



LIQUID LEAK DETECTION SYSTEMS

FG-ALS4

Four Zones Alarm & Locating System Unit

Product Datasheet



- ▶ Locating Leak Detection System
- ▶ 4 Independent Zones
- ▶ 4 Simultaneous Leaks can be Detected
- ▶ Touch Screen Display
- ▶ MODBUS/JBUS Integration
- ▶ Adjustable Sensitivity

Description

The FG-ALS4, Four Zones Alarm & Locating Unit is designed to be used with TTK analog sense cables: FG-ECS, FG-ACS and FG-ECX, FG-ACX to give instant detection of liquid leaks (water, acid or base).

In the event of liquid leak or fault on the sense cables in any zone, the FG-ALS4 will respond as follows:

- An audible alarm is triggered and a relay is activated.
- The touch screen of the panel displays the zone, the location of the leak (to the nearest 1 metre) and details of the fault (the type of fault leak or cable break).
- Event report is sent to the BMS via MODBUS /JBUS.

To mute the alarm sound, simply touch the screen, or the panel will mute the alarm sound automatically when the leak or break is cleared.

Features & Benefits

FEATURES

- Available in both wall mounted and rack mounted (19" and 3U).
- The FG-ALS4 unit can control up to 45 metres of sense cable per zone.
- 3.2" touch-screen gives a clear indication of the system status.
- 4 detection zones are available.
- 5 relays are available, 4 for leak and 1 for cable break (all zone).
- RS485 serial link with MODBUS/JBUS communication protocol for interfacing with BMS is available.

BENEFITS

- Accurate reporting of leak location to one metre.
- Detects cable break faults.
- The sensitivity of the unit is adjustable via the potentiometer on the PCB.
- Compatible with existing monitoring systems.
- User-friendly system - users can customise the system with the sub menus accessible from the home screen, to set up the unit.
- The FG-ALS4 unit is accurate and easy to use, ideal for small and medium applications where accurate leak location is required.

Technical Data

| | |
|--|--|
| Compatibility | Analog sense cables: FG-ECS, FG-ECX, FG-ACS, FG-ACX |
| Enclosure Type | ABS flame retardant UL94V0 |
| Operating Temperature | -5°C to 55°C |
| Serial Interface Physical Support | Optoisolated two wire RS485 |
| Serial Link Parameters | 9600 baud, 8 data bits, 1 stop, no parity |
| Supported Protocol | MODBUS, function 3 |
| Relays Type: Leak + Cable Break | 5 SPDT single contact NO-NC |
| Relay Max. Switching Voltage | 125VAC and 220VDC |
| Relay Max. Switching Capacity | 60W (30V x 2A) |
| Supply Current (typ.) | 0.25A/115VAC 0.15A/230VAC |
| Supply Voltage | 100-240 VAC, 50/60Hz |
| Dimensions (W,H,D) | Wall mounted: 168 x 153 x 56 mm; Rack mounted: 482.60 x 132.56 mm |
| Ingress Protection (IP) | IP40 |

Screen Shots

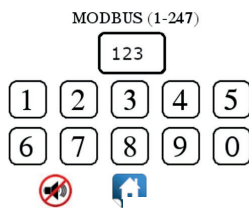
- The first button (flag) allows to change the system language: English / French / German



- The second button (arrows) allows to show the installed lengths on each of the four zones:

| | |
|----------------|----------------|
| ZONE 1 20 m | ZONE 2 5 m |
| ZONE 3 45 m | ZONE 4 15 m |

- The third button (gears) allows to change the Modbus slave number and to set the «mute» mode:



- In the case of faults (leak or cablebreak), the touch screen shows below: The leak alarms, represented by a drop of liquid; The cablebreak alarms, represented by scissors and the "sensor" label.

| | |
|------------------|------------------|
| ZONE 1 SENSOR | ZONE 2 OK |
| ZONE 3 16m | ZONE 4 SENSOR |

Electrical Specification

| | |
|----------------------------|---|
| Power Supply | N : Neutral / L : Line / \perp : Earth |
| RS485 | R1 : Gnd / R2 : RT+ / R3 : RT- |
| Cable Break Relay | R1 : NO / R2 : COM / R3 : NC |
| Leak Relay | R1 : NO / R2 : COM / R3 : NC |
| FG-CLC Leader Cable | A : Green wire / B : White wire / C : Black wire / D : Red wire |

Identification Codes

| | |
|--|--|
| FG-ALS4 F | Four zones alarm & location system unit - wall mounted |
| FG-ALS4 E | Four zones alarm & location system unit - rack mounted (19", 3U) |
| FG-ECS, FG-ACS and FG-ECX, FG-ACX | Water or acids sense cable in 3m, 7m, and 15m in length |
| Accessories: | |
| FG-CLC | Leader cable of 3.5 metres length |
| FG-TMX | End termination plug |
| CF-EC100 | 100 hold-down clips with glue |
| ES-EC | 40 tags |

Certificates



The FG-ALS4 unit meets the requirements of all European Standards in EN 50081 and EN 50082 EMC.
FG-ALS4 meets the TÜV requirements, according to IEC 61010-1/A2.

All the connections in the FG-ALS4 alarm locating system unit must be done with the power supply switched off.
Read carefully the installation procedure for the FG-ALS4 alarm locating system unit.

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- **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
- **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 / cgalniche@ttk.fr
- **TTK Deutschland GmbH** / Berner Strasse 34 / 60437 Frankfurt / Deutschland / T : +49(0)69-95005630 / F : +49(0)69-95005640 / www.ttk-gmbh.de / vertrieb@ttk-gmbh.de
- **TTK North America Inc** / 1730 St Laurent Boulevard Suite 800 / Ottawa, ON, K1G 5L1 / Canada / T : +1 613 566 5968 / www.ttkcanada.com / info@ttkcanada.com