

Built-in syringe pump

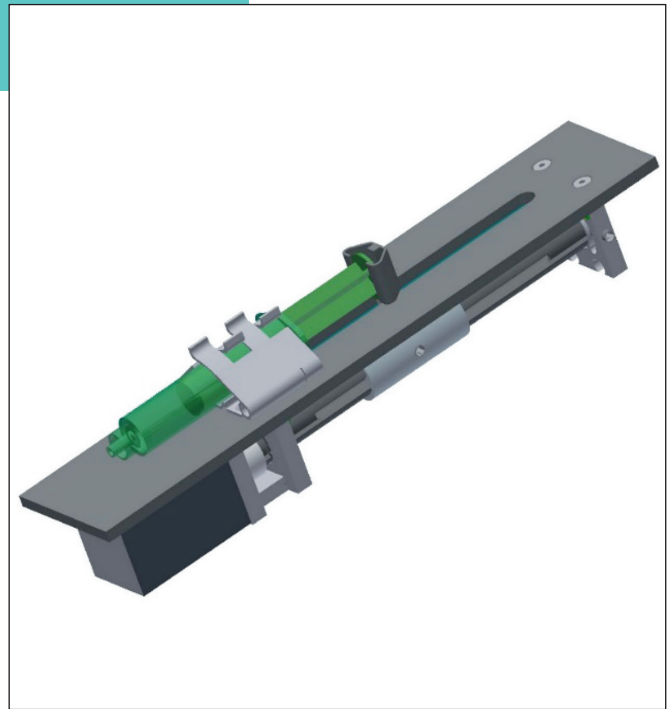
Built-in syringe pump

The Spetec built-in syringe pump is used for metering fluids in the microliter and nanoliter range. It can be adapted to suit the requirements of the unit it is fitted in. That means the customer can specify the shape and color of the mounting plate. This results in a product that is tailored to match your unit perfectly.

Its core components consist of the 1.8° stepper motor, linear guide-way, adjustable syringe holder, and replaceable syringe. Thanks to the high resolution of 25,600 steps per revolution, individual steps during the movement sequence are barely perceptible.

Both disposable and metal-free precision syringes of any required volume can be used. The smallest volume that can be delivered on each individual pulse when standard syringes are used is 4 picoliters. Depending on the size and diameter of the employed syringe, the total amount delivered per minute can be adjusted between 0.5 nanoliters and 35 ml.

The OEM-syringe pump can be ordered with or without controller.



Mechanical data

Dimensions LxWxH (without syringe holder)	230 x 50 x 35 mm
Approx. weight	500 g
Maximum stroke	85 mm
Minimum feed rate	0.29 nm/s
Maximum feed rate	1.36 mm/s
Smallest step resolution	27.34 µm/s
Accuracy	±2%
Reproducibility	±2%
Transverse force	100 N at 0.0254 mm/s
Extensible	No
Materials used on surface	Powder-coated aluminum, powder-coated stainless steel
Adjustable syringe holder	Permitted syringe diameters from 9 mm to 31 mm

Electrical data for motor

Connector	JST SXH-001T-P0.6
Stepper motor	1.8°
Current/phase	0.67 A
Operating temperature	-10 to 50 °C
Increase in temperature during operation	Max. 80 °C (standstill, 2 phases)

Data sensors

End position / reference position	Hall effect sensor
Incremental encoder	Optionally with a resolution of 2000

Operating conditions

Temperature range	+10 to +40 °C
Relative humidity	20 % to 80 %, non-condensing
Suitable media	aqueous, acidic, alkaline and organic media

Data communication

Data protocol	RS485 / USB
LabView support	Yes