

Insulin Pumps

Animas IR 1000

Manufacturer: Animas

Size (inches): 3.5 × 2.2 × 0.7

Wt.: 3.5 oz.

Battery Type/Life: Four 1.5-volt silver oxide batteries, type 357 or equivalent, 6- to 8-week life.

Infusion Set: All commercially available sets. ezSet: Soft cannula, angled insertion, disconnect at site, 2 cannula lengths (standard 17 mm and short 13 mm), 4 tubing lengths, ezFlex tape, color coded. ezSet insertion device available.

Basal #: Up to 12 basal rates in four personalized programs plus a temporary basal rate; the duration of temporary rates can be adjusted from 30 minutes to 12 hours in 30-minute intervals.

Basal Range: 0.05–9.9 U/hr

Smallest Bolus: 0.1 units

Occlusion Alarm: Patented sensor and algorithm to detect occlusions promptly.

Over-Delivery Alarm: Over-infusion prevented by continuous self-tests, layer upon layer of redundancies, and numerous other safeguard systems.

Near-Empty Alarm: Patented sensor measures remaining insulin accurately and alarm sounds when cartridge is near-empty.

Warranty: 4 years.

Features: Menu-driven programming; basal delivery every three minutes; precise basal rate adjustment in 0.05-unit increments to enhance fine-tuning; audio bolus button, combination bolus, user-defined safety limit; pump memory includes last 255 boluses; alarms and daily totals; waterproof (24 hours at 12 feet); backlight for easy viewing; multiple languages; 300-unit cartridge; enclosed lead screw; interchangeable covers in various colors; pump clip; insurance assistance; 24-hour, toll-free customer service staffed by medical professionals; customized education programs; PC download via IR port; ezManager Plus carb and blood glucose software.

DANA Diabecare II

Manufacturer: DANA Diabecare USA

Size (inches): 2.95 × 1.77 × 0.74

Wt.: 1.8 oz.

Battery Type/Life: One 3.6-volt DC (2- to 3-month life).

Infusion Set: Proprietary sets, including cannula and needle, straight and angled insertion, are available in various lengths. Inserter available. Small, universal adaptor enables use of any standard luer lock infusion set.

Basal #: 24 basal rates, temporary basal rates + or – 100 percent in 25 percent increments up to 12 hours.

Basal Range: 0.1–16 U/hr

Smallest Bolus: 0.1 units

Occlusion Alarm: Yes

Over-Delivery Alarm: n/a

Near-Empty Alarm: Yes

Warranty: 4 years.

Features: Lightweight. Exclusive guided management feature has 16 programming modes, including audible reminders for insulin/carbohydrate ratio check 30 minutes after a bolus, bolus frequency restrictions, presetting of meal-appropriate boluses and default bolus, PIN programming, and access to functions including daily maximums and mode settings for health care professionals. Memory includes last 50 boluses, primes, and daily totals, last 12 alarms, time and date stamped. Wireless remote enables interactive programming via remote wireless data transmission to PC or PDA, data storage, and analysis. Large backlit display screen, icon menu, easy programming. Swiss motor, dual micro processor. Auto display of remaining insulin and remaining battery life. Comes in four colors and five languages.

Cozmo

Manufacturer: Deltec, Inc.

Size (inches): 3.5 × 2 × 0.75

Wt.: 3.3 oz.

Battery Type/Life: One AAA battery; 30-day average.

Infusion Set: All standard luer lock infusion sets. The Deltec Cozmo Essential set with angled insertion and 9 mm soft cannula comes in 3 lengths.

Basal #: 4 basal patterns with 48 rates in each. Patterns can be custom named to adjust to individual lifestyle. Temporary basal can be set in either percent or U/hr, can be active for 30 minutes to 72 hours, and user can program up to 12 customized temporary rates with custom names to adjust to individual lifestyle.

Basal Range: 0.05–35 U/hr

Smallest Bolus: 0.05 units

Occlusion Alarm: Yes

Over-Delivery Alarm: Yes

Near-Empty Alarm: Yes

Warranty: 4 years.

Features: Calculates insulin doses for carbohydrate and correction boluses, continuous insulin on board calculation to prevent over-bolusing, site change reminder, blood glucose reminder, missed-meal bolus reminder, 12 custom meal boluses with different insulin-to-carb ratios, watertight for unlimited swimming activities, pump programming and history download with CoZmanager PC communications system.

MiniMed 508

Manufacturer: Medtronic MiniMed

Size (inches): 3.4 × 1.9 × 0.8

Wt.: 3.5 oz.

Battery Type/Life: Three 1.5-volt silver oxide batteries. Four- to six-week life (depending on usage). Batteries are available through MiniMed (MMT 104) or in drug and camera stores.

Infusion Set: Sertable-Soft catheter sets with tapered cannula in 24" and 42" lengths: Sof-set (9-mm cannula), Sof-set QR (9-mm cannula, disconnectable), Sof-set Micro QR (6-mm cannula, disconnectable), Quick set (6 mm or 9 mm, at-site disconnect), Silhouette (angled insertion with disconnect). Bent needle sets in 24" and 42" lengths: Polyfin, Polyfin QR (with or without wings).

Basal #: 48 profiles plus temporary basal rate allows users to fine-tune insulin delivery based on individual needs. Both the basal and temporary rates can begin on hour or half hour. Personal delivery pattern stores up to 3 different sets of basal rates. Temporary rate can be increased or decreased for up to 24 hours.

Basal Range: 0.1–35.0 U/hr

Smallest Bolus: 0.1 units

Occlusion Alarm: Yes, within 2 to 3 units.

Over-Delivery Alarm: Safety motor with bio-pulse delivery; “watchdog” system monitors programming. 125,000+ software safety checks performed every hour.

Near-Empty Alarm: Near-empty and empty reservoir alert; user is notified with 20 and 10 units remaining.

Warranty: 4 years, plus lifetime motor warranty.

Features: Multiple bolus options include: normal for immediate delivery; square-wave Bio-Pulse delivery; controlled 0.1-unit insulin pulses clinically equivalent to 3-minute basal delivery. Remote control. MiniGlo backlight, choice of alarms, child block (makes unintended programming impossible), and self-test features. Downloadable memory includes approximately 90 days delivery history. Toll-free help line. Free videos, educational material, and insurance assistance.

MiniMed Paradigm 512

Manufacturer: Medtronic MiniMed

Size (inches): 3.0 × 1.9 × 0.8

Wt.: 3.4 oz.

Battery Type/Life: 1 standard AAA battery. Up to four-week life depending on usage.

Infusion Set: Sertable-Soft catheter sets with tapered cannula in 24" and 42" lengths: Sof-set (9-mm cannula), Sof-set QR (9-mm cannula, disconnectable), Sof-set Micro QR (6-mm cannula, disconnectable), Quick set (6 mm or 9 mm, at-site disconnect), Silhouette (angled insertion with disconnect).

Basal #: 3 patterns with up to 48 basal rates plus temporary basal rate allows users to fine-tune insulin delivery based on individual needs. Both the basal and temporary rates can begin on hour or half hour. Personal delivery pattern stores up to 3 different patterns of basal rates. Temporary rate can be increased or decreased as a percentage of programmed basal rates or as an absolute rate for 30 minutes to 24 hours duration.

Basal Range: 0.05–35.0 U/hr

Smallest Bolus: 0.1 units

Occlusion Alarm: Yes, within 2 to 3 units.

Over-Delivery Alarm: Integrated safety check motor with Bio-Pulse helps ensure no over-delivery. “Watchdog” system monitors programming. Millions of software safety checks performed every day.

Near-Empty Alarm: Automatic near-empty and empty reservoir alert; user is able to customize alert between units of insulin (5–50 units; default is 20 units) or time (2–24 hours; default is 8 hours). Alarm repeats at 50 percent of user-defined set-point.

Warranty: 4 years.

Features: Pump can automatically receive wireless blood glucose readings from the Paradigm Link Blood Glucose Monitor, powered by BD Logic Technology. Bolus Wizard calculator uses BG readings and food entries (in grams of carbohydrate or exchanges) to estimate food and correction boluses based on individual dosage parameters (up to 8 different carbohydrate ratios, insulin sensitivity ratios, and target blood glucoses can be programmed). Slow bolus (1.5 U/min maximum). Multiple bolus options include: normal for immediate delivery; square wave for delivery over an extended time; dual wave for a combination of normal and square-wave boluses. Remote control, MiniGlo backlight, safety block, and self-test features. Downloadable memory includes approximately 90-day delivery history. 24-hour toll-free help line. Free video, educational material, and insurance assistance.

Insulin Pumps

Amigo

Manufacturer: Nipro Diabetes Systems

Size (inches): $3.2 \times 2.1 \times 0.9$

Wt.: 3.1 oz.

Battery Type/Life: One CR2 battery;
4–6 week life.

Infusion Set: All commercially standard infusion sets with standard luer connector.

Basal #: Up to 24 normal basal delivery profiles in 15 minute increments. Temporary basal delivery can be set from 15 minutes to 6 hours.

Basal Range: 0.00–10 U/hr in 0.05-unit increments

Smallest Bolus: 0.1 units

Occlusion Alarm: Yes. Occlusions can be detected within as little as 0.1 units of delivery.

Over-Delivery Alarm: Prevented by use of a dual-processor controlled stepper motor, which delivers precise increments of insulin in computer-controlled steps. The syringe piston is mechanically locked to the stepper motor drive so that any external pressure change cannot cause an unintended bolus. Two microprocessors continually check and verify delivery.

Near-Empty Alarm: Yes, with 20 units remaining.

Warranty: 4 years.

Features: Dual processor controllers. Stepper motor with stainless steel gears for safety and longevity; locking drive mechanism prevents over-delivery; easy-to-understand, icon-driven menu; backlit, adjustable LCD display; waterproof up to 8 feet for up to 30 minutes; basal infusion delivery choice of every 3 or 15 minutes; temporary basal delivery from 15 minutes to 6 hours; bolus delivery speed of 5 or 15 seconds per unit; extended bolus from 15 minutes to 6 hours; 24-hour support center; customized education; PC download via IR port.

Insulin Pump Supplies

Product Name (Manufacturer)	Type of Product	Features
PureLine Basic (Hypoguard)	Infusion set	Needle is prebent at a 30° angle. Available with or without butterfly. Tubing available in 43" and 23".
PureLine Comfort (Hypoguard)	Infusion set	Soft Teflon catheter is all that remains in place after insertion. Allows user to disconnect from the pump for bathing, etc. Tubing available in 43" and 23".
PureLine Contact (Hypoguard)	Infusion set	Needle is prebent at a 90° angle. Tubing available in 43" and 23".
Quick Set with Quick-serter (Medtronic MiniMed)	Infusion set with automatic insertion device	Soft Teflon catheter is all that remains in place after insertion. Allows users to disconnect. Provides placements at optimal depth for insulin absorption.
Silhouette with Sil-serter (Medtronic MiniMed)	Infusion set with automatic insertion device	Soft Teflon catheter is all that remains in place after insertion. Allows users to disconnect. Provides placements at optimal depth for insulin absorption.
Soft-set with Sof-serter (Medtronic MiniMed)	Infusion set with automatic insertion device	Soft Teflon catheter is all that remains in place after insertion. Allows users to disconnect. Provides placements at optimal depth for insulin absorption.
SimpleChoice Easy (SimpleChoice)	Infusion set	30° or "variable angled" infusion set for MiniMed, Animas, and Deltec insulin pumps. Larger, 100 percent water-resistant tape, stable connect and release at insertion site, compatibility with insertion devices, small, portable packaging, and featheredge introducer needle.
SimpleChoice Reservoir (SimpleChoice)	Insulin cartridge	Disposable, single-use reservoir cartridge for insulin pumps. Use with the MiniMed 504, 506, 507, 507c, and 508 pumps.