

GENERAL ALARM UNIT type ITGA-02

Documentation: ITGA-02, installation and user documentation,11012017

GENERAL ALARM UNIT type ITGA-02 Contents

1. Technical characteristics	1
2. Front view / description	3
3. Principle of operation	4
4. Block diagram	7
5. Outlines / connection	8

GENERAL ALARM UNIT type ITGA-02 Technical characteristics

- POWER SUPPLY: 24VDC (18VDC 32VDC) Note: The unit have to be connected to main and emergency power supply, by using external power supply unit
- 2. CONSUMPTION: max. 200mA/24VDC
- AUTOMATICALLY GENERATED SIGNALS: Abandon ship alarm (short – long – short – long) General emergency alarm (7 x short – 1 x long) Fire alarm (continuous)
 Other signals can be given manually.

4. ALARM PRIORITY: 1. Manually given sig

- TY: 1. Manually given signal 2. Abandon ship alarm
 - 3. General emergency alarm
 - 4. Fire alarm
- 5. ALARM SIGNAL TIMINGS:
 - Abandon ship (signal short = 1s, signal long = 6s, pause between signals = 1s) General emergency (signal short = 1s, signal long = 7s, pause between signals = 1s)
- 6. Illuminated, dimmable switches
- 7. Protective cap for each switch, to avoid unintentional activation
- 8. INPUTS:

FIRE ALARM INPUT: Voltage-free N.O. input contact for fire alarm activation (e.g. from fire detection system)

GENERAL EMERGENCY ALARM INPUT: Voltage-free N.O. input contact for general emergency alarm activation (from other strategic points and/or other systems e.g. BNWAS)

MUTE INPUT: Voltage-free N.O. input contact for automatically given signals muting (connected to PA for Emergency PA messaging)

9. OUTPUTS:

ALARM OUTPUT FOR SIRENS

- Voltage-free, N.O. contact, max. 2A/230VAC
 - Type of signal: IMO code 1A (7 x short 1 x long) for General emergency alarm IMO code 1B (short – long – short – long) for Abandon ship alarm IMO code 2 (continuous) for Fire alarm or manually given signal
- Activation:
 - by closing input contact for General emergency alarm and/or Fire alarm
 - by switching "ABANDON SHIP" switch, "GENERAL EMERGENCY" switch and/or "FIRE ALARM" switch on
 - by pressing "MANUAL" push button
- Note: Output signal can be temporary blocked by Mute input, but only in case of automatically given signal (Abandon ship / General emergency alarm / Fire alarm)

CONSTANT SIGNAL OUTPUT

- Voltage-free, C.O. contact, max. 2A/230VAC
- Type of signal: IMO code 2 (continuous)
- Activation:
 - by closing input contact for General emergency and/or Fire alarm
 - by switching "ABANDON SHIP" switch, "GENERAL EMERGENCY" switch and/or "FIRE ALARM" switch on
 - by pressing "MANUAL" push button
- Note: In the case of manually given signal, the output will be activated for 10s after "MANUAL" push button is released

GENERAL/ABANDON ALARM OUTPUT

- Voltage-free, C.O. contact, max. 2A/230VAC
- Type of signal: IMO code 2 (continuous)
- Activation:
 - By closing input contact for General emergency alarm
 - By switching "ABANDON SHIP" switch and/or "GENERAL EMERGENCY" switch on
- The output can be used for General Emergency / Abandon ship alarm visual indication

FIRE ALARM OUTPUT

- Voltage-free, C.O. contact, max. 2A/230VAC
- Type of signal: IMO code 2 (continuous)
- Activation:
 - By closing input contact for Fire alarm
 - By switching "FIRE ALARM" switch on
- The output can be used for Fire alarm visual indication

POWER/SYSTEM FAILURE ALARM OUTPUT

- Voltage-free, C.O. contact, max. 2A/230VAC
- Type of signal: IMO code 2 (continuous)
- Activation:
- The output is activated in normal condition and deactivated in case of Power failure (there is no 24VDC on input terminals or internal fuse is burned) and/or in case of System failure (internal electronic is not in function)
- 10. Alarm output for sirens can be activated manually even in the case of Power/System failure
- 11. IP RATING: IP44 (front)

GENERAL ALARM UNIT type ITGA-02 Front view / description



- (4) PUSH BUTTON "MANUAL" Illuminated red push button with protective cap, for manually given alarm signal
- (5) DIMMER POTENTIOMETER →☆ for adjusting the illumination of the switches and push button

GENERAL ALARM UNIT type ITGA-02 Pinciple of operation

POWER SUPPLY / POWER FAILURE

Connect power supply voltage 24VDC at power supply terminals. "ABANDON SHIP" switch (1), "GENERAL EMERGENCY" switch (2), "FIRE ALARM" switch (3) and "MANUAL" push button (4) are illuminated immediately. By using dimmer potentiometer (5), the illumination can be increased (clockwise) or decreased (counterclockwise).

General alarm unit type ITGA-02 is ready to use.

If there is no 24VDC at power supply terminals or internal fuse is burned, power failure alarm is activated. The switches (1), (2), (3) and push button for manually given signal (4) aren't illuminated and relay for Power/system falure remains deactivated.

NOTE:

Switches (1), (2), (3) and push button (4) have protective caps to avoid unintentional activation. Before activating the switch, the cap needs to be open. After finishing, don't forget to close the cap.

ABANDON SHIP ALARM

Abandon ship alarm is activated by switching "ABANDON SHIP" switch (1) on. Alarm output for sirens, constant signal output and General/Abandon alarm output are activated. Operation is indicated by flashing abandon ship signal sequence (short – long – short – long) inside the switch (1) with full intensity. Illumination of other switches (2), (3) and "MANUAL" push button (4) is off.

Alarm can be stopped by switching the switch (1) off or overrided by manually given signals. In the case that "MANUAL" push-button (4) is pressed while abandon ship alarm is activated, abandon ship signal will be interrupted and manually given signal will be proceeded to alarm output for sirens. Illumination of "ABANDON SHIP" switch (1) goes off and the light inside of "MANUAL" push button (4), goes on and off, depending on the state of push button (pressed = light ON, released = light OFF). When the manual signalling has been finished, abandon ship alarm continues with 10s delay, if "ABANDON SHIP" switch (1) is still switched on.

GENERAL EMERGENCY ALARM

General emergency alarm is activated by switching "GENERAL EMERGENCY" switch (2) on and/or by closing input contact for general emergency alarm. Alarm output for sirens, constant signal output and General/Abandon alarm output are activated. Operation is indicated by flashing general emergency signal sequence (7 x short – 1 x long) inside the switch (2) with full intensity. Illumination of other switches (1), (3) and "MANUAL" push button (4) is off.

Alarm can be stopped by switching the switch (2) off and/or by opening input contact for general emergency alarm. General emergency alarm can be overrided by abandon ship alarm and manually given signal.

In the case that "ABANDON SHIP" switch (1) is switched on while general emergency alarm is activated, general emergency signal will be interrupted and abandon ship signal will be proceeded to alarm output for sirens. Illumination of "GENERAL EMERGENCY" switch (2) goes off and abandon ship signal sequence (short – long – short – long) will flash inside of "ABANDON SHIP" switch (1).

After "ABANDON SHIP" switch (1) is switched off, general emergency alarm continues with 10s delay, if "GENERAL EMERGENCY" switch (2) is still switched on and/or input contact for general emergency alarm is closed.

In the case that "MANUAL" push button (4) is pressed while general emergency alarm is activated, general emergency signal will be interrupted and manually given signal will be proceeded to alarm output for sirens. Illumination of "GENERAL EMERGENCY" switch (2) goes off and the light inside of

"MANUAL" push button (4) goes on and off depending on the state of push button (pressed = light ON, released = light OFF).

When the manual signalling has been finished, general emergency alarm continues with 10s delay, if "GENERAL EMERGENCY" switch (2) is still switched on and/or input contact for general emergency alarm is closed.

FIRE ALARM

Fire alarm is activated by switching "FIRE ALARM" switch (3) on and/or by closing input contact for fire alarm. Alarm output for sirens, constant signal output and Fire alarm output are activated. Operation is indicated by continuous illumination of the switch (3) with full intensity. Illumination of other switches (1), (2) and "MANUAL" push button (4) is off.

Alarm can be stopped by switching the switch (3) off and/or by opening input contact for fire alarm. Fire alarm can be overrided by abandon ship alarm, general emergency alarm and manually given signal.

In the case that "ABANDON SHIP" switch (1) is switched on while fire alarm is activated, fire alarm signal will be interrupted and abandon ship signal will be proceeded to alarm output for sirens. Illumination of "FIRE ALARM" switch (3) goes off and abandon ship signal sequence (short – long – short – long) will flash inside of "ABANDON SHIP" switch (1). Addtionally, General/Abandon alarm output is activated.

After "ABANDON SHIP" switch (1) is switched off, fire alarm continues with 10s delay, if "FIRE ALARM" switch (3) is still switched on and/or input contact for fire alarm is closed.

In the case that "GENERAL EMERGENCY" switch (2) is switched on and/or input contact for general emergency alarm input is closed, while fire alarm is activated, fire alarm signal will be interrupted and general emergency alarm signal will be proceeded to alarm output for sirens. Illumination of "FIRE ALARM" switch (3) goes off and general emergency alarm signal sequence (7 x short – 1 x long) will flash inside of "GENERAL EMERGENCY" switch (2). Additionally, General/Abandon alarm output is activated.

After "GENERAL EMERGENCY" switch (2) is switched off and/or input contact for general emergency alarm input is open, fire alarm continues with 10s delay, if "FIRE ALARM" switch (3) is still switched on and/or input contact for fire alarm is closed.

In the case that "MANUAL" push button (4) is pressed while fire alarm is activated, fire alarm signal will be interrupted and manually given signal will be proceeded to alarm output for sirens. Illumination of "FIRE ALARM" switch (3) goes off and the light inside of "MANUAL" push button (4) goes on and off depending on the state of push button (pressed = light ON, released = light OFF).

When the manual signalling has been finished, fire alarm continues with 10s delay, if "FIRE ALARM" switch (3) is still switched on and/or input contact for fire alarm is closed.

MANUALLY GIVEN SIGNAL

By pressing "MANUAL" push button (4) any desired signal (e.g. Morse signals) can be given. Alarm output for sirens and constant signal output are activated. The light inside of "MANUAL" push button (4) goes on and off (with full intensity) depending on the state of push button (pressed = light ON, released = light OFF). Illumination of other switches (1), (2), (3) is off. Alarm output for sirens will be activated as long as the push button (4) is pressed and deactivated when the push button (4) is released. Constant signal output will be activated for 10s after the push button (4) is released.

Manually given signal has priority over abandon ship alarm, general emergency alarm and fire alarm. By pressing "MANUAL" push button (4) other signals are interrupted and manually given signal is proceeded to alarm output for sirens. When the manual signalling has been finished, other alarm signal continues with 10s delay.

NOTE:

In the case of power and/or system failure, any type of alarm can be given manually. In that case, manually given signal will be proceeded to alarm output for sirens only.

MUTE INPUT

Mute input is used to disable alarm output for sirens during Emergency PA messaging. If mute input contact is closed during abandon ship alarm, general emergency alarm and/or fire alarm, alarm output for sirens will be blocked. Other alarm outputs (General/Abandon alarm output, Fire alarm output, constant signal output) remain activated (depending on the alarm) to insure visual signalization during alarm situation. Since the illumination of appropriate alarm switch (1), (2), (3) follows the state of alarm output for sirens, the switches (1), (2), (3) and "MANUAL" push button (4) won't be illuminated. After mute contact becomes open again, alarm output for sirens will continue with alarm sequence and the illumination of the switches will be activated again.

In the case of manually given signal, mute input doesen't have influence at alarm output for siren.

TROUBLESHOOTING:

SWITCHES (1), (2), (3) AND PUSH BUTTON (4) ARE NOT ILLUMINATED.

Possible problems/solutions

- 1. There is a problem with dimmer potentiometer (5) by rotating it clockwise/counterclocwise, the illumination is not increased/decreased.
- 2. There is no power supply 24VDC at power supply terminals. Please check if (+) is connected to input terminal No. 1 and (0V) to input terminal No.2.
- 3. Internal fuse is missing or it is burned. Please remove the backplate of the unit and check the fuse (0.5AF).
- 4. If power supply 24VDC is present at the input terminals and internal fuse is OK, check power/system failure output contact. If this output is in alarm state (deactivated), there is a problem in electronics. The unit can be used only for manually given signals.
- 5. Incandescent lamps inside of the switches (1), (2), (3) and push button (4) are burned. Please check if other functions are OK (activation of alarm outputs). If yes, remove all caps and check the lamps.
- 6. Abandon ship, general emergency alarm and/or fire alarm are activated, but mute input contact is closed. Please check the state of input contacts and outputs.
- 7. If more alarms are activated in the same time, the alarm with the highest proiority will be activated. If the alarm with higher priority goes off, there is 10s delay before the unit activates the alarm with lower priority.

NOTE:

If there is any problem or dfference in the unit's functionality, which is not described in this chapter, please contact INELTEH for further explanation / troubleshooting.



