

Technical Sheet

Product order number: 12-0242-000
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ResQPOD®

Perfusion on Demand

ResQPOD® Impedance Threshold Device

The ResQPOD is an impedance threshold device (ITD) that provides **Perfusion on Demand** (POD) by regulating pressures in the thorax during states of hypotension.

Animal and clinical studies* have shown that during CPR, the ResQPOD:

- Doubles blood flow to the heart
- Increases blood flow to the brain by 50%
- Doubles systolic blood pressure
- Increases survival rates
- Increases the likelihood of successful defibrillation
- Provides benefit in all arrest rhythms
- Circulates drugs more effectively



ADVANCED CIRCULATORY SYSTEMS, INC.

ResQPOD®



Technical Specifications

Construction Description: Material

Exterior Housing:
Polycarbonate

Interior Molded Components:
Polycarbonate

Diaphragm:
Silicone

Valve Gasket:
Silicone

Valve Spring:
Nickel coated stainless steel

Note: The ResQPOD does not contain latex

Timing Assist Lights

Power Source:
Lithium button battery

Physical Specifications

Patient side connection:
15 millimeters ID
22 millimeters OD

Ventilation side connection:
22 millimeters ID

Height:
8.2 centimeters (3.25 inches)

Diameter:
5.3 centimeters (2.1 inches)

Circumference:
16.6 centimeters (6.6 inches)

Weight:
62 grams

Dead Space:
41 milliliters

Valve Cracking Pressure:
-10 cmH₂O

Airway Impedance:
< -5 cmH₂O

Timing Assist Lights Flash Rate:
10/minute

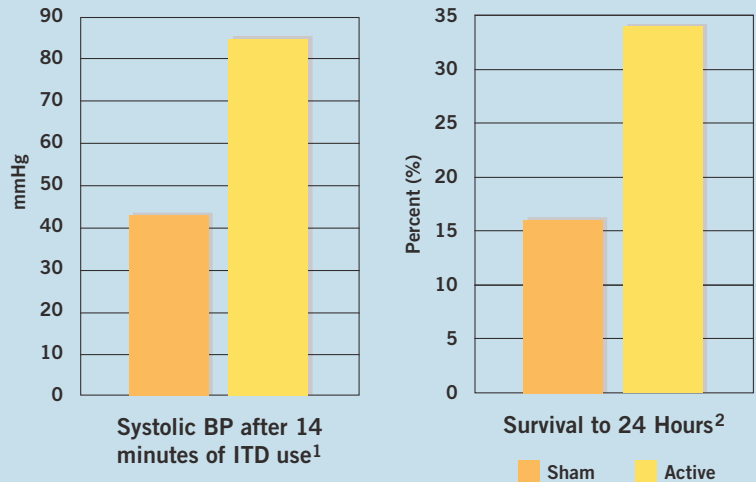
Operating Conditions:
-18° to +45° C.

Storage Conditions:
-40° to +60° C.

Shelf Life:
Four years

Clinical Data

The ResQPOD, or an earlier version of the ITD, has been evaluated in over 12 animal and 11 clinical studies (www.advancedcirculatory.com). These studies have shown that the ResQPOD doubles blood flow to the heart and brain, and significantly increases circulation and survival in out-of-hospital cardiac arrest. In a Milwaukee (WI) study of cardiac arrest patients undergoing conventional CPR, systolic blood pressure and 24-hour survival rates in patients presenting in a rhythm other than asystole almost doubled when an active (functional) ITD was used compared to a sham (placebo) ITD ($p < 0.05$ for both).



1 Pirrallo et al. Effect of an inspiratory ITD on hemodynamics during conventional manual CPR. *Resuscitation* 2005;66:13–20.

2 Aufderheide et al. Clinical evaluation of an inspiratory ITD during standard CPR in patients with out-of-hospital cardiac arrest. *Crit Care Med* 2005;33(4):734–40.

*The generally cleared indication for the ResQPOD is for a temporary increase in blood circulation during emergency care, hospital, clinic and home use. Studies are ongoing in the United States to evaluate the long-term benefit of the ResQPOD for indications related to patients suffering from cardiac arrest. This information is not intended to imply specific outcome-based claims not yet cleared by the US FDA.