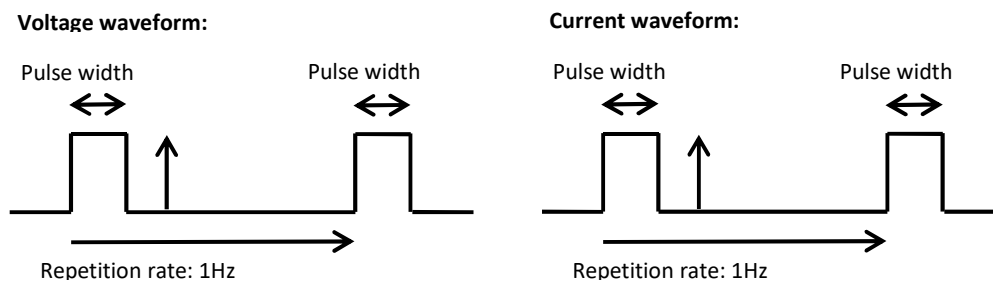


## OnPulse™ Neuromuscular Stimulator Technical Specifications

Product name	geko™			geko™ plus	firefly™	
Model reference	T-1	T-2	W-2/XW-2	R-2	T-1	T-2
Product type	<b>Powered muscle stimulator</b>					
Class	<b>BF</b> (The entire device is considered to be a patient applied part)					
Dimensions	149mm x 42mm x 11mm	186mm x 31mm x 11mm		186mm x 31mm x 11mm	149mm x 42mm x 11mm	186mm x 31mm x 11mm
Weight	16g (device only)	10g (device only)		10g (device only)	16g (device only)	10g (device only)
Power source	Internally powered equipment, <b>battery not replaceable</b>					
Battery	<b>Primary lithium coin cell</b> - removable for disposal					
Operation	<b>continuous operation</b> – equipment not suitable for use in presence of flammable anaesthetic mixture with air or with oxygen or nitrous oxide					
Stimulation modes	7 (selected pulse widths)		10 (selected pulse widths)	8 (selected pulse widths)	7 (selected pulse widths)	
Pulse current	27mA	27mA	54mA	54mA	27mA	27mA
Load impedance	200Ω to 3kΩ for 27mA output	200Ω to 3kΩ for 27mA output	200Ω to 3kΩ for 54mA output	200Ω to 3kΩ for 54mA output	200Ω to 3kΩ for 27mA output	200Ω to 3kΩ for 27mA output
Pulse voltage	Set by current and load					
Pulse width ±10%	70, 100, 140, 200, 280, 400 and 560µs	50, 70, 100, 140, 200, 280, 400µs	25, 35, 50, 70, 100, 140, 200, 280, 400 and 560µs	50, 70, 100, 140, 200, 280, 400 and 560µs	70, 100, 140, 200, 280, 400 and 560µs	50, 70, 100, 140, 200, 280, 400µs
Repetition rate	1HZ (±5%)					
Maximum charge	20µC per pulse	20µC per pulse	40µC per pulse	40µC per pulse	20µC per pulse	20µC per pulse
Net charge output	zero per cycle					
Output coupling	<b>Ceramic capacitor</b>					



**Output voltages and currents: measured at internal outputs of the pulse generator (±15%)**

### geko™ T-1 and firefly™ T-1

pulse width	half-power setting 280µs		full-power setting 560µs	
	current	voltage	current	voltage
200Ω	27mA	5.4V	27mA	5.4V
500Ω	27mA	13.5V	27mA	13.5V
1000Ω	27mA	27V	27mA	27V
2000Ω	27mA	54V	27mA	54V
3000Ω	27mA	81V	27mA	81V

current rms (500Ω)	1mA rms maximum
voltage rms (500Ω)	0.5V rms maximum

### geko™ T-2 and firefly™ T-2

pulse width	half-power setting 200µs		full-power setting 400µs	
	load	current	voltage	current
200Ω	27mA	5.4V	27mA	5.4V
500Ω	27mA	13.5V	27mA	13.5V
1000Ω	27mA	27V	27mA	27V
2000Ω	27mA	54V	27mA	54V
3000Ω	27mA	81V	27mA	81V

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current rms (500Ω)	1mA rms maximum
voltage rms (500Ω)	0.5V rms maximum

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### geko™ plus R-2, geko™ W-2

pulse width	half-power setting 280µs		full-power setting 560µs	
	load	current	voltage	current
200Ω	54mA	10.8 V	54mA	10.8 V
500Ω	54mA	27 V	54mA	27 V
1000Ω	54mA	54 V	54mA	54 V
2000Ω	54mA	108 V	54mA	108 V
3000Ω	54mA	162 V	54mA	162 V

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current rms (500Ω)	1.3mA rms maximum
voltage rms (500Ω)	0.7V rms maximum

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### geko™, geko™ plus and firefly™

operating time **24 hour duration** (maximum 30 hours)  
indicator display **green LED**, flashing  
fault indication the stimulator device will **automatically switch** off for over current, under current, low battery voltage or end of 30 hour run time

standards EN60601-1:2006, EN 60601-2-10:2012,  
EN 60601-1-2: 2007, ISO 10993-1:2009

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#### Operating conditions:

temperature range 10°C to 30°C

#### Storage conditions in original packaging:

temperature range -10°C to 30°C

shelf-life see expiry date on the pouch label

#### Transport conditions:

temperature range -10°C to 30°C

#### Materials (in contact with patient):

**geko™ T-1, firefly™ T-1** Polyethylene terephthalate (Mylar), ethylene-vinyl acetate, polypropylene, hydrogel















**geko™ T-2 geko™ plus R-2, W-2, firefly™ T-2** Polyethylene terephthalate (Mylar), polypropylene, hydrogel

#### Packaging:

PET/Aluminium foil/Polyethylene laminate moisture barrier pouch

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## Symbols

	On / stimulation level button (T-1)
	On/Increase stimulation button (T-2, R-2, W-2)
	Off/decrease stimulation button (T-2, R-2, W-2)
	Type BF applied part - for direct electrical contact to patient but not direct cardiac application
	Single use only - devices bearing this symbol should only be used once
	Product not manufactured with latex
	Refer to instructions
	Traceability number
	Expiry date
	Manufactured by - the geko™ and firefly™ devices are manufactured by Firstkind Limited
	Storage temperature - showing minimum and maximum temperature limits
	CE Mark of conformity – this product complies with the EU Medical Devices Directive 93/42/EEC
	Do not use if package is damaged
	CE Mark of Conformity – this product complies with the EU Medical Devices Directive 93/42/EEC
<b>IP22</b>	<b>IP: Ingress Protection IEC 529</b> <b>2x:</b> Protection against fingers or other object not greater than 80mm in length and 12mm in diameter <b>x2:</b> Protection from vertically dripping water when tilted to 15°)