



LIQUID LEAK DETECTION SYSTEMS

FG-NET

Digital Unit for Leak Detection and Location

Product Datasheet



- ▶ Digital, Fully Addressable
- ▶ Monitoring Up to 500 Sense Cables
- ▶ Touchscreen Interface
- ▶ Instant Locating of Faults
- ▶ Integrated Monitoring Software
- ▶ TCP/IP & MODBUS/JBUS Connection

Description

The FG-NET digital unit is designed to be used with all TTK digital sense cables, for water, bases, acids and hydrocarbon leak detection.

In the event of a fault on the sense cables (leak or cable break):

Primary responses from the FG-NET:

- An audible alarm is triggered and a relay is activated.
- The touchscreen of the panel displays the location of the leak and details of the fault (the type of fault leak or cable break), including the time and date the fault is registered.
- Optional – integrated maps of the leak detection installation highlighting the location of the fault, available on the touchscreen display of FG-NET.

Secondary advanced responses :

- Report to the BMS via a JBUS/MODBUS protocol. The FG-NET can drive dynamic drawings on the host BMS.
- Send email alerts and SNMP traps to a LAN-connected BMS, via a standard Ethernet connection.

Key Advantages

- Precise & Reliable Leak Detection: Instantly detects and pinpoints leaks with +/-1 m accuracy for water and acid leaks and to the section for oil leaks.
- Independent Cable Monitoring: The reaction time is adjustable for each cable, and each sense cable is fully addressable with a custom name for easy identification.
- Advanced Fault Management: Detects multiple simultaneous leaks (up to 120 alarms for 120 cables) and maintains system integrity by continuing to monitor all preceding cables in case of a break.
- Flexible Isolation & Configuration: Offers temporal isolation (up to 72 hours) on selected cables and provides different security levels to ensure maximum protection.
- User-Friendly & Scalable System: Features a 7" touchscreen, non-volatile memory (SD card) for storing settings and drawings, and easy expansion without additional power sources or zoning panels.
- Seamless Integration & Smart Alerts: Communicates with BMS via TCP/IP & MODBUS/JBUS, and sends real-time alerts via email and SNMP traps for proactive monitoring.

Touchscreen Menus

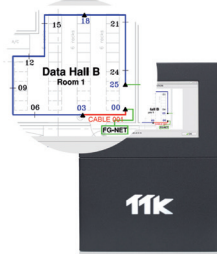
Four menus available for configuration of the FG-NET :

Setup	Main page for setting up the system architecture, cable isolation and reaction time rules, acknowledge mode, user access, relay status, time zone, language, sound alarm, serial links and network functionalities. An administrator level password is required to access this menu.
Event log	For viewing the recorded alarm history. A maximum of 5000 events can be displayed on the screen.
Cables	To give the user a general overview of the site installation. The interactive floor plan can be viewed under this menu as an optional feature.
Help	Provides troubleshooting procedures, contact details of the manufacturer and the reference number of the unit.

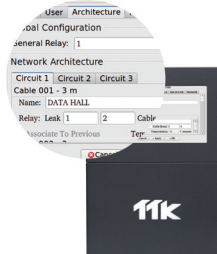
Screen Shots



Simultaneous alarms displayed on one screen



Dynamic map shows leak in real time



Easy setup of relays for each cable



User-friendly interface of configuration

Technical Data

Compatibility	Digital sense cables: FG-EC, FG-AC, FG-OD range of cables Analog sense cables (via diversion box): FG-ECS, FG-ACS Satellite devices: FG-BBOX, FG-RELAYS Diversion / Interface boxes: FG-DTC, FG-DTCS, FG-DCTL, FG-DOD
Dimensions & Weight	Wall mounted: W: 228 mm W x 303 mm H x 67 mm D Weight: 2 kg Rack mounted: 483 mm W x 177 mm H x 74 mm D Weight: 2.3 kg
Sensor Capacity	500 sense cables (500 x 15 m = 7500 m or 500 x 49 ft = 24 500 ft) when use with FG-BBOX
Location Accuracy	Water & acids leak detection: +/- 1 m; Oil leak detection: section
Operating Languages	English, French, German
Supply Voltage	100-240 VAC, 50/60 Hz
Current	0.3 A (120 V), 0.16 A (230 V)
Power Consumption	36 VA Max
Operating Temperature	-15°C to 55°C
Case Type	ABS flame retardant UL94V0
Screen Size	7"
Format	Wall mounted & 19" rack mounted
Ingress Protection	IP40 - Indoor use only
Serial Connection	MODBUS/JBUS RS232 or RS422/485
IT Security	TCP/IP connection (IPv4, IPv6) & MODBUS/JBUS Secure connection (Log-In Trap, HTTPS with TLS1.2, RFC 5280: X.509 (PKIC and CRL profile), IEEE 802.1X support, RADIUS or EAP-TLS)
Network	10/100BASE-T; IPv4/IPv6
Numbers of Relays	9 (8 + 1 power failure relay)
Relay Types	Volt free dry contact (NO, NC, COM)
Power Failure Relay	Activated on loss of supply voltage
Type of Faults Available on the Configurable Relays	Leak, cable break, common fault
Maximum Relay Switching Voltage	125 VAC and 220 VDC
Maximum Relay Switching Capacity	60 W (30 V x 2A)

Identification Codes

FG-NET F	Digital Touchscreen Leak Detection Panel (Wall Mounted)
FG-NET E	Digital Touchscreen Leak Detection Panel (Rack Mounted)

Certifications



FG-NET F and FG-NET E comply with the requirements of the generic harmonized European standards.
ATEX certified FG-OD range of sense cables and probes can be connected to the FG-NET digital control unit.
All the connections in the FG-NET digital unit must be done with the power supply switched off.
Read carefully the installation procedure for the FG-NET digital unit.

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- **TTK UK Ltd.** / 3 Luke Street / London EC2A 4PX / United Kingdom / T : +44 207 729 6002 / F : +44 207 729 6003 / www.ttkuk.com / sales@ttkuk.com
- **TTK Pte Ltd.** / #09-05, Shenton House, 3 Shenton Way / Singapore 068805 / T: +65.6220.2068 / M: +65.9271.6191 / F: +65-6220.2026 / www.ttk.sg / sales@ttk.sg
- **TTK Asia Ltd.** / 2107-2108 Kai Tak Commercial Building / 317 Des Voeux Road Central / Hongkong / T: +852.2858.7128 / F: +852.2858.8428 / www.ttkasia.com / info@ttkasia.com
- **TTK Middle East FZCO** / Building 6EA, Office 510 PO Box 54925 / Dubai Airport Free Zone / UAE / T: +971 4 70 17 553 / M: +971 50 259 66 29 / www.ttkuk.com / cgalmiche@ttk.fr
- **TTK Headquarters** / 19, rue du Général Foy / 75008 Paris / France / T : +33.1.56.76.90.10 / F : +33.1.55.90.62.15 / www.ttk.fr / ventes@ttk.fr