

221 XL/222 XL Liquid Handlers



Automate Sample Preparation and Transfer

- Combine with the Minipuls 3 Peristaltic Pump or 402 Syringe Pump
- Built for easy, unattended operation
- Large, flexible bed—221 XL has a 120-tube capacity, 222 XL offers a 540-tube capacity and accepts up to five different racks in a single tray
- Numerous rack options accommodate tubes of virtually any size and volume
- Multiple control options such as RS-232 and contact closure I/Os help ensure integration with your instrument

Applications

- Automating liquid transfer for many applications, including ICP, AA, UV/Vis spectrophotometry, FIA and colorimetry
- Sample preparation solution for dilutions, serial dilutions, addition of reagents and solvents, any liquid transfer from tube-to-tube, mixing or as an analyzer loader

Technical Specifications

Arm Speed	X/Y: 25 cm/sec (9.8 in./sec) Z upward: 12.5 cm/sec (4.9 in./sec) Z downward: 9 cm/sec (3.5 in./sec)
Communication Interface	RS-232 or GSI0C; Four inputs, four outputs, three relay outputs and two 12V power supplies
Cross Contamination[†]	<0.0001% with liquid level detection and recommended needle rinsing parameters; <0.005% without liquid level detection [†] Contact Gilson Customer Service to learn what methods and conditions were used to obtain the values.
Liquid Contact Materials	316L stainless steel or titanium, FEP, PTFE, PEEK, PP
Manufacturing Standards	Meet applicable Safety and EMC certification standards; UL and CE certified
Sample Vessel Capacity	221 XL: 120 (6 x 32 mm or 7 x 40 mm) tubes 222 XL: 540 (7 x 40 mm or 10 x 75 mm) tubes
Power Requirements	Frequency: 50–60 Hz Voltage: 100–120 or 220–240V, mains voltage fluctuations not to exceed $\pm 10\%$ of the nominal voltage
Probe Positioning Performance	Accuracy: ± 0.75 mm in X/Y/Z dimensions Repeatability: ± 0.2 mm in X/Y/Z dimensions
Software	Via Gilson TRILUTION™ LH Software
Syringe Capacity (402 Syringe Pump)	100, 250 or 500 μL ; 1, 5, 10 or 25 mL
Dimensions (w x d x h)	221 XL: 33 x 46.5 x 23 cm (13 x 18.3 x 9 in.) 222 XL: 51.5 x 62 x 23 cm (20.3 x 24.4 x 9 in.)
Weight	221 XL: 12.2 kg (26.8 lbs.) 222 XL: 16.2 kg (35.6 lbs.)

For applications or additional information, contact your local Gilson Technical Sales Representative or visit www.gilson.com.

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