



VAT Vakuumentile AG
CH-9469 Haag, Schweiz

PRODUCT DATA SHEET
Series 650, DN 200 (I.D. 8")
Ordering No. 65046-PACH-0001

1 Description

This product is a throttling pendulum valve with isolation functionality. It is intended to use for downstream pressure control applications.

Flange		DN 200 (8"), ISO-F	
Actuator	type	stepper motor for pendulum plate movement pneumatic for isolation function	
	position	B1	
Controller	type	integrated (on actuator)	
	interface	RS232	
	options	PFO,SPS ¹⁾	
	firmware version	650P.1E.00	
Feedthrough		rotary feedthrough double sealed	
Seals	sealing ring (body)		Viton
	sealing ring (plate)		Viton
	rotary feedthrough	atmosphere	Viton
		vacuum	Viton
	shaft feedthrough	atmosphere	Viton
		vacuum	Viton
bonnet		Viton	



Sample picture only. Specified product may differ in size, flange and options.

1) PFO power failure option, SPS sensor power supply

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2 Technical data

2.1 Valve unit

Pressure range at 20°C		1 x 10E-8 mbar to 1.2 bar (abs)
Leak rate at 20°C	to outside (global)	1 x 10E-9 mbar l/s
	seat	1 x 10E-9 mbar l/s
Max. differential pressure on plate during isolation (in both directions)		1200 mbar in either direction
Max. differential pressure on plate during opening		5 mbar
Cycles until first service (preventive maintenance)	throttling (open – max. throttle – open)	1'000'000 (unheated and under clean conditions)
	isolation (open – closed – open)	200'000 (unheated and under clean conditions)
Admissible operating temperature		10°C to +150°C
Mounting position		any (valve seat on chamber side is recommended)
Process side materials	body	Aluminium 3.2315 (AA6082)
	plate	Aluminium 3.2315 (AA6082)
	other parts	1.4435 (316L), 1.4404 (316L), 1.4122, 1.4310 (301), 1.4303 (304), 1.4571
Seals	body	Viton
	plate	Viton
	rotary feedthrough atmosphere side	Viton
	rotary feedthrough vacuum side	Viton
	shaft feedthrough atmosphere side	Viton
	shaft feedthrough vacuum side	Viton
	bonnet	Viton
Min. controllable conductance (N ₂ molecular flow)		10 l/s
Max. conductance (N ₂ molecular flow)		12000 l/s
Actuating time	full open to close (throttling)	0.9 s typ.
	close (throttling) to full open	0.9 s typ.
	full open to close (isolated)	3 s typ.
	close (isolated) to full open	4 s typ.

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2.2 Control unit

Power supply input		+24 VDC ($\pm 10\%$) @ 0.5 V pk-pk max.
Power consumption		96 W
Ambient temperature		0 °C to +50 °C max. (<35 °C recommended)
Interface	remote	RS232
	local (service port)	RS232
Sensor	number of inputs	2
	input	0-10 VDC / $R_i > 100 \text{ k}\Omega$
	ADC resolution	0.23 mV
	sampling time	10 ms
	power supply (output)	$\pm 15 \text{ VDC } (\pm 5\%) / 1000 \text{ mA max.}$
Compressed air pressure (isolation function)		4 - 7 bar / 55 - 100 psi (above ATM)
Pressure control accuracy		0.1% of sensor full scale
Firmware		650P.1E.00

2.3 General data

Weight		22 kg
Dimensional drawing		333757

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3 Initial configuration

Communication	command set	IC
Interface	baud rate	9600
	data bit	7
	stop bit	1
	parity	even
Digital input	open position	not inverted
	close position	not inverted
Valve position	after start up	close
	in case of power failure	close
Control settings	gain factor	1
	valve speed	1000
	sensor delay	0 s
	setpoint ramp	1 s

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