

NEW GENERATION

UNOQUIP

FLUID MANAGEMENT  
**Q500 PLUS**  
DIURESIS MEASURING SYSTEM

**Safe and accurate urine measurement  
in critically ill patients**



EXPERT SOLUTIONS IMPROVING PATIENT CARE

1500



## Infection Prevention: Where Design Matters

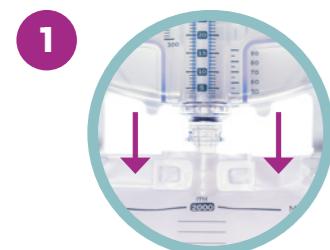
Catheter-associated urinary tract infections (CAUTIs) remain among the most common hospital-acquired infections. While aseptic technique and closed drainage systems are essential, research shows that the design of the urine collection system also plays a crucial role in preventing retrograde contamination.<sup>1,2</sup>

Even in closed systems, backflow can allow bacteria to reach the bladder. Evidence demonstrates that systems with continuous unidirectional flow through non-return valves significantly reduce this risk.

Top-mounted urine meters, with the measuring chamber above the collection bag, have demonstrated the lowest rates of retrograde contamination.<sup>1,2</sup>

Additional system design features – such as the sampling port construction, non-return valves, and smart emptying mechanisms – can further enhance infection control.

Through thoughtful engineering, system design becomes an active contributor to reducing the risk of catheter-associated infections.<sup>3-6</sup>



### Top-Mounted System Design

Uncompromising top-mounted design with a single flow direction away from the patient. The chamber empties completely and easily by gravity into the drainage bag, preventing backflow. A short system length, comparable to that of front-chamber systems, allows the bed to be lowered without the system touching the floor.



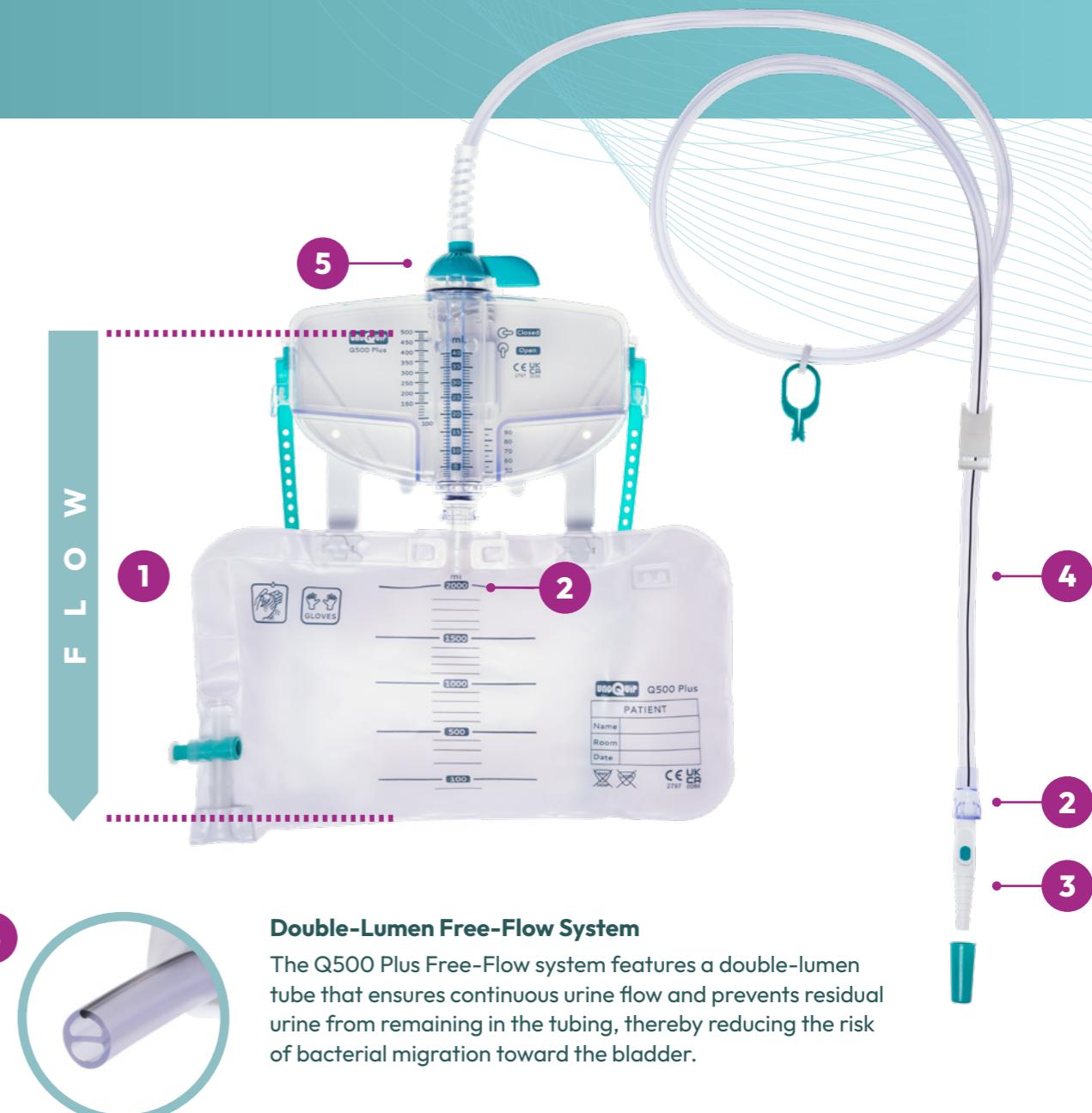
### Two Non-Return Valves (Proximal and Distal)

The proximal valve, positioned at the top of the drainage bag, acts as the first line of defense by preventing potentially contaminated urine from flowing back towards the measuring chamber. The distal valve, located just before the Q-CON sampling connector, prevents fluid from the chamber or tubing from flowing back into the catheter.



### Q-CON Integrated Sampling Connector

The needle-free Q-CON Sampling Connector features a smoothly integrated protrusion- and gap-free sampling port enabling effective disinfection, effectively reducing risk of bacterial adhesion and intrusion. The large inner-diameter barbed connector is designed to fit perfectly on catheters with and without inner ribs.



### Double-Lumen Free-Flow System

The Q500 Plus Free-Flow system features a double-lumen tube that ensures continuous urine flow and prevents residual urine from remaining in the tubing, thereby reducing the risk of bacterial migration toward the bladder.



### Effective Sealing and Air Filtration

The entire measuring chamber is hermetically sealed, and air can only escape through a vent equipped with hydrophobic and oleophobic high-performance bacterial-retaining filters. This enables effective drainage while helping to prevent cross-contamination.

### Q500 Plus with Preconnected 100% Silicone Foley Catheter

Q500 Plus with preconnected 100% Silicone Foley catheter supports infection protection.



### Q500 Plus Empty Bag

Optional 2L Empty Bag with Use-once outlet for hygienic, splash-free disposal.



### References

- Rasmussen A, Frimodt-Møller N, Espersen F, Roed M, Frimodt-Møller C. Retrograde contamination and practical handling of urine meters. *Br J Urol*. 1996;78(2):187-191;
- Frimodt-Møller N, Corneliusen L. Prevention of ascending contamination depends on urine meter construction. *Br J Infect Control*. 2005;6(5):14-17;
- Khouri AE, Olson ME, Lam K, Nickel JC, Costerton JW. Evaluation of the retrograde contamination guard in a bacteriologically challenged rabbit model. *Br J Urol*. 1989;63(4):384-388;
- Simpson LR, Babb JR, Fraise AP. Infection risk and potential contamination of urine specimens associated with sample port design of catheter leg bags. *J Hosp Infect*. 1995;30(2):95-102;
- Saint S, Kowalski CP, Forman J, et al. A multicenter qualitative study on preventing hospital-acquired urinary tract infection in US hospitals. *Infect Control Hosp Epidemiol*. 2008;29(4):333-341;
- Meddings J, Rogers MA, Krein SL, Fakih MG, Olmsted RN, Saint S. Reducing unnecessary urinary catheter use and other strategies to prevent catheter-associated urinary tract infection: an integrative review. *BMJ Qual Saf*. 2014;23(4):277-289;
- Legrand M, Payen D. Understanding urine output in critically ill patients. *Annals of Intensive Care*. 2011;1:13;
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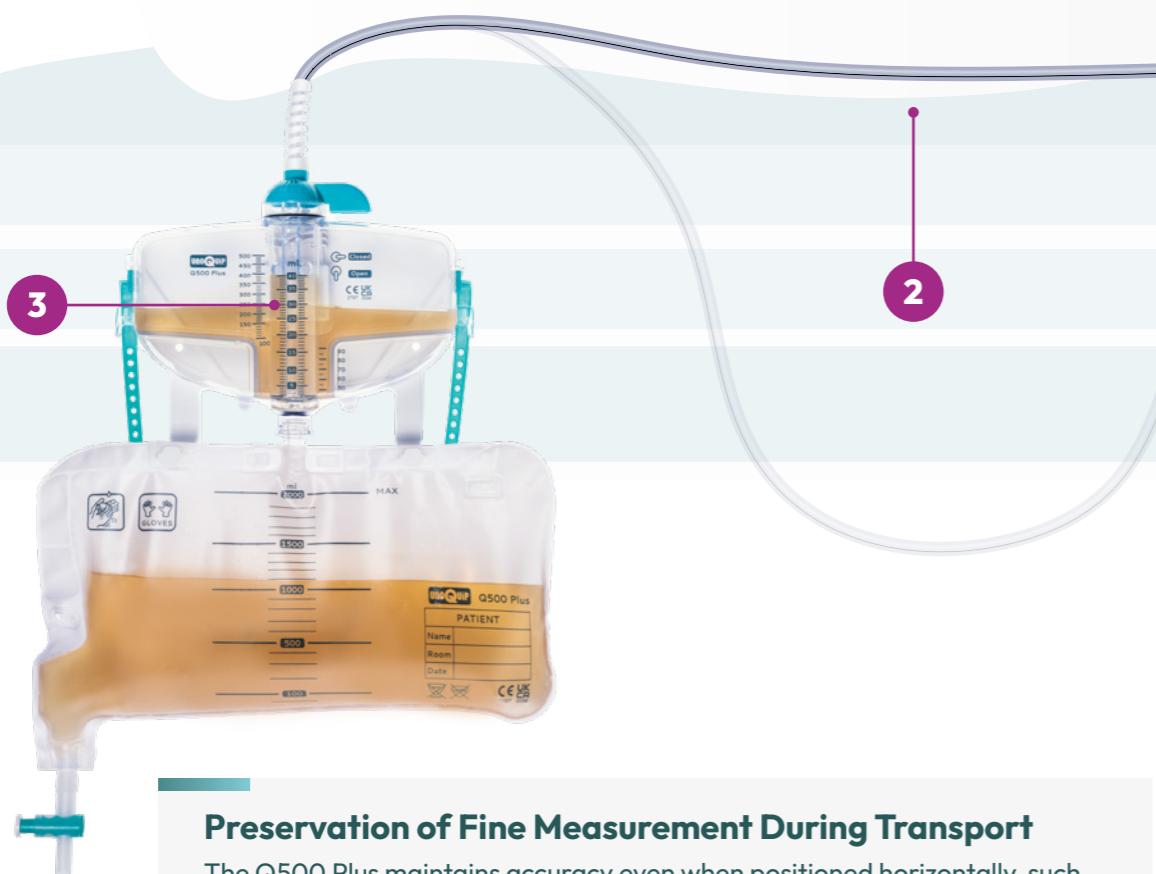


## Measuring Accuracy: Supporting Clinical Decisions

Accurate urine output measurement is a sensitive indicator of renal perfusion and hemodynamic stability. Even small inaccuracies can delay the detection of organ dysfunction or lead to inappropriate fluid therapy.<sup>7</sup>

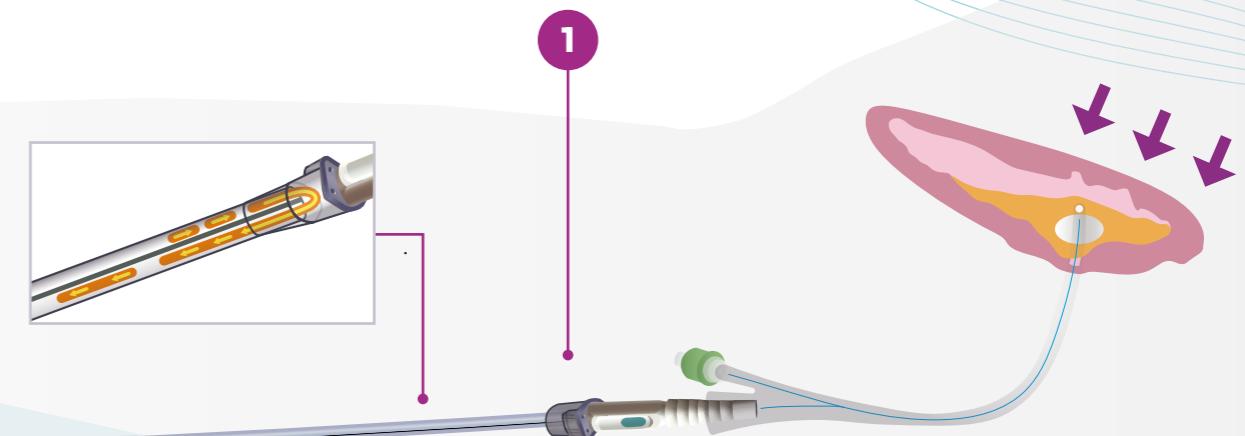
Accuracy is especially vital in fluid resuscitation, burn and trauma care, cardiac and vascular surgery, and for nephrology and transplant patients, where urine output directly reflects circulatory and renal function.<sup>8</sup>

A urine meter that provides reliable, reproducible readings with minimal handling supports timely clinical decisions and safer patient management.



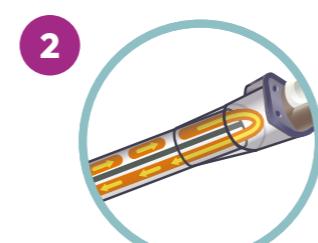
### Preservation of Fine Measurement During Transport

The Q500 Plus maintains accuracy even when positioned horizontally, such as during patient transport. Its measuring chamber is specifically designed to keep urine contained in the chamber, even when the system is tilted.



### Non-Return Valve (NRV) Prevents Urine Backflow

The self-closing NRV, positioned before the Q-CON Connector, isolates the measuring system from the bladder and prevents backflow, ensuring that all urine can flow to the measuring chamber.



### Double-Lumen Drainage Tube Supports Free-Flow Circulation

The Double-Lumen Tube has two channels that merge in a junction chamber before the NRV, allowing urine and air to circulate freely. When the tube hangs in a loop, it can be easily cleared into the measuring chamber by gently raising and lowering it, ensuring complete and accurate measurement.

### Fast and Accurate Measurement

The dark teal scale on a white background provides clear 1ml markings for quick and precise readings, suitable even for paediatric patients.



## Ease of Use: Simplifying Essential Procedures

In acute care, nursing time is a critical resource. Routine tasks such as urine monitoring and catheter management must be carried out accurately and efficiently, often under demanding conditions – making streamlined solutions essential.

A thoughtfully designed urine meter that integrates seamlessly into existing workflows supports intuitive operation and improves efficiency. By simplifying essential procedures, it enables caregivers to dedicate more time to direct patient care – where it matters most.



### Easy-Empty Tap

Allows quick and convenient emptying of the chamber with one hand, maintaining hygiene and saving nursing time.



### Spill-Free Chamber-to-Bag Attachment

Enables stable and spill-free connection and removal of bag via a bayonet-style “twist-and-click” system.



### Reliable One-Hand Tube clamping

Visually guided for clamping and one-hand operation. Stays securely in place without slipping.



### Extra Slim Round Hook

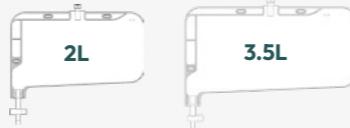
Designed to fit narrow spaces, including hospital bed sockets and common mounts, ensuring secure attachment. Choice of two hook height options.



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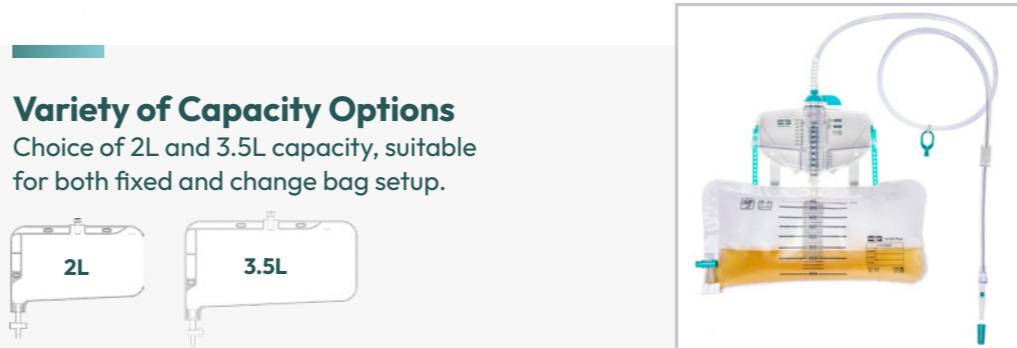
### Variety of Capacity Options

Choice of 2L and 3.5L capacity, suitable for both fixed and change bag setup.

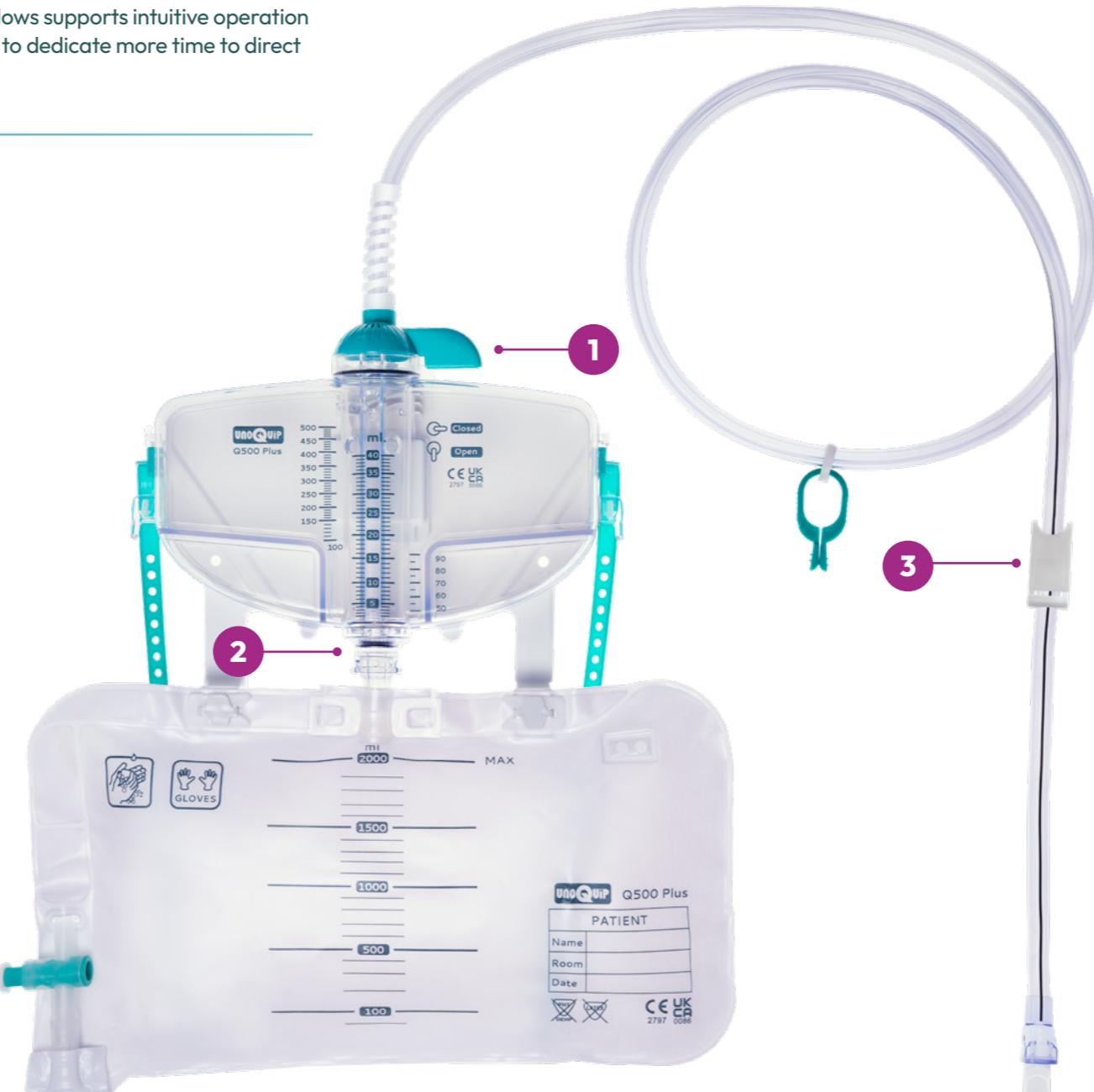


2L

3.5L



Q500 Plus Diuresis Measuring System with 3.5L Low-Profile Bag



### Secure, Flexible Attachment

Flexible hanging solutions allow quick and easy attachment to different bed types and mobility aids.

#### Hook



#### Cord



#### Straps



### Compact System

Short-length design maximises the distance to the floor and reduces the risk of contamination – even in direct comparison to front-mounted systems.



### Hygienic Three-Layer Packaging

The Q500 Plus comes in stable, three-layer packaging, allowing shelf boxes to be stored separately from the shipping carton for hygienic, space-saving storage and quick access. All boxes are FSC®-certified and fully recyclable.



## ORDERING INFORMATION

Reference	Capacity	Tube Length	Hanging Options	Bottom Outlet	Sampling Port Connector	Pack QTY.	
<b>Q500 PLUS DIURESIS MEASURING SYSTEM WITH T-TAP OUTLET, HANGING STRAPS</b>							
15810041	2.0L	1.1m	Straps	T-Tap	Luer slip	1/5/10	
15810121	2.0L	1.5m	Straps	T-Tap	Luer slip	1/5/10	
15810131	2.0L	2.0m	Straps	T-Tap	Luer slip	1/5/10	
15810015	2.0L	1.5m	Straps	T-Tap	LUER-LOCK	1/5/10	
<b>Q500 PLUS DIURESIS MEASURING SYSTEM WITH T-TAP OUTLET, HANGING STRAPS AND CORD</b>							
15920121	2.0L	1.5m	Straps, Cord	T-Tap	Luer slip	1/5/10	
<b>Q500 PLUS DIURESIS MEASURING SYSTEM WITH T-TAP OUTLET, HANGING STRAPS AND ROUND HOOK</b>							
15910041	2.0L	1.1m	Straps, Round Hook	T-Tap	Luer slip	1/5/10	
15910121	2.0L	1.5m	Straps, Round Hook	T-Tap	Luer slip	1/5/10	
15910131	2.0L	2.0m	Straps, Round Hook	T-Tap	Luer slip	1/5/10	
15910015	2.0L	1.5m	Straps, Round Hook	T-Tap	LUER-LOCK	1/5/10	
<b>Q500 PLUS DIURESIS MEASURING SYSTEM WITH USE-ONCE OUTLET, HANGING STRAPS</b>							
15810101	2.0L	1.1m	Straps	Use-Once	Luer slip	1/5/10	
15810061	2.0L	1.5m	Straps	Use-Once	Luer slip	1/5/10	
<b>Q500 PLUS DIURESIS MEASURING SYSTEM WITH 3.5L LOW-PROFILE BAG, T-TAP OUTLET, HANGING STRAPS, CORD AND ROUND HOOK</b>							
15930121	3.5L	1.5m	Straps, Round Hook, Cord	T-Tap	Luer slip	1/6/12	
Reference	Catheter Size	Capacity	Tube Length	Hanging Options	Bottom Outlet	Sampling Port Connector	Pack QTY.
<b>Q500 PLUS DIURESIS MEASURING SYSTEM PRECONNECTED TO SILICONE FOLEY CATHETER WITH T-TAP OUTLET, HANGING STRAPS AND ROUND HOOK</b>							
15941121	CH 14	2.0L	1.5m	Straps, Round Hook	T-Tap	Luer slip	1/6/12
15942121	CH 16	2.0L	1.5m	Straps, Round Hook	T-Tap	Luer slip	1/6/12
15943121	CH 18	2.0L	1.5m	Straps, Round Hook	T-Tap	Luer slip	1/6/12
Reference	Description	Pack QTY.					
<b>EXCHANGE BAGS FOR Q500 PLUS DIURESIS MEASURING SYSTEM</b>							
15840101	2.0L Change Bag with T-Tap Outlet	1/-/100					
15820101	2.0L Change Bag with Use-Once Outlet	1/-/100					
15830101	3.5L Low Profile Exchange Bag with Use-Once Outlet	1/-/100					
<b>OPTIONAL EMPTY BAG (NON-STERILE)</b>							
55003818	2.0L Urine Bag, 38cm Tube with Female Tube Connector, Non-Return Valve, Use-Once Outlet	1/50/200					
<b>OPTIONAL HOOKS FOR Q500 PLUS DIURESIS MEASURING SYSTEM (NON-STERILE)</b>							
16010021	Round Hook for Q500 Plus Urine Meter	-/10/250					
16010031	Square Hook for Q500 Plus Urine Meter	-/10/250					

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TO LEARN MORE**

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