

GEMÜ C60 CleanStar PFA

Pneumatically operated diaphragm valve with PFA valve body



Features

- High purity due to cleanroom manufacturing
- High flow rate with low-stress media channelling
- Minimal deadleg
- Optional flow direction
- Reduced costs thanks to long service life

Description

The GEMÜ C60 CleanStar® ultra pure 2/2-way diaphragm valve has a plastic piston actuator and is pneumatically operated. An integrated optical position indicator is standard. All media wetted parts are made of PFA or PTFE. This High Purity version of the CleanStar® series complies with the strictest purity standards and boasts high chemical resistance. As such, it is often used at the supply and distribution level in semiconductor factories.

Technical specifications

- **Media temperature:** 14 to 212 °F
- **Ambient temperature:** 32 to 140 °F
- **Operating pressure:** 0 to 90 psi
- **Nominal sizes:** 1/4" (DN 40) to 2" (DN 50)
- **Body configurations:** 2/2-way body
- **Connection types:** Butt weld spigot
- **Body materials:** PFA
- **Diaphragm materials:** PTFE/EPDM
- **Conformities:** EAC | FDA | TA Luft (German Clean Air Act)

Technical data depends on the respective configuration



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Product description



No.	Name	Materials
1	Optical position indicator	
2	Actuator	PVDF (housing)
3	Pneumatic connections	
4	Actuator union nut	PVDF
5	Mounting lugs	
6	Leak detection hole	
7	Valve body	PFA
	Diaphragm (internal)	PTFE (media wetted) / EPDM

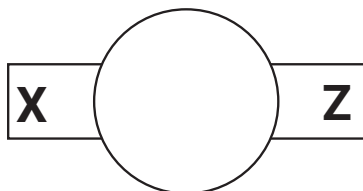
Availability C60 PFA

Body configuration - 2/2-way body (code D)

International code	DN	Connection size X, Z
24	40	1½" pipe
32	50	2" pipe

Connections

Body configuration - 2/2-way body (code D)



Connection type butt weld spigot (code 30)

Actuator size (code)	Connection size X, Z (code)	Butt weld spigot	
		On both sides	On one side, pos. Z
4	24	X	-
4	32	X	-

Order data C60 PFA

Order data - body configuration - 2/2-way body (code D)

Order codes

The order data provide an overview of standard configurations.

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

1 Type	Code
Diaphragm valve, pneumatically operated, plastic piston actuator, optical position indicator	C60
2 Connection size	Code
1 1/2", international code: 24	24
2", international code: 32	32
3 Body configuration	Code
2/2-way body	D
4 Connection type	Code
Pipe	
Imperial butt weld spigot	30
5 Valve body material	Code
PFA, perfluoroalkoxy	30
6 Diaphragm material	Code
PTFE/EPDM two-piece	5M
7 Control function	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3
8 Actuator version	Code
Standard version	
Actuator size 4	4
9 High Purity version	Code
High Purity white	HPW

Order example

Order option	Code	Description
1 Type	C60	Diaphragm valve, pneumatically operated, plastic piston actuator, optical position indicator
2 Connection size	32	2", international code: 32
3 Body configuration	D	2/2-way body
4 Connection type	30	Imperial butt weld spigot
5 Valve body material	30	PFA, perfluoroalkoxy
6 Diaphragm material	5M	PTFE/EPDM two-piece
7 Control function	1	Normally closed (NC)
8 Actuator version	4	Actuator size 4
9 High Purity version	HPW	High Purity white

Technical data C60 PFA

Medium

Working medium: Corrosive, inert, gaseous and liquid media – in particular high-purity media – which have no negative impact on the physical and chemical properties of the body and diaphragm material.

Temperature

Media temperature: Valve body material PFA (code 30): 14 – 212 °F
Observe pressure/temperature diagram

Ambient temperature: 32 – 140 °F

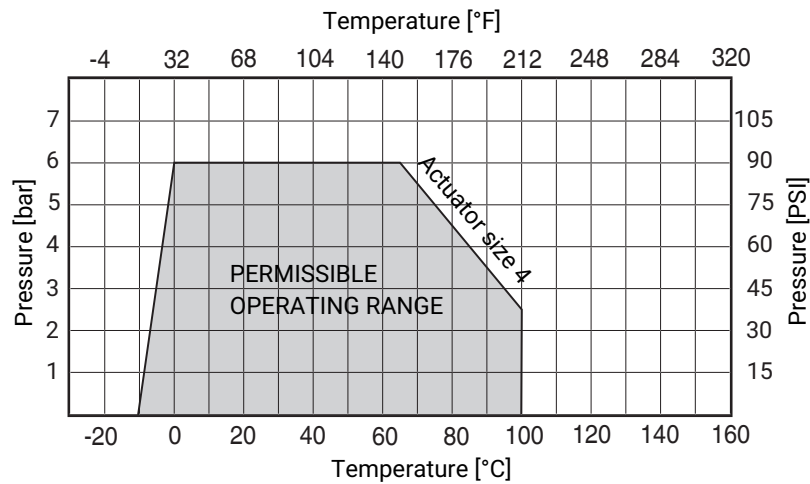
Storage temperature: 32 – 104 °F

Pressure

Operating pressure: 0 – 90 psi

Pressure/temperature diagram:

Valve body material PFA (code 30)



Note: 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 definitive operating conditions in a test installation. Temperatures below 0 °C can have a negative influence on the actuation speed.

Kv-values:

Body configuration - 2/2-way body (code D)

Actuator size (code)	Connection size	Connection on both sides
	X, Z	Pipe connection
4	1½"	88.0
	2"	88.0

Cv values in gpm

Vacuum: 11.8 inhg absolute

The service life of the valve may be affected if exposed to a greater vacuum or when valves are installed on the pump suction side.

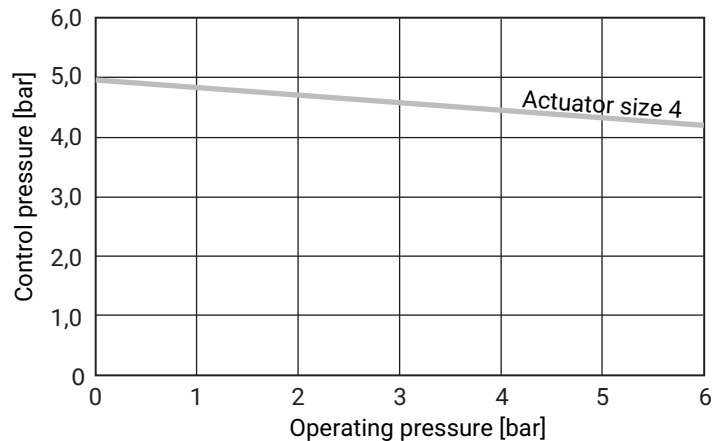
Pneumatic actuator

Control pressure:

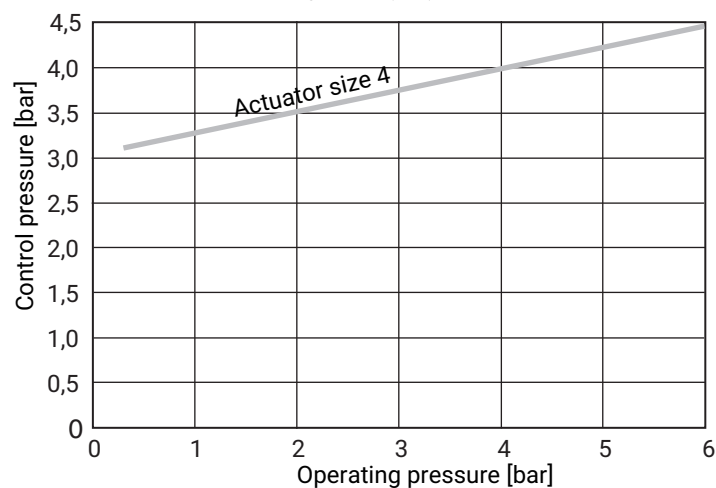
Control function	Actuator size	Control pressure
1	4	72.5 - 101.5 psi
2, 3	4	max. 65.3 psi

Control pressure / operating pressure characteristics:

Control function 1 - normally closed (NC)



Control function 2 - normally open (NO)



Control air connection:

G 1/8

Filling volume:

Actuator size	Control function			
	Normally closed (NC)	Normally open (NO)	Double acting (closed) (DA)	Double acting (open) (DA)
4	8.91	48.45	8.91	58.34

Filling volume in cu in

Product conformities

- Machinery Directive:** 2006/42/EC
- Food:** FDA
- EAC:** The product is certified according to EAC.

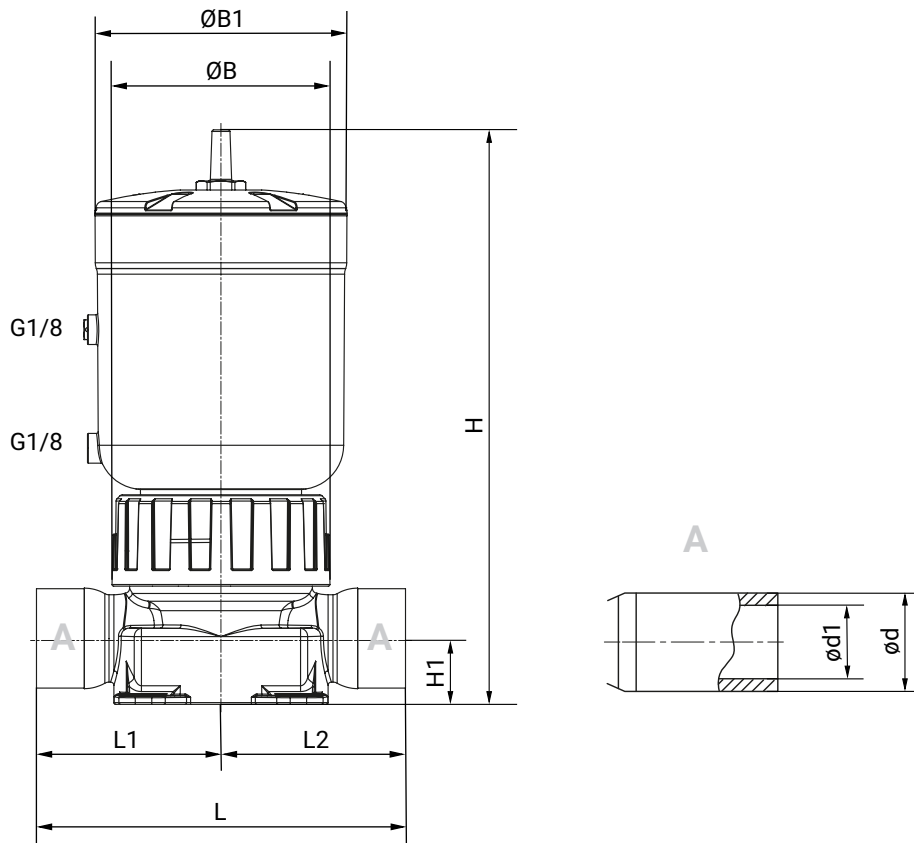
Mechanical data

Flow direction: Optional

Dimensions C60 PFA

2/2-way valves (code D)

Butt weld spigot (code 30)



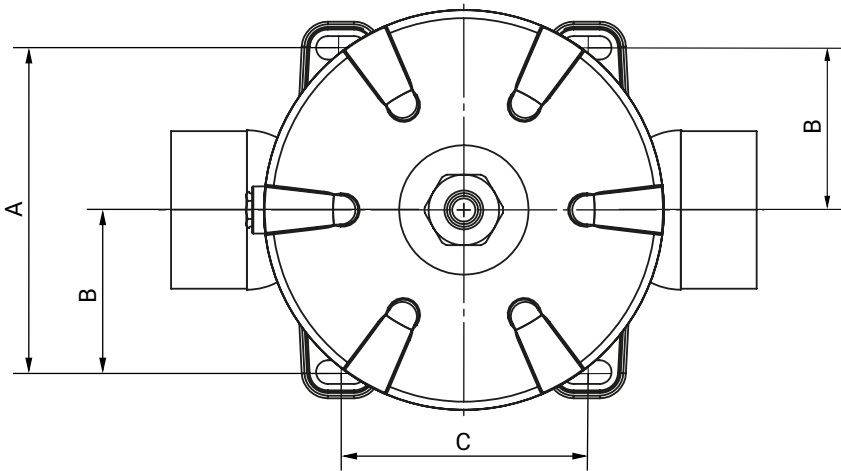
Actuator size ¹⁾	Conne- ction size	ØB	ØB1	H	H1	L	L1	L2	Spigot (A)	
									ød	ød1
4	1½"	5.21	6.02	13.76	1.57	7.64	3.82	3.82	1.90	1.61
4	2"	5.21	6.02	13.76	1.57	8.82	4.41	4.41	2.37	2.06

Dimensions in inch

1) **Actuator version**
Code 4: Actuator size 4

Mounting dimensions

2/2-way valve (code D)

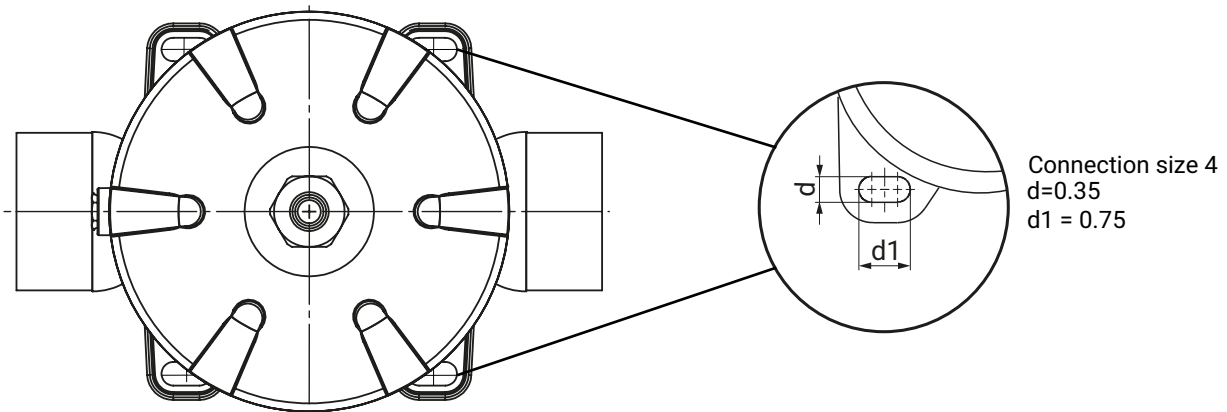


2/2-way valves (code D)

Actuator size	ϕd	A	B	C
4	0.35	4.88	2.44	3.70

Dimensions in inch

Mounting holes, round and slotted hole



Dimensions in inch

Accessories



GEMÜ C67 STA

Service tool for actuators

Service tool for installation and removal of the central union nut.



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