

The background of the entire page is a high-speed photograph of water splashing, creating numerous clear, rounded droplets and bubbles. The water is a vibrant blue color.

# **SANITARY** APPLICATIONS

*Your needs, our ideas*



# SANITARY APPLICATIONS

Sanitary applications are evolving towards **fully integrated systems** that combine **fluid control, electronics, and intelligent sensing**. From faucets to advanced smart solutions, each application requires precise management of **water flow, temperature, pressure, and user interaction**.

CEME Group delivers **high-performance components and complete system architectures** designed to ensure **reliability, efficiency, and durability** across a wide range of sanitary environments. Our solutions support the development of compact, connected, and scalable systems tailored to modern living standards.



**BATHROOM  
FAUCET**



**ELECTRONIC KITCHEN  
FAUCET**



**FLUSH  
SYSTEM**



**INTELLIGENT  
SHOWER**



**INTELLIGENT  
TOILET**

## A CLOSED LOOP SYSTEM

A closed loop system ensures continuous control and optimization of water flow through the integration of **sensors, valves, and electronics**.

In sanitary applications, a closed loop system integrates different product categories to ensure **efficient and controlled water management**.

### VALVES

Regulate and distribute water flow across all functions, ensuring **precise control and reliable operation**.

### PUMPS

Provide **stable pressure** and **controlled fluid delivery** for washing, flushing, and sanitization processes.

### SENSORS

Monitor key parameters such as **temperature, pressure, and flow**, enabling **real-time feedback** and system optimization.

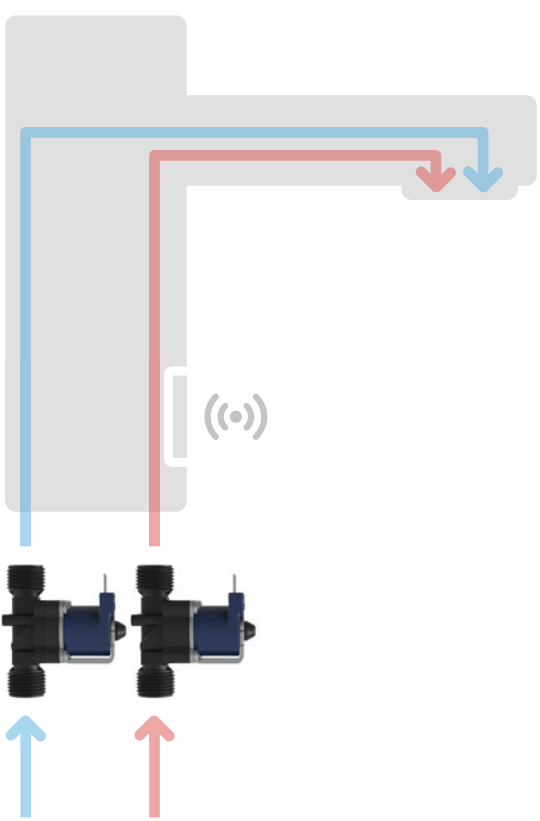
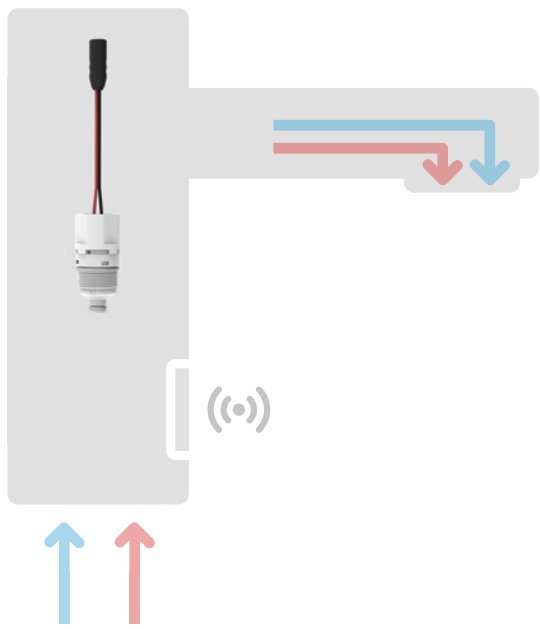
### ELECTRONICS & IOT

Process data, manage system logic, and enable advanced functionalities such as **automation, monitoring, and remote control**.

Together, these technologies form a **fully integrated system** designed to deliver **performance, efficiency, and reliability** across a wide range of sanitary applications.



# BATHROOM FAUCET



The **bathroom faucet system** controls the flow of hot and cold water through a combination of solenoid valves and integrated components. Incoming water is managed by water valves that regulate flow and ensure reliable operation, while cartridge solenoid valves enable precise activation and mixing. **Advanced materials** and **design solutions** ensure durability, prevent limescale buildup, and maintain consistent performance even in demanding sanitary environments.

## OUR PORTFOLIO



**CARTRIDGE  
SOLENOID VALVES**

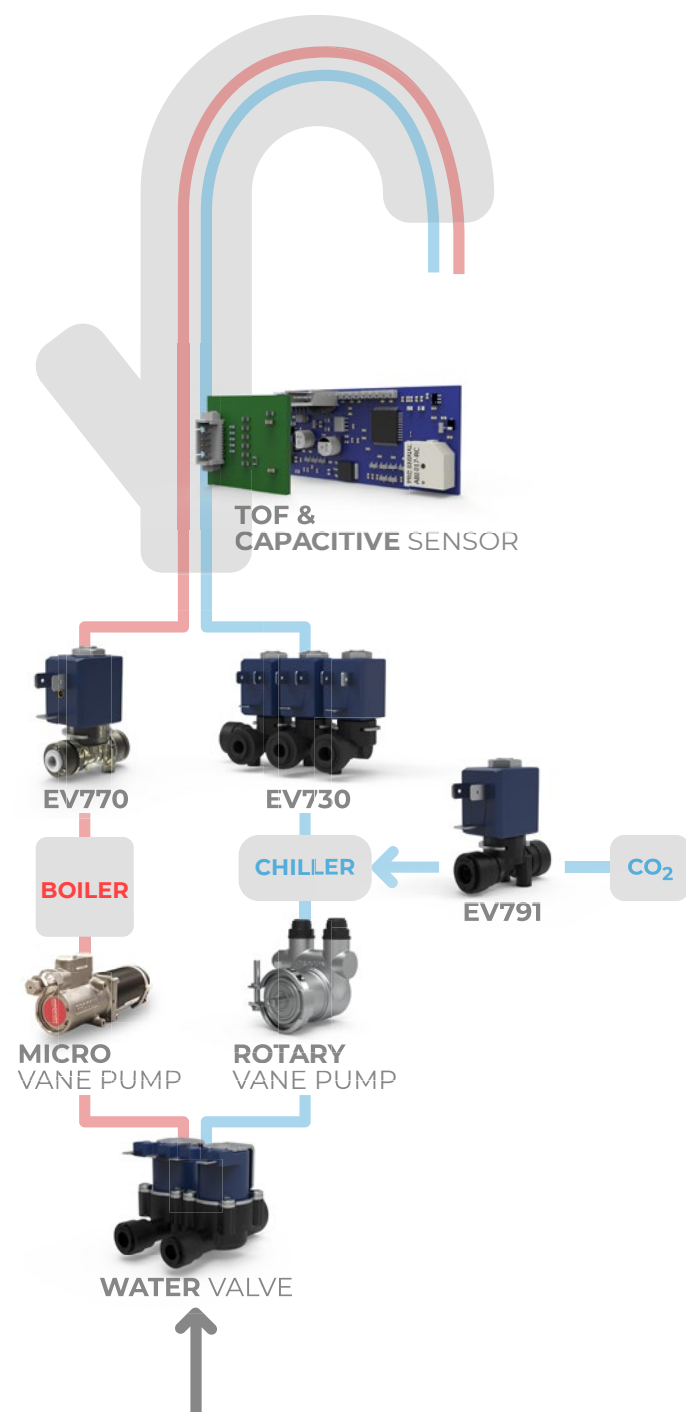
**PPSU** components withstand temperatures up to **95°C**, enabling thermal **anti-Legionella disinfection**, while the **springless architecture** **eliminates the risk of performance degradation** over time and reduces limescale buildup.



**WATER  
SOLENOID VALVES**

**LSR seals** offer excellent **resistance to limescale**, ensuring safe disinfection cycles, while the **internal latching filter** **protects the pilot system** from dirt and particulate contamination.

# ELECTRONIC KITCHEN FAUCET



The **Electronic Kitchen Faucet** intelligently **manages water delivery through the integration of sensors, solenoid valves, and pumping systems**. TOF and capacitive sensors detect user presence and automatically activate the flow, while solenoid valves regulate water from different sources (hot, cold, chilled, or sparkling). Dedicated pumps ensure consistent pressure and flow, enabling advanced functions such as precise temperature control and multi-water dispensing in an efficient and reliable way.

## OUR PORTFOLIO



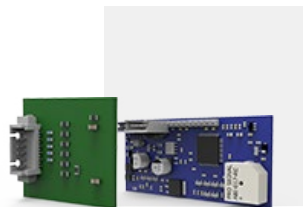
**SOLENOID VALVES**

This valve range delivers **reliable performance** with a **double internal latching filter**, reduced water hammer, and LSR sealing. It includes **high-temperature PPSU bodies** with quick push-fit connections, single-body designs for hot and cold water, and flexible options with multiple orifice sizes and **PA66 materials** for a **wide range of applications**.



**VANE PUMPS**

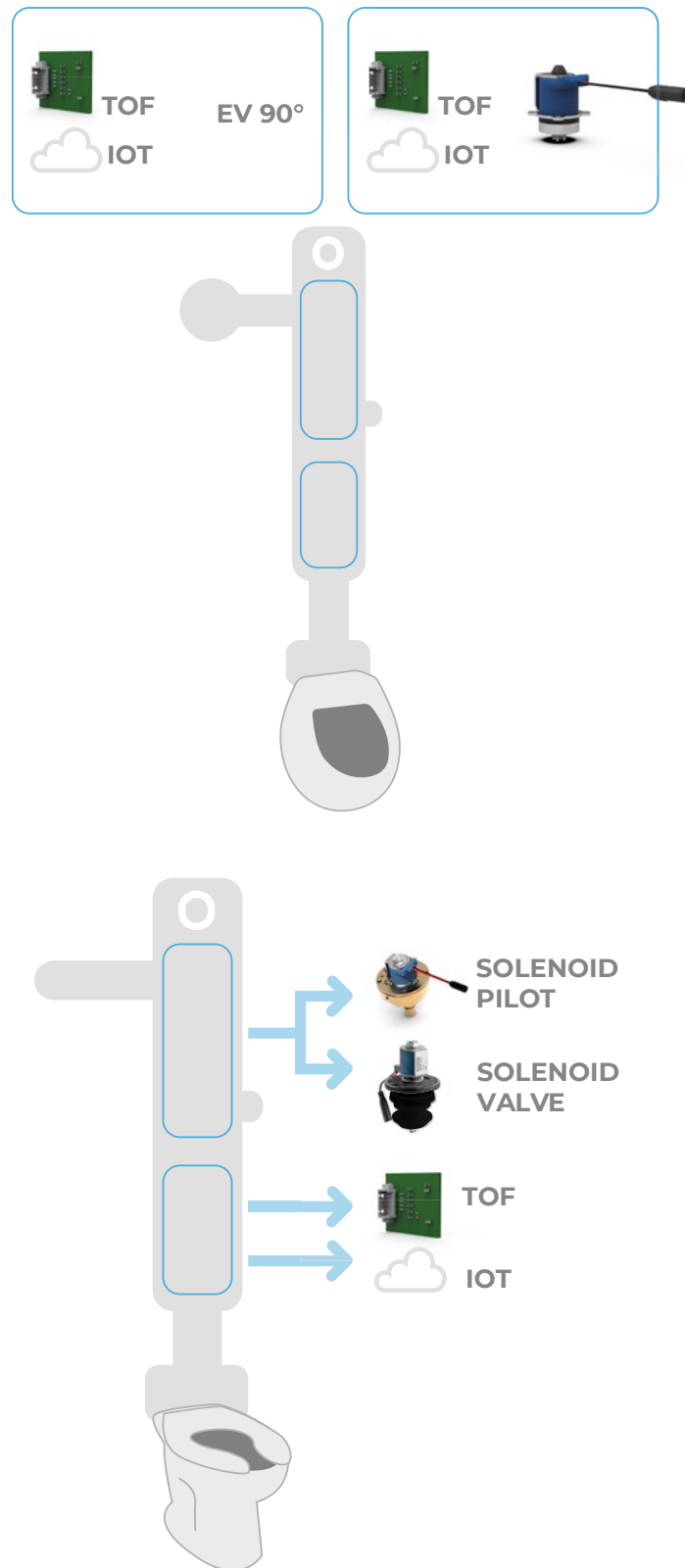
The **micro rotary vane pump** features an ultra-compact design, significantly smaller than standard market solutions, while the **rotary vane pump** ensures high pressure output with minimal pressure pulsation.



**TOF & CAPACITIVE SENSORS**

**Compact** and **energy-efficient**, measures distance via light reflection for real-time depth mapping, with suggested 3-key capacitive keyboard integration.

# FLUSH SYSTEM



The **Flush System** automatically **controls water discharge to ensure efficient and hygienic operation**. A sensor (such as TOF) detects user presence and activates the flushing cycle via a control unit. The system then triggers the solenoid valve or pilot, allowing water to flow for a defined time before closing. Integrated electronics and IoT connectivity enable optimized water consumption and real-time monitoring of performance and potential malfunctions.

## OUR PORTFOLIO



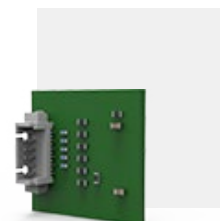
**SOLENOID VALVE**

Ensure the **controlled opening and closing of water flow** during the flushing cycle, delivering reliable and precise performance.



**SOLENOID PILOTS**

Actuate the main valve by **controlling pressure**, allowing compact integration or standalone use on existing valve bodies.

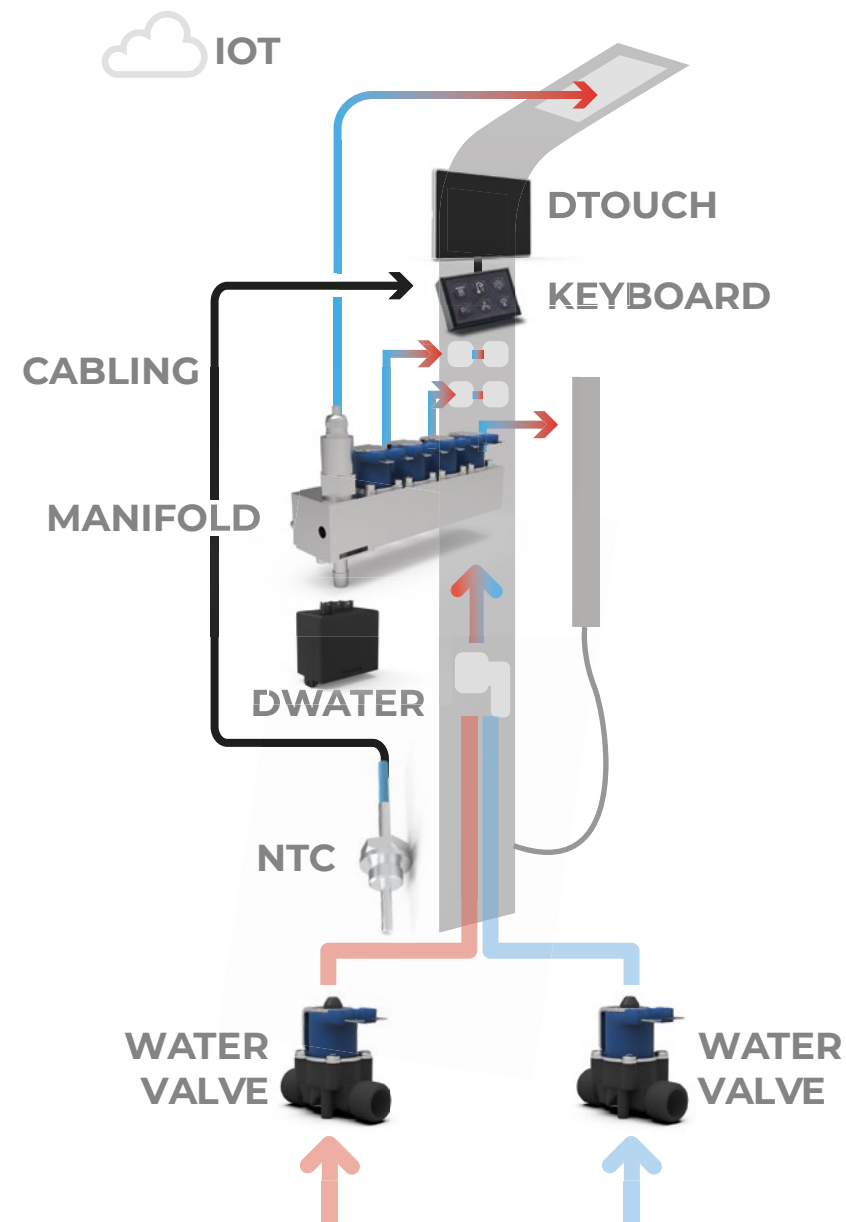


**TOF**

Process sensor inputs to **manage timing and activation of the flush cycle**, enabling smart control, optimization of water usage, and system monitoring.

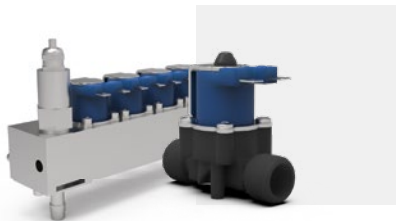


# INTELLIGENT SHOWER



The **Intelligent Shower System** is an integrated solution that **intelligently manages water delivery**. Solenoid valves regulate the incoming flow, while the electronic control system - based on sensors and dedicated units - mixes hot and cold water in real time to reach the desired temperature. Users can adjust temperature, flow rate, and spray direction through digital interfaces, while IoT connectivity enables remote monitoring and system management.

## OUR PORTFOLIO



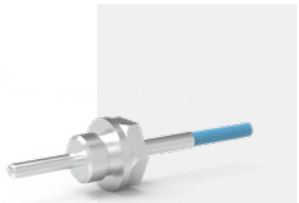
### SOLENOID VALVES & MANIFOLD

Enable **precise control and distribution of water flow**. Solenoid valves manage opening and closing actions, while compact manifolds integrate multiple channels into a single optimized unit.



### ELECTRONICS

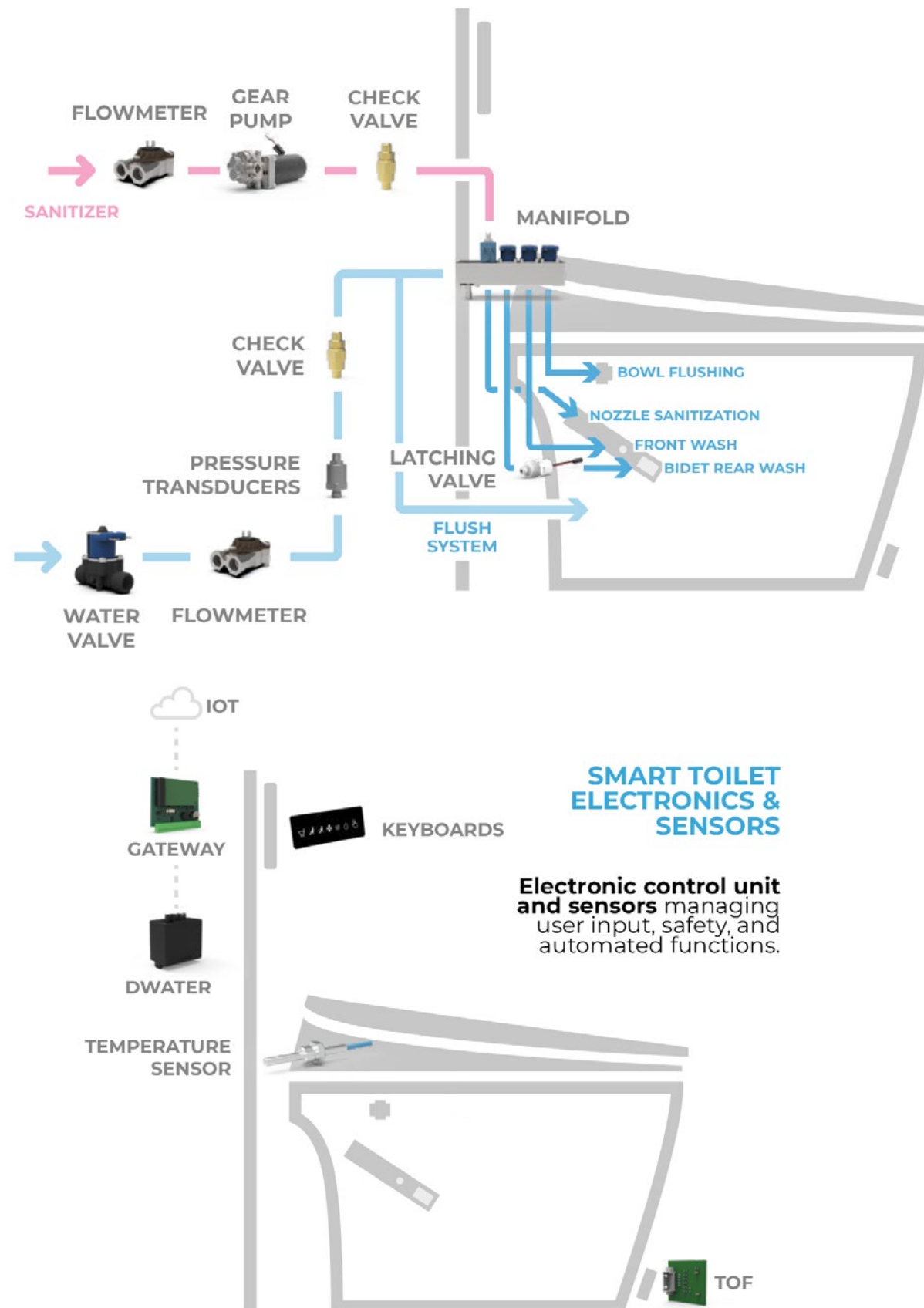
**Control the entire system** by processing sensor data and **managing valves, temperature, and flow**. Advanced platforms integrate user interfaces, IoT connectivity, and remote monitoring features.



### SENSORS

**Continuously measure key parameters** such as temperature, pressure, and flow. Provide real-time data to ensure accurate control, safety, and optimal performance.

# INTELLIGENT TOILET



The **Intelligent Toilet System** combines **advanced hydraulic components and electronic control to manage multiple water functions** such as flushing, washing, nozzle cleaning, and sanitization. The hydraulic part distributes and regulates water through valves, pumps, flowmeters, and pressure transducers, ensuring accurate flow, pressure stability, and hygiene. In parallel, the electronic system processes user inputs, automates functions, and monitors system performance, enabling a safe, efficient, and fully integrated user experience.

## OUR PORTFOLIO



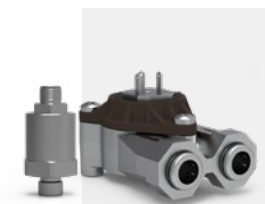
### VALVES & FLUID CONTROL

Enable **precise control and distribution of water flow**. Valves regulate opening and closing actions, ensuring reliable performance across flushing, washing, and sanitization functions.



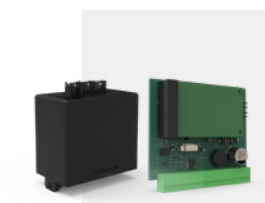
### PUMPS

Ensure **controlled fluid delivery and stable pressure**. Pumps support washing, cleaning, and dosing functions with consistent and efficient flow management.



### SENSORS

Continuously monitor key parameters such as **temperature, pressure, and flow**. Provide real-time data to ensure accurate control, safety, and optimal system performance.



### ELECTRONICS

Control the entire system by processing sensor data and **managing valves, pumps, and functions**. Advanced platforms integrate user interfaces, IoT connectivity, and remote monitoring features.



## **CONTACT** INFORMATION

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