ALARM UNIT type ITDAC-14-2

INSTALLATION AND USER DOCUMENTATION

ITDAC-14-2, 2019-02-15, ver1.0

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1. INTRODUCTION

COPYRIGHT NOTICE

WARNING

The equipment to which this manual applies must only be used for the purpose for which it was designed. Improper use or maintenance may cause damage to the equipment and/or injury to personnel. The user must be familiar with the contents of this manual before attempting to operate or work on the equipment. INELTEH d.o.o. disclaims any responsibility for damage or injury caused by improper installation, use or maintenance of the equipment.

SAFETY

Installation and maintenance should be performed only by skilled and authorised personnel.

The equipment contains delicate electronic components and therefore must be handled accordingly.

Ensure that the connection cables carry no live signals/voltage before connecting the cable wires to the equipment.

At end-of-life, the equipment shall be considered as electronic waste and shall be disposed of separately from municipal solid waste. Follow local laws and regulations regarding recycling, if the equipment and/or its parts are accepted by an authorized recycling company. If not, contact INELTEH d.o.o. for further instructions.

2. EQUIPMENT LIST / ORDERING CODES

03-01-008 ALARM UNIT type ITDAC-14-2 with 10 Alarm Inputs

03-01-009 ALARM UNIT type ITDAC-14-2 with 13 Alarm Inputs

VERSION DIFFRENCES

03-01-009 has three additional alarm inputs and alarm and failure relay

3. TECHNICAL DATA

1. Rated voltage: 24V DC (19-32V)

2. Current consumption: 0.4A max on 24V DC

3. Number of alarm inputs:
   - 10 (13 f*or 03-01-009)* optically insulated for N.O. or N.C. voltage-free contacts (user selectable by control buttons)
   - 8th, 9th and 10th can be arranged for current loop or voltage analogue signal (no galvanic insulation, negative pole of signal source power supply connected to internal negative of ITDAC-14-2 supply)
   - 2 seconds common alarm delay and user adjustable (by control buttons) additional delay 0-255 seconds

4. Alarm levels for analogue inputs:
   - User adjustable by control buttons, with 2% of input signal range max. resolution

5. Relays outputs:
   - EXTERNAL ALARM
     Voltage-free change-over, activated in alarm condition, 1A / 250VAC, for external alarm (additional signalling device) – follows the state of buzzer
   - ALARM AND FAILURE (o*nly for 03-01-009)*
     Voltage-free change-over, deactivated in alarm condition, 1A / 250V AC, for alarm, power failure, system failure and system off

6. *TEST* button for LEDs, buzzer and relays testing

7. Double-function button for audio and light alarm acceptance

8. Dimmer button (new alarm is indicated by blinking with full intensity)

9. Internal buzzer for local audible signalling

10. Power failure indication:
    - LED *POWER/SYS FAILURE* blinking
    - Local audible alarm (buzzer)
    - Output relay for external alarm activated
    - Output relay for alarm and failure deactivated

11. System failure indication
    - LED *POWER/SYS FAILURE* on (steady)
    - Local audible alarm (buzzer)
    - Output relay for external alarm activated
    - Output relay for alarm and failure deactivated

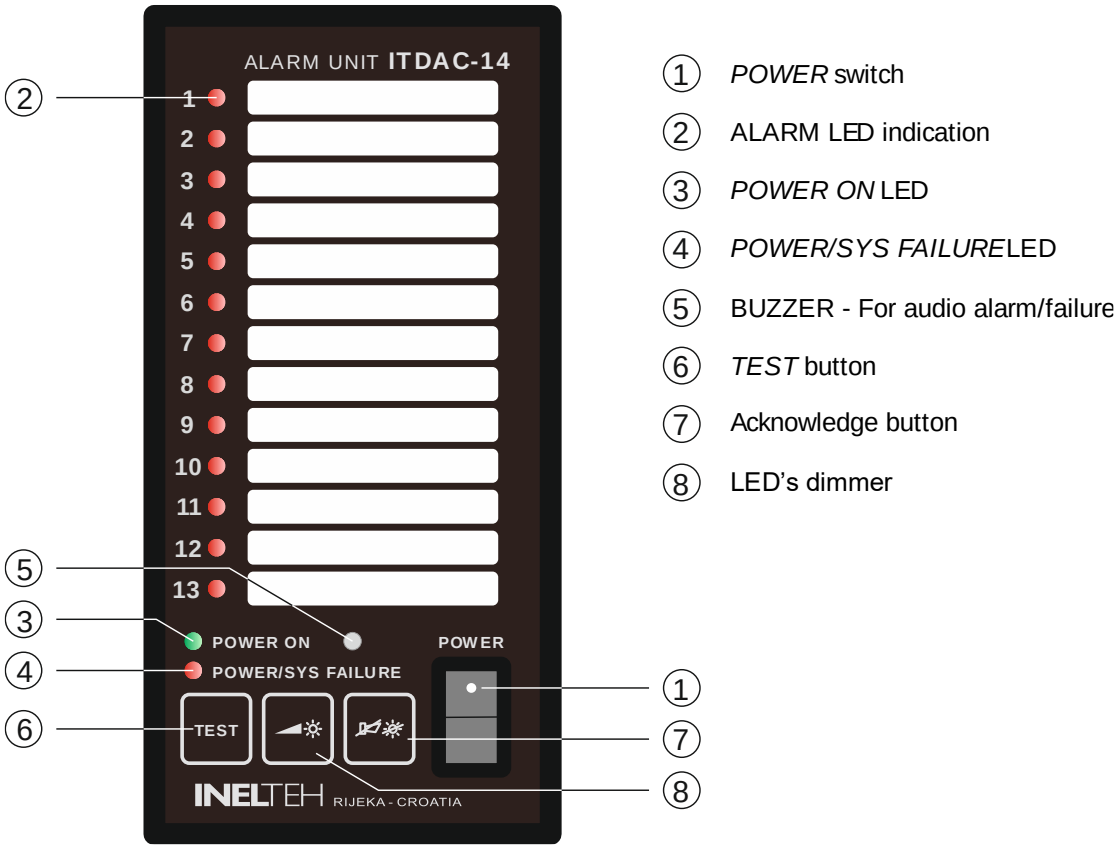
12. Equipment switch-off indication
    - LED *POWER ON* off
    - Output relay for alarm and failure deactivated

13. User changeable alarm list label

14. Ambient temperature: -25C ... +70C

15. Type approvals: LR, CRS

4. DESCRIPTION



1. *POWER* switch - for turning ITDAC-14-2 on/off
   If this switch is on and there is no 24V DC power supply connected to input power supply terminals *POWER/SYS FAILURE* LED is blinking, buzzer is on, output relay for external alarm is activated, alarm and failure relay is deactivated. *POWER ON* LED is off.

2. 10 (13) red LEDs indicate condition of corresponding input channel.
   - Normal condition: LED is off
   - Not acknowledged alarm: LED is blinking with full intensity
   - Acknowledged alarm: LED is on (steady) with intensity depending on dimmer setting

3. *POWER ON* LED - indicates that ITDAC-14-2 is turned on and power supply is present.

4. *POWER/SYS FAILURE* LED - blinking for power supply failure (absence of 24V DC on power supply input terminals, burned internal fuse or malfunction of internal power supply electronic components); LED on (steady) for system failure

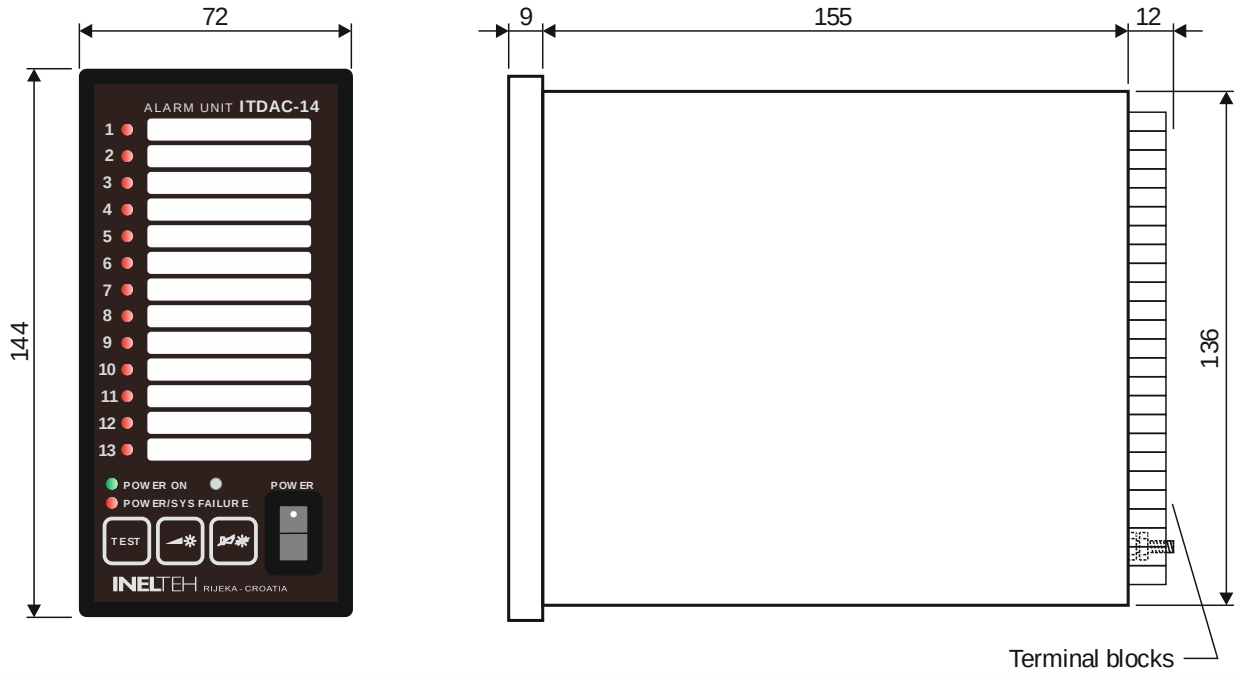
5. BUZZER - activated for alarm, power or system failure. The only way to deactivate the buzzer in case of system failure is to turn-off ITDAC-14-2.

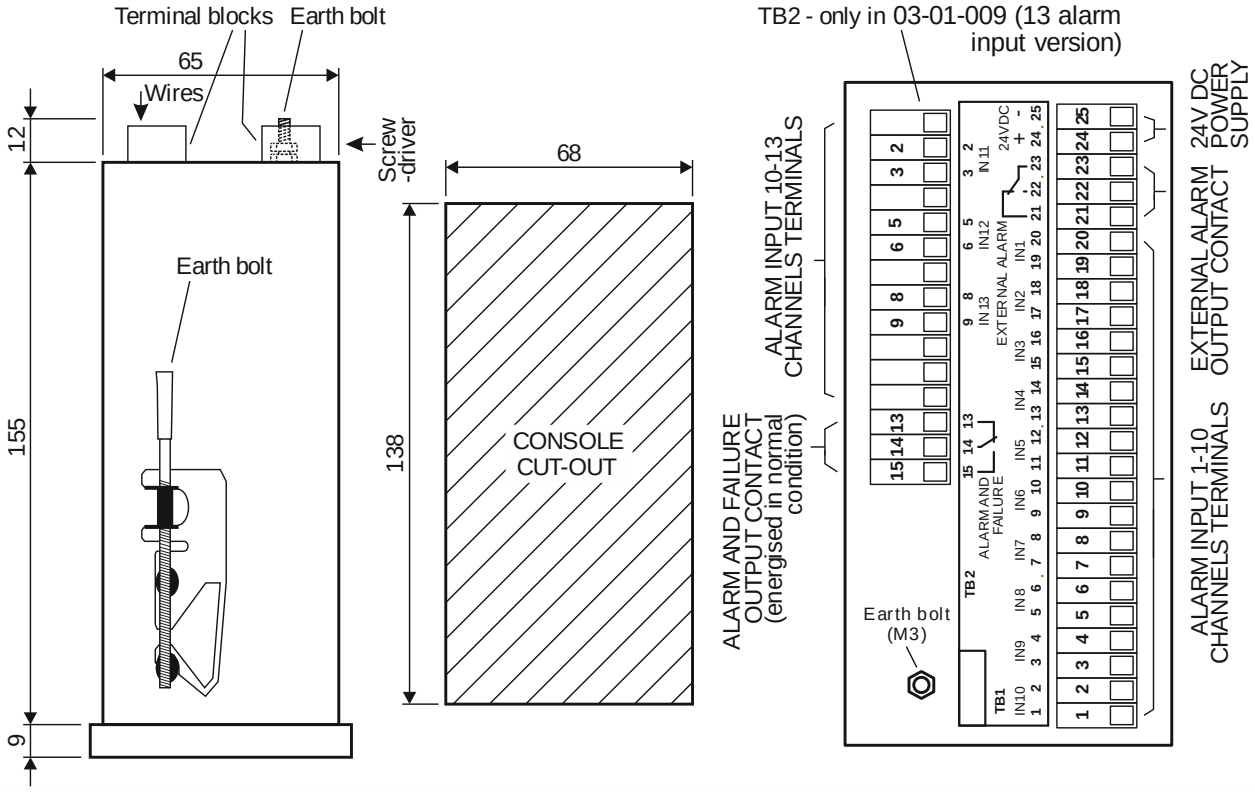
6. *TEST* button - by this button alarm condition can be simulated. LED *POWER/SYS FAILURE* is also tested.

7.  button - double function acknowledge button. First press after new alarm occurs, stops the buzzer, deactivates output relay for external alarm and activates alarm and failure relay. Second press acknowledges alarm LEDs blinking.

8.  button - one press decreases LEDs intensity by one step. Long press decreases LEDs intensity to minimum. Alarm input and *POWER/SYS FAILURE* LEDs always blink with full intensity, independent of dimmer setting.

5. OUTLINES AND CONENCTION

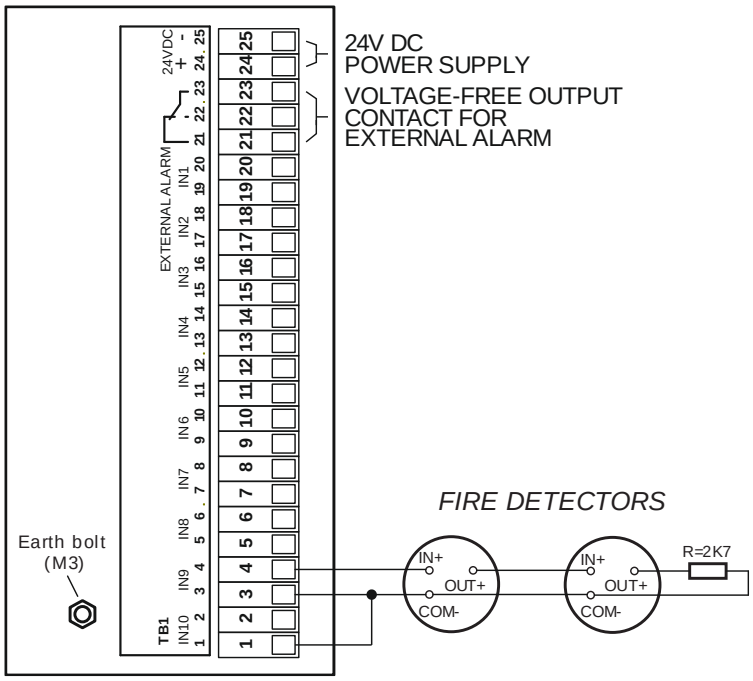




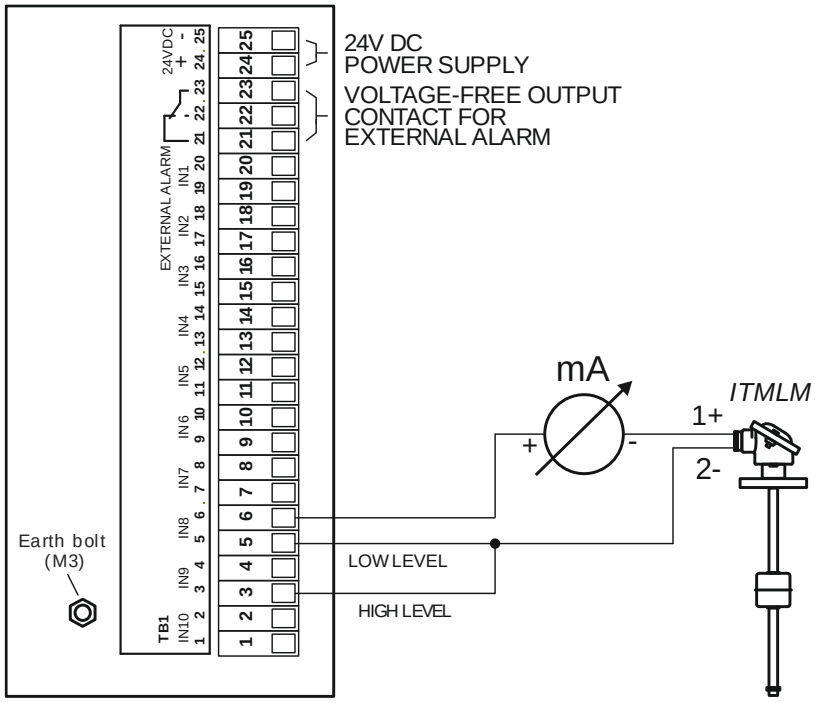
NOTE:
Input channels' terminals TB1-2,4,6,8,10,12,14,16,18,20 are connected together inside the unit. Can be used as COMMON in case of input contacts with common wire. In case when 8th, 9th or 10th input is used for analogue signal, corresponding terminal (TB1-2, 4 or 6) is excluded from that internal connection.

6. EXAMPLE OF CONNECTION DIAGRAM

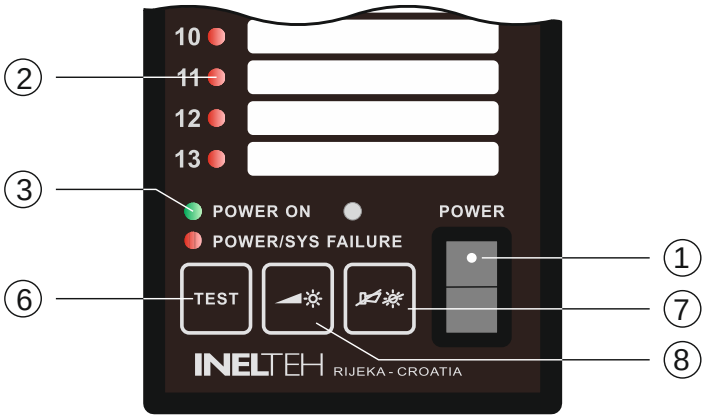
FIRE DETECTORS CONNECTION



MAGNETIC LEVEL MEASUREMENT TYPE ITMLM CONNECTION



7. ADJUSTMENTS



1. *POWER* switch
2. ALARM LED indication
3. *POWER ON* LED
6. *TEST* button
7. Acknowledge button
8. LED's dimmer

TYPE OF INPUT CONTACT SETTING

-Turn off *POWER* switch (1). Keep pressed *TEST* button (6) and turn *POWER* switch (1) on. *POWER ON* LED (3) starts blinking. Release *TEST* button (6). Alarm LEDs (2) are on or off depending of previous setting for type of input contact. LED is on if corresponding channel was previously set for N.C. input contact (open in alarm condition). LED is off if corresponding channel was previously set for N.O. input contact (close in alarm condition). "Normal close" setting for analog inputs means that alarm will occur if level on analog input is above preset level, and vice versa.
- By pressing *TEST* button (6) select input channel. Corresponding LED starts blinking.
- By button (7) press set LED on, for N.C. input contact, or off, for N.O. input contact.
- By *TEST* button (6) press select another channel or turn *POWER* switch (1) off for ending adjustment.

ALARM DELAY SETTING

- Turn off *POWER* switch (1). Keep pressed button (7) and turn *POWER* switch (1) on. *POWER ON* LED (3) starts blinking. Release button (7). All alarm LEDs (2) are off.
- By pressing *TEST* button (6) select input channel. Corresponding LED goes on.
- Release *TEST* button (6). If LED remains on, there was no additional delay previously set (only common 2 seconds delay exists). The number of LEDs blinks after *TEST* button (6) releasing, represent previously set additional alarm delay in seconds. Total delay is 2 seconds common delay plus additional delay. If you are not interested in alarm delay for current channel, it is possible to press *TEST* (6) in any time to select another channel. Previous channel alarm LED remains on.
- By pressing button (7) new additional alarm delay can be set. Setting can start during "old" delay reading or after delay reading is finished. Each time button (7) is pressed, LED goes off and on again (it remains on). First press sets new additional alarm delay to zero, even in case the old delay was zero (only common 2 seconds delay remain). Each additional press increases new additional delay for 1 second (remember: total alarm delay is 2 seconds common delay plus additional delay sets by this procedure).
- By *TEST* button (6) press select another channel or turn *POWER* switch (1) off for ending adjustment.

ANALOG INPUTS' ALARM LEVEL SETTING

Note 1: Voltage levels refer to voltage between corresponding microcontroller analog input pin and ground (0 to 5V). Voltage or current levels on input terminal block depend of interface network between input terminals and microcontroller pin.
- Turn off *POWER* switch (1). Keep pressed button (8) and turn *POWER* switch (1) on. *POWER ON* LED (3) starts blinking. Release button (8). All alarm LEDs (2) are off.
- By pressing *TEST* button (6) select input channel (only 8th, 9th and 10th can be selected). Corresponding LED goes on.
- Release *TEST* button (6). If LED remains on, previously set alarm level is 0V. The number of LED's blinks after *TEST* button (6) releasing, represent alarm level in 0.1V units that was previous set.

Alarm level is: number of blinks*0.1 V. If you are not interested in alarm level for current channel, it is possible to press *TEST* (6) in any time to select another channel. Previous channel alarm LED remains on.

- By pressing button (7) new alarm level can be set. Setting can start during "old" level reading or after level reading is finished. Each time (7) button is pressed, LED goes off and on again (it remains on). First press sets new alarm level to 0V, even in case the old level was 0V. Each additional press increases new alarm level for 0.1V (remember, alarm level is: number of blinks, i.e. depresings*0.1 V).

Alarm will occur when input level is above or below preset alarm level, regarding type of input contact setting.

Note 2: If this inputs are used as binary inputs for N.C., N.O. or voltage input, set alarm level to 2.5V!

- By *TEST* button (6) press select another channel or turn *POWER* switch (1) off for ending adjustment.