GEMÜ 723

Motorized ball valve

Features

- High flow rates
- Low weight
- Choice of various body materials and connection types
- Available as shut off or control valve
- 2/2 and 3/2-way versions available

Description

The 2/2 and/or 3/2-way GEMÜ 723 ball valve is motorized. It has a plastic actuator housing. A manual override and an optical position indicator are integrated as standard. The seat seal is made from PTFE and the O-ring seals can be made from either EPDM or FKM.

Technical specifications

- Media temperature *: -20 to 100 °C
- Ambient temperature*: -10 to 50 °C
- Operating pressure*: 0 to 16 bar
- Nominal sizes : 3/8“ (DN10) to 4“ (DN100)
- Body configurations: 2/2-way body I Multi-port body
- Connection types: Flange I Solvent cement socket I Spigot I Threaded connection I Union end
- Connection standards: ANSI I BS I DIN I EN I ISO I JIS
- Body materials: ABS I PP-H, grey I PVC-C, chlorinated I PVC-U, grey I PVDF
- Seal materials : EPDM I FFKM I FKM
- Supply voltage: 12 - 250 V AC/DC
- Operating time 90°: 11 to 20 s
- Protection class: IP 65

* depending on version and/or operating parameters

further information
webcode: GW-723

Product line

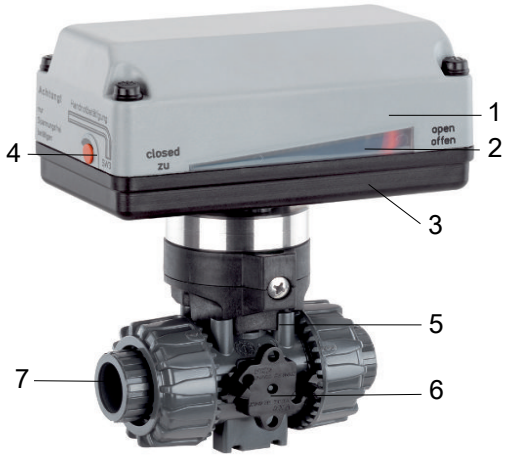
			
	GEMÜ 710	**GEMÜ 717**	**GEMÜ 723**
Operation			
Manual	-	●	-
Pneumatic	●	-	-
Motorized	-	-	●
Nominal sizes	DN 10 to 100	DN 10 to 100	DN 10 to 100
Media temperature *	-20 to 100 °C	-20 to 100 °C	-20 to 100 °C
Operating pressure *	0 to 16 bar	0 to 16 bar	0 to 16 bar
Connection types			
Flange	●	●	●
Solvent cement socket	●	●	●
Spigot	●	●	●
Threaded connection	●	●	●
Union end	●	●	●

* depending on version and/or operating parameters

Motorized actuators GEMÜ, J+J

			
	GEMÜ 9428	**GEMÜ 9468**	**GEMÜ J4C**
Manufacturer	GEMÜ	GEMÜ	J+J
Manufacturer type	9428	9468	J4C
Torques	6 to 55 Nm	70 to 200 Nm	20 to 300 Nm
Duty cycle	100 % (12 V/24 V) 40 % (100 - 250 V)	30 % (ON/OFF actuator) 50 % (control actuator)	75 %
Heating	No	No	Yes
Voltage			
100 - 250 V, 50/60 Hz	●	-	-
12 V AC, 50/60 Hz	●	-	-
12 V DC	●	-	●
230 V AC, 50 Hz	●	-	-
24 - 240 V AC/DC	-	-	●
24 V AC, 50/60 Hz	●	-	-
24 V DC	●	●	-
Protection class	IP 65	IP 65	IP 67
Ambient temperature	-10 to 60 °C	-10 to 60 °C	-20 to 70 °C
Housing materials			
ABS	-	●	-
Aluminium	-	●	-
Polyamide (PA6)	-	-	●
PP	●	-	-
Versions			
Limit switches	●	●	●
ON/OFF actuator	●	●	-
Optional battery pack	-	-	●
Optional positioner	-	-	●
Optional positioning actuator	-	●	●
Optional potentiometer	-	●	-
Optionally 3 positions	-	-	●

Product description



Item	Name	Materials
1	Housing cover	Actuator versions 1006, 1015, 2006, 2015: PPE + 30 % glass fibre reinforced Actuator version 3035: PP + 20 % glass bead reinforced Actuator version 2070: ABS
2	Optical position indicator	PP-R natural
3	Housing base	Actuator versions 1006, 1015, 2006, 2015: PP + 30 % glass fibre reinforced Actuator version 3035: PP + 20 % glass bead reinforced Actuator version 2070: ABS
4	Connection for manual override	-
5	Ball valve body	PVC-U, PVC-C, ABS, PP-H or PVDF
6	Anti-twist protection	POM
7	Pipe connections	PVC-U, PVC-C, ABS, PP-H or PVDF
	Ball valve seals	FPM, EPDM
	Ball valve seat seals	PTFE

GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.

Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

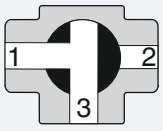
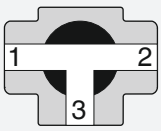
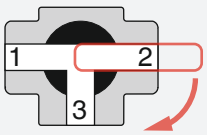
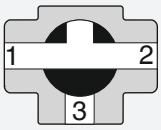
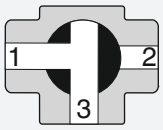
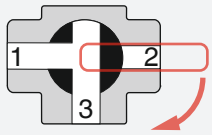
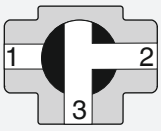
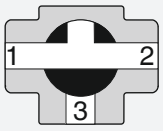
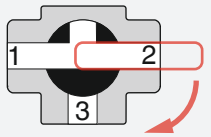
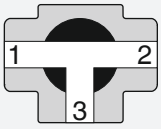
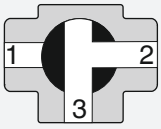
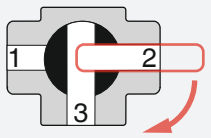
For further information on GEMÜ CONEXO please visit:
www.gemu-group.com/conexo

Ordering

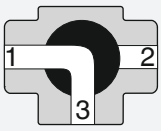
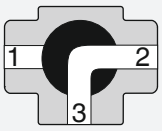
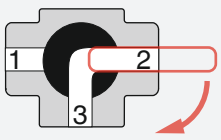
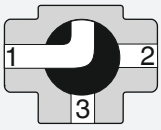
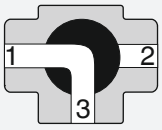
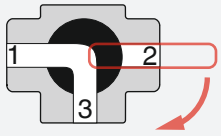
GEMÜ Conexo must be ordered separately with the ordering option "CONEXO" (see order data).

Port positions

T-port

	CLOSED end position	OPEN end position	Condition as supplied to customer OPEN
Delivery condition			
Code T			
Optional port positions, can be user adjusted			
Code 2			
Code 3			
Code 4			

L-port

	CLOSED end position	OPEN end position	Condition as supplied to customer OPEN
Delivery condition			
Code L			
Optional port positions, can be user adjusted			
Code 6			

Control ball

	Control ball	Scale
Code R		

For 0°- 90° control range, linear control characteristic between port position and percentage flow rate.
NOTE: Ball configuration (R) cannot be retrofitted to standard 2/2-way bodies at a later date.

Availability

2/2-way body (code D)

DN	Connection type code [1]								
	2	4	33	39	3M	3T	78*	7R	7R
	Material code [2]								
	1, 2, 4, 5, 20	1, 2, 5, 20	1, 4	1, 2, 5, 20	1, 2	1	1, 5, 20	1	4, 5
10	X	-	X	-	-	-	-	-	-
15	X	X	X	X	X	X	X	X	X
20	X	X	X	X	X	X	X	X	X
25	X	X	X	X	X	X	X	X	X
32	X	X	X	X	X	X	X	X	X
40	X	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X	X
65	X	X	X	X	X	X	X	X	-
80	X	X	X	X	X	X	X	X	-
100	X	X	X	X	X	X	X	X	-

* Inserts according to valve body material,
special version: PE insert, design code 1187

1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 4: Union end with flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 33: Union end with inch insert - BS (socket)
Code 39: Union end with flange ANSI Class 125/150 RF
Code 3M: Union end with inch insert – ASTM (socket)
Code 3T: Union end with JIS insert (socket)
Code 78: Union end with insert (for IR butt welding) - DIN
Code 7R: Union end with insert (Rp threaded socket) - DIN

2) **Ball valve material**
Code 1: PVC-U, grey
Code 2: PVC-C
Code 4: ABS
Code 5: PP-H, grey
Code 20: PVDF

Multi-port design (code M)

DN	Connection type code [1]							
	2	4	33	39	3M	3T	78*	7R
	Material code [2]							
	1, 2, 5	1, 5	1	1	1, 2	1	1, 5	1, 5
10	X	-	-	-	-	-	-	-
15	X	X	X	X	X	X	X	X
20	X	X	X	X	X	X	X	X
25	X	X	X	X	X	X	X	X
32	X	X	X	X	X	X	X	X
40	X	X	X	X	X	X	X	X
50	X	X	X	X	X	X	X	X
65	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-

* Inserts according to valve body material,
special version: PE insert, design code 1187

1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 4: Union end with flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 33: Union end with inch insert - BS (socket)
Code 39: Union end with flange ANSI Class 125/150 RF
Code 3M: Union end with inch insert – ASTM (socket)
Code 3T: Union end with JIS insert (socket)
Code 78: Union end with insert (for IR butt welding) - DIN
Code 7R: Union end with insert (Rp threaded socket) - DIN

2) **Ball valve material**
Code 1: PVC-U, grey
Code 2: PVC-C
Code 5: PP-H, grey

Actuator assignment

GEMÜ actuator

DN	Actuator version code [1]					
	1006	1015	2006	2015	3035	2070
10	X	X	X	X	-	-
15	X	X	X	X	-	-
20	X	X	X	X	-	-
25	X	X	X	X	-	-
32	-	X	-	X	-	-
40	-	X	-	X	-	-
50	-	-	-	-	X	X
65	-	-	-	-	X	X
80	-	-	-	-	-	X

1) **Actuator version**
Code 1006: GEMÜ actuator, motorized, size 1, operating time 4 s, torque 6 Nm, supply voltage B1, C1, B4, C4
Code 1015: GEMÜ actuator, motorized, size 1, operating time 11 s, torque 15 Nm, supply voltage B1, C1
Code 2006: GEMÜ actuator, motorized, size 2, operating time 4 s, torque 6 Nm, supply voltage O4
Code 2015: GEMÜ actuator, motorized, size 2, operating time 11 s, torque 15 Nm, supply voltage B4, C4, O4
Code 3035: GEMÜ actuator, motorized, size 3, operating time 15 s, torque 35 Nm, supply voltage C1, O4
Code 2070: GEMÜ actuator, motorized, size 2, operating time 15 s, torque 70 Nm, supply voltage C1

Voltage/Frequency

Actuator version Code	Control module Code [1]	12 V DC (code B1)	12 V AC (code B4)	24 V DC (code C1)	24 V AC (code C4)	100-250 V AC (code O4)
1006	**A0, AE**	X	X	X	X	-
9428	**A0, AE**	X	-	X	-	-
2006	**A0, AE**	-	-	-	-	X
2015	**A0, AE**	-	X	-	X	X
3035	**A0, AE**	-	-	X	-	X
2070	**00, 0E, 0P**	-	-	X	-	-

1) **Control module**
Code A0: ON/OFF actuator
Code AE: OPEN/CLOSE control, 2 additional potential-free limit switches, Class A (EN15714-2)

J+J actuator

DN	Actuator version [1]			
	J4C20	J4C35	J4C55	J4C85
	Voltage/Frequency			
	12 V DC (code B1), 24-240 V AC/DC (code U5)			
10	X	-	-	-
15	X	-	-	-
20	X	-	-	-
25	X	-	-	-
32	X	-	-	-
40	X	-	-	-
50	X	-	-	-
65	-	X	-	-
80	-	-	X	-
100	-	-	-	X

1) **Actuator version**
Code J4C20: J+J actuator, motorized, type J4C, operating time 10 s, torque 20 Nm, heating, IP 67
Code J4C35: J+J actuator, motorized, type J4C, operating time 10 s, torque 35 Nm, heating, IP 67
Code J4C55: J+J actuator, motorized, type J4C, operating time 14 s, torque 55 Nm, heating, IP 67
Code J4C85: J+J actuator, motorized, type J4C, operating time 30 s, torque 85 Nm, heating, IP 67

J+J - Control module

Control module	Code [1]	Actuator version (code)			
		J4C20	J4C35	J4C55	J4C85
Open/close	**A3**	X	X	X	X
	AE	X	X	X	X
	AE1	X	X	X	X
	AE2	X	X	X	X
	AP	X	X	X	X
	AP1	X	X	X	X
Positioner	**E1**	X	X	X	X
	E11	X	X	X	X
	E2	X	X	X	X
	E21	X	X	X	X

1) **Control module**
Code A3: Open/Close control with 2 additional, potential-free limit switches, 3-position actuator
Code AE: Open/Close control with 2 additional, potential-free limit switches
Code AE1: Open/Close control with 2 additional, potential-free limit switches, with BSR accupack (NC)
Code AE2: Open/Close control with 2 additional, potential-free limit switches, with BSR accupack (NO)
Code AP: Open/Close control, with 5 kOhm potentiometer output
Code AP1: Auf/Zu Steuerung, with 5 kOhm potentiometer output, with BSR accupack (NC)
Code E1: Positioner DPS, 0 - 10 V
Code E11: Positioner DPS, 0 - 10 V, with BSR accupack (NC)
Code E2: Positioner DPS 4 - 20 mA
Code E21: Positioner DPS 4 - 20 mA with BSR accupack (NC)

Order data

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

Order codes

1 Type	Code
Ball valve, plastic, motorized	723

2 DN	Code
DN 10	10
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100

3 Body configuration	Code
2/2-way body	D
Multi-port version	M

4 Connection type	Code
Union end with insert (solvent cement or weld socket) - DIN	2
Union end with flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	4
Union end with inch insert - BS (socket)	33
Union end with flange ANSI Class 125/150 RF	39
Union end with inch insert – ASTM (socket)	3M
Union end with JIS insert (socket)	3T
Union end with insert (for IR butt welding) - DIN	78
Union end with insert (Rp threaded socket) - DIN	7R

5 Ball valve material	Code
PVC-U, grey	1
PVC-C	2
ABS	4
PP-H, grey	5
PVDF	20

6 Seal material	Code
FKM	4
EPDM	14
FFKM	F5

7 Voltage/Frequency	Code
12 VDC	B1

7 Continuation of Voltage/Frequency	Code
12 V 50/60 Hz	B4
24 VDC	C1
24 V 50/60 Hz	C4
100-250V 50/60Hz	O4

8 Control module	Code
ON/OFF actuator	A0
ON/OFF actuator, 2 additional potential-free limit switches, Class A (EN15714-2)	AE
ON/OFF actuator, relay, not reversible	00
ON/OFF actuator, 2 additional potential-free limit switches, relay, not reversible	0E
ON/OFF actuator, potentiometer output, relay, not reversible	0P

9 Actuator version	Code
GEMÜ actuator, motorized, size 1, operating time 4 s, torque 6 Nm, supply voltage B1, C1, B4, C4	1006
GEMÜ actuator, motorized, size 2, operating time 4 s, torque 6 Nm, supply voltage O4	2006
GEMÜ actuator, motorized, size 1, operating time 11 s, torque 15 Nm, supply voltage B1, C1	1015
GEMÜ actuator, motorized, size 2, operating time 11 s, torque 15 Nm, supply voltage B4, C4, O4	2015
GEMÜ actuator, motorized, size 3, operating time 15 s, torque 35 Nm, supply voltage C1, O4	3035
GEMÜ actuator, motorized, size 2, operating time 15 s, torque 70 Nm, supply voltage C1	2070

10 Ball config./port position	Code
2/2-way body	
R ball (control ball) for 0°- 90° control range linear control characteristic between port position and percentage flow rate	R
Multi-port version	
L-port, standard end position "Open", connection 2 and 3 open, L-port, standard end position "Closed", connection 1 and 3 open	L

10 Continuation of Ball config./port position	Code
T-port, standard end position "Open", connection 1, 2 and 3 open, T-port, standard end position "Closed", connection 1 and 3 open	T
T-port, end position "Open", connection 1 and 3 open, T-port, end position "Closed", connection 1 and 2 open	2
T-port, end position "Open", connection 1 and 2 open, T-port, end position "Closed", connection 2 and 3 open	3

10 Continuation of Ball config./port position	Code
T-port, end position "Open", connection 2 and 3 open, T-port, end position "Closed", connection 1, 2 and 3 open	4
L-port, end position "Open", connection 1 and 3 open, L-port, end position "Closed", connection 1 open	6

11 Special specification	Code
Without	
Insert in PE	1187

12 CONEXO	Code
without	
Integrated RFID chip for electronic identification and traceability	C

Order example

Order option	Code	Description
1 Type	723	Ball valve, plastic, motorized
2 DN	15	DN 15
3 Body configuration	M	Multi-port version
4 Connection type	33	Union end with inch insert - BS (socket)
5 Ball valve material	1	PVC-U, grey
6 Seal material	14	EPDM
7 Voltage/Frequency	C1	24 VDC
8 Control module	A0	ON/OFF actuator
9 Actuator version	1006	GEMÜ actuator, motorized, size 1, operating time 4 s, torque 6 Nm, supply voltage B1, C1, B4, C4
10 Ball configur./port position	T	T-port, standard end position "Open", connection 1, 2 and 3 open, T-port, standard end position "Closed", connection 1 and 3 open
11 Special specification		Without
12 CONEXO		without

Technical data

Ball valve

Medium

Working medium: Corrosive, inert, gaseous and liquid media and steam which have no negative impact on the physical and chemical properties of the body and seal material.

Temperature

Media temperature: see Pressure / temperature diagram

Seal material: FPM: -15 – 210 °C
EPDM: -20 – 95 °C

Ambient temperature: Valve body ABS: -20 to 60 °C

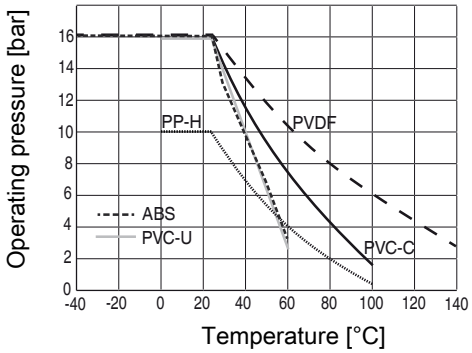
Valve body PP-H: 5 to 60 °C

Valve body PVC-U, PVC-C: 10 to 50 °C

Valve body PVDF: -5 to 50 °C

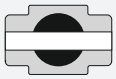
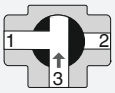
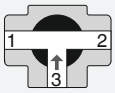
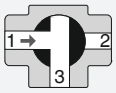
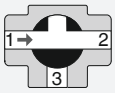
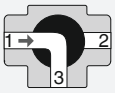
Pressure

Operating pressure: Pressure / temperature diagram



Data for extended temperature ranges on request. Please note that the ambient temperature and media temperature generate a combined temperature at the valve body which must not exceed the above values.

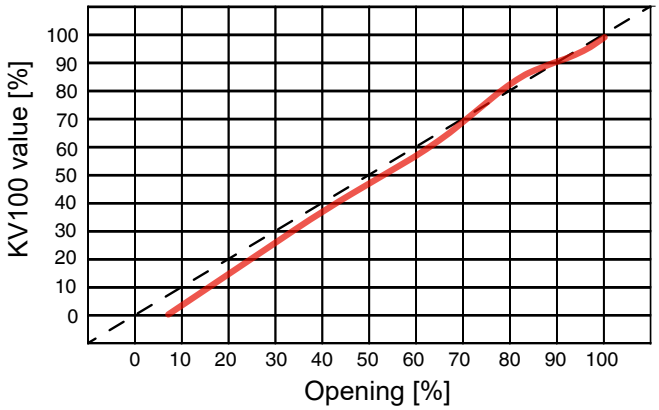
Kv values:

DN	Body configuration						
	2/2-way		Multi-port (code M)				
	(code D)	(code R)	T-port	T-port	T-port	T-port	L-port
							
10	4.8	4.98	2.2	1.5	2.4	4.7	2.9
15	12.0	5.28	3.3	2.1	3.9	11.7	4.4
20	23.1	8.10	8.1	5.7	8.7	22.8	9.0
25	46.2	15.36	12.3	8.4	14.7	45.6	15.9
32	66.0	28.68	23.4	16.2	27.6	63.0	28.5
40	105.0	35.52	28.5	19.8	36.0	102.0	37.2
50	204.0	64.08	54.0	37.2	72.0	192.0	73.2
65	315.0	-	-	-	-	-	-
80	426.0	-	-	-	-	-	-
100	570.0	-	-	-	-	-	-

Kv values in m³/h

Control diagram:

with control ball (code R)



For 0°- 90° control range, linear control characteristic between port position and percentage flow rate.

NOTE: Ball configuration (R) cannot be retrofitted to standard 2/2-way bodies at a later date.

Mechanical data

Torques:

DN	2/2-way code D				Multi-port code M		
	PN 6	PN 10	PN 16		PN 10		PN 16
	Material code [1]						
	1, 2, 4, 5, 20	5	1, 2, 20	4	1, 2	5	1, 2
10	-	2.4	3.6	3.0	-	-	-
15	-	2.4	3.6	3.0	2.4	2.4	3.6
20	-	3.6	4.0	4.0	3.6	3.6	4.8
25	-	4.8	6.0	6.0	5.0	5.0	5.4
32	-	7.2	7.2	7.2	7.2	7.2	11.5
40	-	8.6	10.0	10.0	9.6	10.0	14.8
50	-	12.4	16.0	16.0	14.8	14.8	23.3
65	20.0	25.0	30.0	30.0	-	-	-
80	25.0	35.0	45.0	45.0	-	-	-
100	40.0	55.0	65.0	65.0	-	-	-

Torques in Nm

1) **Ball valve material**
Code 1: PVC-U, grey
Code 2: PVC-C
Code 4: ABS
Code 5: PP-H, grey
Code 20: PVDF

Actuator

Product compliance

Machinery Directive: 2006/42/EU

EMC Directive: 2014/30/EU

Low Voltage Directive: 2014/35/EU

Electrical data

Rated voltage:
24 V AC or DC (+10/-15 %)
100 – 250 V AC (± 10 %)
12 V / 24 V AC or DC (± 10 %)

Rated frequency: 50/60 Hz (at AC rated voltage)

Power consumption:

Actuator version code	Control module code	12 V DC (code B1)	12 V AC (code B4)	24 V DC (code C1)	24 V AC (code C4)	100-250 V AC (code O4)
1006	**A0, AE**	30	30	30.0	30	-
1015	**A0, AE**	30	-	30.0	-	-
2006	**A0, AE**	-	-	-	-	60
2015	**A0, AE**	-	30	-	30	50
3035	**A0, AE**	-	-	30.0	-	50
3055	**A0, AE**	-	-	38.4	-	-
2070	**00, 0E, 0P**	-	-	63.0	-	-
4100	**00, 0E, 0P**	-	-	105.0	-	-
4200	**00, 0E, 0P**	-	-	90.0	-	-

Power consumption in W

Current consumption:

Actuator version (code)	Control module (code)	12 V DC (code B1)	12 V AC (code B4)	24 V DC (code C1)	24 V AC (code C4)	100-250 V AC (code O4)
1006	**A0, AE**	2.2	2	1.2	1.5	-
1015	**A0, AE**	2.2	-	1.2	-	-
2006	**A0, AE**	-	-	-	-	0.25
2015	**A0, AE**	-	2	-	1.2	0.2
3035	**A0, AE**	-	-	1.3	-	0.2
3055	**A0, AE**	-	-	1.6	-	-
2070	**00, 0E, 0P**	-	-	2.6	-	-
4100	**00, 0E, 0P**	-	-	4.4	-	-
4200	**00, 0E, 0P**	-	-	3.6	-	-

Current data in A

Max. switching current:

Actuator version code	Control module code	12 V DC (code B1)	12 V AC (code B4)	24 V DC (code C1)	24 V AC (code C4)	100-250 V AC (code O4)
1006	**A0, AE**	6.3	2.4	4.0	1.8	-
1015	**A0, AE**	9.2	-	3.8	-	-
2006	**A0, AE**	-	-	-	-	0.3
2015	**A0, AE**	-	2.3	-	1.8	0.4
3035	**A0, AE**	-	-	3.3	-	0.2
3055	**A0, AE**	-	-	6,4	-	-
2070	**00, 0E, 0P**	-	-	14.0		-
4100	**00, 0E, 0P**	-	-	35.0	-	-
4200	**00, 0E, 0P**	-	-	35.0		-

Current data in A

24 V DC, 24 V AC, 120 V AC, 230 V AC
dependent on rated voltage

Duty cycle:

Supply voltage 12 V / 24 V: Continuous duty
Supply voltage 100 - 250 V: 40 % duty
Actuator version 2070: Continuous duty

GEMÜ 9428

Supply voltage 12 V / 24 V:
Motor protective system by customer

Supply voltage 100 - 250 V:
Integrated stall and overload protection

plus excess current release T 1A 5x20 mm

GEMÜ 9468

Internal for functional module 0x

Actuator version 2070: MT 6.3 A
Actuator version 4100, 4200: MT 10.0 A

Motor protective system by customer, see "Recommended motor protection"

Recommended motor protection:

GEMÜ 9428

Voltage	12 V DC	24 V DC	120 V AC	230 V AC
Motor protection switch type	Siemens 3RV 1011-1CA10	Siemens 3RV 1011-1BA10	Siemens 3RV 1011-OGA10	Siemens 3RV 1011-OGA10
Set current	2.20	1.70	0.60	0.45

Current data in A

GEMÜ 9468

Motor protection switch type:	Siemens 3RV 1011-1FA10
Set current:	4.0 A

Mechanical data

Nominal travel: 90°
Max. travel: 93°
Setting range: 0 to 20° (limit switch Min.)
70 to 93° (limit switch Max.)

Installation position: Optional

Protection class: IP 65 acc. to EN 60529

Weight:

Actuator

Actuator version 1006:	1.0
Actuator version 1015:	1.0
Actuator version 2006:	1.2
Actuator version 2015 (12/24 V):	1.0
Actuator version 2015 (100–250 V):	2.4
Actuator version 3035:	2.4
Actuator version 2070:	4.6

Weights in kg

Operating time:

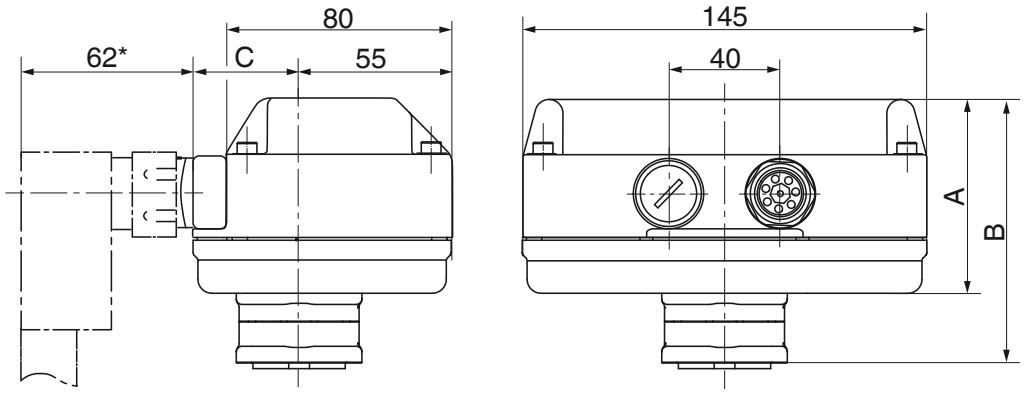
Actuator version 1006:	4
Actuator version 1015:	11
Actuator version 2006:	4
Actuator version 2015 (12/24 V):	11
Actuator version 2015 (100–250 V):	11
Actuator version 3035:	15

Operating times in s

Dimensions

Actuator dimensions

Actuator version 1006, 1015, 2006, 2015

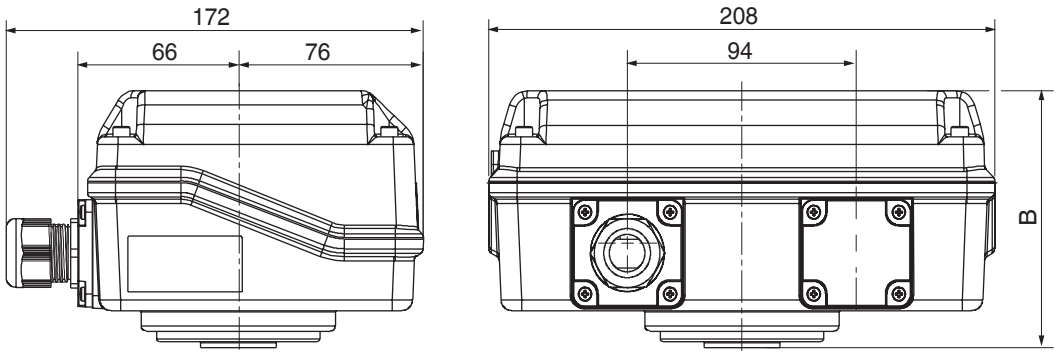


* Standard with supply voltage code O4

Actuator version	A	B	C
1006, 1015	69	94	49
2006, 2015	96	122	53

Dimensions in mm

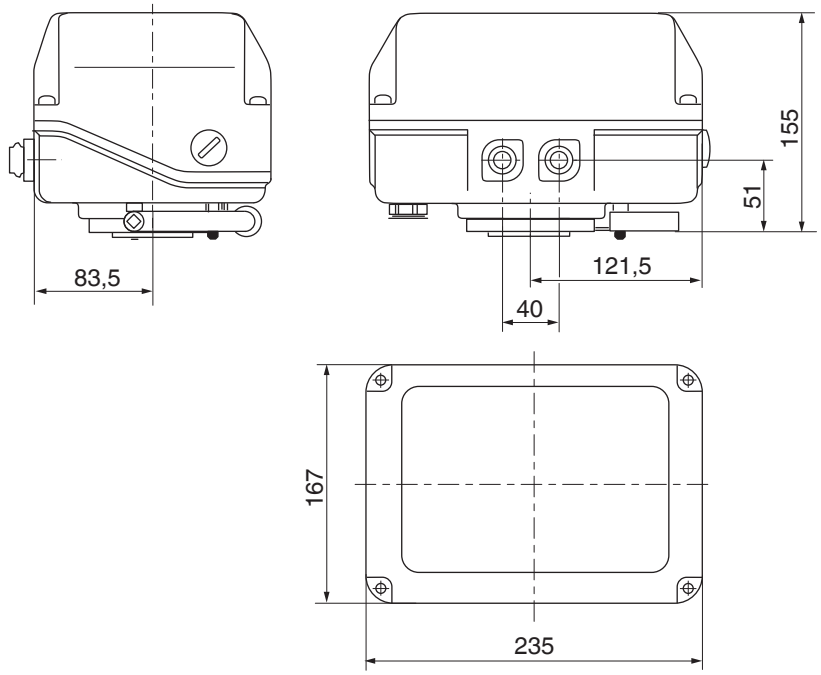
Actuator version 3035, 3055



Voltages	B
24 V	100.5
100 V - 250 V	124.5

Dimensions in mm

Actuator version 2070



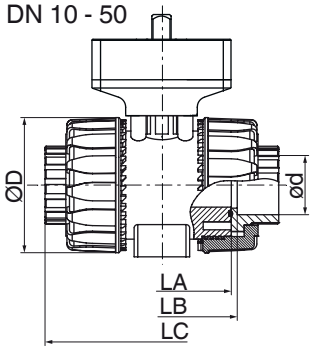
Dimensions in mm

Body dimensions

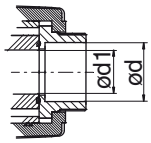
Valve body material PVC-U (code 1), body configuration D

Socket
connection type code 2, 33, 3M, 3T, 7R

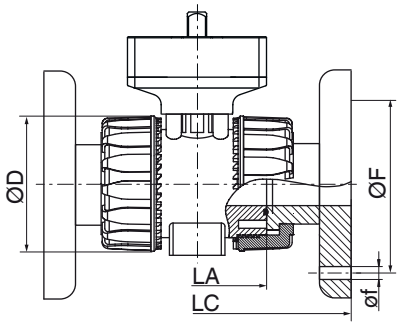
DN 10 - 50



Connection type
code 3M

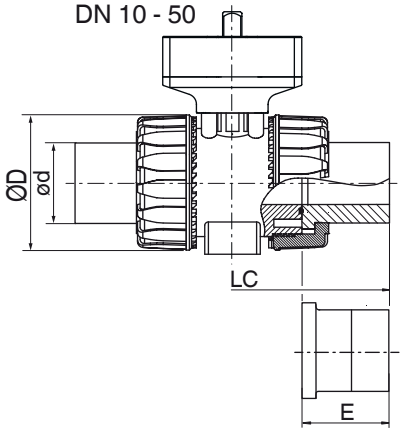


Flange
connection type code 4, 39



Butt weld spigot
connection type code 2 (PVDF), 78, 78*

DN 10 - 50



Connection type code [1]						4	39	78*	4	39	4	39	78*
DN	d	ød	ØD	A	LA	LC			øf		ØF		E
15	1/2“	20.0	54.0	40.0	65.0	130.0	143.0	175.0	14.0	15.9	65.0	60.3	55.0
20	3/4“	25.0	65.0	49.0	70.0	150.0	172.0	210.0	14.0	15.9	75.0	69.9	70.0
25	1“	32.0	73.0	49.0	78.0	160.0	187.0	226.0	14.0	15.9	85.0	79.4	74.0
32	1 ¼“	40.0	86.0	64.0	88.0	180.0	190.0	243.0	18.0	15.9	100.0	88.9	78.0
40	1 ½“	50.0	98.0	64.0	93.0	200.0	212.0	261.0	18.0	15.9	110.0	98.4	84.0
50	2“	63.0	122.0	76.0	111.0	230.0	234.0	293.0	18.0	19.1	125.0	120.7	91.0
65	2 ½“	75.0	164.0	175.0	133.0	290.0	290.0	356.0	17.0	18.0	145.0	139.7	111.0
80	3“	90.0	203.0	272.0	149.0	310.0	310.0	390.0	17.0	18.0	160.0	152.4	118.0
100	4“	110.0	238.0	330.0	167.0	350.0	350.0	431.0	17.0	18.0	180.0	190.5	132.0

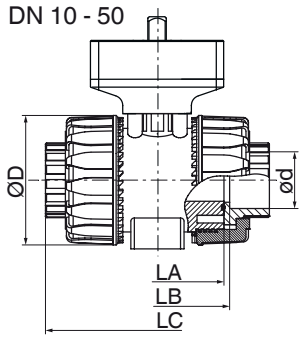
Dimensions in mm

* Inserts according to valve body material,
special version: PE insert, design code 1187

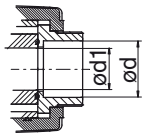
1) **Connection type**
Code 4: Union end with flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 39: Union end with flange ANSI Class 125/150 RF
Code 78: Union end with insert (for IR butt welding) - DIN

Valve body material PVC-U (code 1), body configuration D

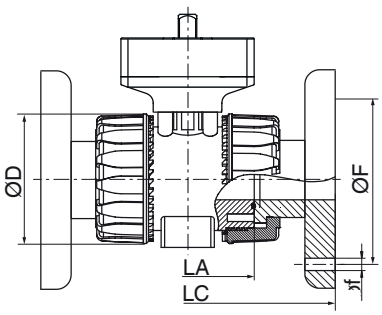
Socket
connection type code 2, 33, 3M, 3T, 7R



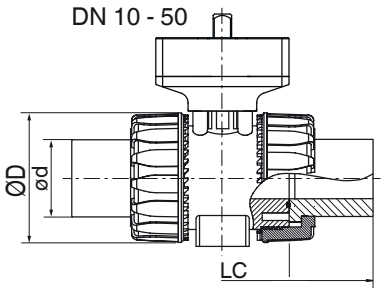
Connection type
code 3M



Flange
connection type code 4, 39



Butt weld spigot
connection type code 2 (PVDF), 78, 78*



Connection type code [1]						2	33	3M	3T	7R	2	33	3M	3T	7R
DN	d	ød	ØD	A	LA	LB					LC				
10	3/8“	16.0	54.0	40.0	65.0	75.0	74.0	-	-	-	103.0	103.0	-	-	-
15	1/2“	20.0	54.0	40.0	65.0	71.0	70.0	72.0	71.0	80.0	103.0	103.0	117.0	131.0	110.0
20	3/4“	25.0	65.0	49.0	70.0	77.0	77.0	78.0	77.0	83.5	115.0	115.0	129.0	147.0	116.0
25	1“	32.0	73.0	49.0	78.0	84.0	83.0	84.6	84.0	96.0	128.0	128.0	142.0	164.0	134.0
32	1 ¼“	40.0	86.0	64.0	88.0	94.0	94.0	98.0	94.0	110.0	146.0	146.0	162.0	182.0	153.0
40	1 ½“	50.0	98.0	64.0	93.0	102.0	104.0	102.0	102.0	113.0	164.0	164.0	172.0	212.0	156.0
50	2“	63.0	122.0	76.0	111.0	123.0	127.0	122.6	122.0	134.5	199.0	199.0	199.0	248.0	186.0
65	2 ½“	75.0	164.0	175.0	133.0	147.0	147.0	146.0	145.0	174.5	235.0	235.0	235.0	267.0	235.0
80	3“	90.0	203.0	272.0	149.0	168.0	168.0	174.0	165.0	203.5	270.0	270.0	270.0	294.0	270.0
100	4“	110.0	238.0	330.0	167.0	186.0	182.0	193.0	202.0	229.5	308.0	308.0	308.0	370.0	308.0

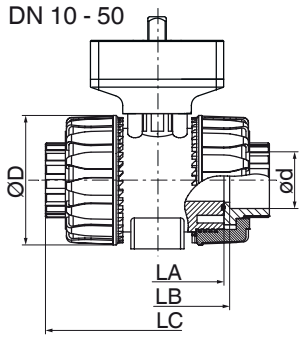
Dimensions in mm

1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 33: Union end with inch insert - BS (socket)
Code 3M: Union end with inch insert – ASTM (socket)
Code 3T: Union end with JIS insert (socket)
Code 7R: Union end with insert (Rp threaded socket) - DIN

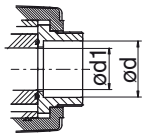
Valve body material PVC-C (code 2), body configuration D

Socket
connection type code 2, 33, 3M, 3T, 7R

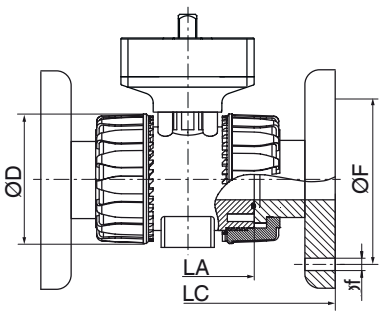
DN 10 - 50



Connection type
code 3M

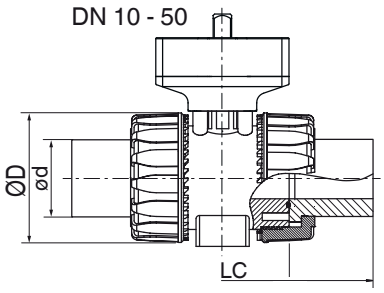


Flange
connection type code 4, 39



Butt weld spigot
connection type code 2 (PVDF), 78, 78*

DN 10 - 50



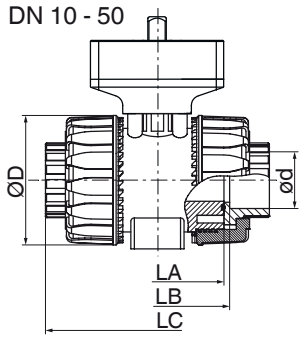
Connection type code [1]						2	3M	2	4	39	3M	4	39	4	39
DN	d	ød	øD	A	LA	LB		LC				øf		ØF	
10	3/8“	16.0	54.0	40.0	65.0	75.0	-	103.0	-	-	-	-	-	-	-
15	1/2“	20.0	54.0	40.0	65.0	71.0	72.0	103.0	130.0	143.0	117.0	14.0	15.9	65.0	60.3
20	3/4“	25.0	65.0	49.0	70.0	77.0	78.0	115.0	150.0	172.0	129.0	14.0	15.9	75.0	69.9
25	1“	32.0	73.0	49.0	78.0	84.0	84.6	128.0	160.0	187.0	142.0	14.0	15.9	85.0	79.4
32	1 ¼“	40.0	86.0	64.0	88.0	94.0	98.0	146.0	180.0	190.0	162.0	18.0	15.9	100.0	88.9
40	1 ½“	50.0	98.0	64.0	93.0	102.0	102.0	164.0	200.0	212.0	172.0	18.0	15.9	110.0	98.4
50	2“	63.0	122.0	76.0	111.0	123.0	122.6	199.0	230.0	234.0	199.0	18.0	19.1	125.0	120.7
65	2 ½“	75.0	164.0	175.0	133.0	147.0	146.0	235.0	290.0	290.0	235.0	17.0	18.0	145.0	139.7
80	3“	90.0	203.0	272.0	149.0	168.0	174.0	270.0	310.0	310.0	270.0	17.0	18.0	160.0	152.4
100	4“	110.0	238.0	330.0	167.0	186.0	193.0	308.0	350.0	350.0	308.0	17.0	18.0	180.0	190.5

Dimensions in mm

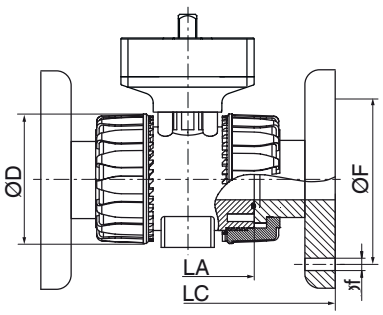
1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 4: Union end with flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 39: Union end with flange ANSI Class 125/150 RF
Code 3M: Union end with inch insert – ASTM (socket)

Valve body material ABS (code 4), body configuration D

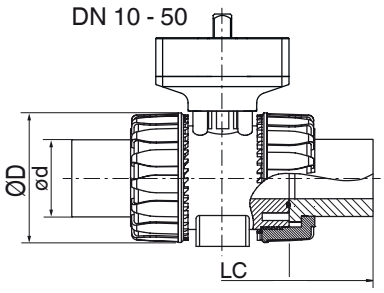
Socket
connection type code 2, 33, 3M, 3T, 7R



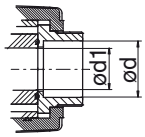
Flange
connection type code 4, 39



Butt weld spigot
connection type code 2 (PVDF), 78, 78*



Connection type
code 3M



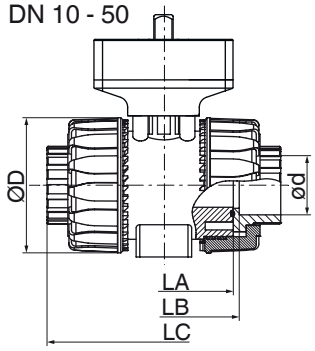
Connection type code [1]							2	7R	33	2, 33	7R
DN	d	ød	øD	A	LA	H	LB			LC	
10	3/8"	15.0	55.0	40.0	65.0	49.0	75.0	-	75.0	103.0	-
15	1/2“	20.0	55.0	40.0	65.0	49.0	71.0	80.0	71.0	103.0	110.0
20	3/4“	25.0	66.0	49.0	70.0	59.0	77.0	83.4	77.0	115.0	116.0
25	1“	32.0	75.0	49.0	78.0	66.0	84.0	95.8	84.0	128.0	134.0
32	1 ¼“	40.0	87.0	64.0	88.0	75.0	94.0	110.2	94.0	146.0	153.0
40	1 ½“	50.0	100.0	64.0	93.0	87.0	102.0	113.2	102.0	164.0	156.0
50	2“	63.0	122.0	76.0	111.0	101.0	123.0	134.6	123.0	199.0	186.0
65	2 ½“	75.0	164.0	175.0	133.0	164.0	147.0	-	147.0	235.0	-
80	3“	90.0	203.0	272.0	149.0	177.0	168.0	-	168.0	270.0	-
100	4“	110.0	238.0	330.0	167.0	195.0	186.0	-	186.0	308.0	-

Dimensions in mm

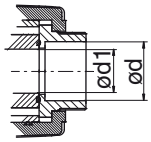
1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 33: Union end with inch insert - BS (socket)
Code 7R: Union end with insert (Rp threaded socket) - DIN

Valve body material PP-H (code 5), body configuration D

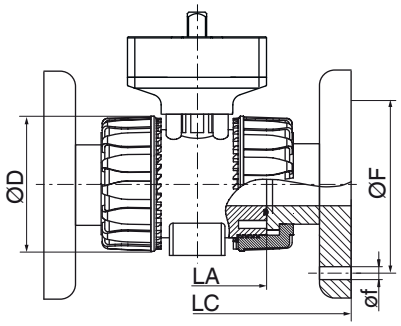
Socket
connection type code 2, 33, 3M, 3T, 7R
DN 10 - 50



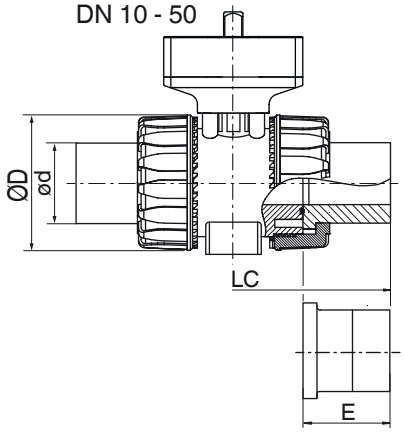
Connection type
code 3M



Flange
connection type code 4, 39



Butt weld spigot
connection type code 2 (PVDF), 78, 78*
DN 10 - 50



Connection type code [1]						2	7R	2	4	39	78/78 *	7R	78/78 *	4	39	4	39
DN	d	ød	øD	A	LA	LB		LC					E	øf		ØF	
10	3/8“	16.0	54.0	40.0	65.0	75.0	-	102.0	-	-	-	-	-	-	-	-	-
15	1/2“	20.0	54.0	40.0	65.0	73.0	80.0	102.0	130.0	143.0	175.0	110.0	55.0	14.0	15.9	65.0	60.3
20	3/4“	25.0	65.0	49.0	70.0	82.0	83.0	114.0	150.0	172.0	210.0	116.0	70.0	14.0	15.9	75.0	69.9
25	1“	32.0	73.0	49.0	78.0	90.0	96.0	126.0	160.0	187.0	226.0	134.0	77.0	14.0	15.9	85.0	79.4
32	1 ¼“	40.0	86.0	64.0	88.0	100.0	110.0	141.0	180.0	190.0	243.0	153.0	78.0	18.0	15.9	100.0	88.9
40	1 ½“	50.0	98.0	64.0	93.0	117.0	113.0	164.0	200.0	212.0	261.0	156.0	84.0	18.0	15.9	110.0	98.4
50	2“	63.0	122.0	76.0	111.0	144.0	134.0	199.0	230.0	234.0	293.0	186.0	91.0	18.0	15.9	125.0	120.7
65	2 ½“	75.0	164.0	175.0	133.0	153.0	-	213.0	290.0	290.0	356.0	-	111.0	17.0	18.0	145.0	139.7
80	3“	90.0	203.0	272.0	149.0	173.0	-	239.0	310.0	310.0	390.0	-	118.0	17.0	18.0	160.0	152.4
100	4“	110.0	238.0	330.0	167.0	199.0	-	268.0	350.0	350.0	431.0	-	132.0	17.0	18.0	180.0	190.5

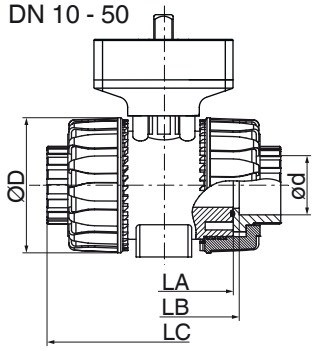
Dimensions in mm

* Inserts according to valve body material,
special version: PE insert, design code 1187

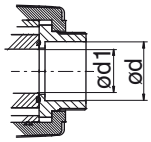
1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 4: Union end with flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 39: Union end with flange ANSI Class 125/150 RF
Code 78: Union end with insert (for IR butt welding) - DIN
Code 7R: Union end with insert (Rp threaded socket) - DIN

Valve body material PVDF (code 20), body configuration D

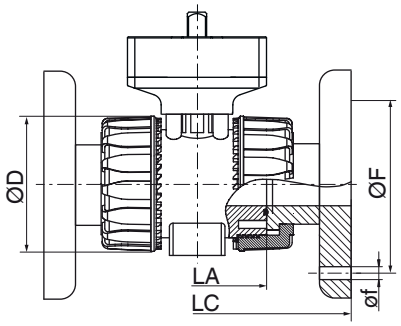
Socket
connection type code 2, 33, 3M, 3T, 7R
DN 10 - 50



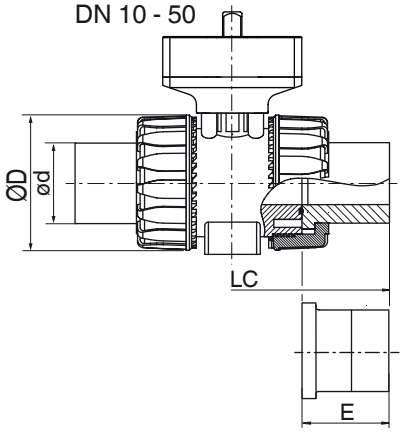
Connection type
code 3M



Flange
connection type code 4, 39



Butt weld spigot
connection type code 2 (PVDF), 78, 78*
DN 10 - 50



Connection type code [1]						2	2	4	78	4	39	4	39	78*
DN	d	ød	øD	A	LA	LB	LC			øf		ØF		E
10	-	16.0	54.0	40.0	65.0	74.5	102.0	-	-	-	-	-	-	-
15	1/2“	20.0	54.0	40.0	65.0	73.0	102.0	130.0	124.0	14.0	15.9	65.0	60.5	30.0
20	3/4“	25.0	65.0	49.0	70.0	82.0	114.0	150.0	144.0	14.0	15.9	75.0	70.0	37.0
25	1“	32.0	73.0	49.0	78.0	90.0	126.0	160.0	154.0	14.0	15.9	85.0	79.5	39.5
32	1 ¼“	40.0	86.0	64.0	88.0	100.0	141.0	180.0	174.0	18.0	15.9	100.0	89.0	44.5
40	1 ½“	50.0	98.0	64.0	93.0	117.0	164.0	200.0	194.0	18.0	15.9	110.0	98.5	51.5
50	2“	63.0	122.0	76.0	111.0	144.0	199.0	230.0	224.0	18.0	19.1	134.0	121.0	58.0
65	2 ½“	75.0	164.0	175.0	133.0	147.0	235.0	290.0	355.0	18.0	18.0	145.0	140.0	110.5
80	3“	90.0	203.0	272.0	149.0	173.0	239.0	310.0	389.0	18.0	18.0	160.0	152.5	118.5
100	4“	110.0	238.0	330.0	167.0	186.0	308.0	350.0	427.0	18.0	18.0	180.0	190.5	130.5

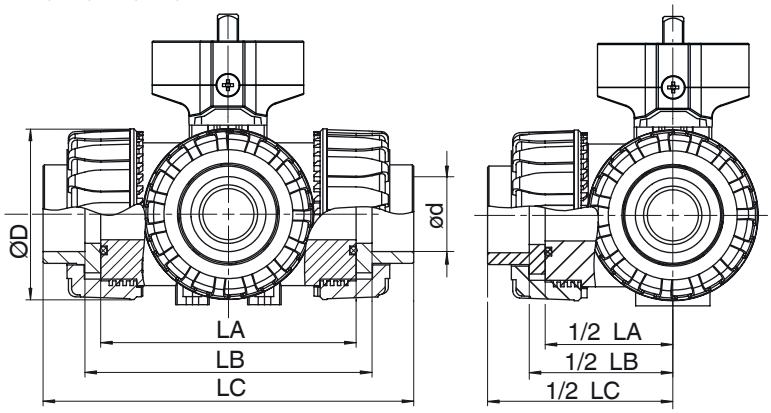
Dimensions in mm

* Inserts according to valve body material,
special version: PE insert, design code 1187

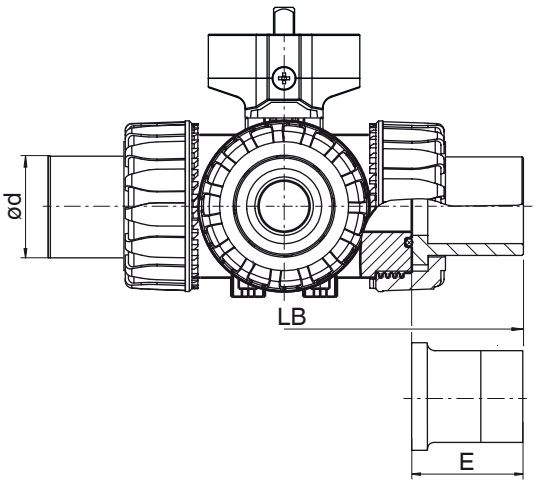
1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 4: Union end with flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 39: Union end with flange ANSI Class 125/150 RF
Code 78: Union end with insert (for IR butt welding) - DIN

Valve body material PVC-U (code 1), body configuration M

Connection type
code 2, 33, 3M, 3T, 7R



Connection type
code 78, 78*



Connection type code [1]							33	3M	3T	7R	2, 33	3M	3T	7R	78*	78*
DN	d	ød	ØD	A	LA	LB					LC					E
10	3/8“	16.0	54.0	40.0	80.0	90.0	-	-	-	-	118.0	-	-	-	-	-
15	1/2“	20.0	54.0	40.0	80.0	86.0	85.0	87.2	86.0	95.0	118.0	132.2	146.0	125.0	190.0	55.0
20	3/4“	25.0	65.0	49.0	100.0	107.0	106.8	108.2	107.0	114.0	145.0	159.2	177.0	146.0	240.0	70.0
25	1“	32.0	73.0	49.0	110.0	116.0	115.0	116.6	116.0	129.0	160.0	174.0	196.0	166.0	258.0	74.0
32	1 ¼“	40.0	86.0	64.0	131.0	136.5	136.6	141.0	137.0	151.0	188.5	205.0	225.0	195.5	287.0	78.0
40	1 ½“	50.0	98.0	64.0	148.0	157.0	159.0	157.6	157.2	166.0	219.0	227.6	267.2	211.0	316.0	84.0
50	2“	63.0	122.0	76.0	179.0	190.5	194.2	190.6	190.0	199.0	266.5	267.0	316.0	253.5	361.0	91.0

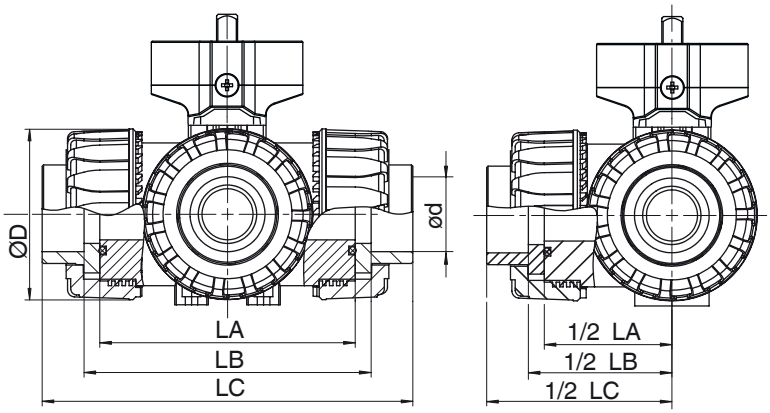
Dimensions in mm

* Inserts according to valve body material,
special version: PE insert, design code 1187

1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 33: Union end with inch insert - BS (socket)
Code 3M: Union end with inch insert – ASTM (socket)
Code 3T: Union end with JIS insert (socket)
Code 78: Union end with insert (for IR butt welding) - DIN
Code 7R: Union end with insert (Rp threaded socket) - DIN

Valve body material PVC-C (code 2), body configuration M

Connection type
code 2, 33, 3M, 3T, 7R



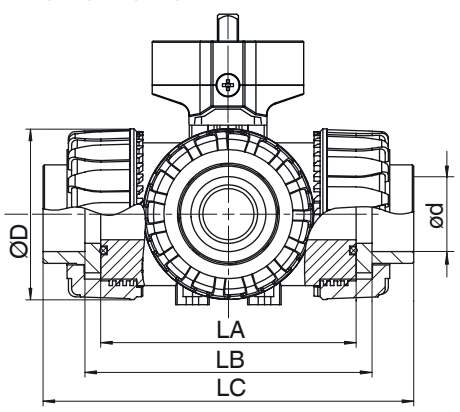
Connection type code [1]						2	3M	2	3M
DN	d	ød	ØD	A	LA	LB		LC	
10	3/8"	16.0	54.0	40.0	80.0	90.0	-	118.0	-
15	1/2"	20.0	54.0	40.0	80.0	86.0	87.2	118.0	132.2
20	3/4"	25.0	65.0	49.0	100.0	107.0	108.2	145.0	159.2
25	1"	32.0	73.0	49.0	110.0	116.0	116.6	160.0	174.0
32	1 ¼"	40.0	86.0	64.0	131.0	136.5	141.0	188.5	205.0
40	1 ½"	50.0	98.0	64.0	148.0	157.0	157.6	219.0	227.6
50	2"	63.0	122.0	76.0	179.0	190.5	190.6	266.5	267.0

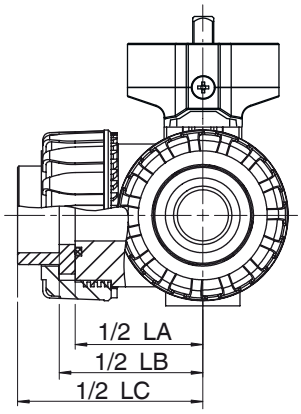
Dimensions in mm

1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 3M: Union end with inch insert – ASTM (socket)

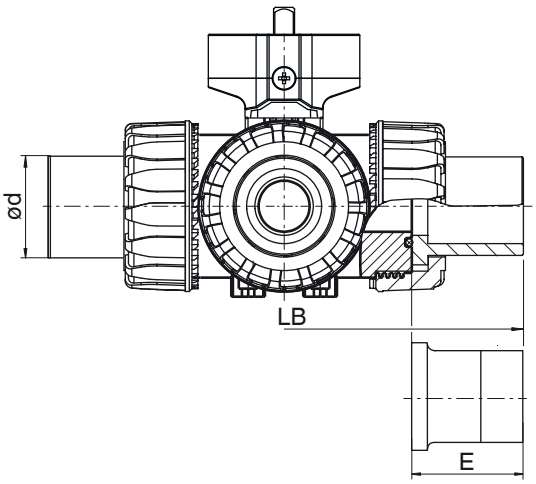
Valve body material PP-H (code 5), body configuration M

Connection type
code 2, 33, 3M, 3T, 7R





Connection type
code 78, 78*



Connection type code [1]						2	7R	2	7R	78, 78*	78, 78*
DN	d	ød	ØD	A	LA	LB 1		LC			E
15	1/2“	20.0	54.0	40.0	80.0	88.0	87.0	117.0	117.0	190.0	55.0
20	3/4“	25.0	65.0	49.0	100.0	112.0	114.0	144.0	143.0	240.0	70.0
25	1“	32.0	69.5	49.0	110.0	122.0	120.0	158.0	157.0	258.0	74.0
32	1 ¼“	40.0	82.5	64.0	131.0	142.5	140.0	183.5	184.5	287.0	78.0
40	1 ½“	50.0	89.0	64.0	148.0	172.0	172.0	216.0	217.0	316.0	84.0
50	2“	63.0	108.0	76.0	179.0	211.5	211.0	266.5	265.5	361.0	91.0

Dimensions in mm

1) **Connection type**
Code 2: Union end with insert (solvent cement or weld socket) - DIN
Code 78: Union end with insert (for IR butt welding) - DIN
Code 7R: Union end with insert (Rp threaded socket) - DIN

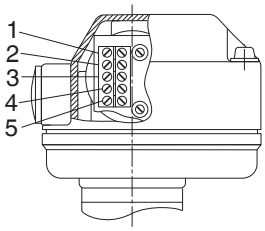
Electrical connection

Connection/wiring diagram

On/Off actuator (code A0)

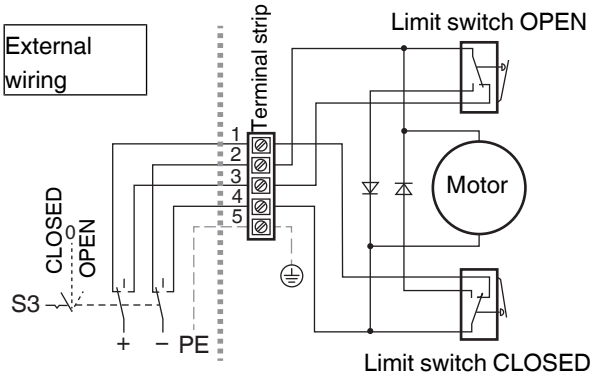
12 V DC (code B1) / 24 V DC (code C1)

Assignment of the terminal strips



Item	Description
1	Uv+, direction of travel CLOSED
2	Uv-, direction of travel CLOSED
3	Uv+, direction of travel OPEN
4	Uv-, direction of travel OPEN
5	PE, protective earth conductor

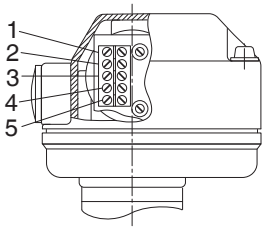
Connection diagram



S3	Actuator
CLOSED	Direction of travel CLOSED
0	OFF
OPEN	Direction of travel OPEN

12 V AC (code B4) / 24 V AC (code C4)

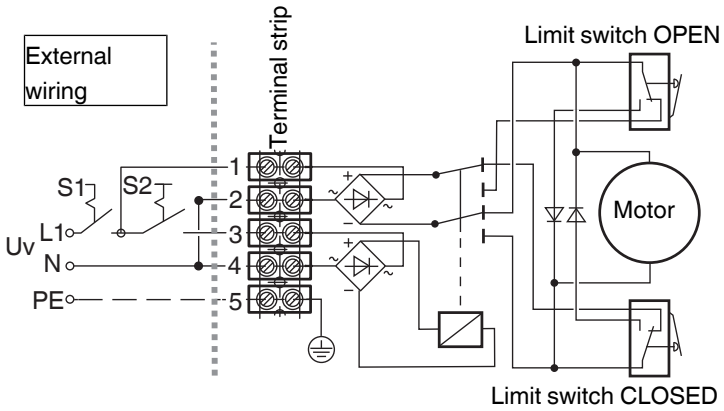
Assignment of the terminal strips



Item	Description
1	L1, supply voltage
2	N, supply voltage
3	L1, change-over (OPEN/CLOSE)
4	N, change-over (OPEN/CLOSE)
5	PE, protective earth conductor

Preferred direction -OPEN- when all signals are present

Connection diagram

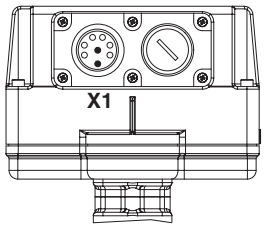


S1	Actuator
0	OFF
1	ON

S2	Direction of travel
0	CLOSED
1	OPEN

100 - 250 V AC (code 04)

Position of the connectors



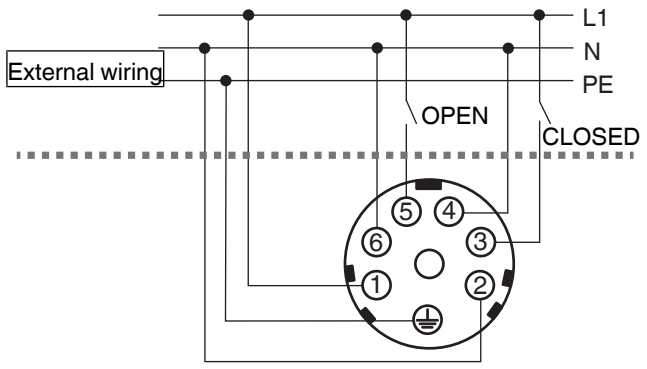
Electrical connection

Plug assignment X1

Pin	Description
1	L1, supply voltage
2	N, supply voltage
3	L1, direction of travel CLOSED
4	N, direction of travel CLOSED
5	L1, direction of travel OPEN
6	N, direction of travel OPEN
⏚	PE, protective earth conductor

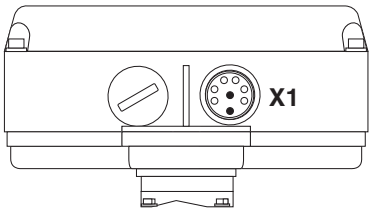
The potential must be assigned by the user.

Connection diagram



12 V DC (code B1) / 24 V DC (code C1) / K-no. 6598

Position of the connectors

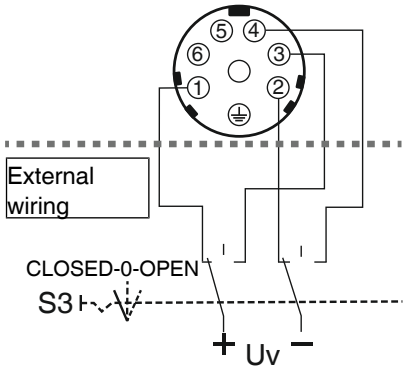


Electrical connection

Plug assignment X1

Pin	Description
1	Uv+, direction of travel CLOSED
2	Uv-, direction of travel CLOSED
3	Uv+, direction of travel OPEN
4	Uv-, direction of travel OPEN
5	n. c.
6	n. c.
⏚	PE, protective earth conductor

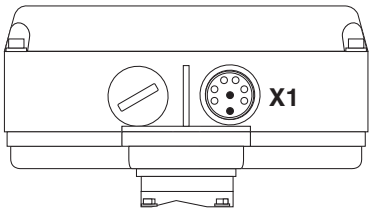
Connection diagram



S3	Actuator
CLOSED	Direction of travel CLOSED
0	OFF
OPEN	Direction of travel OPEN

12 V AC (code B4) / 24 V AC (code C4) / K-no. 6598

Position of the connectors



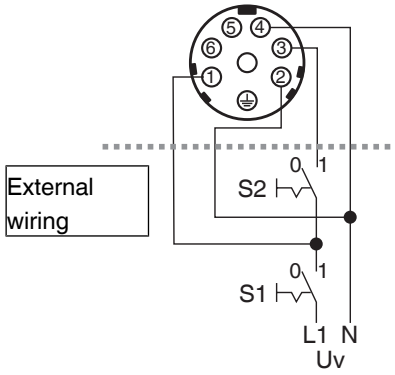
Electrical connection

Plug assignment X2

Pin	Description
1	L1, supply voltage
2	N, supply voltage
3	L1, change-over (OPEN/CLOSE)
4	N, change-over (OPEN/CLOSE)
5	n. c.
6	n. c.
⏚	PE, protective earth conductor

Preferred direction -OPEN- when all signals are present

Connection diagram



S1	Actuator
0	OFF
1	ON

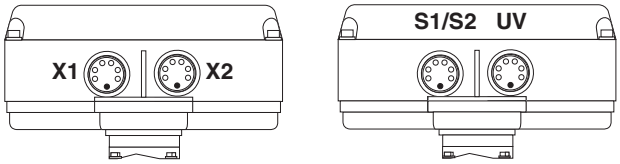
S2	Direction of travel
0	CLOSED
1	OPEN

On/Off actuator with 2 potential-free limit switches (code AE)

12 V DC (code B1) / 24 V DC (code C1)

Position of the connectors

Actuator version 3035, 3055 Actuator version 1006, 101



Electrical connection

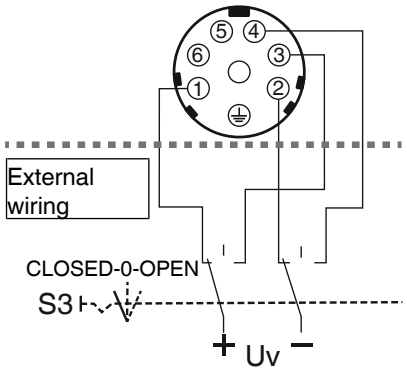
Plug assignment X1, UV

Pin	Description
1	Uv+, direction of travel CLOSED
2	Uv-, direction of travel CLOSED
3	Uv+, direction of travel OPEN
4	Uv-, direction of travel OPEN
5	n. c.
6	n. c.
⏚	PE, protective earth conductor

Plug assignment X2, S1/S2

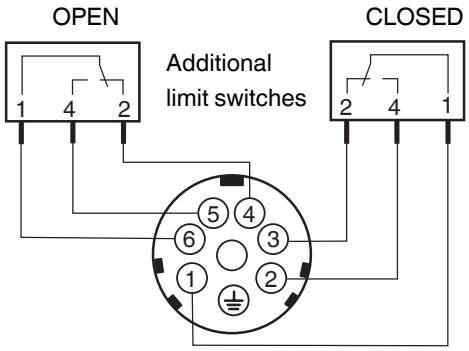
Pin	Description
1	Change-over contact limit switch CLOSED
2	Make contact limit switch CLOSED
3	Break contact limit switch CLOSED
4	Break contact limit switch OPEN
5	Make contact limit switch OPEN
6	Change-over contact limit switch OPEN
⏚	PE, protective earth conductor

Connection diagram



Connection assignment X1, UV

S3	Actuator
CLOSED	Direction of travel CLOSED
0	OFF
OPEN	Direction of travel OPEN

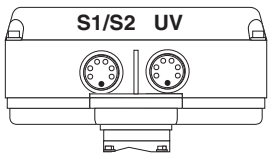


Connection assignment X2, S1/S2

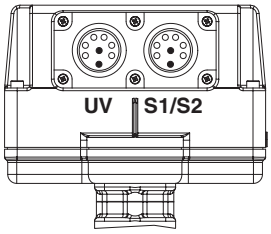
12 V AC (code B4) / 24 V AC (code C4)

Position of the connectors

Actuator version 1006



Actuator version 2015



Electrical connection

Plug assignment X1, UV

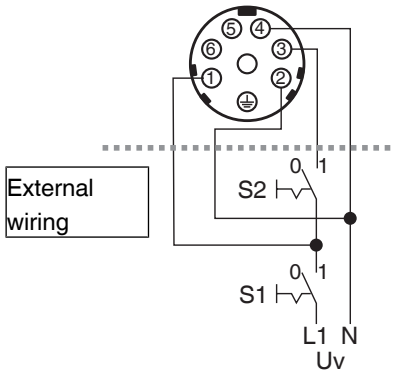
Pin	Description
1	L1, supply voltage
2	N, supply voltage
3	L1, change-over (OPEN/CLOSE)
4	N, change-over (OPEN/CLOSE)
5	n. c.
6	n. c.
⏚	PE, protective earth conductor

Plug assignment X2, S1/S2

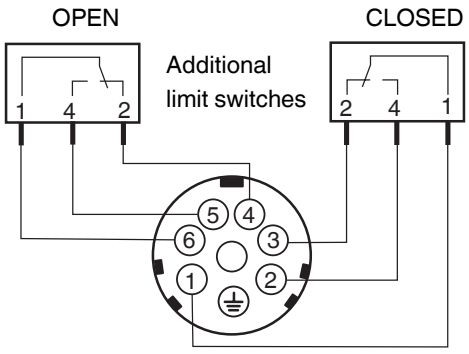
Pin	Description
1	Change-over contact limit switch CLOSED
2	Make contact limit switch CLOSED
3	Break contact limit switch CLOSED
4	Break contact limit switch OPEN
5	Make contact limit switch OPEN
6	Change-over contact limit switch OPEN
⏚	PE, protective earth conductor

Preferred direction -OPEN- when all signals are present

Connection diagram



Connection diagram X1, UV



Connection diagram X2, S1/S2

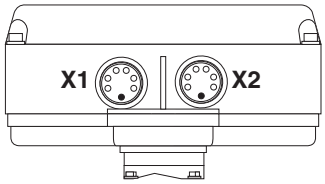
S1	Actuator
0	OFF
1	ON

S2	Direction of travel
0	CLOSED
1	OPEN

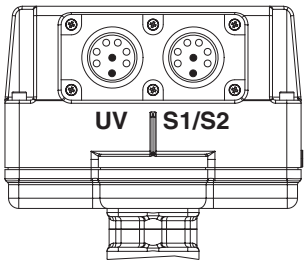
100-250 V AC (code 04)

Position of the connectors

Actuator version 3035, 3055



Actuator version 2006, 2015



Electrical connection

Plug assignment X1, UV

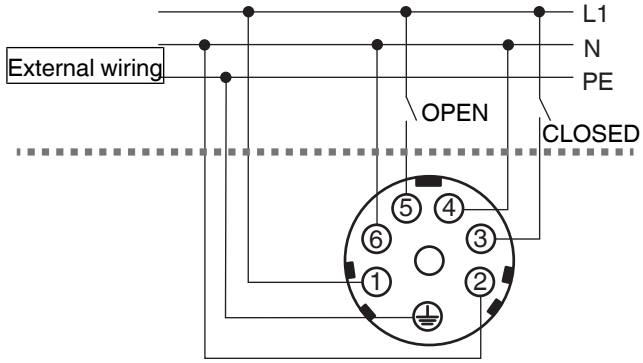
Pin	Description
1	L1, supply voltage
2	N, supply voltage
3	L1, direction of travel CLOSED
4	N, direction of travel CLOSED
5	L1, direction of travel OPEN
6	N, direction of travel OPEN
⏚	PE, protective earth conductor

Plug assignment X2, S1/S2

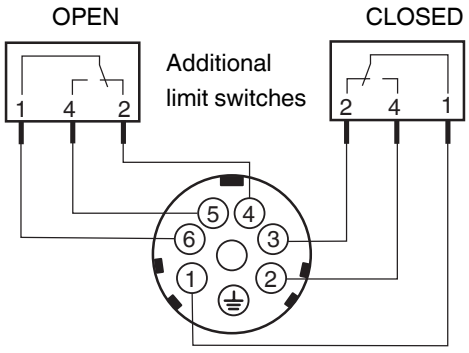
Pin	Description
1	Change-over contact limit switch CLOSED
2	Make contact limit switch CLOSED
3	Break contact limit switch CLOSED
4	Break contact limit switch OPEN
5	Make contact limit switch OPEN
6	Change-over contact limit switch OPEN
⏚	PE, protective earth conductor

The potential must be assigned by the user.

Connection diagram



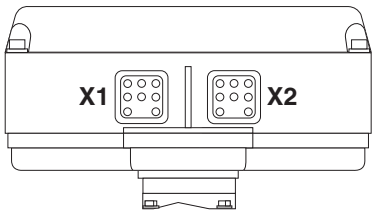
Connection diagram X1, UV



Connection diagram X2, S1/S2

12 V DC (code B1) / 24 V DC (code C1) / K-no. 6722

Position of the connectors



Electrical connection

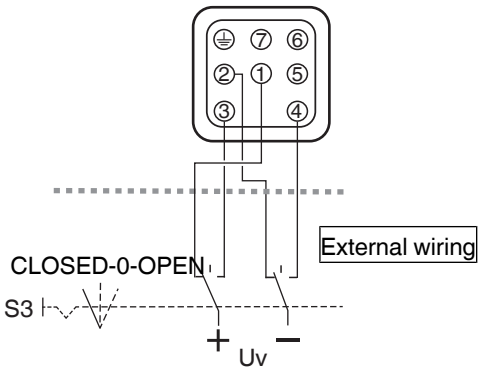
Plug assignment X1

Pin	Description
1	Uv+, direction of travel CLOSED
2	Uv-, direction of travel CLOSED
3	Uv+, direction of travel OPEN
4	Uv-, direction of travel OPEN
5	n. c.
6	n. c.
7	n. c.
⏚	PE, protective earth conductor

Plug assignment X2

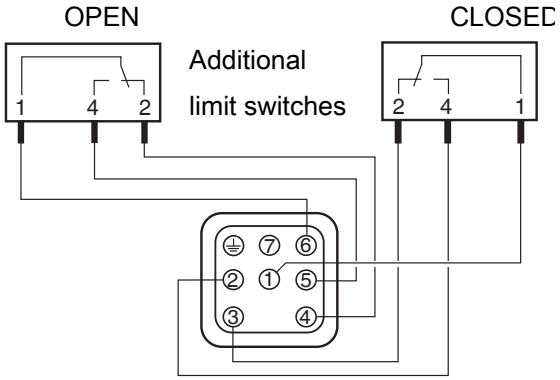
Pin	Description
1	Change-over contact limit switch CLOSED
2	Make contact limit switch CLOSED
3	Break contact limit switch CLOSED
4	Break contact limit switch OPEN
5	Make contact limit switch OPEN
6	Change-over contact limit switch OPEN
7	n. c.
⏚	PE, protective earth conductor

Connection diagram



Connection diagram X1

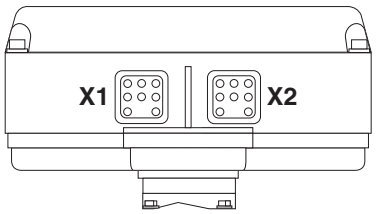
S3	Actuator
CLOSED	Direction of travel CLOSED
0	OFF
OPEN	Direction of travel OPEN



Connection diagram X2

12 V AC (code B4) / 24 V AC (code C4) / K-no. 6722

Position of the connectors



Electrical connection

Plug assignment X1

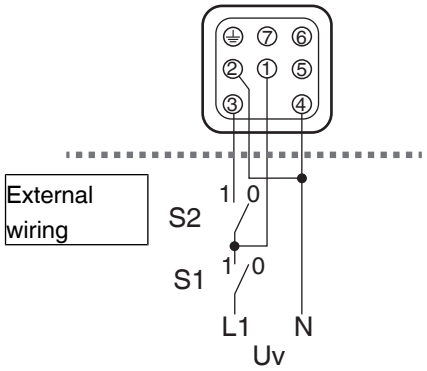
Pin	Description
1	L1, supply voltage
2	N, supply voltage
3	L1, change-over (OPEN/CLOSE)
4	N, change-over (OPEN/CLOSE)
5	n. c.
6	n. c.
7	n. c.
⏚	PE, protective earth conductor

Plug assignment X2

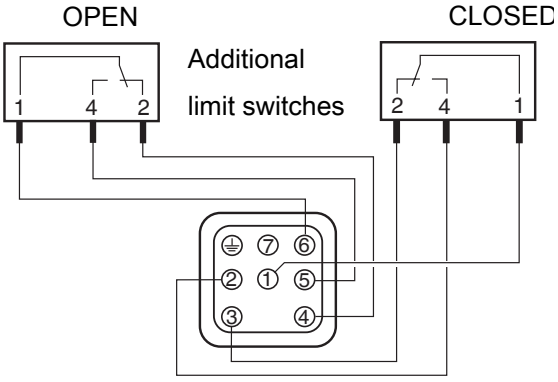
Pin	Description
1	Change-over contact limit switch CLOSED
2	Make contact limit switch CLOSED
3	Break contact limit switch CLOSED
4	Break contact limit switch OPEN
5	Make contact limit switch OPEN
6	Change-over contact limit switch OPEN
7	n. c.
⏚	PE, protective earth conductor

Preferred direction -OPEN- when all signals are present

Connection diagram



Connection diagram X1



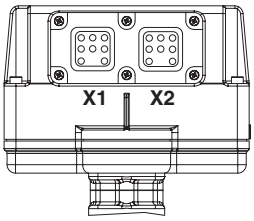
Connection diagram X2

S1	Actuator
0	OFF
1	ON

S2	Direction of travel
0	CLOSED
1	OPEN

100-250 V AC (Code O4) / K-no. 6722

Position of the connectors



Electrical connection

Plug assignment X1

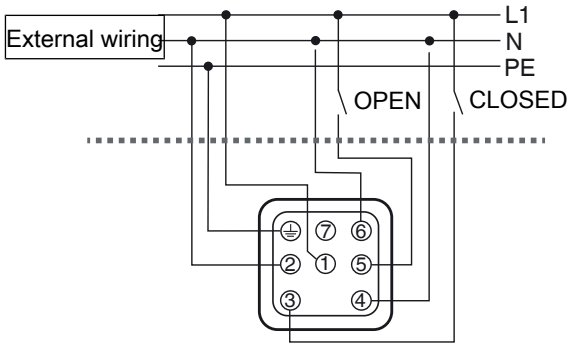
Pin	Description
1	L1, supply voltage
2	N, supply voltage
3	L1, direction of travel CLOSED
4	N, direction of travel CLOSED
5	L1, direction of travel OPEN
6	N, direction of travel OPEN
7	n. c.
⏚	PE, protective earth conductor

Plug assignment X2

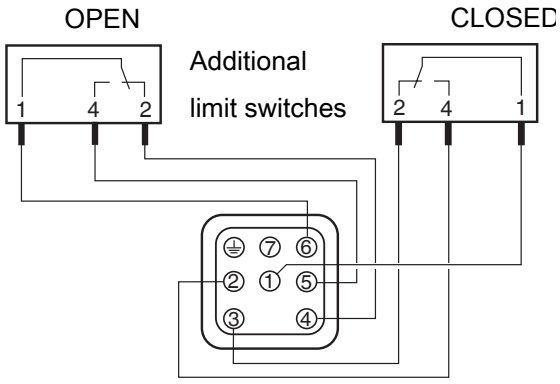
Pin	Description
1	Change-over contact limit switch CLOSED
2	Make contact limit switch CLOSED
3	Break contact limit switch CLOSED
4	Break contact limit switch OPEN
5	Make contact limit switch OPEN
6	Change-over contact limit switch OPEN
7	n. c.
⏚	PE, protective earth conductor

The potential must be assigned by the user.

Connection diagram



Connection diagram X1

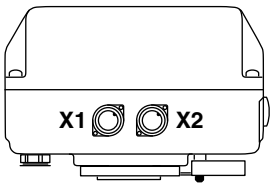


Connection diagram X2

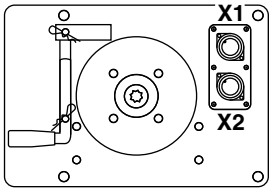
Connection/wiring diagram

On/Off actuator with relay (code 00), 24 V DC (code C1)

Position of the connectors

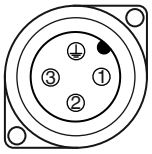


Actuator version 2070



Actuator version 4100, 4200

Electrical connection

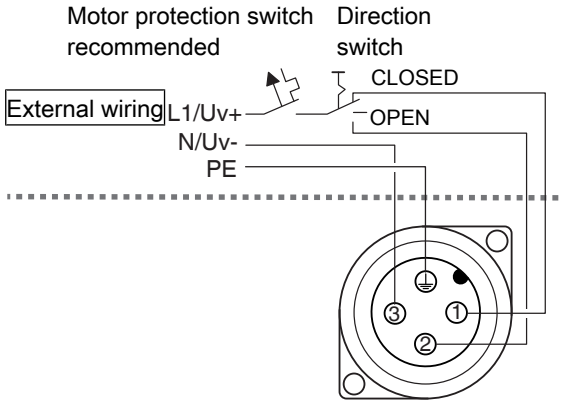


Plug assignment X1

Pin	Description
1	L1 / Uv+, direction of travel CLOSED
2	L1 / Uv+, direction of travel OPEN
3	N / Uv-, neutral conductor
⏚	PE, protective earth conductor

N / L- signals in the unit are separated.
The potential must be assigned by the user.
When the OPEN and CLOSED switches are operated simultaneously the actuator "CLOSES".

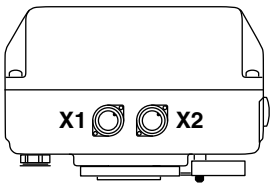
Connection diagram



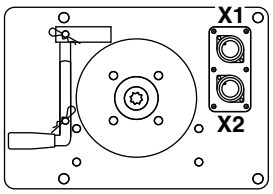
Connection assignment X1

On/Off actuator with 2 additional potential-free limit switches, with relay (code 0E), 24 V DC (code C1)

Position of the connectors

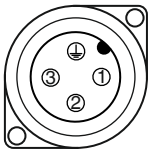


Actuator version 2070



Actuator version 4100, 4200

Electrical connection



Plug assignment X1

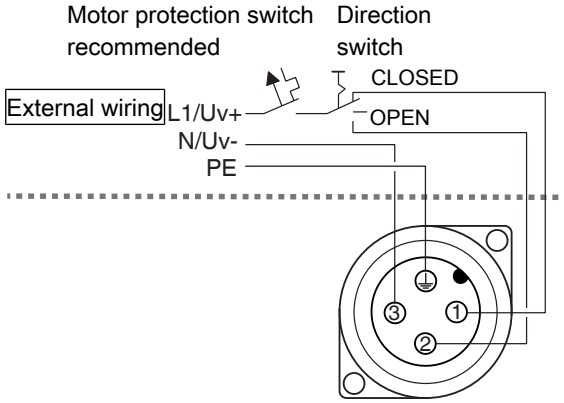
Plug assignment X2

Pin	Description
1	L1 / Uv+, direction of travel CLOSED
2	L1 / Uv+, direction of travel OPEN
3	N / Uv-, neutral conductor
⏚	PE, protective earth conductor

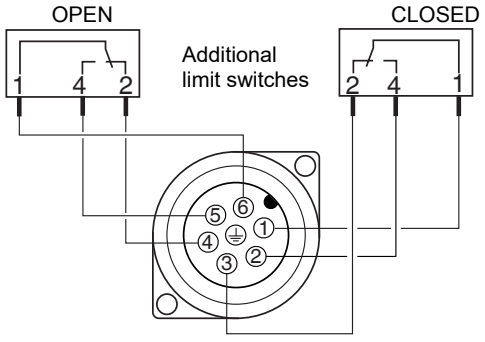
Pin	Description
1	Change-over contact limit switch CLOSED
2	Make contact limit switch CLOSED
3	Break contact limit switch CLOSED
4	Break contact limit switch OPEN
5	Make contact limit switch OPEN
6	Change-over contact limit switch OPEN
⏚	PE, protective earth conductor

N / L- signals in the unit are separated.
The potential must be assigned by the user.
When the OPEN and CLOSED switches are operated simultaneously the actuator "CLOSES".

Connection diagram



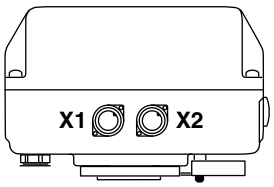
Connection assignment X1



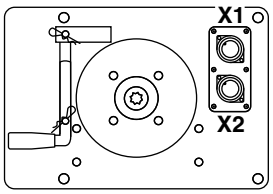
Connection assignment X2

On/Off actuator with potentiometer output, with relay (code 0P), 24 V DC (code C1)

Position of the connectors

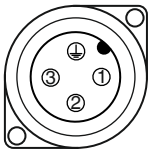


Actuator version 2070



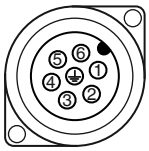
Actuator version 4100, 4200

Electrical connection



Plug assignment X1

Pin	Description
1	L1 / Uv+, direction of travel CLOSED
2	L1 / Uv+, direction of travel OPEN
3	N / Uv-, neutral conductor
⏚	PE, protective earth conductor

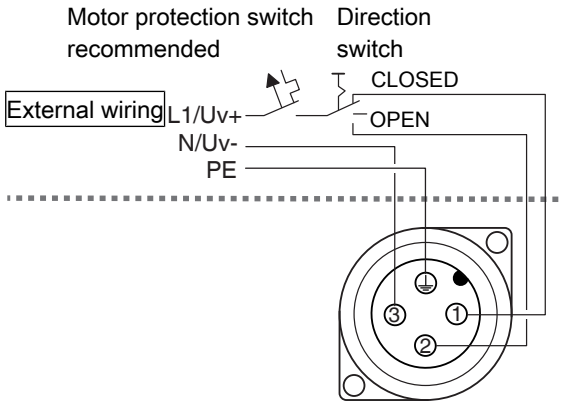


Plug assignment X2

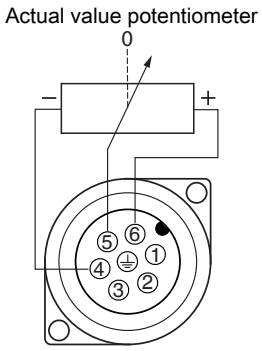
Pin	Description
1	n. c.
2	n. c.
3	n. c.
4	Us-, actual value potentiometer signal voltage minus
5	Us ⌐, actual value potentiometer signal output
6	Us+, actual value potentiometer signal voltage plus
⏚	PE, protective earth conductor

N / L- signals in the unit are separated.
The potential must be assigned by the user.
When the OPEN and CLOSED switches are operated simultaneously the actuator "CLOSES".

Connection diagram



Connection assignment X1



Connection assignment X2

Accessories

GEMÜ 717 MPL

Mounting plate

Only for 2-way ball valves. The spacer plate kit includes a spacer plate (PP, glass fibre reinforced), screws (stainless steel), threaded inserts (brass). For the nominal sizes DN 65 - 100, the mounting plate is integrated into the ball valve.

Ordering information

Nominal size	Item number	Designation	Order designation
DN 10 - 25	88290237	Threaded insert M4 x 6	717 25MPL
DN 32 - 50	88290238	Threaded insert M6 x 10	717 50MPL

GEMÜ 710 SMK

Mounting kit for ball valve 710, 717, 723

The mounting kit can be used to mount electric or pneumatic actuators on the ball valve.

Ordering information

Nominal size	Item number	Order description
DN 10 - 15	88353335	710 15SMK
DN 20	88351044	710 20SMK
DN 25	88353770	710 25SMK
DN 32	88353388	710 32SMK
DN 40	88353778	710 40SMK
DN 50	88353779	710 50SMK
DN 65 - 100	88441143	710 100SMK

Subject to alteration | 11.2020 | 88603476

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