

Control Valve, Plastic/Metal

Construction

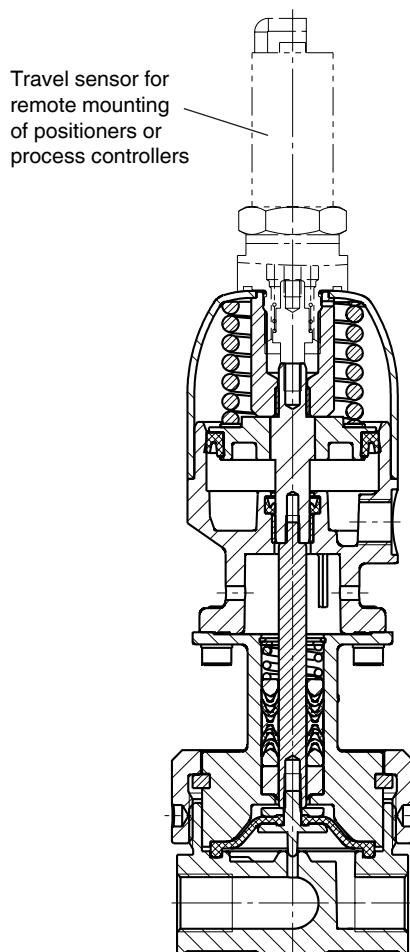
The GEMÜ 565 2/2-way control valve has a stainless steel piston actuator. All metallic actuator components are made of stainless steel. It is available with a normally closed control function (NC).

Features

- Suitable for inert and corrosive* liquid and gaseous media
- Valve body and isolating diaphragm are available in various materials
- Hermetic separation between medium and actuator
- The control valve can only be operated with an electro-pneumatic positioner or process controller.
Direct or remote mounting of a positioner (GEMÜ 1434, 1435, 1436) is required.
- Versions according to ATEX on request

*see information on working medium on page 2

Sectional drawing



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.

Media temperature:
 Plastic valve body: see table below
 Metal valve body: 80 °C

Control medium

Inert gases

Max. perm. temperature of control medium 70 °C

Filling volume:

Actuator size 1T2 0.031 dm³
 Actuator size 1T3 0.031 dm³

Ambient conditions

Ambient temperature -15 to +55 °C
 For limitations see table Pressure/temperature correlation

Operating pressure [bar]	Control pressure [bar]	Weight [kg] with plastic body	Weight [kg] with metal body
0 - 6	3.0- 7.0*	1.5	2.3

*for actuator size 1T2

All pressures are gauge pressures. PVC and PVDF valve bodies are only suitable up to PN 6, stainless steel valve bodies up to PN 10.

Maximum permissible seat leakage class

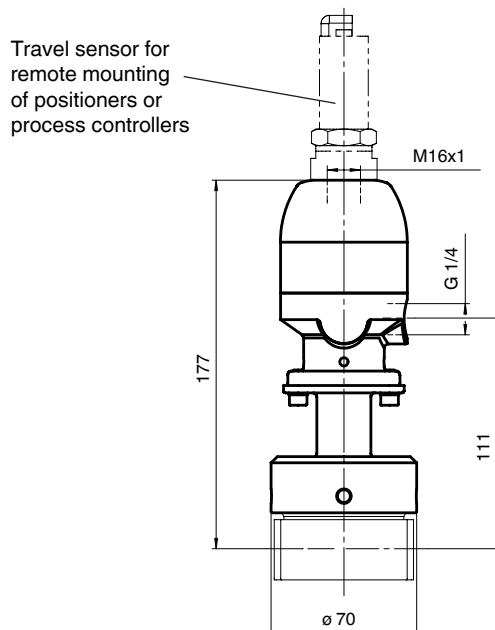
Seat seal	Standard	Test procedure	Leakage rate	Test medium
FPM, EPDM	DIN EN 60534-4	1	VI	air

Pressure / temperature correlation for plastic (PN 6)

Temperature in °C plastic body	Permissible operating pressure in bar													
	-20	-10	±0	5	10	20	25	30	40	50	60	70	80	
PVC-U Code 1	-	-	-	-	6.0	6.0	6.0	4.8	3.6	2.1	0.9	-	-	
PVDF Code 20	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.4	4.8	4.3	3.8	3.2	2.8	

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

Dimensions



Order data

Body configuration		Code	Control function		Code
2/2-way body		D	Normally closed	(NC)	1
Connection		Code	Actuator size		Code
Threaded connections					
Threaded sockets DIN ISO 228		1	Actuator size	DN 3 / 6 / 10	1T2
Threaded spigots DIN 11851		6	Actuator size	DN 15	1T3
Union ends with DIN insert (socket)		7			
Clamp connections					
Clamps DIN 32676 series A for pipe DIN 11850, length EN 558, series 1		86			
Valve body material		Code	Control characteristic		
PVC-U, grey / Regulating cone PEEK		1	Kvs values / control characteristic	/ equal-percentage	A*
PVDF / Regulating cone PEEK		20		/ equal-percentage	B*
1.4435 (ASTM A 351 CF3M) investment casting*		34		/ equal-percentage	C*
* Material equivalency 316 L				/ linear	D*
				/ linear	E*
* see diagrams page 4					
Isolating diaphragm material		Code	Kvs value		
FPM		4	see page 4		
EPDM		14	Kvs values: Tolerance ± 10%		

Order example	565	6	D	1	1	14	1	1T2	B	400
Type	565									
Nominal size		6								
Body configuration (code)			D							
Connection (code)				1						
Valve body material (code)					1					
Isolating diaphragm material (code)						14				
Control function (code)							1			
Actuator size (code)								1T2		
Control characteristic (code)									B	
Kvs value										400

In order to configure a complete control valve the pneumatically operated basic valve must be paired with an electro-pneumatic positioner. The GEMÜ 1434, 1435 and 1436 positioners and process controllers can be used for this purpose. You will find below two configuration examples of a complete valve.

Configuration example for a GEMÜ 565 control valve with directly mounted 1434 positioner

GEMÜ type	Order key
GEMÜ 565	565 15 D 1 34 14 1T3 A 250
GEMÜ 1434 positioner	1434 000 Z 1 A 14 1 00 01 010
Mounting kit for direct mounting of positioner	1434S01Z0342010
Air connector kit	1440 000 ZKS
GEMÜ 1219 cable plug M12	1219 000 Z 00 00DG 00M0 M125 A

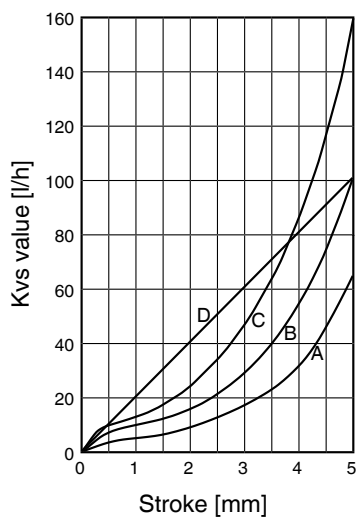
Configuration example for a GEMÜ 565 control valve with remotely mounted 1434 positioner

GEMÜ type	Order key
GEMÜ 565	565 15 D 1 34 14 1T3 A 250
GEMÜ 1434 positioner	1434 000 Z 1 A 14 1 00 01 010
Travel sensor for remote mounting	4232 000 Z 14 030 02M0 0000
Mounting kit for remote mounting	4232 S01 Z 292403000
GEMÜ 1219 cable plug M12	1219 000 Z 00 00DG 00M0 M125 A

Kvs values [l/h]

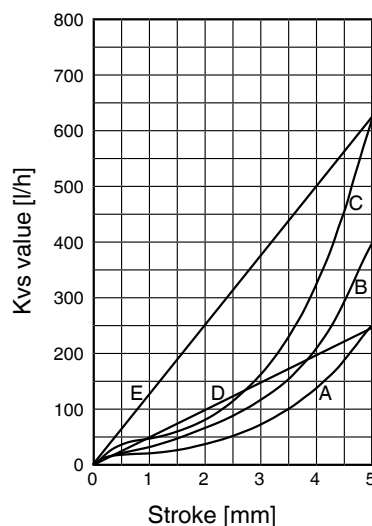
Characteristics DN 3 (seat)

Characteristic	Kvs value [l/h]
A	63
B	100
C	160
D	100



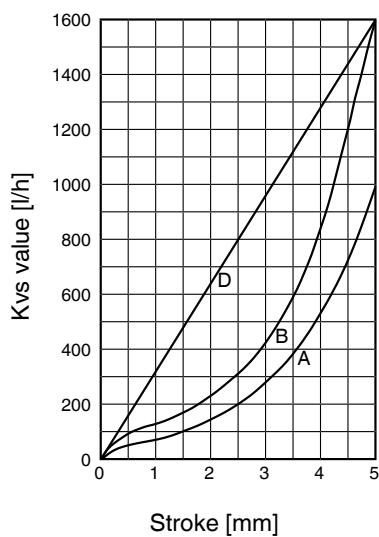
Characteristics DN 6 (seat)

Characteristic	Kvs value [l/h]
A	250
B	400
C	630
D	250
E	630



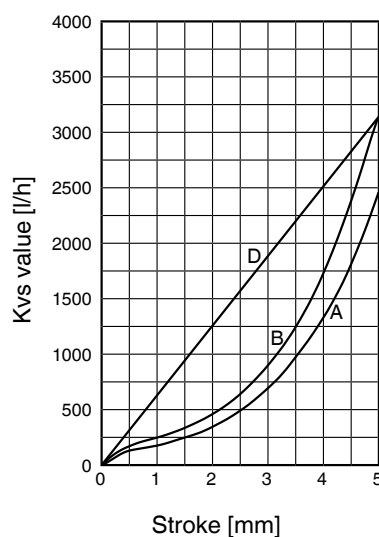
Characteristics DN 10 (seat)

Characteristic	Kvs value [l/h]
A	1000
B	1600
D	1600



Characteristics DN 15 (seat)

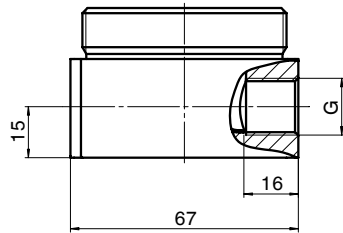
Characteristic	Kvs value [l/h]
A	2500
B	3300
D	3300



Body dimensions [mm]

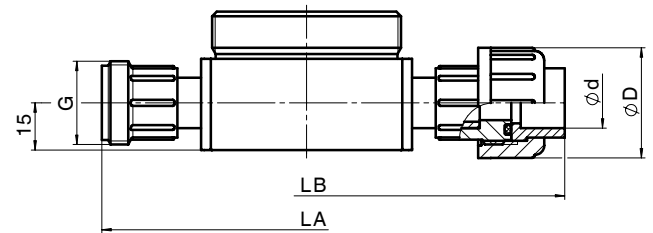
Threaded sockets - DIN ISO 228 Connection code 1 Valve body material code 1, 20, 34

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

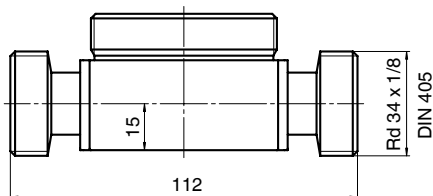


Union ends Connection code 7 Valve body material code 1

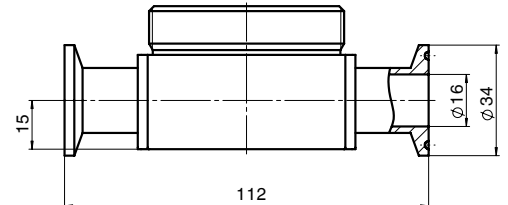
DN	G	øD	ød	LA	LB
3	G 3/4	35	16	130	164
6	G 3/4	35	16	130	164
10	G 3/4	35	16	130	164
15	G 1	43	20	130	168



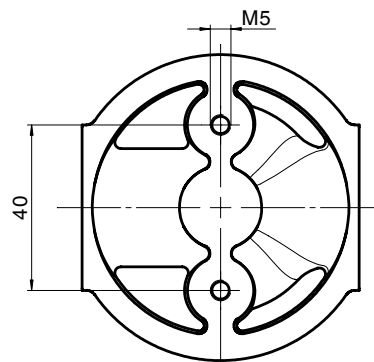
Threaded spigots - DIN 11851 Connection code 6 Valve body material code 34



Clamps Connection code 86 Valve body material code 34



Mounting dimensions



Overview of valve bodies for GEMÜ 565

Connection code	1			7	6	86
Material code	1	20	34	1	34	34
DN 3	X	X	X	X	X	X
DN 6	X	X	X	X	X	X
DN 10	X	X	X	X	X	X
DN 15	X	X	X	X	X	X

Control valves



GEMÜ 565
Control valve
with directly mounted
positioner



GEMÜ 563
Plastic design
Motorized



GEMÜ 568
Metal design
Motorized

Other positioners



GEMÜ 1436 cPos
Electro-pneumatic positioner



GEMÜ 1435 ePos
Electro-pneumatic positioner

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