

# P720 Peristaltic Pumps

Instech's P720 peristaltic pumps deliver the accurate low flow rates of syringe pumps without the limits on delivered volume. They are ideal for infusion, tissue perfusion, and other low-flow laboratory applications.

The pump's analog circuitry has been carefully designed to minimize electromagnetic radiation; for this reason, the pump is often used for tissue perfusion even in the presence of sensitive intracellular recordings.

Instech offers this pump with three different motors; choose the motor and tube set size that best match your flow rate requirements. In general, use the standard P720 for flows between 0.05 and 1 mL/min, the lower flow P720/10K for rates between 5 and 100  $\mu$ L/min, and then the higher-flow P720/66 for rates up to 18 mL/min (1 L/hr).

PART NO.	DESCRIPTION	UNIT
P720/10K	Very-low-flow peristaltic pump, tube sets not included	ea
P720	Low-flow peristaltic pump, tube sets not included	ea
P720/66	High-flow peristaltic pump, tube sets not included	ea
P720/NCA	Fittings for straight-through tube sets	pair
P720/RMC	Rod mounting clamp for P720 pumps	ea
P720/KSK	Kapton® strip kit: 10 strips, 3 pcs grip paper, tool, clip	ea
P720/BATT	9V lithium battery for P720 pump	ea

With a given tube set size, the pump performs best over a 10:1 flow control range. You control pump speed with dials (0-100) which convert to flow rate with a single point calibration, or use an external input voltage (which can run the pump in either direction).

## FEATURES

Snap-in tube sets with a wide range of tubing materials, sizes and connectors

Precision machined pump head with Swiss-made motor assembly for accuracy and repeatability

Kapton strip to improve accuracy and tube set life

Battery backup for portability and protection during power failure (except P720/66 model)



Analog speed control input for remote control or closed-loop applications

Fine speed control

Coarse speed control



Rear View



P720/NCA

Fittings for straight-through tube sets are available when connectors are not desired



## P720 PERISTALTIC PUMP TUBE SETS

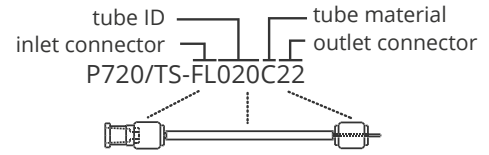


A variety of tube sizes and connector types lets you tailor your P720 pump to your application. Tube sets typically last about one month under continuous operation. Use Silicone (S) with saline and most drugs. Use C-Flex® (C) for solutions containing fats, such as IV diets. New pumps do not include tube sets; please order them separately. Sold in packages of five.

INLET			TUBE					OUTLET		
BS .062" ID barb Fits .062" Tygon®		BS-	015S	020S 020C	031S 031C	062S 062C	093S 093C	-BS		BS .062" ID barb Fits .062" Tygon®
FL Female luer lock Fits male luer lock		FL-	015S	020S 020C	031S 031C	062S 062C	093S 093C	-LL		LL Male luer lock Fits female luer
LL Male luer lock Fits female luer		LL-	015S	020S 020C	031S 031C	062S 062C	093S 093C	-LL		LL Male luer lock Fits female luer
22 22 gauge tubing Fits PE50, .020" Tygon®		22-	015S	020S 020C				-22		22 22 gauge tubing Fits PE50, .020" Tygon®
FL Female luer lock Fits male luer lock		FL-	015S	020S 020C				-22		22 22 gauge tubing Fits PE50, .020" Tygon®
DBS Dual .062" ID barbs Fits .062" Tygon®		DBS- <sup>1</sup>		020S 020C	031S 031C	062S 062C		-DBS		DBS Dual .062" ID barbs Fits .062" Tygon®
DBS Dual .062" ID barbs Fits .062" Tygon®		DBS- <sup>1</sup>		020S 020C	031S 031C	062S 062C		-DBSU <sup>2</sup>		DBS Dual .062" ID barbs Fits .062" Tygon®
		none <sup>3</sup>	015S	020S 020C	031S 031C	062S 062C	093S 093C	none <sup>3</sup>		

## SPECIFICATIONS

	P720/10K	P720	P720/66
<b>Flow Rate Range</b>			
.015" tube	0.8 - 7.5 µl/min	8 - 83 µL/min	70 - 700 µL/min
.020" tube	1.6 - 16 µl/min	18 - 180 µL/min	0.15 - 1.5 ml/min
.031" tube	3 - 30 µl/min	35 - 350 µL/min	0.3 - 2.8 ml/min
.062" tube	10 - 100 µl/min	125 - 1250 µL/min	0.9 - 9 ml/min
.093" tube	20 - 200 µl/min	240 - 2400 µL/min	1.8 - 18 ml/min
<b>Flow Control Range</b>	~ 10:1	~ 10:1	~ 10:1
<b>Accuracy</b>	±5%	±5%	±5%
<b>Repeatability</b>	±3%	±3%	±3%
<b>Motor Gear Ratio</b>	10683:1	900:1	66:1
<b>Gearhead Type</b>	Spur	Spur	Planetary
<b>Power Source</b>	Universal 15 VDC 1A adapter, 2.5mm male plug, +tip Input: 100-240VAC, 50-60Hz; plugs for US, Europe, UK, and Australia		
<b>Backup Battery</b>	9V lithium	9V lithium	NA
<b>Backup Battery Life</b>	~ 30 hours	~ 30 hours	NA
<b>Operating Humidity</b>	<80% (non-condensing)		
<b>Dimensions</b>	2.5 x 2.3 x 4.0" (6x4 x 5.7 x 10.2 cm)		
<b>Weight</b>	375g	375g	375g



<sup>1</sup>Dual Tube Set Warning: Dual channel tube sets, particularly the 062 size, place more stress on the pump motor than do single channel tube sets, which will shorten the life of the pump. Pumps with spur gearheads (P720/10K and P720) are more susceptible to this stress than are pumps with planetary gearheads (P720/66). In addition, dual 062 tube sets make contact with the sides of the pump rotor, which will cause those tube sets to wear faster than other sizes.

<sup>2</sup>One tube of the DBSU set is slightly longer (unbalanced) for level control in tissue chambers.

<sup>3</sup>Use with straight-through tube set fittings (P720/NCA)

C-Flex® is a registered trademark of Saint-Gobain.

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