



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

## 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.

## 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 system fault.
- 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.
- 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

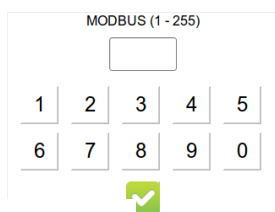
|  |  |
|--|--|
| <b>Compatibility</b>                     | Analog sense cables: FG-ECS, FG-ECX, FG-ACS, FG-ACX                  |
| <b>Enclosure Type</b>                    | ABS flame retardant UL94V0   |
| <b>Operating Temperature</b>             | -5°C to 55°C   |
| <b>Serial Interface Physical 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>Power Consumption</b>                 | 5 VA   |
| <b>Supply Voltage</b>                    | 100 - 240 VAC-50/60Hz  |
| <b>Dimensions (W,H,D)</b>                | Wall mounted: 168 x 153 x 56 mm;<br>Rack mounted: 482.60 x 132.56 mm |

## Screen Shots

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



- The third button (gears) allows to change the Modbus slave number:



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

|                |               |
|----------------|---------------|
| ZONE 1<br>3 m  | ZONE 2<br>7 m |
| ZONE 3<br>15 m | ZONE 4<br>0 m |

- 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<br>5 m | ZONE 2<br>Sensor |
| ZONE 3<br>OK  | ZONE 4<br>Sensor |

## Electrical Specification

|                            |   |
|----------------------------|---|
| <b>Power Supply</b>        | N : Neutral / L : Line /  : Earth                               |
| <b>RS485</b>               | R1 : COM / 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 3m, 7m, and 15m in length          |
| <b>Accessories:</b>                      |  |
| <b>FG-CLC</b>                            | Leader cable of 3.5 metres 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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