

# FG-ALS4

# Four Zones Alarm & Locating System Unit

#### Product Datasheet







- ► Locating Leak Detection System
- ► 4 Independent Zones
- 4 Simultaneous Leaks can be Detected
- ► Touchscreen 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 to give instant detection of liquid leaks (water, acids 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 touchscreen 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 automatically mute the alarm when the leak or break is resolved.

### **Key Advantages**

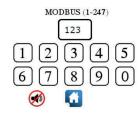
- Zone Control: The FG-ALS4 unit can control up to 147 ft (45 m) of sense cable per zone.
- Adjustable Sensitivity: The sensitivity of the unit is adjustable via the potentiometer located on the PCB.
- Flexible Mounting Options: Available in both wall mounted and rack mounted (19" and 3U).
- Fault Detection: The system detects cable break faults to ensure reliable monitoring.
- User-Friendly Interface: Users can customize the system through submenus accessible from the home screen to set up the unit easily.
- Seamless BMS Integration: The unit features an RS485 serial link with MODBUS/JBUS communication protocol, enabling easy interfacing with Building Management Systems (BMS).
- Precision & Usability: The FG-ALS4 unit is accurate and easy to use, making it ideal for small and medium applications where precise leak location is required.

#### 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 and to set the "mute" mode:



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

<u> </u>	C
45 m	15 m
ZONE 3	ZONE 4
20 m	5 m
ZONE 1	ZONE 2

■ 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.



Compatibility         Digital units: FG-NET, FG-BBDX, FG-BB-PGE, FG-RELAYS via FG-DTM Analog sense cables: FG-ECS, FG-ECS, FG-ACS, FG-ACS           Dimensions & Weight         Wall mounted: 6.61" W x 6.02" H x 2.20" D [168 mm W x 153 mm H x 56 mm D] 1.76 lbs [0.8 kg] Rack mounted: 3U [5.25"] (or 482.60mm x 132.56 mm) 1.54 lbs [0.7 kg]           Sensor Capacity         4 x 147 ft [45 m]           Location Accuracy         4/-3 ft [1 m]           Operating Languages         English, French, German           Supply Voltage         100-240 VAC, 50/60 Hz           Current         0.06 A [120 V), 0.03 A [230 V]           Power Consumption         7 VA Max           Operating Temperature         5°F to 131°F [-15°C to 55°C]           Case Type         ABS flame retardant UL94V0           Screen Size         3.5"           Format         Wall mounted & rack mounted 3U           Ingress Protection         IP40 for wall mounted, no IP indice for rack mounted           Serial Connection         MODBUS/JBUS RS485           Numbers of Realys         5 [4 leak relays + 1 break & power failure relay)           Relay Types         Volt free dry contact (NO, NC, COM)           Power Failure Relay         Activated on loss of supply voltage           Type of Faults Available on the Configurable Relays         Non-configurable           Maximum Relay Switching Voltage         125		
1.76 lbs (0.8 kg)   Rack mounted: 3U (5.25") (or 482.60mm x 132.56 mm)   1.54 lbs (0.7 kg)	Compatibility	
Location Accuracy +/- 3 ft [1 m]  Operating Languages English, French, German  Supply Voltage 100-240 VAC, 50/60 Hz  Current 0.06 A (120 V), 0.03 A (230 V)  Power Consumption 7 VA Max  Operating Temperature 5°F to 131°F [-15°C to 55°C)  Case Type ABS flame retardant UL94V0  Screen Size 3.5"  Format Wall mounted & rack mounted 3U  Ingress Protection IP40 for wall mounted, no IP indice for rack mounted  Serial Connection MODBUS/JBUS RS485  Numbers of Realys 5 [4 leak relays + 1 break & power failure relay]  Relay Types Volt free dry contact (NO, NC, COM)  Power Failure Relay Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays Non-configurable  Maximum Relay Switching Voltage 125 VAC and 220 VDC	Dimensions & Weight	1.76 lbs (0.8 kg) Rack mounted: 3U (5.25'') (or 482.60mm x 132.56 mm)
Operating Languages       English, French, German         Supply Voltage       100-240 VAC, 50/60 Hz         Current       0.06 A (120 V), 0.03 A (230 V)         Power Consumption       7 VA Max         Operating Temperature       5°F to 131°F (-15°C to 55°C)         Case Type       ABS flame retardant UL94V0         Screen Size       3.5"         Format       Wall mounted & rack mounted 3U         Ingress Protection       IP40 for wall mounted, no IP indice for rack mounted         Serial Connection       MODBUS/JBUS RS485         Numbers of Realys       5 (4 leak relays + 1 break & power failure relay)         Relay Types       Volt free dry contact (NO, NC, COM)         Power Failure Relay       Activated on loss of supply voltage         Type of Faults Available on the Configurable Relays       Non-configurable         Maximum Relay Switching Voltage       125 VAC and 220 VDC	Sensor Capacity	4 x 147 ft (45 m)
Supply Voltage  100-240 VAC, 50/60 Hz  Current  0.06 A (120 V), 0.03 A (230 V)  Power Consumption  7 VA Max  Operating Temperature  5°F to 131°F (-15°C to 55°C)  Case Type  ABS flame retardant UL94V0  Screen Size  3.5"  Format  Wall mounted & rack mounted 3U  Ingress Protection  IP40 for wall mounted, no IP indice for rack mounted  Serial Connection  MODBUS/JBUS RS485  Numbers of Realys  5 (4 leak relays + 1 break & power failure relay)  Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Type of Faults Available on the Configurable Relays  Non-configurable  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Location Accuracy	+/- 3 ft (1 m)
Current  O.06 A [120 V], 0.03 A [230 V]  Power Consumption  7 VA Max  Operating Temperature  5°F to 131°F [-15°C to 55°C]  Case Type  ABS flame retardant UL94V0  Screen Size  3.5"  Format  Wall mounted & rack mounted 3U  Ingress Protection  IP40 for wall mounted, no IP indice for rack mounted  Serial Connection  MODBUS/JBUS RS485  Numbers of Realys  5 [4 leak relays + 1 break & power failure relay)  Relay Types  Volt free dry contact [NO, NC, COM]  Power Failure Relay  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Operating Languages	English, French, German
Power Consumption 7 VA Max  Operating Temperature 5°F to 131°F (-15°C to 55°C)  Case Type ABS flame retardant UL94V0  Screen Size 3.5"  Format Wall mounted & rack mounted 3U  Ingress Protection IP40 for wall mounted, no IP indice for rack mounted  Serial Connection MODBUS/JBUS RS485  Numbers of Realys 5 [4 leak relays + 1 break & power failure relay]  Relay Types Volt free dry contact (NO, NC, COM)  Power Failure Relay Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays Non-configurable  Maximum Relay Switching Voltage 125 VAC and 220 VDC	Supply Voltage	100-240 VAC, 50/60 Hz
Operating Temperature  5°F to 131°F (-15°C to 55°C)  Case Type  ABS flame retardant UL94V0  Screen Size  3.5"  Format  Wall mounted & rack mounted 3U  Ingress Protection  IP40 for wall mounted, no IP indice for rack mounted  Serial Connection  MODBUS/JBUS RS485  Numbers of Realys  5 (4 leak relays + 1 break & power failure relay)  Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Current	0.06 A (120 V), 0.03 A (230 V)
Case Type  ABS flame retardant UL94V0  Screen Size  3.5"  Format  Wall mounted & rack mounted 3U  Ingress Protection  IP40 for wall mounted, no IP indice for rack mounted  Serial Connection  MODBUS/JBUS RS485  Numbers of Realys  5 [4 leak relays + 1 break & power failure relay]  Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Power Consumption	7 VA Max
Screen Size  Screen Size  Wall mounted & rack mounted 3U  Ingress Protection  IP40 for wall mounted, no IP indice for rack mounted  MODBUS/JBUS RS485  Numbers of Realys  Serial Connection  Non-Configurable  Non-configurable  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Operating Temperature	5°F to 131°F ( -15°C to 55°C)
Format  Wall mounted & rack mounted 3U  Ingress Protection  IP40 for wall mounted, no IP indice for rack mounted  Serial Connection  MODBUS/JBUS RS485  Numbers of Realys  5 [4 leak relays + 1 break & power failure relay]  Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Case Type	ABS flame retardant UL94V0
Ingress Protection  IP40 for wall mounted, no IP indice for rack mounted  MODBUS/JBUS RS485  Numbers of Realys  5 [4 leak relays + 1 break & power failure relay]  Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Screen Size	3.5"
Serial Connection  MODBUS/JBUS RS485  Numbers of Realys  5 [4 leak relays + 1 break & power failure relay]  Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Format	Wall mounted & rack mounted 3U
Numbers of Realys  5 [4 leak relays + 1 break & power failure relay]  Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Ingress Protection	IP40 for wall mounted, no IP indice for rack mounted
Relay Types  Volt free dry contact (NO, NC, COM)  Power Failure Relay  Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays  Maximum Relay Switching Voltage  125 VAC and 220 VDC	Serial Connection	MODBUS/JBUS RS485
Power Failure Relay Activated on loss of supply voltage  Type of Faults Available on the Configurable Relays Maximum Relay Switching Voltage 125 VAC and 220 VDC	Numbers of Realys	5 (4 leak relays + 1 break & power failure relay)
Type of Faults Available on the Configurable Relays  Non-configurable  125 VAC and 220 VDC	Relay Types	Volt free dry contact (NO, NC, COM)
Maximum Relay Switching Voltage 125 VAC and 220 VDC	Power Failure Relay	Activated on loss of supply voltage
	Type of Faults Available on the Configurable Relays	Non-configurable
Maximum Relay Switching Capacity 60 W (30 V x 2A)	Maximum Relay Switching Voltage	125 VAC and 220 VDC
	Maximum Relay Switching Capacity	60 W (30 V x 2A)

#### **Identification Codes**

FG-ALS4 F	Analog Touchscreen Panel 4 Zones (Wall Mounted) 100-240VAC - Water & Acids Detection
FG-ALS4 E	Analog Touchscreen Panel 4 Zones (19' Rack Mounted) 100-240VAC - Water & Acids Detection
Accessories:	
FG-CLC	Leader Cable 11.5 ft (3.5 m)
FG-TMX	End Termination
CF-EC100	100 Hold-down Clips with Adhesive
ES-EC	40 Signal Tags

## Certifications



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.

This brochure has been carefully prepared to ensure technical accuracy but is only intended for promotional use. TTK cannot guarantee that the information contained herein contains no errors or omissions, and hence does not accept responsibility related to the use of its equipment. TTK maintain its obligations set forth in the Standard Terms and Conditions of Sale and will not, under any circumstances, assume liability for any incidental damages, indirect or consequential, arising from the sale, resale, use or misuse of this product. The purchaser(s) accept their responsibility as the sole judge(s) of the adaptability of the product for the intended use.

FG-NET, FG-SYS and TOPSurveillance are trademarks of TTK S.A.S.  $\, @$  TTK 2025

- TTK USA Inc. / 100 S. Broad Street, Suite 730 Philadelphia, PA 19110 / Tel. +1 610 304 2270 / www.ttkusa.com / sales@ttkusa.com
- 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