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Do you need an expert to develop and manufacture innovative drug delivery devices and implants?



Class III implantable & programmable morphine pump

Valtronic is specialized in electronic miniaturization and precise drug delivery devices

### Valtronic is your specialist in

- Full system conception, design, industrialization and manufacturing
- Miniaturization competences for implantable/portable self-powered devices
- Development of implantable and external device system solutions
- Electronic design with focus on very low power consumption
- Highly mechanical-fluidics design
  competences for precise fluidic delivery



Intelligent cap for disposable pen injectors to keep track of and precisely monitor drug administration



Pump for continuous insulin infusion & controller with dedicated smartphone device

## Valtronic is experienced in

- Wearable insulin infusion pumps
- Morphine & Baclofen delivery pumps
- Contrast syringe pumps
- Hand-held inhalators
- Mesotherapy devices
- Smart caps for pen injectors
- Mother boards for infusion pumps
- High-precision infusion pumps
- Disposable portable infusion pumps
- Wearable NO (Nitrogen Oxide) delivery



Hand-held drug inhalator with aspiration detection to deliver accurate drug quantity

## **Technologies & Know-how**

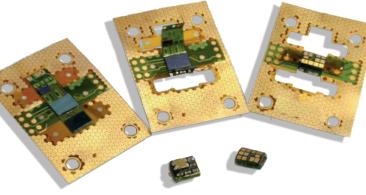
- Mini-SMT (01005; 008004)
- CoB (Chip on Board)
- FCC (Flip-Chip Contact) glued, thermo-compression or ultrasonic
- CoC (Chip on Chip)
- CoFC (Chip on Flip-Chip)
- BGA (Ball Grid Array)
- MEMS integration
- 3D Stacked-Die Technology
- Mechatronic Systems Assemblies
- Embedded Software
- Fluidics and Thermics
- Wireless Communication (e.g. Bluetooth, RF & Zigbee)
- Low Power Consumption

## Your direct benefits

- Feasibility studies of critical functions for reduced risks in the development phase
- Prototypes built on production lines and thus very close to final product
- One stop shop for full product life-cycle
- Project documentation complying with ISO 13485 standard (DHR, DMR, FMEA...)
- Very competitive manufacturing plant for labor intensive work



High-precision and remote controlled contrast syringe pump



3D Chip Scale Packaging (CSP)

#### Valtronic at a glance

- R&D teams in Switzerland & the USA
- Production in Switzerland, the USA & Morocco
- More than 35 years of experience
- Over 350 employees including 70 engineers
- ISO 9001 & ISO 13485; FDA registered
- Dedicated to the medical industry

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