

OptiSense™ Lead (Model 1699)

Frequently Asked Questions



What are some of the key features of the OptiSense™ lead (model 1699)?

The OptiSense lead is designed to mitigate paced far-field R-waves. This feature reduces inappropriate mode switching, thereby maintaining A-V synchrony. Clarified atrial sensing provides accurate atrial diagnostics and therapies. The tip-to-ring spacing allows for more options in targeted lead placement.

What makes this lead a unique product?

The only lead on the market with the shortest tip-to-ring spacing (1.1 mm), the OptiSense lead is designed to reduce far-field oversensing. Previous models maintained a minimum 10 mm tip-to-ring spacing.

Is the OptiSense lead body the same as a previous model?

Yes. The OptiSense lead has the same 6.2 F lead body as the Tendril™ SDX 1688 lead and will fit through a 7 F introducer.

How long is the helix?

The helix is 2.0 mm.

Does the OptiSense lead have a mapping collar?

No. Mapping is achieved through the helix.

What is the surface area of the cathode?

Since the mapping collar is not present, the helix is the only active cathode. Its surface area is 7 mm².

Has the anode ring changed?

Yes. The anode ring surface area is 17 mm² compared to 16 mm² in the Tendril™ 1688 lead.

Does the small tip-to-ring spacing affect P-wave sensing, capture thresholds, or lead impedances?

Clinical studies show that the reduced tip-to-ring spacing does not affect P-wave sensing, capture thresholds, or lead impedances.*

What did the results of the clinical study show?

The clinical study showed that the OptiSense lead reduces paced far-field R-wave amplitudes by 94 percent and the number of patients with inappropriate mode switching by 73 percent compared to a standard 10 mm tip-to-ring spacing lead.*

Should the OptiSense lead be used as an atrial lead only?

Yes. Currently, this lead is approved for only atrial use with pacemakers and ICDs.

How can this lead improve patient management?

By reducing paced far-field R-waves, the OptiSense lead allows for increased atrial sensitivity settings. It also helps filter out far-field signals that in the past would have had to have been blocked by increasing blanking periods. These settings allow the device to sense small atrial signals that could be missed with other leads.

Does the OptiSense™ lead affect the QuickOpt™ optimization A-V optimization test?

The OptiSense lead is designed to reject far-field signals by minimizing the tip-to-ring (dipole) spacing. This also has the effect of reducing the sensed P-wave duration. The QuickOpt feature determines the A-V timing based on the P-wave duration. Therefore, it is possible that the QuickOpt A-V timing recommendation may be different when using the OptiSense lead versus a traditional bipolar lead.

How does the OptiSense™ lead operate with QuickOpt™ optimization on different devices?

When using the OptiSense lead, a QuickOpt optimization A-V test can be conducted by programming the lead to a unipolar configuration. The device software for Zephyr™ pacemakers, Frontier® II bi-ventricular pacemakers, Promote™ ICDs, and Current™ ICDs will automatically program to unipolar during the QuickOpt optimization A-V test.

For Atlas® II ICDs, Epic® II ICDs, and all previous ICD families, A-V optimization can only be done in a bipolar configuration. This may lead to a different QuickOpt optimization A-V timing recommendation. If your physician has concerns, simply program the A-V delays manually and use QuickOpt optimization only for V-V optimization.

Does the OptiSense™ lead affect the QuickOpt™ optimization V-V optimization test?

No. The OptiSense lead is approved for atrial use only, and the V-V timing algorithm does not use atrial measurements.

* OptiSense™ lead Clinical PMA Report, November 2006.



**Cardiac Rhythm
Management Division**
15900 Valley View Court
Sylmar, CA 91342 USA
+1 818 362-6822
+1 818 362-7182 Fax

www.sjm.com

St. Jude Medical AB
Veddestavägen 19
SE-175 84 Järfälla
SWEDEN
+46 8 474 4000
+46 8 760 9542 Fax

St. Jude Medical Coordination Center
The Corporate Village
Building Figueras
avenue Da Vinci laan 11-
Box F1/1935 Zaventem
Belgium
+32.2.774.68.86
+32.2.774.68.43 Fax

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