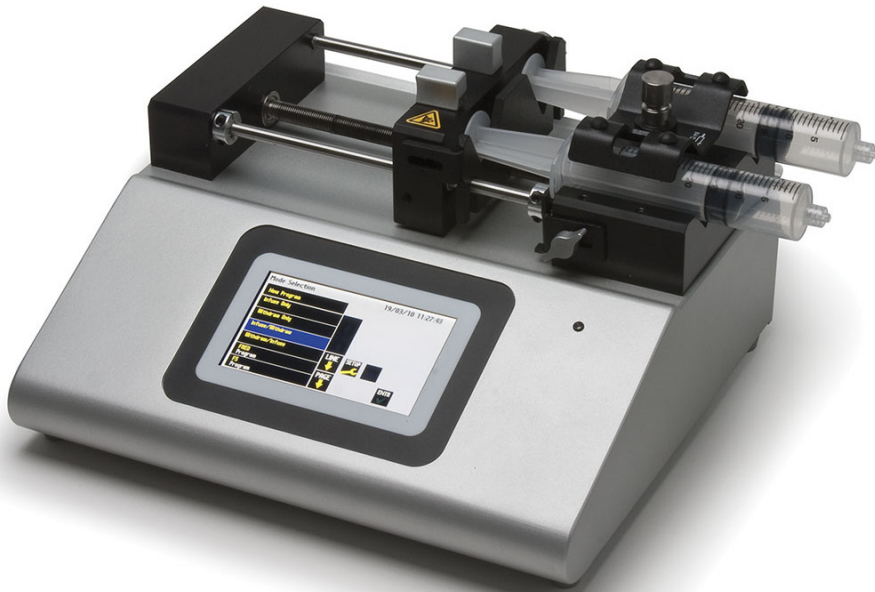




# SPL Syringe Pumps

*Superior reliability and flow performance*



## Features

- Easy to configure
- Easy to use
- Vertical mounting
- Quick release pusher block
- Wide clamp for larger syringes
- Multi-size syringes
- Anti-siphon bracket
- RS232 computer connection, USB serial input, RS485 for networking pumps
- Wide variety of applications
- Worldwide regulatory compliance

This new SPL series of pumps show all the pertinent, real-time information on a single touch screen display. Information displayed includes flow rate, grading syringe volume, total remaining time and total volume delivered. Recognizable, international icons make it easy to use.

To conserve table space, mount the SPL pump vertically. The display automatically reorients itself for easy vertical operation.

The welded, unibody, steel chassis of the SPL pumps makes them quieter to operate. It also offers less vibration, no deformation and excellent EMI/RFI shielding.

The one-touch operation makes the SPL pump easy to configure, and its 15-character labeling system makes saved programs quick to identify. You can easily transfer recipes between pumps for consistent configuration without reprogramming. Pumps can be connected for gradients, increased flow capacity and simultaneous multi-tests.

This family of pumps includes:

- Infuse only (WPI #**SPLG200**)
- Infuse/withdraw (WPI #**SPLG210**)
- Infuse/withdraw programmable (WPI #**SPLG212**)
- Push-pull (WPI #**SPLG270**)
- Push-pull programmable (WPI #**SPLG272**)

**World Precision Instruments, Inc.**



# SPL Syringe Pumps

*Superior reliability and flow performance*



*When mounted vertically, the display screen of the SPL series pumps automatically reorients for ease of use.*

## SPECIFICATIONS

Accuracy.....	±0.35%
Reproducibility.....	±0.05%
Syringes (min./max.).....	0.5µL/140mL
Flow rate minimum (0.5µL syringe).....	5pL/min.
Flow rate maximum (140mL syringe).....	220.97mL/min.
Display.....	4.3" WQVGA TFT color display with touch pad
Non-volatile memory .....	Stores all settings
Connectors:	
RS-232.....	9-pin D-sub connector
RS-485.....	IEEE-1394, 6 pos
USB .....	type B
I/O and TTL.....	15-pin D-sub connector
Linear force (maximum).....	34kg (75 lb.) @ 100% force selection
Drive motor.....	1.8° stepper motor
Motor drive control .....	Microprocessor with 1/16 microstepping
Number of microsteps per one rev. of lead screw.....	6,400
Step rate minimum.....	27.5 sec./µstep
Step rate maximum.....	26µsec./µstep
Pusher travel rate minimum.....	0.36µm/min.
Pusher travel rate maximum.....	190.80mm/min.
Power.....	100-240VAC; 50/60Hz; 50W; 0.5A fuse
Dimensions .....	8.89 x 25.4 x 27.94cm (3.5 x 10 x 11")
Weight .....	4.9kg (10.75 lb.)
Atmospheric specifications:	
Operating temperature.....	4–40°C (40–104°F)
Storage temperature.....	-10–70°C (14–158°F)
Humidity.....	20–80%RH, non-condensing
Mode of operation.....	Continuous
Classification.....	Class I
Pollution degree .....	1
Installation Category .....	II
Regulatory Certifications .....	CE, UL, CSA, CB Scheme, EU RoHS

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