

## Series 010

Universal applications  
Modular actuator



### Body material

stainless steel

### Manual actuator

handwheel

DN		Ordering numbers		
mm	inch	ISO-KF	CF-F metric threads	CF-F UNF threads
25	1	01028-KE01		
40	1½	01032-KE01	01032-CE01	01032-UE01
50	2	01034-KE01		

with handwheel, with position indicator: 010 . . . E08

### Pneumatic actuator

double acting  
without position indicator  
without solenoid

DN		Ordering numbers		
mm	inch	ISO-KF	CF-F metric threads	CF-F UNF threads
25	1	01028-KE14		
40	1½	01032-KE14	01032-CE14	01032-UE14
50	2	01034-KE14		

with position indicator, without solenoid: 010 . . . E24

with position indicator, with solenoid: 010 . . . E44 (specify control voltage)

single acting with closing spring (NC)  
without position indicator  
without solenoid

25	1	01028-KE11		
40	1½	01032-KE11	01032-CE11	01032-UE11
50	2	01034-KE11		

with position indicator, without solenoid: 010 . . . E21

with position indicator, with solenoid: 010 . . . E41 (specify control voltage)

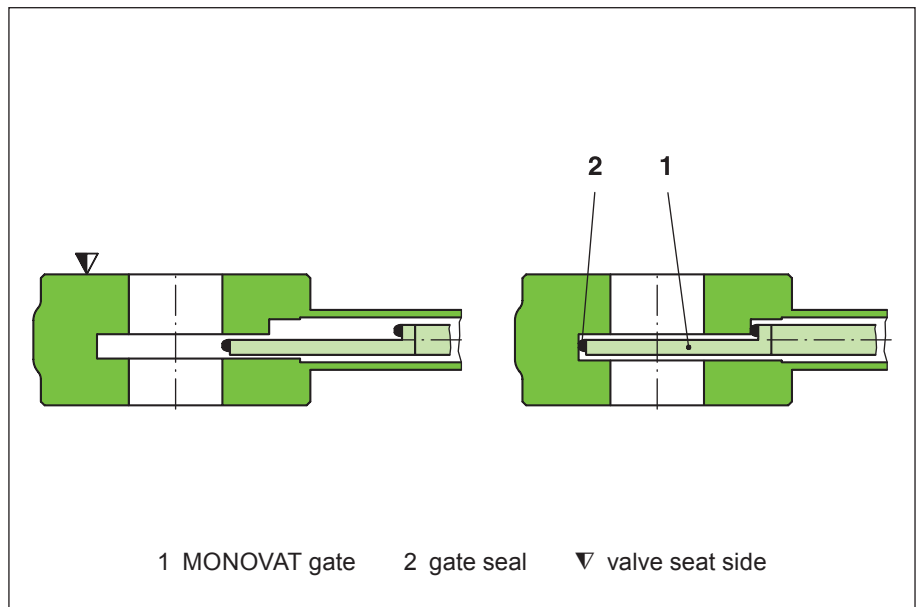
## Sealing materials

Gate: FKM (VITON)

Bonnet: metal

## Feedthrough

Bellows



## Features

MONOVAT configuration (see glossary)

Bellows-sealed

Mechanism free of lubricants

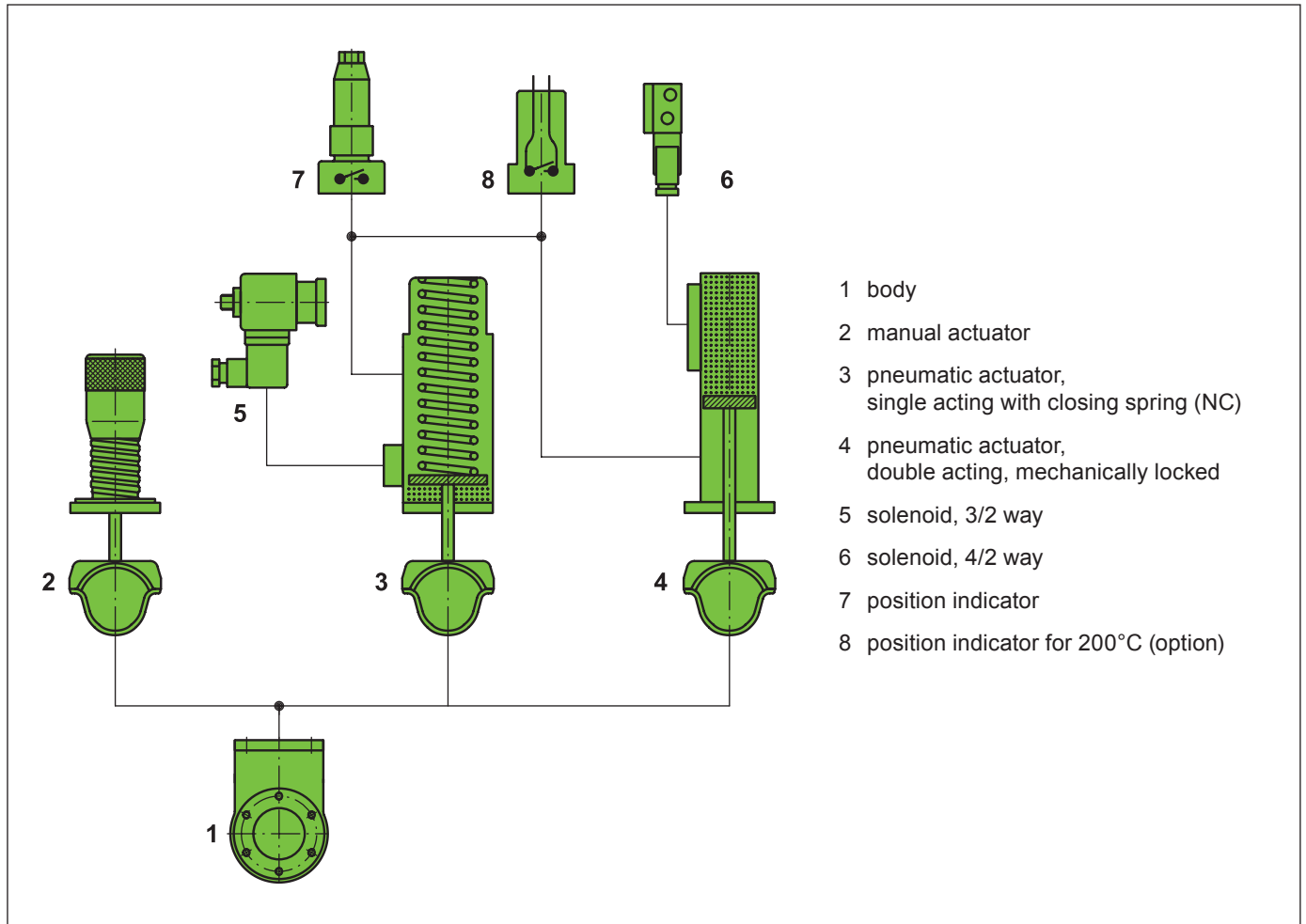
## Technical data

Continued next page

Leak rate: body / valve seat	<math> < 5 \cdot 10^{-10} / < 1 \cdot 10^{-9} \text{ mbar ls}^{-1}</math>
Pressure range	$1 \cdot 10^{-10}$ mbar to 2 bar (abs)
Differential pressure on the gate	$\leq 2$ bar in either direction
Differential pressure at opening	$\leq 30$ mbar
Cycles until first service	50000
Temperature <sup>1)</sup>	
- Valve body	$\leq 250^\circ\text{C}$ open, $\leq 200^\circ\text{C}$ closed
- Manual actuator	$\leq 250^\circ\text{C}$
- Pneumatic actuator	$\leq 200^\circ\text{C}$
- Position indicator	$\leq 80^\circ\text{C}$
- Solenoid	$\leq 50^\circ\text{C}$
Heating and cooling rate	$\leq 50^\circ\text{C h}^{-1}$
Material	
- Valve body, flanges	AISI 304 (1.4301) / AISI 316L (1.4435)
- Gate	AISI 304 (1.4301)
- Bellows	AISI 316L (1.4435)
Seal: bonnet / gate	metal / FKM (VITON)
Mounting position	any
Solenoid	
- Double acting actuator	24 VDC, 5.4 W
- Spring opening/closing actuator	24 VDC, 9 W (others see «Options»)
Position indicator: contact rating	
- Voltage	$\leq 250$ VAC $\leq 50$ VDC
- Current	$\leq 5$ A $\leq 3$ A
Valve position	visual (mechanical)

<sup>1)</sup> Maximum values: depending on operating conditions and sealing materials

## Actuators



## Technical data

DN (nominal I. D.)		standard flanges		molecular flow conductance		manual			pneumatic						
						turns per stroke	weight		compressed air pressure min. - max. overpressure		volume of air cylinder		closing or opening time	weight	
mm	inch	ISO-KF	CF-F O.D.	ISO-KF	CF-F	n	kg	lbs	bar	psi	l	ft <sup>3</sup>	s	kg	lbs
25	1	25		38		5	1.5	3.3	5 - 7	72.5 - 100	0.06	0.002	0.7	1.8	4
40	1½	40	2¾	160	220	5	1.5	3.3	5 - 7	72.5 - 100	0.06	0.002	0.7	1.8	4
50	2	50		160		5	1.5	3.3	5 - 7	72.5 - 100	0.06	0.002	0.7	1.8	4

## Options

### Actuator:

- Solenoid for impulse actuation:  
actual valve position is maintained at power failure
- Solenoid separate, for external mounting
- Solenoid for 12, 48 VDC  
24, 48, 100, 115, 200, 230 V / 50 Hz  
24, 100, 115, 200, 230 V / 60 Hz
- Manual emergency operation on solenoid lockable
- Manual actuator with position indicator
- Position indicator for 200°C with connecting cable 0.3 m  
contact rating: ≤ 50 VAC / DC, ≤ 1 A
- Pneumatic actuator, single acting with opening spring (NO)
- Version for 1 000 000 cycles (special bellows)


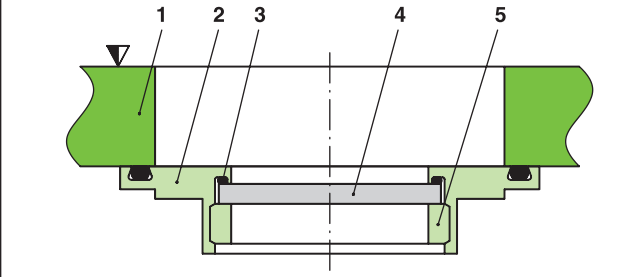
### Valve:

- Customer specified flanges
- Insert version for integration into the vacuum system (without body)
- Other sealing materials (Chemraz, EPDM etc.)
- Window in valve gate: see specification below
- Special valve gate, suitable to install various foils or orifices
- Gate valve for gas analysis (see page 198)
- With by-pass valves for gas analysis at high pressures (see page 198)
- Gate valve with protective ring (see series 17)

### Ordering information for options:

Ordering No. of valve-X (e. g. 01032-CE44-X, X = version for 1 000 000 cycles)

### Gate valve with window

		<p>1 valve body 2 valve gate 3 elastomer seal for window 4 window 5 screwed window retainer ▽ valve seat side</p>															
<p>Exchangeable window Material: borosilicate Seal: elastomer Window mechanism retrofitable Window exchangeable by user</p>	<table border="1"> <tr> <td>DN valve</td> <td>mm inch</td> <td>25 1</td> <td>40 1 1/2</td> <td>50 2</td> </tr> <tr> <td>optically free diameter «S»</td> <td>mm inch</td> <td>21 0.82</td> <td>21 0.82</td> <td>21 0.82</td> </tr> <tr> <td>thickness of glass</td> <td>mm inch</td> <td>1.5 0.06</td> <td>1.5 0.06</td> <td>1.5 0.06</td> </tr> </table>	DN valve	mm inch	25 1	40 1 1/2	50 2	optically free diameter «S»	mm inch	21 0.82	21 0.82	21 0.82	thickness of glass	mm inch	1.5 0.06	1.5 0.06	1.5 0.06	
DN valve	mm inch	25 1	40 1 1/2	50 2													
optically free diameter «S»	mm inch	21 0.82	21 0.82	21 0.82													
thickness of glass	mm inch	1.5 0.06	1.5 0.06	1.5 0.06													

## Accessories

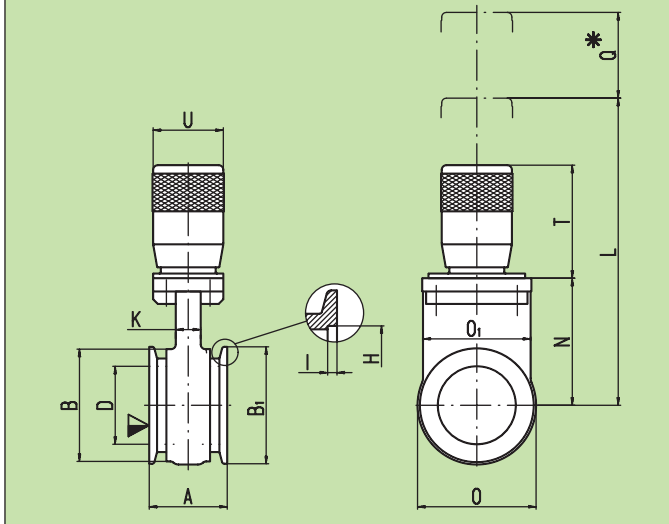
Fittings for installation of the valve: series 31 and 33

## Seal kit

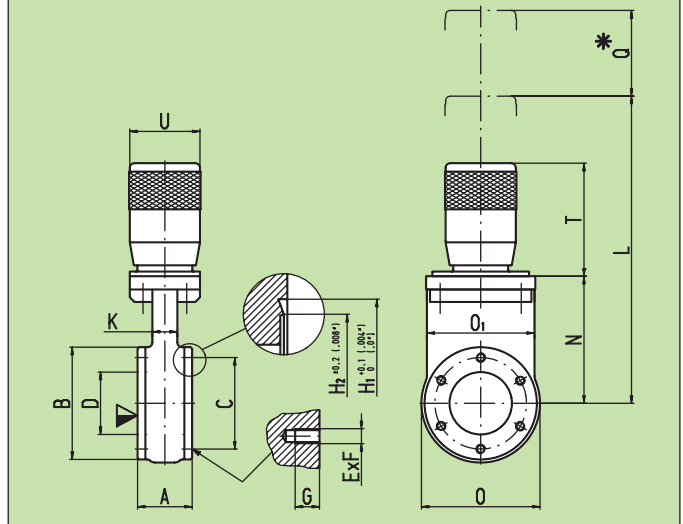
Consisting of gate with vulcanized seal and bonnet seal  
**Ordering No.:** see operating manual or price list

## Dimensions

**Valve with manual actuator: handwheel**  
DN 25 - 50 (1" - 2") ISO-KF

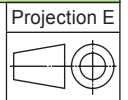


**Valve with manual actuator: handwheel**  
DN 40 (1½") CF-F



▽ valve seat side

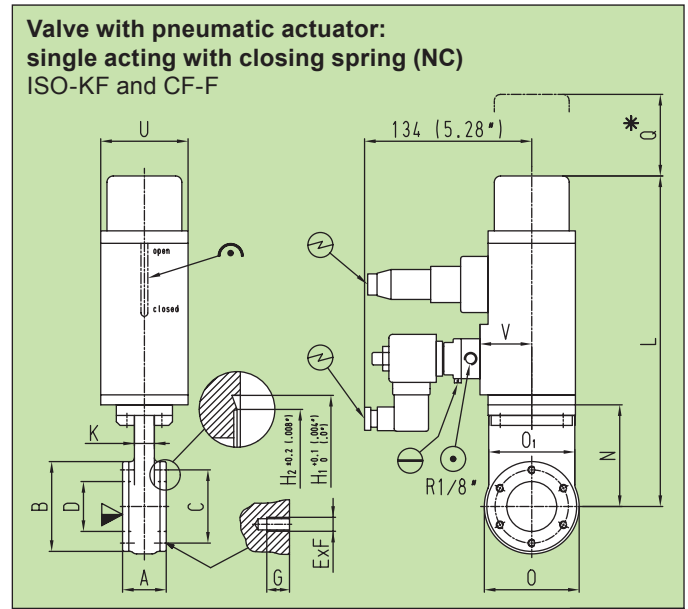
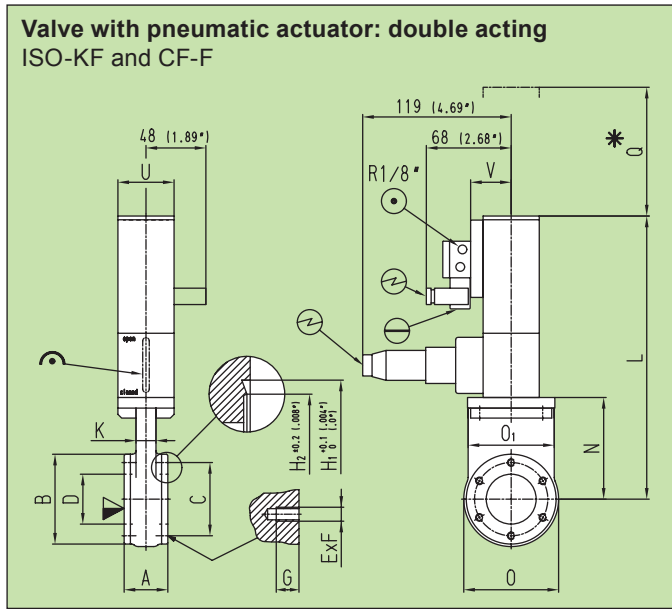
\* required for dismantling



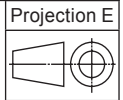
		ISO-KF		
DN	mm inch	25 1	40 1½	50 (ID 40) 2 (ID 1.57)
A	mm inch	50 1.97	50 1.97	50 1.97
B	mm inch	72 2.83	72 2.83	72 2.83
B1	mm inch	40 1.57	55 2.16	75 2.95
D	mm inch	25 0.98	40 1.57	40 1.57
H	mm inch	26.2 1.03	41.2 1.62	52.2 2.05
I	mm inch	3 0.12	3 0.12	3 0.12
K	mm inch	16 0.63	16 0.63	16 0.63
L	mm inch	198 7.8	198 7.8	198 7.8
N	mm inch	82 3.23	82 3.23	82 3.23
O	mm inch	76 2.99	76 2.99	76 2.99
O1	mm inch	70 2.76	70 2.76	70 2.76
Q	mm inch	55 2.16	55 2.16	55 2.16
T	mm inch	73 2.87	73 2.87	73 2.87
U	mm inch	45 1.77	45 1.77	45 1.77

		CF-F		
DN	mm inch	40 1½		
A	mm inch	35 1.38		
B	mm inch	72 2.83		
C	mm inch	58.7 2.31		
D	mm inch	40 1.57		
E x F		6 x M6 6 x ¼"-28 UNF		
G	mm inch	7 0.28		
H1	mm inch	48.3 1.9		
H2	mm inch	42 1.65		
K	mm inch	16 0.63		
L	mm inch	198 7.8		
N	mm inch	82 3.23		
O	mm inch	76 2.99		
O1	mm inch	70 2.75		
Q	mm inch	55 2.16		
T	mm inch	73 2.87		
U	mm inch	45 1.77		

## Dimensions



- ▽ valve seat side
- ⊙ compressed air connection
- ⊕ mechanical position indication
- \* required for dismantling
- ⊖ electrical connection
- ⊖ emergency operation



		CF-F	ISO-KF, A - I: see page 14	
DN	mm inch	40 1½		
A	mm inch	35 1.38		
B	mm inch	72 2.83		
C	mm inch	58.7 2.31		
D	mm inch	40 1.57		
E x F		6 x M6 6 x ¼"-28 UNF		
G	mm inch	7 0.28		
H1	mm inch	48.3 1.9		
H2	mm inch	42 1.65		
K	mm inch	16 0.63		
L	mm inch	230 9.06		
N	mm inch	82 3.23		
O	mm inch	76 2.99		
O1	mm inch	70 2.75		
Q	mm inch	55 2.16		
U	mm inch	45 1.77		
V	mm inch	32.5 1.28		

		CF-F	ISO-KF, A - I: see page 14	
DN	mm inch	40 1½		
A	mm inch	35 1.38		
B	mm inch	72 2.83		
C	mm inch	58.7 2.31		
D	mm inch	40 1.57		
E x F		6 x M6 6 x ¼"-28 UNF		
G	mm inch	7 0.28		
H1	mm inch	48.3 1.9		
H2	mm inch	42 1.65		
K	mm inch	16 0.63		
L	mm inch	266 10.47		
N	mm inch	82 3.23		
O	mm inch	76 2.99		
O1	mm inch	70 2.75		
Q	mm inch	55 2.16		
U	mm inch	70 2.75		
V	mm inch	42 1.65		