

LINQ II™

PRODUCT SPECIFICATIONS

Model LNQ22

Device Characteristics

Physical characteristics

Parameter	Value
Volume	1.4 cm ³
Mass	3.4 g
Dimensions H x W x D	45.1 mm x 8.0 mm x 4.2 mm
Surface area of device electrode	16.0 mm ²
Distance between the electrodes	40 mm

MRI Compatibility and Telemetry

Parameter	Value
MRI Compatibility	1.5T and 3T Full body; no post-insertion waiting required
Telemetry	BlueSync technology (Bluetooth® Low Energy; two-way communication)

Device materials in contact with human tissue

Parameter	Value
Device	Titanium, sapphire
Electrodes	Titanium nitride
Coating	Titanium nitride

Insertion tools in contact with human tissue

Parameter	Value
Incision tool	Polycarbonate, stainless steel
Insertion tools	Polycarbonate

Battery Characteristics

Battery characteristics

Parameter	Value
Manufacturer	Medtronic
Chemistry	Lithium anode Silver vanadium oxide (SVO) and fluorinated carbon (CFx) cathode
Projected longevity	4.5 years*

*Under the following usage scenario:

- App Optimization OFF (nominal setting)
- An average of 1 auto-detected episode per day
- An average of 1 patient-activated episode per month
- A shelf-storage time of 6 months or less between device manufacture and insertion
- PVC Detection enabled

Compatible Devices

Parameter	Value
In-clinic Programmer	Reveal LINQ™ Mobile Manager
Patient Monitor	MyCareLink Heart™ Mobile App, or MyCareLink Relay™ Home Communicator
Symptom Marker	MyCareLink Heart™ Mobile App, or Patient Assistant PA97000 (for MyCareLink Relay™ Home Communicator)

Contents of package

- LINQ II™ Insetable Cardiac Monitor (preloaded in the included insertion tool handle)
- Incision tool
- Insertion tool plunger
- Insertion tool handle
- Product documentation



LINQ II™
Insetable Cardiac Monitor

- BlueSync™ technology
- 4.5 years longevity*
- Remote Programming
- TruRhythm™ Detection
- Pause Detection Algorithm
- PVC Detection Algorithm
- Smart Memory Management

Programmable Parameters

The default settings for each Reason for Monitoring setting are shown in **Table 1** and **Table 2**. The settings described in these two tables are followed by both the clinician app and the CareLink Network for remote programming. When the Reason for Monitoring is set, it will in turn set other settings to the pending values reflected in these tables.

TABLE 1: Parameters automatically set to pending according to Reason for Monitoring: Syncope, Cryptogenic Stroke, Suspected AF, AF Ablation, AF Management

PARAMETER	SYNCOPE	CRYPTOGENIC STROKE	SUSPECTED AF	AF ABLATION	AF MANAGEMENT
Tachy Detection Enable	ON	ON	ON	ON	ON
Tachy Rate ^a	230 min ⁻¹ – age	230 min ⁻¹ – age	230 min ⁻¹ – age	230 min ⁻¹ – age	230 min ⁻¹ – age
Tachy Duration	16	16	16	16	16
Tachy: Require Rapid Onset	ON	ON	ON	ON	ON
Brady Detection Enable	ON	ON	ON	ON	ON
Brady Rate	30	30	30	30	30
Brady Duration	4	12	12	12	12
Brady: Nighttime ECGs Stored	1 ECG	None	None	None	None
Pause Detection Enable	ON	ON	ON	ON	ON
Pause Duration	3	5	5	5	5
PVC Detection Enable	OFF	OFF	OFF	OFF	OFF
AT/AF Detection Enable	AF only	AF only	AF only	AF only	AF only
Symptom (Patient Activated Storage Mode)	Two 15 min episodes	OFF	OFF	OFF	OFF
AF: Detection Sensitivity	Least	Balanced	Less	Balanced	Balanced
AT/AF: Ectopy Rejection	Aggressive	Aggressive	Nominal	Nominal	Nominal
AT/AF: Recording Threshold	≥ 10 min	All	≥ 6 min	All	All
Mobile App Optimization	OFF	OFF	OFF	OFF	OFF

^a For all Reasons for Monitoring, Tachy Detection Interval is programmed automatically to the closest value less than or equal to 230 min⁻¹ minus the patient's age, as calculated from the information entered in the patient's Date of Birth.

TABLE 2: Parameters automatically set to pending according to Reason for Monitoring: Palpitations, Ventricular Tachycardia, Seizures, Other

PARAMETER	PALPITATIONS	VENTRICULAR TACHYCARDIA	SEIZURES	OTHER
Tachy Detection Enable	ON	ON	ON	ON
Tachy Rate ^a	230 min ⁻¹ – age	230 min ⁻¹ – age	230 min ⁻¹ – age	230 min ⁻¹ – age
Tachy Duration	16	16	16	16
Tachy: Require Rapid Onset	ON	OFF	ON	ON
Brady Detection Enable	ON	ON	ON	ON
Brady Rate	30	30	30	30
Brady Duration	12	12	12	12
Brady: Nighttime ECGs Stored	None	None	None	None
Pause Detection Enable	ON	ON	ON	ON
Pause Duration	5	5	5	5
PVC Detection Enable	OFF	OFF	OFF	OFF
AT/AF Detection Enable	AF only	AF only	AF only	AF only
Symptom (Patient Activated Storage Mode)	Two 15 min episodes	Two 15 min episodes	Two 15 min episodes	OFF
AF: Detection Sensitivity	Less	Least	Least	Less
AT/AF: Ectopy Rejection	Nominal	Aggressive	Aggressive	Aggressive
AT/AF: Recording Threshold	≥ 6 min	≥ 10 min	≥ 10 min	≥ 10 min
Mobile App Optimization	OFF	OFF	OFF	OFF

Remote Programming

The Medtronic CareLink™ Network website allows to change LINQ II™ device settings and parameters without the patient being present. Patient and device data are accessible by selecting MANAGE MY PATIENTS and then selecting the patient's name.

^a For all Reasons for Monitoring, Tachy Detection Interval is programmed automatically to the closest value less than or equal to 230 min⁻¹ minus the patient's age, as calculated from the information entered in the patient's Date of Birth.

ECG Data Storage and Transmission

The LINQ II™ ICM stores arrhythmia episode data, including ECGs, for episode types that are programmed On and for patient-activated episodes. Episode data is stored in episode records and episode logs.

Smart Memory Management

- Up to 23 full ECG per day stored and transmitted:
 - First 2 and longest auto episode ECG per type
 - Up to 7 additional episodes without ECG per type
 - Up to 3 Symptom Marked ECG
 - First 2 Symptom/Auto Correlated ECG

Episode Types and Storage

Parameter	Value
Arrhythmia Episodes Types	VT, FVT, AT, AF, Brady, Pause (Asystole)
Automatically Detected Episodes Storage	Up to 27 min: <ul style="list-style-type: none">First 2 min for AT/AF episodes;30s before and up to 27s before the end of the episode, for Tachy, Brady and Pause episodes
Patient-Activated Symptom Episodes Storage	Up to 30 min: <ul style="list-style-type: none">3 episodes x 10 min (9 min before and 1 min after activation);2 episodes x 15 min (14 min before and 1 min after activation)
Symptom/Auto Correlated Episodes	Up to 4 min

Cardiac Compass

Cardiac Compass Graphs show trends in the occurrence of arrhythmias, average daytime and nighttime ventricular rates, the amount of physical activity, PVCs, and heart rate variability.

Trend graphs

Parameter	Value
Storage capacity	Up to 14 months
Programming and interrogation events	Report with device interrogations and reprogramming
Patient symptoms	Symptoms occurrence recorded using the patient app or Patient Assistant
AT/AF total time per day	Daily total for the time (burden) the patient spent in atrial arrhythmia; may be reported in hours or minutes per day depending on the maximum (total) atrial arrhythmia duration per day.
Ventricular rate during AT/AF	Daily median ventricular rates plot during episodes of atrial arrhythmia.
Average ventricular rate	Day and night heart rates trend
Patient activity	Weekly patient activity trend
Heart rate variability	Daily heart rate variability trend
PVC	Daily percent of beats detected as PVCs trend
Ventricular rate during AT/AF histogram (time in or out of AT/AF)	Histogram with ventricular events occurred during automatically detected AT/AF episodes. AT/AF burden expressed in both the percentage of time and the total time that the patient spent in or out of AT/AF.

Brief Statement

See the device manual for detailed information regarding the instructions for use, the implant procedure, indications, contraindications, warnings, precautions, and potential adverse events. If using an MRI SureScan™ device, see the MRI SureScan™ technical manual before performing an MRI. For further information, contact your local Medtronic representative and/or consult the Medtronic website at www.medtronic.eu.

For applicable products, consult instructions for use on www.manuals.medtronic.com. Manuals can be viewed using a current version of any major internet browser. For best results, use Adobe Acrobat® Reader with the browser.

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