

oil free
maintenance free
reduced vibrations
quiet
small
lightweight
minimal current consumption



Blood Pressure
Anaesthesia
Gas Detectors
Personal Safety Devices
Pneumatics
Exhaust Gas Analysers
Pipetting Devices

Rotary-Diaphragm-Pumps for Gas

SP 027 RO and SP 032 RO Series

Art.Nr.:	7.73.50	7.73.51	7.73.52	7.73.53	7.73.54	7.73.55
Designation	SP MS 027 RO-D	SP MS 027 RO-D	SP MM 027 RO-D	SP CM 027 RO-D	SP MM 027 RO-D	SP MF 027 RO-D
BODY						
Body Size	Ø 27 mm x 58 mm					
Nozzle Length / Ø	6.3 mm / 4,2 mm					
Number of Nozzles	1 (outlet only)					
Bearings	oiled					
MEDIUM	Air					
MOTOR						
Motor speed	low / slow		medium		high / fast	
Motor	Mabuchi RF-370C	Mabuchi RF-370C	Mabuchi RF-370C	Chinese Motor	Mabuchi RF-370C	Mabuchi RF-370C
Coil Winding	3085	20200	22170	-	17315	24120
Rated Voltage	3 Vdc	6 Vdc	6 Vdc	6 Vdc	12 Vdc	6 Vdc
Operational Voltage	2.0 - 4.5 Vdc	4.5 - 7.0 Vdc	4.5 - 7.0 Vdc	4.5 - 7.0 Vdc	9.0 - 14.0 Vdc	4.5 - 7.0 Vdc
Brush Material	precious metal	precious metal	precious metal		precious metal	precious metal
PERFORMANCE						
Free flow rate	1.7 l/min	1.6 l/min	1.8 l/min	1.7 l/min	1.8 l/min	2.0 l/min
Test Cycle	500cc from 0 to 300 mmHg at Rated Voltage					
Pressurizing Time at Test	max. 9.5 sec.	max. 12 sec.	max. 8.5 sec.	max. 9.5 sec.	max. 8.5 sec.	max. 7.5 sec.
Current Draw at Test	max. 630 mA	max. 320 mA	max. 420 mA	max. 370 mA	max. 180 mA	max. 450 mA
Noise Level at Test (30 cm distance from 200 - 300 mmHg)	max. 55 dB(A)	max. 53 dB(A)	max. 57 dB(A)	max. 57 dB(A)	max. 55 dB(A)	max. 60 dB(A)
Max. leak Rate at 300 mmHg / 500cc	2 mmHg/min	2 mmHg/min	2 mmHg/min	2 mmHg/min	2 mmHg/min	2 mmHg/min
Dead Head Pressure 500 mmHg	500 mmHg	500 mmHg	500 mmHg	500 mmHg	500 mmHg	500 mmHg
Voltage to re-start at 200 mmHg up to 300 mmHg	max. 1.5 V	max. 3.0 V	max. 3.0 V	max. 3.0 V	max. 6.0 V	max. 3.0 V
ENVIRONMENTAL CONDITIONS						
Operational Temp.	+5 - +45°C					
Operational Humidity	30%-80% rel. Hum.					
Storage Temperature	-20 - +70°C					
Storage Humidity	30%-80% rel. Hum.					
LIFETIME						
Test cycle (lifetime)	500cc from 0 to 260 mmHg at Rated Voltage					
Specified Lifetime	300000 test cy.	300000 test cy.	300000 test cy.	50000 test cy.	300000 test cy.	300000 test cy.
MTBF	400000 cycles	400000 cycles	400000 cycles	80000 cycles	400000 cycles	400000 cycles

Rotary-Diaphragm-Pumps for Gas

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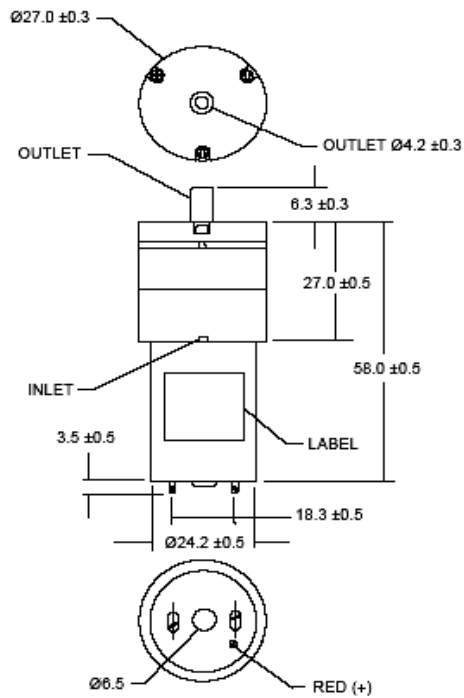
Art.Nr.:	7.73.75
Designation	SP MM 032 RO-D
BODY	
Body Size	Ø 32 mm x 62 mm
Nozzle Length	8.7 mm
Number of Nozzles	1 (outlet only)
Bearings	
MEDIUM	Air
MOTOR	
Motor	Mabuchi RF-370C / 24120
Motor speed	medium
Rated Voltage	6Vdc
Operational Voltage	3.5 - 7.0 Vdc
Brush Material	precious metal
PERFORMANCE	
Free Flow Rate	3,0 l/min
Test Cycle (flow / pressure)	500cc from 0 to 300 mmHg
Pressurizing Time at Test	at Rated Voltage
Current Draw at Test	max. 6.0 sec.
Noise Level at Test	max. 600 mA
(30 cm distance	
from 200 - 300 mmHg)	max. 55 dB(A)
Leak Rate at	
300 mmHg / 500cc	max. 2 mmHg/min
Dead Head Pressure	min. 500 mmHg
Re-Start Voltage	3.0 V dc
to re-start at 200 mmHg up to 300	
ENVIRONMENTAL CONDITIONS	
Operational Temperature	+5 - +45°C
Operational Humidity	30%-80% rel. Hum.
Storage Temperature	-20 - +70°C
Storage Humidity	30%-80% rel. Hum.
LIFETIME	
Test cycle (lifetime)	500cc from 0 to 260 mmHg
Specified Lifetime	at Rated Voltage
MTBF	260000 test cycles
	350000 cycles

Soon available in 12 Vdc

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Drawings

SP 027 RO-D



SP 032 RO-D

