



Designed to help keep your most precious patients safe by minimizing flush volumes and providing a safe and effective microbial barrier.



## NanoClave™

Low Profile Neutral Displacement  
Needlefree Connector

Specifically designed with a small size and minimal residual volume for use on neonatal and pediatric patients.

**icumedical**  
human connections

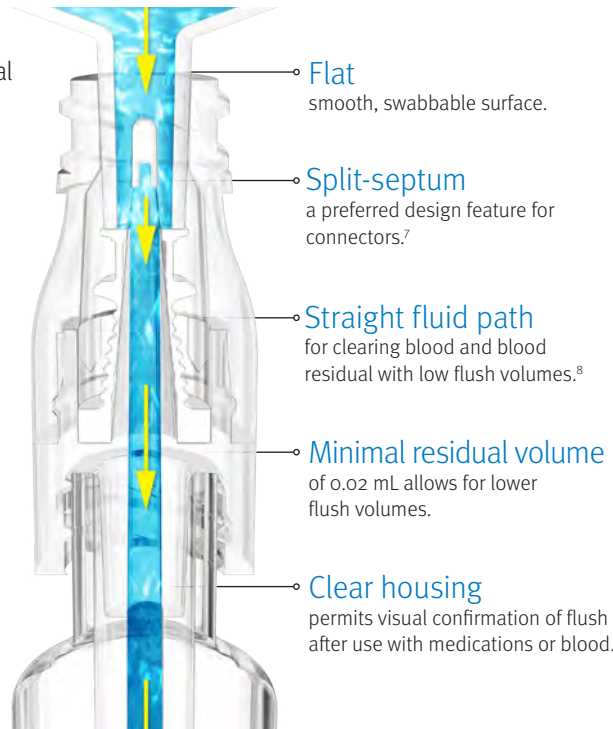
The NanoClave low profile neutral displacement connector is specifically designed to help keep your delicate neonatal and pediatric patients safe from infection while effectively managing their fluids. NanoClave provides a proven microbial barrier against bacteria transfer and contamination, and its 0.02 mL residual volume allows for minimal flushing volumes.<sup>1,2</sup>

Effectively managing patient fluids and electrolyte status is one of the most critical elements of neonatal infusion therapy.<sup>3,4</sup>

Neonates face an increased risk for both dehydration and fluid overload, resulting from low renal capacity for urine concentration and dilution.<sup>4,5</sup> As a result, neonatal fluid and electrolyte requirements must be carefully calculated and monitored.

NanoClave may help your efforts to maintain appropriate patient fluid balance by reducing the volume of flush solution required to clear the IV connector of blood components.

Because it is a neutral displacement device, NanoClave does not require a change in clinical practice or technique and may help you address recent concerns raised by the FDA regarding the safety of positive displacement connectors.<sup>6</sup>



## Features:

- › Can be used on all peripheral, arterial, and central venous catheters for the administration of IV fluids or medications, and can be used with blood products.
- › Clear housing allows for visualization of the internal fluid path upon flushing the connector.
- › Effectively clears blood and blood residual with low flush volumes.<sup>9</sup>
- › Minimal blood reflux in the catheter tip upon connection or disconnection of a luer.
- › Clamping sequence not required, reducing educational burden and risk of error.
- › Allows a saline flush option which can eliminate the risk of Heparin Induced Thrombocytopenia (HIT).

Minimal flush volume to help you maximize patient safety.  
The perfect choice for neonatal and pediatric patients.

TECHNICAL SPECIFICATIONS	
Residual Volume	0.02 mL
Flow Rate at Gravity	145 mL / minute
Blood Compatibility	Yes
MRI Compatibility	Yes
High Pressure Compatibility	N/A

DRUG COMPATIBILITY	
Alcohol	Yes
Lipids	Yes
Chlorhexidine	Yes
Chemotherapy	Yes



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4. Aggarwal R, Deorari A, Paul VK. Fluid and electrolyte management in term and preterm neonates. Department of Pediatrics, Division of Neonatology, All India Institute of Medical Sciences. Ansari Nagar, New Delhi.
5. Bell EF, Acarregui MJ. Restricted versus liberal water intake for preventing morbidity and mortality in preterm infants. *Cochrane Database Syst Rev* 2000;(2):CD000503.
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8. Data on file at ICU Medical. Low Volume Flush Characteristics of Unique Needlefree Connectors M1-1223 Rev. 1.
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