Solvia Rise DR-T
MR Conditional Dual-Chamber Pacemaker
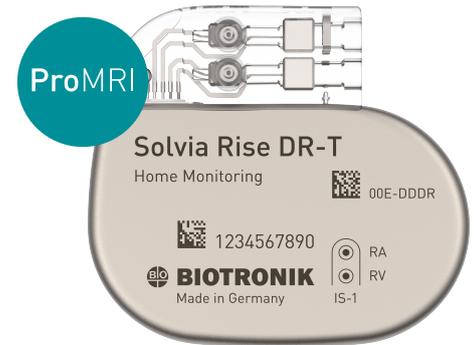
ProMRI

Solvia Rise DR-T
Home Monitoring

00E-DDDR

1234567890

RA
RV

BIOTRONIK
Made in Germany

IS-1

Ordering Information

Model	Connectors	Volume/Weight	Dimensions	Order number
Solvia Rise DR-T	IS-1 (2x)	11 cm³/23.2 g	48 x 44 x 6.5 mm	460227

Product Highlights

Closed Loop Stimulation (CLS)

BIOTRONIK Home Monitoring®

MRI Guard 24/7

EarlyCheck

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Solvia Rise DR-T

Technical Data

MR Conditional

ProMRI	For combination of MR Conditional devices, please see the manual "ProMRI MR Conditional device systems"

Closed Loop Stimulation

CLS mode	DDD-CLS; VVI-CLS
Max. CLS rate	80 ... (10) ... 180 bpm

Expert parameters

CLS response	Very low; Low; Medium; High; Very high
CLS resting rate control	OFF; +10 ... (10) ... +50 bpm
Vp required	Yes ; No

Pacing Parameters

NBD-NBG code	00E-DDR
Mode	DDD-CLS; VVI-CLS; DDDR-ADIR; DDDR; DDIR; VVIR; AAIR; D00; DDD-ADI; DDD; DDI; VVI; AAI; V00; VDDR; VDIR; DDT; VDD; VDI; VVT; OFF
Basic rate	30 ... (5) ... 100 ... (10) ... 200 bpm
Night rate	OFF; 30 ... (5) ... 100 bpm
Rate hysteresis	OFF; -5 ... (-5) ... -25 ... (-20) ... -65 bpm
Scan/Repetitive	OFF; ON
Rate fading	OFF; ON

Mode switching

Intervention rate	OFF; 100 ... (10) ... 250 bpm
Onset criterion	3 ... (1) ... 8 out of 8
Resolution criterion	3 ... (1) ... 8 out of 8

Mode switching expert parameters

Change of basic rate	OFF; +5 ... (5) ... +30 bpm
Post ModeSw rate	OFF; +5 ... (5) ... +50 bpm
Post ModeSw duration	1 ... (1) ... 30 min
Rate stabilization during mode switching	OFF; ON
2:1 Lock-in protection	OFF; ON
Vp suppression	OFF; ON (programmable via the modes DDDR-ADIR and DDD-ADI)
Pacing suppression	1 ... (1) ... 8 consecutive Vs
Pacing support	1 ... (1) ... 4 out of 8 cycles
Pulse amplitude (A, RV)	0.5 ... (0.25) ... 4.0 ... (0.5) ... 6.0; 7.5 V
Pulse width (A, RV)	0.1 ... (0.1) ... 0.5 ... (0.25) ... 1.5 ms
Capture control (A, RV)	OFF; ATM; ON
Sensing (A)	OFF; AUTO; 0.1 ... (0.1) ... 1.5 ... (0.5) ... 7.5 mV
Sensing (RV)	OFF; AUTO; 0.5 ... (0.5) ... 7.5 mV
AV delay	15...(5)...300 ms, fixed; 40...(5)...350 ms dynamic
AV dynamics	Low; Medium; High; Fixed
Sense compensation	OFF; -5 ... (-5) ... -120 ms
AV hysteresis mode	OFF; Positive; Negative; IRSplus

Arrhythmia Detection and Redection

AT/AF detection	HAR limit
HAR limit	100 ... (10) ... 250 bpm
AT/AF counter	Detection counter: 36 out of 48; Termination counter: 20 out of 24
HVR detection	HVR limit
HVR limit	4 ... (4) ... 20 ... (5) ... 60 Events

Tachycardia Therapy

Atr. NIPS	Burst Pacing; Programmed Stimulation
PMT detection/termination	OFF; ON

Leads

Automatic lead check (A, RV)	ON; OFF
Lead configuration (A, RV)	Unipolar; Bipolar

MRI

MRI mode	A00; D00; V00; AUTO
Basic rate	Mean rate + 15 bpm; 70 ... (5) ... 100 ... (10) ... 160 bpm

Timing Parameters

Upper rate	90 ... (10) ... 200 bpm
Atrial upper rate	OFF; 175; 200; 240 bpm
Atrial refractory period	AUTO (AV delay but at least 225 ms)
RV refractory period	200 ... (25) ... 500 ms
PVARP	AUTO; 175 ... (25) ... 600 ms
Blanking after atr. pacing RV	30 ... (5) ... 70 ms

Physical Parameters

Service time	14 years, 10 months[1] [1]A/RV: 2.5 V/0.4 ms, 60 bpm, 500 Ω; A: pacing: 50 %; RV: pacing: 5 %; Home Monitoring: OFF, QuickCheck: OFF, RF telemetry: OFF, Vp Suppression: ON
Electrically conductive surface	29.9 cm²

Additional Parameters

Magnet response	AUTO (10 cycles asynchronous; then basic rate synchronous), asynchronous, synchronous
IEGM recording	17 recordings, at least 16 seconds each Total recording time approx. 5 minutes
Auto initialization	ON

Recording Episodes

High atrial rate	OFF; ModeSw; AT
High ventricular rate	OFF; ON
For nsT	OFF; ON
Patient trigger	OFF; ON

Tests

Different tests for	Impedance, Sensing, Pacing threshold, Retrograde conduction, AV optimization

Program Sets

Programs	Standard program; ProgramConsult; Individual program (1-3, individually programmable); First interrogated program; Safe program

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Transmitted Data	AF diagnostics, Heart Failure Monitor diagnostics, Detection and therapy counters, Statistics, Lead measurement values, Battery status, Program parameters, Threshold (A/RV), Sensing amplitude (A/RV), Pacing statistics, Arrhythmia statistics (A/RV)

Message types	
Trend message	Triggered automatically once every 24 hours

Programmer Settings	
Home Monitoring	OFF; ON (ON by default)
Ongoing atrial episode	OFF; 6 h; 12 h; 18 h

Home Monitoring-supported follow-up	
Remote Scheduling	Enable; Disable
HM follow-up intervals/alignment	Individually programmable first date and repetition intervals varying from 20-366 days; Alignment with a specific day of the week; Only working days or no day alignment
EarlyCheck	Automatic first Home Monitoring-supported follow-up 2 hours after implantation detection
Transmitted data	Periodic IEGM; Rate histogram (V); Device settings and statistics

Please refer to the technical manual of the device for further technical information.

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Solvia Rise SR-T

MR Conditional
Single-Chamber Pacemaker
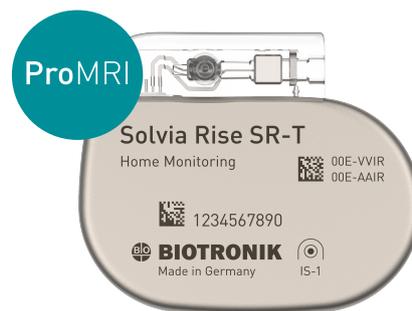
Ordering Information

Model	Connectors	Volume/Weight	Dimensions	Order number
Solvia Rise SR-T	IS-1 (1x)	10 cm³/20.8 g	48 x 40 x 6.5 mm	460228

Product Highlights

Closed Loop Stimulation (CLS)	BIOTRONIK Home Monitoring®
MRI Guard 24/7	EarlyCheck

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Technical Data

MR Conditional

ProMRI	For combination of MR Conditional devices, please see the manual "ProMRI MR Conditional device systems"

Closed Loop Stimulation

CLS mode	VVI-CLS
Max. CLS rate	80 ... (10) ... 180 bpm

Expert parameters

CLS response	Very low; Low; Medium; High; Very high
CLS resting rate control	OFF; +10 ... (10) ... +50 bpm
Vp required	Yes ; No

Pacing Parameters

NBD-NBG code	00E-VVIR/00E-AAIR
Lead position	A, RV
Mode (when lead position RV)	VVI-CLS; VVIR; VVI; V00; VVT; OFF
Mode (when lead position A)	AAIR; AAI; OFF
Basic rate	30 ... (5) ... 100 ... (10) ... 200 bpm
Night rate	OFF; 30 ... (5) ... 100 bpm
Rate hysteresis	OFF; -5 ... (-5) ... -25 ... (-20) ... -65 bpm
Scan/Repetitive	OFF; ON
Rate fading	OFF; ON
Pulse amplitude	0.5 ... (0.25) ... 4.0 ... (0.5) ... 6.0; 7.5 V
Pulse width	0.1 ... (0.1) ... 0.5 ... (0.25) ... 1.5 ms
Capture control	OFF; ATM; ON
Sensing (A)	OFF; AUTO; 0.1 ... (0.1) ... 1.5 ... (0.5) ... 7.5 mV
Sensing (RV)	AUTO; 0.5 ... (0.5) ... 7.5 mV

Arrhythmia Detection and Redection

AT/AF detection (when lead position A)	HAR limit
HAR limit	100 ... (10) ... 250 bpm
HVR detection (when lead position RV)	HVR limit
HVR limit	150 ... (5) ... 200 bpm
HVR counter	4 ... (4) ... 20 ... (5) ... 60 Events

Leads

Automatic lead check	ON; OFF
Lead configuration	Unipolar; Bipolar

MRI

MRI mode (when lead position RV)	V00; AUTO
MRI mode (when lead position A)	A00; AUTO
Basic rate	70 ... (5) ... 100 ... (10) ... 160 bpm

Timing Parameters

Atrial refractory period (when lead position A)	300 ... (25) ... 775 ms
Sensing	AUTO; 0.5 ... (0.5) ... 7.5 mV
RV refractory period (when lead position RV)	200 ... (25) ... 500 ms

Physical Parameters

Service time	15 years, 1 month[1] [1]At 2.5 V/0.4 ms, 60 bpm, 500 Ω; pacing: 50 %; Home Monitoring: OFF, RF telemetry: OFF
Electrically conductive surface	29.9 cm²

Additional Parameters

Magnet response	AUTO (10 cycles asynchronous; then basic rate synchronous), asynchronous, synchronous
IEGM recording	17 recordings, at least 16 seconds each Total recording time approx. 5 minutes
Auto initialization	ON

Recording Episodes

High atrial rate (when lead position A)	OFF; AT
High ventricular rate (when lead position RV)	OFF; ON
For nsT (when lead position RV)	OFF; ON
Patient trigger	OFF; ON

Tests

Different tests for	Impedance, Sensing, Pacing threshold

Program Sets

Programs	Standard program; ProgramConsult; Individual program (1-3, individually programmable); First interrogated program; Safe program

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Transmitted Data	Heart Failure Monitor diagnostics, Detection counters, Statistics, Lead measurement values, Battery status, Program parameters, Threshold, Sensing amplitude, Pacing statistics, Arrhythmia statistics
Message types	
Trend message	Triggered automatically once every 24 hours
Programmer Settings	
Home Monitoring	OFF; ON (ON by default)

Home Monitoring-supported follow-up	
Remote Scheduling	Enable; Disable
HM follow-up intervals/alignment	Individually programmable first date and repetition intervals varying from 20-366 days; Alignment with a specific day of the week; Only working days or no day alignment
EarlyCheck	Automatic first Home Monitoring-supported follow-up 2 hours after implantation detection
Transmitted data	Periodic IEGM; Rate histogram (V); Device settings and statistics

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