

Control Valve, Plastic/Metal

Construction

GEMÜ 563, 568 is a motorized 2/2 way control valve with low maintenance reversible synchronous electric motor. The valve is operated via a reduction gear and spring loaded cam, ensuring continuous contact between the cam and the valve spindle.

Features

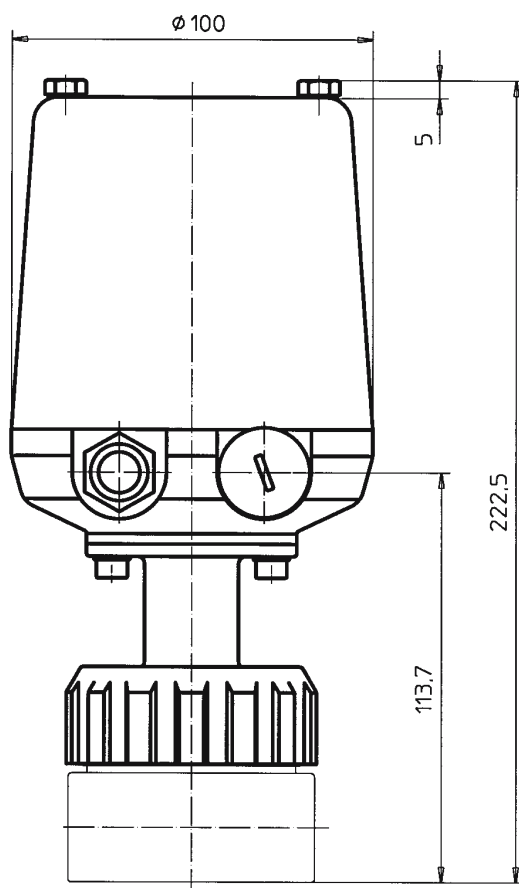
- Suitable for inert and corrosive* liquid and gaseous media
- The motor will withstand being stalled under full voltage
- Valve body and seals are available in various materials
- Suitable for use as a control valve
- Integrated optical position indicator

Advantages

- Direct processing of 0/4-20 mA signals via the integrated controller
- Opening and closing behaviour is independent of the working pressure
- Hermetic separation between medium and actuator

* see information on working medium on page 2

Actuator dimensions GEMÜ 563 and GEMÜ 568 (mm)



GEMÜ 563
Plastic design



GEMÜ 568
Metal design

Technical data

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.

Leakage rate at 6 bar acc. to DIN 3230, T.3: Leakage rate 3 (Test with water)

Max. permissible temperature of working medium:

GEMÜ 563:

See data sheet "Technical Information on Plastic Materials"

GEMÜ 568: 80° C

Duty

100% continuous

Input resistance

33 Ω (input protected through reverse diode)

Operating time

See design page 3

approx. 17 or 45 s

Ambient conditions

Ambient temperature -15/+55° C *

* For limitations see data sheet

"Technical Information on Plastic Materials"

Power supply

24, 120, 230 V 50/60 Hz ± 10%

Power consumption

3.5 VA

Protection class

IP 65 acc. to EN 60529

Electrical connection

2 x PG 13.5 (Design without integrated control module)

2 x Circular connector (Binder Series 717) (Design with integrated control module)

Order data

Nominal size (seat)	Working pressure	Weight	
(mm)	(bar)	GEMÜ 563 (kg)	GEMÜ 568 (kg)
3	0 - 6	1.6	2.4
6	0 - 6	1.6	2.4
10	0 - 6	1.6	2.4
15	0 - 6	1.6	2.4

All pressures are given as gauge pressures.

Connections

Code

Threaded connections

Threaded sockets DIN ISO 228 (GEMÜ 563/568) 1
Threaded spigots (Dairy union acc. to DIN 11851) (GEMÜ 568) 6

Clamp connections

Clamps DIN 32676 (GEMÜ 568) 86
for pipe DIN 11850

Body configuration

Code

Straight through

D

Valve body material

Code

PVC-U (GEMÜ 563) 1
PVDF Polyvinylidenefluoride (GEMÜ 563) 20
1.4435 (316 L) investment casting (GEMÜ 568) 34

563, 568

Seal material	Code
FPM	4
EPDM	14

Supply voltage/Frequency	Code
24 V 50/60 Hz ±10%	C4
120 V 50/60 Hz ±10%	G4
230 V 50/60 Hz ±10%	L4

Control module (with connector)	Code
Without	-
Analogue signal processing	
Control of valve position. Actual value control inside the actuator by means of a potentiometer (K 6025/K 6026); set value external, 0-10 V	E1
Control of valve position. Actual value control inside the actuator by means of a potentiometer (K 6025/K 6026); set value external, 0/4-20 mA	E2
Control of process variables. Actual value external, 0/4-20 mA; set value external, 0/4-20 mA (K 6023/K 6024)	E3
Control of valve position. Actual value control inside the actuator by means of a potentiometer (K 6025/K 6026); set value external, external potentiometer	EP
Fieldbus connection for LonWorks	
Control of process variables. Actual value, set value external by means of Lonworks FTT 10A Transceiver (K 6023/K 6024)	L3
Control of valve position. Actual value control inside the actuator by means of a potentiometer (K 6025/K 6026); set value external by means of Lonworks FTT 10A Transceiver	L4

Control characteristic	Code
K _v values/control characteristic/ equal percentage	A*
/ equal percentage	B*
/ equal percentage	C*
/ linear	D*
/ linear	E*

* For selection see diagrams page 4.

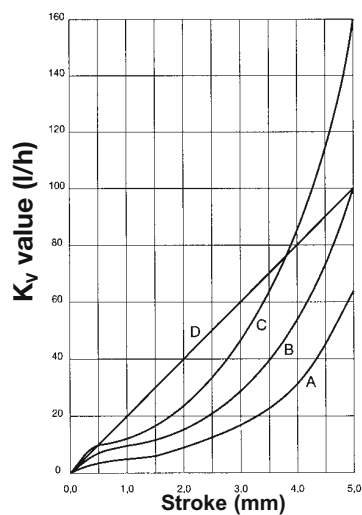
K _v value	see page 4
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Design	K-number
Standard: approx. 17 sec. operating time, 2 potential-free switching contacts	6023
Operating time approx. 45 sec. 2 potential-free switching contacts	6024
Operating time approx. 17 sec., with potentiometer 10 kΩ	6025
Operating time approx. 45 sec., with potentiometer 10 kΩ	6026

Order example	563	10	D	1	1	14	L4	E2	B	1600	6025
Type	563										
Nominal size (seat) (mm)		10									
Body configuration (code)			D								
Connection (code)				1							
Valve body material (code)					1						
Seal material (code)						14					
Supply voltage/frequency (code)							L4				
Integrated control modules (code)								E2			
Control characteristic (code)									B		
K _v value (see diagrams page 4)										1600	
Design (K-number)											6025

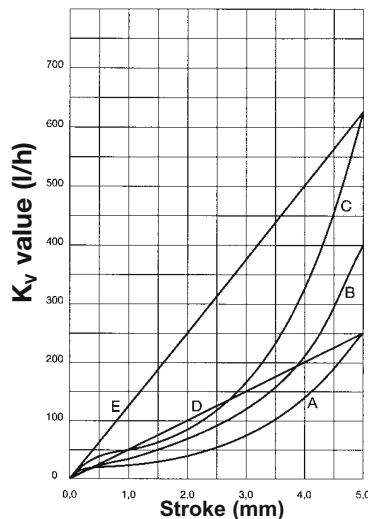
K_v value characteristics DN 3 (seat)

Characteristic	K _v value (l/h)
A	63
B	100
C	160
D	100



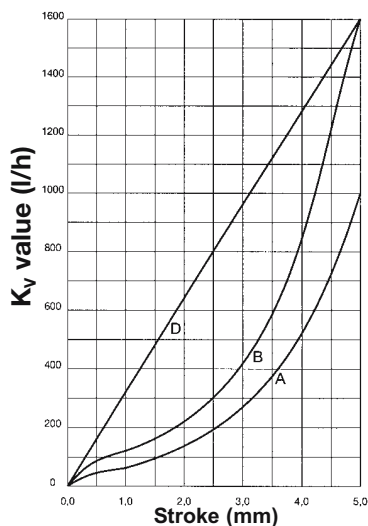
K_v value characteristics DN 6 (seat)

Characteristic	K _v value (l/h)
A	250
B	400
C	630
D	250
E	630



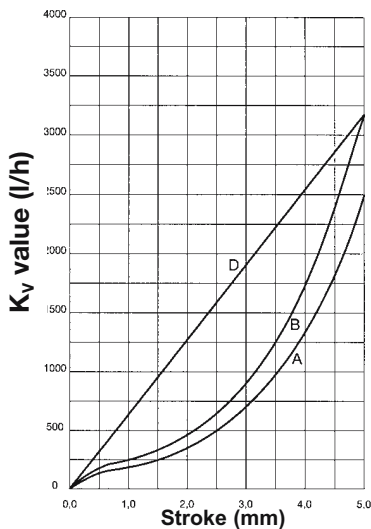
K_v value characteristics DN 10 (seat)

Characteristic	K _v value (l/h)
A	1000
B	1600
D	1600

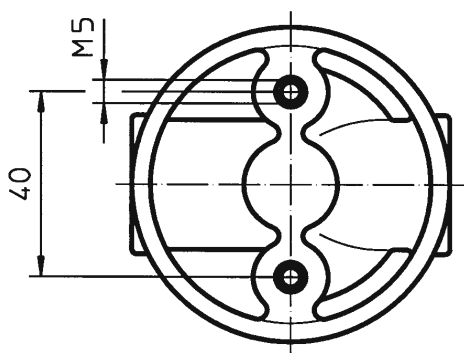


K_v value characteristics DN 15 (seat)

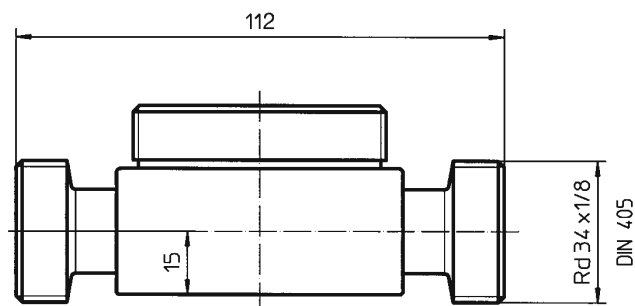
Characteristic	K _v value (l/h)
A	2500
B	3300
D	3300



Mounting dimensions (mm)



Body dimensions - Dairy unions (mm) Connection code 6 to DIN 11851 (only GEMÜ 568) Valve body material code 34

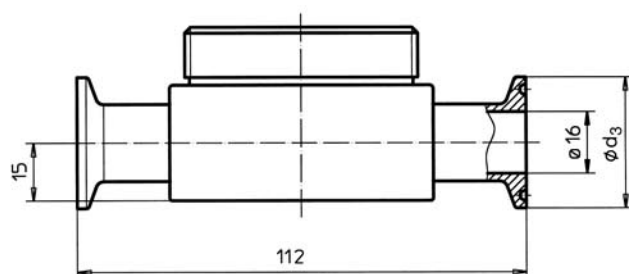
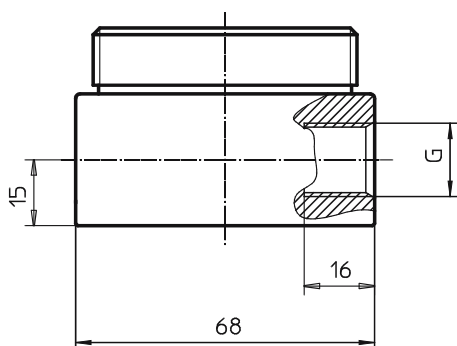


Body dimensions - Threaded sockets (mm) Connection code 1 (GEMÜ 563 / GEMÜ 568) Valve body material code 1, 20, 34

DN (Sitz)	G
3	G 3/8
6	G 3/8
10	G 3/8
15	G 1/2

Body dimensions - Clamp connections (mm) Connection code 86 (only GEMÜ 568) Valve body material code 34

	Code 86
ø d3	34



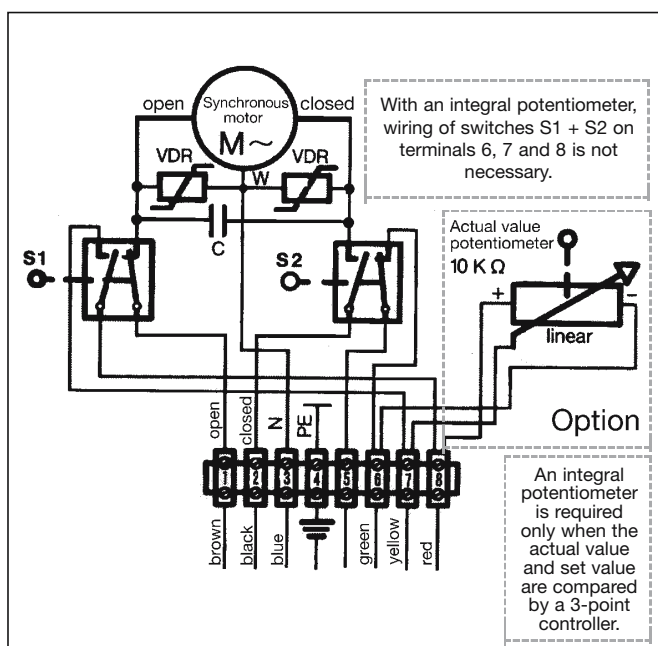
Overview of valve bodies for GEMÜ 563

Valve body material	Code 1, 20
Connection	Code 1
DN 3	X
DN 6	X
DN 10	X
DN 15	X

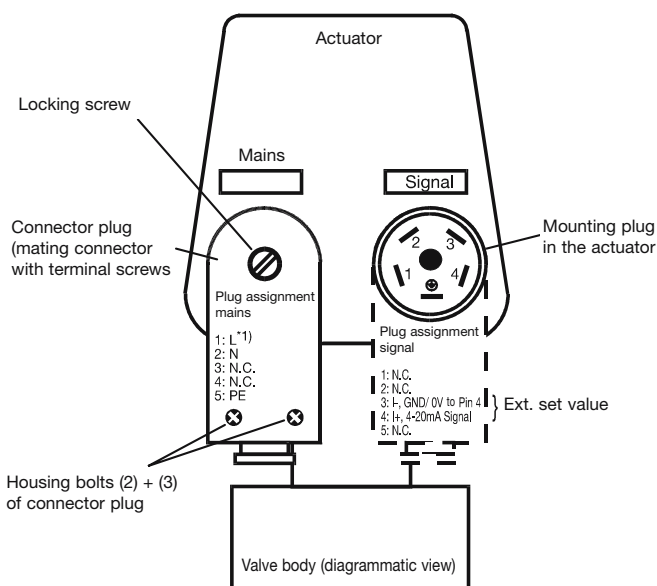
Overview of valve bodies for GEMÜ 568

Valve body material	Code 34		
Connection	Code 1	Code 6	Code 86
DN 3	X	X	X
DN 6	X	X	X
DN 10	X	X	X
DN 15	X	X	X

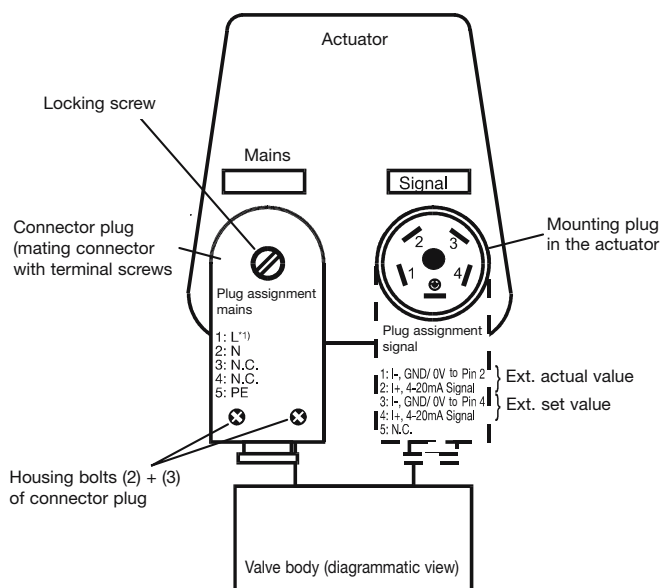
Connection diagram GEMÜ 563/568



Connection diagram Integrated control modules code E2



Connection diagram Integrated control modules code E3



*1) For the supply voltage (mains) check the details on the product label (24, 120 or 230 VAC). N.C. = not connected

For further globe valves, accessories and other products, please see our Product Range catalogue and Price List. Contact GEMÜ.

GEMÜ® VALVES, ACTUATORS
AND CONTROL SYSTEMS

