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Multicolored LEDs

MADE IN FRANCE



# ANNUNCIATORS Range



J3500



J1905S



J1905S Wall version

Panels 96 x 96  
Panels 144 x 144  
Centralization



J3000/J3105



ALARM'BOX

PANEL'PC Bus Alarms Centralization



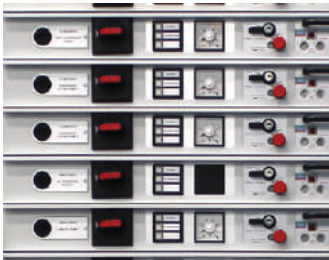
Technical Alarm



Realized by the company «TIME» (France)



Realized by the company «Kautz Starkstrom-Anlagen GmbH» (Germany)







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Multicolored LEDs



BUREAU VERITAS

MADE IN FRANCE

FRANCE

DIN 96 x 96 format

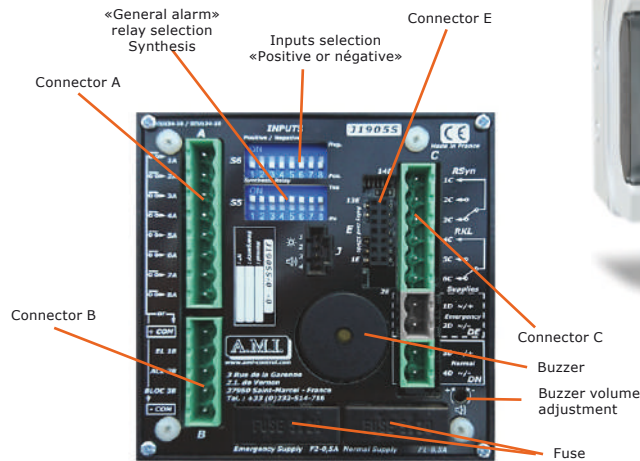
## Alarm and signaling panel Built-in version and wall box

Displays all information  
with or without memorization and acknowledgment,  
with or without audible alarm.  
Positive and negative inputs  
With simple power supply or  
redundant power supply



Voltage presence LED  
«LEDs test» button  
«Reset» button

### FRONT VIEW



### REAR VIEW



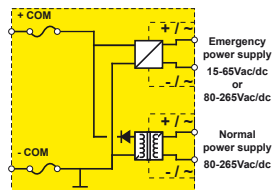
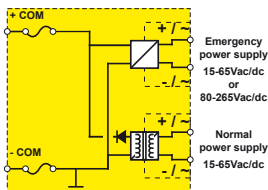
Available in wall version

This panel is designed for installations with «high security».  
It integrates all the possibilities of the J1905, plus options:

- **Single or double permanent power supply**, with automatic switching from one to the other in case of failure.
- Inputs can be activated by a contact connected to the «+» or «-» (open collector contact or contact connected to ground).

#### Double Redundant power supply :

The panel can be powered continuously with 2 different voltages (example: 24Vdc and 230Vac). In case of failure of one or the other voltage, the panel will continue to operate with the presence of the other voltage. An information of the loss voltage is indicated and available on the watchdog contact.



#### Regrouping of the supply voltages 24V and 48V :

The low-voltage range is expanded and goes at 15 to 65Vac/dc (the models for 24V and 48V voltages are grouped in one single model).

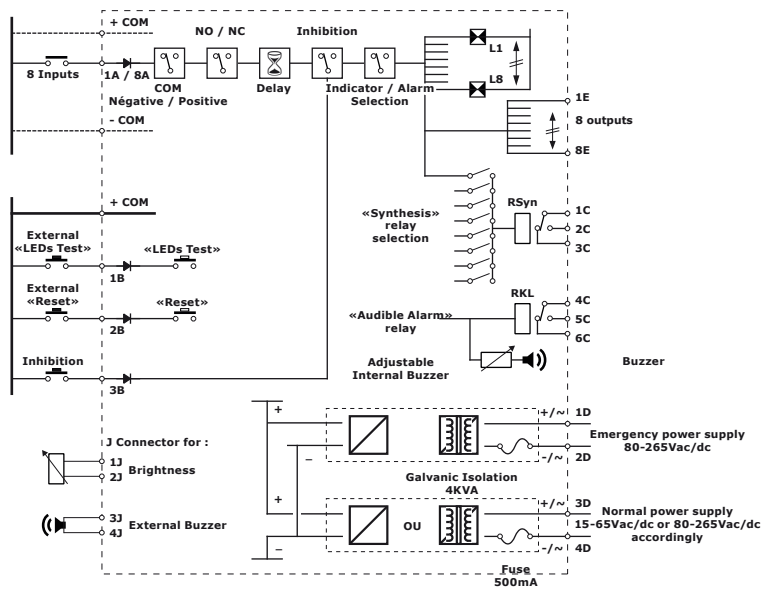
#### Inputs selection in «positive or negative» type is possible for each channels :

The input contacts are usually powered by the «+ COM» of the panel that delivers a low voltage. It's an use for «dry contact» type. But it can happen that the input contacts are connected to the «-» (sensors screwed on the chassis on some generators) or from an automaton output «open collector» type. In this case, the information received will be : «no voltage» (open contact) or «-» (closed contact). With its selection by switches, the J1905S allows the use of both modes, channel by channel.

### MAIN CHARACTERISTICS :

- 8 inputs and 8 LEDs indicator displays, with large label.
- Selection of type of display : simple indicator or alarm (blinking then fixed after reset).
- Selection of the direction of input contact (NO = Normally Open, NC = Normally Closed).
- Delay time on input from 0 to 1min. and from 1min. to 10min. (per channel, including on channels used as «simple indicator»).
- Alarm information memorized until operator reset.
- «Sound alarm» relay output with positive security (+ internal buzzer) (RKL).
- «General alarm» relay output (synthesis relay) with positive security for report (selectable channel by channel) used in «Watchdog» protection (RSyn).
- 8 «open collector» separate outputs for individual reports.
- «Inhibition» input with selection of channels to be inhibited (BLOC).
- Luminosity adjustment possible by external potentiometer with connector (J).
- «LEDs test» and «Reset» buttons on front face + terminals for external buttons (EL and ACL).
- 7 colours of display possible per LEDs for easier colour change (selection by switches).
- Detachable screw-in terminals.
- Simple Supply : 15 to 65Vac/dc or 80-265Vac/dc with 4KV galvanic insulation.
- Double Supply : 15 to 65Vac/dc and 80-265Vac/dc with different choices.

## MAIN DIAGRAM :



A channel can be «positive input» or «negative input».

The selection is made with S6 at the back of the panel.

Contact direction: the direction of contact (NO / NC) is selected with the S3 switch.

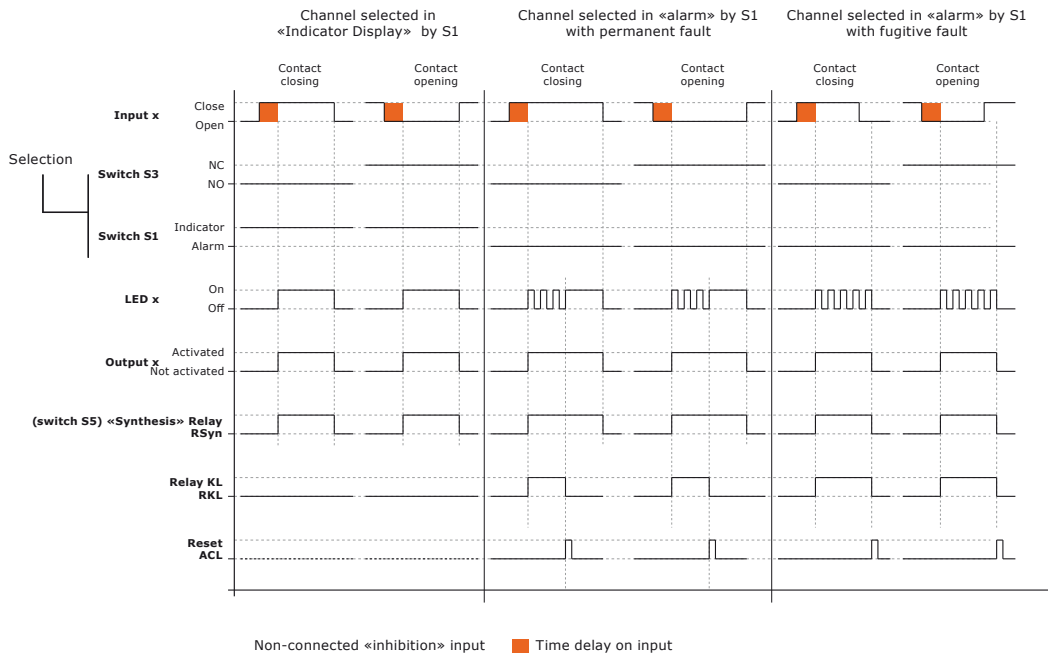
Caution : in case of a channel selected by S6 in negative input, the S3 selection becomes reversed.

The microprocessor is provided with a «**Watchdog**» that disables the «Synthesis» relay and «Sound alarm» relay in case of system shut-down. In the event of loss of one of the power supplies, the «Synthesis» relay will disable. If the 2 power supplies are lost, the «Synthesis» relay and the «Sound alarm» relay will disable.

The «Sound alarm» and «Synthesis» relay are with positive security (in our diagrams, and at the back of the product, the relay contacts are shown at the position when the J1905S is without voltage supply. In normal operation, the position of this switch is inverted).

The internal buzzer is adjustable in sound power. A jumper allows to put it out of service.

## OPERATION :



Switch	Selection
S1	«Signalings»/«Alarm» input
S2	Input with "blocking" authorization
S3	Contact input NO/NC
S4	Temporisation 0 à 1mn / 1 à 10mn
S5	Forwarding to the Synthesis relay YES / NO
S6	Voltage input type Positive/negative

**Channel selected as «Simple-indicator» treatment :**  
(Led is lit without blinking, without memory, without Horn, without RESET).

- The «x» channel must be selected in «simple indicator» with S1 (INDICATOR) :
- Depending of the sense of the input contact «x» selected with S3 (Normally Open / Normally Closed) and after the end of the input delay time Tx (filter on input), the LED lights up in fixed mode (it also possible to light up a LED by opening the contact if the selection is NO).
- The corresponding «x» output is activated (output is «open collector» type and delivers a 0V).
- RSyn «Synthesis» relay is deactivated if the S5 selection is programmed.
- The RKL «Sound alarm» does not change state.
- When the input contact returns to its normal position, the LED goes off.
- If the «inhibition» input BLOC is activated before the LED is lit and if the channel was selected by S2 (inhibition authorization), the display will be cancelled.

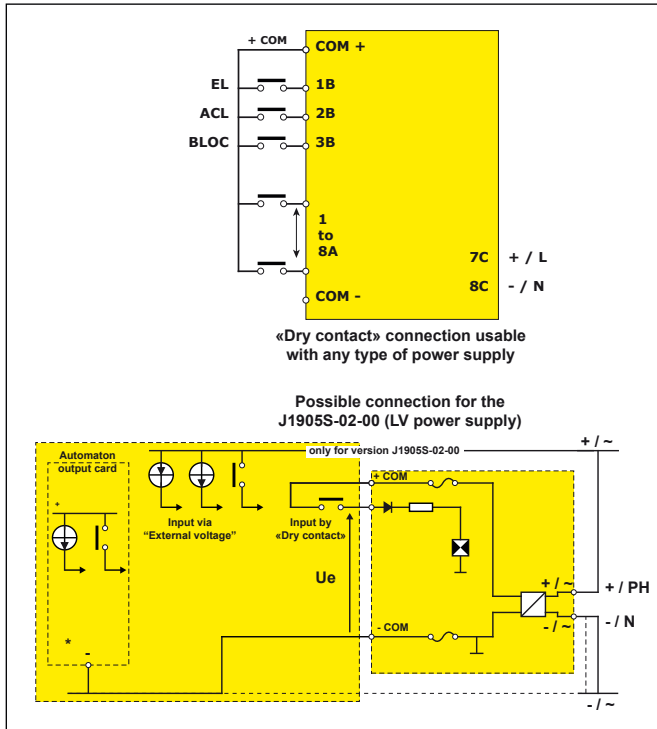
**Channel selected as «Alarm treatment» :**

(Led is lit flashing, memorized, with sound alarm, and with RESET necessary).

- The «x» channel must be selected in alarm with S1 (ALARM) :
- Depending of the sense of the input contact «x» selected with S3 (Normally Open / Normally Closed) and after the end of the input delay time Tx (filter on input), the arrival of the alarm will be taken into consideration and memorized.
- the LED will light up in blinking mode.
- The corresponding «x» output is activated (open collector type output delivers a 0V).
- RSyn «Synthesis» relay is deactivated if the S5 selection is programmed. (positive safety relay)
- The RKL «Sound alarm» relay is deactivated (along with the buzzer). (positive safety relay)
- Pressing the «Acquit» button on the front panel (or activating the acknowledgment via the rear terminal) stops the buzzer and switches the LED on if the alarm is still present or turns off the LED dice the return to the normal. The «open collector» output will remain activated and the «Synthesis» relay (if the latter is selected by S5) will remain deactivated until the LED goes out.

## INPUTS CONNECTIONS :

Connection diagram for J1905S with S6 Selection in positive inputs



### Input by «External Voltage» :

Maximum voltage on input: 65 Vac / dc. In other cases, use the diagram «dry contact input.»

In case where the input is powered by an external voltage (e.g. open collector controller card) it is necessary to interconnect the «-» of external electronic with the J1905S terminal «- COM».

### «Dry contact» input :

The contact voltage must be provided by the «+ COM» of the panel. (The voltage supplied on the «+ COM» is 24Vdc / max 100mA). This supply is internally protected against over current.

When using the model J1905S with power supply type «05» (80-265Vac/dc) with galvanic isolation, the voltage «+ COM» (as well as the internal electronics) of the J1905S is isolated from the main power supply (to 4KV).

### «Positive» input :

The input is activated from the «+COM» terminal. It is possible to use an external positive voltage (maximum 65Vac/dc). In this case, It is necessary to interconnect the «-» outer with the J1905S «- COM» terminal to ensure the return of the negative.

### «Inhibition» input BLOC :

It cancels the «recognition» of selected channel by the switch S2. Some information can be considered as alarms at certain time and be normal at another time. example:

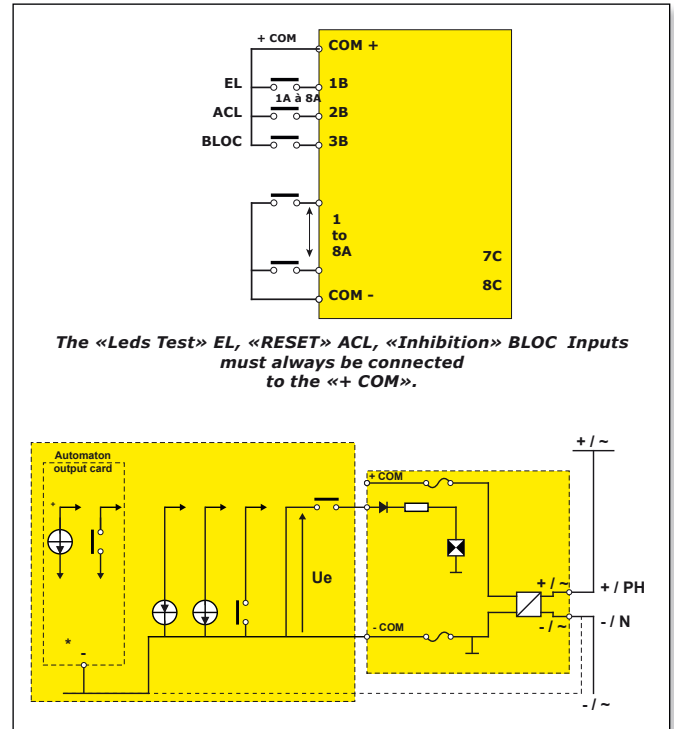
- Control if the door is open the night, but no control the day.
- During technical intervention.

This function also allows managing start cycles with no active safety.

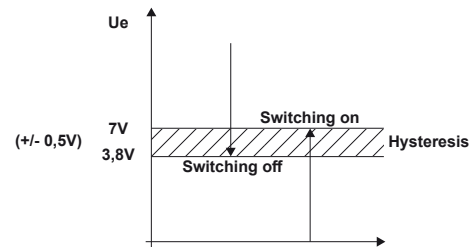
- Oil pressure of a generator during shutdown or during the startup phase.

This function is active for the channels selected in simple signaling and the channels in alarm. This cancellation will begin when the external input contact «Blocking» is closed (connected to «+ COM»). The function is only active if the input «Blocking» is activated before lighting an LED (flashing or fixed). Blocking will operate after turning off the LED (next input activation).

Connection diagram for J1905S with S6 Selection in negative inputs (contacts connected to the «-»)



The «Leds Test» EL, «RESET» ACL, «Inhibition» BLOC Inputs must always be connected to the «+ COM».



If the input «Blocking» is activated, the LED «voltage presence» on the front lights up orange. In the «double power supply» version, with the loss of power supply and the presence of «Blocking», the «voltage presence» LED will be lit in fixed red.

To inhibit a channel, it is necessary :

- That the channel had been selected «YES» using S2.
- That the inhibiting contact is closed BLOC.

### «Negative» input :

It may happen that the input contacts are connected the «-» (connection to the chassis on certain generators) or actived by «open collector» output card type automaton.

In this case, the information received will be :

- No voltage = open contact)
- connection to a «-» = closed contact.

With the S6 switch, the J1905S allows the use of "negative" inputs.

With the J1905S equipped with a type "05" power supply (80-265Vac/dc) with galvanic isolation, the "- COM" voltage (as well as the internal electronics of the J1905S) is isolated from the supply voltage. (at 4KV).

### «LED TEST» input EL :

A rear terminal allow to connect an external button (closing contact, to be connected to the «+ COM»). the closure will ensure a led test on several panels simultaneously.

### «RESET» input or «Acknowledgement» ACL :

A rear terminal allows to connect an external button (closing contact, to be connected to the «+COM») which will provide a RESET on several panels at once. An activation of the button connected to RESET terminal stops the audible alarm and the flashing LED which goes into fixed mode. A new alarm on another channel will be displayed in flashing mode and will reactivate the audible alarm.

## J1905S FRONT FACE :

### «Voltage presence» indicator :

A "voltage presence" indicator is present on the front panel. It lights green when all the power supplies present are active. In case of:

- Blocking activated, the LED is fixed orange.

In the «double power supply» version, the loss of one of the power supplies will be displayed by :

- flashing red.
- fixed red if the «blocking» terminal is also activated.

### «LED Test» button :

A «led test» button is available on the front.

A rear terminal is used to connect an external button (closing, to be connected to the «+ COM»). the closure will ensure a led test on several panels simultaneously.

## THE J1905S OUTPUTS :

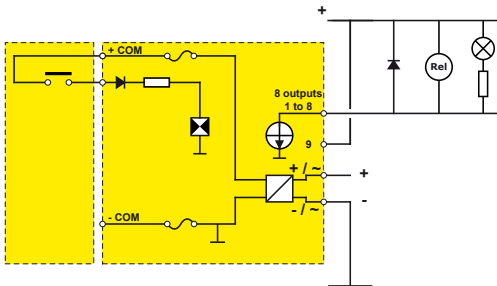
### «General alarm» contact outputs or «synthesis» (RSyn) :

1O/C output with galvanic isolation. The relay is "positive security", i.e. "normally energized". The relay will be deactivated by each of the channels selected with S5 whether the channels are selected in simple signaling or in alarm. The relay will be reactivated when all the contacts of the selected inputs are in normal position.

If the device is equipped with two redundant power supplies, the absence of one of them will be signaled by deactivation of the synthesis relay.

## 8 «OPEN COLLECTOR» OUTPUTS :

The J1905S has 8 electronic outputs 150mA. These outputs are present on the connector for flat cable E. These outputs deliver a «-» (open collector).



The output will be activated when the corresponding LED will be activated.

It will be deactivated when the Led will switch OFF.

The outputs are active in both modes (Channel configured in mode «simple indicator» or in mode «alarm» ).

In some cases, it is appropriate to protect the output against extra current (relay coil), as well as against over current (cold filament with electric bulb) by adding a low resistance in series.

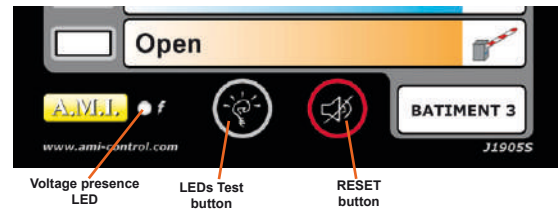
The outputs delivering a «-», it is necessary to connect external parts (relays, ...) to a «+».

A voltage of + 12Vdc / 200mA is available on the E connector in terminal block 9.

Possibility to use a positive external voltage max. : + 48Vdc.

There are different output interfaces with relay (in option) with a galvanic isolation. They clip onto DIN rail on the bottom of cabinet and quickly connect thanks to a flat cable.

The supply of relays is provided by the J1905S. This relays provide a rapid and optimal mounting and they protect the electronic outputs of a risk of destruction (Refer to our leaflet «Accessories»).



### RESET or Acknowledge button :

A «RESET» button is available on the front face. Pressing RESET stops the audible alarm and lights up the LEDs in fixed mode if the fault is permanent (if the fault is no longer present the LED will go out automatically).

If a new alarm arrive on another channel it will appear in flashing mode with audible alarm.

A rear terminal allow to connect an external button (closing button, it must be connected to the «+ COM» terminal). Closing will activate a RESET on several panels simultaneously.

### Output Contact «Audible Alarm» (RKL) :

1 (O/C) output with galvanic isolation. The relay is with «Positive Security», ie «normally activated». The relay will be deactivated by each one of the channels selected ALARM mode by S1. The relay will be reactivated when the operator will press on RESET (switching the LED in fixe).

If a new alarm appears, the relay RKL will be deactivated once again.

Warning: in our diagram, and at the back of the product, the contact is shown when the panel is not powered.

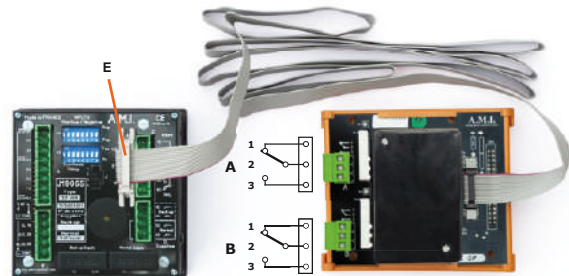
For a powered device without alarms present, the position of contact with a fail-safe relay will be reversed.

## OUTPUTS CONNECTIONS :

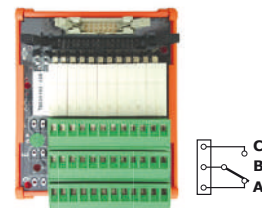
### Connector E

13	14	14	«Synthesis» output
11	12	13	«Audible Alarm» output
9	10	12	0V
7	8	11	Not connected
5	6	10	0V
3	4	9	Supply voltage for «External Relays»
1	2		12V/200mA
		1 to 8	channels outputs ( 150mA)

1 = channel 8  
2 = channel 7  
.../...  
7 = channel 2  
8 = channel 1



M901 Card « report relay» type DIN connected to the panel J1905S

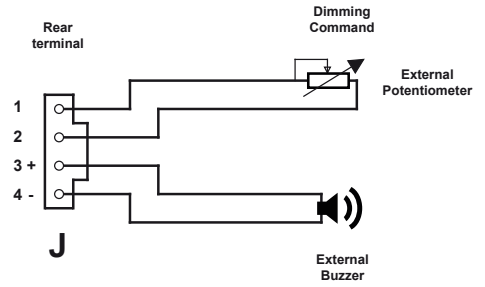


M0901-01-01



## LED LUMINOSITY ADJUSTMENT :

- LED luminosity can be adjusted using a connected external potentiometer between terminals 1 and 2 of J rear connector.
- No potentiometer => maximum luminosity.
- With potentiometer 1 Kohm to 5 Kohms => adjustments.



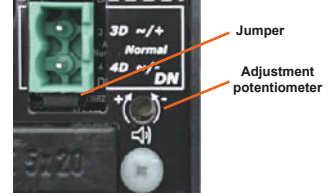
## OUTPUT FOR EXTERNAL BUZZER :

An external buzzer (10mA maximum, Voltage 12Vdc) can be connected to terminal 3 and 4 of J connector respecting polarity «+» on terminal 3. (But it is better to use the contact of RKL relay).

## INTERNAL BUZZER :

The J1905S has an internal buzzer, using the potentiometer it is possible to lower or increase the volume. A jumper located under the DN connector allows to completely disable the internal buzzer.

Note that these parameters do not affect the external buzzer output.

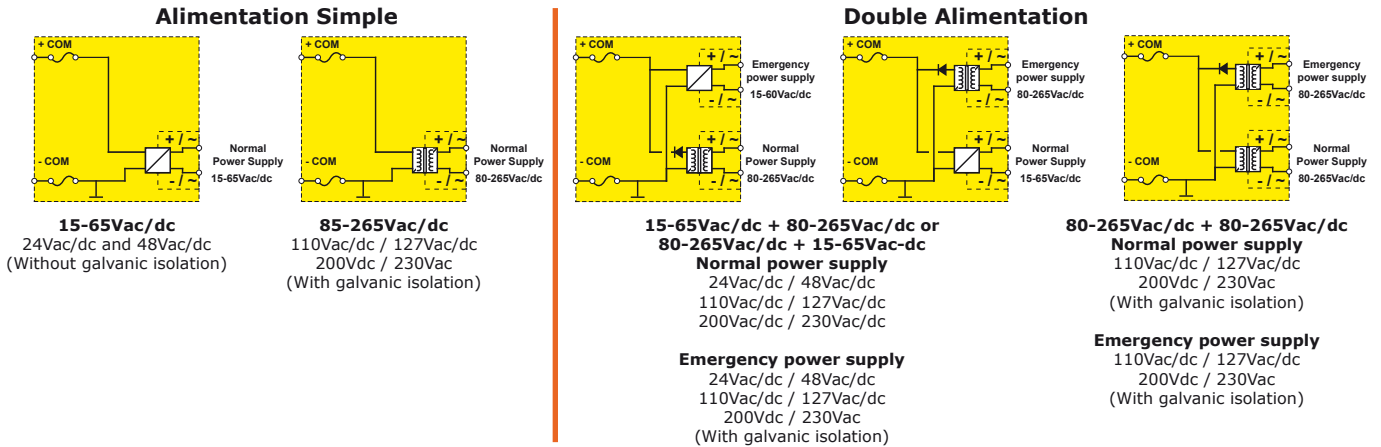


## SINGLE POWER SUPPLY / DUAL POWER SUPPLY :

Depending on the option chosen, the panel can be equipped with a single or two power supplies.

The panel can be permanently powered by 2 different voltages (example: 24Vdc and 230Vac). If either voltage fails, the panel will continue to operate due to the presence of the other.

The disappearance of one of the voltages will be signaled on the «voltage presence» indicator which will become flashing red or fixed red if the blocking terminal is activated. The synthesis relay will be deactivated in the event of loss of the normal power supply and the J1905S will continue to operate. If the normal power supply and the emergency power supply disappear, the synthesis relay and the RKL relay will be deactivated.



In the case of a model equipped with 2 power supplies, consumption will be via the so-called «normal» power supply, consumption on the «emergency» power supply remaining practically nil. It will only be used in the event of an abnormal voltage drop or failure of the normal power supply. The emergency power supply may consume 10 mA.

Each of the power supplies is protected by a 5x20mm 0.5A fuse.

Model	Normal Supply	Emergency Supply
<b>J1905S-02-00</b>	15-65Vac/dc	Unassembled
<b>J1905S-05-00</b>	80-265Vac/dc	Unassembled
<b>J1905S-02-05</b>	15-65Vac/dc	80-265Vac/dc
<b>J1905S-05-02</b>	80-265Vac/dc	15-60Vac/dc
<b>J1905S-05-05</b>	80-265Vac/dc	80-265Vac/dc

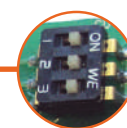
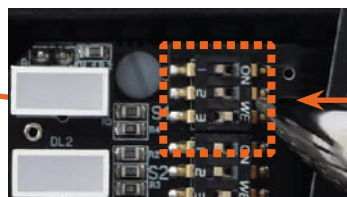
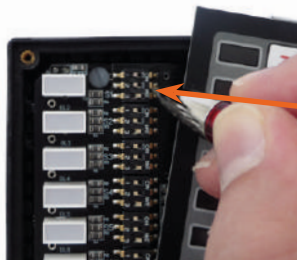
☐ : power supply with galvanic isolation

## LED COLOUR SETTING :

A display choice of 7 colors per LEDs is possible. This choice is selectable using switches on the panel front face. You have a choice of the following colours :

**Red, Green, Yellow, Blue, White, Cyan, Magenta.**

Changing LEDs is no longer necessary.



Color	Switch Position	Color
Bleu / Blue	OFF ON	Blue
Vert / Green	1 2 3	Green
Rouge / Red	1 2 3	Red
Jaune / Yellow	1 2 3	Yellow
Magenta	1 2 3	Magenta
Cyan	1 2 3	Cyan
Blanc / White	1 2 3	White
Eteint / Off	1 2 3	Off

## PRODUCING LABELS :

Labels are ordinary paper sheets that can be slid into a transparent pocket included in the thickness of the front face.

Labels can be handmade, or draw the screen of the PC and produced on a colour printer (laser or ink-jet).

A .pdf file (Acrobat) allows to create, save and duplicate the achievements.

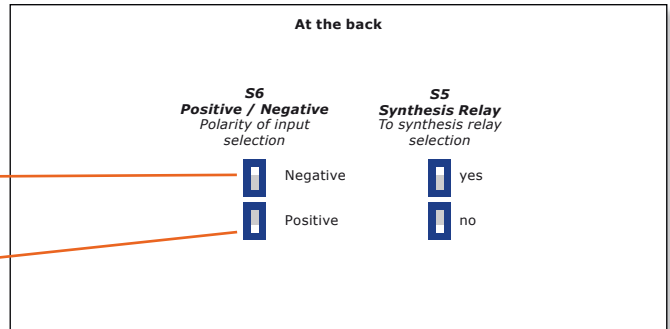
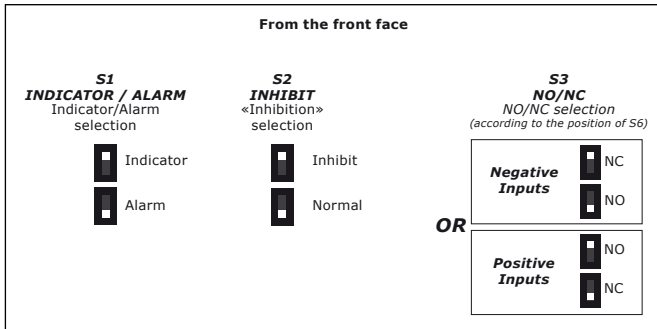
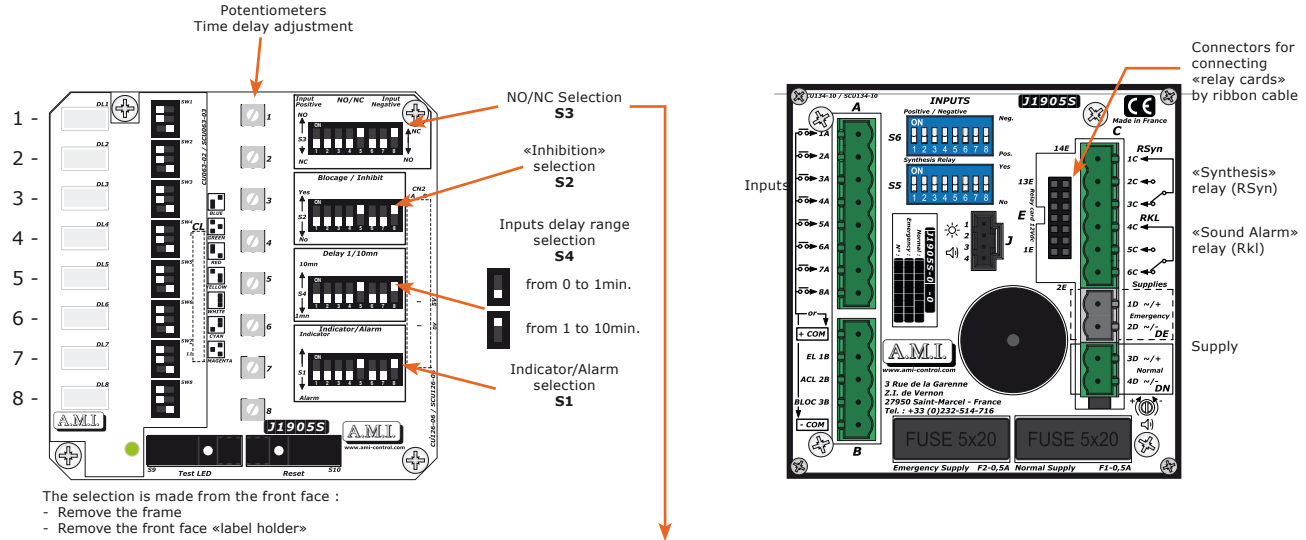
This file is free and downloadable on our site :

[www.ami-control.com](http://www.ami-control.com)

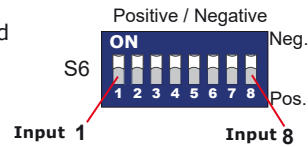
For high humidity countries, the printing on plastic sheets is recommended.



## SETTINGS :

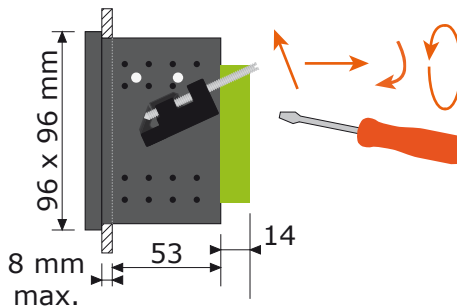
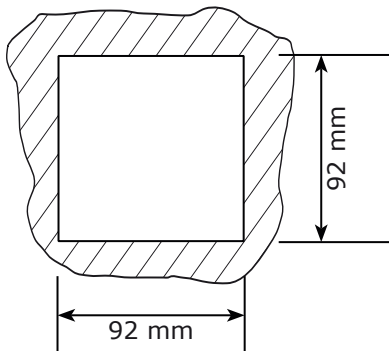


Caution: The direction of S3 (selection NO / NC) is reversed according to the S6 configuration ( positive or negative inputs)



## CUTTING :

DIN Format 96x96.





## MAIN CHARACTERISTICS :

	02 Version 15-65Vac/dc			05 Version 80-265Vac/ dc
	at 15Vdc	at 24Vdc	at 48Vdc	
Used in « Positive Inputs » : (Positive Inputs, Open contacts)				
- Consumption min.	80mA	50mA	30mA	22mA
- Consumption max. (8 channels active)	150mA	110mA	60mA	40mA
- Consumption 1 card 8 output relays	+70mA	+50mA	+30mA	+10mA
- Consumption on input	1mA	1,6mA	3,3mA	1,6mA
- High Threshold	>=7V			
- Low Threshold	<=3,8V			
Used in « Negative Inputs » : (Negative Inputs, Closed contacts)				
- Consumption min.	80mA	60mA	40mA	22mA
- Consumption max. (8 channels active)	150mA	110mA	60mA	40mA
- Consumption 1 card 8 output relays	+70mA	+50mA	+30mA	+10mA
- High Threshold	>=7V			
- Low Threshold	<=3,8V			
Voltage «+ COM»	+24Vdc			
Max Voltage on Inputs	«+ COM» or 65Vdc max.			
Line resistance allowed on contact input (with «+ COM»)	10Kohms max.			
Protection	Timed fuse 5x20 0,5A			

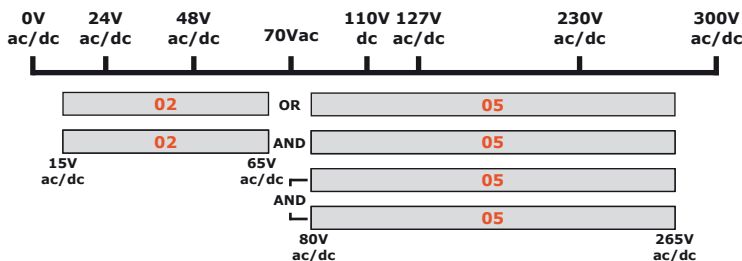
Temperature	-20°C / +60°C
Relay «General Alarm»	1 RT 6A/12Vdc - 0,15A/240Vac
«Sound Alarm» Relay	1 RT 6A/12Vdc - 0,15A/240Vac
Buzzer output	10mA / 12Vdc
Weight	250 to 320gr depending on version
Dimensions	96 x 96 x 67 mm
Protection without front cover M0722	Front: IP52 / Rear: IP22
Protection with front cover M0722	Front: IP54 / Rear: IP22

## REFERENCES FOR ORDERING :

Reference to be added for the wall box version.

### J1905S-0x-0xS-00

Normal Power Supply | Emergency Power Supply  
 15-65Vac/dc : **02** | **00** : Not mounted  
 80-265Vac/dc : **05** | **02** : 15-65Vac/dc  
 | **05** : 80-265Vac/dc

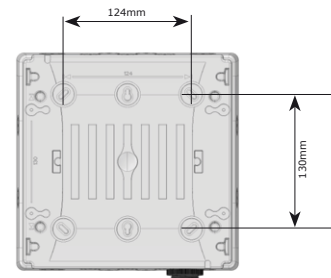
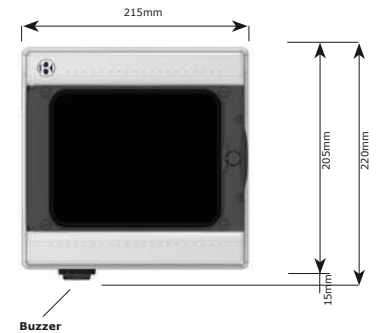


Model	Normal Supply	Emergency Supply
<b>J1905S-02-00</b>	15-65Vac/dc	Unassembled
<b>J1905S-05-00</b>	80-265Vac/dc	Unassembled
<b>J1905S-02-05</b>	15-65Vac/dc	80-265Vac/dc
<b>J1905S-05-02</b>	80-265Vac/dc	15-60Vac/dc
<b>J1905S-05-05</b>	80-265Vac/dc	80-265Vac/dc

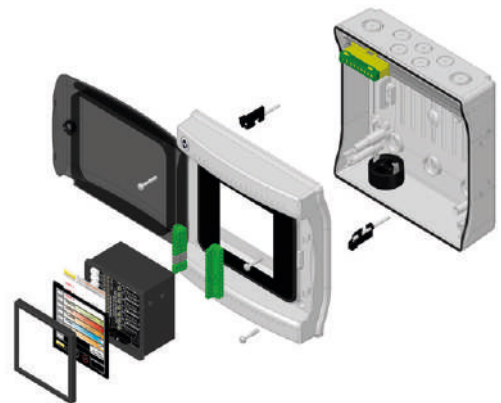
□ : power supply with galvanic isolation

## WALL VERSION:

The IP65 wall box version is equipped with the chosen J1905S and a pre-wired external buzzer (located below the box).



Enclosure	High Impact Polystyrene (HIPS) halogen free and lead free
Colour	Grey RAL 7035
Ingress Protection	IP65 / IK09
Flame resistance	UL746C 5V
Surface insulation	Totally insulated
Working / storage temperature	-20°C / +60°C / -20°C / +70°C



example :

**J1905S-02-05**, J1905S, powered by :

- Normal Power supply : 15-65Vac/dc
- Emergency power supply : 80-265Vac/dc.

With integrated buzzer, synthesis relay and Audible Alarm relay.

## **ADDITIONAL PRODUCTS :**

### **M0810 Front plate 19-inch, brushed aluminium Ht : 3U**

Front for bay 4 pre-drilled holes 92x92mm.

### **M0816 Closing cover**

Closing cover for mounting on M0810 front plate.

### **M0722, IP54 sealed front**

«Quarter-turn» closing button  
DIN format 96x96.

IP54 sealed front that is fitted directly to product front. An O-ring provides sealing between steel cabinet and panel.  
The front is a transparent opening door.

### **M0731 Adapter to mount on DIN Rail profil TS35.**

96x96 format.  
This kit allows to mount panels with 96x96 format on a DIN rail TS35 retaining the display towards the operator.

### **M0800-00-20 Empty predrilled wall cabinet**

1 96x96 panel, for surface mounting, depth (LxHxD) : 215x205x105mm.

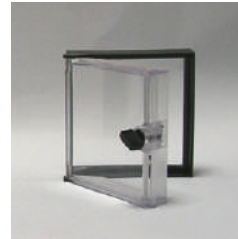
### **J1905S-0X-0XS-00 Wall cabinet equipped with the chosen J1905S and an external buzzer**

for surface mounting.

Dimensions (WxHxD) : 215x220x105mm.



M0810 / M0816



M0722



M0731



- M0800-00-20 pre-drilled, empty  
- J1905S-0X-0XS-00 equipped with the J1905S+ Buzzer external

## **EXTENSION RELAY CARDS WITH GALVANIC ISOLATION :**

They are fitted On DIN rail bracket at the bottom of cabinet and are directly connected to the panel rear extension connector by a flat ribbon cable (E). They can be used on 8 inputs and 12 inputs alarm panels.

- The relays are powered directly through the panel.
- A LED on each relay displays its state.
- A removable terminal block allows the connection «inverters outputs contact».
- Dry output contact : 1RT 6A/12Vdc or 24Vdc - 0,15A/240Vac (3 terminals each)

### Card with 12 relays, galvanic isolation

Equipped with 12 outputs type «dry contact 1RT + 1 separate common». It allows to use the outputs «open collector» by a switches off 1RT contact.

(For the 8 inputs alarm panels, only the first 8 relays will be usable).

**M0901-01-01** : 12 relays 12V

### Card with 2 synthesis relays (1RT + 1 separate common), selectable with galvanic isolation.

It allows to realise 2 different synthesis (sort the outputs in 2 families, for example the «high risk » and « minor risk » alarms.

A selector allows the allocation of the channel on the relays. Each relay can be activated by one or several outputs of the panel.

An output can also activate the 2 relays. The relays can of positive security (activated on the card starting).

(For the 8 inputs alarm panels, only the first 8 channels of the selector will be usable).

**M0901-01-20** : 2 relays 12V

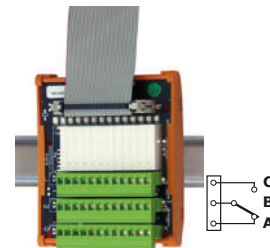
Don't forget the cable connection :

**M0901-02-53** Ribbon cable L=1.5m fitted for one relay card.

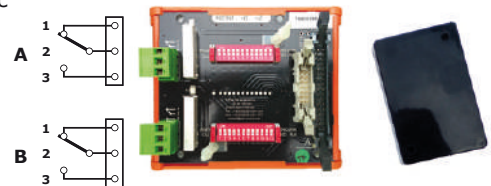
**M0901-02-54** Ribbon cable L=1.75m fitted for two relay cards.

**M0901-02-56** Ribbon cable L=2m fitted for three relay cards.

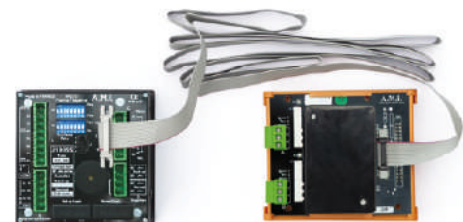
**M0901-02-55** Additional length L=0,5m.



M0901-01-01



M0901-01-20



M0901 Card «report relay»  
DIN type  
connected to the J1905S panel

Refer to **ACCESSORIES** chapter of our catalog.



www.ami-control.com



Warranty 2 years



MADE IN FRANCE



Voltage presence LED, «LEDs Test» button, «Reset» button

Ideal for use in «local» mode. Allows remote centralization by Bus or wired.

The J3105 and J3105RS are the evolution of the old J3000/J3000RS in which the possibility of changing the colors of the front LEDs has been added using switches. The choice of color of the LEDs makes it possible to process information according to a color code, danger levels and easier visual grouping. The dimensions and characteristics are identical. The notice is common.

FUNCTION :

The J3105 is an automaton of technical alarms treatment, integrating all the functions required for local or deported signaling :

- Memorization, flashing and acknowledgment.
- Modular, the installation can be extended to an infinite number of inputs.
- Directly built-in, it can be mounted in a bay, on a desk or in a cabinet.

Its climatic environment tolerances (-10°C / +50°C), and its supply voltage tolerances (- 40% / +30%) make it the essential component of any high-risk installation.

MAIN CHARACTERISTICS :

- 12 "high luminosity" LEDs, with a large 10x10mm surface, visible even in undimmed light.
- Color change of the LEDs by switches mounted on the front.
- Very long life of the LEDs (eliminating the disadvantages of the short circuit on the filament lamps).
- Great readability and ease of making paper labels (typewriter, laser transfer printer) slipping behind a transparent window.
- Quick and compact grouping of indications on the front of the cabinet.
- 138x138mm hole according to DIN 144x144 standard.
- Quick fixing by clips.
- Very low consumption.
- Voltage presence LED.
- Delayed ignition box.

J3105, J3105RS

Alarm and signaling controller

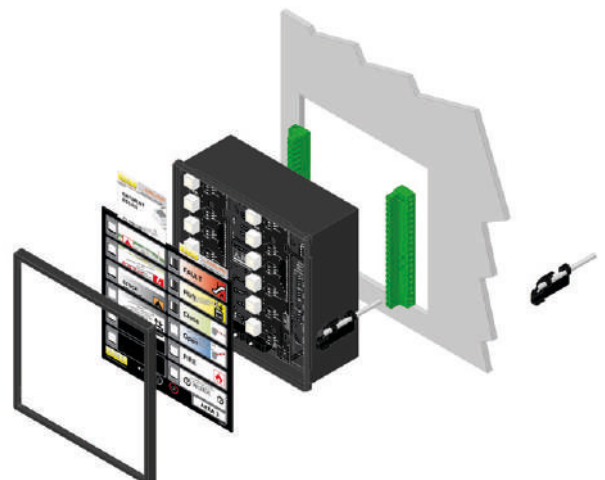
Sequence panel for TECHNICAL ALARM CENTRALIZATION «LED block» model

DIN 144 x 144 format



The parameter setting is done by selection of switches on rear (no PC programming required) :

- 12 contact inputs NO/NC + 12 remote reports (24V). Relay output card possible.
- 12 alarm LEDs on the front («LED block» type for effective contrast).
- 2 buttons on front («LEDs Test», «Reset»).
- 3 inputs/outputs for process (Inhibition input, 1st fault, external synchronization).
- 4 push button inputs (Test, Sound Alarm Stop, Blinking Stop, Reset).
- 2 output relays 10C («Sound alarm», «Synthesis»).
- 1 RS422 / RS485 port (option) allowing connection to a BUS supervisor, or retrieving the last 64 events.
- 64 events buffer with date counter (only accessible by Bus)
- Selectable temporization on input (20ms, 750ms, 3s, 10s).
- Control of cable continuity on each input (loop control).
- 1st fault sequence, with rapid blinking.
- Storing fugitive information + blink + activated sound output + activated synthesis output + cancel.
- Storage of fleeting information + blinking.
- + acoustic output activated + synthesis output activated + acknowledgement.
- 2 types of sequence possible.
- Remote transfer (channel by channel + one general).
- Outputs can be in «blinking» mode for use on mimic panel.
- Analog monitoring of power supply voltage.

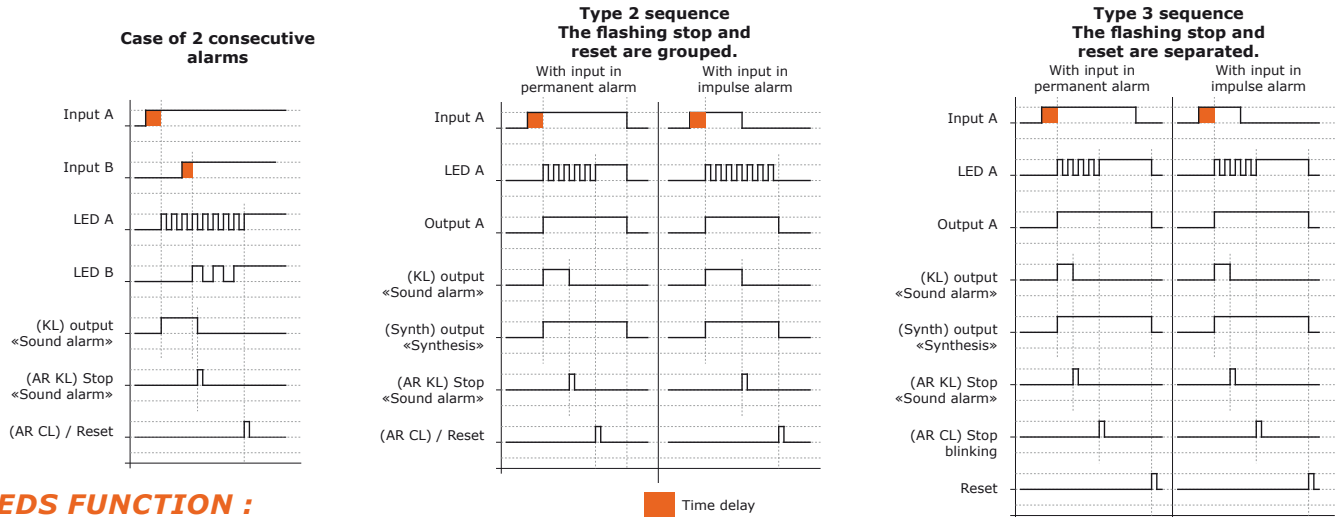


Technical Alarm



## OPERATING PRINCIPLE :

The changement of input state, after filtering by the timer, causes LED blinking and the activation of sonorous output and synthesis output. This action will be stored even if the input disappears. The reset will be done step by step, after pressing the push buttons and depending of the sequence selected and the input position.



## LEDS FUNCTION :

With the «LED pad» type, they have a very high contrast between the «on» or «off» state. The LEDs are mounted on a plug-in card with a switch allowing the selection of 7 colors for each of them.

The first channel activated will cause a «fast flashing» display. The following pathways cause «slow blinking». This makes it possible to differentiate the first alarm. In the «Sequence type 2» and «Sequence type 3» diagrams, the flashes are represented as «rapid».

a) **Fault avalanche** : The avalanche is an arrival of several consecutive alarms.

It is very important to know the first alarm, as this enables rapid intervention in troubleshooting.

The differentiation between the 1st fault (first alarm) and the 2nd is done by flash and slow blink (1st fault is displayed in fast flashing mode; the following alarms are displayed in slow blink mode).

The avalanche begins with the arrival of the first alarm until operator cancellation. After cancellation by operator (all flashing LEDs are become fixed), a new alarm will be considered as a first fault. Discrimination time: 10ms.

The various light states on the LEDs :

**Fast blink** = 1st alarm    **Slow blink** = following alarm in avalanche    **light out (OFF)** = return to normal state

**Fixed light (ON)** = alarm present, memorized after acknowledgement

**Very fast Flashing** = cable fault (this luminous signal is not cancellable)

b) **Simple indicator display function** : The S22/S23 switches allow «simple indicator mode» type processing and display on certain channels («all or nothing» status display). Selected channels will pass directly to fixed light (ON), without sound alarm or synthesis output. Input storage is inoperable.

The settings NO/NC and delay time on input are still active.

## FUNCTION OF FRONT FACE BUTTONS : (see also the FUNCTION OF REAR TERMINALS)

- The front is equipped with two buttons : «LEDs Test» and «RESET».

- If the «TEST LED» button is pressed for more than 10s, the J3105 activates the RS485 BUS setting mode and

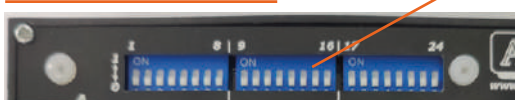
all the LEDs flash (even if the BUS option is not present, see transmission manual). To exit this mode, just wait 5 seconds, the return will be automatic.

- The RESET button has several functions:

- 1st press => Stop Horn / 2nd press => Flashing off / 3rd press => Erase

The flash off (switching to fixed lights) will be processed only if the alarm has been stopped.

## PARAMETERING :



The rear switches can select a program choice. It is necessary to shut off the power supply before this operation.

Inputs		NO		NC		Selection																																																																			
S1	1, 2, 3, 4, 5	0	1	1	1	S13	Loop control : without=0 / with=1																																																																		
S2	6, 7, 8, 9	0	1	1	1	S14	Synchronization : transmitter=0 / receiver=1																																																																		
S3	10, 11	0	1	1	1	S15	Sound alarm relay :	Normally activated=1 Normally deactivated=0																																																																	
S4	12	0	1	1	1	<table border="1"> <thead> <tr> <th colspan="2">Selection</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>S16</td> <td rowspan="2">Sound alarm relay</td> <td>A=&gt; Fixed</td> <td>0</td> <td>1</td> <td>0</td> <td>1</td> </tr> <tr> <td>S17</td> <td>B=&gt; 1 pulse</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>S18</td> <td rowspan="4">Inhibit</td> <td>C=&gt; Fl 1s/1s</td> <td>0</td> <td>1</td> <td>0</td> <td>1</td> </tr> <tr> <td>S19</td> <td>D=&gt; Fl 1s/2s</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>S20</td> <td>A=&gt; V1</td> <td>0</td> <td>1</td> <td>0</td> <td>1</td> </tr> <tr> <td>S21</td> <td>B=&gt; V1 à V3</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>S22</td> <td rowspan="2">Simple indicator Mode</td> <td>C=&gt; V1 à V7</td> <td>0</td> <td>1</td> <td>0</td> <td>1</td> </tr> <tr> <td>S23</td> <td>D=&gt; V1 à V12</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>S24</td> <td colspan="2">Synthesis=0</td> <td colspan="4">watchdog=1</td> </tr> </tbody> </table>				Selection		A	B	C	D	S16	Sound alarm relay	A=> Fixed	0	1	0	1	S17	B=> 1 pulse	0	0	1	1	S18	Inhibit	C=> Fl 1s/1s	0	1	0	1	S19	D=> Fl 1s/2s	0	0	1	1	S20	A=> V1	0	1	0	1	S21	B=> V1 à V3	0	0	1	1	S22	Simple indicator Mode	C=> V1 à V7	0	1	0	1	S23	D=> V1 à V12	0	0	1	1	S24	Synthesis=0		watchdog=1			
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Time delay		20 ms	750 ms	3s	10s	Normal outputs=0																																																																			
S5	1, 2, 3, 4, 5	0	1	0	1	Blinking=1																																																																			
S6		0	0	1	1	Type 2 sequence=0																																																																			
S7	6, 7, 8, 9	0	1	0	1	type 3=1																																																																			
S8		0	0	1	1	S22 S23																																																																			
S9	10, 11	0	1	0	1	Simple indicator Mode																																																																			
S10		0	0	1	1	S22 S23																																																																			
S11	12	0	1	0	1	S22 S23																																																																			
S12		0	0	1	1	S22 S23																																																																			

**S15** : KL Relay normally activated or not. «Sound alarm» KL relay can be used in «watchdog» mode (normally activated or not). Selected «normally activated» and contact output being fed with a different voltage, it can inform by falling in case of internal breakdown, loss supply or input activated.

**S16/S17** : «Sound alarm» relay. Allows changing sound alarm modulation.

Fixed : S16=0 / S17=0

Flash 1s/1s : S16=0 / S17=1

1 pulse : S16=1 / S17=0

Flash 1s/2s : S16=1 / S17=1

**S18/S19** : Inhibit. It is possible to inhibit out information's arriving on certain inputs (if inhibit input is at 0 => none way inhibited).

channel 1 : S18=0 / S19=0 channels 1 to 3 : S18=1 / S19=0  
 channels 1 to 7 : S18=0 / S19=1 channels 1 to 12 : S18=1 / S19=1

**S20** : blinking outputs. Activates the outputs like the façade LEDs. (Used for pilot external LED on mimic).

**S21** : Sequence type 2 or type 3. Selects 2 different types of sequences. (see diagram).

- Type 2 : The functions AR CL and RESET are grouped.
- Type 3 : AR CL and RESET are separated.

**S22/S23** : «Simple indicator» type. Some inputs can be treated in simple indicator (ON/OFF) and not in alarm (Blinking and fixed light, memory, sonorous alarm, Reset).  
 none : S22=0 / S23=0 channels 10 to 12 : S22=1/S23=0  
 channels 7 to 12 : S22=0/S23=1 channels 1 to 12 : S22=1/S23=1

**S24** : Synthesis. The «Synthesis» relay will be deactivated (will fall down) if :

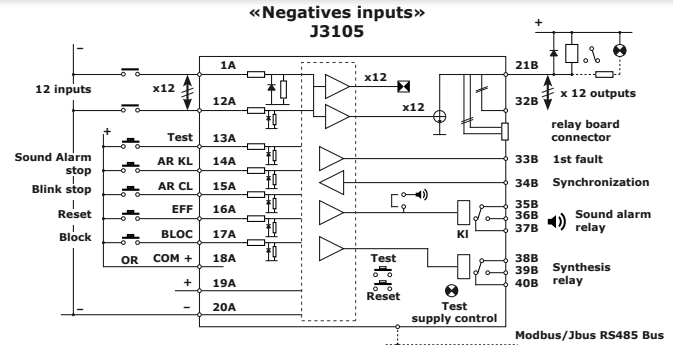
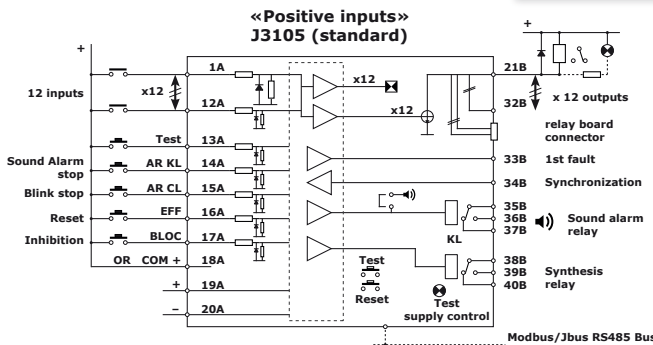
- an alarm is present or if the internal «Watchdog» is activated.
  - Only if the internal «Watchdog» is activated.
- Alarm present or watchdog activated : SW24 to 0  
 Watchdog only : SW24 to 1

Example of setting : To obtain channel 12 in NC, with a 3s time delay, with synchronization coming from outside, sound alarm activated and type sequence 3, the switches will be :  
 S4 on 1 S11 on 0 S12 on 1 S14 on 1  
 S15 on 1 S21 on 1

**REPRESENTATIVE DIAGRAM :**

The contacts are represented with the J3105 off

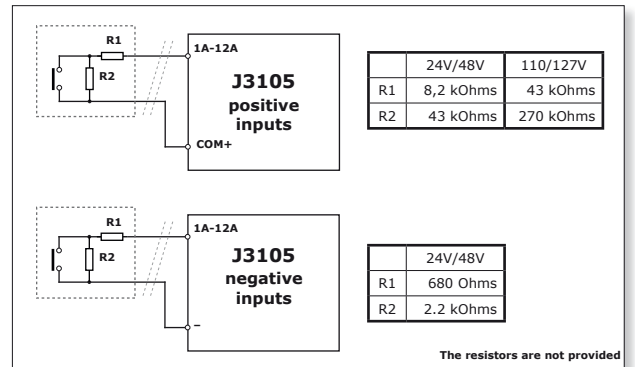
- The inputs are called «positive» or «positive common», when the common feeding the alarm contacts is connected to the «+» or «+ COM».
- The inputs are called «negative» or «negative common», when the common feeding the alarm contacts is connected to the «0v».



**INPUT FUNCTION :**

- Terminal 1A/12A : Depending on the model selected J3105, the 12 contact inputs can be : «Positive common» (powered by a positive voltage or «+ COM» terminal) or «Negative common» (powered by a negative voltage or «19A» terminal). The NO/NC input selection will be done with the switches S1, S2, S3 and S4. (Note that, on the «negative common» model, the selection is reversed. The rear label is also different).
- A delaying time can be associated with chosen inputs. (S5/6, 7/8, 9/10, 11/12 selection switches). Channel validation is effective only if the channel remains in alarm mode for duration greater than the selected delaying time.

- «Cable monitoring» function : This function (switch 13) detects short-circuits and cable cut between each contacts and the inputs terminal. It only needs to put two resistors (one in series and the other in parallel) directly on the contact to monitor permanently line current. The cable fault will be indicated by a rapid «flashing» + sound alarm. Only «Sound alarm» is cancellable. The output will not be activated. It is not possible to cancel the flash before installation repair.

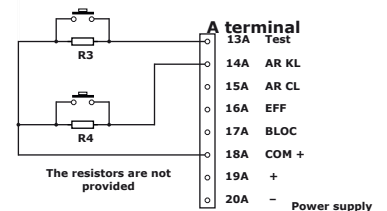


**FUNCTION OF REAR TERMINALS :**

a) TEST terminal 13A :

- An external button connected to the «+COM» will activate an «LED test» driven by the microcontroller (Can be used to do an «LED test» on several panels simultaneously). By adding a resistor R3 between the «+COM» and the «test LEDs» terminal, the front panel button or the 13A rear terminal will activate the front panel LEDs and the outputs
- For 24Vdc supply: R3=43 kOhms (1/2W).
- For 48Vdc or 110/127Vdc supply: R3=270 kOhms (1/2W).

For the use of the following 3 terminals, an order of action must be respected. The AR CL and EFF terminals are inactive if the audible alarm is present. It is compulsory to activate the horn stop first. In type 3 sequence, the EFF terminal is inactive as long as a light is flashing (impossible to delete before the flashing stop).



b) AR KL terminal 14A (Sound alarm stop) or button front face «RESET/Horn Stop » first impulse :

- Standard function: An input activation stops the alarm until the return to normal.
- With a R2 resistor connected between AR KL (14A terminal) and «+COM», an input activation stops the sound alarm but if the channel remains in alarm mode, the audible and flashing indications will be reactivated after 1 minute or 15 minutes. (Prevents a forgetting if an alarm is still present). (See the scheme of the external buttons).
- For 1 minute reactivation : 24Vdc or 48Vdc : R4=22 kOhms (1/2W) - 110Vdc R4=100 kOhm (1/2W).
- For 15 minutes reactivation : 24Vdc or 48Vdc : R4=4,7 kOhms (1/2W) - 110Vdc R4=22 kOhm (1/2W).

- c) **AR CL terminal 15A (blinking stop) and the button front face «RESET/Horn Stop »** : One activation changes the flashing mode to fixed mode (only after you have stopped the alarm sound). With the button front face «RESET/Horn Stop »: first impulse => Sound alarm stop / 2nd impulse => Blinking stop.  
 Functioning type 2 sequence :  
 When alarm will disappear, LEDs in fixed mode (ON) will turn OFF (After an activation on AR CL, if an input returns to normal, the blinking LED goes to fixed and quickly turns OFF).  
 Functioning type 3 sequence :  
 With this sequence, activation on AR CL terminal also turns ON the LED (fixe). But when the alarm will disappear, it will be necessary to use the EFF terminal to cancel the fixed light (turn OFF) or press the RESET button on the front panel again (3rd pulse).  
 A resistor can be connected to the AR CL terminal, allowing a different output process function (see «outputs» chapter).
- d) **RESET/EFF terminal 16A (RESET) or button front face «RESET/Horn Stop » third impulse** :  
 Type 2 sequence operation : RESET/EFF this terminal is not used.  
 Type 3 sequence operation : The LEDs will turn OFF only after switching to fixed mode and after the input will be returned to normal and after activation of RESET/EFF terminal .(or after the third impulse on the RESET front button).
- e) **Self-test sequence** : (TEST + AR CL terminals or by front panel push buttons simultaneously).  
 This is of the «chase» type.  
 Pressing the 2 push buttons or validating the 2 terminals simultaneously activates the test cycle by panel program, i.e.: test of the «voltage presence» LED, test of the LEDs one by one + 2s + «audible alarm» relay test + 2s + «synthesis» relay test + activation of the outputs one by one.
- f) **Bloc terminal 17A** : The channel inhibition is activated by connecting a «+COM» on «Inhibition» input and with S18 + S19 switches. The selected inputs by S18+S19 will no longer be recognized as long as the inhibition input is activated. One selected input is active only if the inhibit input is inactivated. If a selected channel inhibited (with S18 + S19) is already displayed before the activation of the terminal block (17A), the display management will continue until its extinction (return to normal of the input). For inhibition, the channel must be selected with S18+S19 AND the terminal 17A must be activated before the input change. This function is an indefinite delay equal to the duration of activation of the terminal 17A.

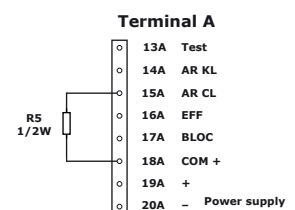
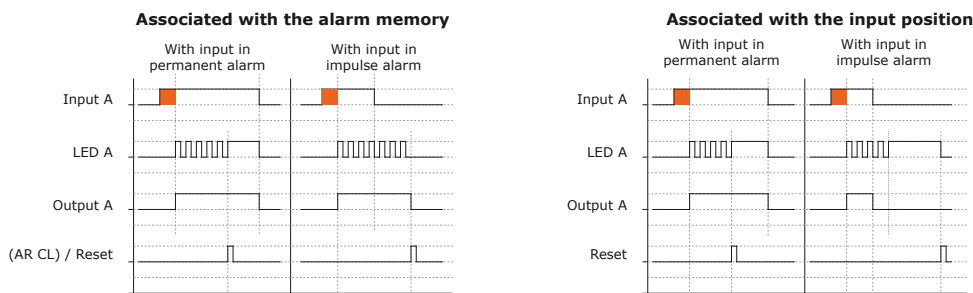
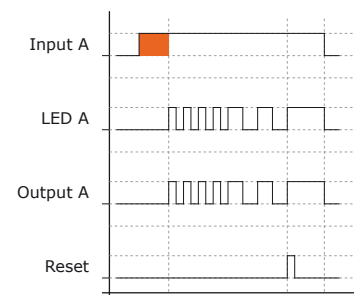
- g) **«+Com» Bloc terminal 18A** : The «+COM» terminal is internally protected and provides power to the input contacts. The supplied voltage varies depending on the model used. These inputs can be powered directly from the "+" of the J3105 supply voltage (terminal 19A).

Model Voltage	24Vdc	48Vdc	110Vdc	80-265Vac/dc
Voltage +Com	24Vdc	48Vdc	110Vdc	24Vdc
Maximum input voltage	70Vdc	70Vdc	127Vdc	+Com

**The use of «+Com» is mandatory for the 80-265Vac/dc version.**

## OUTPUTS FUNCTION :

- a) **Terminal 21B/32B : 12 outputs**  
 The panel is equipped with 12 electronic outputs of the «open collector» type with a maximum intensity of 150mA. These outputs are enabled or disabled at the onset of input activation or the LED. This is depending on the setup. This output transmits a «0V» (collector open). The external receiver should be connected to «+» (maximum voltage : +48Vdc). In certain cases it needs to be protected against break surges, and against cold start currents (bulb with filament) by the use of a serial low resistor. These terminals are doubled by a connector allowing the use of «relay output» cards (optional) with galvanic isolation. They ensure optimal and rapid operation without risk of destruction (refer to the "accessories" chapter).
- b) **«Blinking outputs» switch S20 =1** : The outputs will become in flashing mode, so, the same type of the front LEDs (flash, fast or slow blinking, ON, OFF). This function can be used to pilot an external mimic. With this setting, the test function will activate the outputs (as for the front LEDs).
- c) **Association of outputs at the alarm memory or at the input position** :  
 The output can be controlled by the presence of the corresponding LEDs or by the corresponding input which makes it possible to know if the alarm disappears and returns.



The resistors are not provided

**Reminder** : in standard function, the output activates when the input is activated and after a delaying time. The output will be deactivated when LEDs will be OFF and after the REST by operator. And this is true even if the input returns before to its normal position. The output is associated to the memory of alarm.

**=> With R5 resistor connected** : The output will be associated with the presence of alarm on input :  
 - If the input is activated, the associated output will be activated after time delayed on input.  
 - If the input returns to its normal position, the associated output turns OFF immediately. The LEDs will remain activated until RESET by the operator.  
 The output is associated to the input.

	24V/48V 80-265V	110/127V
R5	22 kOhms	100 kOhms

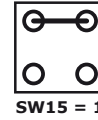
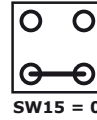
This function is activated by the presence of resistor connected between the 18A terminal and the AR CL terminal.

- d) **KL output Terminal 35B/37B** : By 1RT relay, selectable with the S15 switch in positive security mode or not. A new alarm, an analog detection on electrical supply or the check of the bus will deactivate this output until operator cancellation. It is possible to obtain various «Sound alarm» output types (S16/S17) :  
 - Fixed output (permanent up to cancellation).  
 - 1 pulse output (relay contact is deactivated for 1 second, and then goes back to its initial position. Sound cancellation is no longer useful on this selection).  
 - Blinking output 1s+1s => fast blinking (output relay blinks at rhythm 1 second every 1 second and is cancellable).  
 - Blinking output 1s+2s => slow blinking (output relay blinks at rhythm 1 second every 2 seconds and is cancellable).



- e) **Synthesis output Terminal 38B/40B** : By 1RT relay with positive safety. It will be deactivated by the following cases :
- If an alarm is displayed.
  - If the watchdog function is activated (analog voltage supply detection, cable monitoring function on one channel or internal fault present).
- It will go back to its initial position when the display of the phenomenon involved disappears. The synthesis relay is not deactivated by channels used as simple indicator (switches S22 and S23). The S24 switch allows use of the synthesis relay only as Watchdog. In this case, the relay will no longer be activated by inputs.

- f) **Buzzer Included (Option)** : It works as the KL output relay. If the KL relay is selected in positive security (normally activated)(S15), do not forget to move the connector jumper. Open the box, the jumper is next the KL relay.



View in position SW15 = 0

**PROCESS TERMINAL OPERATION :**

- a) **Synchro terminal 34B** : (Terminal in Input/Output mode). It synchronizes the blinking between all panels connected. If several flashing alarms are present on various panels, this can lead to visual fatigue for the operator. With this function, all the flashes of the panels will synchronize with the signal arriving at this terminal.
- If synchronization is not selected on the panel (S14=0, transmitter), it is master and transmits timing clock pulses to the other users (it synchronizes itself on its own pulses).
  - If synchronization is selected on this panel (S14=1, receiver), it receives pulses coming from outside and synchronizes on them. In the unlikely event of connection failure, the panel would resume its own synchronization. The power supply of this terminal is specific to this panel (**never connect other function than the «Synchro» terminal of another**).
- b) **1st fault terminal 33B** : (Terminal in Input/Output mode). Used to group multiple panels to get the 1st fault sequence on all channels. If a panel has a first alarm displayed, it changes the status of its terminal 33B which will be received by the other connected panels. When the other panels will receive an alarm, they will display in slow blinking mode. The power supply of this terminal is specific to this panel. By connecting this terminal to the «+ COM» terminal, the 1st fault sequence will not be displayed. (**never connect another function as the «1st fault» terminal of another panel or the «+COM»**).

**INTERNAL PROCESS FUNCTION :**

**Analog monitoring of power supply voltage :**  
 A ten-turn potentiometer at the back of the apparatus allows the setting of automatic detection of supply voltage faults.

- In the case of overvoltage, the green supply LED on the front turns to blinking red (tricolor LED).
- In the case of under-voltage, the green supply LED turns to blinking orange (tricolor LED). The panel remains operational.
- If the voltage drops and reaches :

Version	24V	48V	110/127V
Voltage	13,5V	37,5V	85V

the light goes on with fixed orange and in order to avoid random operations, the panel is blocked. In the 80-265V version, the control is done on the output voltage of the internal switching power supply and is similar to the 24V version.

The alarm detection on the supply voltage is memorized on the front . the power supply LED turns to blinking mode. The synthesis relays and the sound alarm are triggered. It is necessary to cancel the sound alarm. After acknowledgement, the LED will turn fixed light (ON). As soon as the fault disappears and after cancellation, the power supply LED and the synthesis relay return to normal.

By turning in «anti-clockwise» (view from the rear), the detection range increases. (green zone authorized).  
 By turning in «clockwise» (view from the rear), the detection range decreases. (green zone authorized).  
 The tolerance zone around the supply voltage reduces in a «clockwise» (view from the rear). One turn corresponds to an increase or a decrease the adjustment range of about 5.5V (for the model with 110/125V power supply, this variation is +/-10%).

**PRODUCING LABELS :**



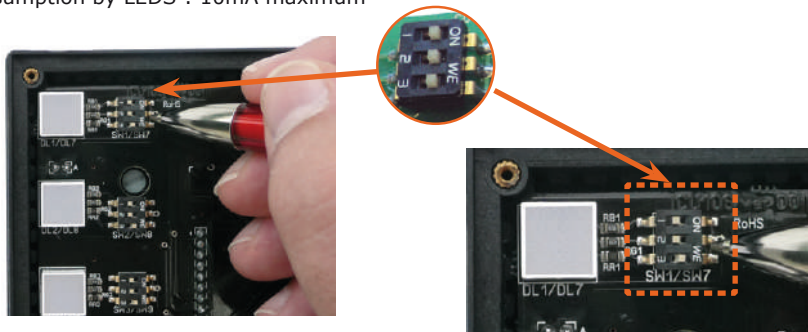
4 text lines possible  
 Icons can be added  
 2 different languages possible

Labels are ordinary paper sheets that can be slid into a transparent pocket included in the thickness of the front. A blank label is supplied with each unit. Labels can be handmade, or produced on a colour printer (laser or ink-jet). The PC software allows to create labels including images, allows to save and duplicate the achievements. This PC software is FREE. It is possible to load it on our website : [www.ami-control.com](http://www.ami-control.com)

For high humidity countries, the printing on plastic sheets is recommended.

**CHANGING LEDS COLOUR :**

**Version J3105** : 7 possible display colors per channel, selectable from the front panel by switches. Depending on the setting, the choice of colors is : **Red, Green, Yellow, Blue, White, Cyan, Magenta.** The change of the LED is no longer necessary. Consumption by LEDS : 10mA maximum



	OFF	ON	
Bleu Blue	1 2 3		
Vert Green	1 2 3		
Rouge Red	1 2 3		
Jaune Yellow	1 2 3		
Magenta	1 2 3		
Cyan	1 2 3		
Blanc White	1 2 3		
Eteint Off	1 2 3		

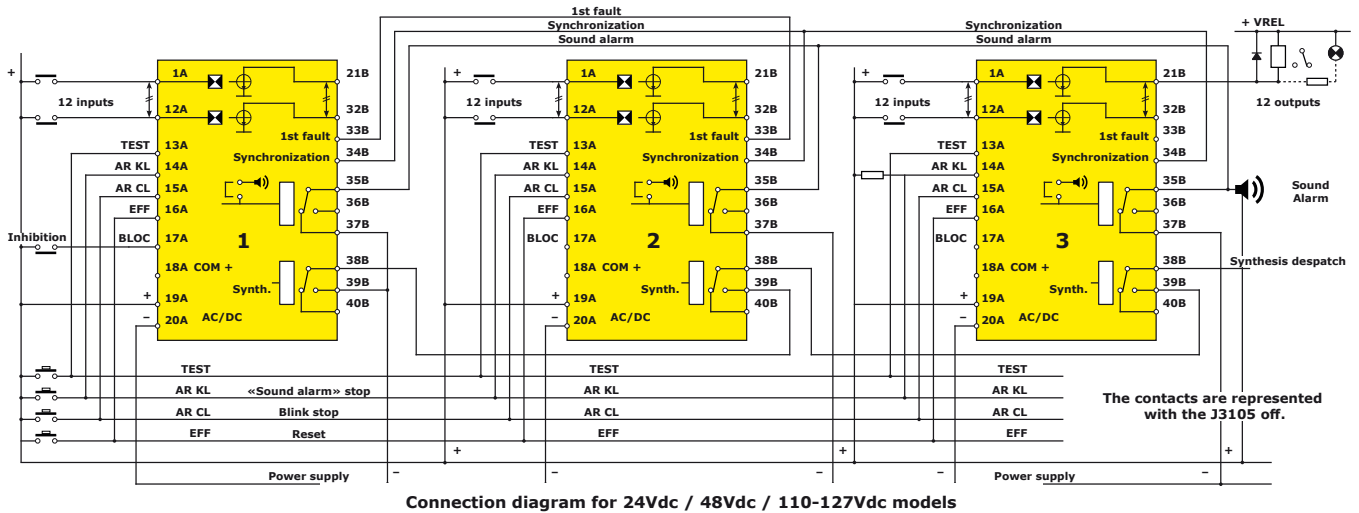
## CONNECTIONS :

### Application example :

- The Panel «1» can be connected with 11 contacts in NO mode and one in NC mode (connected on input 12 with selection S4 active).
  - The Panel «2» can be connected with 9 contacts in NO mode (connected on inputs 1 to 9) and three in NC mode (connected on inputs 10 to 12 with selection S3/S4 active).
  - The Panel «3» can be connected with 5 contacts in NO mode (connected on inputs 1 to 5) and seven in NC mode (connected on inputs 6 to 12 with selection S2/S3/S4 active).
- But other configurations are possible.
- The «Test», «AR KL», «AR CL» and «EFF/Reset» are centralized for the three panels.
  - Contacts «Synthesis» of each panel are connected in series to send remote information. Synthesis relays are parameterized in positive safety (relays normally activated).

- Sound alarm relays are selected in positive safety (S15 = 1). Contacts are connected in parallel to an external general sound alarm.
- The blinking of the LEDs of this three panels is synchronized by the connection of the terminal 34B. (S14s on panels «1» and «2» is active and panels are used as receiver, S14 on panel «3» is inactive, the panel «3» is used as transmitter).
- Panels «1» and «2» are grouped to obtain the 1st fault among 24 inputs.
- The panel «3» uses its outputs directly to activate relays or external lamps. (terminals 21B and 32B). A diode or resistor has been fitted as protection. The maximum voltage on outputs is 48Vdc only.

The Alarm Reminder function (reactivation) is used (resistor connected between the «+» and terminal 14A.

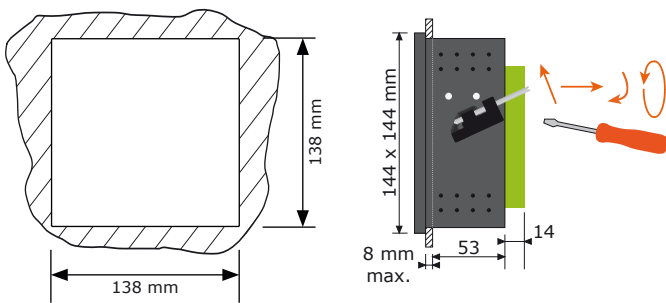


The «+COM» is to be used to power the input contacts. The inputs can be powered directly from the "+" of the J3105 supply voltage (Terminal 19A). **The use of «+Com» is mandatory for the 80-265Vac/dc version.**

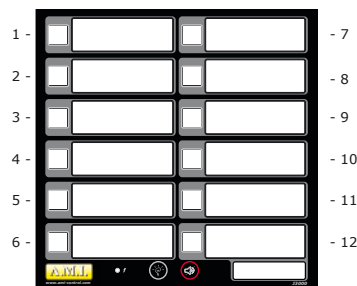
**+VREL** : supply voltage on the outputs. This external voltage (+48Vdc max.) is useful only for particular connection. it is much safer to use the AMI relay cards. (Our relay cards are supplied directly by the panel with 24Vdc).

## CUT-OUT :

DIN 144x144 format

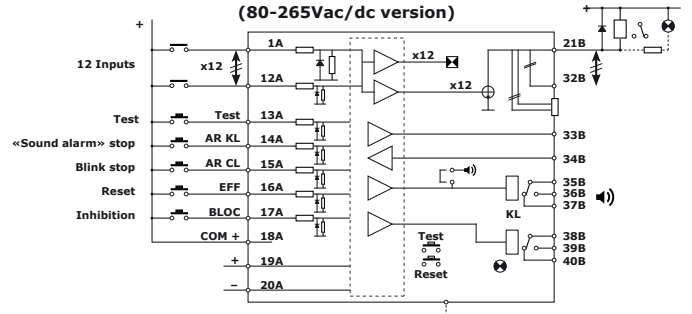


## Numbering system

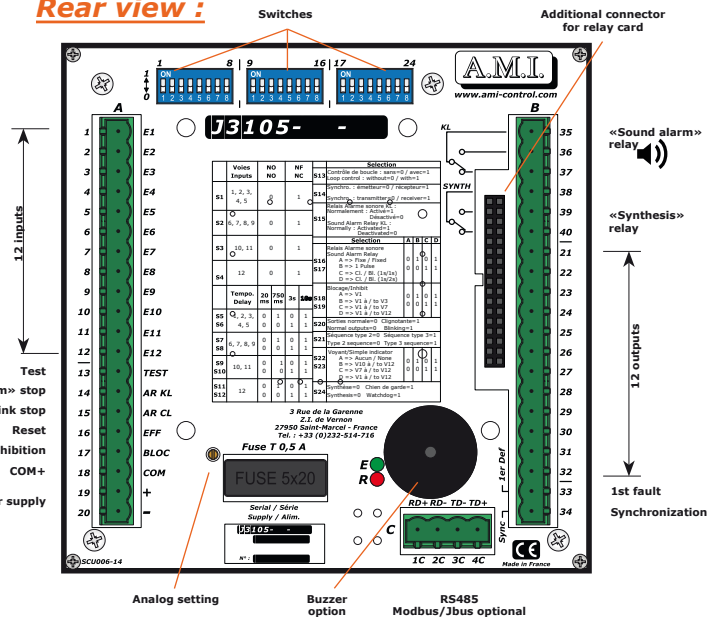


**J3105**

## Connection for J3105 (80-265Vac/dc version)



## Rear view :

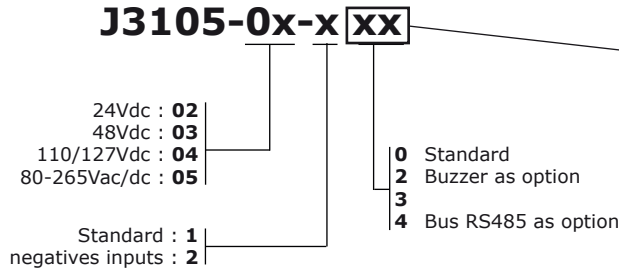


## SPECIFICATIONS :

Possible voltages	24Vdc, 48Vdc or 110/127Vdc 80-265Vac/dc
Voltage supply tolerance	at 24V : -40% to +30% 48Vdc, 110Vdc : +/- 30% 80-265Vac/dc
Minimum consumption	100mA/24V
Maximum consumption	395mA (300mA for 110Vdc)
Input current (input supplied by +COM)	2.4mA
Permitted line resistance on contact input	2 kOhms
Maximum voltage on contact input	24Vdc, 48Vdc : 70V 110/127Vdc : 127V 80-265Vac/dc: 24V supplied by the +Com terminal

Time delay accuracy	+/- 20%
Discrimination between 1st and 2nd fault	10ms
Temperature (at nominal voltage)	-10°C / +60°C
Voltage on outputs	24Vdc on all models (see output interface)
Current by output	150mA max.
Protection	Front IP52 / Rear IP22
<b>With A.M.I. relay card</b>	
Minimum voltage supply (when using relay cards)	17Vdc
Consumption by output	9mA per relay
Relay contact	1RT 6A/12Vdc - 0.15A/240Vac

## ORDER REFERENCES :



The possible options are :

J3105-0X-10	J3105-0X-20
J3105-0X-12	J3105-0X-22
J3105-0X-14	J3105-0X-24
J3105-0X-124	J3105-0X-224

## ADDITIONAL PRODUCTS :



**M0800 Front plate 19-inch, brushed aluminium Ht : 4U**  
Front for bay 3 pre-drilled holes 138x138mm.

**M0815 Closing cover 144x144**  
Closing cover for mounting on M0800 front plate.

## EXTENSION RELAY CARDS WITH GALVANIC ISOLATION :

Equipped with relays these cards deliver a dry changeover contact (without voltage) with galvanic isolation for each output. These cards allow secure use of «open collector» outputs with maximum safety. The relays are powered directly through the panel. Characteristic of contacts : 1RT 6A/24Vdc - 0.15A/240Vac.

- A LED on each relay displays its status.
- 3 removable terminal blocks are available (one for contacts «O», one for contacts «F», the last for common).

Two possible presentations :

- Pluggable to the rear panel.
- On DIN rail bracket at the bottom of cabinet. With quick connection to the panel by ribbon cable. They avoid too many wires on the cabinet door.

These cards are available in versions :

- Complete (there are as many relays as there are outputs )
- 2 relays 1RT type with selectors, it allows you to sort the outputs in two directions: electrician / mechanic or Alarm high risk / Alarm ordinary.

**M0900-02-01** Card 12 relays to plug at J3105 rear.

**M0901-02-01** Card 12 relays to fit to DIN rail.

**M0900-02-20** Card 2-synthesis-relays to plug at J3000 rear.

**M0901-02-20** Card 2-synthesis-relays to fit to DIN rail.

Panel supply minimum voltage : 17Vdc.

Don't forget the cable connection :

**M0901-02-50** Ribbon cable L=1.5m fitted for one relay card.

**M0901-02-51** Ribbon cable L=1.75m fitted for two relay cards.

**M0901-02-55** Additional length L=0,5m.

**KJ3000-1 Demonstration kit**, please refer to «Accessories» chapter. Only for J3105-02, 24Vdc version.



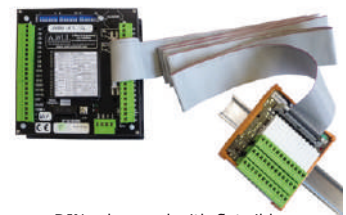
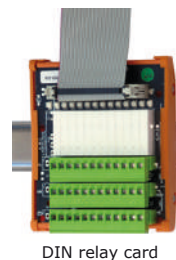
**M0720, IP54 sealed front**

«Quarter-turn» closing button  
DIN format 144x144.

IP54 sealed front that is fitted directly to product front. An O-ring provides sealing between steel cabinet and panel. The front is a transparent opening door.

**M0730 Adapter to mount on DIN Rail profil TS35.** 144x144 format

This kit allows to mount panels with 144x144 format on a DIN rail TS35 retaining the display towards the operator.



Please refer to **ACCESSORIES** chapter from our catalogue.



## THE "HISTORICAL" MEMORY :

The J3105 can be equipped with the Bus RS422 / RS485 option (2 wires or 4 wires), it becomes possible with a PC or an automaton, to retrieve the «history» buffer, to print it or to archive it. A free software is available on our website.

**For more details,  
see transmission notice**

**The «history» buffer :** A history buffer memorises the last 64 events occurring on the panel :

event appearance with the type of display of the front LED (fast or slow blinking, fixed, off), the operator acknowledgement, and disappearance. The display types are :

- Fast blinking => arrival of a 1st fault.
- Slow blinking => arrival of next faults.
- Fixed light => arrival of simple signal (like states) or fixed light after an acknowledgement.
- LED off => return to normal.

The buffer is of the «FIFO» type, not memorised.

(A power cut resets its buffer).

The stored information includes :

number of events stored, channel and panel number, type of hardware installed, type of channel setting, type of front panel display, J3105 internal counter value, allowing dating.

N° Evt	Complexeur	Temps	Voie	Paramètre	Affichage
01	0000001	0.00.00.005	V11	Alarme	Eteint
02	0000001	0.00.00.005	V12	Alarme	Eteint
03	0000001	0.00.00.005	V01	Alarme	Eteint
04	0000001	0.00.00.005	V02	Alarme	Eteint
05	0000001	0.00.00.005	V03	Alarme	Eteint
06	0000001	0.00.00.005	V04	Alarme	Eteint
07	0000001	0.00.00.005	V05	Alarme	Eteint
08	0000001	0.00.00.005	V06	Alarme	Eteint
09	0000001	0.00.00.005	V07	Alarme	Eteint
10	0000001	0.00.00.005	V08	Alarme	Eteint
11	0000001	0.00.00.005	V09	Alarme	Eteint
12	0000001	0.00.00.005	V10	Alarme	Eteint
13	0000102	0.00.00.510	V11	Alarme	Clignotant lent
14	0000102	0.00.00.510	V12	Alarme	Clignotant lent

## USE AS AN INTELLIGENT INTERFACE FOR CENTRALIZATION ON A SUPERVISOR :

BUS option : product reference : J3105-xx-x4

RS485 / MODBUS / JBUS protocol



*For more information on frames, please request the transmission protocol documentation*

**With the internal functions of the J3105 and using a PC or automaton, it becomes very easy to create your own centralization.**

**Just write a simple program using the language you know**

The J3105 panel is a technical alarm controller which can be equipped with an RS485 type bus (2 or 4 wires).

It is a smart multitasking device. It works in degraded mode. In the event of a bus failure or when the supervisor shuts down, the panels will continue monitoring and display alarms locally.

It is possible to use 64 panels on the same bus. The bus is bi-directional :

- The supervisor can retrieve local process information stored in the panel (States, alarms, history).
- The supervisor can also send visual and sound information to a remote operator by activating the channels of a J3105 or J3500 panel through the bus. This information can come from the supervisor (from his internal management system) but it can also come from another panel and be sent to a "receiver" panel.

The PANEL'PC is an alarm centralizer on a RS485 Bus.

It can manage 64 panels with 12 alarms each.

Its touch screen allows to perform all necessary operations without additional keyboard (RESET, operator assistance display, historics, archiving).

It may refer alarms and remote information to other sub-stations.

It can be used either in a sub-station or control room :

- In local sub-station front cabinet, for monitoring alarms and local states, with historic for traceability.
- In control room with clustering by bus of local alarms panels.
- Possible transfer to other sub-stations.

**It is very easy to realize a technical alarm management unit by BUS :**

Possibility of using modules equally :

- J3500/J3105 technical alarm automatic panel.
- J2x05RS indicator display receiver panel with 12 or 24 LEDs.
- PANEL'PC.

## PANEL'PC :



**RS485 Bus / 1 km / fitted with 64 modules as a maximum**

The PANEL'PC integrates :

- Alarm display with «RESET» directly on the screen.
- Operator assistance or instructions for each inputs indicating to operator how to proceed depending on the alarm present.
- Display of historic periods.
- Re-display of the historic of a recorded period (10,000 pages possible).
- Printing in continuous with time stamping.
- Remote alarm reporting to one or several indicators display by BUS (for example, guard posts, technical service, control room).
- Remote outputs possible.
- Archiving on USB key
- Login with several safety levels

3, Rue de la Garenne - Z.I. de Vernon  
27950 SAINT MARCEL - FRANCE  
tél. : +33 (0)2 32 51 47 16  
Fax : +33 (0)2 32 21 13 73  
<http://www.ami-control.com>  
✉ : [contact@ami-control.com](mailto:contact@ami-control.com)



Warranty  
2 years  
Warranty



Multicolored LEDs

MADE IN FRANCE



«LEDs test» button   «Reset» button   Text screen   Setup

## PLC CENTRALIZATION TECHNICAL ALARMS with text display



DIN 144 x 144 format

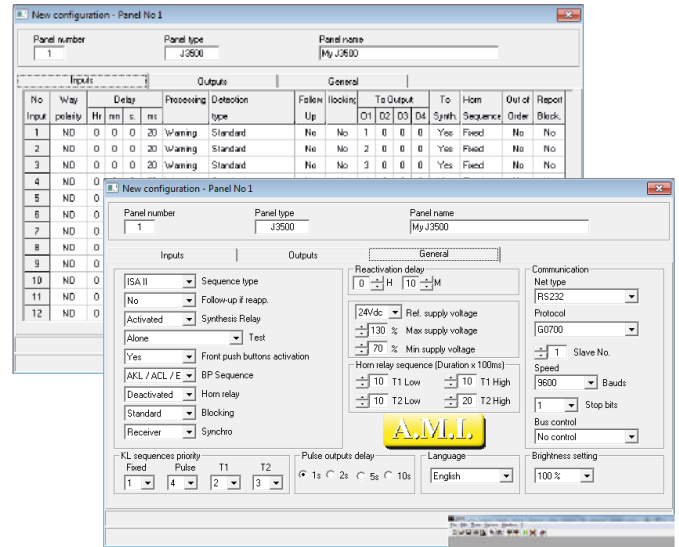
The J3500 is a PLC of technical alarms treatment, integrating all the functions required for local or deported signaling. It has been designed for easy adaptation to all possible figure configurations likely to be encountered.

Numerous complementary functions have been added to those already present on the J3000/J3105. The multilingual text screen (3 languages) allows easy the setting of each channel and can displaying the historic of alarms. A luminosity adjustment system is available.

### FUNCTION :

The setting can be done from the front with the text screen, or by PC with free software in several languages. Parameters are storable on hard drive, printable and duplicable.

The RESET is possible «channel by channel» with an external push button on each input (see manual start-up).

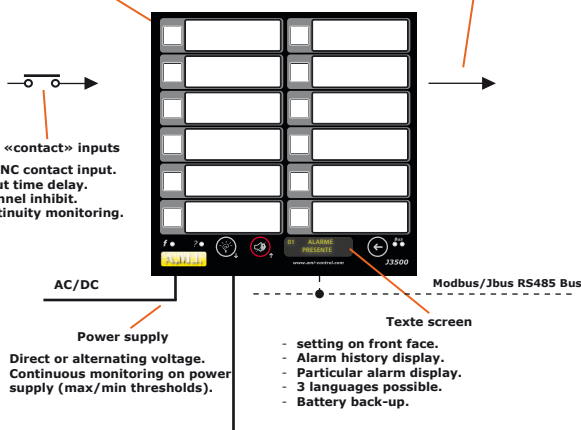


- Indicator (simple light) or Alarm treatment.
- Multiple types of sequences.
- Relaunch Alarm.
- Reactivation depending on input state.
- Global cancellation or per channel .
- Multiple types of sequences on RESET buttons and terminals.

12 «open collector» outputs

- «Contact outputs» possible.
- Association of 4 outputs possible on each input.
- Output synthesis selectable channel by channel.

- 12 «contact» inputs
- NO/NC contact input.
- Input time delay.
- Channel inhibit.
- Continuity monitoring.



Free PC parametering software with recovery of the last 64 events

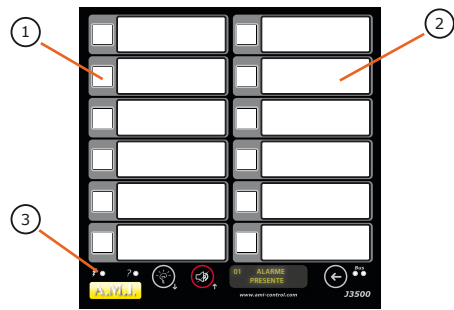
It includes the management of memorizations, blinkings and acknowledgement systems.

- Modular, installation can be extended to an infinite number of inputs.
- Flush mounting, it can be immediately integrate on the front of bay, on console or cabinet.

Its climate ambience tolerances (-10°C/+50°C) and its extended power supply range (direct and alternating current supply) makes it an essential component for any high-risk installation.

## FRONT VIEW :

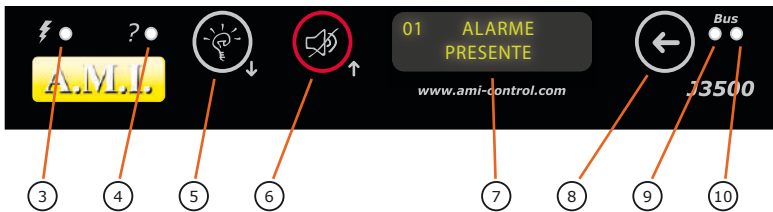
- 12 unpluggable LEDs 10x10mm , high-luminosity . It's possible to change colours (red as standard, yellow, green, blue).
- Large label with 4 lines of text possible.
- LED indicator of «Power supply presence».
- LED «Alarm» indicator: BUS alarm / alarm of power supply level.
- «LEDs Test»/«Next» pushbutton.
- «Reset»/«Previous» pushbutton.
- Screen of 2 lines of 16 characters to show: History Alarms/Program. It allows to easily perform the settings with the front panel keys.
- Program/History pushbutton.
- LED indicator Transmission / Reception Bus.



**Language :** The language used for menu texts can be selected in English, French or Spanish.

**History :** In normal mode the display panel can recall the previous 64 events. It shows the channel number and the type of event. This information are numbered and classified in arrival order. It is possible to delete the historic.

**Brightness adjustment :** For some special cases, it is possible to adjust the brightness of the LEDs and of the screen. This adjustment can be done from the front panel or by bus in program mode. (Example: navy applications).



The J3500 is an alarm processing controller with 12 inputs, 12 LEDs and 12 outputs and an optional RS485 Bus.

It is modular, this allows :

- Just use the desired number of identical panels for performing an installation. Whatever of the number of entries or configuration, each local sub stations will be equipped with the same model of product. (Decrease in inventory, easier maintenance).
- Reduce the overall processing time (each panel manages its own inputs)
- Ability of create families of panels to obtain the first alarm on a subset.
- Security: in case of failure of one of them, the other panels will continue their control.



## PARAMETERING :

The different settings can be made :

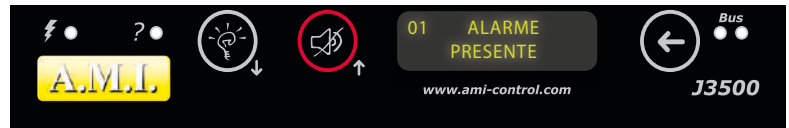
- Directly from the front of the J3500 through a luminous display and user friendly menus..

Changes are made using the three buttons present. An access code is provided.

- On the screen of the PC, with free software. It allows you to prepare settings, and then load them into the J3500.

## Configuration from the front :

Since the front of the J3500, it is possible to set the entire J3500. A drop down menu appears on the text display for changing all parameters. Access to programming menu is protected by a changeable password.



3 buttons on front panel allows moving the dropdown menu, displaying options and validating the choice.

Language: You can select the language on the text display: French, English, and Spanish.

Although simple to use, this setting is used for changes in local mode. The setting by PC offering many others advantages.

## Configuration from the software :

The software is free and available on our website.

It allows quick setup by selecting values on the screen.

The program consists of 3 different menus tabular form :

- The Inputs.
- The Outputs.
- The General parameters of the J3500.

This software allows you to create settings, store them on hard disk and print them. It also allows you to copy the settings present in an existing panel to modify and then reconfigure another panel.

**For details of operation, thank you to refer to the Getting started manual**

A History function has been added. This configuration software also can recover the «Buffer events» in a J3500, sort events recovered, see recurrences, safeguard PC, print them.

Panel n° : 1	Counter	Time	Channel	Parameter	Display
01	0000102	0:00:00.510	V03	Alarm	Blink Slow
02	0001543	0:00:07.715	ACK	Info	CL Acknowledge
03	0001543	0:00:07.715	V02	Alarm	Steady
04	0001544	0:00:07.720	V03	Alarm	Steady
05	0001545	0:00:07.725	ACK	Info	Clear
06	0001646	0:00:08.230	V02	Alarm	off

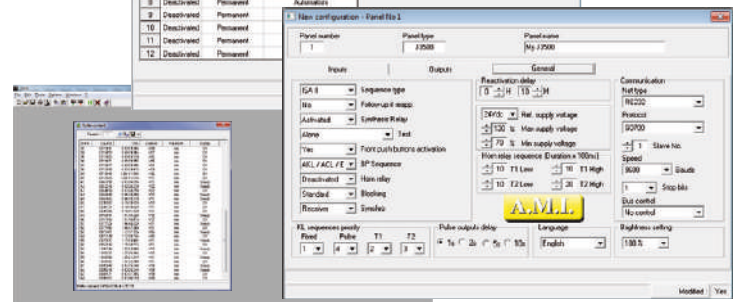
## Inputs

No	Wdr	Order	Processing	Detection	Falset	Jackin	To Output	To	Harm	Out of	Report
Input	priority	ms	ms	ms	ms	ms	ms	ms	ms	ms	ms
1	NO	0	0	20	Warning	Standard	No	No	1	0	0
2	NO	0	0	20	Warning	Standard	No	No	2	0	0
3	NO	0	0	20	Warning	Standard	No	No	3	0	0
4	NO	0	0	20	Warning	Standard	No	No	4	0	0
5	NO	0	0	20	Warning	Standard	No	No	5	0	0
6	NO	0	0	20	Warning	Standard	No	No	6	0	0
7	NO	0	0	20	Warning	Standard	No	No	7	0	0
8	NO	0	0	20	Warning	Standard	No	No	8	0	0
9	NO	0	0	20	Warning	Standard	No	No	9	0	0
10	NO	0	0	20	Warning	Standard	No	No	10	0	0
11	NO	0	0	20	Warning	Standard	No	No	11	0	0
12	NO	0	0	20	Warning	Standard	No	No	12	0	0

## Outputs

Output	Equality	Mode	Disability
1	Deactivated	Permanent	Automation
2	Deactivated	Permanent	Automation
3	Deactivated	Permanent	Automation
4	Deactivated	Permanent	Automation
5	Deactivated	Permanent	Automation
6	Deactivated	Permanent	Automation
7	Deactivated	Permanent	Automation
8	Deactivated	Permanent	Automation
9	Deactivated	Permanent	Automation
10	Deactivated	Permanent	Automation
11	Deactivated	Permanent	Automation
12	Deactivated	Permanent	Automation

## General





## PRODUCING LABELS :

Labels are ordinary paper sheets that can be slid into a transparent pocket included in the thickness of the front. A blank label is supplied with each unit.

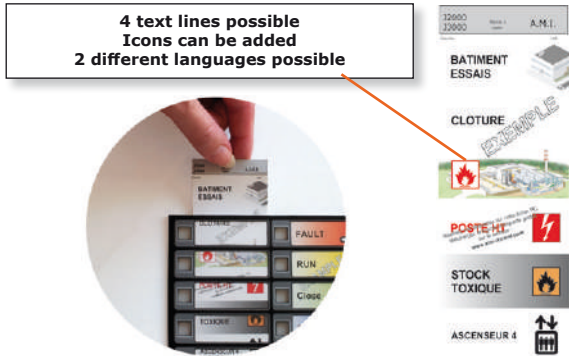
Labels can be handmade, or produced on a color printer (Laser or ink-jet).

The PC software allows to create labels including images, allows to save and duplicate the achievements.

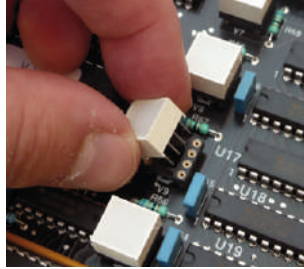
This PC software is FREE. It is possible to load it on our website :

[www.ami-control.com](http://www.ami-control.com)

For high humidity countries, the printing on plastic sheets is recommended.



## CHANGING LEDS COLOUR :



The LEDs are fitted on detachable sockets, enabling a change of colour. The colours available are the following ones :

**Red, Green, Yellow, Blue, White.**

The working lifetime of this component is practically unlimited. The low consumption (max 20mA per LED) and excellent luminosity contribute to the J3500 reliability.

## OPERATING PRINCIPLE :

The J3500 allows optimized information management. Each input can be treated in simple visualization (ON/OFF) or with alarm treatment. Each input contact (also those with simple visualization) can be selected normally open or normally closed. A filter on input by temporization (delay time) is present.

Simple visualization or simple display (ON/OFF) :

Processing for stable information but minor as On, Off, level, temperature, ...

One input in «simple visualization» is displayed in fixe (ON) long as input remains present without audible alarm, without RESET.

This input can activate one or more outputs and relay «Synthesis».

The loop control on the continuity of the input and the filtering time are possible.

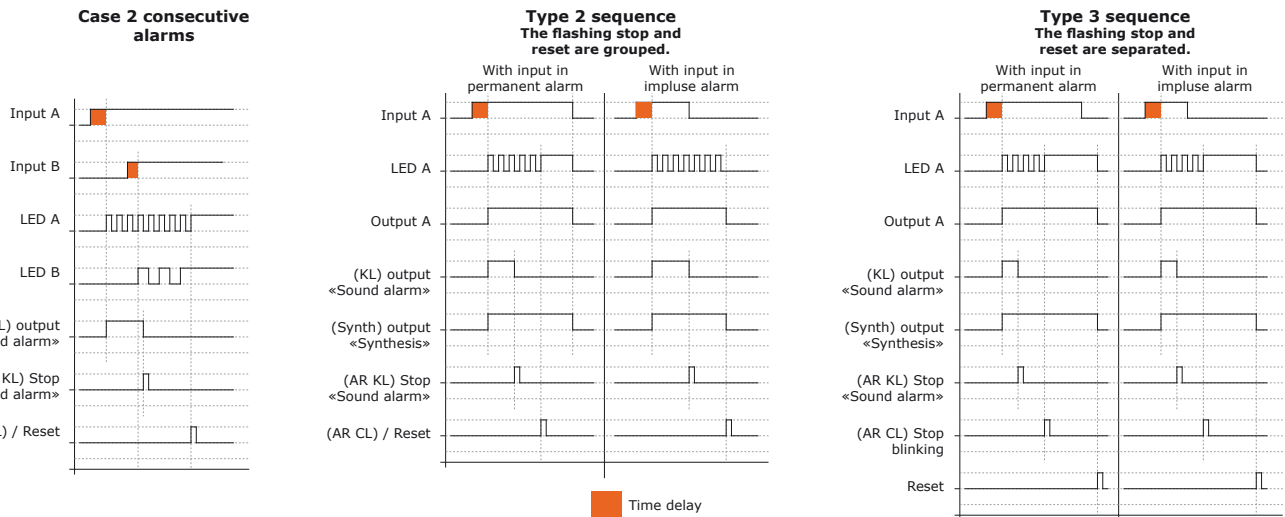
Alarm :

Processing for dangerous information with emergency. Used in situation where it is necessary to call the operator (level and too high temperature, fire, trigger, ...).

The operator can be absent, information will be displayed blinking, memorized and the display will remain present until acknowledged by the operator.

This input can activate one or more outputs, relay «audible alarm» and «Synthesis» relay.

The loop control on the continuity of the input is possible.



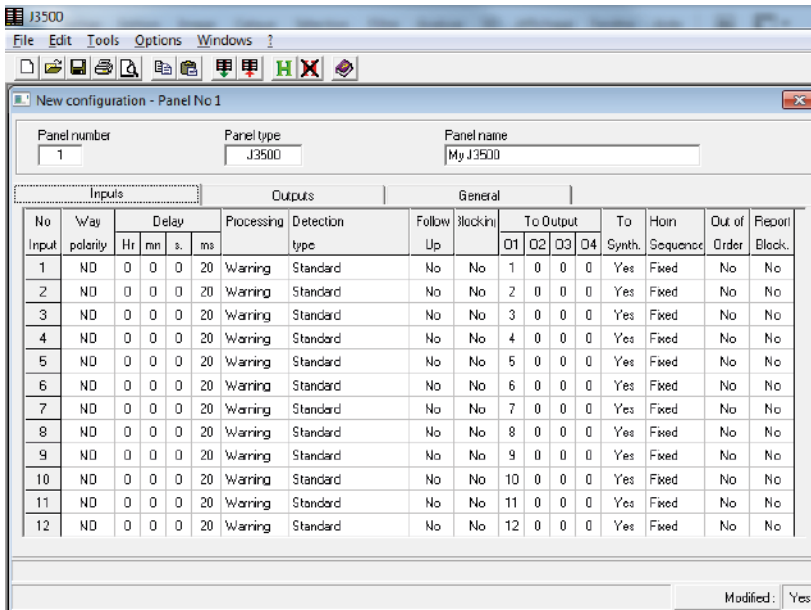
In diagram «Type 2 sequence» and «Type 3 sequence», the LEDs are represented in «fast blinking» mode.

The change of input state, after filtering time, causes LED blinking and the activation of sonorous output and synthesis output. This action will be stored even if the input disappears. The reset will be done step by step, after pressing the push buttons and depending of the sequence selected and the input position.

The first incoming alarm causes a display by a «rapid blink». The following lanes cause a «slow blink». This allows differentiating the first alarm among the followings. The cable defect will be displayed in «flash». The audible output is activated on each incoming alarm.

**For details of operation,  
thank you to refer to the Getting started manual**

## SETTING INPUTS :



Input	Way	polarity	Delay				Processing	Detection type	Follow Up	block in
			Hr	mn	s	ms				
1	NO		0	0	20	Warning	Standard	No	No	
2	NO		0	0	20	Warning	Standard	No	No	
3	NC		0	0	20	Warning	Standard	No	No	
4	NO		0	0	20	Warning	Standard	No	No	
5	NO		0	0	20	Warning	Standard	No	No	
6	NO		0	0	20	Warning	Standard	No	No	
7	NO		0	0	20	Warning	Standard	No	No	

Annotations:

- Input 2: Selecting input type (NO / NC)
- Input 6: TempORIZATION delay to filter this input: 20ms to 24h
- Input 7: Input processing : - simple signaling or indicator - alarm
- Input 7: Detection on input - Loop control (connection cut or shorted) - With RESET per channel
- Input 7: Reactivation of alarm in case of operator's forgetfulness

Setting each input separately :

- **Direction of inputs** (Normally Open or Normally Closed).

- **Filter Delay on input** from 100ms to 23h 59mn 59s 900ms with 100ms increments.

- **Input treatment type** : Alarm or signaling (indicator).

- An input configured in alarm mode will be memorized, will activate the LED flashing, will activate the audible alarm and will wait for an RESET.

- A signaling input (Indicator) is simply displayed (ON / OFF).

The corresponding LED will be switched off with the disappearance of the input.

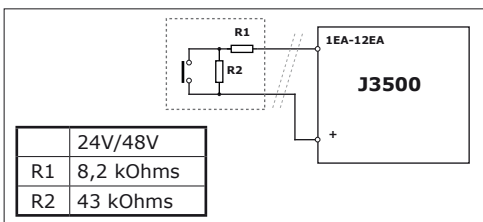
- **Input detection type** : Standard/Control loop.

- «Standard» is the normal configuration.

- «Loop control» Ensures effective control of the wire continuity on each input. Controls the short circuit or the cut of the cable between the J3500 and the contacts. Just put two resistors (one series and one in parallel) directly to the contact. This allows to continuously monitor the line current. A cable fault will be displayed blinking «flash» + audible alarm.

Only the «Audible alarm» will be acknowledged.

The output will not be activated.



- **Reactivation of alarm** : Allows avoiding alarm information is forgotten by operator, allows the channel to be reactivated in alarm (audible and visual) after a certain time.

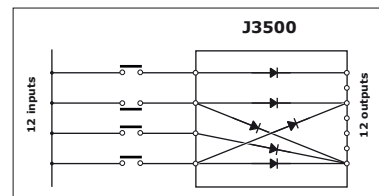
- **Blocking the channel (Inhibition)** : Inhibits temporarily the channel if the contact of inhibition input «Bloc» has been activated.

- **Outputs allocation** : Each input can activate up to 4 possible outputs that will be activated by the presence of this channel. Allows groups of specific inputs for sending remote syntheses. An input can control up to 4 outputs. This allows you to group remote information according to many levels. The output will remain activated as long as one of the causes having generated will remain present (the equivalent of an «OR»).

Example :

- The outputs «high risk».

- Alarms for the mechanic and alarms to the electrician.



- **Enable to the synthesis relay** : The Way activate or not the synthesis relay.

- **Type audible sequence** : Selects 1 from 4 audible sequences which will be activated to the appearance of this channel. Allows better auditory discrimination according to the danger level of the incoming alarm.

- «Without» : The audible alarm is disabled.

- «Fixed» : The audio alarm is activated continuously until acknowledged.

- «One pulse» : The audible alarm is activated for 1s only making unnecessary audible acknowledgement.

- «T1/T2» : 2 types of sequences defined by the user.

Example : Indicator 1s / 1s and flashing 1s / 2s.

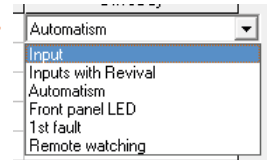
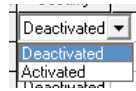
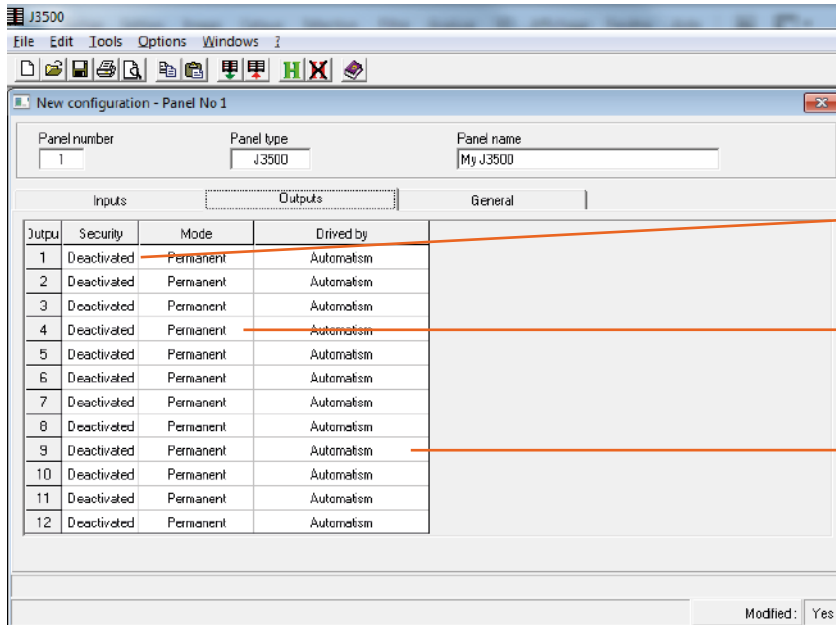
These two sequences require an audible acknowledgment.

- **Out of order** : Allows you to block (inhibit) a channel when the contact is incorrect operation. It will always be displayed on the LED but not audio alarm. When the contact will return to normal position, the LED will flash «Very Slow» to indicate this particular setting.

- **Blocking on out of order** : Allows to stop or not the activating of outputs when the channel is parametrized on «out of order».

**For details of operation,  
thank you to refer to the Getting started manual**

## SETTING OUTPUTS :



Setting each output separately :

- **Direction** : Outputs can be negative or positive safety.
- **Controlled by** : An output can be activated by :
  - The appearance of the input and follow the movements of this input.
  - The memorization of the input. (Up erasing the Led).
  - The Led state (and blink fast or slow like this one).

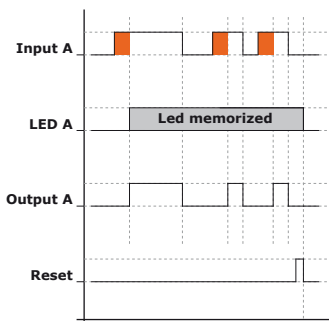
- **Software Version Prom V1.05I (on request):**

This version adds the pulse output function. The output will issue a pulse to the appearance of the way. This function is used to inform remote the arrival of a new alarm or the presence of an ever existing alarm.

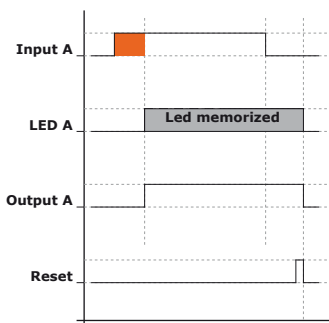
The outputs will become «blinking», i.e., with the same state as the Led on the front (flash, fast or slow flashing, OFF). Can be used to pilot an external mimic. The «Led Test» function can activate the outputs directly (as on front LEDs).

- If input is a first fault.
- Special software for remote monitoring.

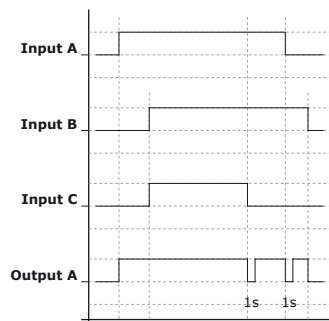
### Output controlled by :



**«Input»** : This function is intended for remote maintenance. It allows a remote operator to know the return to normal and the arrival of a new alarm on an unacknowledged channel and to determine the level of intervention necessary. If the input is still present after the time delay, the output will be activated. If the input is impulsive and disappears, even if the channel is not acknowledged, the output will disappear. It will be reactivated if the input reappears (and after a timeout).

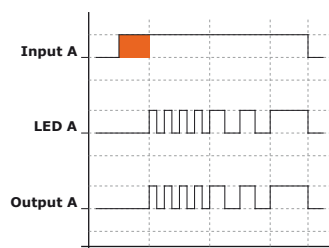


**«Input Memory» or «Automatism»** : The output is activated after filter time delay (when the LED is displayed) and will remain activated so long as the LED will remain visible on the front (the output follows the input memory).



### «Input with Revival» :

An output can be activated by several inputs. This function allows reactivating the output to the appearance of a new input assigned to the same output. In this case, the output is switched off for 1s, and then reactivated.



**«Front panel LED» or «Blinking»** : The output will be the exact image of LEDs of the facade with a rapid blinking, slow, fixed and OFF. This function is intended to control external lamps or external mimic (synoptic).

**«1st fault»** : The output will only be activated if the input channel is a first default.  
**Remote watching** : function used in the case of remote monitoring station.

 Time delay

For details of operation,  
 thank you to refer to the Getting started manual



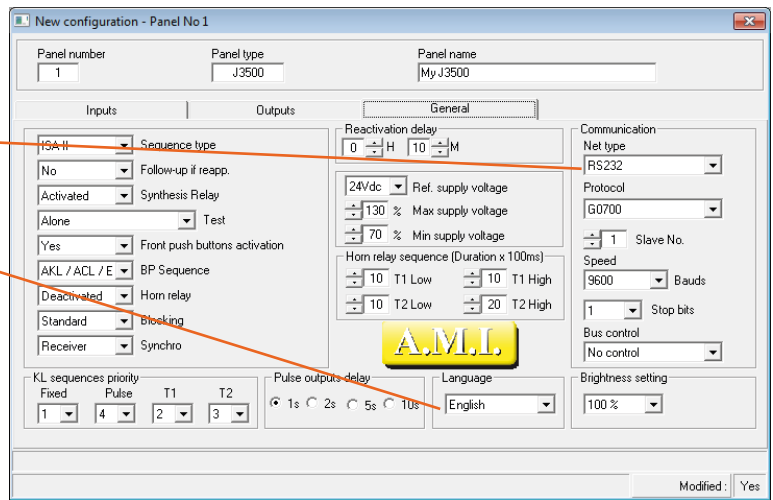
## GENERAL SETTING :

These settings affect the entire panel :

Communication by BUS  
RS485/RS232  
ModBus / Jbus

Different languages possible

French  
French  
English



### - Type sequence : ISA2 / ISA3 / Slow Blink

- «ISA2» : Standard sequence. It is necessary to stop the audible alarm first. The LED will always be in blinking. After acknowledgment, the LED will become fixed (ON). Then the LED will turn off automatically return to normal of the input.
- «ISA3» : Similar with the precedent but after switching to LEDs fixed (ON), it will remain present after the return to normal of the input. Intentional RESET per operator will be needed to switch OFF the LED. (First possible defect, possible loop control).
- «Slow Blink» : Sequence similar to ISA3. On arrival of the alarm, the display is done by flashing (fast or slow). After the stop «audible alarm», LED becomes fixed. When the input returns to the normal state, the LED will flash slowly indicating to the operator that it can erase. Displaying the «loop control» possible, impossible to display the «first fault».

- **Follow-up if reappearance** : A channel can be in alarm, displayed «acknowledged» or not and waiting to return to normal and waiting to operator «RESET». In the case of an alarm that would disappear and reappearing, the signaling and audible alarm will be reactivated.

- **Synthesis relay** : It can be activated normally (positive safety) or not.

- **«LED Test» Mode** : The «LEDs Test» button can have several actions :
  - «Alone» performs a «LED test» only on the front panel LEDs.
  - «LEDs With Output» tests the LEDs on front panel and outputs (used when the outputs animate a mimic in flashing mode).
  - «LEDs With KL» tests the LEDs on front panel and audible alarm.
  - «LEDs + Output + KL» : tests the LEDs on front panel, outputs and audible alarm.

- **Front push buttons** : (YES/NO). Allows the inhibition of the front push buttons when using external buttons connected on rear terminals.

- **BP sequence** : Regrouping functions «audible alarm OFF» and «blinking Off».
  - «AKL/ACL/EFF» : Separation of functions «Audible alarm», Acknowledgement (blinking off), Erase (reset).  
Front panel buttons : two successive presses in ISA2, 3 successive presses in ISA3.  
Buttons deported : 2 external buttons in ISA2, 3 external buttons in ISA3.
  - «AKL+ACL/EFF» : Regrouping functions «Audible alarm» and acknowledgment (blinking Off).  
Front panel buttons: 1 single press in ISA2, 2 successive presses in ISA3.  
Buttons deported : 1 single external button in ISA2, 2 external buttons ISA3.

- **Horn Relay** : Audible alarm relay can be activated normally (positive safety) or not.

- **Blocking** : Defines how the inhibition function will be realized when an alarm is present in display.

- **Synchro** : Allows you to set the panel in transmitter or receiver of sync tops. The synchronization of the blinks of LEDs of several J3500 facing an operator, increases visual comfort.

- **KL sequences priority** : Assign an order priority to the 4 types of sound alarms. This priority allows define what type of sound sequence will be executed first. If two alarms occur simultaneously, the audible output will be activated with the smallest priority level. This function allows you to manage the degree of urgency by a audible discrimination.

- **Reactivation delay** : 0 to 23h. Adjusts the time to reactivate the display if an acknowledged alarm is still present.

- **Supply voltage** : The panel is equipped with a voltage level control . Adjusts the under voltage and overvoltage threshold level in % of the specified voltage.  
Possible values: 24Vdc, 24Vac, 48Vdc.  
If the threshold is exceeded, an alarm will be displayed in the text screen and the red LED on the front (item 4 on the Front view ).  
The J3500-04-xx version (80-260Vac /dc) is equipped with a stabilized switching power supply. The control is not possible for the values (110Vac, 125Vdc, 200VDC, 220Vac).

- **Horn relay sequence T1/T2** : You can adjust the duration ON / OFF of flasher relay audible alarm. 2 possible flashing types (one fast and one slow).

- **Language** : Allows language selection on the J3500 screen.

- **Network Type** : Selects connection type on port «BUS»: RS232 / RS485 with 4 wires / RS485 with 2 wires.

- **Protocol / number slave / Baud Rate / Stop bits.**

- **BUS control** : Active and adjusts the temporization of presence control security on the bus.

- **Brightness** : Adjusts by program the LEDs brightness.

- **Prom V1.05I Version** : This version adds the following parameter :
  - Adjusting the length of the pulses on the outputs.

## LEDS FUNCTION :

«Pavers LEDs» type, they have very high contrast between «ON» and «OFF» position. Being unpluggable, it is possible to change the color.

Fault avalanche :

The differentiation between the 1st fault (first alarm) and the 2nd is done by flash and slow blink (1st fault is displayed in fast flashing mode; the following alarms are displayed in slow blink mode).

The avalanche is an arrival of several consecutive alarms.

It is very important to know the first alarm, as this enables rapid intervention in troubleshooting.

The avalanche begins with the arrival of the first alarm until operator cancellation. After cancellation by operator (all flashing LEDs are become fixed), a new alarm will be considered as a first fault.

Discrimination time: 10ms.

The various light states on the LEDs :

**Fast blink** = 1st alarm.

**Slow blink** = following alarm in avalanche.

**Very Slow blink** = return to normal position of contact in «Out of order» mode.

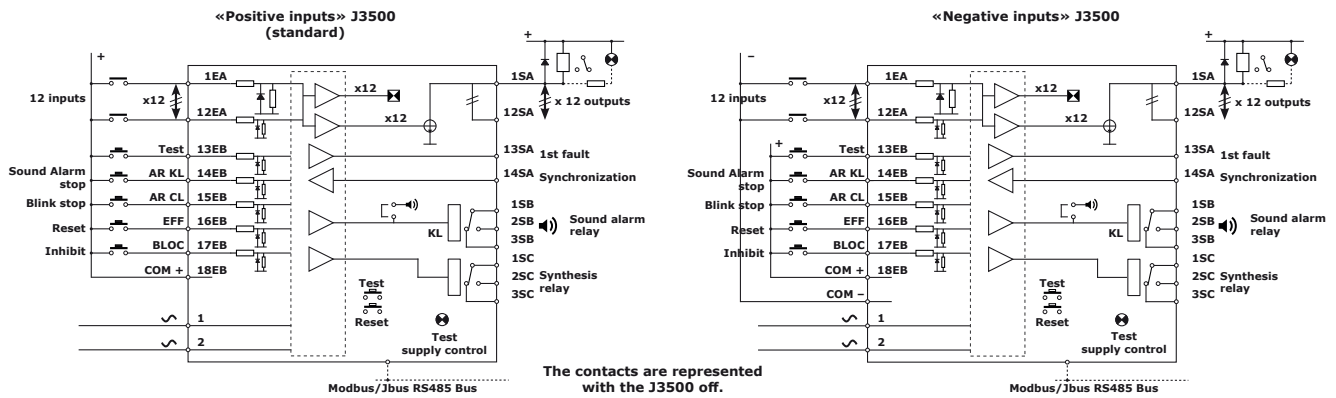
**Fixed light (ON)** = alarm present, memorized after acknowledgement.

**OFF** = return to normal state

**Very fast Flashing** = cable fault (this luminous signal is not cancellable).

## REPRESENTATIVE DIAGRAM :

- The inputs are called «positives» when the common feeding the alarm contacts is connected to «+».
- The inputs are called «negatives» when the common feeding the alarm contacts is connected to «0V».



## TEXT DISPLAY FUNCTION :

Display of 2 lines of 16 characters, it displays :

- The operating status of the panel and these alarms with No. of input and type alarm, supply voltage control alarms, continuity of control over inputs.
  - The historical ranked in order of arrival of the 64 last states informations with number of the channel. It also allows erase the history buffer.
  - The various configuration settings.
- 3 front panel buttons are used to select various functions and to access the setup menu via an access code.

## FUNCTION OF FRONT FACE BUTTONS :

The front is equipped with three buttons : «Test leds», «RESET» et «Paramétrage».

RESET combines several functions :

1st press => Stop Horn / 2nd press => Flashing off / 3rd press => Erase

The flash off (switching to fixed lights) will be processed only if the alarm has been stopped.

The «program» button is used in combination with the «test» button or the «Reset» button only in the program mode.

(See also the «**FUNCTION OF REAR TERMINALS**» and the start-up instructions of the J3500).

## INPUT FUNCTION :

Terminals 1A / 12A : The 12 contact inputs can be «Positive common» or «Negative common».

A direction of operation (NO/NC) and a delaying time may be associated to each input.

Channel validation is effective only if the channel remains in alarm state for duration greater than the selected delaying time.

## FUNCTION OF REAR TERMINALS AND FRONT FACE BUTTONS :

The terminals (TEST + KL + AR CL + RESET/EFF + BLOC) will always be connected to external contacts supplied with a positive polarity. (Preferably the «+Com» terminal).

TEST terminal 13EB : This is a «LEDs Test» program activated by the micro-controller.

Ability to perform the test to : LEDs, outputs / Relay «Audible alarm».

This terminal also can remotely set the luminosity.

This input (with terminal 15EB) also allows the activation of the self-test (see «special functions»).

The order of use of the 3 following terminals must be respected.

The terminals AR CL and EFF are inactive if the audible alarm is present. In sequence type 3, the EFF terminal is inactive if a LED blinks (no RESET possible before stop blink).

AR KL terminal 14EB (Audible alarm stop) or button front face «RESET/Horn Stop » first impulse :

Standard function: An input activation on 14EB stops the audible alarm until the return to normal state of input.

By program, it is possible to group the terminal AR KL and AR CL, In this case, a single external button connected to terminal AR CL, will stop the audible alarm and stop the blinking on the LED.

AR CL terminal 15EB (blinking stop) or button front face «RESET/Horn Stop » second impulse : One activation changes the flashing mode to fixed mode (only after you have stopped the alarm sound).

Functioning type 2 sequence : When alarm will disappear, LEDs in fixed mode (ON) will switch OFF (After an activation on AR CL, if an input returns to normal, the blinking LED goes to fixed and quickly turns OFF.

Functioning type 3 sequence : With this sequence, activation on AR CL terminal also turns ON the LED (fixe). But when the alarm will disappear, it will be necessary to use the EFF terminal to cancel the fixed light (turn OFF).

Auto-test sequence: (TEST + AR CL terminals or the 2 front push buttons).

If an operator presses and maintains the 2 push buttons or if the 2 terminals are activated simultaneously, the internal test cycle starts (LEDs Test + 2s + horn relay test + 2s + synthesis relay test + activation of all outputs). This test is an «incremental» type which activates the each channel, each output, one after the other, and the selected outputs («Synthesis» relay, «Sound alarm» relay).

This is a chaser lights type. it activates the LEDs , one after the other, and selected outputs (outputs, relay «Synthesis», relay «audible alarm»).

RESET/EFF terminal 16EB (RESET) or button front face «RESET/Horn Stop » third impulse :

- Functioning type 2 sequence: RESET/EFF this terminal is not used.

- Functioning type 3 sequence: The LEDs will turn OFF only after switching to fixed mode and after the input will be returned to normal, when the RESET/EFF terminal (or after the third impulse on the RESET front button) will be activated.

Bloc or Inhibition terminal 17EB : The channel inhibition is activated by connecting a «+» on «Inhibition» input. The selected inputs in «Blocking» will no longer be recognized as long as the inhibition input is activated. One selected input is active only if the inhibit input is inactivated.

If a selected channel inhibited is already displayed before the activation of the terminal block (17EB), the display management will continue until its extinction (return to normal of the channel input).

For inhibition, the channel must be selected in parameters AND the terminal 17EB must be activated BEFORE the input change.

This function is an indefinite temporization equal to the duration of activation of the terminal 17EB.

«+COM» terminal 18EB : the «COM+» terminal allows supplying the input contacts with correct voltage and with internal protection. However, these inputs can be supplied with the «+» of the supply voltage only for J3500-02 -xx version.

## OUTPUTS FUNCTION :

### Terminal 1SA/12SA : 12 outputs

The panel has 12 electronic outputs 150mA. This output transmits a «0V» (collector open). The external receiver should be connected to «+» (maximum voltage: +48Vdc). In certain cases it needs to be protected against break surges and against cold start currents (bulb with filament) by the use of a serial low resistor. These outputs are enabled or disabled at the onset of input activation or the LED. This is depending on the setup.

There are different relay output interfaces with galvanic isolation (optional). They ensure optimum and fast operation without the risk of destruction. (Refer to chapter «Accessories»).

For all possible functions with outputs, refer to § output settings and start-up instructions).

### 1st fault terminal 13SA : (Terminal in Input/Output mode).

Used to group multiple panels to get the 1st fault sequence on all channels.

If a panel has a first alarm displayed, it changes the status of its terminal 13SA which will be received by the other connected panels.

When the other panels will receive an alarm, they will display in slow blinking mode.

The power supply of this terminal is specific to this panel (never connect other function than the «1st fault » terminal of another panel).

### Synchro terminal 14SA : (Terminal in Input/Output mode).

It synchronizes the blinking between all panels connected.

If several flashing alarms are present on various panels, this can lead to visual fatigue for the operator.

All panels with flashing LEDs will be synchronized on the signal coming from this terminal.

- If synchronization is not selected on the panel (transmitter), it is master and transmits timing clock pulses to the other users (it synchronizes itself on its own pulses).

- If synchronization is selected on this panel (receiver), it receives pulses coming from outside and synchronizes on them. In the unlikely event of connection failure, the panel would resume its own synchronization.

The power supply of this terminal is specific to this panel (never connect other function than the «Synchro» terminal of another panel).

**1SB/2SB/3SB terminals :** Outputs inverter contacts of audible relay.

**1SC/2SC/3SC terminals :** Outputs inverter contacts of synthesis relay (general alarm relay).

## CONNECTIONS :

### Application example :

- Panels «1», «2», «3» are connected with contacts on their inputs which can be NO or NC selection.

- The «Test», «AR KL», «AR CL» and «EFF/Reset» are centralized for the three panels.

- Contacts «Synthesis» of each panel are connected in series to send remote information. Synthesis relays are parameterized in positive safety (relays normally activated).

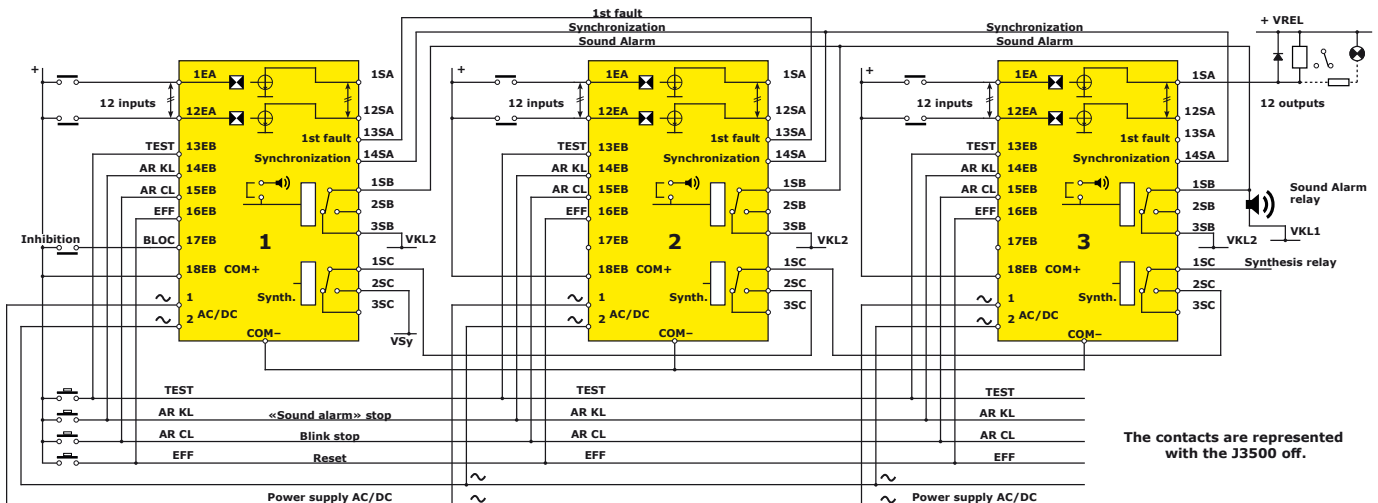
- Audible alarm relays are selected in positive safety. Contacts are connected in parallel to an external general sound alarm).

- The blinking of the LEDs of this three panels is synchronized by the connection of the terminal 14SA. One of the panels has been set in «Transmitter», the others in «receiver» mode.

- Panels «1» and «2» are grouped to obtain the 1st fault among 24 inputs.

- The panel «3» uses its outputs directly to activate relays or external lamps. (Terminals 1SA and 12SA). A diode or resistor has been fitted as protection. The maximum voltage on outputs is 48Vdc only.

But other configurations are possible.



**+VREL :** supply voltage on the outputs. This external voltage (+48Vdc max.) is useful only for particular connection. (Our relay cards are supplied directly by the panel).

**VKL :** May be voltage independent of J3500 for supply the external «horn» with galvanic isolation. For example: 230Vac.

**VSy :** May be voltage independent of J3500 for supply the relay Synthesis contact with galvanic isolation. For example: 230Vac.

- «COM+» terminal (18EB) is used to supply the input contacts.

- With the 14-65Vac/dc, it is possible to use the polarity «+» of the J3500 power to supply all input contacts of several J3000.

**In this case, DO NOT CONNECT the «COM+»**



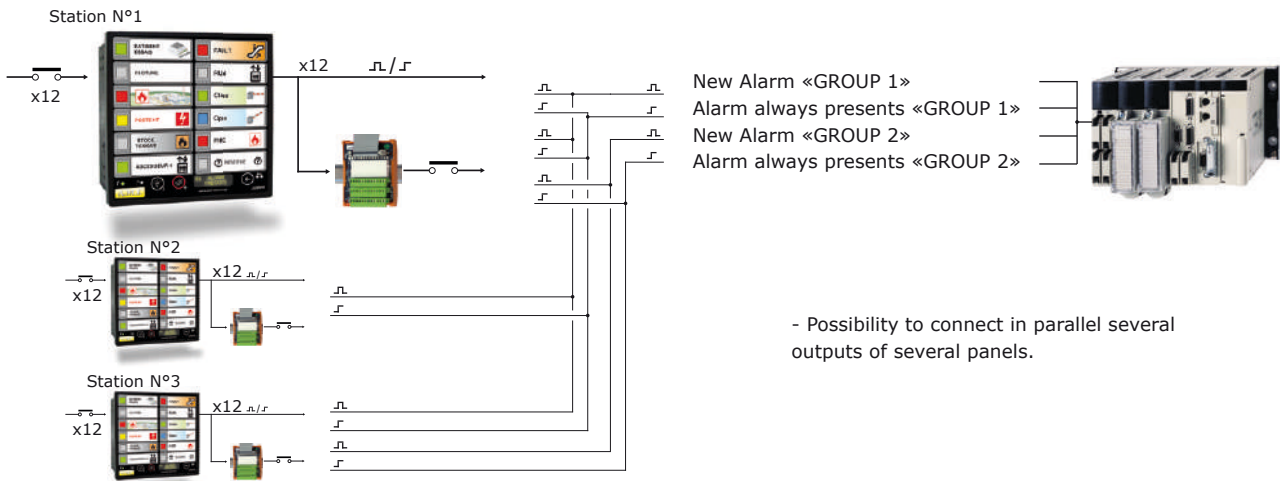
## PROGRAM EXTENSION : VERSION 1.05I PROM (ON REQUEST)

New software can be added to J3500, allowing the setting in adjustable pulse on outputs. This new function associated with the possibilities of the J3500 allows multiple possibilities.

To manage remote installations, it is often necessary to know :

- If an alarm is present,
  - If a new alarm occurs,
  - What is the danger level of the alarm present or incoming ?
- But it is also necessary to limit the number of wired connections.

This function will help to decide whether an intervention is immediately necessary or whether it can be postponed.



## SEND ALARM INFORMATION TO PLC REMOTED :

- Several levels of alarms: the J3500 allows creating different levels of alarms and group outings per family depending on their level of alarm.
- «New alarm» output delivering a pulse each new arrival on a change in a family input.
- «Alarms always present» output delivering a permanent state as long as inputs related to the family are present.

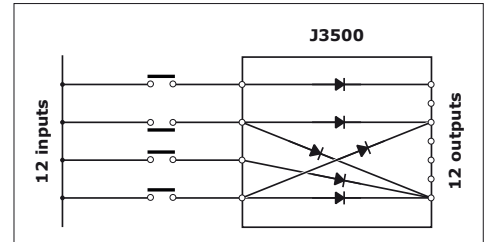
Regrouping outputs from different inputs :

It is possible with the J3500 to sort and regroup each of alarms present on 4 different outputs among 12 as desired.

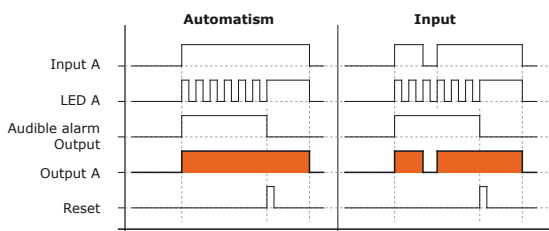
This allows categorize them by families and / or by danger level.

It becomes possible with an external PLC to know the arrival of a new alarm or family of alarms (output pulsed), whether an alarm or family of alarms is still present and with what level of alarm (permanent output).

Example : To supervise : Electrical alarms, gas alarms and temperatures alarms. Each with several degrees of emergencies. Many other combinations are possible.



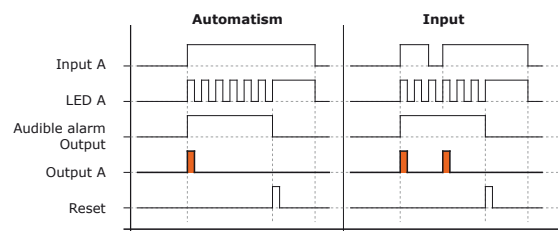
### PERMANENT OUTPUT :



Allows to remote signaling the presence of an ever existing Alarm.

- Ability to set outputs «permanent» (alarm always present). They will issue a permanent state as long as one of the associated inputs is present. They issue a Permanent state as long as one of the associated entries is present.
- Ability to set the operation of the output:
  - «INPUT» mode (depending on the physical input). The output is activated if the input is present.
  - In «AUTOMATISM» mode (depending on the LED). The output is activated by the presence of the display of LED (input present or not).

### ADJUSTABLE PULSE ON OUTPUT :



Allows to remote signaling the arrival of a new Alarm.

- Ability to define outputs «impulse» (new alarm) with adjustable pulse length. They will issue either one single pulse, or 1 pulse to each input arrival associated with this output.
- Ability to set the functioning output with «INPUT» mode (depending on the physical input) or «AUTOMATIC» mode (depending on the display present or not). This pulse can be generated by :
  - The presence of the LED display (1 single pulse until the next RESET, even if the input disappears and then returns)
  - The presence of the input (more pulses if the input disappears and returns).

All these features make the J3500 a very powerful local alarm display

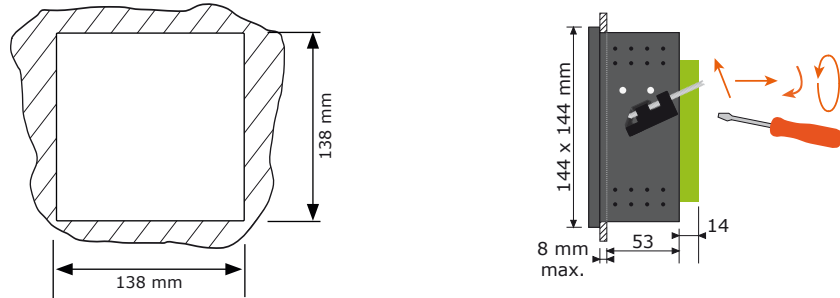
## SPECIFICATIONS :

Minimum voltage supply (when using relay cards)	17Vdc
Maximum consumption	500mA/24Vdc, 256mA/48Vdc 116mA/110Vdc, 130mA/230Vac
Minimum consumption	100mA/24V
Temperature (at nominal voltage)	-10°C / +50°C
Relay contact	1RT 6A/12Vdc - 0,15A/240Vac
weight	750g
Dimensions	144 x 144 x 65 mm
Without protection cover	IP52
With protection cover	IP54

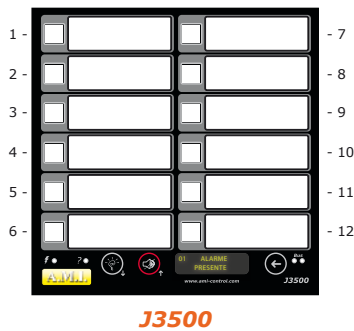
Possible voltages	14Vdc-65Vdc, 14Vac-49Vac, 80Vac/dc-260Vac/dc
12 «open collector» outputs	according to supply voltage (see output interface)
Current by output	150mA
Input current	2,4mA
Permitted line resistance on input	2 kOhms
Time delay accuracy	+/- 20%
Discrimination between 1st and 2nd fault	10ms

## CUT-OUT :

DIN 144x144 format

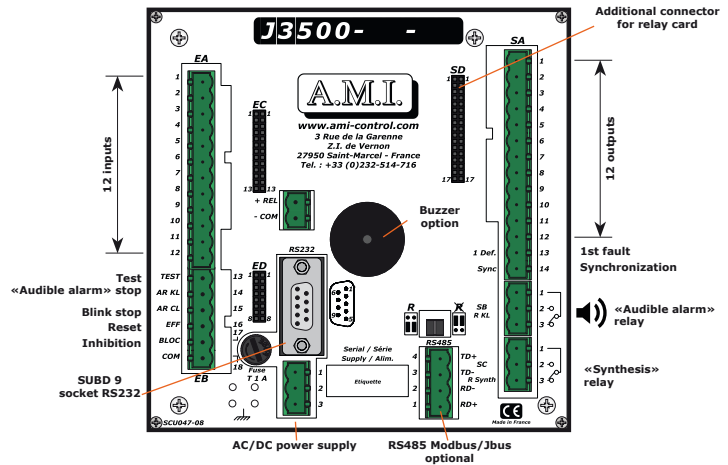


## Numbering system



**J3500**

## REAR VIEW :



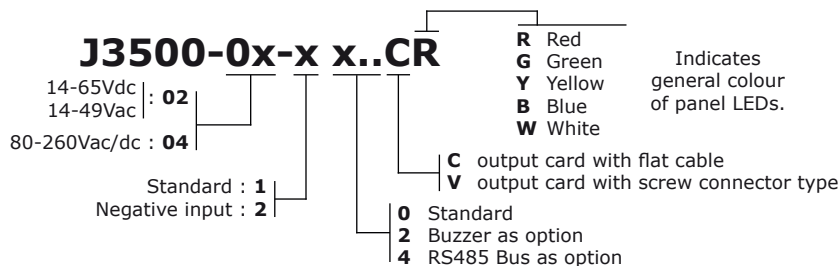
Output ports :

- The RS232 port subD / 9 pins type for setting with PC is present as standard.

Ask the RS232 / USB adapter.

- Option: Port RS485 / 422 Bus connection with MODBUS / JBUS .

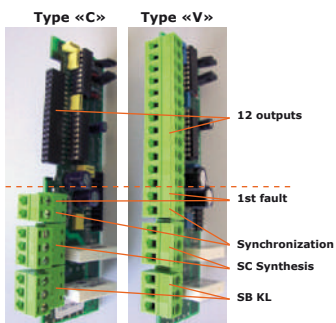
## ORDER REFERENCES :



If multiple options, indices are placed in ascending order.

Example :

J3500-02-124CR  
J3500-04-10VR



**Output Card** : 2 models :

- Type «C» : With ribbon SD connector to connect a DIN additional card.

- Type «V» : With screw connector on the 12 outputs.

All other connectors are «screw-pluggable»..

Delivered with red LEDs as standard (Other models on request).

Possible complementary LEDs :

J2001-00-00	LED 10x10mm colour GREEN, code : 2855
J2001-00-10	LED 10x10mm colour YELLOW, code : 2755
J2001-00-20	LED 10x10mm colour RED, code : 2655
J2001-00-30	LED 10x10mm colour BLUE, code : 2655MBW
J2001-00-40	LED 10x10mm colour WHITE.

## **ADDITIONAL PRODUCTS :**

**M0800 Front plate 19-inch, brushed aluminium Ht : 4U**  
Front for bay 3 pre-drilled holes 138x138mm.

**M0815 Closing cover**  
Closing cover for mounting on M0800 front plate.



**M0800  
M0815**

### **M0720, IP54 sealed front**

«Quarter-turn» closing button  
DIN format 144x144.  
IP54 sealed front that is fitted directly to product front.  
An O-ring provides sealing between steel cabinet and panel.  
The front is a transparent opening door..

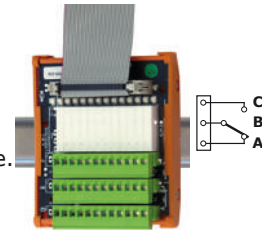


**M0720**

## **EXTENSION RELAY CARDS WITH GALVANIC ISOLATION :**

Equipped with relays these cards deliver a dry changeover contact (without voltage) with galvanic isolation for each output. These cards allow secure use of «open collector» outputs with maximum safety.  
The relays are powered directly through the panel.

- Contacts feature: 1RT 6A/24Vdc or 48Vdc - 0,15A/240Vac
- A LED on each relay displays its state.
  - 3 removable terminal blocks are available (one for contacts «O», one for contacts «F», the last for common).
  - DIN rail bracket at the bottom of cabinet. With quick connection to the panel by ribbon cable. They avoid too many wires on the cabinet door.

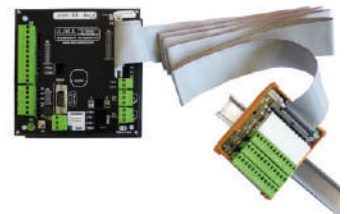


These cards are available in versions :

- 12 relays changeover contact each (there are as many relays as there are outputs).  
**M0901-02-01** Card 12 relays 24Vdc to fit to DIN rail (For J3500 supplied with any voltage except 48Vac/dc).  
**M0901-03-01** Card 12 relays 48Vdc to fit to DIN rail. (For J3500 supplied with 48Vac/dc).

- 2 relays 1RT type with selectors; it allows you to sort the outputs in two directions :  
Electrician / mechanic or Alarm high risk / Alarm ordinary.

**M0901-02-20** Card 2-synthesis-relays 24Vdc to fit to DIN rail.  
Panel supply minimum voltage: 17Vdc



Don't forget the cable connection :

- M0901-02-50** Ribbon cable L=1.5m fitted for one relay card.
- M0901-02-51** Ribbon cable L=1.75m fitted for two relay cards.
- M0901-02-52** Ribbon cable L=2m fitted for three relay cards.
- M0901-02-55** Additional length L=0,5m.

### **M0730 Adapter to mount on DIN Rail profil TS35.**

144x144 format  
This kit allows to mount panels with 144x144 format on a DIN rail TS35 retaining the display towards the operator.



### **G0100-05-30 RS232 / USB adapter for setting with PC**

This adapter enables the connection between the J3500 and a PC equipped with a USB plug. it connects directly to the RS232 cable supplied with the J3500.

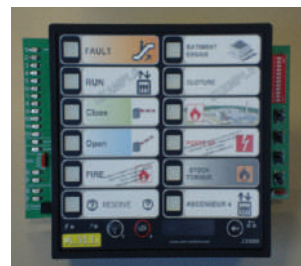


### **KJ3500-1 Demo Kit,**

includes :

- 1 card equipped with 12 inputs contact by switches, 4 push buttons («Test LEDs», «stop horn», «Flashing Off / Reset», «Erase»), 1 switch «Blocking» 1 Jack diet.
- 2 cards Output (one with screw connector, the other with flat cable connector) equipped with 12 LEDs for outputs, 2 LEDs for output «Synchro» and «first Fault », 2 LEDs for output contact «Synthesis», 2 LEDs the contact output «Audible alarm» 1 Buzzer.
- 1 adaptator supply 230Vac / 24Vdc power supply output jack.
- 1 operating manual connection and using.

**The test kit do not understand the product itself**  
only J3500-02, version 24V.



Demonstration kit



**Refer to chapter ACCESSORIES from our catalog**



## THE "HISTORICAL" MEMORY :

By using the RS232 port or the RS422/485 port (if the option is present), it is possible with a PC or an automaton, to recover the «history» buffer, to print it or to archive it. Free software is available on our site.

**The «history» buffer :** A history buffer memorises the last 64 events occurring on the panel :

event appearance with the type of display of the front LED (fast or slow blinking, fixed, off), the operator acknowledgement, and disappearance. The display types are :

- Fast blinking => arrival of a 1st fault.
- Slow blinking => arrival of next faults.
- Fixed light => arrival of simple signal (like states) or fixed light after an acknowledgement.
- LED off => return to normal.

The buffer is of the «FIFO» type, memorized by internal battery.

The stored information includes :

number of events stored, channel and panel number, type of hardware installed, type of channel setting, type of front panel display, J3105 internal counter value, allowing dating.

For more details,  
see transmission notice

N° Evt	Compleur	Temps	Voie	Paramètre	Affichage
01	000001	0:00:00.005	Y11	Alarme	Eteint
02	000001	0:00:00.005	Y12	Alarme	Eteint
03	000001	0:00:00.005	Y01	Alarme	Eteint
04	000001	0:00:00.005	Y02	Alarme	Eteint
05	000001	0:00:00.005	Y03	Alarme	Eteint
06	000001	0:00:00.005	Y04	Alarme	Eteint
07	000001	0:00:00.005	Y05	Alarme	Eteint
08	000001	0:00:00.005	Y06	Alarme	Eteint
09	000001	0:00:00.005	Y07	Alarme	Eteint
10	000001	0:00:00.005	Y08	Alarme	Eteint
11	000001	0:00:00.005	Y09	Alarme	Eteint
12	000001	0:00:00.005	Y10	Alarme	Eteint
13	00001.02	0:00:00.510	Y11	Alarme	Clignotant lert
14	00001.02	0:00:00.510	Y12	Alarme	Clignotant lert

## J3000 RS485 BUS VERSION, PROTOCOL MODBUS/JBUS :

**BUS option: product reference: J3500-xx-x4**



Please, ask us.  
the protocol transmission documentation  
for more information on signal frames.

**With the internal functions of the J3500 and by using a PC or a PLC, it becomes very easy to create your own centralization.**

**Just write a simple program using the language you know**

The J3500 panel is a controller to technical alarm that can be fitted with an RS485 type BUS link (2 or 4 wires).

It is a multi-task intelligent peripheral. It is working in degraded mode. In case of bus failure or when stopping the supervisor, the panels will continue their control and will display alarms.

It is possible to connect 64 panels on the same Bus.

- The supervisor can recover the local process information stored in the panel (status, alarms, histories).
- The supervisor can also send an sound and visual information to a remote operator by activating a channel through the Bus on a J3000/J3105 or J3500 panel. This information can come from the supervisor (from its internal management system) but it can also come from another panel and be sent to a «receiver» panel.

## COMPLETE TECHNICAL ALARM CENTRALISATION :

The PANEL'PC is an alarm centralizer on a RS485 Bus.

It can manage 64 panels with 12 alarms each.

Its touch screen allows to perform all necessary operations without additional keyboard (RESET, operator assistance display, historics, archiving).

It may refer alarms and remote information to other sub-stations.

It can be used either in a sub-station or control room :

- In local sub-station front cabinet, for monitoring alarms and local states, with historic for traceability.
- In control room with clustering by bus of local alarms panels.
- Possible transfer to other sub-stations.

## PANEL'PC :



RS485 Bus / 1 km / fitted with 64 modules as a maximum

**It is possible to very simply constitute a bus assembly for the management of technical alarms.**

- Possibility of using modules interchangeably:
- J3500/J3000/J3105 Automated technical alarm panel.
- J2x05RS signaling receiver panel with 12 or 24 LEDs.
- PANEL'PC.

The PANEL'PC integrates :

- Alarm display with «RESET» directly on the screen.
- Operator assistance or instructions for each inputs indicating to operator how to proceed depending on the alarm present.
- Display of historic periods.
- Re-display of the historic of a recorded period (10,000 pages possible).
- Printing in continuous with time stamping.
- Remote alarm reporting to one or several indicators display by BUS(for example, guard posts, technical service, control room).
- Remote outputs possible.
- Archiving on USB key.
- Login with several safety levels.

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