



VAT Vakuumentile AG  
CH-9469 Haag, Schweiz

# PRODUCT DATA SHEET No. 233993EF

## Vatterfly valve, Series 20, DN 63-200 (ID 2½'' - 8'')

**Ordering No:**                    **20 . . . . - . . . 24**



### Description

Flanges and body shape                    according to dimensional drawing  
 Actuator    pneumatic, double acting  
     with position indicator  
 Feedthrough                                      rotary feedthrough

### Technical data

Leak rate:  
 - To the outside                                < 1 · 10<sup>-9</sup>    mbar ls<sup>-1</sup>  
 - Valve seat                                      < 1 · 10<sup>-9</sup>    mbar ls<sup>-1</sup>  
 Pressure range                                   1 · 10<sup>-8</sup> mbar to 2 bar, abs  
 Differential pressure on the plate           ≤ 1.2 bar in opening direction  
     ≤ 1.6 bar in closing direction  
 Differential pressure at opening            ≤ 0.5 bar  
 Admissible temperature:                    0 - 80°C  
 Heating and cooling rate:                    ≤ 40°C h<sup>-1</sup>  
 Cycles until first service                    100,000  
     - under clean vacuum conditions  
 Life cycle     500,000

		A: Aluminum body	E: Stainless Steel body
Material:	- valve body	Al Mg Si 1	1.4301
	- actuator	Aluminum	Aluminum
	- valve plate	Al Mg Si 1	1.4301
Seal	- bonnet seal	VITON®	VITON®
	- plate seal	VITON®	VITON®
	- pneumatic seals	VITON®	VITON®

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Replaced by	Replacement for	<b>233993EF</b>
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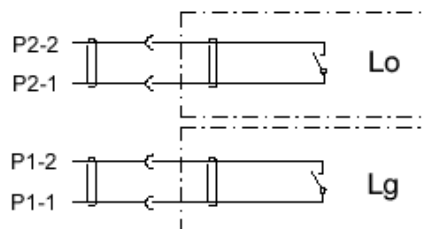
Position indicator:	Contact rating	0.5A/50VAC, 0.5A/75VDC, max. 10 W
Mounting position		any
Action at power failure		depending on pneumatic/electronic setup
Action at compressed air failure		no change
Compressed air pressure for pneumatics		4 - 7 bar / 60 - 100 psi
Compressed air connection		M5 female (10/32 UNF suitable)

Diameter code	36	38	40	44	46
Diameter	63 mm 2½"	80 mm 3"	100 mm 4"	160 mm 6"	200 mm 8"
Volume of air cylinder	0.04 l 0.0014 ft <sup>3</sup>	0.08 l 0.003 ft <sup>3</sup>	0.08 l 0.003 ft <sup>3</sup>	0.13 l 0.0045 ft <sup>3</sup>	0.3 l 0.01 ft <sup>3</sup>
Opening / Closing time	0.4 s	0.8 s	0.8 s	1.4 s	1.8 s
Molecular flow conductance	550 ls <sup>-1</sup>	700 ls <sup>-1</sup>	1400 ls <sup>-1</sup>	4000 ls <sup>-1</sup>	7500 ls <sup>-1</sup>
Molecular flow conductance (extended body)	450 ls <sup>-1</sup>	600 ls <sup>-1</sup>	1050 ls <sup>-1</sup>	2550 ls <sup>-1</sup>	4700 ls <sup>-1</sup>
Weight (standard Aluminum body) 203 . . . A . .	2.3 kg 5.1 lbs	3.8 kg 8.4 lbs	4 kg 8.8 lbs	7.4 kg 16.3 lbs	16.1 kg 35.5 lbs
Weight (standard Stainless Steel body) 203 . . . E . .	4.6 kg 10.1 lbs	7.5 kg 16.5 lbs	8 kg 17.6 lbs	15.6 kg 34.4 lbs	34.2 kg 75.4 lbs
Weight (extended Aluminum body) 204 . . . A . .	2.5 kg 5.5 lbs	4.2 kg 9.3 lbs	4.7 kg 10.4 lbs	9.7 kg 21.4 lbs	21.3 kg 47 lbs
Weight (extended Stainless Steel body) 204 . . . E . .	5.3 kg 11.7 lbs	8.5 kg 18.7 lbs	10.1 kg 22.3 lbs	22.3 kg 49.2 lbs	20.8 kg 45.9 lbs

### Wiring diagram:

Lo = position indicator "open"

Lg = position indicator "close"



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