

GEMÜ C58 iComLine

Pneumatically operated 3/2-way diaphragm globe valve



Features

- High Kv value
- Ideally suited for corrosive media
- High purity due to cleanroom manufacturing
- Low space requirement due to compact design

Description

GEMÜ C58 is an ultra pure 3/2-way process valve. The medium flowing in through the supply can be switched between two outlets, and operation in the opposite flow direction is also possible. All media wetted parts are made of PTFE. The valve is therefore suitable for handling corrosive media in the supply and process areas of semiconductor production.

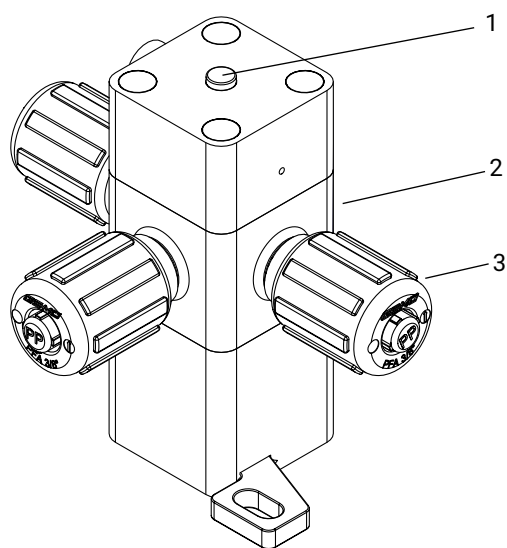
Technical specifications

- **Media temperature:** -10 to 130 °C
- **Ambient temperature:** 0 to 60 °C
- **Operating pressure:** 0 to 5.5 bar
- **Nominal sizes:** DN 4 to 10
- **Body configurations:** Multi-port body
- **Connection types:** Flare | PrimeLock® | Super 300 Type Pillar®
- **Body materials:** Modified PTFE
- **Seal materials:** PTFE

Technical data depends on the respective configuration



Product description



No.	Name	Materials
1	Optical position indicator	PVC
2	Valve body with actuators	Modified PTFE, polytetrafluoroethylene Exterior body parts: PVDF
3	Flare connections with union nut	Union nut: CPFA, PVDF or PFA
	Seals	PTFE
	Screws and spring	Stainless steel

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
3-way plastic globe valve, pneumatic	C58

2 Connection size	Code
4 mm; 1/4", international code: 4	4
3/8", international code: 6	6
1/2", international code: 8	8

3 Body configuration	Code
Multi-port design	M

4 Connection type	Code
Flare connection with CPFA union nut	73
Flare connection with PVDF union nut	75
Flare connection with PFA union nut	77
Super 300 type Pillar connection	79
PrimeLock connection	PL

5 Valve body material	Code
Modified PTFE, polytetrafluoroethylene	26

6 Seal material	Code
PTFE	5

7 Zero position	Code
COM to A OPEN (NO) COM to B CLOSED (NC)	A

8 Actuator version	Code
Actuator size 2, seat diameter 8.50 mm, standard orientation	A21

9 Connection size 2	Code
4 mm; 1/4", international code: 4	4
3/8", international code-2: 6	6
1/2", international code-2: 8	8

10 Connection type, spigot 2	Code
Flare connection with CPFA union nut	73
Flare connection with PVDF union nut	75
Flare connection with PFA union nut	77
Super 300 type Pillar connection	79
PrimeLock connection	PL

11 High Purity version	Code
High Purity, white	HPW

Order example

Ordering option	Code	Description
1 Type	C58	3-way plastic globe valve, pneumatic
2 Connection size	8	1/2", international code: 8
3 Body configuration	M	Multi-port design
4 Connection type	75	Flare connection with PVDF union nut
5 Valve body material	26	Modified PTFE, polytetrafluoroethylene
6 Seal material	5	PTFE
7 Zero position	A	COM to A OPEN (NO) COM to B CLOSED (NC)
8 Actuator version	A21	Actuator size 2, seat diameter 8.50 mm, standard orientation
9 Connection size 2	8	1/2", international code-2: 8
10 Connection type, spigot 2	75	Flare connection with PVDF union nut
11 High Purity version	HPW	High Purity, white

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 diaphragm material.

Temperature

Media temperature: -10 – 130 °C
Observe pressure/temperature diagram

Ambient temperature: 0 – 60 °C

Storage temperature: 0 – 60 °C

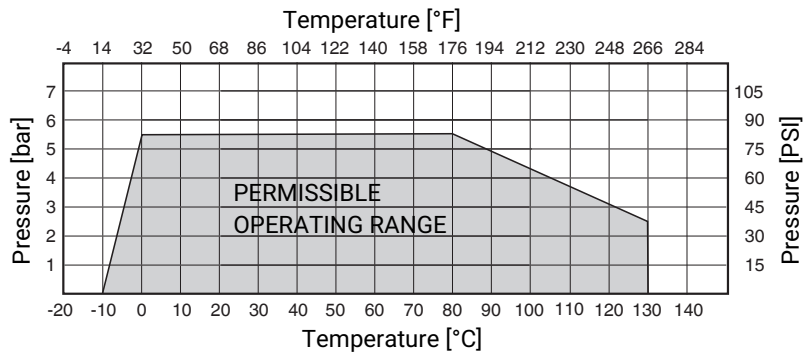
Pressure

Operating pressure: max. 5.5 bar
Observe control pressure / operating pressure diagram

Vacuum: 400 mbar absolute
The service life of the valve may be affected if exposed to a greater vacuum or when the valve is installed on the pump suction side.

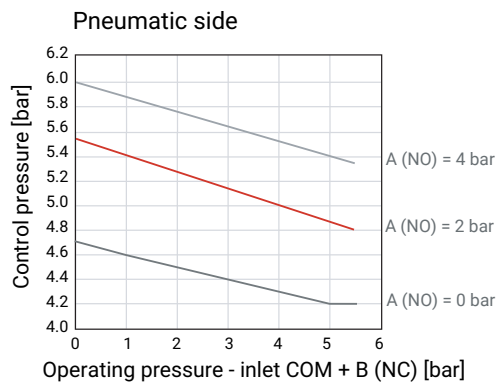
Pressure rating: PN 6

Pressure/temperature diagram:

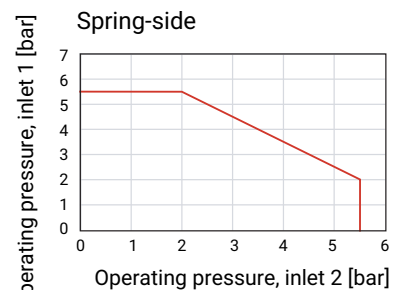


The pressure/temperature diagram is only an aid. The data refers to water as a working medium. A change of operating conditions or other media may result in deviations. In case of doubt it is advisable to test the behaviour of the material under the defined operating conditions by means of a test installation.

Control pressure/operating pressure diagram:



Under the seat (C-> A): can be used up to 5.5 bar
Over the seat (A-> C): can be used with max. 4 bar without back pressure
Information applies to specified control pressure range!



Operating pressure, inlet 1:
Can be at B (NC) or COM + A (NO)
Operating pressure, inlet 2:
Can be at B (NC) or COM + A (NO)

Control air connection: G1/8

Control pressure: 4.2 – 6.0 bar

Filling volume: 1.7 cm³
Pneumatic side in closed position

Kv value:

Connection	Kv values
Flare 1/4"	4.24
Flare 3/8"	13.8
Flare 1/2"	12.9
PrimeLock 1/4"	4.55
PrimeLock 3/8"	13.5
PrimeLock 1/2"	12.9
Pillar 1/4"	4.59
Pillar 3/8"	13.1
Pillar 1/2"	12.7

Kv values in l/min

Product conformity

Machinery Directive: 2006/42/EC

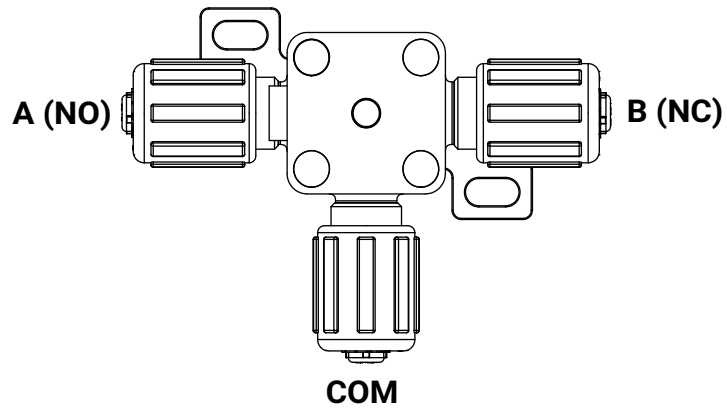
Pressure Equipment Directive: Pressure equipment is designed and manufactured in compliance with "sound engineering practice" according to Article 4, Paragraph 3.

Mechanical data

Installation position: Optional (fixing by lugs)

Weight: Actuator size 2 with protection caps without control air connector: approx. 250.0 g (depending on connection design)

Flow direction:



Not actuated:

A (NO) -> COM

COM -> A (NO)

Actuated:

B (NC) -> COM

COM -> B (NC)

Function:

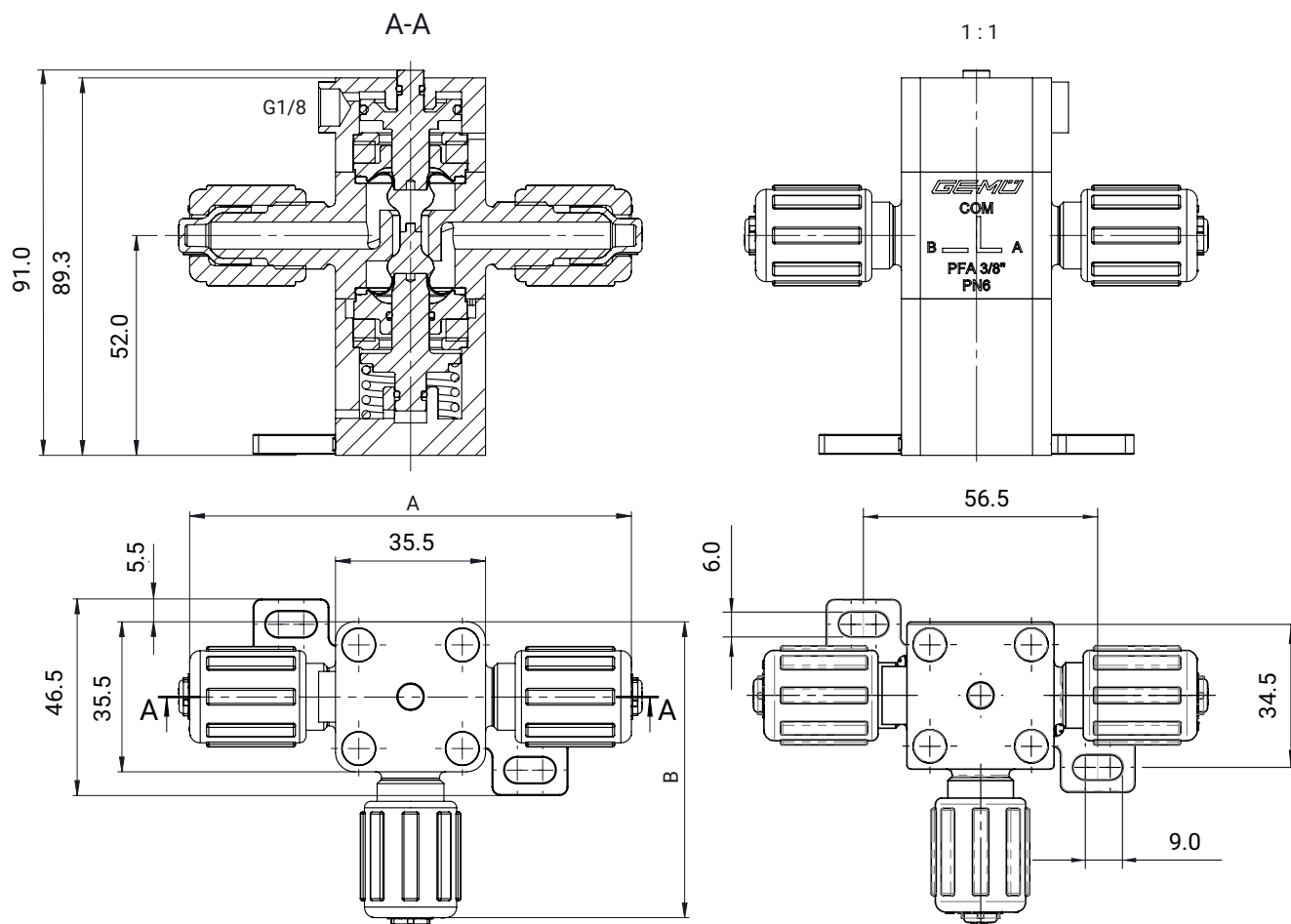
- The valve can be operated with either a joint inlet or a joint outlet
- When not actuated, the flow takes place between the connections A (NO) and COM
- When actuated, the flow takes place between the connections B (NC) and COM

The position indicator is OPEN when the valve is not actuated.

The position indicator is CLOSED when the valve is actuated.

Dimensions

Connection size 1/4" (code 4), 3/8" (code 6), 1/2" (code 8)



Connection	A	B
Flare 1/4"	98.5	67.0
Flare 3/8"	104.5	70.0
Flare 1/2"	107.5	71.5
PrimeLock 1/4"	88.1	61.8
PrimeLock 3/8"	88.1	61.8
PrimeLock 1/2"	92.7	64.1
Pillar 1/4"	57.5	46.5
Pillar 3/8"	65.5	50.5
Pillar 1/2"	70.5	53.0

Dimensions in mm



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