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IST-1616.PA01.02/A

File: IST-1616.PA01.02-A_CE600-UK.DOC

CENTRAL SYSTEM

CE608P
CE616P
CE608R
CE616R

USER'S MANUAL

TECNOCONTROL S.r.l.
Via Miglioli, 47 20090 SEGRATE (MI) Italy - Tel. (+39) 02 26922890 - Fax (+39)02 2133734
http: www.tecnocontrol.it e-mail: info@tecnocontrol.it

IMPORTANT NOTE

Please read and keep care of this manual and the manual of installed sensors too.

All documentation relating to gas detection plant should be preserved, because it contains the procedures to be used during the routines verification and / or during the periodic calibration.

We recommend that you always complete the *Setup Memorandum Tables* in pages 20 and 21. This will facilitate any possible change to the configuration and / or in case of additional sensors.

Documento / Document name: IST-1616.PA01.02-A_CE600-UK.DOC			
Oggetto / Subject : CE600 Central Unit (n.16 Gas Detectors) 24Vdc Power Supply			
Rev.	***Data / Date***	***Da / By***	***Note***
A	15/12/2009	UT/FG	Aggiornato per FW per ID170/DG2005

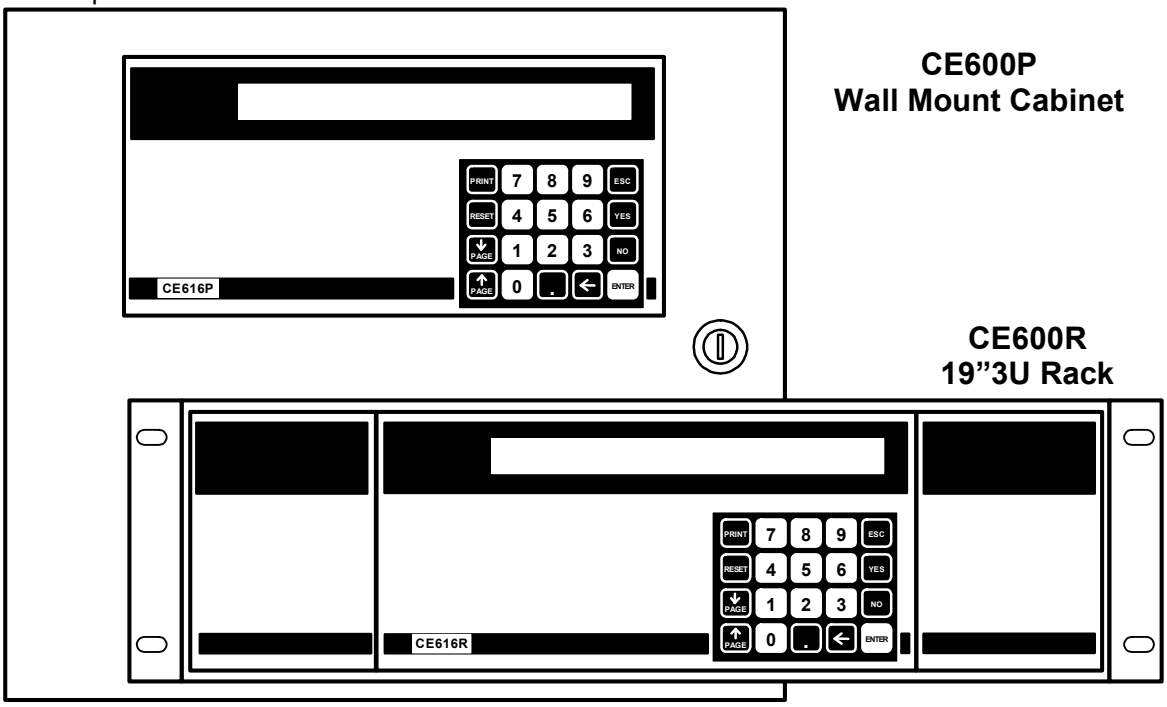
CONTENTS

DESCRIPTION

The CE600 series gas Central Systems is as useful instruments for monitoring and controlling areas to be protected from flammable gas leakage and with the presence of toxic gases. Together with TECNOCONTROL gas detectors they can control quite large areas where up to 16 detectors can be installed.

This manual describes the CE600 series Central System functions, monitoring procedures of the system made by the user and the setup procedure, as well as installation and test procedures to be carried out only by authorised personnel.

The CE600-series Central Systems are composed by a front unit for the data processing with backlightedc display 40x2 characters, foil keyboard, input/output units and power supply. The CE600 are standard AC powered (230Vac–50Hz). It can also accommodate two 12Vdc batteries connection to assure the system powering in case of mains blackout. Optionally the CE600-series Central Units can have the printer.



- **<u>The CE600-series Central Units have various models:</u>**

CE600P series in metal wall-cabinet 360x300x100mm are:

CE608P is designed to manage up to 8 remote gas detectors and has 8 relays outputs.
CE616P is designed to manage up to 16 remote gas detectors and has 16 relays outputs.

CE600R series three units 19” Rack module*, are:*

CE608R is designed to manage up to 8 remote gas detectors and has 8 relays outputs.
CE616R is designed to manage up to 16 remote gas detectors and has 16 relays outputs.

- **<u>The CE600-series Central Units can be connected to:</u>**

- <u>Three-wire, 4÷20mA linear transmitters with</u> “**<u>Replaceable Cartdrige Sensor”</u>** for:
  - *<u>Flammable gases with Catalytic sensor</u>:* TS292K (IP65) or TS293K (Explosion-proof Ex”d”) series with 0÷20%LEL range.
  - *<u>Flammable gases with Pellistor sensor</u>:* TS292P (IP65) or TS293P (Ex”d”) series with 0÷100%LEL range.
  - *<u>Toxic gases with electrochemical cell</u>:* TS220E (IP65) or TS293E (Ex”d”) series
  - *<u>Oxygen with electrochemical cell</u>:* TS220EO e TS293EO (Ex”d”) series with 0÷25%O_2 range.

<u>NOTE</u>*: should be connecting all models produced up to December 2008. Three-wire 4÷20mA linear transmitters for flammable gas TS292K (IP65) or TS293K (Ex "d") series, with 0 to 20%LIE range, or TS293P (Ex "d") series, with 0 to 100% LIE range. Two-wire 4 ÷ 20mA linear transmitter, TS220E (IP65) series, with electrochemical cell sensors for toxic gases and oxygen. (See page 18).*

<u>WARNING</u>*: inputs are configurable for 4÷20mA transmitters with reported current to ground and operating characteristics same as our products (unit in %LEL or ppm, minimum operating voltage, absorption, load resistance etc.).* ***<u>We accept no liability for malfunctions or failures caused by not compatible products.</u>***

- **The INPUTS (remote gas detectors) can be grouped in AREAS:**
  The inputs can be grouped in **Areas** (max 8), for which, up to five different outputs can be configured for each alarm levels, plus one output for the Fault. For each area the output activation can be executed also when the mean value of the area-grouped input exceeds an alarm level.
- **Each INPUT (remote gas detectors) can be associated to a WEIGHY:**
  Each input alarm level can be associated to a **Weight** (max value = 10) for the realisation of logic AND among more inputs of the same area.
  Example*: the output 1 can be associated to both level 1 of two inputs with weight 5 and level 2 with weight 10. Should this be the case, the output 1 will be activated if both the inputs exceed the 1st alarm level and one of the two sensors exceeds the 2nd alarm level.*
- **Each INPUT (remote gas detectors) is self-protecteed and has a FAULT signal:**
  All detectors inputs are protected against short-circuit or wire breakings. If a short-circuit occurs, the power supply to that input, is automatically stopped (all others continue to work properly). Simultaneously the FAULT signal is activated. Only after having solved the problem, it will be possible to restore normal operational conditions, by the "RESET" key.
- **Each INPUT (remote gas detectors) can be set-up with TLV alarms:**
  TLV (Threshold Limit Values) are defined as an exposure limit to which it is believed nearly all workers can be exposed day after day for a working lifetime without ill effect.
  TLV-TWA (Threshold Limit Value – Time-Weighted Average) is the time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect.
  TLV-STEL (Threshold Limit Value – Short-Term Exposure Limit) is the concentration to which it is believed that workers can be exposed continuously for a short period of time without suffering from irritation, chronic or irreversible tissue damage, or narcosis. STEL is defined as a 15-minute TWA exposure, which should not be exceeded at any time during a workday.
  TLV-C (Threshold Limit Value - Ceiling) is the concentration that should not be exceeded during any part of the working exposure.
  The values are recommending exposure levels that are protective to workers, **OSHA** (**O**ccupational **S**afety and **H**ealth **A**dministration, of the U.S. Department of Labour) and **COSHH** (**C**ontrol Of **S**ubstances **H**azardous to **H**ealth in Europe).
- **CE600-series Central Units have alarm relays outputs:**
  For each **Detector** (Input) three alarm levels plus the fault are available and addressable to whatever output. The outputs consist of relays with tension free contacts.
  Besides it is possible to assign an output for mains blackout, usable to inform about the mains blackout and that the buffer batteries (if installed) have intervened.
  - **Each OUTPUT (relays) can be set-up as follows:**
  - **Delay ON :** with a 250 seconds' delay when the input exceeds the set alarm level.
  - **Delay OFF :** with a 250 seconds' delay when the input decrease below the set alarm level.
  - **Activation ON**: with 250 seconds' activation time and then comes back independently of the input conditions (even if the input remains over the alarm level). (It has not to be used if the "Delay OFF" has been already inserted). For instance it can be used for activating devices that are not able or they have not to remain fed for a long time, or to send an impulse to a telephone combiner, or to other device.
  - **LOGIC.** the relay contact position, can be set-up in ***Positive*** *Logic,* the relay is normally activates, in case of power-cut or fault of the relay it comes in alarm position. Or can be set-up in ***Negative*** logic, the relay is normally deactivated.
  - **Latched output**: if no "*Activation ON*" time has been set, a relay can be latched so as it keeps activating even if the input comes back under the corresponding alarm level. Press the "***RESET***" key to come back to the normal function a memorized output.
- **CE600 series Central Units have a BUZZER:**
  The internal ***Buzzer*** sounds a ***Bip*** every touch of the keyboard.
- **CE600 series Central Units can store the Events:**
  the system can store up to 999 events comprising Alarms, Faults, Starting, Mains blackout, Resetting, that can be re-called at every time.
- **CE600 series Central Units are PASSWORD protected:**
  moreover, it is possible to protect all the configuration value by a code (min. 1 max 8 numbers).

CENTRAL SYSTEM MONITORING

- **Keys:**

RESET it is used to reset the latched outputs when the sensor(s) alarm cause has been called off. Or to reset a sensor powering when a signal short-circuits occurs.

PRINT to enter in print menu (if the Printer is installed), event visualisation and deletion, confirm alphanumerical characters insertion.

⇧ PAGE and ⇩ PAGE to scroll on the display the configured sensors (in groups of four each screen).

. to show on the display Hour, Date and Mains conditions.

ENTER to confirm and, with normal view, to have a mA indication for the sensors' input.

0 ÷ **9** numerical keys.

ESC to delete an operation and to enter into Mina Setup menu.

YES and **NO** to confirm and insert the alphanumerical characters in phase of configuration.

NOTE: the label with serial number is inside the door, on lower left part.

- **Display**

When powered, the CE600, after the incoming message, the 90 seconds' Wait message appears, to allow the sensor's stabilisation thus avoiding undesired conditions of false alarm.

```
CE600 – 3.0 - by TECNOCONTROL
```

```
Wait . . . 90
```

After completing the waiting time, the Central Unit will display the current conditions of the first four connected sensors.

```
1: 0.0%LIE NORM    2: 4ppm  NORM
3: 1.0%LIE NORM    4: 2ppm  NORM
```

Use ⇧ PAGE and ⇩ PAGE keys to scroll the other configured sensors (always on group of four).

With this screen displayed, press ENTER key to have mA indication of the input.---------- >

```
1: 4.0mA           2: 4.6mA
3: 4.8mA           4: 4.8mA
```

Press again the ENTER key to come back to the previous screen.

When either one or the other screens are displayed, press the **.** key to have Hour, Date and Mains Conditions (MAINS ON or MAINS OFF) : ---------- >

```
20-09-2009 11:57:05
MAINS ON
```

Press **.** key again to come back to the previous screen.

It is possible to access to a detailed input screen pressing the **1** key. The input detailed level is as follows: ---------- >

```
1: TS292KM  [0.0-20.0]  %LIE  Z01
18%LIE  ALL  20mA  01 02 03
```

On the *1st row* is indicated the sensor number, model, range, unit of measurement and the area the sensor belongs to. In the *2nd row* is indicated the current measure, condition, mA value and the relays number corresponding to the three alarm levels, if activated.

Press ⇧ PAGE or ⇩ PAGE keys to display the other configured inputs. Then press ESC to return to the normal display screen, if pressing again ESC it is possible to enter into the ***Set-Up Menu*** (protected with password, if inserted).

WARNING: THE FOLLOWING INSTRUCTIONS DESCRIBES ALL THE CENTRAL SYSTEM SETUP PROCEDURES AS WELL AS THE INSTALLATION PROCEDURES TO BE EXECUTED ONLY BY AUTHORISED AND EXPERIENCED PERSONNEL.

CE600P INSTALLATION INSTRUCTIONS

This central should be wall mounted by fixing the cabinet, in vertical position, by the four holes that are in the corners of the back panel. (Fig.1) The wiring connections should be executed all on the back panel and on the power supply. The main power supply (**230Vac – 50Hz**) should be connected to the terminal of the power supply (Fig.4).
Inside the CE600P cabinet, it can also accommodate **two 12V/3Ah Pb batteries** connection (series connected to the cables Red **BAT +** and Black **BAT-** see Fig.4 and 5) to assure the system powering in case of mains blackout. If required, to increase the autonomy, it can be used two 7Ah battery (**4 hours**) or 18Ah (**12 hours**), but causes the greatest dimension, shall be installed in a case outside the CE600P.

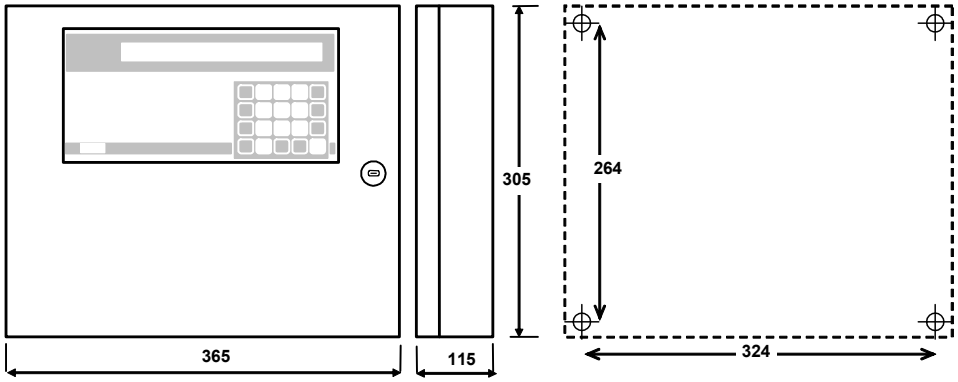


Fig 1 – CE608P and CE616 Dimensions

CE600R INSTALLATION INSTRUCTIONS

The CE600R-series Central System should be mounted into a 19" rack cabinet (min. dimensions 3 units). The wiring connections should be executed on the rack back panel.
The main power supply (230Vac – 50Hz) should be connected to indicate plug (Fig.6).
The **two 12V/7Ah Pb batteries** (if presents) should be series connected to **BAT+** (Red) and **BAT-** (Black) terminals (Fig.6). The battery life supply is about 4 hours' with 16 connected detectors.

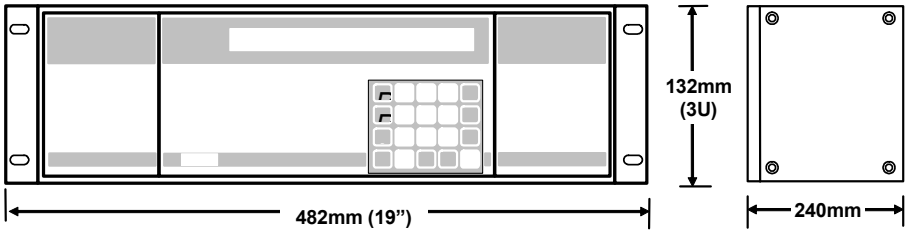


Fig 2 –CE608R and CE616R Dimensions

CE600 CENTRAL UNIT ELECTRICAL CONNECTIONS

The terminals (Fig.3) are of "polarized inlet" type (1); we suggest to use lugs adequate to the conductors (2) and to fix the wires to the box structure to avoid excessive stress to the circuits and to the terminals. Use a screwdriver (3) of the right dimensions.
The connections terminals are on the inputs and outputs panel.
The connection diagrams illustrated in figure 5, to simplify are always indicated with all 16 sensors (CE616P and CE616R). Keep into consideration that CE608P and CE608R are for 8 sensors.

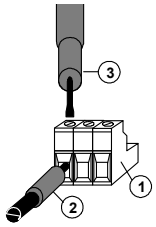
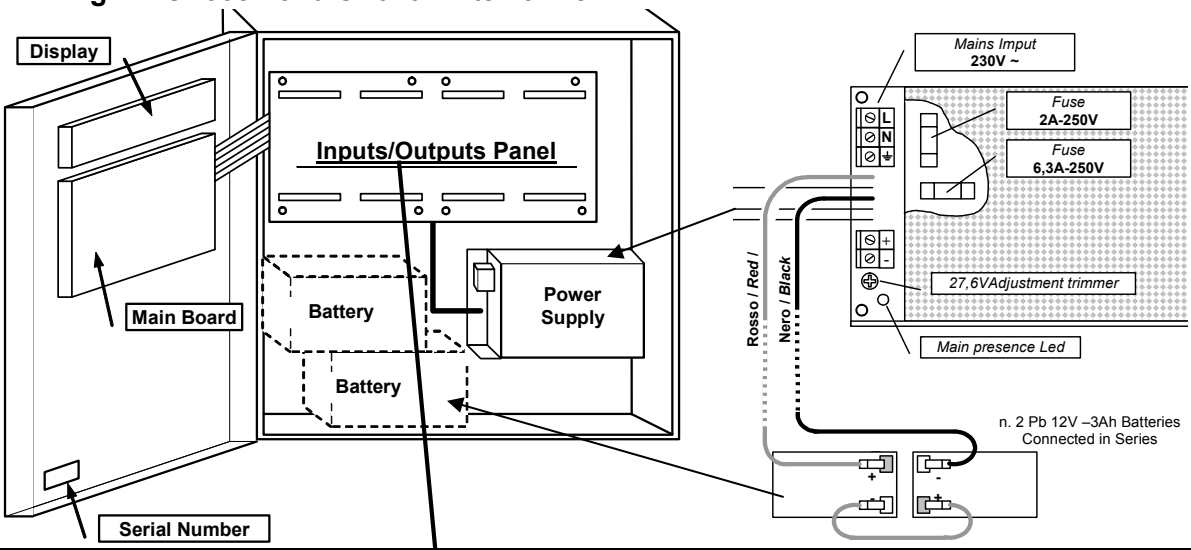


***Fig.3 -** Terminals*

The inputs accept any 4÷20mA linear current signal, coming from three-wire transmitter (**for two-wire loop, see on page 18**) with %LEL or ppm measure unit and mA signal referred to ground. Please verify the functioning compatibility (Full scale, minimum voltage functioning, Watts power, load resistor, etc.).
We decline every responsibility for malfunction or breakdowns caused by products not of our production.
All the CE600 series Central Units outputs are relay output with tension-free change over contacts.
The contact rating is 3A (resistive) at 230Vac. The CE616Pand CE616R models have 16 outputs, the CE608P and CE608R have 8 output. The contacts of every output relay are indicated as "**C**" (Common), "**NC**" (Normally Close) and "**NA**" (Normally Open). *This indication is referred to relays in "not powered" position, this means normally deactivated = Negative Logic.*

Fig 4 – CE608P and CE616P internal view



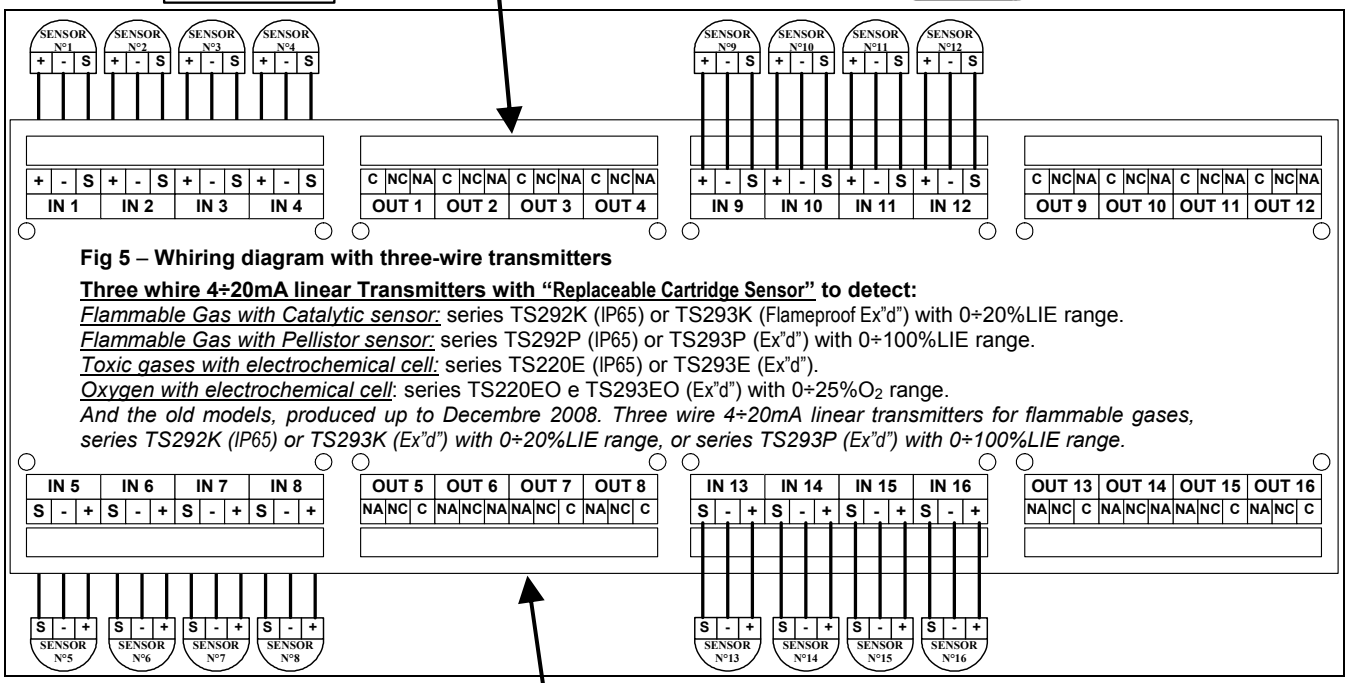


Fig 5 – **Whiring diagram with three-wire transmitters**

Three whire 4÷20mA linear Transmitters with "Replaceable Cartridge Sensor" to detect:

Flammable Gas with Catalytic sensor: series TS292K (IP65) or TS293K (Flameproof Ex"d") with 0÷20%LIE range.

Flammable Gas with Pellistor sensor: series TS292P (IP65) or TS293P (Ex"d") with 0÷100%LIE range.

Toxic gases with electrochemical cell: series TS220E (IP65) or TS293E (Ex"d").

Oxygen with electrochemical cell: series TS220EO e TS293EO (Ex"d") with 0÷25%O_2 range.

And the old models, produced up to Decembre 2008. Three wire 4÷20mA linear transmitters for flammable gases, series TS292K (IP65) or TS293K (Ex"d") with 0÷20%LIE range, or series TS293P (Ex"d") with 0÷100%LIE range.

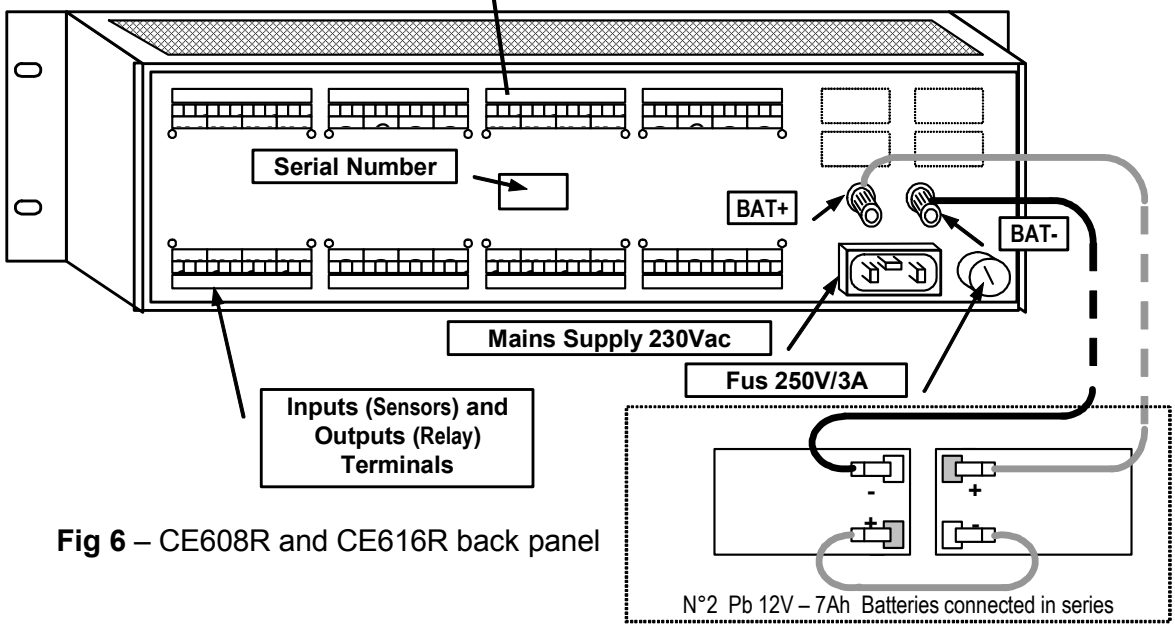


Fig 6 – CE608R and CE616R back panel

CONNECTION WITH TRANSMITTERS

Connection with three-wire 4÷20mA transmitters.

- Three-wire 4÷20mA linear transmitters for flammable gases with "**Replaceable Cartridge Sensor**" series TS292K (IP65) o TS293K (Flameproof Ex"d") with 0÷20%LIE range, or series TS292P (IP65) o TS293P (Ex"d") with 0÷100%LIE range.
- Three-wire 4÷20mA linear transmitters with "**Replaceable Cartridge Sensor" (Electrochemical cell)**, for toxic gases series TS220E (IP65) or TS293E (Ex"d") and for Oxygen, series TS220EO or TS293EO (Ex"d") with 0÷25%O_2 range.

The connection with three-wire 4÷20mA transmitters should be carried out (**Fig. 5**) between "**+**" "**-**"and "**S**" transmitter terminals and the corresponding "**+**","**-**" and "**S**" CE600 input terminals (IN1 to IN8 for the CE608P/R and IN1 to IN16 for CE616P/R).

The connection wire section between the Central Unit and the sensors should be suited to the distance, as shown in the table.
Connection need a shielded cable, whose shield should be connected only to the central side and on an only point of "EARTH" that has to be equipotential.

Distance	Cable
From 0 up to 300 meters	3x1.5 mm^2
From 300 up to 600 meters	3X2.5 mm^2

ATTENTION: Please see the specific Users Instructions of the Transmitters
Please remember that the whole documentation attached to the products "Central units and Gas detectors" must be reads and preserved.

CENTRAL UNIT SETUP

At the first set up, after the first message, and after the waiting 90 seconds' count down, the following message will be displayed ---------- >:

```
20-09-2009 11:57:05
No Configured sensors.
```

Should more sensors has just been configured, it will display the current condition of the programmed sensors.--- >

```
1: 0.0%LEL NORM    2: 4ppm NORM
3: 1.0%LEL NORM    4: 2pp  NORM
```

KEYBOARD USE AND GENERAL INFORMATIONS

The alphanumerical texts changeable or to insert are displayed by using the *slider* (black flashing rectangle). To modify or insert a text have to be used

The [←] key to cancel leftwards the characters, the *slider* [YES] e [NO] key to select the characters and [PRINT] key to confirm each selected characters.

CHARACTERS: **A÷Z [ ] a÷z Space ! " # $ % & ' ( ) * + , - . / 0÷9 : ; < = > ? @**

Example: *if the text displayed have to be change (max 9* characters*) from* **TS293Px** *into* ***TS293PB,*** *it is necessary to cancel the* ***"X"*** *with* [←] *key and press repeatedly* [YES] *key until the letter "**B**" appears, after that, press* [PRINT] *key to* accept *the inserted characters. Then, press* [ENTER] *key to confirm.*

Main menu

```
Menu:   1.Sensors   2.Outputs   3. Zones
        4.Language  5.Other
```

Menu 1 "Sensors"

```
Sensors: 1.Configure  2.Delete
         3.Copy       4.Enable    5.Disable
```

Menu 5 "Other"

```
Varie:   1.Clock    2.Mains    3.Password
```

SENSORS SETUP

ATTENTION VERY IMPORTANT NOTE: at the end of the Setup, always restart the Central Unit to allow setting the outputs (relay) as configured. This must be done every time you change the configuration.

Press ESC key to access to the main menu, after press 1 key to access to the menu "**1-Sensors**" and again the 1 key to display: ----------> **Sensor number [1-16] : _ _**

Digit the sensor progressive number which corresponds to sensor-connected input number and then, press the ENTER key to confirm ----------> **Select desiderd sensor TS220EA**

Use PAGE and PAGE keys to scroll the list of preconfigured sensors. (See Table 1 at page 19).

Press ENTER key to enter the selected sensor and to confirm; the display shows: ----------> **Name: TS292KM**

***NOTE**: Should you want to configure an input with a sensor, not present in the preconfigured sensor list, you should choose one sensor (preferably similar to the sensor to configure) and make the modification at the name as per indicated in Section "**keyboard use, general information**" at page 9.*

Confirm pressing ENTER key and it appears the default ***unit of measurement*** that is the selected sensors. **Name: TS292KM**
Unit: %LIE

Press ENTER key to confirm, then it appears :----------> **Alarm type: Increasing**

With PAGE and PAGE key the alarm type can be turned into ***Increasing***, ***Decreasing***, ***Oxygen*** or ***TLV***, by default the selected sensor appears.

Increasing is the choice most common, it means that the the alarms intervene to the growth of the signal of the sensor, (i.e. for the inflammable or toxic gases that in clean air indicate ZERO)

Decreasing is only an choice usable if the signal of the sensor decreases from the normal condition, (i.e. if the whole three livels of alarm are to be activated for lack of Oxygen).

Oxygen is a choice normally used for the sensors of Oxygen, to activate an Alarm for Excess of oxygen, a Pre-alarm and an Alarm for Defect of oxygen. Difetto d'Ossigeno.

TLV is a choice used only for the sensors of Toxic gas, to activate the in Alarms according to the limit values of exposure to polluting substances which the workers can be exposed to. Level 1 TLV-TWA, Level 1 **TLV-TWA**, Level 2 **TLV-STEL** and Level 3 **TLV-C**. (See on page 5 and the Table 2 on page 19).

Press ENTER key to confirm, then appears: ----------> **Alarm type: Decreasing**
Area: 1

Up to ***8 areas*** can be selected (See section **Areas Setup**).
If no area are utilised, let the No. 1 appears to defaults.

Press ENTER key to confirm, it appears the scale Zero value, setting preconfigured, that can be modify by using the numerical keys (for all the sensors is 0). ----------> **Zero value: 0_ _ _**

Then press ENTER key to confirm, it appears the preconfigured sensor Range. If this doesn't correspond to the characteristics of the installed sensor, it can be modified using the numerical keys (***always check the characteristics of the sensor in the specific instructions***):----------> **Zero value: 0_ _ _ _**
Range: 20_ _

Press ENTER key to confirm, then the following screens show the alarm level indication, as well as the corresponding outputs and weights: ----------> **Level 1: 7_ _ _**

As mentioned above, the proposed values (see Table 1 on Page. 19) can be either confirmed by pressing the ENTER key or modified, then confirming and finally going to next setting.

Level 1: 7_ _ _ _ Output: 0
Level 1: 7_ _ _ _ Output: 1_
Weight: 10
Level 2: 15 _ _ _ Output: 2_
Weight: 10
Level 2: 20 _ _ _ Output: 3_
Weight: 10

After the third alarm setting, the Central Unit Software will ask to configure the Fault output : ----------> **Fault output: 16**

NOTE: *Normally it is advisable to assign one ralay output only to the* ***Fault event****, common for all the sensors.*

Press ENTER key to confirm, the display will show the screen: > **Confirm data ? : NO**

Should you press the YES key and then ENTER key it will appear the message for few seconds: ----------> **Sensor stored**

Then the software will go back to the Sensor Setup menu ***Sensor Number***.

Should you press the NO key, instead, the program will ask you to confirm the cancelling operation: ----------> **Confirm sensor deletion ?:NO**

Should you press YES key and then ENTER key, it appears: --> **Sensor deleted**

On the contrary the program will go back to the ***Sensor Number*** visualisation. Press ESC key to return to *Menu Sensors*

Note: *If more same sensors have to be configured it is possible to copy a sensor already configured (please see chapter* **Copy sensor***). If instead, after having configured the first sensor, another one is decided to be configured , the program proposes a choise as the previous one.*

Therefore the display will show the following message: ------> **Ok for sensor: 'XXnnnXX' ?**

Should the NO key be pressed, the message ***Select desidered sensor*** will ask to make a choice among a list of preconfigured sensors; should the YES key be pressed the display shows the setup parameters, ***Name: XXnnnXX_ _*** that can be confirmed or modified as described above

SENSOR DELETION

from the *Menu Sensors*, press 2 ***2-Delete*** key, the message to insert the sensor number to delete will be displayed: ----------> **Sensor to delete [1-16] : _**

Press ENTER key, it appears: ----------> **Confirm sensor deletion ? : NO**

Press ENTER key to go back to the starting menu without executing any kind of modification. Otherwise, press YES key and then ENTER key to confirm, it will appear the brief message: ----------> **Sensor deleted**

The program will come back to the *Menu Sensors*.

MODIFYING THE SENSORS SETUP

To modify an already configured sensor, two different ways are possible:

A - Should you wish to modify the type of sensor, it is better first to delete the sensor to be modified and then configure it again using new sensor settings.

B - Should you wish to modify either some alarm levels, or the output or weight selection, it is sufficient to follow the same procedure as for the sensor configuration (see section **Keyboard use and general information's**).

From the *menu Sensors* press the 1 key (***1-Configure***), then digit the sensor number to be modified, scroll with ENTER key the setting parameters until it appears the one to modify, then proceed with ENTER

key until all the menus have been scrolled and press [YES] key at the request *Confirm data ?*. Press [ESC] key and the program will come back to *menu Sensors* and then to *main Menu*.

SENSORS ENABLING AND DISABLING

It is possible to execute a virtual system exclusion of the sensor without having to disconnect it physically and deleting it from the program. In this case the Central Unit will still display the sensor mA read value, but this value will not have any effect neither on the alarms nor on the Central Unit outputs. Questa funzione è utile quando si devono eseguire verifiche o tarature oppure prima di scollegare un sensore da sostituire in caso di Guasto.

From the *main Menu*, press [1] key, to access to *menu Sensors*:

Respectively press [4] key (***4-Enable***) or [5] key (***5-Disable***), the display will require you ----------> Digit the selected sensor number to ***Enable*** or to ***Disable*** and then press [ENTER] key to confirm.

Sensor to enable [1-16] : _

Sensor to disable [1-16] : _

Should the sensor be not configured, it will appear an error message, otherwise it will appear the confirm message. After the Software will go back to the preceding menu.

Sensor not configured

Done

Press [ESC] key to go back to the *Menu Sensors* and to the *Main Menu*.

OUTPUTS SETUP

From the *Main menu*, press [2] key (***2-Outputs***), the display will ask you to digit the output (relay) number to configure: ----------> *The **Output number** corresponds to the relay position on the Central Unit back panel.*

Output number [1-16] : _

Digit the output number, (using the numbers keypad) and press [ENTER] key, it will appear: ----------> ***"Delay ON"** is the relay activation delay (max 250 seconds) beginning from the exceeding of the corresponding alarm level.*

Delay ON [0-250] : 1 _

Then, press [ENTER] it will appears: ----------> ***"Delay OFF"** is the relay activation delay (max 250 seconds) beginning from the decreasing of the alarm level below the set threshold.*

Delay ON [0-250] : 40 _
Delay OFF [0-250] : 1 _

Then, press [ENTER] key, it will appear: ----------> ***"Activation ON"** indicates the time interval (max 250 seconds) during which the output keeps activating beginning from the exceeding of the corresponding alarm level. At the end of this time interval, the output (relay) returns to its initial conditions independently of either the input signal value is over the corresponding alarm level or is below it.*

Activation ON [0-250] : 0 _

ATTENTION: ***"Activation ON" setting is usable only when "Delay OFF" is setup to "ZERO" and the parameter Latched output is selected NO.***

Press [ENTER] key, it will appear: ----------> ***"Logic"** indicates the relay functioning, normally activated output (positive logic) or normally deactivated output (negative logic).*

Logic : Positive

Select the desired logic using [PAGE ↑] or [PAGE ↓] key. Should have been inserting the 0 value when the displayed asked for the ***Activation ON***, it will also appear the message: ----------> ***"Latched output"** indicates if the output is to keep activating even if the value come back below the alarm level previously exceeded.*

Logic : Positive
Latched output ? : NO

The selection is executed pressing [YES] and [NO] keys.

ATTENTION: *the **"Latched output"** can be set to YES only if the Delay OFF and the Delay ON are set to Zero. Normally this is set to YES not to allow the reset of the gas safety valve (both Manual Reset type and Automatic) without verification of the alarm status of the Central unit.*

Pressing [ENTER] key, it follows the request: ----------> | **Confirm data ? :NO**

Press [YES] key and then [ENTER] key to confirm, it will appear the brief message----------> | **Output stored**

The software will automatically go back to the output setup *Output Number* Press [ESC] to go back to the *Main menu*.

OUTPUT DELETION

To delete an output it is necessary to select it, as described in the previous section (OUTPUT SETUP), and at the last request:----------> | **Confirm data ? :NO**

keep *NO* and confirm with [ENTER] key. All the output settings for that output will be deleted. Press [ESC] key to return to the *Main menu*.

AREAS SETUP

The *Areas* can be used in different ways, in compatibility with the number of the outputs available:
A - To group more sensors of the same model, setting only the Alarm levels, without set the relay output of the single sensors, but only in the *Area*, to use the same relay outputs for each sensors.
B - To group more different sensors (i.e.: placed in the same local), with the set of both alarm levels and different relay outputs for the single sensor and set in the *Area* the activation of relay outputs common to all of that sensors.
C – To use sensors with different *Weight* alarm. *For example, if 2 sensors have been both set with Alarm Level 2 choose with Weight 5 and assigned to Area number 3, the relay output will be activated only when both sensors exceed the alarm Level 2.*
D – To obtain that the output, set for that specific *Area* should activate, when at least one of the sensors belonging to that *area* exceeds the set alarm levels, or when the mean value of all the sensors grouped in that *area* exceeds the alarm level.

From the *Main menu*, press [3] key (***3-Zones***), the display will ask you to digit the *area* number to setup: ----------> | **Area number [1-8] :**
Use the numerical keys for selecting the area to setup. Press [ENTER] to confirm, it appears:----------> | **Level 1 output 1 : 0**
Digit, if request, the output number (relay) and press [ENTER], key to confirm, it appears: ----------> | **Level 1 output 1: 2**
Level 1 output 2 1 : 0
then in sequence, will appear *Outputs* (5) for the other three Alarm Levels, digit, if request, the output number (relay) and press [ENTER] key to confirm, then it appears: ----------> | **Fault output : 0**
Digit, if request, the output number (relay) to be associated to *Fault* and press [ENTER] key to confirm, it appears: ----------> | **Consider the mean value ? :NO**

"mean value" if you select YES ,indicates that the outputs set for that specific area should activate when at least one of the sensors belonging to that area exceeds the set alarm levels, or when the mean value of all the sensors grouped in that area exceeds the alarm level.

Use [YES] or [NO] keys to select and [ENTER] key to confirm. Then the display will ask you to confirm the executed settings: ----------> | **Confirm data ? :NO**
Press [YES] key to accept settings and confirm with [ENTER] key, it will appear the brief message :----------> | **Area stored**
The software will automatically go back to the output setup *Area Number* Press [ESC] to go back to the *Main menu*.

LANGUAGE

From the *Main menu*, press [4] key (***4-Language***), use [PAGE ↑] and [PAGE ↓] key to select a different language:
----------> | **Language : English**
The *languages* are *Italian, French and English*.

CLOCK ADJUST (TIME AND DATA)

From the *Main menu*, press [5] key(**5-Varie**), then it appears the *Menu other*, press [1] key to ***Clock*** adjust:---------- >

Date [DDMMYY] 151009

Using [←] key to cancel and numeric keyboard, insert the adjourned ***Data*** with day (***DD***), month (***MM***) and year (***YY***), then press [ENTER] to confirm, it appears: ---------- >.

Date [DDMMYY] 151009 **Hour [HHMM] 1645**

Adjust the ***Hour*** with hour (***HH***) and minutes (***MM***), then press [ENTER] key to confirm and automatically go back to the *Menu other*.

SUMMER TIME

The Central Unit software, automatically adjust the clock.

HOW TO DISPLAY DATE AND HOUR

From the *normal sensors view* (see to page 6) press the [.] key to have Hour, Date and Mains Conditions (MAINS ON or MAINS OFF) : ---------- >

20-09-2009 11:57:05 **MAINS ON**

Press [.] key again to come back to the previous screen.

MAINS BLACKOUT

The Central Unit Software provides the opportunity to setup one output (relay) in case of a mains blackout. Of course batteries should be installed.

From the *main menu*, press [5] key (**5-Other**) then it appears the *menu other*, press then [2] key, it appears:---------- >

Blackout output [0-16] : 0

Digit, if request, the output number (relay), and then press [ENTER] key to confirm and automatically go back to the *menu other*. Press [ESC] key twice, to return to sensors' normal view.

PASSWORD SETTING

The ***"Password"*** is an access code that, if inserted, is used to protect all the Central System settings from any tampering through the action of inexperienced people. Should you wish to modify any setting about ***inputs***, ***outputs***, ***areas***, the same ***password***, etc, it will be necessary to digit the key work in the correct way.

From the *Main menu*, press [5] key (**5-Other**), then in the *Menu Other*, press [3] key (**3-Password**), it appears: ---------- >

Enter password : _ _ _ _ _ _ _ _

*That permits to insert, **using keys from 0 to 9**, a number with max eight numerical characters.*

Press [ENTER] key to visualise the confirmation request:--------- >

Enter password: * * * * * * * * **Enter password again : _ _ _ _ _ _ _ _**

Digit the ***password*** again and confirm with [ENTER] key, should the two passwords be equal, the display will show the message: ---------- >

New password stored

Should the two passwords are not equal; the display will show the message ***ERROR Passwords are different.*** Please repeat the Password setting.

Press [ESC] key more times to come back to normal view. From this moment onwards, any operation concerning modification of all sorts will be protected by the new entered password.

To delete a password *it is necessary to proceed exactly in the same way as well as its setting, but for leaving the line blank (only spaces).*

ATTENTION: ***It's recommended to write and to preserve the Password in a safe place. In case of loss of the Password please contact our service assistance.***

PRINTING (only if the printer is installed)

*If the printer is not installed, this key allows to visualize on the display the **"Events"** kept in memory, please see the following chapter "**EVENTS VISUALIZATION**".*

From the *Main menu*, press [PRINT] key, it will appear the following menu:---------- >

[016]: 1.Start printing 2.Stpo printing 3.Reprint 4.Archive 5.Clear

The number put within square brackets indicates the number of the stored events (max 999).

Press [1] key to start printing of the last events not printed yet: ----------> | **16 events queued for printing**

In this way it is not necessary eitherprint every time all the event file, or position on the day of the last printing carried out, since the Central Unit prints the last event not printed automatically yet.

Press [2] key to interrupt printing and to update the number of events that will have to be printed: ----------> | **Printing stopped**

Press [3] key and it will appear the menu: ----------> | **PRINT: 1.Today 2.Last N 3.From date**

Press [1] key to print all the events occurred during the current date, press the [2] key to ask for the number of the last events that are to be printed again out of the total (**999**) of the stored events: ----------> | **Events to print again [1-96] :**

Press [3] key, to ask for the event initial date to be printed until the current date, ***day, month, year*** format: ----------> | **Staring date [DDMMYY] _ _ _ _ _**

*The first line of the events printout format includes the **hour** indication, as well as the **date** and the **event** condition. The second line indicates the input **number**, the sensor **name**, as well as the input **value** if it is in **FAULT**, alarm **AL1, AL2, AL3**, or **OVERFLOW** conditions. In the events, also the Central Unit **starting**, the **mains blackout**, the **main return**, as well as the **reset** are indicated.*

Press [ESC] key, more times to go back to the *Main menu*.

EVENTS VISUALISATION

Starting from the *normal sensors view*, press [PRINT] key, it will appear the menu: ----------> | **[016]: 1.Start printing 2.Stpo printing 3.Reprint 4.Archive 5.Clear**

The number put within square brackets indicates the number of the stored events (up to 999).

Press [4] key, (***4-Archive***) to ask for the occurred-event initial date in ***day*** (***DD***), ***month*** (***MM***), ***year*** (***YY***) format: ----------> | **Starting date [DDMMYY] : _ _ _ _ _**

Should you digit one date on the display, it will appear the first stored event during that insert day, use [PAGE↓] and [PAGE↑] keys to scroll the events respectively ahead in the time or back in the time.

Should you digit any date, press [ESC] key, it will appear the last stored event; press [PAGE↑] key to scroll the events back in the time.

Should the selected date not contain events, it will appear the message: ----------> | **No events at the selected date**

And, after few seconds, the immediately previous event will be visualised.

*Should the selected day be former to every stored event, it will be visualised the first stored event. The first line of the event format includes the **hour** indication, as well as the **date** and the event **condition**. The second line indicates the **input number**, the **sensor name** as well as the **input value** if it is in faults, alarm conditions or overflow (**FAULT, AL1, AL2, AL3, OVERFLOW**). In the events, also the Central Unit **starting**, the **mains blackout**, the **main return**, as well as the **reset** are indicated.*

EVENTS DELETION

Starting from the *normal sensors view*, press [PRINT] key, it will appear the menu: ----------> | **[016]: 1.Start printing 2.Stpo printing 3.Reprint 4.Archive 5.Clear**

The number put within square brackets indicates the number of the stored events (up to 999).

Press [5] key, the display will ask you to confirm the event deletion operation: ----------> | **Do you want clear events file ? :NO**

Press [NO] key and confirm with [ENTER] key, to go back to the *Printing menu*.

Press [YES] key and confirm with [ENTER] key to cancel all the events present in memory.

After the above message, it will return back to the *Printing menu* automatically. | **Events file cleared**

Press [ESC] key, to go back to the *normal sensors view*.

CENTRAL UNIT HARDWARE TEST

Using the Central Unit *TEST* program it will be possible to verify the keyboard and of all the relays and inputs functioning.

ATTENTION: *this procedure ha to be carried out with high care by authorized and trained personel, since both the output relays controlling the connected devices and the interal functions are activated.*

To accede to *Test* procedure, it is necessary to disconnect the battery, if installed, then switch off the mains, then switch on again the Central System and when the following message appears:

CE600 – 3.0 - by TECNOCONTROL

Within two seconds, press ENTER key, it will appear the following message in Italian language:

TEST: 1.Tastiera (Keyboard**) 2. Ingressi (**Inputs**) 3. Uscite (**Outputs**)**
4. RS232 (serial Port**)**

Press 1 key, it appears the message *"Premere i tasti = Press Keys"*. Press each key to visualise the corresponding key functions.

PAGE ↓ **FRECCIA GIU=**DOWN	PAGE ↑ **FRECCIA SU=**UP	RESET **RESET**	PRINT **PRINT**
0 **0** up to ..... > 9 **9**		. **. (**Point**)**	← **CANCELLA=**DELETE
ENTER **ENTER**	NO **NO**	YES **SI=**YES	ESC **ESC**

After completing the test, press ESC twice, it will appears the Menu *"TEST"*

Then press 2 key *"Ingressi = Inputs"* to display the **mA** inputs value from **Sensor 1 up to 8**.

1= 0.0	**2= 0.0**	**3= 0.0**	**4= 0.0**
5= 0.0	**6= 0.0**	**7= 0.0**	**8= 0.0**

Press ENTER key to display the next **mA** inputs value, from **Sensor 9 up to 16**.

9= 0.0	**10= 0.0**	**11= 0.0**	**12= 0.0**
13= 0.0	**14= 0.0**	**15= 0.0**	**16= 0.0**

Press ESC key it will appears the Menu *"TEST"*

Then press 3 key *"Uscite = Outputs"* to display the outputs **Relays from 1 up to 8**. Press 1 key to activate **Relay n.1**, press 2 key to activate **Relay n.2** and so on until press 8 key to activate **Relay n.8**.

1= OFF	**2= OFF**	**3= OFF**	**4= OFF**
5= OFF	**6= OFF**	**7= OFF**	**8= OFF**

Press ENTER key, to display the next outputs **relays from 9 up to 16**. Press 1 key to activate **Relay n.9**, press 2 key to activate **Relay n.10** and so on until press 8 key to activate **Relay n.16**.

9= OFF	**10= OFF**	**11= OFF**	**12= OFF**
13= OFF	**14= OFF**	**15= OFF**	**16= OFF**

Press ESC key it will appears the Menu *"TEST"*

NOTE: the *4-RS232 Test* is a factory reserved function. To test both *RS232 serial port* and *Printer* (only if installed), is enough using the PRINT key.

Press ESC key twice, to go back to the *normal sensors view*.

Wait . . . 90

APPENDIX

CE608 TECHNICAL SPECIFICATIONS		
Power Supply	230 Vac (-15/+10%) - 50 Hz (±10%)	
Minimum power at 230V	15VA without connected inputs	
Maximum power at 230V	75VA with 8 Sensors TS293P series	
Inputs	n.8 4÷20 mA analogue linear	
Load resistance	200 ohm	
Input (sensors) power supply	12 Vdc (–10/+15%)	
Maximum power from power supply	2,5 A to 24Vcc	
Outputs	8 relays with tension-free change over contacts	
Contacts rating	3A (1A) - 230 Vac	
Working temperature with battery	+5 ÷ +40 °C	
Pb Buffer battery (on request)	n.2 12 Vdc - 3 Ah	
Battery Life (NOTE 1)	About 3 hours' full charge	
Display	40 characters on two lines back lighted LCD	
Keyboard	20 membrane keys	
Dimensions	CE608P 365x305x105 mm	CE608R Rack 19" 3U
Weight	CE608P 5 Kg	CE608R 3Kg

CE616 TECHNICAL SPECIFICATIONS		
Power Supply	230 Vac (-15/+10%) - 50 Hz (±10%)	
Minimum power at 230V	18VA without connected inputs	
Maximum power at 230V	160VA with 16 sensors TS293P series	
Inputs	n.16 4÷20mA analogue linear	
Load resistance	200 ohm	
Input (sensors) power supply	12 Vdc (–10/+15%)	
Maximum power from power supply	2,5 A to 24Vcc	
Outputs	16 relays with tension-free change over contacts	
Contacts rating	3A (1A) - 230 Vac	
Working temperature with battery	+5 ÷ +40 °C	
Pb Buffer battery (on request)	n.2 12 Vdc - 3 Ah	
Battery Life (NOTE 1)	About 1.5 hours' full charge	
Display	40 characters on two lines back lighted LCD	
Keyboard	n. 20 membrane keys	
Dimensions	CE616P 365x305x105mm	CE616R Rack 19" 3U
Weight	CE616P 5,5 Kg	CE616R 3,5Kg

(**NOTE 1**) Battery life depends on the number of sensors connected to the central unit.
Inside the enclosure of CE608P or CE616P, can be installed No.2 12V-3Ah batteries Pb. To increase battery life, can be installed different batteries size (7Ah or 19Ah) but it, must be installed outside the Central Unit enclosure.
CE608R and CE616R models can accept 7Ah or 19Ah batteries to be positioned in 19" cabinet.

CONNECTION OF 4÷20mA - 2 WIRES TRANSMITTORS PRODUCED TILL DECEMBER 2008

- ***NOTE**: to this Central Unit, should be connect all the detectors produced up to December 2008. Three-wire 4÷20mA linear transmitters for flammable gas TS292K (IP65) or TS293K (Ex "d") series, with 0 to 20%LIE range, or TS293P (Ex "d") series, with 0 to 100% LIE range. Two-wire 4 ÷ 20mA linear transmitter, TS220E (IP65) series, with electrochemical cell sensors for toxic gases and oxygen. (See on page 19).*

The connection with two-wire 4÷20mA transmitters should be carried out (**Fig. 7**) between "**+**" and "**-**" transmitter terminals and the corresponding "**+**" and "**S**" CE600 input terminals (IN1 to IN8 for the CE608P/R and IN1 to IN16 for CE616P/R).

The connection wire section between the Central Unit and the sensors should be suited to the distance, as shown in the table.
Connection need a shielded cable, whose shield should be connected only to Central Unit and in a single equipotential "Ground" node.

Sensors TS210E and TS220E series	
Distance	**Cable**
from 0 to 100 meters	3x0,5 mm^2 Shielded
from 100 to 200 meters	3x1 mm^2 Shielded
From 200 to 500 meters	3x1,5 mm^2 Shielded
from 500 to 1000 meters	3x2,5 mm^2 Shielded

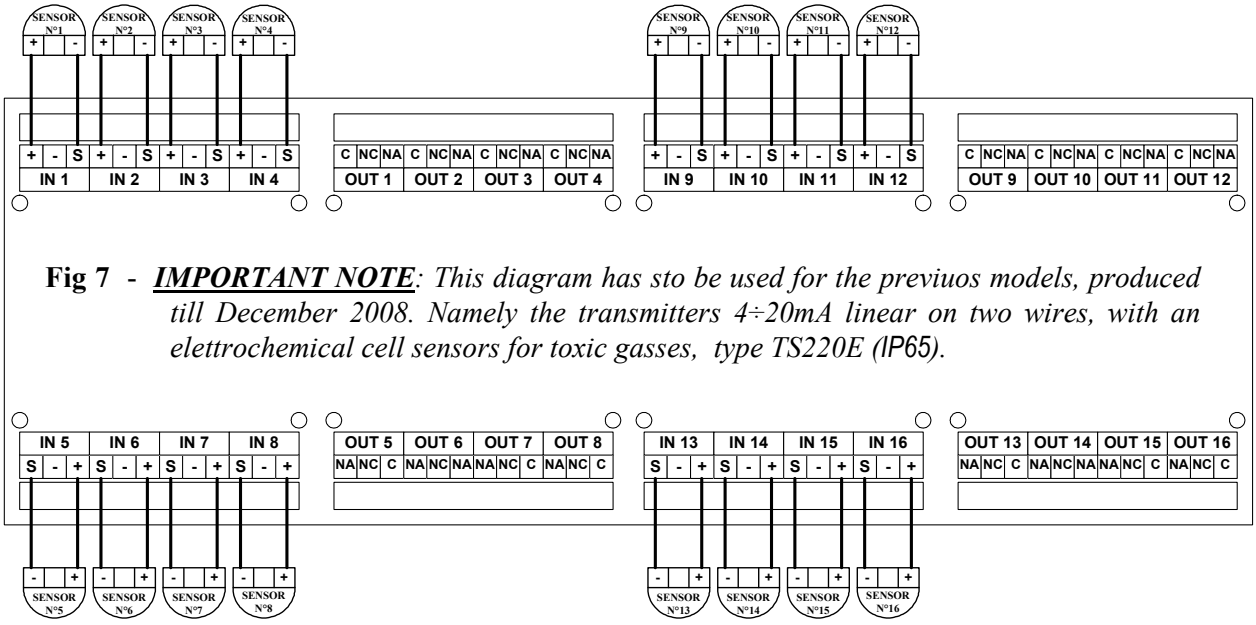


Fig 7 - *IMPORTANT NOTE: This diagram has sto be used for the previuos models, produced till December 2008. Namely the transmitters 4÷20mA linear on two wires, with an elettrochemical cell sensors for toxic gasses, type TS220E (IP65).*

WARNINGS AND FAULT MESSAGES LIST

No configure sensors	No sensors has been configured
FAULT-	The input signal is less then 1 mA. The sensor could be damaged, no connected or not powered.
AL1	The alarm 1 level has been exceeded and the configured output is activated.
AL2	The alarm 2 level has been exceeded and the configured output is activated.
ALL	The alarm 3 level has been exceeded and the configured output is activated.
OVERFLOW+	The input signal is between 21 and 24 mA. The sensor is detecting gas but it exceeds its full-scale
FAULT+	The input signal is more then 24 mA. The sensor could be damaged, or is detecting gas but it exceeds its full-scale.
Wrong password	A wrong access Code has been inserted.
Sensors data lost	configuration data Sensors have been lost.
Outputs data lost	configuration data Outputs have been lost.
Areas data lost	configuration data Areas have been lost.
Event data lost	configuration data Events have been lost.

TABLE 1 - 4÷20 mA PRECONFIGURED TRANSMITTERS LIST

TOXIC GAS TRANSMITTERS				Recommended alarm levels		
MODEL	**Detected Gas**	**RANGE**	**UNIT**	**PRE1 Level 1**	**PRE2 Level 2**	**ALL Level 3**
TS220EA *(TS293EA)*	NH_3	0-300	ppm	10 (2)	20	50
TS220EC *(TS293EC)*	CO	0-300	ppm	25(2)÷50	100	200
TS220EH *(TS293EH)*	H_2S	0-100	ppm	10	20	50
TS220EN *(TS293EN)*	NO	0-100	ppm	10	20	50
TS220ES *(TS293ES)*	SO_2	0-20.0	ppm	5.0	7.5	10.0
TS220EX *(TS293EX)*	HCN	0-10.0	ppm	2.0	3.0	5.0
TS220EN2 *(TS293EN2)*	NO_2	0-30	ppm	3.0	5.0	15.0

FLAMMABLE GAS TRANSMITTERS				Recommended alarm levels		
MODEL	**Detected Gas**	**RANGE**	**UNIT**	**PRE1 Level 1**	**PRE2 Level 2**	**ALL Level 3**
TS292KG	LPG	0-20	%LIE	6 (2)	15	20
TS292KM *(TS292KB, TS292KI)*	METHANE	0-20	%LIE	7 (2)	15	20
TS292KB *(TS293KB)*	Petrol Vapours	0-20	%LIE	6 (2)	15	20
TS292KI *(TS293KI)*	HIDROGEN	0-20	%LIE	6 (2)	15	20
TS293KG	LPG	0-20	%LIE	7 (2)	15	20
TS293KM	METHANE	0-20	%LIE	6 (2)	15	20
TS292Px(1) *(TS292PM, TS292PG, TS292PI, TS292PB)*	FLAMMABLE	0-100	%LIE	7 (2)	10÷15	20÷30
TS293Px(1) *(TS293PX-H, TS293PE, TS293PS)*	FLAMMABLE	0-100	%LIE	6 (2)	10÷15	20÷30
IR101 - IR102	CO_2	0-2.00	% v/v	0.20	0.50	1

OXYGEN TRANSMITTERS				Recommended alarm levels		
MODEL	**Detected Gas**	**RANGE**	**UNIT**	**ALL Level 1**	**PRE1 Level 2**	**ALL Level 3**
TS220EO *(TS293EO)*	OXYGEN	0-25.0	% v/v	22.5 (4)	19,5 (3)	18.5 (3)

(1) All TS293P series, are calibrated with 100%LEL range, it will change only the calibration gas.
(2) It is not recommended to set pre-alarm levels lower than the value indicated.
(*TS.....*) Models shown in brackets, operational characteristics identical to the first highlighted in bold, the only difference is the case rating.
(3) Alarm for oxygen deficiency (**see on page 10**).
(4) Alarm for oxygen excess. (**see on page 10**).

OTHER DETECTORS				Livelli d'allarme Consigliati		
MODEL	**GAS**	**RANGE**	**UNIT**	**Level 1 (PRE1)**	**Level 2 (PRE2)**	**Level 3 (ALL)**
TS255CB *(TS250CB)* **Configure *CO* output as the TS220EC**	CO	0-300	ppm	30	60	150
Configure Petrol Vapour output as the TS292KB	Petrol Vapours	0-20	%LIE	8	10	20
TS255CN2 **Configure *CO* output as the TS220EC**	CO	0-300	ppm	30	60	150
Configure NO_2 output as the TS220EN2	NO_2	0-30	ppm	3.0	6.0	15.0

TABLE 2 - RECOMMENDED TLV VALUES

				Alarm levels		
MODEL	**Detected Gas**	**RANGE**	**UNIT**	**TLV-TWA Level 1**	**TLV-STEL Level 2**	**TLV-C Level 3**
TS220EA *(TS293EA)*	NH_3	0-300	ppm	**25** (COSHH) / (OSHA)	**35** (COSHH)	**50** (OSHA)
TS220EC *(TS293EC)*	CO	0-300	ppm	**30** (COSHH) or **25** (OSHA)	**200** (COSHH) or **50**	**250** or **200** (OSHA)
TS220EH *(TS293EH)*	H_2S	0-100	ppm	**5** (COSHH) or **10** (OSHA)	**10** (COSHH) or **15**	**20** or **50** (OSHA)
TS220EN *(TS293EN)*	NO	0-100	ppm	**25** (COSHH) / (OSHA)	**25** (COSHH)	**50** (OSHA)
TS220ES *(TS293ES)*	SO_2	0-20.0	ppm	**2** (COSHH)	**5** (COSHH)	**10**
TS220EX *(TS293EX)*	HCN	0-10.0	ppm	**4.7** (OSHA)	**10** (COSHH)	**4.7** (OSHA)
TS220EN2 *(TS293EN2)*	NO_2	0-30	ppm	**3.0** (COSHH)	**5.0** (COSHH)	**15.0**
IR101 - IR102	CO_2	0-2.00	% v/v	**0.50** (COSHH)/(OSHA)	**1.50** (COSHH)	**2.00**

***COSHH** = European Department - **OSHA** = U.S. Department - (see on page 5)*

SETUP MEMORANDUM TABLE

It is recommended to compile these tables, as a reminder of the configuration done. Furthermore these data should be photocopied and attached a copy to the central and other documentation of the plant.

Sensors Setup	**CE608**								**CE616**							
Sensor Number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Sensor Name																
Annotations																
Unit of measurement (ppm, %LIE o %)																
Alarm type (Increasing ↑ or Decreasing ↓ or Oxygen or TLV)																
Area (1÷8)																
Zero value (Normal = 0)																
Range (Max 99.9 or 9999)																
Level 1 (**PRE**alarm **1** or **AL**arm if setting Oxygen alarm type)																
Output 1 (Relay Number)																
Weight 1 (Normal = 10)																
Level 2 (**PRE**alarm **2** or **PRE**alarm **1** if setting Oxygen alarm type))																
Output 2 (Relay Number)																
Weight 2 (Normal = 10)																
Level 3 (**AL**arm)																
Output 3 (Relay Number)																
Weight 3 (Normal = 10)																
Fault (Relay Number)																

ANNOTATIONS:

Output Setup

	CE608								CE616							
Output Number (Relay)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Annotations																
Delay ON [1] (from 0 to 250 Seconds)																
Delay OFF [2] (from 0 to 250 Seconds)																
Activation ON [3] (from 0 to 250 Seconds)																
Logic (Negative or Positive)																
Latched output [4] (NO or YES)																

NOTE [1] - You should always set a value is between 10 and 60 seconds. (Typically 10 to 20" for optical / acoustic Pre-alarms and 30 ÷ 60" Gas electro valve).
NOTE [2] - Normally leave ZERO. It is used only to enable appliance should not continue to operate beyond the alarm.
NOTE [3] - Normally leave ZERO. The "Activation ON" is set only if "Delay OFF" is "ZERO" and selected NO the "Latched output".
NOTE [4] - the "Latched output" should be set to "YES", only if "Delay OFF" and "Activation ON " are set to "ZERO". Normally this parameter should be set to "YES" to prevent the rearmament of an actuator (e.g. the manual resetting gas valve) without first verifying that the Central Unit is in alarm.

Area setup

	CE608 and CE616							
Area Number	1	2	3	4	5	6	7	8
Level 1 output 1 (Relay Number)								
Level 1 output 2 (Relay Number)								
Level 1 output 3 (Relay Number)								
Level 1 output 4 (Relay Number)								
Level 1 output 5 (Relay Number)								
Level 2 output 1 (Relay Number)								
Level 2 output 2 (Relay Number)								
Level 2 output 3 (Relay Number)								
Level 2 output 4 (Relay Number)								
Level 2 output 5 (Relay Number)								
Level 3 output 1 (Relay Number)								
Level 3 output 2 (Relay Number)								
Level 3 output 3 (Relay Number)								
Level 3 output 4 (Relay Number)								
Level 3 output 5 (Relay Number)								
Fault output (Relay Number)								

ANNOTATIONS

Password | ***Central Unit Model*** | ***Central Unit Serial Number***

	CE	**SN**:

ATTENTION: It is advisable to write and store the Password in a secure place. In case of loss of the Password, contact our Assistance Department