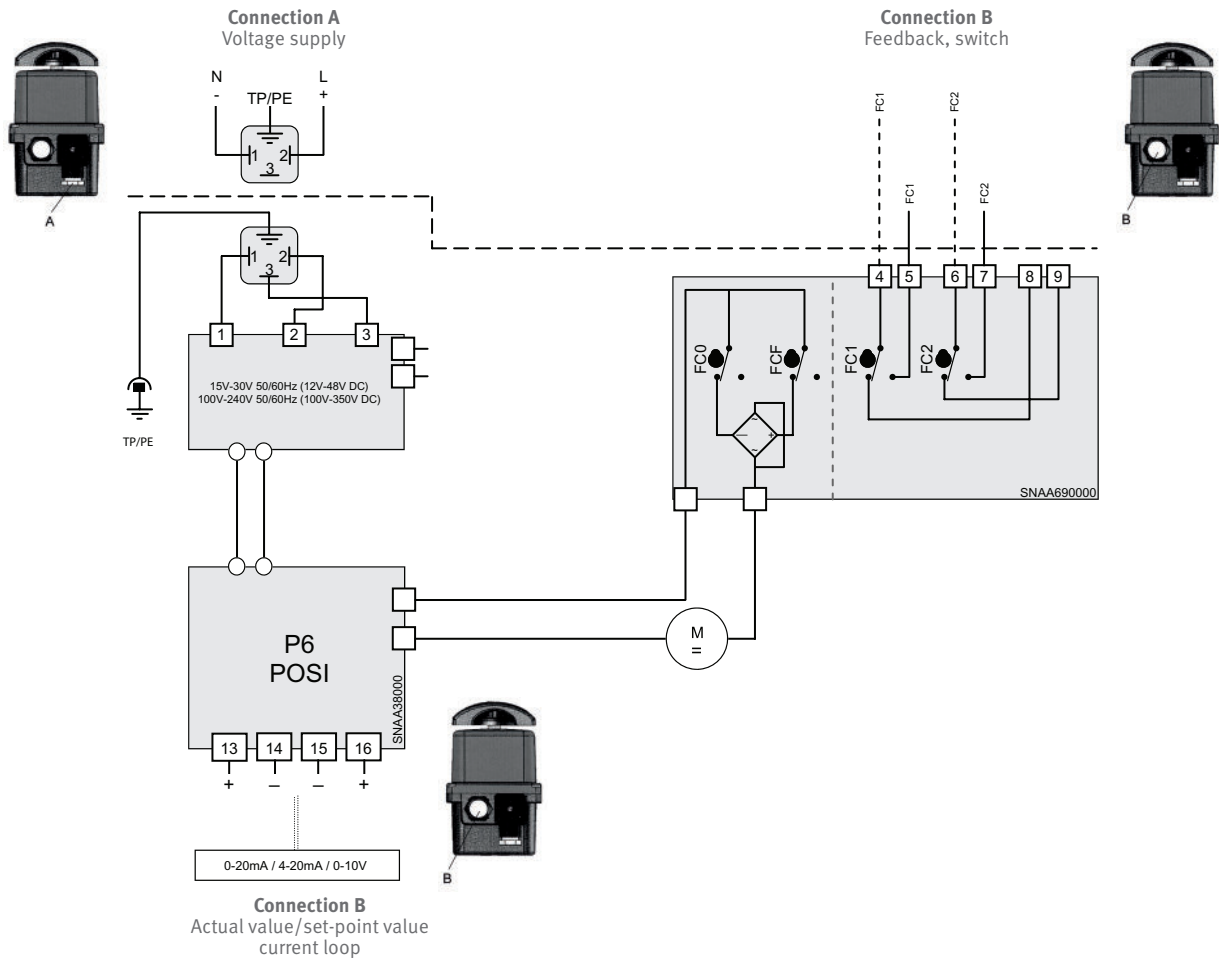
Actuator type	ER 20 Plus incl. heater, extendible	
	Low voltage	Mains voltage
Torque (Nm)	20	20
Voltage AC (V)	15–30	100–240
Voltage DC (V)	12–48	100–350
Manipulating time (s)	12	12
Setting angle (°)	90 Prop /180 Dos	90 Prop /180 Dos
Power consumption (W)	15	15
Weight (kg)	1	1
Duty cycle (%)	50	50
Protection type (IP)	66	66
Temperature (°C)	-10–55	-10–55
Heating	Included	Included
Options	Fail-Safe/rechargeable battery pack	Fail-Safe/rechargeable battery pack
Variable speed actuator	Variable speed actuator	Variable speed actuator

# Additional options Ball valve C 200 PROP / C 200 DOS

Electric variable speed actuator Valpes

## Wiring diagram

Manufacturer: Valpes ER



### Connection A: Voltage supply

	Description
A	Voltage supply AC/DC
1	Connection of the neutral conductor (N/AC) / Minus (-/DC)
2	Connection of the phase / Plus (L/+)

### Connection B: Feedback, switch

	Description
B	Feedback
FC1	Limit switch, valve »OPEN«
FC2	Limit switch, valve »CLOSED«
M	Motor
4	FC1 COM
5	FC1 (NO)
6	FC2 COM
7	FC2 (NO)
8	FC1 (NC)
9	FC2 (NC)

### Connection B: Actual value/set-point value current loop

	Description
B	Actual value/set-point value current loop
13	0-20 mA / 4-20 mA / 0-10 V Feedback / Actual value (+)
14	0-20 mA / 4-20 mA / 0-10 V Feedback / Actual value (-)
15	0-20 mA / 4-20 mA / 0-10 V Set-point value (-)
16	0-20 mA / 4-20 mA / 0-10 V Set-point value (+)

## Additional options Ball valve C 200 PROP / C 200 DOS

Electric variable speed actuator J&J

### Technical data

Manufacturer: J&J

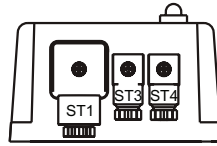
Actuator type	J3 incl. heater, extendible	
	Low voltage	Mains voltage
Torque (Nm)	20	20
Voltage AC (V)	12-24	85-240
Voltage DC (V)	12-24	85-240
Manipulating time (s)	12	11
Setting angle (°)	90 Prop /180 Dos	90 Prop /180 Dos
Power consumption (W)	26	110V-19W; 230V-44W
Weight (kg)	1.8	1.8
Duty cycle (%)	75	75
Protection type (IP)	65	65
Temperature (°C)	-20-70	-20-70
Heating	Yes	Yes
Options	Fail-Safe/rechargeable battery pack	Fail-Safe/rechargeable battery pack
Variable speed actuator	Variable speed actuator	Variable speed actuator

# Additional options Ball valve C 200 PROP / C 200 DOS

Electric variable speed actuator J&J

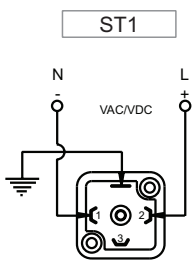
## Wiring diagram

Manufacturer: J&J

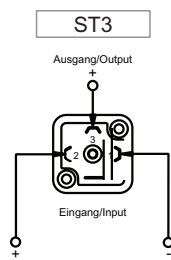


Modell H/L 20

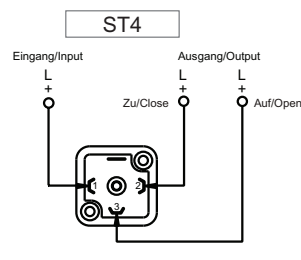
### Voltage supply



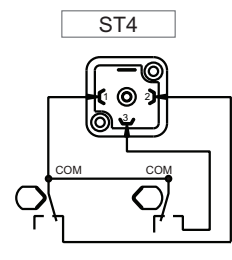
### Control signal connection



### Limit switches external



### Limit switches internal



## Voltage supply AC/DC

	Description
1	Connection of the neutral conductor (N/AC) / Minus (-/DC)
2	Connection of the phase / Plus (L/+)

## Limit switches

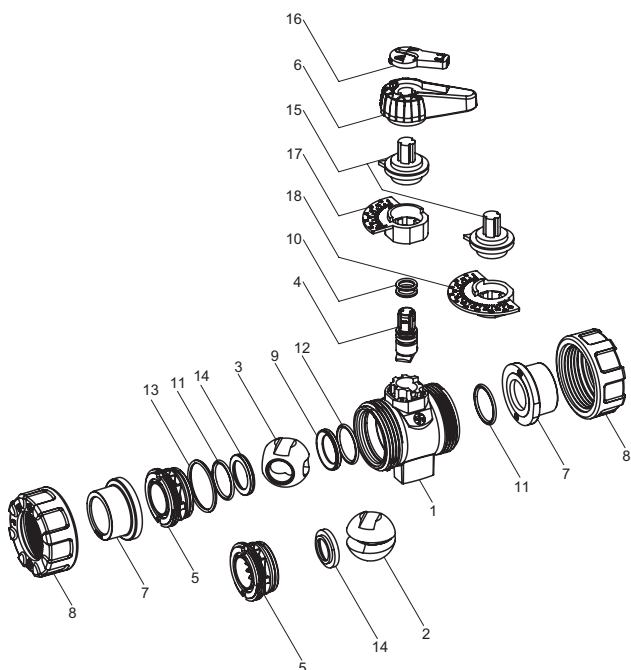
	Description
1	Connection of the voltage input COM (+/L)
2	Connection of the limit switch output (+/L) »CLOSED«
3	Connection of the limit switch output (+/L) »OPEN«

## Control signal connection

	Description
1	Connection Minus (-)
2	4-20 mA / 0-10 V Input set-point value (+)
3	4-20 mA / 0-10 V Output Feedback / actual value (+)

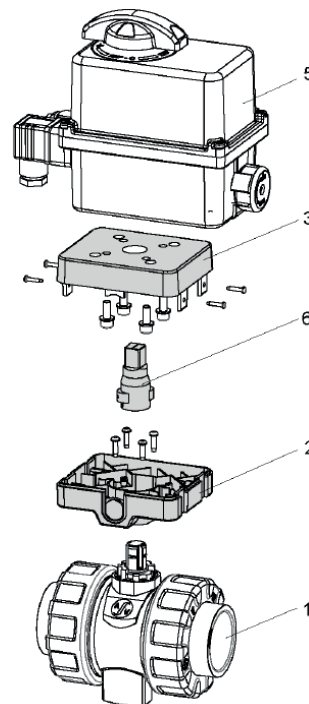
# Ball valve C 200 PROP / C 200 DOS

## Basic valve with hand lever, connection socket



Position	Quantity	Designation
1	1	Housing
2	1	Ball DOS
3	1	Ball PROP
4	1	Ball pivot
5	1	Union threaded neck
6	1	Hand lever
7	2	Union end
8	2	Union nut
9	2	Ball seat
10	2	O-ring
11	2	O-ring
12	1	O-ring
13	1	O-ring
14	1	Ball seat
15	1	Locking slide
16	1	Hand lever inlay
17	1	Scale disc PROP
18	1	Scale disc DOS

## Electric variable speed actuator Valpes / J&J with basic valve



Position	Quantity	Designation
1	1	Ball valve
2	1	Mounting box, bottom section
3	1	Mounting box, top section
5	1	Electric actuator
6	1	Drive adapter