



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 (+/- 3 ft (+/- 1 m)) 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 147 ft (45 m) 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 +/-3 ft (1 m).
- 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

<b>Compatibility</b>	Analog sense cables: FG-ECS, FG-ECX, FG-ACS, FG-ACX
<b>Enclosure Type</b>	ABS flame retardant UL94V0
<b>Operating Temperature</b>	23° to 131°F [-5° to 55°C]
<b>Serial Interface Physical Support</b>	Optoisolated two wire RS485
<b>Serial Link Parameters</b>	9600 baud, 8 data bits, 1 stop, no parity
<b>Supported Protocol</b>	MODBUS, function 3
<b>Relays Type: Leak + Cable Break</b>	5 SPDT single contact NO-NC
<b>Relay Max. Switching Voltage</b>	125VAC and 220VDC
<b>Relay Max. Switching Capacity</b>	60W (30V x 2A)
<b>Supply Current (typ.)</b>	0.25A/115VAC 0.15A/230VAC
<b>Supply Voltage</b>	100-240 VAC, 50/60Hz
<b>Dimensions (W,H,D)</b>	Wall mounted: 6.6" x 6.02" x 2.2" (168 x 153 x 56 mm); Rack mounted: 19" x 5.2" (482.60 x 132.56 mm)
<b>Ingress Protection (IP)</b>	IP40

# Screen Shots

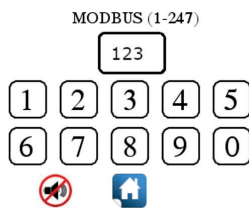
- The first button (flag) allows to change the system language: English / French / German



- 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 LEAK SENSOR	ZONE 2 OK
ZONE 3 CABLEBREAK 16m	ZONE 4 LEAK SENSOR

## Electrical Specification

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

## Identification Codes

<b>FG-ALS4 F</b>	Four zones alarm & location system unit - wall mounted
<b>FG-ALS4 E</b>	Four zones alarm & location system unit - rack mounted (19", 3U)
<b>FG-ECS, FG-ACS and FG-ECX, FG-ACX</b>	Water or acids sense cable in 9, 22, 49 ft (3, 7, 15m) in length
<b>Accessories:</b>	
<b>FG-CLC</b>	Leader cable of 11.48 ft (3.5 m) length
<b>FG-TMX</b>	End termination plug
<b>CF-EC100</b>	100 hold-down clips with glue
<b>ES-EC</b>	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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