## POWER SUPPLY UNITS AND VARIOUS DEVICES

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## SYSTEM POWER SUPPLY <br> Ref.1083/20 ( $\quad \square$ (11)



The power supply unit Ref. 1083/20 is dedicated to 2VOICE system. It provides power supply for system devices.
According to system type, several power supply units are needed:

- In systems with only one riser column and only one call station, one power supply unit is enough.
- For each column interface Ref. 1083/50, one power supply unit must be added.
- For each door unit interface Ref. 1083/75, 2 power supply units must be added.

The following table contains the number of needed power supply units, according to the system type and the number of devices to be installed, following indications in chapters 1 and 2.

| Call stations |  | No. of column interfaces Ref. 1083/50 | No. of door units interfaces Ref. 1083/75 | No. of columns (K) | Max. No. of users | No. of power supply units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| main | secondary |  |  |  |  |  |
| 1 | 0 | 0 | 0 | $1{ }^{(*)}$ | 128 | 1 |
|  |  | 1 | 0 | 1 | 128 | 1 |
|  |  | 0 | 1 | 1 | 128 | 2 |
|  | 1 | 1 | 0 | 1 | 128 | 1 |
|  | Max $2 \times \mathrm{K}$ | K | 0 | Max 16 | $128 \times \mathrm{K}$ | $1+\mathrm{K}$ |
|  |  | K | 1 | Max 32 | $128 \times \mathrm{K}$ | $2+\mathrm{K}$ |
| 2 | 0 | 1 | 0 | 1 | 128 | 1 |
|  |  | 0 | 1 | 1 | 128 | 2 |
|  | Max $2 \times \mathrm{K}$ | K | 1 | Max 32 | $128 \times \mathrm{K}$ | $2+\mathrm{K}$ |
| 3 | 0 | 0 | 1 | 1 | 128 | 2 |
|  | Max $2 \times \mathrm{K}$ | K | 1 | Max 32 | $128 \times \mathrm{K}$ | $2+\mathrm{K}$ |
| 4 | 0 | 0 | 1 | 1 | 128 | 2 |
|  | Max $2 \times \mathrm{K}$ | K | 1 | Max 32 | $128 \times \mathrm{K}$ | $2+\mathrm{K}$ |

(*) on one riser only
The system power supply unit can power the backlight of all name holders for the button panel: present in the system on condition that each one has 32 name holders max. If in the push button panel there are more than 32 name holders, an additional suitable power transformer must be used.

## TECHNICAL CHARACTERISTICS

| Power supply: | 230Vac $+/-10 \% 50 / 60 \mathrm{~Hz}$ |
| :--- | ---: |
| Power: | 80 W |
| Output: | 48 Vdc |
|  | With electronic overload protection |
| Operating temperature range: | $-10^{\circ} \mathrm{C} \div+35^{\circ} \mathrm{C}$ |
| Compliant with: | EN $61000-6-3$ |
|  | EN $61000-6-1$ |
|  | EN60065 |
| Weight: | about 1000 g |

## INSTALLATION

The housing can be DIN bar or wall mounted with screws and screw anchors. However, the power supply must be kept in dry places, protected against bad weather, observing safety regulations

## TERMINAL PINS DESCRIPTION

| $\oslash$ | 0 | 230Vac power supply |
| :--- | :--- | :--- |
| $\oslash$ | $230 \sim$ |  |
| $\oslash$ ] LINE 1 | Bus line for devices power supply |  |
| $\oslash$. |  |  |
| $\oslash$ LINE 2 | Bus line for devices power supply |  |
| $\oslash$ LIN |  |  |

Pins LINE1 e LINE2 are in parallel.

This device allows to split the column video signal to 4 apartment stations and other distributors.
The device is provided with an input, a passing output and 4 derived outputs.
The distributor Ref. 1083/55 also includes a PTC protection to prevent damages caused by short circuits on derived lines.

## TECHNICAL CHARACTERISTICS

Power supply voltage:
Max. current consumption:
Operating temperature range:
Compliant with:
$36-48 \mathrm{Vdc}$ 9,0mA max
$-5^{\circ} \mathrm{C} \div+45^{\circ} \mathrm{C}$
EN 61000-6-3 EN 61000-6-1

## INSTALLATION

The device can be installed in junction boxes. Keep it in dry place, protected against bad weather.

In each column can be installed up to 32 distributors, but in case of connection of apartment stations on the passing output, the number of devices connected on the riser must be reduced to 16.


4 It is not to suggested to connect in cascade the distributors.


## TERMINAL PINS DESCRIPTION

] LINE IN Bus line input
${ }_{0}^{\ominus}$ ] LINE OUT Bus line output
${ }_{\ominus}^{\varnothing}$ ] LINE 1 Bus line for apartment station derived number 1
${ }_{\ominus}^{\otimes}$ ] LINE 2 Bus line for apartment station derived number 2
${ }_{-}^{8}$ ] LINE 3 Bus line for apartment station derived number 3
$\stackrel{\ominus}{\varnothing}$ ] LINE 4 Bus line for apartment station derived number 4

## LINE TERMINATION



On the device there is a jumper for line termination, that must be put in ON position only on the last distributor where the output line is not connected (LINE OUT).


## OPERATION

In case of short circuit on a derived line, only devices on that line will not work (excluded); the other system devices will keep on operating properly.


After removing the cause of the short circuit, to restore PTC
protection, disconnect the cable connected to LINE IN pins for
about 60 ".

COLUMN INTERFACE Ref. 1083/50 ( $\epsilon$


The column interface Ref. 1083/50 is dedicated to 2VOICE system. It is used to split a column into several risers or to connect up to 32 independent columns in the system.
Each interface can manage one column, with 128 apartment stations max. and 2 call stations max., directly connected to the interface.
The device is also equipped with a normally open relay contact, that switches for one second each time the door lock release button is pressed in an apartment station of that column.

The column interface must always be powered by a system power supply unit.

## TECHNICAL CHARACTERISTICS

Power supply voltage (LINE IN):
36 - 48Vdc
Power supply voltage (POWER):
Standby current consumption (LINE IN):
Max. current consumption (LINE IN):
Standby current consumption (POWER):
Max. current consumption (POWER):
Operating temperature range:
Compliant with:
48Vdc 25mA max 70mA max 30mA max 100mA max
$-5^{\circ} \mathrm{C} \div+45^{\circ} \mathrm{C}$

Max. AUX switched load:
EN 61000-6-3 EN 61000-6-1 100mA@60V

DEFAULT PROGRAMMING
Column interfaces are factory preset as follows:
Incoming line (dip-switch 1):
ON (not connected)
Column interface number:
ON

## INSTALLATION

The housing can be DIN bar or wall mounted with screws and screw anchors. However, the interface must be kept in dry places, protected against bad weather, observing safety regulations.

## TERMINAL PINS DESCRIPTION

| $\left.\begin{array}{l}\varnothing \\ \varnothing\end{array}\right] \mathrm{Z}$ | Bus line termination |
| :---: | :---: |
| $\bigcirc$ Ø ${ }_{\square}$ ] LINE IN | Bus line input |
| $\bigcirc$ Ø ${ }_{\square}$ ] LINE OUT | Bus line output |
| $\left.\begin{array}{l}\varnothing \\ \varnothing\end{array}\right]$ INO | Input for call station 0 |
| $\left.\begin{array}{l}\varnothing \\ \varnothing\end{array}\right] \mathrm{IN} 1$ | Input for call station 1 |
| $\bigcirc \bigcirc$ ] POWER | Device power supply (with system power supply unit) |
| $\bigcirc$ Ø | Riser 1 of the apartment stations column |

$\oslash$ ] LINE $2 \quad$ Riser 2 of the apartment stations column
LINE 3 Riser 3 of the apartment stations column
$\oslash$ D LINE 4 Riser 4 of the apartment stations column
$\oslash$ ® AUX $\quad$ Pins for normally open relay contact (max 100mA @ 60Vdc)
The 128 apartment stations can be installed in any of the 4 risers that compose the column.

## CONFIGURATION

On the device there are 6 configuration dip-switches with the following functions:
DIP 1: if there are devices connected to LINE IN, it must be set to OFF, otherwise it must be set to ON.


DIP $2 \div$ 6: used to program the column unique code, with values between 0 and 31 .
To set the desired code use the dip-switch from 2 to $6(2=$ more significant bit - $6=$ less significant bit).


## LINE TERMINATION

By opening the jumper between the pins $Z$, the line termination is removed. The termination must be active in all the devices cabled at the end of a line, i.e. when there is a line on the LINE IN input and there is no output line on the LINE OUT pins.


DOOR UNITS INTERFACE Ref.1083/75 C $\epsilon$


The door units interface Ref. 1083/75 is dedicated to 2VOICE system and is used to connect from 1 to 4 main call stations (INO $\div$ IN3). It is equipped with 4 output lines (LINE1 $\div$ LINE4) for columns connection.
On the output lines can be directly connected up to 128 apartment stations. To connect more than 128 apartment stations and for secondary call stations connection, column interfaces must be used. The output lines must be homogeneous: it is not allowed to connect a column interface to one riser and apartment stations directly to other risers.



5
The door units interface always needs 2 system power supply units Ref. 1083/20, one for call stations and the other for output lines.

## TECHNICAL CHARACTERISTICS

Power supply voltage (POWER IN):
36 - 48Vdc
Power supply voltage (POWER LINE):
36 - 48Vdc
Power supply voltage (POWER IN):
Max. current consumption (POWER IN):
Standby current consumption (POWER LINE):
Max. current consumption (POWER LINE):
Operating temperature range:
Compliant with:
30mA max 100mA max 25mA max 70mA max $-5^{\circ} \mathrm{C} \div+45^{\circ} \mathrm{C}$ EN 61000-6-3 EN 61000-6-1

## INSTALLATION

The housing can be DIN bar or wall mounted with screws and screw anchors. However, the power supply must be kept in dry places, protected against bad weather, observing safety regulations.

TERMINAL PINS DESCRIPTION

| $\bigcirc$ Ø ${ }^{\ominus}$ POWER IN | Call stations power supply (with system power supply unit) |
| :---: | :---: |
| $\bigcirc$ Ø $\left.\begin{array}{l}\text { ® }\end{array}\right]$ | Input for main call station 0 connection |
| $\left.\bigcirc{ }_{\square}^{\varnothing}\right] \mathrm{IN} 1$ | Input for main call station 1 connection |
| $\left.\bigcirc{ }_{\square}^{\varnothing}\right] \mathrm{IN} 2$ | Input for main call station 2 connection |
| $\left.\bigcirc{ }_{\square}^{0}\right]$ IN3 | Input for main call station 3 connection |
| $\bigcirc$ Ø ${ }_{\square}$ POWER LINE | Riser power supply, street side (with system power supply unit) |
| $\bigcirc$ Ø ${ }_{\square}$ LINE 1 | Riser 1 of apartment stations column or street side riser |
| $\bigcirc$ Ø ${ }^{\bigcirc}$ [LINE 2 | Riser 2 of apartment stations column or street side riser |
| $\bigcirc$ Ø ${ }_{\square}$ LINE 3 | Riser 3 of apartment stations column or street side riser |
| $\bigcirc$ Ø Ø$]$ LINE 4 | Riser 4 of apartment stations column or street side riser |

5 On the outputs lines can be connected up to 32 column interfaces.

SPECIAL DECODER Ref. 1083/80


The special decoder Ref. 1083/80 is dedicated to 2Voice system and allows to activate electric loads by means of a 230Vac 5A contact relay with commands (events) sent by users with apartment stations, call stations or switchboard.
Device main features are:

- Monostable operating mode with activation time adjustable from 1 second to 16 minutes, or toggle mode.
- Activation with system events (4 max. - Jumper C; Q) programmable by the installer.
- The activation can be performed by user events (32 max. - jumper S) that can be programmed by the installer.
- A remote button can be connected for activation.


A - User code dip-switch used to identify the decoder in the system
B - Competence area jumpers:
$S$ = only the device used to acquire the event
$\mathrm{C}=$ all devices of the riser column used to acquire the event
$Q=$ any system device
C - Switch mode jumper
$\mathrm{M}=$ monostable
T = toggle
D - Programming button and led
E - Trimmer used to adjust the activation timer in monostable mode (M)

## TECHNICAL SPECIFICATIONS

Power supply voltage:
Current consumption in standby:
Max. current consumption:
Operating temperature range:
Compliant with:
C-NC-NA contact switching:

36 - 48Vdc 3,0mA max 30mA max
$-10^{\circ} \mathrm{C} \div+50^{\circ} \mathrm{C}$
EN 61000-6-3, EN 61000-6-1 30Vcc 5A 250Vca 5A

## CONFIGURATION

## DEFAULT PROGRAMMING

All decoders are configured in factory as follows:


SCQ jumper
$=$ position Q (all devices can activate the decoder)
M/T jumper
CODE dip-switch
timer
programmed event
= position M (monostable)
$=$ user 127 (dip1 OFF dip2 $\div 8$ ON)
= user 127 (
$=$ call to switchboard from user 0 , column 0 , apartment station
With the factory configuration, all system users (SCQ jumper = Q) can activate the decoder in monostable mode ( $\mathrm{M} / \mathrm{T}$ jumper $=\mathrm{M}$ ) by pressing the 'call to switchboard' button.
5
To restore default programmed events, press and keep the programming button pressed for 5 seconds. During this time the red led turns on and when it turns off the decoder will restore default configurations.

## INSTALLATION

The special decoder can be installed in a service panel on DIN rail (6 18 mm DIN modules) or wall mounted with screws and screw anchors (not provided).
For installation, follow general installation instructions of 2Voice system in the system booklet provided with the power supply ref. 1083/20.
Please observe also the following rules:

- The special decoder can be installed only using the 4-user distributor 2Voice ref. 1083/55; connect it to one of the 4 distributor outputs.
- In-out connection is not allowed. The decoder must always be connected as last device of a branch.
- Between the door units interface ref. 1083/75 and the column interface ref. 1083/50 only 2 special decoders can be connected.
- If connected to the column, the decoder must be counted within the max. number of apartment stations that can be connected, according to the different system types.

For panic alarm signal to the switchboard, the decoder must be installed in the column.

## TERMINAL PINS DESCRIPTION

|  | NA |  |
| :---: | :---: | :---: |
| $\bigcirc$ | NC | Relay contact for electric loads activation |
| $\bigcirc$ | C |  |
| $\left.\begin{array}{l} \varnothing \\ \varnothing \end{array}\right]$ | LINE | Bus line |
| $0$ | PC | Remote button for decoder activation |

## SWITCHING MODE



The relay contact can be switched in two modes:

- Monostable - after a programmed event for activation or after the remote button connected to PC terminal pins is pressed, the relay contact switches for a variable time of 1 second to 16 minutes; this time can be programmed with the trimmer "timer".
- Toggle - after an activation due to a programmed event or after the remote button connected to PC terminal pins has been pressed, the relay contact switches and the trimmer position is irrelevant; the relay keeps this state until a new command is received.


## Switching mode: monostable


activation event

Switching mode: toggle

activation event
activation event

0
In case of power supply interruption, the relay contact doesn't switch its position.
When power supply is restored, if the special decoder is in monostable mode the contact goes back to standby position, if in toggle mode the contact keeps the position assumed before power supply interruption.

To test the activation time in monostable mode, short circuit temporarily the terminal pins PC and check the relay activation time.

## OPERATING MODE

The special decoder must be properly configured and programmed: its relay can be activated by an event, if this is included in the programmed ones and matches the configuration.
The programmable events that will activate the relay (in monostable or toggle mode as configured with the jumper $M / T$ ) can be the following:

- pedestrian door lock release button pressed in apartment station
- driveway door lock release button pressed in apartment station
- 'call to switchboard' button pressed in apartment station
- special function button pressed in apartment station
- intercom call from apartment station to special decoder
- sending of pedestrian door lock release command from switchboard
- sending of driveway door lock release command from switchboard
- sending of special code from call station or switchboard

Alternatively to the above described operation mode, the special decoder can be used to send the alarm indication to the concierge switchboard by pressing the remote button (PC). In this case, the dipswitch 1 must be in ON position.

## EVENTS PROGRAMMING IN STANDARD OPERATING MODE (DIP 1 = OFF)

Some events can be programmed, which will activate the special decoder relay, according to the configuration performed with dipswitches and jumpers ( 1 to 4 events, if the competence areas jumper is in C or Q position, or up to 32 events if the jumper is in S position). 1 - Set the competence areas jumper to the desired position.
2 - Set CODE dip-switch as indicated in the system manual, if the event needs this setting (only for intercom call coming from a door unit).
3 - Press the programming button and release it when the led turns on.

4When entering in programming mode, stored events will be overwritten. Before accessing programming mode, it is suggested to restore factory settings and program events in a single session.

4 - Generate the first event that the special decoder must acquire (for example, press the door lock release button of a system apartment station).
5 - The led blinks once to indicate that the first event has been programmed. The led stays on to indicate that the special decoder is still in programming phase.

6 - Generate the other events which the special decoder must acquire. For each event the led will blink for the same number of times as the events programmed: 2 times for the second event, 3 for the third.
After the last available event has been programmed, the led will turn off to indicate exit form programming mode.

## 5

 When SCQ jumper is in S position, the led will blink only once, without indicating the programmed event number.7 - Exit from programming mode by following one of these two procedures:

- Press the programming button
- Generate the same event several times
- Wait until programming time is elapsed

However, exit from programming mode is indicated by the led, which turns off. In case of no events reception for a time greater than 5 minutes, the special decoder automatically quits the programming mode and turns the led off (the events already acquired stay stored).
Programming details and behaviour of the special decoder for each single programmable event are described below.

## EVENT: PEDESTRIAN DOOR LOCK RELEASE BUTTON FROM APARTMENT STATION

Program the event by pressing the pedestrian door lock release button of an apartment station, which must activate the special decoder relay (see paragraph about events programming).
Assume that this apartment station is in the column number "Column ID" and has user code "CODE".

When the programming procedure has been performed, the relay is activated according to the position of the jumper SCQ:

- Position Q: the pedestrian door lock release button of any system user activates the decoder.
- Position C: the pedestrian door lock release button of any user of the column "Column ID" activates the decoder.
- Position S: the pedestrian door lock release button of all apartment stations (also those in parallel) of the user in the column "Column ID" and user code "CODE" (the one used to acquire the event) activates the decoder.

5
The position of special decoder dip-switches CODE is irrelevant for the operation with pedestrian door lock release button.

## EVENT: DRIVEWAY DOOR LOCK RELEASE BUTTON FROM APARTMENT STATION

Program the event by pressing the driveway door lock release button of an apartment station, which must activate the special decoder relay (see paragraph about events programming).
Assume that this apartment station is in the column number "Column ID" and has user code "CODE".
When the programming procedure has been performed, the relay is activated according to the position of the jumper SCQ:

- Position Q: the driveway door lock release button of any system user activates the decoder.
- Position C: the driveway door lock release button of any system user in the column "Column ID" activates the decoder.
- Position S: the driveway door lock release button of all apartment stations (also those in parallel) of the user in the column "Column ID" and user code "CODE" (the one used to acquire the event) activates the decoder.

0
The position of special decoder dip-switches CODE is irrelevant for the operation with driveway door lock release button.

## EVENT: ‘CALL TO SWITCHBOARD’ BUTTON FROM APARTMENT STATION

Program the event by pressing the 'call to switchboard' button of an apartment station, which must activate the special decoder relay (see paragraph about events programming).
Assume that this apartment station is in the column number "Column ID" and has user code "CODE".

When the programming procedure has been performed, the relay is activated according to the position of the jumper SCQ:

- Position Q: the 'call to switchboard' button of any system user
activates the decoder.
- Position C: the 'call to switchboard' button of any system user in the column "Column ID" activates the decoder.
- Position S: the 'call to switchboard' button of all apartment stations (also those in parallel) of the user in the column "Column ID" and user code "CODE" (the one used to acquire the event) activates the decoder.

5
The position of special decoder dip-switches CODE is irrelevant for the operation with 'call to switchboard' button.

EVENT: ‘SPECIAL FUNCTIONS' BUTTON FROM APARTMENT STATION
LT know system conditions needed to activate the event, see booklets provided with apartment stations

Program the event by pressing a 'special function' button of an apartment station, which must activate the special decoder relay (see paragraph about events programming).
Assume that this apartment station is in the column number "Column ID", has user code "CODE" and the number of the special function associated to that button is "SPEC".

When the programming procedure has been performed, the relay is activated according to the position of the jumper SCQ:

- Position Q: the 'special function' button "SPEC" of any system user activates the decoder.
- Position C: the 'special function' button "SPEC" of any system user in the column "Column ID" activates the decoder.
- Position S: the 'special function' button "SPEC" of all apartment stations (also those in parallel) of the user in the column "Column ID" and user code "CODE" (the one used to acquire the event) activates the decoder.

0
The position of special decoder dip-switches CODE is irrelevant for the operation with 'special function' button.

EVENT: INTERCOM CALL FROM APARTMENT STATION

- Assign to the special decoder a user code from 0 to 127 using dip-switches CODE; in the system special decoders must not have the same user code as other devices (apartment stations or other decoders), even if belonging to different columns.

5
To set the desired code use dip-switches CODE from 2 to 8 (2=most significant bit - 8=least significant bit); the dip-switch 1 must be OFF.

- Program the buttons of concerned apartment stations to perform a direct intercom call to the previously configured special decoder:

5
The description of the procedure used to program an intercom call with Signo video door phone can be found below; for the other models, see the manuals provided with products.

- Go to the apartment station to be programmed.
- Keep the door lock release button and pick the handset up. The apartment station emits a tone to indicate the access to programming mode.

- Press the button to be programmed; the apartment station emits a confirmation tone.

- Go to the special decoder and press the programming button until the red led turns on, then release the button.
- The apartment station in programming mode emits a beep to confirm the programming.
- Press again the programming button of the special decoder until the red led turns off.
- Hang up the apartment station handset, that emits a beep to confirm the exit from programming mode.
- Program the event by pressing the intercom call button of an apartment station that must activate the special decoder relay (see paragraph concerning events programming).
Assume that this apartment station is in the column number "Column ID" and has a user code "CODE".

When the programming procedure has been performed, the relay is activated according to the position of the jumper SCQ:

- Position Q: the intercom call button of any system user activates the decoder.
- Position C: the intercom call button of any system user in the column "Column ID" activates the decoder.
- Position S: the intercom call button of all apartment stations (also those in parallel) of the user in the column "Column ID" and user code "CODE" (the one used to acquire the event) activates the decoder.


## EVENT: PEDESTRIAN DOOR LOCK RELEASE COMMAND FROM SWITCHBOARD

Program the event by sending a pedestrian door lock release command from the switchboard (see paragraph about events programming).

When the programming has been performed, the relay is activated each time a pedestrian door lock release command is sent from the switchboard.

## The position of dip-switches CODE and jumpers SCQ of special decoder is irrelevant for the operation with pedestrian door lock release command from switchboard. <br> EVENT: DRIVEWAY DOOR LOCK RELEASE COMMAND FROM SWITCHBOARD

Program the event by sending a driveway door lock release command from the switchboard (see paragraph about events programming).
When the programming has been performed, the relay is activated each time a driveway door lock release command is sent from the switchboard.
The position of dip-switches CODE and jumpers SCQ of special decoder is irrelevant for the operation with driveway door lock release command from switchboard.

## EVENT: SPECIAL CODES COMMAND FROM CALL STATION OR SWITCHBOARD

Program the event by sending a special code "SPEC" from a call station or from the switchboard that must activate the special decoder relay (see paragraph about events programming). The device from which the special code is sent can be a secondary call station in the column number "Column ID", a main call station or a switchboard.

When the programming has been performed, the following events will occur:

- Sending of special code "SPEC" from the switchboard activates the decoder.
UTIIRT SPECIAL DECODER
- Sending of special code "SPEC" from a main call station activates the decoder.
- Sending of special code "SPEC" from a secondary call station activates the decoder, according to the position of jumper SCQ:
- Position Q: Sending of special code "SPEC" from any secondary call stations activates the decoder.
- Position C or S: Sending of special code "SPEC" from any secondary call stations in the column "Column ID" activates the decoder.The position of special decoder dip-switches CODE is irrelevant for the operation with special functions buttons

OPERATING MODE TO SIGNAL PANIC ALARM TO SWITCHBOARD (DIP1 = ON)

4This function can be used only in systems provided with special decoder connected to the column and with concierge switchboard with software version 3.1 or higher.

In this operating mode the special decoder must be programmed as follows:
1 - Move the dip-switch 1 in position ON
2 - Assign to the special decoder a user code from 0 to 127 using dip-switches CODE

To set the desired code use dip-switches from 2 to 8 ( $2=$ most significant bit - $8=$ least significant bit).
The user code can be the same used in apartment stations of the same apartment.

When the programming has been performed, by pressing the remote button (PC) a panic alarm is sent to the switchboard, with indication of the column where the decoder is installed and the programmed user code (CODE).
At the same time the relay is activated, according to the configurations of the toggling mode.

## OPERATION EXAMPLES

Operation example if the following events are programmed:

- Pedestrian door lock release button pressed from an apartment station;
- Gate door lock release button pressed from an apartment station;
- "Call to switchboard" button pressed from an apartment station;
- "Special functions" buttons pressed from an apartment station;
- Intercom call from an apartment station (*).
(*) the event will be active on all the devices where the intercom call to user 127 has been programmed.




## CONTROL CAMERAS DEVICE Ref. 1083/69



The video switch Ref. 1038/69 is a device which can be used to perform the auto-on function on 4 control cameras connected to a call station.
Press several times the auto-on button on a video door phone apartment station; the display will show the images coming from the call station camera and those of the cameras directly connected to the call station, then the images coming from cameras connected to the switch, in cyclic mode.
If in the system there are other call stations, after the cameras connected to the switch, the image displayed will be the one coming from other stations.
Ly Each time the auto-on function is performed, the cycle always starts from the main call station camera IDO.

The device can not only switch the video signal, but also cameras power supply, allowing to power one only camera at a time.

## ELECTRICAL SPECIFICATIONS

Power voltage (+V, OV):
Max. current consumption: Power supply voltage (R2, OV):
$12 \mathrm{Vcc} \pm 10 \%$ (max. current 2A)
Working temperature range:
Humidity:
Maximum distance between button contacts and
terminals (RES)
300 m

## INSTALLATION

The housing can be mounted on a DIN rail or wall mounted with screws and screw anchors; however, the device must be kept in dry places, protected against bad weather, observing safety regulations.

To power the video switch, it is suggested to use the power supply Ref. 789/2; its characteristics and installation modes are described in "Door phone - Video door phone products Technical Manual" in the section "Power supply, Relays, Various Devices".

## TERMINAL PINS DESCRIPTION

RE; OV input for camera 1 activation referred to 0 V
RF; OV input for camera 2 activation referred to 0 V
RG; OV input for camera 3 activation referred to $0 V$
RH; OV input for camera 4 activation referred to OV
R2; 0V power supply input for cameras
+V; OV power supply input for video switching 18Vcc
+12; OV power supply input for video switching 12Vcc
AU; BU video signal output for the monitor with differential connection
AU; V5 video signal output for the monitor with coaxial connection

A5; B5 differential video signal input, pass through
A5; V5 coaxial video signal input, pass through
RES; OV input used to reset the switch position among cameras, referred to OV (in this case, remove the jumper between the terminal pins RES and OV)
T; OV input for cameras cyclic activation, referred to $0 V$ (in this case, remove the jumper between the terminal pins RES and OV)

A1; B1 differential video signal input for camera 1
A2; B2 differential video signal input for camera 2
A3; B3 differential video signal input for camera 3
A4; B3 differential video signal input for camera 4
A1; V5 coaxial video signal input for camera 1
A2; V5 coaxial video signal input for camera 2
A3; V5 coaxial video signal input for camera 3
A4; V5 coaxial video signal input for camera 4
TC1; V5 power supply output for camera 1
TC2; V5 power supply output for camera 2
TC3; V5 power supply output for camera 3
TC4; V5 power supply output for camera 4
$\stackrel{\Delta}{ }$
Cameras must be connected in sequence, starting from input 1.

## CONFIGURATION

Set the jumper on the device to the position shown in the table according to the number of cameras used.


| NO. OF <br> CAMERAS | JP1 | JP2 | JP3 | JP4 | FUNCTION |
| :---: | :---: | :---: | :---: | :---: | :--- |
| 2 | ON | - | - | - | Video signal switch A1 $\div \mathrm{A} 2$ |
| 3 | - | ON | - | - | Video signal switch A1 $\div \mathrm{A} 2 \div \mathrm{A} 3$ |
| 4 (default) | - | - | ON | - | Video signal switch <br> A1 $\div \mathrm{A} 2 \div \mathrm{A} 3 \div \mathrm{A} 4$ |
| $5\left({ }^{* *)}\right.$ | - | - | - | ON | Video signal switch <br> A1 $\div \mathrm{A} 2 \div \mathrm{A} 3 \div \mathrm{A} 4 \div \mathrm{A} 5$ (Pass <br> through) |

(**) The pass through camera (A5) must be directly powered.

CCTV BUS INTERFACE Ref. 1783/69


The device Ref.1783/69 allows to connect up to 4 control cameras with balun impedance adapter to 2 Voice systems.
Cameras can be assigned to the single user number 0 or 1 or assigned to all the system users.
This interface can be seen as a secondary call module. For this reason, in each riser the sum of secondary call stations and CCTV bus interfaces can not exceed 2 .
LIt is possible to use Ref.1083/69 or Ref.1038/69 devices even if in the system is installed one or more Ref.1783/69.

## TECHNICAL CHARACTERISTICS

Power supply voltage:
Standby current consumption:
Maximum current consumption:
$36-48 \mathrm{Vcc}$
10 mA
100 mA

## FACTORY SETTINGS

The device is factory configured with following defaults:

| ID |  | 1 |
| :--- | :--- | :--- |
| B/S | BROAD. |  |
|  | 1 | AP0 |
|  | 2 | AP0 |
|  | 3 | AP0 |
|  | 4 | AP0 |
| ON/OFF | 1 | AP1 |
|  | 2 | AP1 |
|  | 3 | AP1 |
|  | 4 | AP1 |

$\begin{array}{cc}\text { SEL/AP } & \text { ON/OFF } \\ \text { TELECAMERA } \\ \text { 而 TELECAMERA }\end{array}$


## INSTALLATION

The device is designed for DIN rail installation and also for wall mounting installation with screws and screw anchors.


To connect the interface Ref.1783/69 to the system, it is mandatory to use the 2Voice system cable Ref.1083/90 or Ref.1083/92 and to observe the regulations concerning secondary call stations that are shown in the system booklet.
For cameras connections, use the cables described below, observing the maximum extension indications:

| Cable type | Maximum length | Video balun |
| :---: | :---: | :---: |
| CAT5 | 200 m | Ref.1093/300A (*) |
| Coax RG59 | 50 m | NO |

(*) between the video balun Ref.1093/300A impedance adapter and the camera, a RG59 coax cable with a maximum length of 50 m can be used.

## TERMINAL PINS DESCRIPTION

$\oslash$ B1 Positive input (or coax cable central conductor) camera number 1
$\oslash$ A1 Negative input (or coax cable shield) camera number 1
$\oslash$ B2 Positive input (or coax cable central conductor) camera
$\oslash$ A2 Negative input (or coax cable shield) camera number 2
$\oslash$ B3 Positive input (or coax cable central conductor) camera
Negative input (or coax cable shield) camera number 3
$\oslash$ B4 Positive input (or coax cable central conductor) camera
$\oslash$ A4 Negative input (or coax cable shield) camera number 4
$\oslash$ $\begin{aligned} & \varnothing \\ & \varnothing\end{aligned}$ LINE IN Incoming Bus line
$\oslash$ Ø LINE OUT Outgoing Bus line

## CONFIGURATION



ID: in a riser column it is possible to install 2 CCTV bus interfaces or one secondary call station and one CCTV bus interface; the two devices must have different addresses (0 or 1).


B/S: The images coming from cameras connected to the interface can be seen by all the users (BROAD) or assigned to users 0 and 1 of the column (SEL/AP) by means of the dip switch "SEL/AP TELECAMERA".

| $\begin{gathered} \text { ID B/S } \\ 1 \square_{\text {SEL/AP }}^{\text {BROAD. }} \end{gathered}$ | Cameras are assigned to users 0 and 1 |  | Broadcasting function: all the users can see the images coming from cameras. |
| :---: | :---: | :---: | :---: |

SEL/AP CAMERAS: by setting the "B/S" dip-switch to SEL/AP, it is possible to assign all the cameras to the user 0 (APO) or to the user 1 (AP1). The dip-switch number corresponds to the camera number (dip number 1 = camera connected to A1, B1 terminal pins).

|  | Camera 1 is assigned to the user 0 | SELAPTELECCMERA122AP1APO | Camera 1 is assigned to the user 1 |
| :---: | :---: | :---: | :---: |
|  | Camera 2 is assigned to the user 0 | SEL/AP TELECAMERA $1 \quad 234$ AP1 QOQO | Camera 2 is assigned to the user 1 |
| SEL/AP TELECAMERA 12234 AP1 MGDG APO DR | Camera 3 is assigned to the user 0 | SEL/AP TELECAMERA 13234 AP1 MOQ APO | Camera 3 is assigned to the user 1 |
|  | Camera 4 is assigned to the user 0 | SEL/AP TELECAMERA 12234 AP1 D円C■ | Camera 4 is assigned to the user 1 |

L. Cameras can be associated only to users with CODE 0 and 1; the other users can see cameras images only if the "Broadcasting" function is enabled.
For example, if it is requested to assign the cameras number 1 (A1, B1) and $4(A 4, B 4)$ to the user 0 and the other cameras to the user 1 , set the dip switch in the following way:


RESET: If the CCTV Bus interface is removed from the system in order to be used in another system, is necessary to reset it. To do this and erase all the active settings, open and close again the jumper "RESET".

ON/OFF CAMERAS: If no camera is connected to an input or if it is needed to exclude temporarily the selected camera from those displayed, put the respective dip-switch in OFF position. The dipswitch number corresponds to the camera number (dip number $1=$ camera connected to A1,B1 terminal pins).

|  | Camera 1 is disabled | ON/OFF TELECAMERA 1234 पMGTON | Camera 1 is enabled |
| :---: | :---: | :---: | :---: |
| ON/OFF TELECAMERA 1234 OGOON OFF | Camera 2 is disabled | ON/OFF TELECAMERA 1234 DGMA ON OFF | Camera 2 is enabled |
|  | Camera 3 is disabled |  | Camera 3 is enabled |
| ON/OFF TELECAMERA 1234 MG日 ON OFF | Camera 4 is disabled | ON/OFF TELECAMERA 12334 MYMQ ON OFF | Camera 4 is enabled |

For instance, if no camera is connected to A3, B3 terminal pins, set the dip-switch as follows:
ON/OFF
TELECAMERA
1234
10 ON
OFF

## CONNECTION IN 2VOICE SYSTEMS

In-out connection in a one-riser system with one main call station

Connection in a system with one main call station and one secondary call station


Connection of 8 control cameras derived from a column interface Ref.1083/50

L. During auto-on, cameras connected to the Bus interface Ref.1783/69 are shown after the sequence described in the system booklet at the paragraph "Auto-on function on control cameras".

## SAFETY TRANSFORMER

Ref. 9000/230 ( $\in$ ( 1 (1) (8)


The transformer Ref. $9000 / 230$ is used to power the buttons modules name holders when it is not possible to power them directly from the Bus.
It has been designed following the regulations in force about insulating and security transformers. In this way it is compliant with requirements about protection against direct und indirect contacts, as requested by regulations concerning electric systems. It is also provided with IMQ mark approval.

## TECHNICAL CHARACTERISTICS

Power supply:
230Vac $50 / 60 \mathrm{~Hz}$
Power:
18VA
Secondary:
12Vac
Max. load: 1,1A
Protections:
with PTC
Power dissipation after 1 hour standard work: 1,8W
(*) After removing the cause of the short circuit, to restore PTC protection, unpower for about 60".

## INSTALLATION

The housing can be DIN bar or wall mounted with screws and screw anchors, using suitable adapters.


However, it must be kept in dry places, protected against bad weather, observing safety regulations.

## TERMINAL PINS DESCRIPTION

$\oslash$ Ø230~ 2 terminal pins 230Vac power supply input
$\left.\begin{array}{l}\oslash \\ \oslash\end{array}\right] 0 \sim 12 \quad 2$ terminal pins 12 Vac power supply output

## DPDT MONOSTABLE RELAY Ref. 788/52



This device can be used as call repeater, additional electric locks or electric loads activator like, for example, additional lamps for cameras installed far from the push button panel.

## TECHNICAL CHARACTERISTICS

Power supply:
12Vac nominal

Max. current consumption:

Relay contacts max. current: $12 \mathrm{Vdc} ; 18 \mathrm{Vac} ; 18 \mathrm{Vdc}$ at 12 Vcc 40 mA at 18 Vcc 60 mA at 12 Vac 100 mA at 18 Vac 150 mA 5A @ 100V

## INSTALLATION

The housing can be DIN bar or wall mounted with screws and screw anchors. However, the relay must be kept in dry places, protected against bad weather, observing safety regulations.


## TERMINAL PINS DESCRIPTION

The relay is equipped with two poles, suitable to command circuits with voltage not higher than 100 V and max. current of 5 A .


TIME DELAY RELAY Ref.1032/81


The device Ref. 1032/81 allows to time the activation of an additional ringer or the activation of a driveway electric lock.
Timing can be performed as follows:
a. By putting the jumper AR in "NO" position, the timer will activate the relay output when the external command "SE2" is received, only for the time configured by the potentiometer (TIME), regardless if the input signal is still present or not.
b. With the jumper AR in "SI" position, the timer will activate the relay output at least for the preset time: if the input "SE2" signal lasts longer than the configured time, the output will be kept active.
The device is equipped with two leds that indicate if the SE2 (LI) input and the (LO) relay output are active.

## TECHNICAL CHARACTERISTICS

Power supply voltage on +24 :
Power supply voltage on $+12 / \sim$ :
Continuous current from AP:
Timing range:
Operating temperature range:
Max. switching capacity (resistive load):
Max. switching voltage:
Max. switching power (resistive load):
Min. load:
Max. current consumption at 12 Vdc :

## INSTALLATION

The housing can be DIN bar or wall mounted with screws and screw anchors. However, the relay must be kept in dry places, protected against bad weather, observing safety regulations.

## TERMINAL PINS DESCRIPTION

| $\bigcirc+24$ | 22-27Vdc power supply input |
| :---: | :---: |
| $\bigcirc$ +12/~ | $10-15 \mathrm{Vdc}$ or $10-15 \mathrm{Vac}$ power supply input |
| $\bigcirc$-/~ | Common power supply contact |
| $\bigcirc$-/~ | Common power supply contact |
| $\bigcirc$ SE2 | Timer command input, activated by connecting it to the common power supply contact |
| $\bigcirc \mathrm{AP}$ | Door lock release output |
| $\oslash \mathrm{NO}$ | Normally open contact |
| $\oslash$ NC | Normally closed contact |
| C | NO and NC contacts common, usually connected to power supply common signal with AMCR jumper |

## JUMPERS AND PRESETS

AR: Recycle enabled.
AMCR: Relay common ground enabling.
TIME: Potentiometer to set the delay for the output relay disabling; the max. delay is obtained by turning the potentiometer clockwise.

## SYSTEM CABLES



In order to obtain the best system features, it is advisable to connect all the system devices with the dedicated cable, available in reels of two different lengths:
100 m Ref.1083/90
200 m Ref.1083/92
These cables have the following characteristics:

- Multipole cable, composed by 1 twisted pair with a PVC fire resistant external sheath.
- Excellent noise immunity.
- Cable section: $1 \mathrm{~mm}^{2}$.
- Pair impedance: $1000 \mathrm{hm} \pm 10 \%$ from 1 MHz to 15 MHz .
- 100 m cable attenuation: $<4,95 \mathrm{~dB}$ at 10 MHz .
- External diameter: 6,4mm.
- Colour: brown.


## POWER LINE PROTECTION DEVICE 230Vac 4000VA Ref.1332/85



This is a voltage surge varistor power line protection device. With overvoltage caused by atmospheric events, the device immediately limits the mains voltage amplitude and preserve the devices installed downstream to the device. Install the power line filter 230V 4000VA Ref. 1332/86 downstream to the power protection device to ensure better system operation.
Protection level: compliant with standard IEC 61643-1 and A1: class III with Uoc 6 kV

## TECHNICAL CHARACTERISTICS

Power supply protection threshold voltage
Made of self-extinguishing material
Nominal voltage:
$\geq 300$ Veff

Max. voltage:
Max. current:
Operating frequency:
Power:
Temperature range:

## INSTALLATION

The device must be mounted on a DIN bar in a closed electrical panel. Check electrical connections before powering the circuit. Find the phase wire with a phase detector and connect it to the terminal pin "1", IN side.

## IMPORTANT

The device must be protected by a 18 A differential magnetothermic earth-fault protection and differential switch with threshold current equal to 30 mA .
The protection device must be connected to mains ground conductors.
Device efficacy will be better at lower earth system resistance. For this reason, the system must comply with standards CEI 64-8/1 V1 edition 01/2001 booklet 5902. Please follow the specifications described in CEI 64-8/4 edition 01/1998 booklet 4134 concerning safety regulations.

CONNECTION EXAMPLE

POWER LINE FILTER 230Vac 4000VA
Ref. $1332 / 86$


This is a two-cell, high-attenuation, one-phase filter for frequencies $>0.1 \mathrm{MHz}$, active on common and differential mode interference. The device is intended to prevent the propagation of external radiofrequency interference on the power mains which could cause faults in the electrical and electronic devices connected to the mains. Install a power
line protection device 230V 4000VA Ref. 1332/85 upstream to the power filter to ensure better system operation.

## TECHNICAL CHARACTERISTICS

One-phase, two-cell, high-attenuation filter active on common and differential interference $\mathrm{f}>0.1 \mathrm{Mhz}$.
Contained in a 2 DIN modules, self-extinguishing enclosure
Nominal voltage:
230 Vac
Max. voltage:
55Vac
Operating frequency:
50 Hz
Attenuation:
60 dB at a frequency of 2 MHz
Max. current:
Power:
4000VA
Temperature range:
$-25^{\circ} \mathrm{C}+40^{\circ} \mathrm{C}$

## INSTALLATION

The device must be fastened on a DIN bar in a closed electrical panel.
Check electrical connections before powering the circuit. Locate the phase wire with a phase detector and connect it to the terminal pin "1", IN side.

## IMPORTANT

The device must be protected by a suitable restricted earth-fault protection with current flow equal to 18 A and differential switch with opening current equal to 30 mA .
The protection device must be connected to earth.
Filter efficacy will be better at lower earth system resistance. For this reason, the system must comply with standards CEI 64-8/1 V1 edition 01/2001 booklet 5902.
Implement specifications described in CEI 64-8/4 edition 01/1998 booklet 4134 concerning safety regulations.

## PSTN + VIDEO APARTMENT INTERFACE Ref.1083/67



The apartment interface Ref. 1083/67 allows to connect telephones or a PABX to a 2Voice system. With this device all 2Voice system typical operations can be performed using a telephone and DTMF codes. If not Urmet products are installed in the system, it is suggested to check that telephone signals (voltage, tones, etc.) are compatible with Italian telephone signals. Signal incompatibility could cause malfunction.
Urmet S.p.A. refuses all responsibility for tampering or wrong connections which can damage people or objects.

## TECHNICAL CHARACTERISTICS



Compliant with:
EN 61000-6-3, EN 61000-6-1, EN 60065

## INSTALLATION

To evaluate the max. number of devices which can be installed in column, note that each apartment interface must be considered as 2 apartment stations.

The product is composed by 2 units (power supply module and interface), which must be installed in a service panel on DIN rail and connected.

## TERMINAL PIN DESCRIPTION

\(\left.\begin{array}{lll}\oslash \& + <br>

\oslash \& - \& \end{array}\right\}\)| Terminal pins for connection to the power supply |
| :--- |
| module |

## LINE TERMINATION SETTING



On the interface there is a jumper which allows to insert the line termination. The termination must be activated in all the devices installed at the end of a line that does not start again with another segment from the terminal pins LINE OUT:


## CONFIGURATION AND OPERATING MODE



Default values: all the interfaces are configured in factory as follows:
USER = 127
DIP1 CODE $=\quad$ OFF (apartment station mode)
INTERNAL CODE $=1$
Line termination $=\mathrm{ON}$
The interface 1083/67 can be configured to operate in two different modes:

- Mode apartment station (Dip 1 CODE = OFF). Installed in an apartment, the interface allows to manage the door phone system from the telephones connected to the telephone output au, bu or connected to a PABX connected to the same telephone output au, bu.
- Mode call transfer from the concierge switchboard 1083/40 (Dip 1 CODE = ON). Installed in the same system zone as the switchboard 1083/40, the interface allows, by pressing a function button of $1083 / 40$, to transfer the calls directed to the switchboard to the telephone connected to the interface on the telephone output au, bu.


## CONFIGURATION IN APARTMENT STATION MODE

CODE: user code.
Set the Dip 1 CODE in OFF position.
Set a number from 0 to 63, according to the following rules:

- In the column there must not be any apartments with the same user code.
- If there are apartment stations in parallel in the same apartment, these must have the same user code.
- The user codes of the same column must be consecutive.

LT To set the desired code, use the dip switches from 2 to 8 ( $2=$ most significant bit $-8=$ less significant bit); the dipswitch 1 must be set to OFF.


## FEATURES AVAILABLE IN APARTMENT STATION MODE

## RECEIVING CALLS IN APARTMENT STATION MODE

After receiving a call, the telephones connected on au, bu ring for 60 seconds max. (off-hook waiting time). By picking the handset up, a communication is established with the caller.

## VIDEO SIGNAL IN APARTMENT STATION MODE

When a video door phone call is received, on all the interfaces of the called apartment, the video signal is available on the terminal pins V3-V5 and the video voltages are present on the terminal pins RD and ONV (referred to V5). The video signal and the above mentioned voltages are active until the call is terminated

## DOOR OPENING IN APARTMENT STATION MODE

To send a pedestrian door lock release command, pick the handset up and enter 222 or 333 to open the gate (for details, see the chapter "DTMF codes").

## AUTO-ON FUNCTION IN APARTMENT STATION MODE

If the interface is in standby, the auto-on function can be performed on the door units: pick the handset up and send the command 888. By sending again the same command, it is possible to cyclically display the images coming from the control cameras, from the cameras of the system main door units and from secondary door units of the same column.
By sending the command 880, an audio and video communication is established with the selected door unit. The user can open at any time the door of the selected door unit with the command 222 (pedestrian) or 333 (gate).
By hanging the handset up, the auto-on function is closed.

## INTERCOM CALL FORWARDING IN APARTMENT STATION MODE

Pick the handset up and send the chosen command (see the chapter "DTMF codes").
The following cases can occur:

- Apartment station free: the called apartment station rings. When the handset is picked up, the communication is established.
- Apartment station busy: the phone emits an alert tone (4 fast beeps). Hang up and try again later.


## FLOOR CALL FUNCTION IN APARTMENT STATION MODE

The interface is provided with two terminal pins (CP) for the connection of the floor call button. When the button is pressed, the telephones ring for 60 seconds max. If the user has several apartment stations in parallel, connect this button only on an apartment station or an interface. The apartment stations will ring in sequence.

## ADDITIONAL RINGER IN APARTMENT STATION MODE

The interfaces are provided with two terminal pins (S+, S-), used to connect an additional ringer or a relay or a wireless call repeater Ref. $4311 / 13$. This ringer is activated during every call ring tone.

## CONFIGURATION IN SWITCHBOARD MODE

The installation of the interface configured in switchboard mode must be performed following the procedure described in the manual provided with the switchboard. Also in this case, when calculating the maximum number of devices that can be installed in column, consider that each apartment interface must be counted as 2 apartment stations.

CODE: user code.
Ly Set the Dip 1 CODE in ON position.
Set a number from 0 to 63.
To set the desired code, use the dip-switches CODE from 2 to 8 ( $2=$ most significat bit $-8=$ less significant bit).

INT: apartment internal code.
Set all dip switches in OFF position.
Program a function button (F4, F5 or F6) of the concierge switchboard for the call transfer on the interface with the code set in CODE (3 digits max.).

## FEATURES IN SWITCHBOARD MODE

## RECEIVING CALLS IN SWITCHBOARD MODE

To activate the call transfer from the switchboard to the interface press the previously configured function button (F4, F5 or F6).
The switchboard display shows

where:
ddddd is the code CODE set on the interface Ref. 1083/67, which manages the diverted call.

Now calls are intercepted according to the following rules:

- If the switchboard is in "day" mode, when the transfer is activated, all the calls coming from the main stations and all the calls coming from the apartment stations and addressed to the switchboard make the telephones connected on au, bu ring.
- If the switchboard is in "night" mode, when the transfer is activated, only the calls coming from the apartment stations and addressed to the switchboard make the telephones connected on au, bu ring.

To disable the call transfer from the switchboard to the interface, press again the function button (F4, F5 or F6) which had activated the service.
4. The other switchboard functions are not available when the call transfer is active. In this case, the switchboard can only disable the function.

After receiving a call, the telephones connected on au, bu ring for 60 seconds max. (off-hook waiting time).
By picking the handset up, a communication is established with the caller.

## VIDEO SIGNAL IN SWITCHBOARD MODE

When a video door phone call is received from main stations, the video signal is available on the terminal pins V3-V5 and the video voltages are present on the terminal pins RD and ONV (referred to V5).

## DOOR OPENING IN SWITCHBOARD MODE

During the communication with a main station, to send a pedestrian door lock release command, pick the handset up and enter 222 or 333 to open the gate (for details, see the chapter "DTMF codes").

## DTMF CODES

Commands can be sent by the telephone using codes composed by 2 or 3 digits.
Pick the handset up and enter the code: a command composed by two digits is identified after 2 seconds the last button has been pressed; a command composed by 3 digits is identified after the third button is pressed. If the command is invalid, an alert tone is emitted.

| Code | Command |
| :---: | :--- |
| 222 | Pedestrian door lock release |
| 35 |  |
| R35 |  |
| 333 | Driveway door lock release |
| 999 |  |
| 36 | Call to switchboard |
| R36 |  |
| 888 | Auto-on or cyclic |
| 880 | Audio activation after auto-on |
| 777 | Video door phone answering machine query |
| 000 |  |
| $\cdot$ | Intercom call to users of the same column |
| . |  |
| 127 |  |
| 990 |  |
| 991 | Intercom call to users of the same apartment |
| 992 |  |
| 993 |  |
| 441 |  |
| 37 | Special function nr. 1 |
| R37 |  |
| 442 |  |
| 443 |  |
| 444 | Special functions from 2 to 7 |
| 445 |  |
| 446 |  |
| 447 |  |
| 34 | Auto-on followed by the audio activation (888 + 880) |
| R34 |  |

COMmands must be in band DTMT tones.

## 230Vca MAINS SURGE PROTECTION <br> Ref.1382/80



## DESCRIPTION

The surge protection device (SPD) Ref.1382/80 can be be used to protect electric and electronic equipments against over-voltage and electromagnetic interferences (EMI) present on 230Vac power supply line and on derived lines.
The protection device is equipped with a re-arming thermal switch. The presence of output voltage is indicated by a red warning light. The thermal switch trips and cuts off power to utilities in the presence of output current in excess of 4 A . The power warning light goes out and the re-arm button springs out from the casing. To re-arm the device, press the re-arm button until it clicks. Re-arming will not be possible in the presence of short-circuit or excessive output load.
The device is not subject to FOLLOW CURRENT condition, so in case of maintenance operations there are few chances of service interruption for the protected device.
The device is designed and certified according to EN61643-11/A11 European standard.


## TECHNICAL FEATURES

Nominal operating voltage: ..................................... 230 Vca 50-60 Hz
Max. continuous operating voltage (Uc): .................................. 255 Vac 350Vdc
EMI filter attenuation: ..................................... >40 dB (0,5 $\div 30 \mathrm{MHz}$ ) $>50 \mathrm{~dB}(2 \div 20 \mathrm{MHz})$
Grounding system: ..........................................................................TT
Operating temperature range: ............................................ $-5 \div+40^{\circ} \mathrm{C}$
Relative humidity:
$\qquad$ $-5 \div+40$
$.10 \div 80 \%$
Overcurrent protection: .. thermal
Nominal operating current:..........................................................1,8 A
Overcurrent protion 4 A (0,2 $\div 4$ s)
Number of intervention cycles:....................................................... 500
Max. short-circuit current:............................................................. 18 A
Compliant with: ........................................................EN61643-11/A11
Class test:........................................................................................... 3
Number of ports: ............................................................................... 2
Discharge nominal voltage L-N (8/20) (Uoc): ............................... 6 kV
Discharge nominal voltage L-N/PE (8/20) (Uoc):........................... 6 kV
Protection level L-N (Up): ....................................................... $<1500$ V
Protection level L-N/PE (Up): .................................................<1500 V
TOV voltage (Ut): .................... 392 Vac (L-PE) / 333 Vac (L-N) @ 5 s 1430 Vac (L-PE) / 1200 Vac (N-PE) @ 200 ms

## INSTALLATION

The device can be wall mounted using the provided bracket or DIN bar mounted.

2. In case of wall mounting, a terminal pin protection cover MUST be installed.

## WIRINGS

For connections to the system, see the the specific safety rules for electric installation.

4 The equipment must be protected before its input by a surge protection device against overcurrent (fuse or automatic switch with 16A capacity).
To reach the connection terminal pins, lever with a slotted screwdriver.

4. Remove the cable insulation sheath for 6 mm max.

4. Incoming and outgoing lines need separated conduits.

| Cable type | stranded | solid core |
| :---: | :---: | :---: |
| Nominal section | $2,5 \mathrm{~mm}^{2}$ | $2,5 \div 4 \mathrm{~mm}^{2}$ |
| Terminal pins max. <br> seating torque | 4 Nm | 4 Nm |

4 Power supply input line must not be inverted with the output line.

## OPERATION

In case of overcurrent, device thermal protection interrupts power supply to connected devices.

The thermal protection will interrupt only one conductor, the other one will be kept connected to the respective input terminal pin

To activate again the device, press the restore button; in case of short-circuit or overload, restart will not be possible.
Turned on led indicates the presence of power supply voltage and active protection.
Turned off led indicates a protection intervention and this must be replaced (the load is kept powered, but without protection).
The led stays off also in case of mains failure.

## SURGE PROTECTION DEVICE FOR TELEPHONE LINES



## DESCRIPTION

Telephone line surge protection devices (SPD) must be used to protect electronic equipments (PABX, interfaces, answering machines, fax, etc.) against over-voltage and interferences on telephone lines.
The protectors must be installed on trunk lines connected to the switchboard inputs, on external extension lines and on lines connected to devices powered with 230 Vac , as faxes, modems, answering machines, wireless phones.
The protector devices are equipped with PTC current limiters.
After installation, no user operations are required. No commands are needed and no warning lights are present.
The device is designed and certified according to EN61643-21/A1 European standard.
Ly Before using these devices, check that telephone signals (voltages, tones, etc.) are compatible with Italian telephone signals. Signal incompatibility could cause malfunction.

Protection devices are available in two versions:

- for 1 telephone line Ref.1382/81
- for 2 telephone lines Ref.1382/82

(*) Only available on Ref.1382/82


## TECHNICAL FEATURES

Max. continuous operating voltage (Uc): ............... 127 Vca / 180 Vdc
Nominal load current: . $<180 \mathrm{~mA}$ @ $25^{\circ} \mathrm{C}$
Current limiter: $\qquad$
Max. tripping current: $\qquad$ $1 \mathrm{~A} @ 3,8 \mathrm{~s}$ and $25^{\circ} \mathrm{C}$
Series resistance: $.12+120 h m$
Insertion loss $(1 \div 2200 \mathrm{kHz})$ : $\qquad$ +12 Ohm
Parasitic capacitance (AE-BE, AE/BE - ground): < 50 pF
Wire to wire capacitance: < 25 pF
Wire to ground capacitance: < 25 pF
Operating temperature range: $5 \div+40^{\circ} \mathrm{C}$
Relative humidity: $10 \div 80 \%$
Compliant with: $\qquad$
$\qquad$

Discharge current level C2 (8/20): ................................................. 5 kA
Protection level voltage (Up): ...........<275 V between wire and wire Protection level voltage (Up): ...... $<500 \mathrm{~V}$ between wire and ground ac life test: Pulse life test: Ax $1 \mathrm{~s} \times 5$
$\ldots .5 \mathrm{kA} \times 10$ Intervention time (disengage to the pulse): < 60 ms
AE-BE Fault Mode: MODE 3
AE/BE-GROUND Fault Mode: MODE 1

## INSTALLATION

The device can be wall mounted using the provided bracket or DIN bar mounted.

4. In case of wall mounting, a terminal pin protection cover MUST be installed.

## WIRINGS

To reach the connection terminal pins, lever with a slotted screwdriver.

L. Remove the cable insulation sheath for 6 mm max.

(*) Only available on Ref.1382/82
4. Incoming and outgoing lines need separated conduits.

| Cable type | stranded | solid core |
| :---: | :---: | :---: |
| Nominal section | $0,3 \div 2,5 \mathrm{~mm}^{2}$ <br> (AWG22 $\div$ AWG13) | $0,3 \div 4 \mathrm{~mm}^{2}$ <br> (AWG22 $\div$ AWG11) |
| Terminal pins max. <br> seating torque | $0,5 \div 4 \mathrm{Nm}$ | 4 Nm |

4. The more big is the cable section used, the more efficient system protection will be.
Lin Input telephone lines must not be inverted with output lines.
230Vac MAINS SURGE PROTECTION
Ref.1382/85


## DESCRIPTION

Ref. 1382/85 device is a varistor protection against overvoltage for power supply line (SPD). In case of overvoltage generated by atmospheric events, the device operates in order to limit risk of damage to system electric and electronic equipment.
The led on the upper side of the device indicates that surge protection is working properly.
When the led turns off, the protection must be replaced.
The led stays on also in case of mains failure.
Designed and certified according to EN61643-11/A11 European standard.

The device is not subject to FOLLOW CURRENT condition, so in case of maintenance operations there are few chances of service interruption for the protected device.
It is suggested to add to SPD class III device a mains filter (for ex. Ref. $1332 / 86$ ) for high frequency noise. In this way, the protection against EMC conducted noise is completed.

The device is designed and certified according to EN61643-11/A11 European standard


## TECHNICAL FEATURES

Nominal operating voltage: ...................................... 230 Vca 50-60 Hz Max. continuous operating voltage (Uc): ................................. 255 Vca 350 Vdc
Grounding system: ...........................................................................TT
Operating temperature range: ........................................... -5 $\div+40^{\circ} \mathrm{C}$
Relative humidity: $10 \div 80 \%$
Compliant with: EN61643-11/A11
Class test:
.. 3
Number of ports .................................................................................. 1
Discharge nominal voltage L-N (Uoc)........................................... 10 kV
Discharge nominal voltage L-N/PE (Uoc).................................... 10 kV
Protection level L-N (Up): ...................................................... $<1200$ V
Protection level L-N/PE (Up): ................................................. <1800 V
TOV voltage (Ut) ..................... 392 Vac (L-PE) / 333 Vac (L-N) @ 5 s 1430 Vac (L-PE) / 1200 Vac (N-PE) @ 200 ms

## INSTALLATION

The device must be fixed to a DIN bar in a closed service panel.


## WIRINGS

For connections to the system, see the the specific safety rules for electric installation.
L
The equipment must be protected before its input by a surge protection device against overcurrent (fuse or automatic switch with 16A capacity).
©
Remove the cable insulation sheath for 8 mm max.

4. The distance "d" between the device and the beginning of the line to be protected must be as short as possible.

| Cable type | stranded | solid core |
| :---: | :---: | :---: |
| Nominal section | $2,5 \div 6 \mathrm{~mm}^{2}$ | $2,5 \div 6 \mathrm{~mm}^{2}$ |
| Terminal pins max. <br> seating torque | 5 Nm | 5 Nm |

