



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)+power failure.
- 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

Compatibility	Analog sense cables: FG-ECS, FG-ECX, FG-ACS, FG-ACX
Enclosure Type	ABS flame retardant UL94V0
Operating Temperature	23° to 131°F [-5° 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: 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)
Ingress Protection (IP)	IP40

Screen Shots

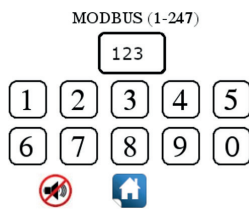
- The first button (flag) allows to change the system language: English / French / German



- 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 LEAK SENSOR	ZONE 2 OK
ZONE 3 CABLEBREAK 16m	ZONE 4 LEAK 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 9, 22, 49 ft (3, 7, 15m) in length
Accessories:	
FG-CLC	Leader cable of 11.48 ft (3.5 m) 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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