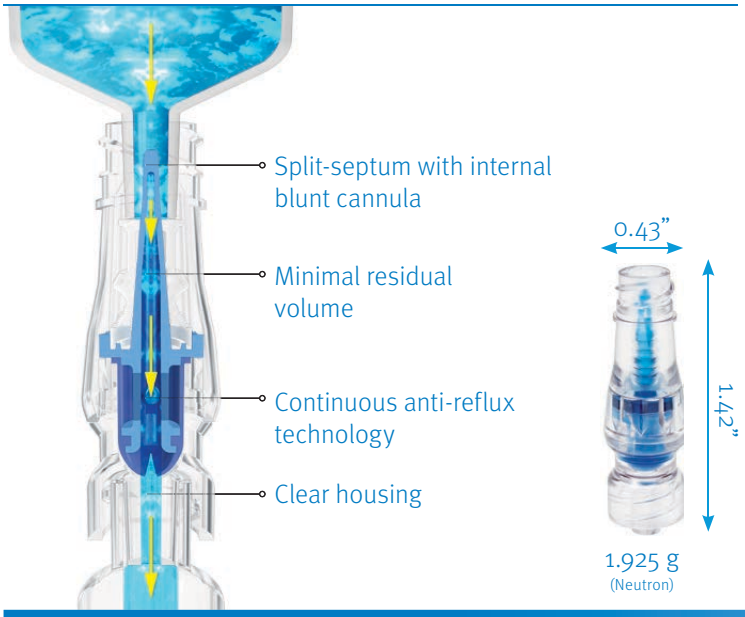
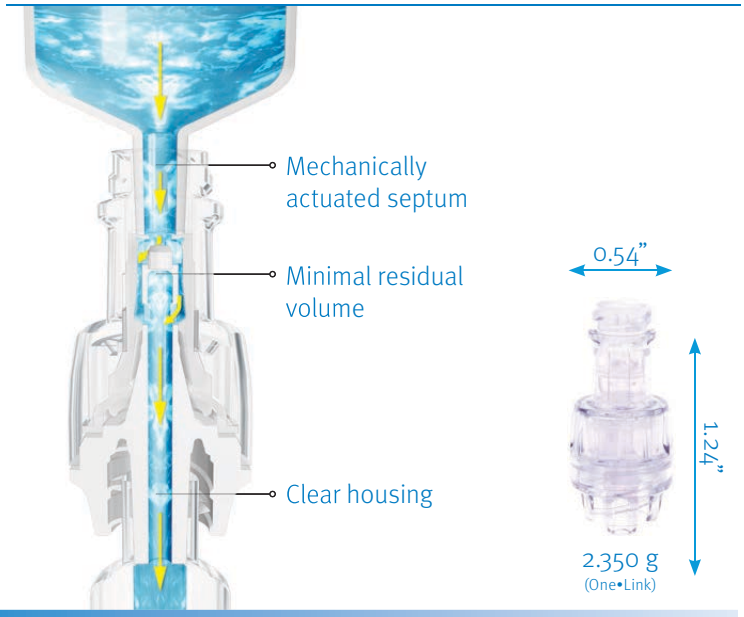
Neutron® and One•Link® Comparative Matrix

Neutron by ICU Medical Inc.



One•Link by Baxter Healthcare Corp.



PRODUCT PERFORMANCE	NEUTRON TECHNOLOGY	ONE•LINK TECHNOLOGY
Base Technology	Internal cannula and silicone compression seal split-septum. Internal cannula windows are exposed by the insertion of a male luer and cannula enters the male luer's internal space to achieve flow.	Mechanically actuated silicone septum. Insertion of a male luer compresses the silicone seal, forcing it against a rigid column, spreading open the top of the seal. Fluid enters the silicone seal chamber, then enters the column through two windows, achieving flow.
Anti-Reflux Technology	100% of the time. Bi-directional silicone valve and bellows combination remains closed unless infusion or aspiration pressure is exerted. The unique design actively absorbs and physically compensates for pressure variations that can result in blood reflux into a catheter.	None
Displacement	Neutral: 0 mL	Neutral: 0 to -0.01 mL
Residual Volume	0.1 mL	0.08 mL
Fluid Path	Straight through polycarbonate cannula. Laminar flow optimized through anti-reflux valve and bellows. Enhances flushing efficiency.	Fluid exits male luer into a silicone chamber, then into polycarbonate column.
Fluid Residual External on Disconnect	Minimal	Minimal
Flow Rate	100 mL/min	109 mL/min[1]
Clear Available	Yes	Yes
Patient Comfort	20% smaller profile 18% less weight	Larger and heavier than Neutron. Irregular profile.
Bacterial Transfer Performance	The least amount of bacterial transfer of any connector tested.[2]	Exhibits a higher bacterial transfer rate than Neutron.[2]
Catheter Patency Performance	The ICU Medical Neutron was the only connector to maintain catheter patency in all three tested connectors throughout the entire test timeframe of 11 days, including through three simulated reflux events on days 3, 6, and 9.[3]	Not measured. No anti-reflux capability.
Flushing Performance	Highly efficient. Connector cleared of blood elements with minimal flush volumes (approx. 4.5 mL).[4] Not recommended to change connector after blood draw.	Baxter recommends flushing One•Link connector with 10 mL or more after blood infusion/sampling. If One•Link connector cannot be cleared of blood after blood infusion/sampling, replace immediately.[5]

Performance data on file at ICU Medical Inc. San Clemente, CA 92673. Neutron Engineering Evaluation Test, July 11, 2011

1. ICU Medical Engineering Test Lab, July 31, 2012. Procedure P500-00037. Section 16.4. Data on file at ICU Medical.
2. Ryder M, Pulcini E, Parker A, James G. Presented at the World Congress on Vascular Access, June 2014. Comparison of bacterial transfer and biofilm formation on intraluminal catheter surfaces among fourteen Connectors in a clinically simulated in vitro model.
3. Ryder M. June 2011. A pilot study evaluation of three needlefree IV connectors and their ability to maintain catheter patency over an 11-day period.
4. Breznock E, Sylvia C. BioSurg, Inc., 2011. The in vivo evaluation of the flushing efficiency of the Neutron needlefree catheter patency device compared to two other connectors commonly used on central and PICC lines.
5. Baxter One•Link 7N8399 Directions For Use. Reference 07-19-65-473 12/2010.

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