

## GEMÜ 539 eSyDrive

### Motorized globe valve



### Features

- Linear or modified equal-percentage control characteristics
- Open/Close function, positioner and process controller
- Actuation force and actuating speed variably adjustable
- Operable via web interface eSy-Web and Modbus TCP
- Extensive functions, such as position feedback, diagnostic functions and opening and closing stroke limitation

### Description

The GEMÜ 539 eSyDrive is a motorized 2/2-way globe valve with a hollow shaft electric actuator. The eSyDrive hollow shaft actuator can be operated as On/Off or with integrated positioner or process controller. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integral optical and electrical position indicator is standard.

### Technical specifications

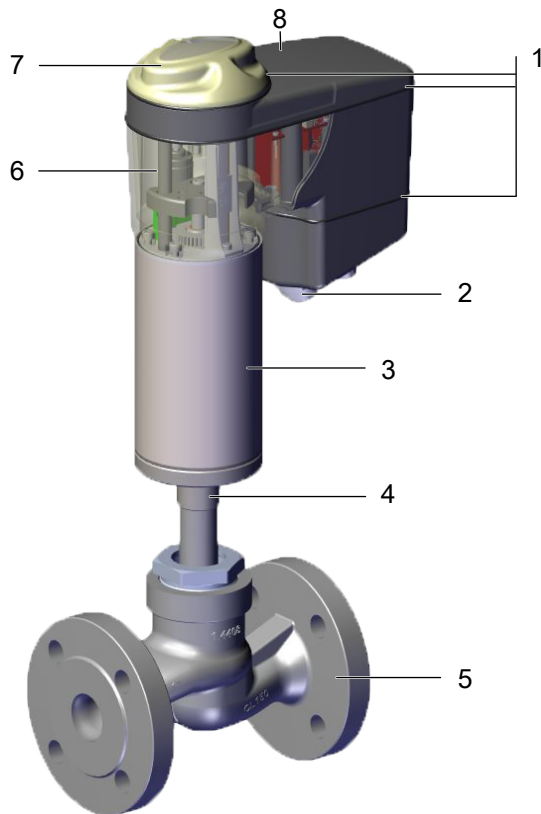
- **Media temperature:** -40 to 250 °C
- **Ambient temperature:** -10 Up to 60 °C
- **Operating pressure :** 0 Up to 40 bar
- **Nominal sizes:** DN 15 to 100
- **Body configurations:** Straight through body
- **Connection types:** Flange
- **Connection standards :** ANSI | ASME | EN | ISO | JIS
- **Body materials:** 1.4408, investment casting material | EN-GJS-400-18-LT (GGG 40.3)
- **Seat seal materials:** 1.4404 | PTFE | PTFE, reinforced
- **Supply voltage:** 24 V DC
- **Actuating speed:** max. 6 mm/s
- **Protection class :** IP 65
- **Conformities:** EAC | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Technical data depends on the respective configuration



## Product description

### Construction



Item	Name	Materials
1	O-rings	EPDM
2	Electrical connections	
3	Actuator base	1.4301/1.4305
4	Distance piece with leak detection hole	1.4408
5	Valve body	1.4408, SG iron
6	Optical position indicator	PESU (AG0, AG2, AG3) PC (AG1)
7	Cover with high visibility LED, manual override and on-site control	PESU (AG0, AG2, AG3) PC (AG1)
8	Actuator top	PESU black (AG0, AG2, AG3) PC black (AG1)

## 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.

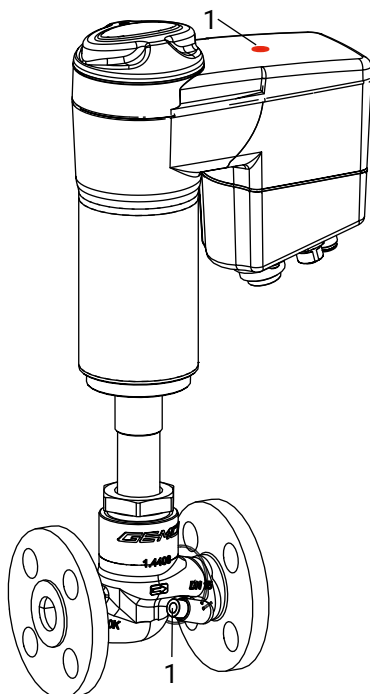
**For further information on GEMÜ CONEXO please visit:**

[www.gemu-group.com/conexo](http://www.gemu-group.com/conexo)

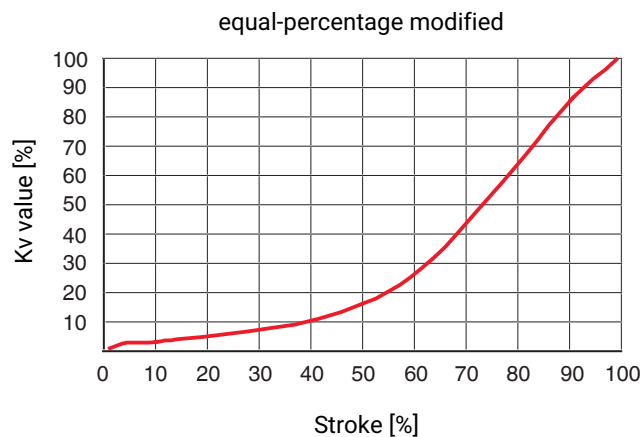
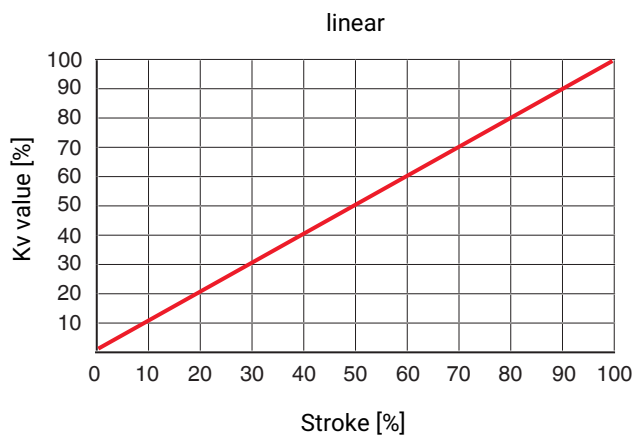
### Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

In the corresponding design with CONEXO, this product has an RFID chip (1) for electronic identification purposes. The position of the RFID chip can be seen below. The CONEXO pen helps read out information stored in the RFID chips. The CONEXO app or CONEXO portal is required to display this information.

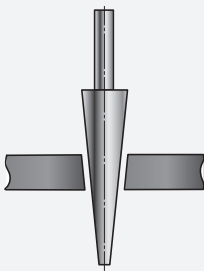
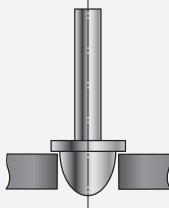


### Kv value diagram



The diagram shows the approximative curve of the Kv value characteristic. The characteristic may deviate depending on valve body, nominal size, regulating cone and valve stroke.

### Regulating needle / Regulating cone

Regulating needle	Regulating cone
	
Regulating needle: RAxxx – RCxxx (reduced valve seat)	Regulating cone: DN 15 - 50

## Availability

### Availability of valve bodies

#### Flange

DN	Connection type Code <sup>1)</sup>						
	8		10	11	39		48
	Material Code <sup>2)</sup>						
	37	90	37	37	37	90	37
15	-	X	-	X	X	X	X
20	-	X	-	X	X	X	X
25	-	X	-	X	X	X	X
32	-	X	X	X	X	X	-
40	-	X	X	X	X	X	X
50	X	X	-	X	X	X	X
65	X	X	-	X	X	X	-
80	X	X	-	X	X	X	-
100	X	X	-	X	X	X	-

X = Standard

#### 1) Connection type

Code 8: Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 11: Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

Code 48: Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K

#### 2) Valve body material

Code 37: 1.4408, investment casting

Code 90: EN-GJS-400-18-LT (GGG 40.3)

## 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
Globe valve, motorized, electro-mechanical hollow shaft actuator, eSyDrive	539
2 DN	Code
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 Housing configuration	Code
2/2-way body	D
4 Connection type	Code
Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	8
Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	11
Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	39
Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K	48
5 Valve body material	Code
1.4408, investment casting	37
EN-GJS-400-18-LT (GGG 40.3)	90
6 Seat seal	Code
PTFE	5
PTFE, glass fibre reinforced	5G
1.4404	10
7 Voltage/Frequency	Code
24 V DC	C1
8 Control module	Code
OPEN/CLOSE, positioner and process controller	L0
9 Regulating cone	Code
Please find the number of the optional regulating cone (R-No.) for the linear or equal-percentage modified regulating cone in the Kv value table.	R...

10 Actuator version	Code
Actuator size 0	0A
Actuator size 1	1A
Actuator size 2	2A
Actuator size 3	3A

11 Type of design	Code
Standard	
For elevated temperatures	2024

12 Special version	Code
Standard	
Special version for oxygen, (max. temperature 60 °C; max. operating pressure 10 bar), media wetted seal materials and auxiliary materials with BAM testing	S

13 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

**Order example**

Ordering option	Code	Description
1 Type	539	Globe valve, motorized, electro-mechanical hollow shaft actuator, eSyDrive
2 DN	40	DN 40
3 Housing configuration	D	2/2-way body
4 Connection type		
5 Valve body material	37	1.4408, investment casting
6 Seat seal	5	PTFE
7 Voltage/Frequency	C1	24 V DC
8 Control module	L0	OPEN/CLOSE, positioner and process controller
9 Regulating cone	RS916	60 m <sup>3</sup> /h – mod.EQ
10 Actuator version	2A	Actuator size 2
11 Type of design		Standard
12 Special version		Without
13 CONEXO		Without

## Technical data

### Medium

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

**Max. permissible viscosity:** 600 mm<sup>2</sup>/s  
Other versions for lower / higher temperatures and higher viscosities on request.

### Temperature

**Media temperature:** -10 – 180 °C  
-10 – 250 °C for K-No. 2024 + seat seal Code 5G, Code 10  
For material code 37 + K-no. 2013: -40 to 180 °C

**Ambient temperature:** -10 – 60 °C  
-10 – 40 °C for K-No. 2024 + seat seal Code 5G, Code 10

**Storage temperature:** 0 – 40 °C

### Pressure

**Operating pressure:**

DN	Actuator version			
	0A	1A	2A	3A
15	32	-	-	-
20	20	40	-	-
25	12	32	-	-
32	-	20	-	-
40	-	12	25	40
50	-	8	16	38
65	-	5	10	24
80	-	4	6	15
100	-	-	4	9

Pressures in bar  
All pressures are gauge pressures.  
For max. operating pressures the pressure / temperature correlation must be observed.  
Higher operating pressures on request

**Leakage rate:**

#### Open/Close valve

Seat seal	Standard	Test procedure	Leakage rate	Test medium
Metal	DIN EN 12266-1	P12	F	Air
EPDM, FKM, PTFE	DIN EN 12266-1	P12	A	Air

#### Control valve

Seat seal	Standard	Test procedure	Leakage rate	Test medium
Metal	DIN EN 60534-4	1	IV	Air
PTFE, FKM, EPDM	DIN EN 60534-4	1	VI	Air

**Pressure/temperature correlation:**

Conne- tion type Code	Material Code <sup>1)</sup>	Max. allowable operating pressures in bar at temperature in °C				
		RT	100	150	200	250
<b>8</b>	<b>37</b>	16.0	16.0	14.5	13.4	12.7
<b>10</b>	<b>37</b>	25.0	25.0	22.7	21.0	19.8
<b>11</b>	<b>37</b>	40.0	40.0	36.3	33.7	31.8
<b>39</b>	<b>37</b>	19.0	16.0	14.8	13.6	12.1
<b>8</b>	<b>90</b>	16.0	16.0	15.5	14.7	13.9
<b>39</b>	<b>90</b>	17.0	16.0	14.8	13.9	12.1

**1) Valve body material**

Code 37: 1.4408, investment casting

Code 90: EN-GJS-400-18-LT (GGG 40.3)

**Kv values:**
**Open/Close valve**

DN	Kv values
<b>15</b>	4.6
<b>20</b>	8.0
<b>25</b>	13.0
<b>32</b>	22.0
<b>40</b>	35.0
<b>50</b>	50.0
<b>65</b>	90.0
<b>80</b>	127.0
<b>100</b>	200.0

 Kv values in m<sup>3</sup>/h

Kv values determined in accordance with DIN EN 60534. The Kv value specifications refer to the largest actuator for the respective nominal size. The Kv values for other product configurations (e.g. other connections or body materials) may differ.

**Control valve:**

**Standard regulating cone (DIN)**

DN	Kv values	Operating pressure	Actuator version	Linear	Equal percentage
<b>15</b>	4.0	32.0	<b>0A</b>	<b>RS851</b>	<b>RS861</b>
<b>20</b>	6.3	20.0	<b>0A</b>	<b>RS852</b>	<b>RS862</b>
<b>25</b>	10.0	12.0	<b>0A</b>	<b>RS853</b>	<b>RS863</b>
	10.0	32.0	<b>1A</b>	<b>RS854</b>	<b>RS864</b>
<b>32</b>	16.0	20.0	<b>1A</b>	<b>RS855</b>	<b>RS865</b>
<b>40</b>	25.0	12.0	<b>1A</b>	<b>RS856</b>	<b>RS866</b>
	25.0	20.0	<b>2A</b>	<b>RS784</b>	<b>RS794</b>
	25.0	40.0	<b>3A</b>	<b>RS720</b>	<b>RS730</b>
<b>50</b>	40.0	8.0	<b>1A</b>	<b>RS857</b>	<b>RS867</b>
	40.0	16.0	<b>2A</b>	<b>RS785</b>	<b>RS795</b>
	40.0	38.0	<b>3A</b>	<b>RS721</b>	<b>RS731</b>
<b>65</b>	63.0	5.0	<b>1A</b>	-	<b>RS868</b>
	80.0	10.0	<b>2A</b>	-	<b>RS796</b>
	80.0	24.0	<b>3A</b>	-	<b>RS732</b>
<b>80</b>	90.0	4.0	<b>1A</b>	-	<b>RS869</b>
	100.0	6.0	<b>2A</b>	-	<b>RS798</b>
	100.0	15.0	<b>3A</b>	-	<b>RS733</b>
<b>100</b>	160.0	4.0	<b>2A</b>	-	<b>RS799</b>
	160.0	9.0	<b>3A</b>	-	<b>RS734</b>

Kv values in m<sup>3</sup>/h  
Pressures in bar

## Control valve:

Standard regulating cone with reduced seat  
Valve body material 1.4435 (code 34, C2), 1.4408 (code 37)

DN	Kv values	Operating pressure	Actuator version	Linear	Equal percentage
15	0.10 <sup>1)</sup>	40	0A	RA104	RA307
	0.16 <sup>1)</sup>	40	0A	RB110	RA309
	0.25 <sup>1)</sup>	40	0A	RB111	RB307
	0.40 <sup>1)</sup>	40	0A	RB112	RB308
	0.63 <sup>1)</sup>	40	0A	RC107	RC307
	1.00 <sup>1)</sup>	40	0A	RC108	RC308
	1.60	40	0A	RD107	RD307
	2.50	40	0A	RE110	RE310
20	1.60	40	0A	RD108	RD308
	2.50	40	0A	RE111	RE311
	4.00	40	0A	RF113	RF313
25	2.50	40	0A	RE112	RE312
	4.00	40	0A	RF114	RF314
	6.30	32	0A	RG115	RG315
32	4.00	40	0A	RF115	RF315
	6.30	36	0A	RG116	RG316
	10.00	20	0A	RH110	RH310
40	6.30	35	0A	RG117	RG317
	10.00	20	0A	RH111	RH311
	16.00	12	0A	RJ107	RJ307
50 <sup>2)</sup>	10.00	18	0A	RH112	RH312
	16.00	12	0A	RJ108	RJ308
	25.00	19	1A	RK104	RK304

Kv values in m<sup>3</sup>/h

1) metal seated

2) only for connection type code 8, 39, 48

## See also

Flange [ 000]

## Product compliance

**Machinery Directive:** 2006/42/EC

**Pressure Equipment Directive:** 2014/68/EU

**Food:** Regulation (EC) No. 1935/2004\*  
 Regulation (EC) No. 10/2011\*  
 FDA\*  
 \* depending on version and/or operating parameters

**EMC Directive:** 2014/30/EU  
 Interference emission Category: C3  
 The product is only intended for operation in industrial environments.  
 The product is not intended for use in a public low-voltage network supplying residential areas. Connection to a mains of this kind can cause radio frequency interference.

**RoHS Directive:** 2011/65/EU

## Mechanical data

**Protection class:** IP 65 acc. to EN 60529

**Actuating speed:** Actuator version 0A Adjustable, max. 6 mm/s  
 Actuator version 1A Adjustable, max. 6 mm/s  
 Actuator version 2A Adjustable, max. 4 mm/s  
 Actuator version 3A Adjustable, max. 2 mm/s

**Weight:** **Actuator**  
 Actuator version 0A 1.8 kg  
 Actuator version 1A 3.0 kg  
 Actuator version 2A 9.0 kg  
 Actuator version 3A 9.3 kg

### Body

DN	Valve body		
	Flange K512	Flange K514	Flange K534
	Connection type code		
	8, 11, 39, 40	8, 10, 13, 47	8, 10, 39
<b>15</b>	3.40	1.80	2.20
<b>20</b>	4.60	2.50	3.00
<b>25</b>	6.80	3.10	3.70
<b>32</b>	8.80	4.60	5.30
<b>40</b>	10.90	5.10	6.30
<b>50</b>	14.50	7.20	8.40
<b>65</b>	21.70	-	-
<b>80</b>	29.20	-	-
<b>100</b>	37.10	-	-

Weights in kg

## Actuator duty cycle and service life

- Service life:** **Control operation** - Class C acc. to EN 15714-2 (1,800,000 start-ups and 1200 start-ups per hour).  
**Open / Close duty** - Minimum 1,000,000 switching cycles at room temperature and permissible duty cycle.
- Duty cycle:** **Control operation** - Class C acc. to EN 15714-2.  
**Open/Close duty** - 100%

## Electrical data

Supply voltage:	Actuator size 0	Actuator size 1	Actuator size 2, 3
Voltage	U <sub>v</sub> = 24 V DC ± 10%		
Rating	Max. 28 W	Max. 65 W	Max. 120 W
Reverse battery protection	Yes		

## Analogue input signals

### Set value

- Input signal:** 0/4 - 20 mA; 0 – 10 V DC (selectable using software)
- Input type:** passive
- Input resistance:** 250 Ω
- Accuracy/linearity:** ≤ ±0.3% of full flow
- Temperature drift:** ≤ ±0.1% / 10°K
- Resolution:** 12 bit
- Reverse battery protection:** No
- Overload proof:** Yes (up to ± 24 V DC)

### Process actual value

- Input signal:** 0/4 - 20 mA; 0 – 10 V DC (selectable using software)
- Input type:** passive
- Input resistance:** 250 Ω
- Accuracy/linearity:** ≤ ±0.3% of full flow
- Temperature drift:** ≤ ±0.1% / 10°K
- Resolution:** 12 bit
- Reverse battery protection:** No
- Overload proof:** Yes (up to ± 24 V DC)

### **Digital input signals**

<b>Digital inputs:</b>	3
<b>Function:</b>	Can be selected using software
<b>Voltage:</b>	24 V DC
<b>Logic level "1":</b>	>14 V DC
<b>Logic level "0":</b>	< 8 V DC
<b>Input current:</b>	typ. 2.5 mA (at 24 V DC)

### **Analogue output signals**

#### **Actual value**

<b>Output signal:</b>	0/4 - 20 mA; 0 – 10 V DC (selectable using software)
<b>Output type:</b>	Active (AD5412)
<b>Accuracy:</b>	$\leq \pm 1\%$ of full flow
<b>Temperature drift:</b>	$\leq \pm 0.1\% / 10^\circ\text{K}$
<b>Load resistor:</b>	$\leq 750\text{ k}\Omega$
<b>Resolution:</b>	10 bit
<b>Overload proof:</b>	Yes (up to $\pm 24\text{ V DC}$ )
<b>Short-circuit proof:</b>	Yes

### **Digital output signals**

#### **Switching outputs 1 and 2**

<b>Design:</b>	2x make contact, potential-free
<b>Switching voltage:</b>	max. 48 V DC / 48 V AC
<b>Switch rating:</b>	max. 60 W / 2A
<b>Switch points:</b>	Adjustable 0 - 100 %

#### **Switching output 3**

<b>Function:</b>	Signal fault
<b>Type of contact:</b>	Push-Pull
<b>Switching voltage:</b>	Supply voltage
<b>Switching current:</b>	$\leq 0.1\text{ A}$
<b>Drop voltage:</b>	Max. 2.5 V DC at 0.1 A
<b>Overload proof:</b>	Yes (up to $\pm 24\text{ V DC}$ )
<b>Short-circuit proof:</b>	Yes
<b>Pull-Down resistance:</b>	120 k $\Omega$

### Communication eSy-Web

- Interface:** Ethernet
- Function:** Parameterisation via web browser
- IP address:** 192.168.2.1 alterable via web browser
- Subnet screen:** 255.255.252.0 alterable via web browser

The actuator and the PC must be in the same network to use the web server. The IP address of the actuator is entered in the web browser and the actuator can then be parametrised. In order to use more than one actuator, a definitive IP address must be assigned to each actuator in the same network.

### Communication Modus TCP

- Interface:** Modbus TCP
- IP address:** 192.168.2.1 alterable via web browser
- Subnet screen:** 255.255.252.0 alterable via web browser
- Port:** 502

**Supported function codes:**

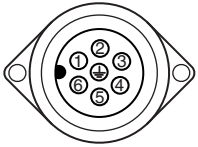
Code Dezimal	Code Hex	Function
3	0x03	Read Holding Registers
4	0x04	Read Input Registers
6	0x06	Write Single Register
16	0x10	Write Multiple Registers
23	0x17	Read / Write Multiple Registers

### Behaviour in the event of an error

- Function:** In the event of an error the valve moves to the error position.  
 Notes: Moving to the error position is only possible with full power supply. This behaviour is not a safety position. The valve must be operated with a GEMÜ 1571 emergency power supply module (see accessories) to ensure the function in case of voltage loss.
- Error position:** Closed, open or hold (adjustable via eSy-web web interface).

## Electrical connection

### Connection X1



7-pin plug, Binder, type 693

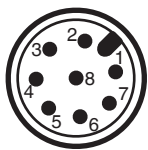
Pin	Signal name
Pin 1	Uv, 24 V DC supply voltage
Pin 2	Uv GND
Pin 3	Relay output K1, common
Pin 4	Relay output K1, make contact
Pin 5	Relay output K2, common
Pin 6	Relay output K2, make contact
Pin PE	Function earth

### Connection X2



5-pin M12 built-in socket, D-coded

Pin	Signal name
Pin 1	Tx + (Ethernet)
Pin 2	Rx + (Ethernet)
Pin 3	Tx - (Ethernet)
Pin 4	Rx - (Ethernet)
Pin 5	Shield

**Connection X3**

8-pin M12 plug, A-coded

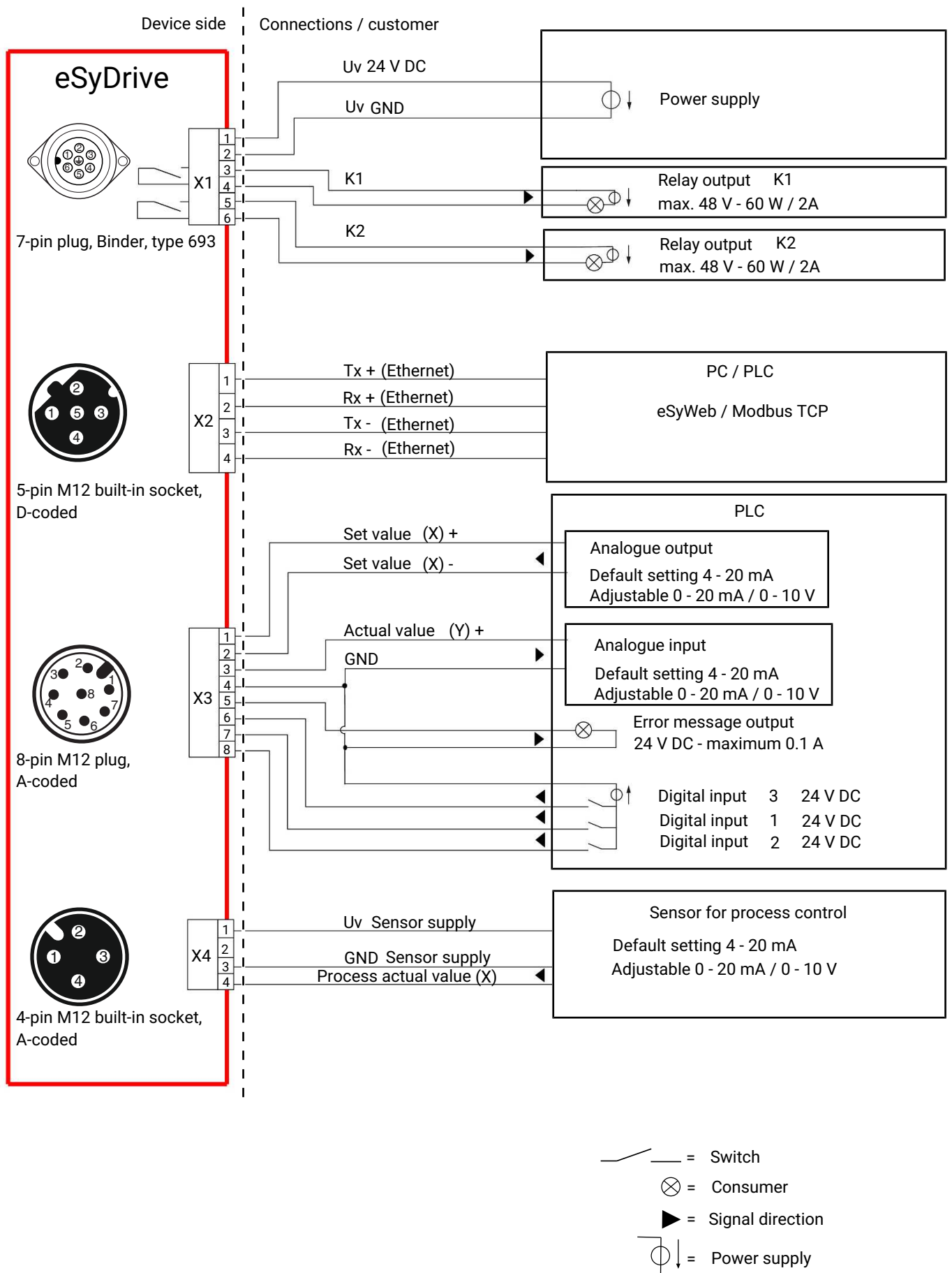
Pin	Signal name
Pin 1	W+ set value input
Pin 2	W – set value input
Pin 3	X + actual value output
Pin 4	GND (actual value output, digital input 1 – 3, error message output)
Pin 5	Error message output 24 V DC
Pin 6	Digital input 3
Pin 7	Digital input 1
Pin 8	Digital input 2

**Connection X4**

4-pin M12 built-in socket, A-coded

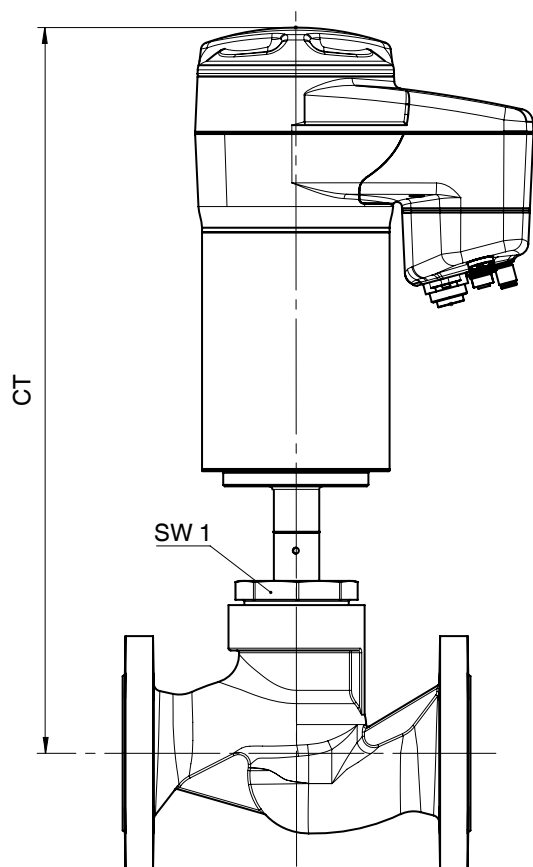
Pin	Signal name
Pin 1	UV, 24 V DC actual value supply
Pin 2	n.c.
Pin 3	GND (actual value supply, actual value input)
Pin 4	X+, process actual value input
Pin 5	n.c.

**Connection diagram**



## Dimensions

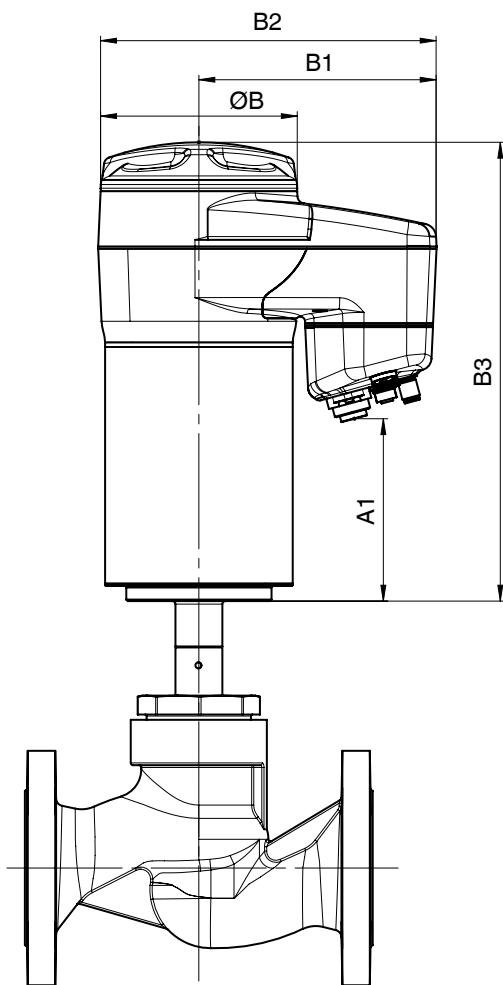
### Installation dimensions



DN	SW1	CT			
		Actuator version code			
		0A	1A	2A	3A
15	36	311.0	-	-	-
20	41	318.0	375.0	-	-
25	46	328.0	386.0	-	-
32	55	330.0	391.0	-	-
40	60	-	402.0	471.0	494,0
50	55	-	410.0	479.0	502,0
65	75	-	433.0	502.0	525,0
80	75	-	-	522.0	545,0
100	75	-	-	543.0	566,0

Dimensions in mm

**Actuator dimensions**

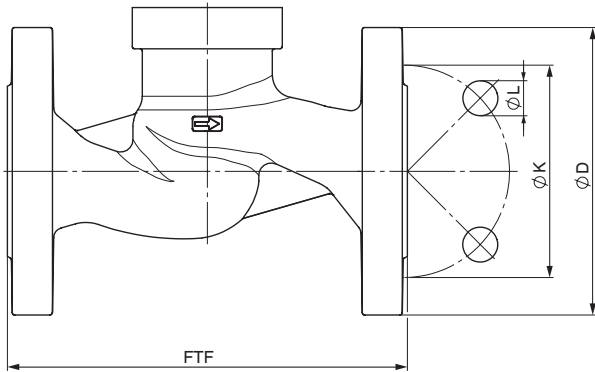


Actuator version	A1	B	B1	B2	B3
<b>0A</b>	45.0	68.0	126.0	160.0	193.0
<b>1A</b>	86.0	82.0	132.0	172.0	252.0
<b>2A</b>	121.0	129.0	157.0	224.0	304.0
<b>3A</b>	144,0	129,0	157,0	224,0	327,0

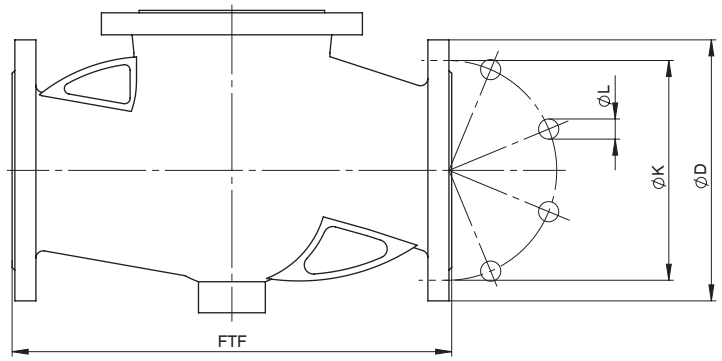
Dimensions in mm

**Body dimensions**

**Flange EN (code 8)**



DN 15 - 50



DN 65 - 100

**Connection type flange, length EN 558 (code 8)<sup>1)</sup>, SG iron material (code 90)<sup>2)</sup>**

DN	NPS	ø D	FTF	ø k	ø L	n
15	1/2"	95.0	130.0	65.0	14.0	4
20	3/4"	105.0	150.0	75.0	14.0	4
25	1"	115.0	160.0	85.0	14.0	4
32	1¼"	140.0	180.0	100.0	18.0	4
40	1½"	150.0	200.0	110.0	18.0	4
50	2"	165.0	230.0	125.0	18.0	4
65	2½"	185.0	290.0	145.0	18.0	4
80	3"	200.0	310.0	160.0	18.0	8
100	4"	220.0	350.0	180.0	18.0	8

**Connection type flange, length EN 558 (code 8)<sup>1)</sup>, investment casting material (code 37)<sup>2)</sup>**

DN	NPS	ø D	FTF	ø k	ø L	n
50	2"	165.0	230.0	125.0	18.0	4
65	2½"	185.0	290.0	145.0	18.0	4
80	3"	200.0	310.0	160.0	18.0	8
100	4"	220.0	350.0	180.0	18.0	8

Dimensions in mm

n = number of bolts

**1) Connection type**

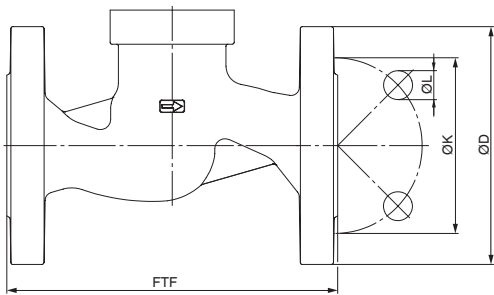
Code 8: Flange EN 1092, PN 16, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

**2) Valve body material**

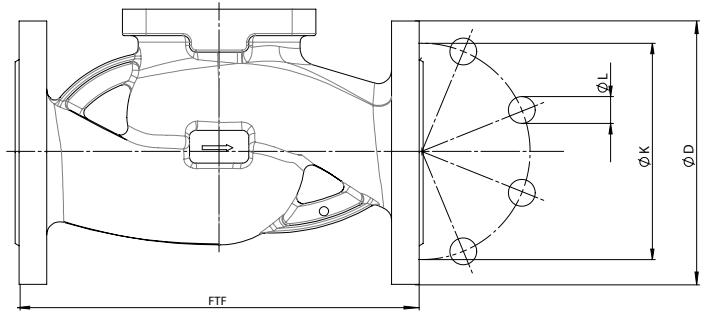
Code 37: 1.4408, investment casting

Code 90: EN-GJS-400-18-LT (GGG 40.3)

**Flange EN (code 10, 11, 48)**



DN 15 - 50



DN 65 - 100

**Connection type flange, length EN 558 (code 11)<sup>1)</sup>, investment casting material (code 37)<sup>2)</sup>**

DN	NPS	ø D	FTF	ø k	ø L	n
15	1/2"	95.0	130.0	65.0	14.0	4
20	3/4"	105.0	150.0	75.0	14.0	4
25	1"	115.0	160.0	85.0	14.0	4
32	1¼"	140.0	180.0	100.0	18.0	4
40	1½"	150.0	200.0	110.0	18.0	4
50	2"	165.0	230.0	125.0	18.0	4
65	2½"	185.0	290.0	145.0	18.0	8
80	3"	200.0	310.0	160.0	18.0	8
100	4"	235.0	350.0	190.0	22.0	8

**Connection type flange, length EN 558 (code 48)<sup>1)</sup>, investment casting material (code 37)<sup>2)</sup>**

DN	NPS	ø D	FTF	ø k	ø L	n
15	1/2"	95.0	108.0	70.0	15.0	4
20	3/4"	100.0	117.0	75.0	15.0	4
25	1"	125.0	127.0	90.0	19.0	4
40	1½"	140.0	165.0	105.0	19.0	4
50	2"	155.0	203.0	120.0	19.0	4

Dimensions in mm

n = number of bolts

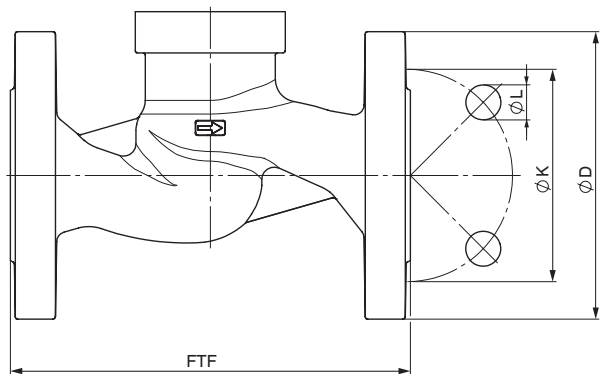
**1) Connection type**

Code 11: Flange EN 1092, PN 40, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

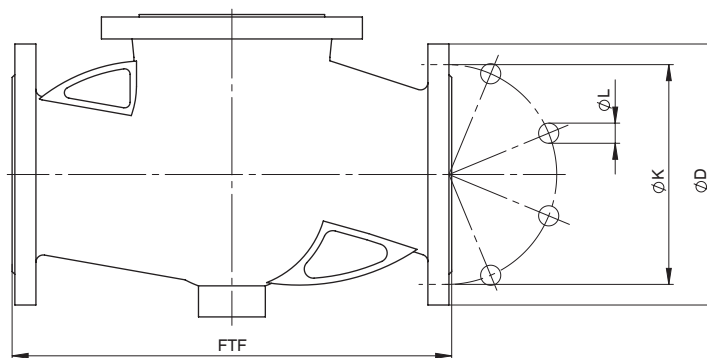
Code 48: Flange JIS 20K, face-to-face dimension FTF EN 558 series 10, ASME/ANSI B16.10 table 1, column 16, DN 50 drilled to JIS 10K

**2) Valve body material**

Code 37: 1.4408, investment casting

**Flange ANSI Class (code 39)**

DN 15 - 50



DN 65 - 100

**Connection type flange, length EN 558 (code 39)<sup>1)</sup>, investment casting material (code 37), SG iron material (code 90)<sup>2)</sup>**

DN	NPS	$\phi$ D	FTF	$\phi$ k	$\phi$ L	n
15	1/2"	90.0	130.0	60.3	15.9	4
20	3/4"	100.0	150.0	69.9	15.9	4
25	1"	110.0	160.0	79.4	15.9	4
32	1 1/4"	115.0	180.0	88.9	15.9	4
40	1 1/2"	125.0	200.0	98.4	15.9	4
50	2"	150.0	230.0	120.7	19.0	4
65	2 1/2"	180.0	290.0	139.7	19.0	4
80	3"	190.0	310.0	152.4	19.0	4
100	4"	230.0	350.0	190.5	19.0	8

Dimensions in mm

n = number of bolts

**1) Connection type**

Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

**2) Valve body material**

Code 37: 1.4408, investment casting

Code 90: EN-GJS-400-18-LT (GGG 40.3)

## Error messages

### Accessories



#### GEMÜ 1218

##### Connector

GEMÜ 1218 is a connector (cable socket/cable plug), 7-pin. Straight or 90° angled plug type.

GEMÜ 1218 Binder connector			
<b>Connection X1 – supply voltage, relay outputs</b>			
Binder plug	468/eSy series mating connector	Terminal compartment/ screws, 7-pin	88220649 <sup>1)</sup>
		Terminal compartment/ screws, 7-pin, 90°	88377714
		Terminal compartment/ screws, 7-pin, 90°, fitted with a 2 metre cable set	88770522

1) provided in the scope of delivery

**GEMÜ 1219****Cable socket / cable plug M12**

The GEMÜ 1219 is a connector (cable socket / cable plug) M12, 5-pin. Straight and/or 90° angled plug type. Defined cable length or with threaded connection without cable. Various materials available for the threaded ring.

GEMÜ 1219 Ethernet/M12 cable			
<b>Connection X2 - network connection</b>			
M12 cable plug, straight, 4-pin	Fitted with a 1 metre cable set	Ethernet RJ45	88450499
	Fitted with a 4 metre cable set		88450500
	Fitted with a 15 metre cable set		88450502
M12 cable plug, angled, 4-pin	Fitted with a 4 metre cable set		88715615
<b>Connection X3 – analogue/digital inputs and outputs</b>			
M12 cable socket, straight, 8-pin	Without cable dia. 6–8 mm		88304829 <sup>1)</sup>
	Fitted with a 5 metre cable set, PUR black cable		88758155
M12 cable socket, angled, 8-pin	Without cable dia. 6–8 mm		88422823
	Fitted with a 5 metre cable set, PUR black cable		88374574
<b>Connection X4 – actual value supply, actual value input</b>			
M12 cable plug, straight, 5-pin	Without cable PG7	Nickel-plated brass	88208641
	Fitted with a 2 metre cable set, PUR black cable	5 x 0.34, nickel-plated brass	88208643
	Fitted with a 5 metre cable set, PUR black cable	5 x 0.34, nickel-plated brass	88208644
M12 cable plug, angled, 5-pin	Without cable dia. 6–8 mm	Nickel-plated brass	88208645
	Fitted with a 2 metre cable set, PUR black cable	5 x 0.34, nickel-plated brass	88208649
	Fitted with a 5 metre cable set, PUR black cable	5 x 0.34, nickel-plated brass	88208650

1) provided in the scope of delivery



**GEMÜ 1571**

**Emergency power supply module**

The GEMÜ 1571 capacitive emergency power supply module is suitable for valves with motorized actuators such as GEMÜ eSyStep and eSyDrive as well as the GEMÜ C53 iComLine control valve. In the event of a power failure, the product provides an uninterrupted power supply so that the valve can be moved to the safety position. The emergency power supply module is available individually or with an expansion module and can supply several valves. The input and output voltage is 24 V.

GEMÜ 1571 emergency power supply module			
Input voltage	Output voltage	Capacity	Item number
24 V	24 V	1700 Ws	88660398
24 V	24 V	13200 Ws	88751062



**GEMÜ 1573**

**Switching power supply unit**

The GEMÜ 1573 switching power supply unit converts unstable input voltages from 100 to 240 V AC into a continuous DC voltage. It can be used as an accessory for valves with motorized actuators e. g. GEMÜ eSyLite, eSyStep und eSyDrive and for additional devices with a 24 V DC power supply. Different power levels, output currents and a 48 V DC version for servoDrive actuators are available.

GEMÜ 1573 switching power supply unit			
Input voltage	Output voltage	Output current	Item number
100 - 240 V AC	24 V DC	5 A	88660400
		10 A	88660401



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