GEMÜ Q30

Pneumatically operated pinch valve

Features

- Lightweight plastic piston actuator, free from non-ferrous metals
- Fast, safe tube replacement
- Simple replacement of inserts and compressors for various tube sizes with the same actuator
- High quality and long service life
- Minimized strain on the tube due to the optimized compressor
- Positioners and process controllers can be mounted
- Several installation options possible in the plant thanks to the mounting flange or female thread on the body

Description

The GEMÜ Q30 2/2-way pinch valve has a plastic piston actuator and is pneumatically operated. The valve guides a tube which is compressed from above by a compressor to control and regulate media. The compressor's specially developed contour and the tube holder's contour minimize the strain on the tube and thus increase the tubes' service life. Tubes can be safely inserted and removed in simple steps and without tools. The available control functions are "normally closed (NC)" and "normally open (NO)". An integral optical position indicator is standard.

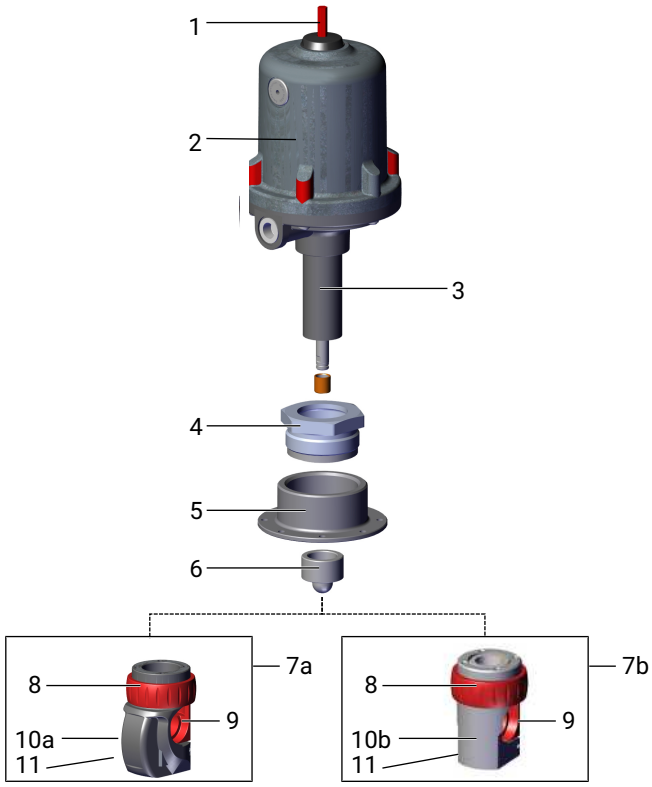
Technical specifications

- **Media temperature:** Please observe the tube manufacturer's specifications
- **Ambient temperature:** Actuator: 32 to 140 °F, Tube: Please observe the tube manufacturer's specifications
- **Operating pressure:** Please observe the tube manufacturer's specifications
- **Tube's outside diameter:** 1/4" l 3/8" l 7/16" l 1/2" l 5/8" l 3/4" l 7/8" l 1 1/8" l 1 3/16" l 1 13/32" l 1 3/7" l 1 1/2"
- **Tube's inside diameter:** 1/8" l 1/4" l 3/8" l 1/2" l 3/4" l 1"
- **Body materials:** 1.4404/PA6 l PA6

Technical data depends on the respective configuration

Product description

Construction



Item	Name	Materials
1	Optical position indicator	PP
2	Actuator	PA6, glass fibre reinforced
3	Distance piece with leak detection hole	Stainless steel
4	Union nut	Stainless steel
5	Distance piece with mounting flange including EPDM seal	Stainless steel
6	Compressor	Stainless steel
7a	Valve body	PA6
7b	Valve body	Stainless steel/PA6
8	Locking ring	PA6
9	Tube holder	PA6
10a	Tube carrier	PA6
10b	Tube carrier	Stainless steel
11	CONEXO RFID chip (see “GEMÜ CONEXO“, page 10)	

Availability

Mounting flange

Mounting flange	Actuator size		
	0P1	1P1	2P1
0	X	X	X
FT	X	X	-
FB	-	-	X

Valve body

Valve body	Actuator size		
	0P1	1P1	2P1
7P	X	X	X
PA	-	X	-

Tube sizes

				Outside diameter									
				OD	1/4“	3/8“	7/16“	1/2“	5/8“	3/4“	7/8“	1 1/8“ - 1 3/16“	1 13/32“ - 1 1/2“
				inch	0.25	0.375	0.438	0.5	0.625	0.75	0.875	1.13 - 1.18	1.405 - 1.5
AG	Inside diameter			mm	6.35	9.53	11.1	12.7	15.8	19.1	22.3	28.58 - 29.97	35.69 - 38.1
	ID	inch	mm	Code	DA	DC	DD	DE	DG	DH	DI	DK	DN
0P1	1/8“	0.125	3.180	2	X	X	-	-	-	-	-	-	-
	1/4“	0.250	6.350	4	-	X	X	X	-	-	-	-	-
1P1	3/8“	0.375	9.530	6	-	-	-	-	X	-	-	-	-
	1/2“	0.500	12.700	8	-	-	-	-	-	X	X	-	-
2P1	3/4“	0.750	19.050	12	-	-	-	-	-	-	-	X	-
	1“	1.000	25.400	16	-	-	-	-	-	-	-	-	X

AG = actuator size
AD = outside diameter
ID = inside diameter

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
Pinch valve, pneumatically operated, plastic piston actuator	Q30

2 Tube inside diameter	Code
3.180 mm (1/8") inside diameter	2
6.350 mm (1/4") inside diameter	4
9.530 mm (3/8") inside diameter	6
12.700 mm (1/2") inside diameter	8
19.050 mm (3/4") inside diameter	12
25.400 mm (1") inside diameter	16

3 Tube outside diameter	Code
6.350 mm (1/4") outside diameter	DA
9.530 mm (3/8") outside diameter	DC
11.110 mm (7/16") outside diameter	DD
12.700 mm (1/2") outside diameter	DE
15.880 mm (5/8") outside diameter	DG
19.100 mm (3/4") outside diameter	DH
22.230 mm (7/8") outside diameter	DI
28.580 - 29.970 mm (1 1/8- 1 3/16") outside diameter	DK
35.690 - 38.100 mm (1 13/32- 1 1/2") outside diameter	DN

4 Tube carrier version	Code
Plastic design, stainless steel tube carrier and PA tube holder	7P
Plastic design, PA tube carrier and PA tube holder	PA

5 Control function	Code
Normally closed (NC)	1
Normally open (NO)	2

6 Actuator version	Code
Actuator size 0P1	0P1
Actuator size 1P1	1P1
Actuator size 2P1	2P1

7 Mounting option	Code
Without mounting flange, with 4 x threaded hole in body	0
With mounting flange at bottom	FB
With mounting flange above	FT

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

Order example

Order option	Code	Description
1 Type	Q30	Pinch valve, pneumatically operated, plastic piston actuator
2 Tube inside diameter	8	12.700 mm (1/2") inside diameter
3 Tube outside diameter	DH	19.100 mm (3/4") outside diameter
4 Tube carrier version	PA	Plastic design, PA tube carrier and PA tube holder
5 Control function	1	Normally closed (NC)
6 Actuator version	1P1	Actuator size 1P1
7 Mounting option	FT	With mounting flange above
8 CONEXO		Without

Technical data

Medium

Working medium:	Please observe the tube manufacturer's specifications
Control medium:	Inert gases

Temperature

Media temperature:	Please observe the tube manufacturer's specifications
Ambient temperature:	Actuator: 32 °F — 140 °F, Tube: Please observe the tube manufacturer's specifications
Control medium temperature:	max. 140 °F
Storage temperature:	32 — 140 °F

Pressure

Operating pressure:	Please observe the tube manufacturer's specifications	
Control pressure:	Normally closed (NC) Normally open (NO)	58 — 101.5 psi 29 — 50.8 psi

Actuator data

Filling volume:	Actuator size 0P1	3.05 cu in
	Actuator size 1P1	7.63 cu in
	Actuator size 2P1	38.14 cu in
Piston diameter:	Actuator size 0P1	1.97 in
	Actuator size 1P1	2.76 in
	Actuator size 2P1	4.72 in

Product compliance

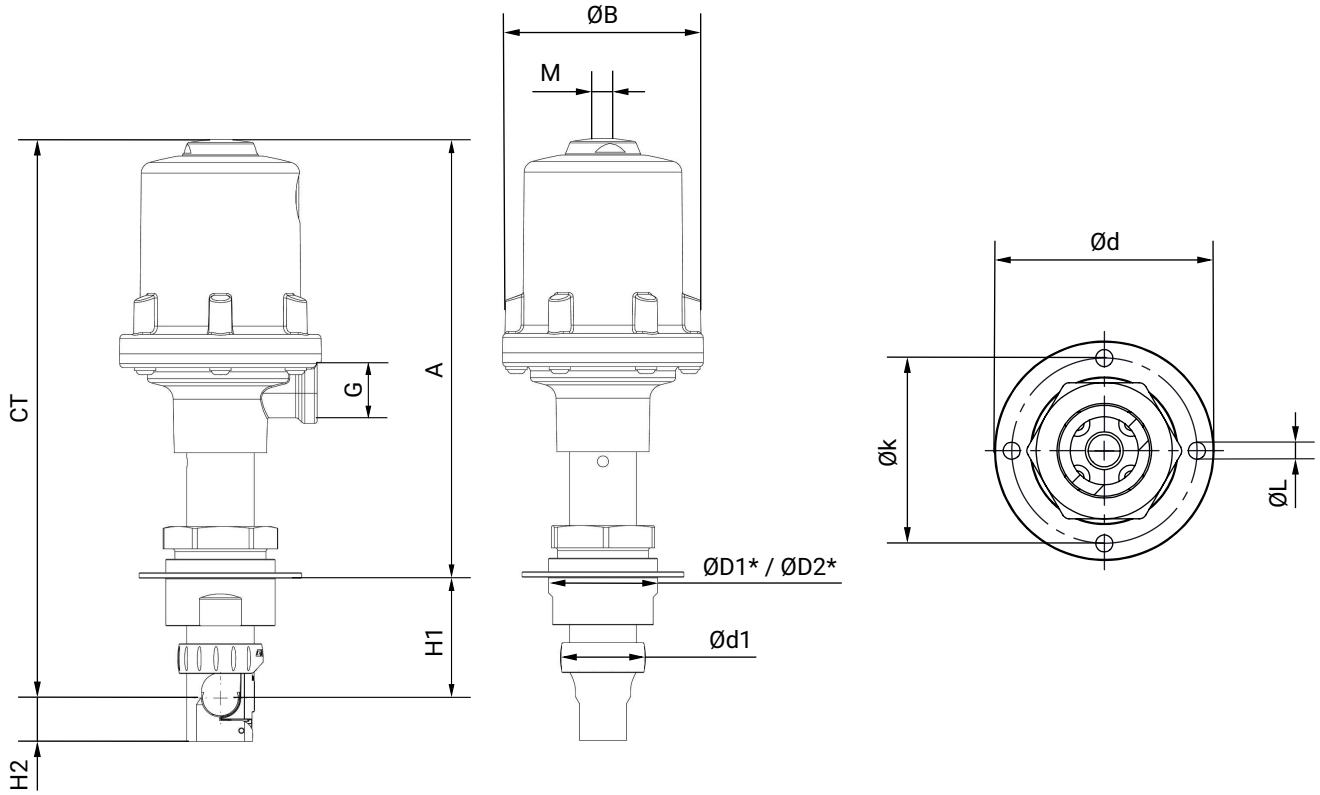
Machinery Directive:	2006/42/EC

Mechanical data

Weight:	**Actuator**		
	Actuator size 0P1		1.98 lb
	Actuator size 1P1		2.87 lb
	Actuator size 2P1		15.21 lb
	Valve body		
	Actuator size 0P1	Stainless steel/PA6	0.44 lb
	Actuator size 1P1	PA6	0.15 lb
		Stainless steel/PA6	0.50 lb
	Actuator size 2P1	Stainless steel/PA6	10.45 lb
Installation position:	Optional		

Dimensions

Actuator size 0P1

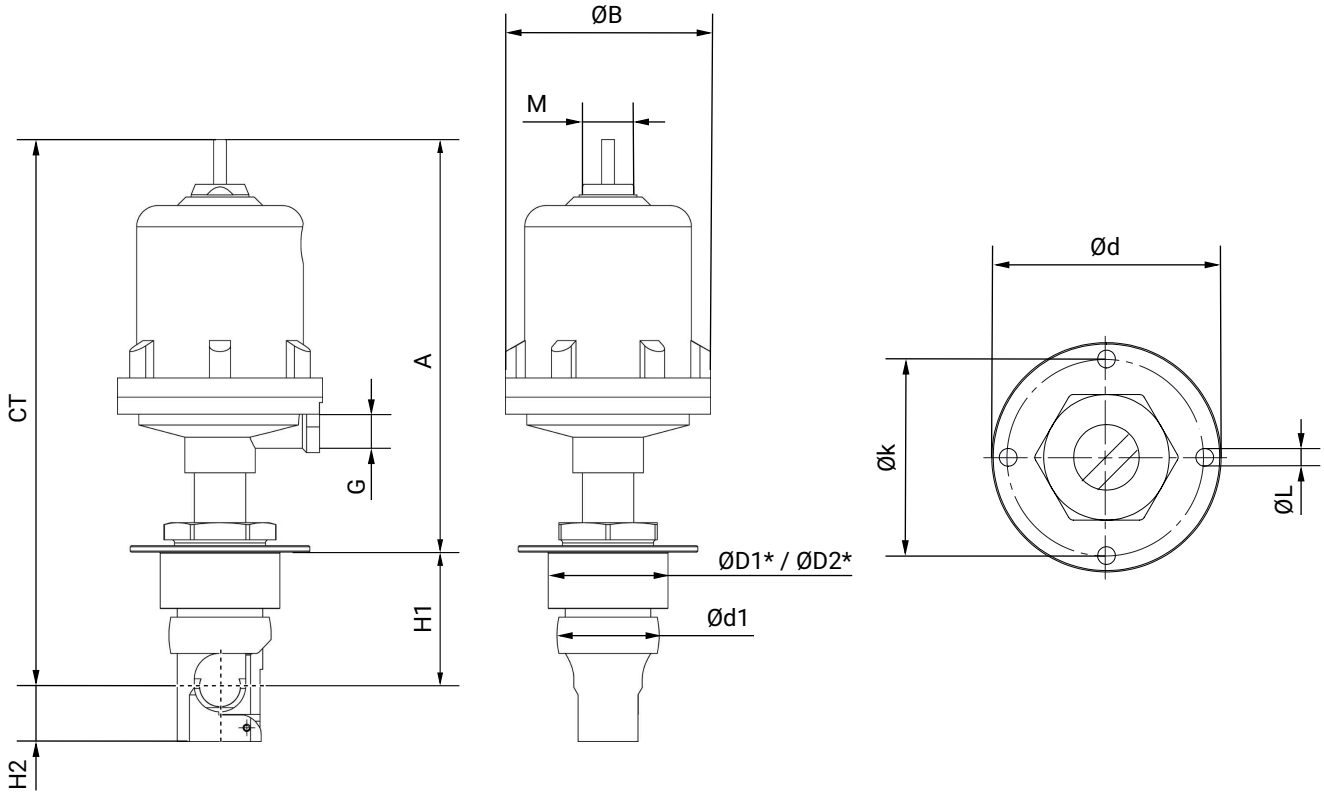


A	ØB	CT	ØD1*	ØD2*	Ød	Ød1	G	H1	H2	Øk	ØL	M
6.18	2.83	7.87	1.54	1.65	2.28	1.20	G1/4	2.31	0.61	1.93	0.18	M16x1

Dimensions in inch

* D1 = diameter without seal, D2 = diameter with seal

Actuator size 1P1

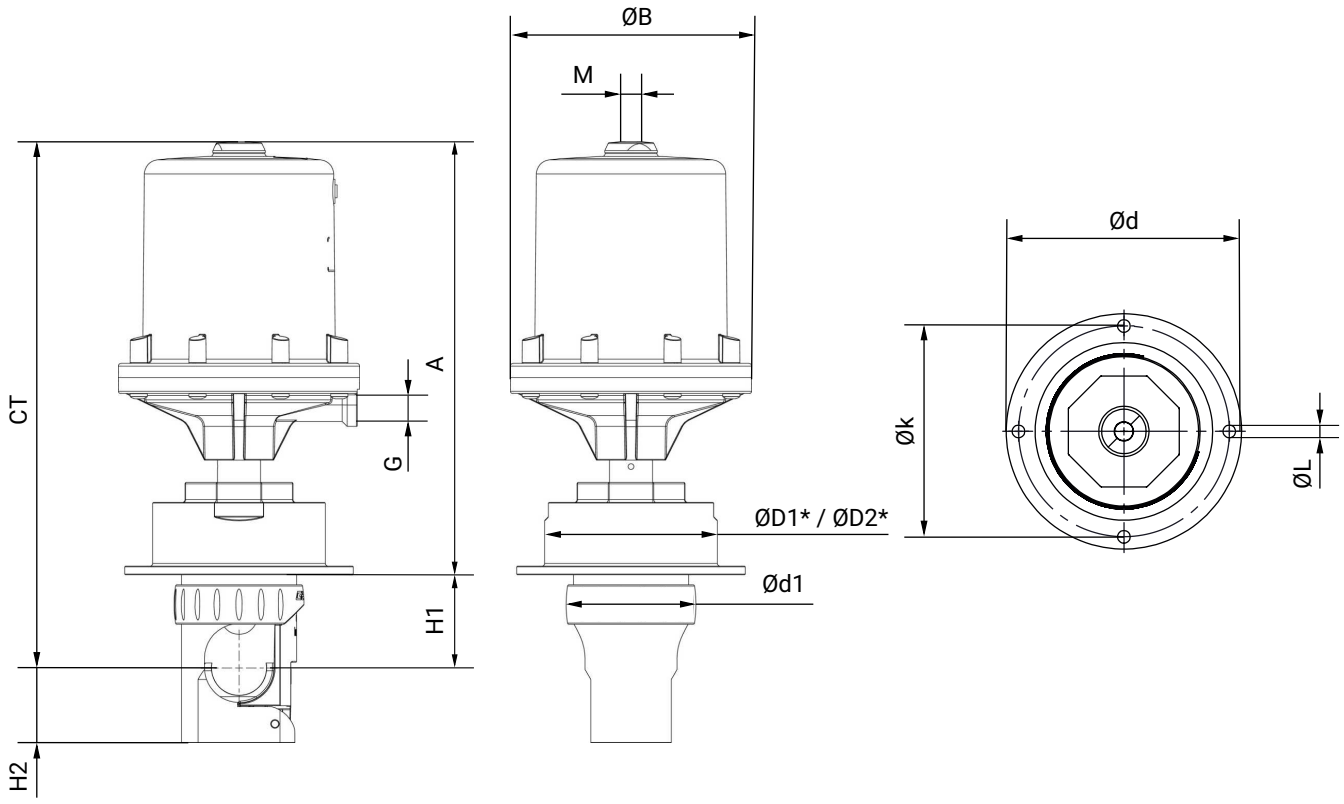


Valve body code	A	ØB	CT	ØD1*	ØD2*	Ød	Ød1	G	H1	H2	Øk	ØL	M
7P	7.64	3.78	10.12	2.20	2.36	3.31	1.88	G1/4	2.48	1.02	2.83	0.26	M16x1
PA	7.64	3.78	10.12	2.20	2.36	3.31	1.88	G1/4	2.48	1.34	2.83	0.26	M16x1

Dimensions in inch

* D1 = diameter without seal, D2 = diameter with seal

Actuator size 2P1

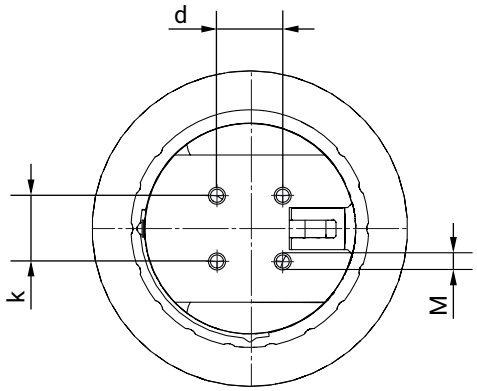


A	ØB	CT	ØD1*	ØD2*	Ød	Ød1	G	H1	H2	Øk	ØL	M
11.85	6.61	14.41	4.72	3.62	6.26	3.56	G1/4	2.56	2.05	5.61	0.33	M22x1.5

Dimensions in inch

* D1 = diameter without seal, D2 = diameter with seal

Valve body, without mounting flange



Actuator size	d	k	M
0P1	0.28	0.28	M2
1P1	0.47	0.47	M4
2P1	0.98	0.98	M6

Dimensions in inch

Accessories

GEMÜ 1434 µPos

Intelligent electro-pneumatic positioner

The GEMÜ 1434 µPos digital electro-pneumatic positioner is used to control pneumatically operated process valves with single-acting linear actuators that have small to medium nominal sizes. The solid compact housing has a transparent cover. LEDs for status indication are integrated. Pneumatic and electrical connections arranged so as to save space and enable easy access.

For valves with larger nominal sizes, or if better flow capability is required, the GEMÜ 1436 eco cPos product type with comparable functions can be relied on.

GEMÜ 0324

Electrically operated pilot solenoid valve

The GEMÜ 0324 directly controlled 3/2-way pilot solenoid valve is designed for direct mounting to pneumatically operated valves. The body is made of plastic. The coil is plastic encapsulated.

GEMÜ CONEXO

The interaction between valve components equipped with RFID chips and the corresponding IT infrastructure actively increases process reliability.

Thanks to serialization, every valve and every relevant valve component, such as the body, actuator, diaphragm or even automation components, can be clearly traced and read at any time using the RFID reader – the CONEXO pen. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the servicing 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

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