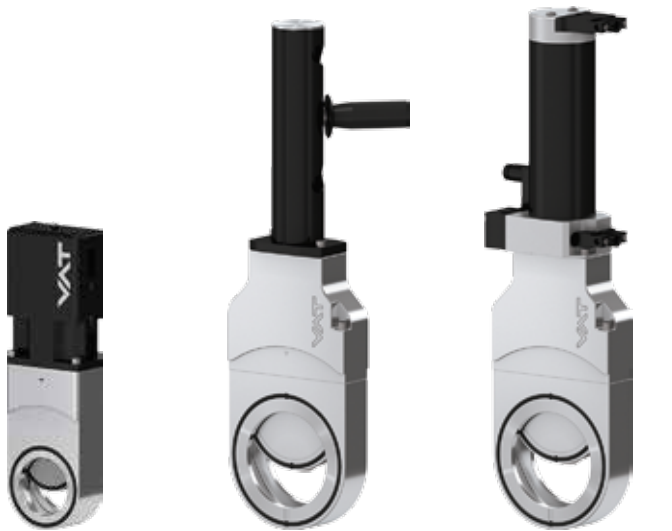


## INSERTABLE GATE VALVE, SERIES 08.1/08.2

General purpose valve for isolation in vacuum applications where space or design constraints prevent the use of standard vacuum flanges.



DN 50: pneumatic

DN 63-100: manual

DN 63-100: pneumatic

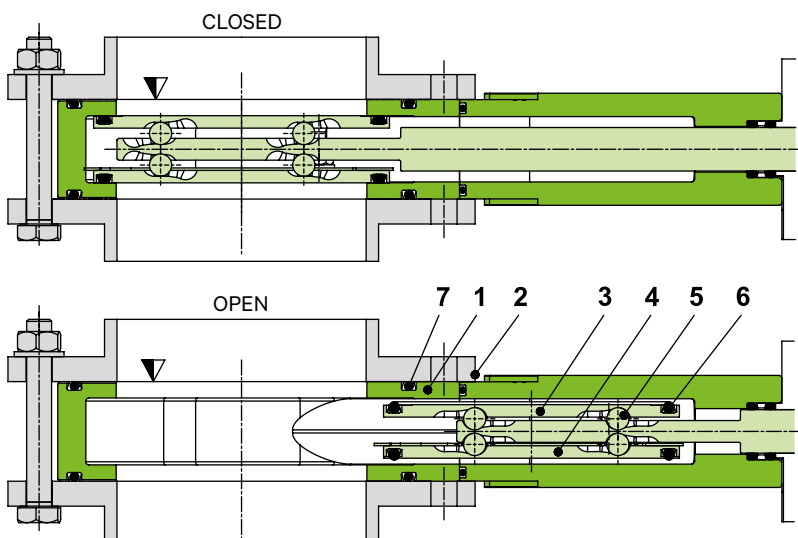
Space-saving due to direct mounting between DIN flanges or sealing surfaces

Body with DIN centering insert

### MAIN FEATURES

Sizes	DN 50 – 100 mm (2" – 4")
Actuators	DN 50: manual with toggle lever, DN 63-100: manual with push rod pneumatic: double acting
Body material	aluminum
Feedthrough	shaft feedthrough
Installation	DIN centering ring
Sealing technology	VATLOCK (see glossary)

### FUNCTIONAL PRINCIPLE



- 1 Valve body
- 2 Vacuum tubing
- 3 Gate
- 4 Counter-plate
- 5 Ball pairs
- 6 Gate seal
- 7 Flange seal
- ▼ Valve seat side

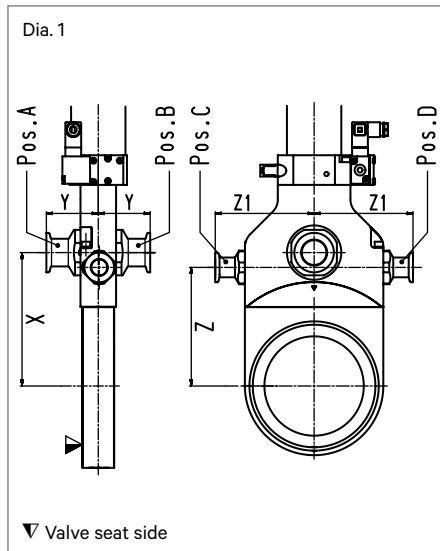
## TECHNICAL DATA

Leak rate	Valve body, valve seat	$<1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>
Pressure range		$1 \cdot 10^{-7}$ mbar to 1.6 bar (abs)
Differential pressure on the gate	DN 50 DN 63–100	$\leq 1.0$ bar $\leq 1.6$ bar
Differential pressure at opening		$\leq 30$ mbar
Cycles until first service <sup>1)</sup>	DN 50 DN 63–100	50 000 200 000
Temperature <sup>2)</sup>	Valve body DN 50 DN 63–100 Manual and pneumatic actuator Solenoid valve Position indicator	$\leq 100$ °C $\leq 120$ °C $\leq 80$ °C $\leq 50$ °C $\leq 80$ °C
Heating and cooling rate		$\leq 30$ °C h <sup>-1</sup>
Material	Valve body DN 50 DN 63–100 Mechanism DN 50 DN 63–100	EN AW-6082 (3.2315) EN AW-5083 (3.3547), EN AW-6061 (3.3211) AISI 301 (1.4310) AISI 304 (1.4301)
Seal	Bonnet, gate	FKM (Viton®)
Feedthrough		shaft feedthrough
Mounting position		any
Solenoid valve		24 V DC, 5.4 W (others on request)
Position indicator: contact rating	Voltage DN 50 DN 63–100 Current DN 50 DN 63–100	$\leq 50$ V AC/DC $\leq 250$ V AC $\leq 50$ V DC $\leq 0.1$ A $\leq 2$ A $\leq 1.2$ A
Valve position indication		visual (mechanical)

			Valve with manual actuator		Valve with pneumatic actuator						
DN (nominal I.D.)		Conductance (molecular flow) (depending on A-dimension)	Weight		Compressed air min. – max. overpressure		Volume of pneumatic actuator		Closing or opening time	Weight	
mm	inch		kg	lbs	bar	psi	l	ft <sup>3</sup>		kg	lbs
50	2	410	0.7	1.5	4.5–7	65–102	0.07	0.002	1.2	1.2	2.7
63	2½	1000	1.5	3.3	4–7	58–102	0.16	0.0056	1.5	1.5	3.3
80	3	2000	2.3	5.1	4–7	58–102	0.20	0.0071	1.7	2.3	5.1
100	4	3800	3	6.6	4–7	58–102	0.22	0.0078	2	3	6.6

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

## OPTIONS, CUSTOMIZED SOLUTIONS



### ACTUATOR

- Other solenoid valve voltage (standard 24V DC)

### VALVE

- Other sealing materials
- Nominal diameters DN 16, 25, 40
- Ports for roughing (by-pass), venting or for gauges (Dia. 1): possible positions A, B, C and D

DN valve	mm inch	50 2	63 2½	80 3	100 4
Recommended port	ISO-KF	-	16	16	25
X	mm inch	-	105 4.13	110 4.33	135 5.31
Y	mm inch	-	48 1.89	48 1.89	63 2.48
Z	mm inch	-	90 3.54	100 3.94	120 4.72
Z1	mm inch	-	80 3.15	89 3.50	100 3.94
Other ports on request					

## SPARE PARTS

We can offer a wide variety of spare parts. Please contact us for details and an offer.

Thank you for specifying the fabrication number of the valve indicated on the identification tag when asking for spare parts.

## ORDERING INFORMATION FOR STANDARD VALVES

**Valve with manual actuator**  
DN 50 with toggle lever  
DN 63-100 with push rod

DN		Ordering numbers	
mm	inch	with toggle lever	with push rod
50	2	08234-FA06	-
63	2½	-	08136-FA03
80	3	-	08138-FA03
100	4	-	08140-FA03

**Valve with pneumatic actuator**  
double acting  
without solenoid valve  
without position indicator

DN		Ordering numbers (specify control voltage)
mm	inch	
50	2	08234-FA14
63	2½	08136-FA14
80	3	08138-FA14
100	4	08140-FA14

without solenoid valve, with position indicator: 08...-FA24

with solenoid valve, without position indicator: 08...-FA34 (specify control voltage)

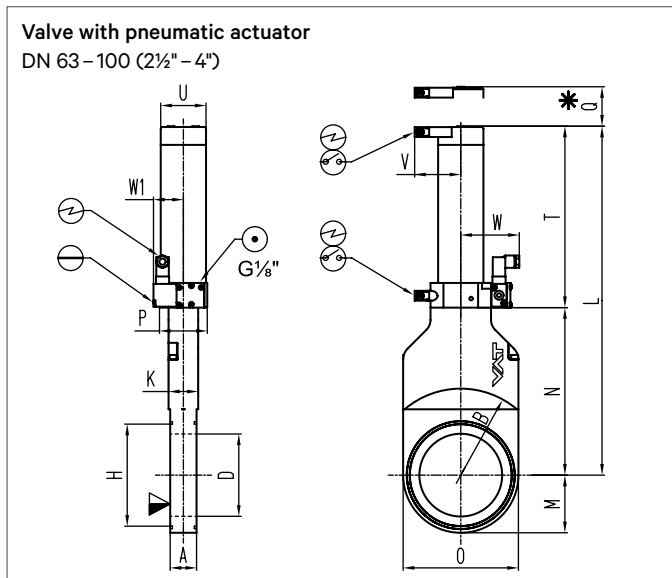
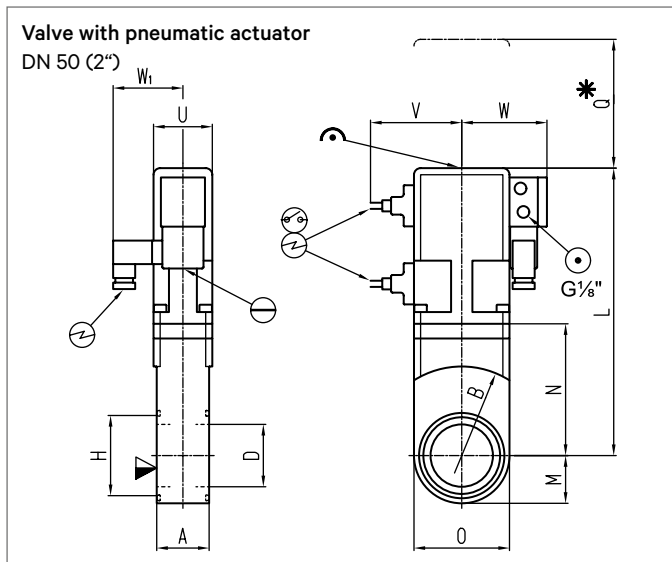
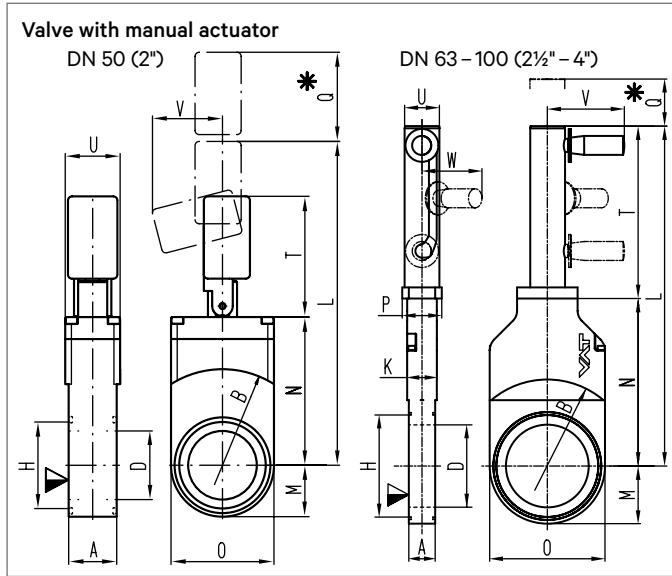
with solenoid valve, with position indicator: 08...-FA44 (specify control voltage)

## ORDERING INFORMATION FOR VALVES WITH OPTIONS

Basic ordering number plus «-X»: -X to be specified

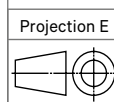
Example: 08140-FA44-X, X = port ISO-KF 25 in position A

## DIMENSIONS



DN	mm inch	50 2	63 2½	80 3	100 4
A	mm inch	35 1.38	32 1.26	32 1.26	32 1.26
B	mm inch	140 5.51	160 6.30	190 7.48	210 8.27
D	mm inch	50 1.97	65 2.56	80 3.15	100 3.94
H	mm inch	63 2.48	88 3.46	104 4.09	124 4.88
I.D. × d <sup>3)</sup>		63.09 × 3.53 2.48 × 0.139	88.49 × 3.53 3.49 × 0.139	104.37 × 3.53 4.11 × 0.139	123.42 × 3.53 4.86 × 0.139
K	mm inch	-	36 1.42	36 1.42	36 1.42
L <sup>1)</sup>	mm inch	240 9.45	329.50 12.97	363 14.29	413 16.26
L <sup>2)</sup>	mm inch	220 8.66	341.50 13.44	375 14.76	425 16.73
M	mm inch	37.50 1.48	50 1.97	59 2.32	70 2.76
N <sup>1)</sup>	mm inch	108 4.25	155.50 6.12	173.50 6.83	203.50 8.01
N <sup>2)</sup>	mm inch	103 4.06	155.50 6.12	173.50 6.83	203.50 8.01
O	mm inch	75 2.95	100 3.94	118 4.65	140 5.51
P <sup>1)</sup>	mm inch	-	48 1.89	48 1.89	48 1.89
P <sup>2)</sup>	mm inch	-	58 2.28	58 2.28	58 2.28
Q	mm inch	65 2.56	25 0.98	25 0.98	25 0.98
T <sup>1)</sup>	mm inch	93 3.67	174 6.85	189.50 7.46	209.50 8.25
T <sup>2)</sup>	mm inch	-	186 7.32	201.50 7.93	221.50 8.72
U <sup>1)</sup>	mm inch	40 1.57	43 1.69	43 1.69	43 1.69
U <sup>2)</sup>	mm inch	40 1.57	55 2.17	55 2.17	55 2.17
V <sup>1)</sup>	mm inch	55 2.17	94 3.70	94 3.70	94 3.70
V <sup>2)</sup>	mm inch	65 2.56	56 2.20	56 2.20	56 2.20
W <sup>1)</sup>	mm inch	-	75 2.95	75 2.95	75 2.95
W <sup>2)</sup>	mm inch	66 2.60	72 2.83	72 2.83	72 2.83
W1	mm inch	50 1.97	36.50 1.44	36.50 1.44	36.50 1.44

<sup>1)</sup> Valve with manual actuator  
<sup>2)</sup> Valve with pneumatic actuator  
<sup>3)</sup> Dimensions of flange seal



- ▼ Valve seat side
- \* Required for dismantling
- ⊙ Compressed air connection
- ⊕ Electrical connection
- ⊖ Mechanical position indication
- ⊗ Position indicator
- ⊖ Emergency operation