



## Liquid Leak Detection System FG-SYS LL Digital Unit Product Data



The FG-SYS LL digital unit is designed to be used with TTK random liquid sensing cables: FG-ECS or FG-ACS for Long Line Industrial applications. The presence of a liquid on the sensing cable activates a luminous and audible alarm, displays the localization of the initial point of the leak to the nearest metre.

### Addressable, Modular And Upgradeable Design.

The FG-SYS LL digital unit is available in wall mounted version. The FG-SYS LL digital unit can in this way control up to 3600 metres of sensing cables and indicate for each zone the type of defect (time and date, the name of the zone and localization in meters from the origin of leak).

### User-Friendly Information.

Thirteen tactile buttons with an LCD backlit display, are the only external components on the front facia.

A "ACQ" button allows manual acknowledgement of the audible alarm. This key is also used, in the main menu and history record, to validate and to return to the previous screen. A "TEST" function is used to launch the general test procedure of the

FG-SYS digital unit with its functionalities, the number of cables installed and their associated lengths.

A "CONFIGURATION" menu gives the designation of each length of non-associated sensing cable, the adjustment of system parameters (time, date, audible alarm and language, etc.), the type and configuration of faults on the operation chosen, and the identification of the user through a password.

A "HISTORY" menu is used to return to the last thirty faults, chosen by type and date.

Each length of sensing cable or digital sensor can be programmed and gives a specific designation of the room or floor inherent to each installation.

In the event of a leak, an audible alarm is triggered, the zone indicator light changes to red, the dry contact is activated and the display shows the time, date the fault starts, type of fault (leak or circuit interruption), zone designation and distance in metres from the origin of the leak.

A configuration menu, both comprehensive and easy to use, ensures the conviviality, accuracy and reliability of the FG-SYS LL digital unit.

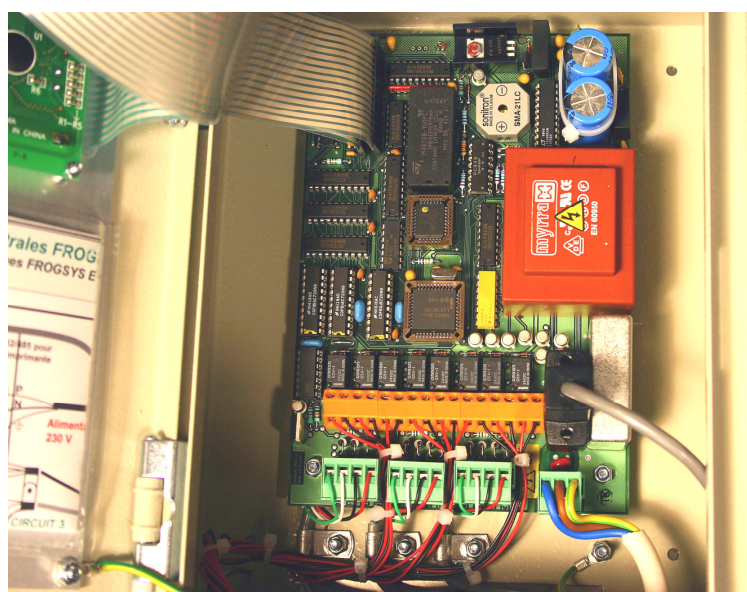
### Compatibility And Operation.

FG-SYS LL digital unit is totally compatible with existing operating systems. There are eight, entirely configurable dry contacts available, RS232 and RS485 serial links with JBUS communication protocol for interfacing with executive, and streamline printing and TCP/IP features. These are the communication tools which enable the users to use all detection and alarm information in the best possible manner.

The FG-SYS LL digital unit contributes a solution adapted to the various safety policies inherent to each user.

TOPSurveillance™ and Set Up Configuration, utility software of the FG-SYS™ detection system, are interface able with the FG-SYS digital unit. Set Up software is free and downloadable on our [www.ttkuk.com](http://www.ttkuk.com) web site.

The FG-SYS LL digital unit meets the requirements of all European Standards in EN 50081 and EN 50082 EMC. FG-SYS meets the TÜV requirements, according to IEC 61010-1/A2. FG-SYS is UL Listed.



# FG-SYS LL Digital Unit

## Button Functions

### Thirteen Tactile Buttons:

- **ACQ button:** for audible alarm; The key is also used for main menu and history records:
- **"T"est button:** to launch general test procedure.
- **"M"enu button:** to activate the menu configuration.
- **"H"istory button:** to return to the last thirty faults.

## Terminal Block Wiring:

- **Power:** 230 V. power connector M+F
- **Circuits 1,2,3:** 4 pts connector for leader cable FG-CLC.
- **Relays:** 8 relays with 2 pts connectors programmable.
- **DB9 Male:** serial plug RS232/RS485 for JBUS/MODBUS communication to BMS, and for dot printer or PC Computer

## LCD Panel Description

**Normal Operating Condition:** The FG-SYS LL digital unit does not detect any problem.

**Leak Detection:** a leak occurs in one of the monitored zones; a signal light turns to red, an alarm sounds, a de-energized relay is active; the display panel shows the time and date the problem began, the area name and the leaks distance in metres .

**Cable Break:** When the FG-SYS LL digital unit detects a circuit break in one of the monitored circuits; a signal light turns to red, an alarm sounds, a de-energized relay is activated; the display panel shows the time and date the problem began, and the area name.

## Dimensions



**FG-SYS LL, Digital Unit Wall Mounted**  
Width: 200 mm, High: 250 mm, and Deep: 100 mm

## Technical Information

Supply voltage:	230 VAC 50-60 Hz. 12 VA.
Fusing:	2 x 500mA on the Secondary, EMC Filter on the Primary
Working temperature range:	0 to 50 °C.
Weight:	3 Kg. for FG-SYS LL Wall Mounted with Metal Enclosure
Construction:	Metal Enclosure Wall Mounted (200x250x100)
Alarm relays:	Eight relays to be programmed in the Menu and Setup Software
Relays types:	1 RT, Open or Close in a non active state
Max. switching voltage:	125 V. AC and 60 V. DC
Max. switching capacity:	0,5A at 125VAC or 60VDC; 1A below 32VAC or 24VDC
Electromagnetic European harmonised standards:	EN 50081-1 (92) and EN 50082-1 (92) (report reference n° 8080612-CQPE/1 dated 14/09/1998)

## Identification codes

### FG-SYS Products:

FG-SYSL\_Asia1.pub  
4.2008

### FG-SYS LL (Wall Mounted)

FG-SYS Digital Unit Long Line Wall Mounted in Metal Enclosure

### FG-ECS or FG-ACS

Random Sensing Cables for Water or Acids Liquids

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