



LIQUID LEAK DETECTION SYSTEMS

ONE RAFFLES QUAY

Case Study

TTK WATER LEAK DETECTION SYSTEM IN DEUTSCHE BANK BUILDING, SINGAPORE



ABOUT THE BUILDING

Located at One Raffles Quay in Singapore, this high-rise office tower serves as Deutsche Bank's Asia Pacific Headquarters. The landmark building spans 29 floors, offering large, column-free office floor plates designed for flexibility. It has been designed to meet the highest standards in performance, reliability, and security.



PROJECT OVERVIEW

Project	Deutsche Bank
Location	One Raffles Quay Singapore
Application	Corporate Building
Project Type	Retrofit Project
Project followed by	TTK Pte (Singapore)
Contract Scope	TTK advices and supplies the leak detection systems
Completion Date	2026-2027
Technology	FG-NET digital monitoring unit; FG-EC addressable water sense cables; FG-ECP addressable point sensors

PROJECT REQUIREMENT

Within this modern office environment, the client required a reliable and flexible digital leak detection system capable of delivering fast and accurate alarm response. The objective was to ensure maximum protection of both office spaces and critical technical infrastructure.

TTK's SOLUTION

Protected Areas

TTK's leak detection solutions are deployed across 8 levels of the building, protecting a wide range of critical and operational areas, including:

- FCUs (Fan Coil Units)
- MER (Main Equipment Rooms)
- SER (Secondary Equipment Rooms)
- Electrical rooms
- IT rooms
- Office areas
- Pantries
- Tea points

Monitoring Panels

Following detailed project studies, TTK Singapore recommended the installation of the FG-NET digital monitoring panel.

The FG-NET is a high-performance control panel capable of monitoring up to 500 sense cables across three independent zones. It features a touchscreen interface and supports TCP/IP and JBUS/MODBUS communication protocols.

Multiple panels are installed on the same floors as the detection cables and sensors, enabling fast and precise local fault identification. In addition, the system is fully integrated into the client's Building Management System (BMS), allowing operators to instantly receive leak alerts with time stamps and exact location details, ensuring rapid and informed response.

Sense Cables & Point Sensors

Addressable water detection cables (FG-EC), combined with point sensors (FG-ECP), are strategically installed throughout the protected areas.

Thanks to TTK's patented technology, the system minimizes false alarms caused by dust, condensation, or contact with metal surfaces, ensuring highly reliable detection even in demanding environments.

Project Scale

The installation includes over 1 km of water sense cables and more than 100 point sensors. A total of 7 FG-NET monitoring panels deployed across relevant floors. In the event of a leak, alarms are immediately detected, precisely located, and transmitted to the BMS for rapid intervention.

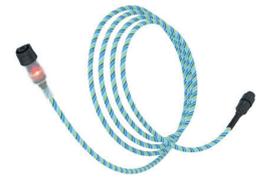
Results & Long-Term Deployment

TTK solutions have been in operation at Deutsche Bank Singapore since 2010, consistently meeting the client's expectations in terms of reliability and performance.

Following this successful deployment, TTK's digital leak detection solutions continue to be implemented across the client's new sites.



FG-NET monitoring control panel



FG-EC addressable water leak detection cable



FG-ECP water leak detection point sensor

