## MicroClave® and TKO-6 Comparative Matrix

### MicroClave by ICU Medical Inc.**

- **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.

- **Displacement**: Neutral: 0 to -0.01 mL

- **Residual Volume**: 0.04 mL

- **Fluid Path**: Straight through polycarbonate cannula. Enhances flushing efficiency.

- **Disinfection Directions**: Swab with 70% isopropyl alcohol using an aggressive circular motion for three seconds.

- **Moving Parts in Fluid Path**: No

- **Number of Assembly Parts**: 3, of which 1 moves on luer access.

- **Fluid Residual External on Disconnect**: Minimal

- **Clamping Sequence**: None required

- **Flow Rate**: 165 mL/min

- **Clear Available**: Yes

- **Antimicrobial Available**: Yes

- **Patient Comfort**: 22% smaller profile, 34 to 36% less weight. Smooth profile.

- **Bacterial Transfer Performance**: The least amount of bacterial transfer of any connector tested.\(^3\)

- **Flushing Performance**: Highly efficient. Connector clear of blood elements with minimal flush volumes from 2 to 7.5 mL. Not recommended to change connector after blood draw.

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### TKO-6 by Nexus Medical, LLC.

- **Mechanically actuated septum**

- **Multi-conduit fluid path**

- **Check valve**

- **Clear housing**

- **0.55”**

- **1.44”**

- **2.837 g**

- **0.55”**

- **1.44”**

- **1.874 g**

- **1.807 g**

### Performance Data

- Performance data on file at ICU Medical Inc. San Clemente, CA 92673. Reference ENG-433

- Performance data on file at ICU Medical Inc. San Clemente, CA 92673. Nexus TKO-6 Engineering Test, October 10, 2012
How does MicroClave fluid path technology differ from TKO-6?

**MicroClave**

The MicroClave incorporates an internal cannula and split-septum silicone compression seal. Upon insertion of a male luer, the silicone seal is depressed and the fluid path windows are exposed through the device’s split-septum. MicroClave’s patented split-septum/blunt cannula design allows for a straight-through fluid path with minimal residual volume.

**TKO-6**

Insertion of a male luer compresses the silicone seal, forcing it against a rigid column and spreading open the top of the seal. Fluid enters the silicone seal chamber and then enters the column through two windows, achieving flow.

The male luer depresses the silicone, forcing it against a rigid internal column which spreads the pre-split septum. The rigid column incorporates four channels to allow fluid flow around the spike, into the silicone, then into the windows of the spike.

1. Nexus TKO-6 Technical Specification Sheet
2. ICU Medical Engineering Lab Test Report