J1905S

Alarm and signaling panel
Built-in version and wall box

www.ami-control.com

2 years Warranty

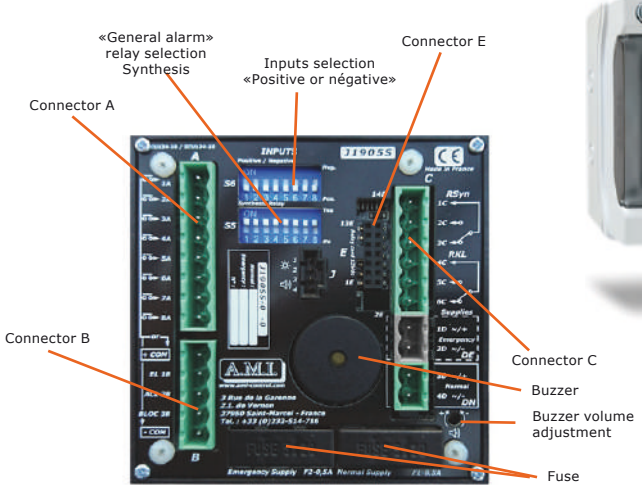
Multicolored LEDs

MADE IN FRANCE

DIN 96 x 96 format

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

FRONT VIEW



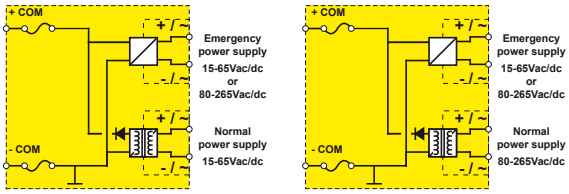
REAR VIEW

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 to «-» (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.



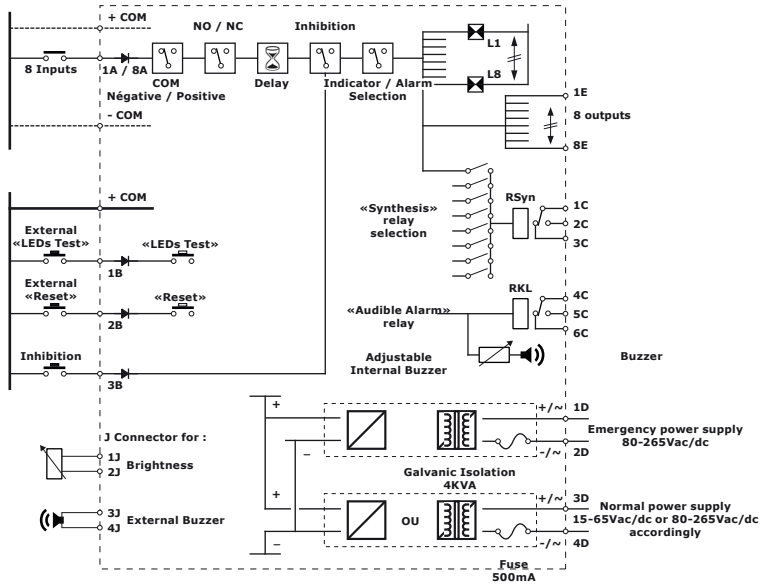
Regrouping of the supply voltages 24V and 48V :
The low-voltage range is expanded and goes at 15 to 65Vac/dc (the models for 24V and 48V voltages are grouped in one single model).

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 :

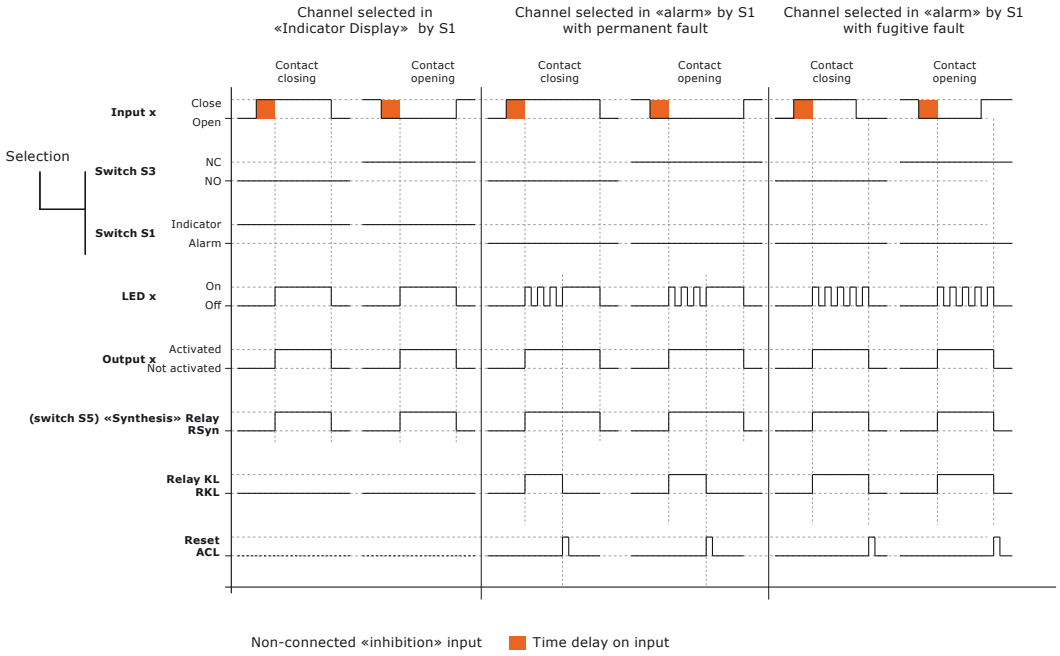


A channel can be «positive input» or «negative input».
The selection is made with S6 at the back of the panel.
Contact direction: the direction of contact (NO / NC) is selected with the S3 switch.
Caution : in case of a channel selected by S6 in negative input, the S3 selection becomes reversed.

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	«Signaling»/«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).

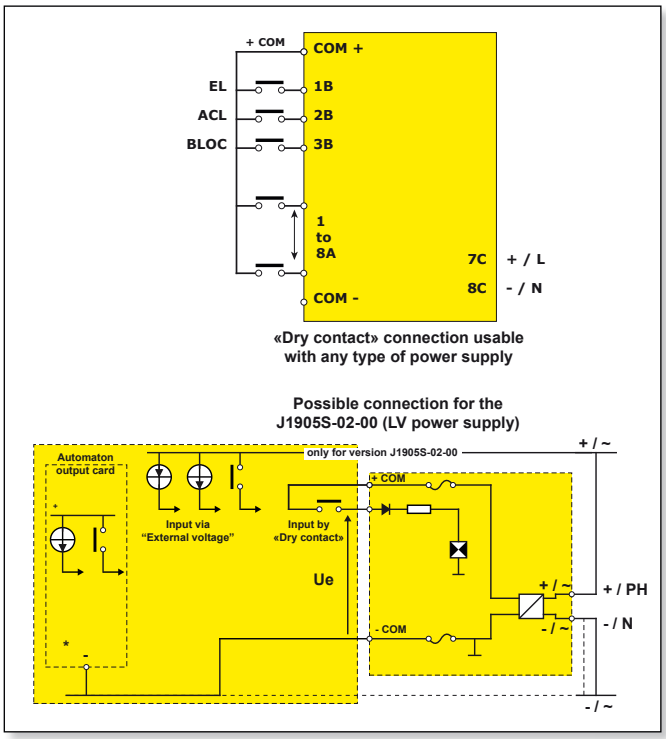
- The «x» channel must be selected in «simple indicator» with S1 (INDICATOR) :
- Depending of the sense of the input contact «x» selected with S3 (Normally Open / Normally Closed) and after the end of the input delay time Tx (filter on input), the LED lights up in fixed mode (it also possible to light 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).

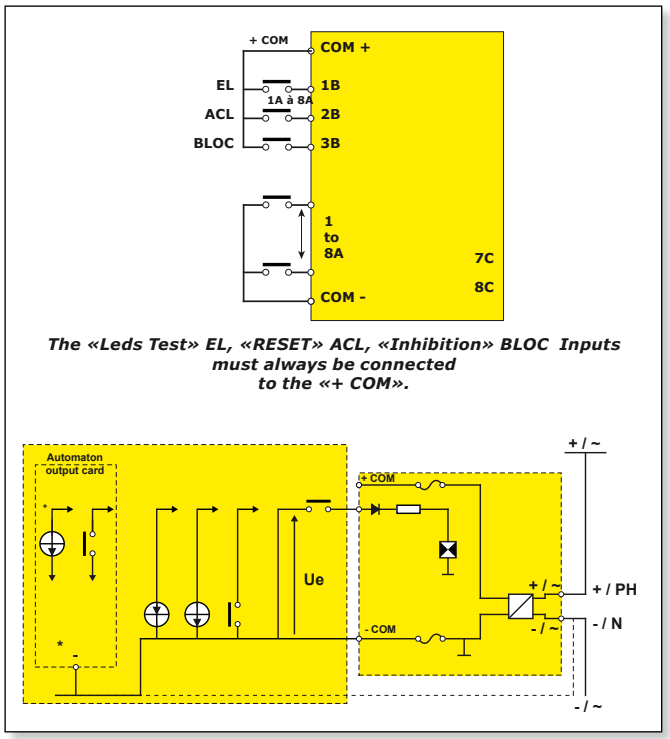
- The «x» channel must be selected in alarm with S1 (ALARM) :
- Depending of the sense of the input contact «x» selected with S3 (Normally Open / Normally Closed) and after the end of the input delay time Tx (filter on input), the arrival of the alarm will be taken into consideration and memorized.
- 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



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



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 :

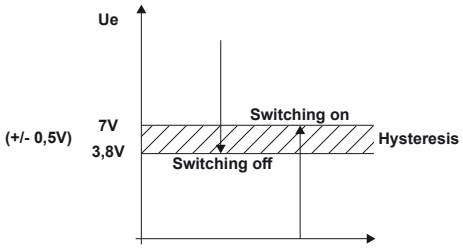
The input is activated from the «+COM» terminal. It is possible to use an external positive voltage (maximum 65Vac/dc). In this case, It is necessary to interconnect the «-» outer with the J1905S «- COM» terminal to ensure the return of the negative.

«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).



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.

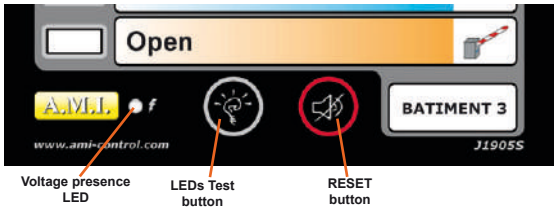
In the «double power supply» version, the loss of one of the power supplies will be displayed by :

- 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.



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.

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.

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.

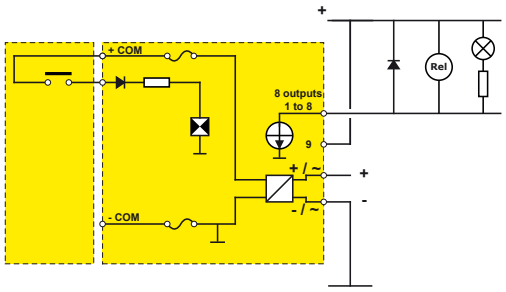
For a powered device without alarms present, the position of contact with a fail-safe relay will be reversed.

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, lamps, ...) to a «+».

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

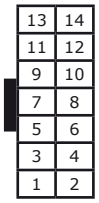
Possibility to use a positive external voltage max. : + 48Vdc.

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»).

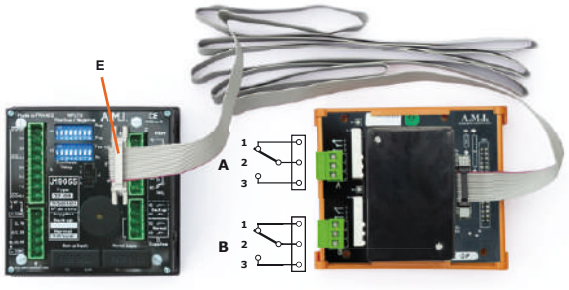
OUTPUTS CONNECTIONS :

Connector E

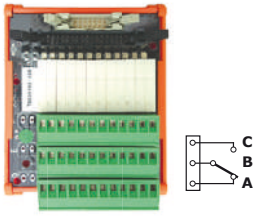


14	«Synthesis» output
13	«Audible Alarm» output
12	0V
11	Not connected
10	0V
9	Supply voltage for «External Relays» 12V/200mA
1 to 8	channels outputs (150mA)

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



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



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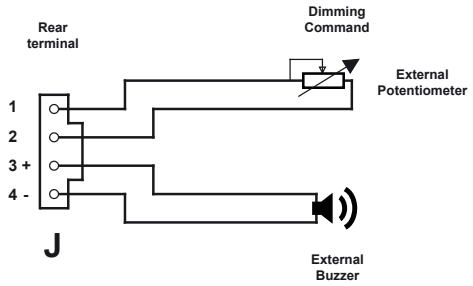
LED LUMINOSITY ADJUSTMENT :

- 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.

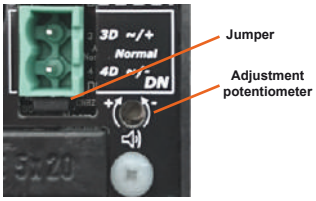


OUTPUT FOR EXTERNAL BUZZER :

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 :

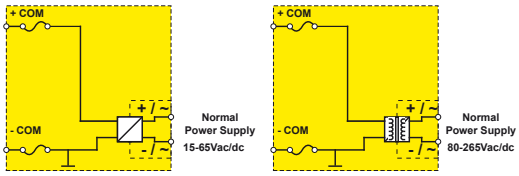
The J1905S has an internal buzzer, using the potentiometer it is possible to lower or increase the volume. A jumper located under the DN connector allows to completely disable the internal buzzer.
Note that these parameters do not affect the external buzzer output.



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.

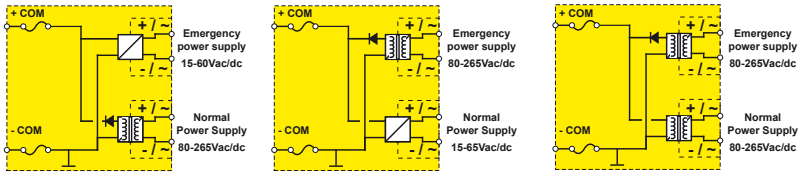
Alimentation Simple



15-65Vac/dc
24Vac/dc and 48Vac/dc
(Without galvanic isolation)

85-265Vac/dc
110Vac/dc / 127Vac/dc
200Vdc / 230Vac
(With galvanic isolation)

Double Alimentation



15-65Vac/dc + 80-265Vac/dc or
80-265Vac/dc + 15-65Vac-dc
Normal power supply
24Vac/dc / 48Vac/dc
110Vac/dc / 127Vac/dc
200Vac/dc / 230Vac/dc

Emergency power supply
24Vac/dc / 48Vac/dc
110Vac/dc / 127Vac/dc
200Vdc / 230Vac
(With galvanic isolation)

80-265Vac/dc + 80-265Vac/dc
Normal power supply
110Vac/dc / 127Vac/dc
200Vdc / 230Vac
(With galvanic isolation)

Emergency power supply
110Vac/dc / 127Vac/dc
200Vdc / 230Vac
(With galvanic isolation)

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
J1905S-02-00	15-65Vac/dc	Unassembled
J1905S-05-00	80-265Vac/dc	Unassembled
J1905S-02-05	15-65Vac/dc	80-265Vac/dc
J1905S-05-02	80-265Vac/dc	15-60Vac/dc
J1905S-05-05	80-265Vac/dc	80-265Vac/dc

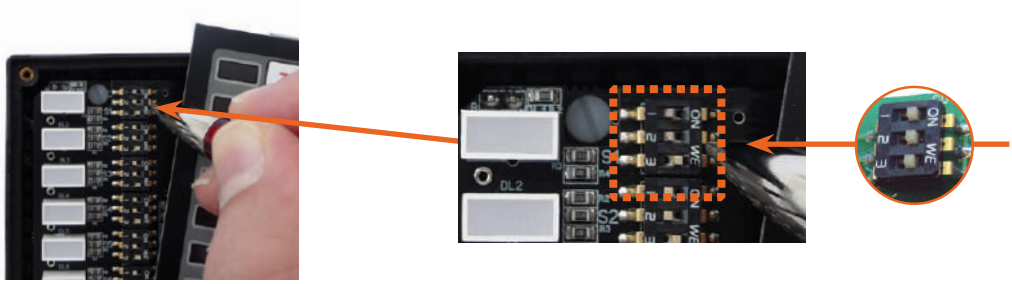
: power supply with galvanic isolation

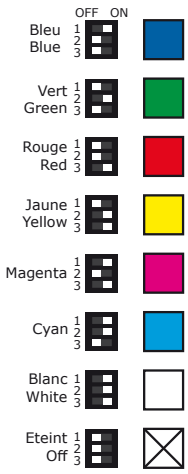
LED COLOUR SETTING :

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.





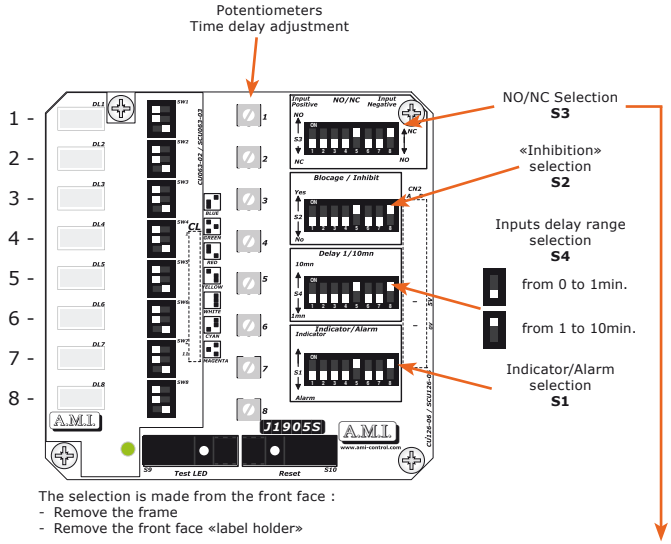
PRODUCING LABELS :

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 :

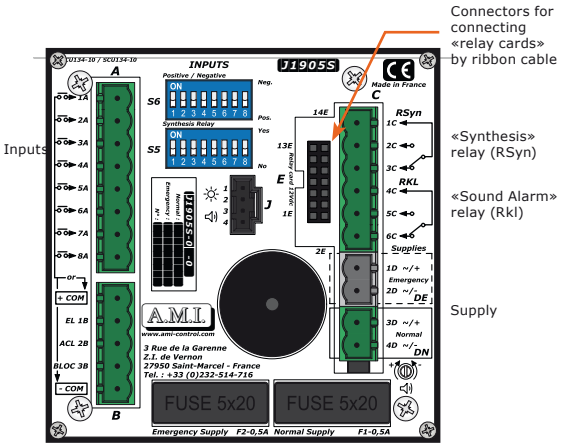
www.ami-control.com

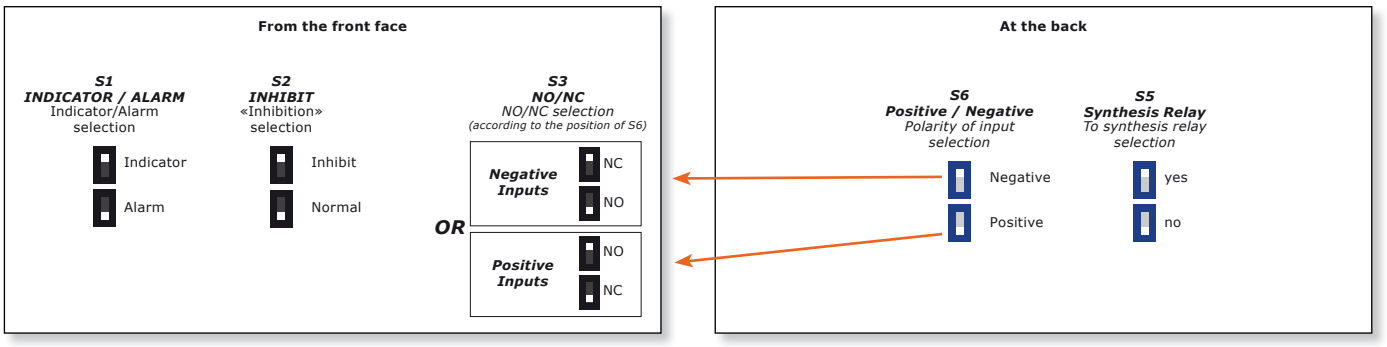
For high humidity countries, the printing on plastic sheets is recommended.

SETTINGS :

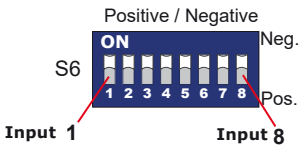


The selection is made from the front face :
- Remove the frame
- Remove the front face «label holder»



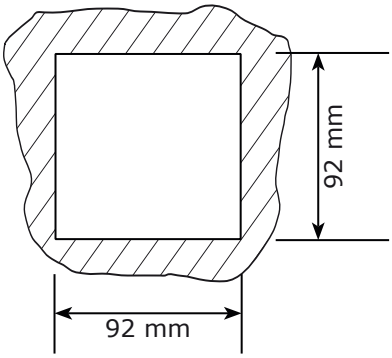


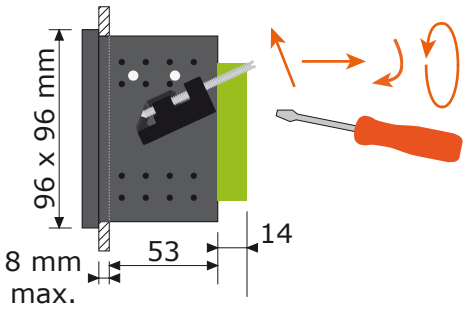
Caution: The direction of S3 (selection NO / NC) is reversed according to the S6 configuration (positive or negative inputs)



CUTTING :

DIN Format 96x96.





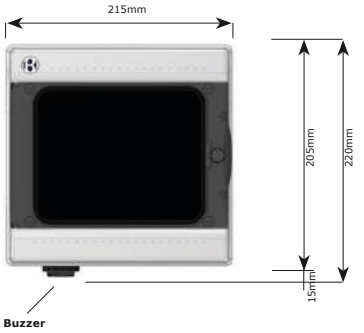
MAIN CHARACTERISTICS :

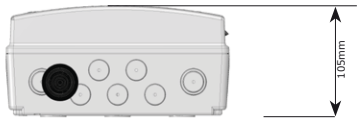
	02 Version 15-65Vac/dc			05 Version 80-265Vac/dc
	at 15Vdc	at 24Vdc	at 48Vdc	
Used in « Positive Inputs» : (Positive Inputs, Open contacts)				
- Consumption min.	80mA	50mA	30mA	22mA
- Consumption max. (8 channels active)	150mA	110mA	60mA	40mA
- Consumption 1 card 8 output relays	+70mA	+50mA	+30mA	+10mA
- 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			

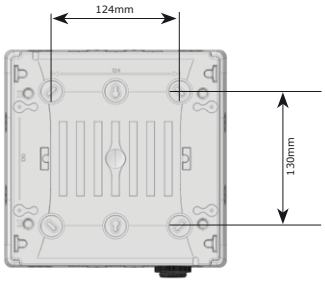
Temperature	-20°C / +60°C
Relay «General Alarm»	1 RT 6A/12Vdc - 0,15A/240Vac
«Sound Alarm» Relay	1 RT 6A/12Vdc - 0,15A/240Vac
Buzzer output	10mA / 12Vdc
Weight	250 to 320gr depending on version
Dimensions	96 x 96 x 67 mm
Protection without front cover M0722	Front: IP52 / Rear: IP22
Protection with front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

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

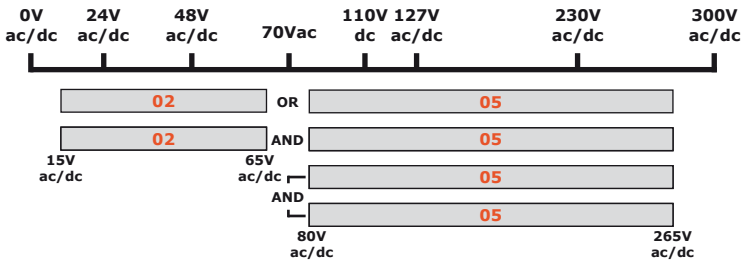
REFERENCES FOR ORDERING :

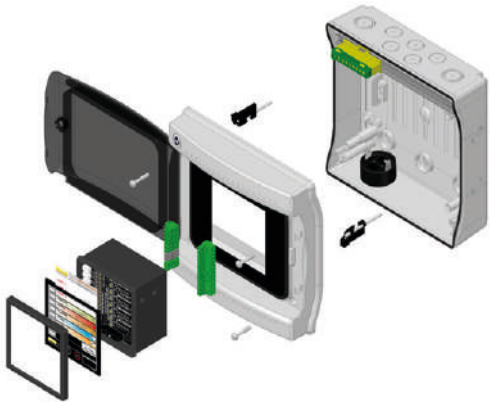
J1905S-0x-0x*S-00*

Reference to be added for the wall box version.

Normal Power Supply
15-65Vac/dc : **02**
80-265Vac/dc : **05**

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





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

: power supply with galvanic isolation

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 :

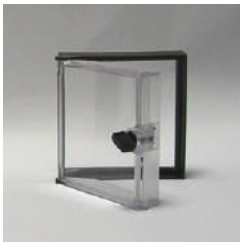
M0810 Front plate 19-inch, brushed aluminium Ht : 3U
Front for bay 4 pre-drilled holes 92x92mm.

M0816 Closing cover
Closing cover for mounting on M0810 front plate.

M0810 / M0816

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 openning 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.



M0722

M0731

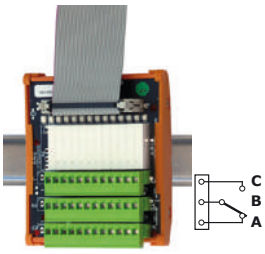
M0800-00-20 Empty predrilled wall cabinet
1 96x96 panel, for surface mounting, depth (lxhxp) : 215x205x105mm.

J1905S-0X-0XS-00 Wall cabinet equipped with the chosen J1905S and an external buzzer
for surface mounting.
Dimensions (WxHxD): 215x220x105mm.

- 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)



M0901-01-01

Card with 12 relays, galvanic isolation
Equiped 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

M0901-01-20

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

Refer to ACCESSORIES chapter of our catalog.

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