



PERISTALTIC PUMPS

Where **Medicine**
meets **Engineering**



MöllerMedical

In addition to our wide range of standard products, **SPQ** can also provide individual solutions according to your needs. Customized variants of our peristaltic pump are even available for small quantities. Our engineering development team supports you from the early concept design phase according to your needs. We offer standard-tube sets as well as customized tube systems according to your specification suitable for our peristaltic pumps. Möller Medical has its own cleanroom manufacturing.



	Stator	Rotor		Motor			Gear	Rotor		Flow Rate per Revolution [ml/RPM]								Pressure P [bar]	Material			
		Material	Material	No. of Rollers	DC	EC		Stepper	i	[RPMmin.]	[RPMmax.]	ID 1.00	ID 2.00	ID 3.00	ID 4.00	ID 5.00	ID 6.00		ID 7.00	ID 8.00	Silicone	PVC
SPQ 048	High Performance Plastics	High Performance Plastics	3 6	■			100 60 30 18	20 30 60 90	40 65 125 205	0.03	0.10	0.20							1.5	■	■	■
SPQ 072	High Performance Plastics	High Performance Plastics	3 6	■			100 60 30 18	20 30 60 90	40 65 125 205	0.03	0.11	0.25							1.5	■	■	■
SPQ 072G	High Performance Plastics	High Performance Plastics	2			■	/	0	145	0.08	0.35	0.71	1.35						2.0	■	■	■
SPQ 110	High Performance Plastics	High Performance Plastics	2			■	25	9	90		0.63	1.40	2.34	3.71					2.0	■	■	■
SPQ 150	High Performance Plastics	High Performance Plastics	4			■	25	5	123		0.53	0.92	1.03						2.5	■	■	■
SPQ 225	Metal	High Performance Plastics	2			■	8	0	142							9.40	12.30	2.5	■	■	■	
SPQ 095	Metal	Metal	2	■			35	72	152				1.78	2.52	3.80			2.3	■	■	■	

Specifications subject to change.

Flow rates determined pumping water at 20 °C with 1 m suction height and open delivery outlet. The flow rates may vary – depending on tube material, suction height, outlet pressure and viscosity of the media pumped.

Calculation of the flow rate:
Select peristaltic pump and tubing
Rotor RPM min. x flow rate per revolution = flow rate min.
Rotor RPM max. x flow rate per revolution = flow rate max.

Example of the SPQ095 with tube ID 5.00 mm:
72 RPM x 2.52 ml/revolution = 181 ml/min. (minimum)
152 RPM x 2.52 ml/revolution = 383 ml/min. (maximum)
Flow rate of SPQ095 with tube ID 5.00 mm from 181-383 ml/min

Further tube materials on request.

Versatile
Reliable
Robust
Toolless Tube Change

LaboVAR

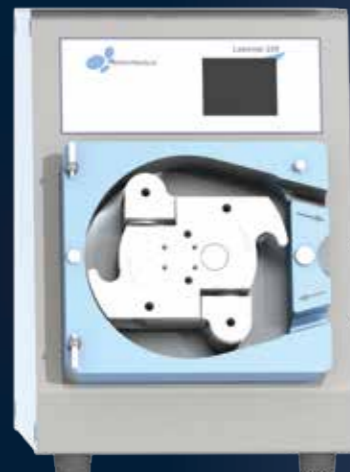
With the **LaboVAR** Series we offer you ready-to-use devices with the well known advantages of peristaltic pumps for handling and dosing in laboratory, industry and trade. The **LaboVAR** is available in 2 sizes.

LaboVAR 72G



TECHNICAL DATA	
Flow Rate	0.2-200 ml/min.
Differential Pressure	2.0 bar
RPM	0-145 RPM
Speed Control	digital via touch screen
Operating Modes	RPM, Percentage of max. RPM, Timer
Applicable Tube Dimensions	ID 1.0-4.0 mm
No. of Rollers	2, spring loaded
Motor Type	Stepper Motor
Interfaces (internal)	analog, I ² C, RS232, USB
Housing	High Performance Plastics
Dimensions	170x200x140 mm
Power Supply	100-240 V, 50-60 Hz, Cable Mains Adapter
Accessories	Foot Switch

LaboVAR 225



TECHNICAL DATA	
Flow Rate	70-1.750 ml/min.
Differential Pressure	2.5 bar
RPM	6-140 RPM
Speed Control	digital via touch screen
Operating Modes	RPM, Percentage of max. RPM, Timer
Applicable Tube Dimensions	ID 8.0 mm
No. of Rollers	2, spring loaded
Motor Type	24V EC
Interfaces (internal)	analog, I ² C, RS232, USB
Housing	Stainless Steel
Dimensions	170x220x240 mm
Power Supply	100-240 V, 50-60 Hz, Cable Mains Adapter
Accessories	Foot Switch

PERISTALT*i*Q

We offer extensive possibilities for customization of our peristaltic pumps for use in critical medical, analytic and diagnostic applications.

USABILITY



Easy Tube Loading

We offer a variety of easy load principles.



HMI touch

The universal HMI with touch screen allows an easy and intuitive operation of our drive units. The graphical user interface can be set up individually.

SENSORS



Pressure limitation

A safety limitation for the pumping pressure can be realized actively (pressure sensors at the tube set) or mechanically (spring-loaded rollers) depending on your specification.



Pressure detection

Reliable pressure monitoring and high accuracy regulation of the pumping pressure. For example, the pressure in our CSF management system LiquoGuard® is measured and regulated with an accuracy of approx. 1 mbar.



Air bubble sensor

Permanent noninvasive ultrasonic monitoring of the tubing for air inclusions. The pump automatically switches off as soon as an inclusion is detected.

DRIVE



One-Way Clutch

The one-way clutch prevents manual turning of the pump rotor in the wrong direction, e. g. while inserting a new pump tube.



Motor Controller

Our motor controller provides highest accuracy and speed capabilities as well as the possibility of automatic calculation of the pumped volume.



Rotary Encoder

The rotary encoder allows flow and volume metering using a DC motor.

More features required?
Ask us!

Möller Medical has long-term development experience and can provide you with competent assistance for new developments and technical challenges working up to volume production. Naturally, we guarantee confidentiality for your intellectual property.



Examples of customer development projects:

- Laboratory pumps with electronic flow and volume control
- Peristaltic pumps and tube systems for numerous applications
- Special cannulae for chemical analytics, diagnostics and medical applications
- PCR-cuvette for laboratory medicine
- Irrigation pump for cardiology and tumor therapy
- High precision chromatography columns

Möller Medical's customers include various large companies in the field of chemical analysis and diagnostics.



■ COMPANY

Möller Medical, founded in 1949, is specialized in the production of components and devices in the field of **analytics, diagnostics, medical technology** as well as **precision engineering**.

Möller Medical is particularly active in the demanding OEM business and supplier to various large companies in the field of medical technology and analytics/diagnostics. The company is certified manufacturer of components and devices. The lion's share of the turnover is generated in medical technology and analytics.

Möller Medical is certified according to EN ISO 13485 and EN ISO 9001 and entitled to CE-labeling according to EU-directive 93/42/EEC and 98/79/EEC.



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