



LIQUID LEAK DETECTION SYSTEMS



WATER, OIL & LIQUID COOLING LEAK DETECTION SOLUTIONS FOR DATA CENTERS

Protect your data center from water, oil, and the latest liquid cooling technologies — including glycol coolants, dielectric fluids, and refrigerants.

TTK CONTINUOUSLY MONITORS WATER, OIL AND COOLING LIQUIDS LEAKS IN A DATA CENTER BUILDING

CRITICAL AREAS/EQUIPMENT:

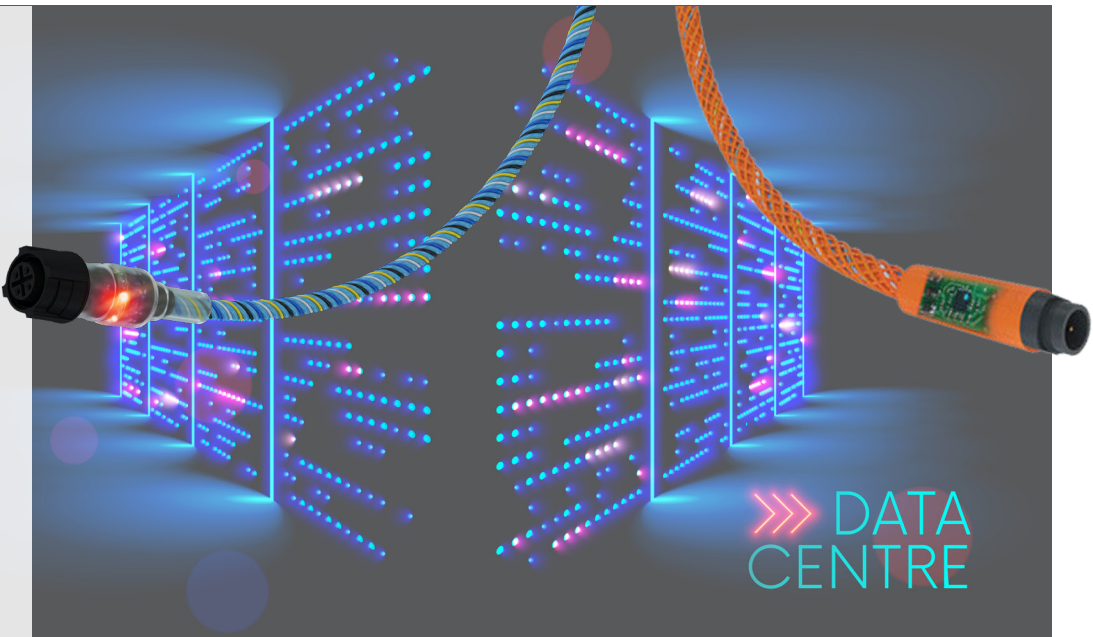
- Server rooms/Computer network
- Offices and archive rooms
- Chilled/hot water supply and return pipes
- HV/LV switch rooms
- Batteries rooms
- UPS (Uninterruptible Power Supply) rooms
- Plant rooms/mechanical rooms
- Liquid cooling loops and manifolds
- Direct-to-chip cooling racks
- Immersion cooling tanks
- Basements/Generator sets
- Mains water supply room & related plumbing
- Local sprinkler and water treatment
- Service risers

NEVER UNDERESTIMATE THE RISK OF LIQUID LEAKAGE IN A DATA CENTER

LEAK DETECTION SOLUTIONS FOR LIQUID COOLING

Leaks are among the most underestimated risks in data centers, causing costly downtime and equipment damage.

With the rise of **liquid cooling technologies** (direct-to-chip and immersion), new fluids such as glycol coolants, dielectric liquids, and refrigerants must also be monitored. A single undetected leak can disrupt mission-critical operations and create severe consequences.



LEAK DETECTION SOLUTION FG-NET: THE INTELLIGENT DIGITAL SYSTEM

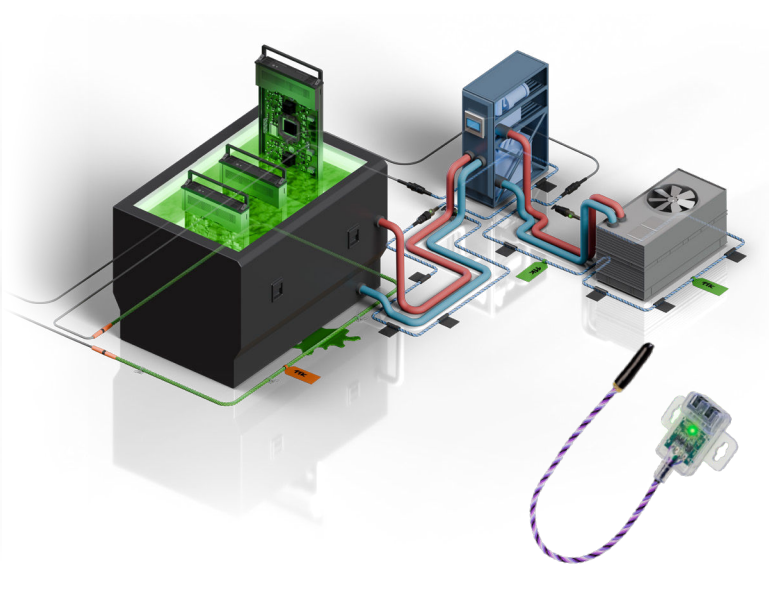
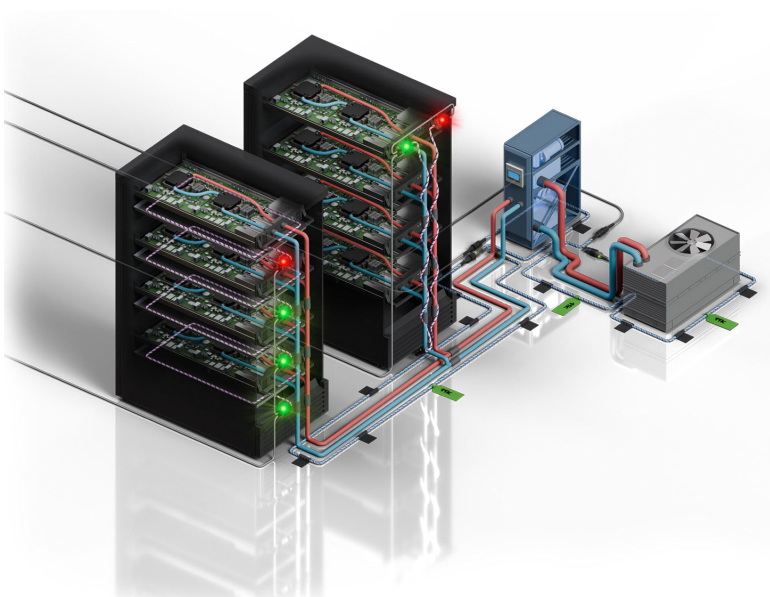
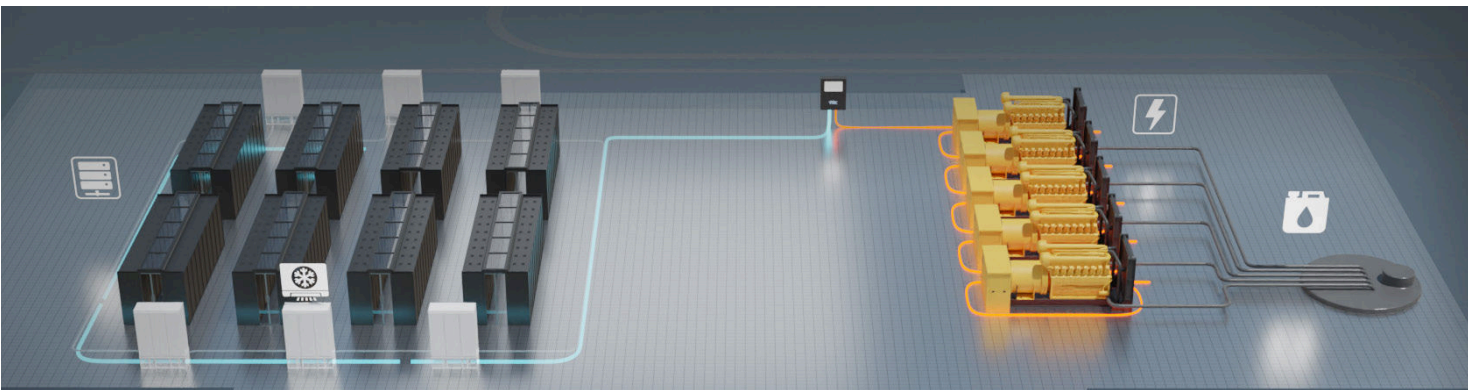
- TTK offers a digital detection system FG-NET, developed and designed for data centers.
- **Versatile** – Supports a wide range of liquids—from water and oil to glycol coolants, refrigerants, and dielectric fluids.
 - **Intelligent** - Precisely **pinpoints multiple leaks at once**, thanks to advanced digital communication enabled by **integrated microcontrollers** embedded in each individually addressable sensing cable.

The TTK leak detection system integrates multiple sensing cables monitored by a powerful detection unit.



ADVANTAGES OF THE FG-NET SYSTEM FOR DATA CENTERS

- Fast and reliable leak detection with fully mapped and accurate multiple simultaneous leak locations.
- Each individual cable can be managed independently (adjustable reaction time, relay configuration) by the control panel.
- Multiple communication interfaces: TCP/IP, MODBUS/JBUS, RS422/485.
- Sending the report to the BMS (Building Management System); sending email alerts.
- Extensible system thanks to a network of satellite panels.
- Easy operation and maintenance.



NEW: LEAK DETECTION SOLUTIONS FOR DIRECT-TO-CHIP COOLING

- **SERVER-LEVEL MONITORING**
Detects leaks precisely around critical components
- **RACK PROTECTION INSIDE & OUT**
Continuous monitoring both inside and outside the rack.
- **FAST & ACCURATE LEAK LOCATION**
High sensitivity sense cables ensure rapid detection.
- **INDEPENDANT DETECTION**
Keeps your cooling system safe, running, and reliable.

NEW: LEAK DETECTION SOLUTIONS FOR IMMERSION COOLING

- **FULL SYSTEM PROTECTION**
Safeguards tanks, CDUs, pumps, cooling towers, and piping.
- **SPECIALIZED SENSE CABLES**
Designed for both conductive and non-conductive liquids.
- **EXACT LEAK LOCATION**
Pinpoints leaks with accuracy, even in multiple incidents.
- **REAL-TIME MONITORING**
Continuous detection for maximum uptime and security.

THE ADVANTAGES OF CHOOSING TTK



Wide Liquid Compatibility
Accurate detection of PG25, glycol-based coolants, dielectric fluids, and refrigerants used in advanced cooling systems.



Exceptional Durability
and extended service life



Cost Reduction
Lower equipment and maintenance expenses due to the system's versatility and reusable sense cables



Powerful Solutions developed and designed for data centers of all sizes

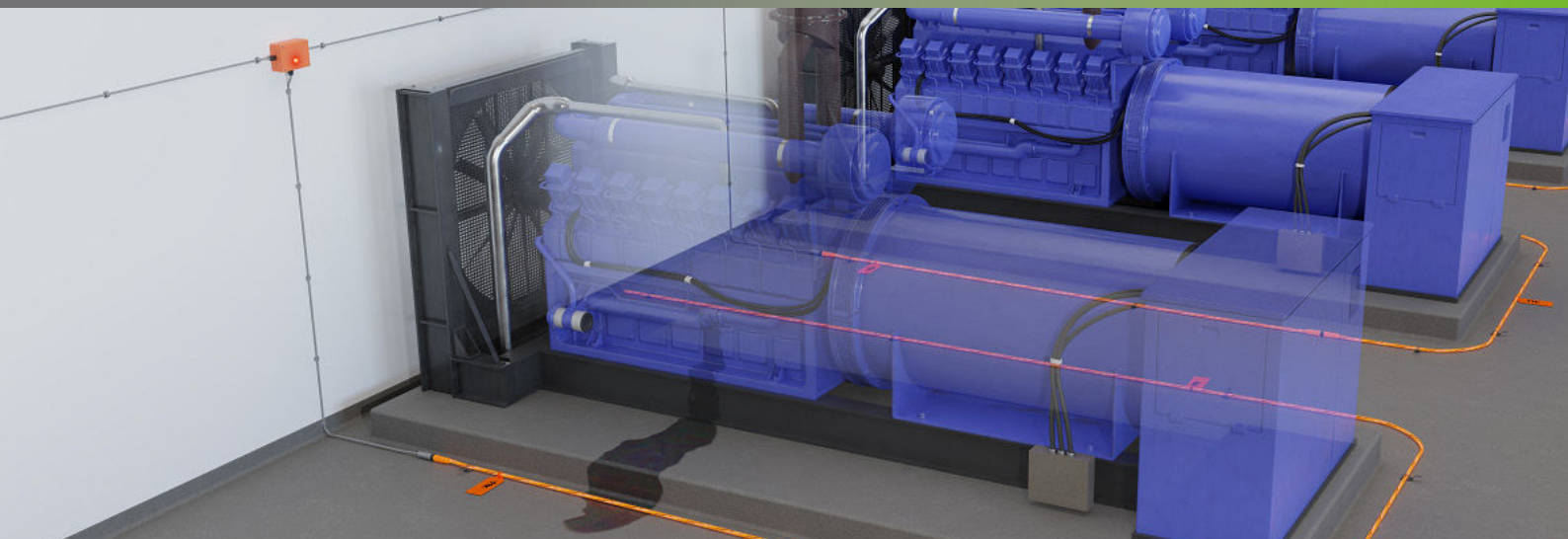


Simple and Flexible Design
ease of installation/extension/upgrade



Service and Support
for your projects by a team of engineers and experts

TTK: MUCH MORE THAN A MANUFACTURER



TTK is the world's leading manufacturer of liquid leak detection systems, serving the industry for over three decades. The largest data centers in the world are equipped with our latest generation systems.

Much more than a manufacturer, TTK delivers turnkey solutions—from tailor-made design to installation, commissioning, and maintenance. Our systems detect leaks from water, oil, glycol-based coolants, dielectric liquids, and refrigerants, providing full protection for the new era of liquid cooling data centers.

With TTK, you have the certainty of a solution that evolves with your future needs, maximizes uptime, and reduces operational costs.

GOOD TO KNOW



The FG-NET digital monitoring unit as well as all TTK products, are covered by a **10-year manufacturer's warranty**.



Liquid Cooling Ready – Detects PG25, glycol-based coolants, dielectric fluids, and refrigerants.



TTK's leak detection systems are truly **scalable and future-proof**, making them an **ideal choice for growing data centers**. This ensures long-term reliability and adaptability as infrastructure needs evolve.



In addition to the FG-NET system, TTK offers ranges of cost-effective **digital and analog detection systems** suitable for different scales and installation needs. No project is too big or too small for us.

