



LED indicator display panels Technical Alarm processing Bus centralization



Nuclear



Petro-Chemicals



Offshore / Gas



Marine



Iron and Steel

**APPLY SIMPLICITY
TO BE EFFECTIVE
IN AN EMERGENCY**



AMI formed in 1976 manufactures indicator panels and alarm annunciators for monitoring and protection over a wide range of equipment installed in many environments, particularly hostile and hazardous where undetected problems or failures can produce significant risks.

The SCADA system, with screen or text, can be over complicated in the event of an emergency. AMI have adopted a simple display system, coupled with powerful information processing and ease of customer programming to suit a site application.

The many features built into AMI products are derived from in-house experience and specific customer requirements which have evolved over 30 years, from within the marine and an extensive range of industrial applications.



AMI APPLY SIMPLICITY FOR INDICATION OF URGENT PROBLEMS :

All products are designed to inform a plant operator of a situation indicating potential danger or failure. But time is always paramount, where a simple glance at the display must be able to determine the criticality of a problem. With effect flagged on the display, causation can be determined later. Some plant operators can be unfamiliar with system screens, on which it is necessary to navigate the menu, usually keypad, to read a text and which can be time consuming. AMI products are visual and, for annunciators, audible providing immediate information. An inexperienced operator can understand the situation and inform. We are committed to optimize the usability by large bright surfaces, maximum lighting illumination and labels (feasible on computer screen) with ability to incorporate logos and images.

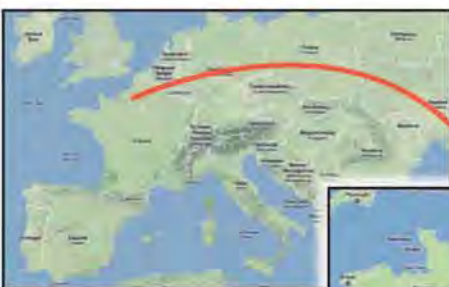
Apply simplicity to be effective in an emergency

Despite their simplicity, our products are high performing :

- The many functions integrated into our products are the result of our experience and listening to our client needs over more than 30 years (1st fault processing, lead continuity monitoring on input terminals, etc.).
- Product reliability :
 - We have rendered our products «autonomous». Any one product remains independent of the others and any central unit. This configuration will not cause a cascade of breakdowns. If a module fails, all other modules will ensure continued functioning. An alarm management system with our products has multi-task capacity.
 - Our power voltage tolerance ranges are generally +/- 30% with max operating temperatures at 60°C ambient temperature.

And we have not forgotten the technician :

- Many of our products have communication and centralizing capacity with SCADA and a supervisor. We offer you an alarm management system with Centralization Bus, touch screen, history and operator assistance.
- We are making available to you software that facilitates label production, and the capacity on your PC screen to set the various products and to save the data from this setting. This is available free on the INTERNET.



AMI SITE LOCATION :

INDICATOR OR ALARM TECHNOLOGY :

Indicator Panel : Provides basic visual information on a state, position or generic operating function. This mode of indication informs only and does not provide additional functions, other than assisting an operator in the progress of a sequence or process.

Examples :

- Pump : ON/OFF.
- Door : Open/Close.

Indicator Panels can function as stand alone mounted with or adjacent to an operation, or grouped to form a central information panel, where a multiplicity of functions can be viewed, even compared.

Alarm Annunciator : Provides visual information and audible warning to an operator for a situation which requires immediate attention to an urgent and deteriorating problem.

The visual alarm indication will continue to flash and audible alarm sound until an operator accepts the fault at the panel, when the visual indication will remain illuminated but steady and the audible alarm will be muted. The alarm can only be Reset when the fault has been cleared. In the event of secondary alarms, or cascading from the first up alarm, these alarms will flash at a slower rate than the original alarm. Two stage alarms can be arranged, the first up indicating a pre-warning and the second providing a shutdown of the particular item of equipment. This arrangement allows an operator to take early action for possibly preventing a costly shutdown.

The centralization : Annunciators can be arranged as stand alone, located adjacent to the installation it serves, or grouped to a central station panel, where the complete system can be viewed, monitored or operated remotely.

The centralization of an Annunciator system can be hard wired or in bus mode : Where a central station panel system is installed, local parameters at a particular point of installation is obviously desirable, even necessary. AMI products provide local hubs to display and process local information, being independent of but working directly with the central station system.

OUR COMMITMENT :

A.M.I. has a continuous design and development program to ensure products incorporate the best in advanced technology, consistent with proven software and hardware to ensure on-site installations provide security for equipment and confidence for the end-user.

Some specific products in the range have ship classification society approval for Marine applications, but all products are manufactured to the same highest standard, with quality control ensuring operation in the most harshest environments.

All products are tested individually after manufacture to maintain the standard of quality and ensure flawless operation.

All products in the AMI range carry a 2 years warranty.



We hope this catalogue of standard products covers your requirements,
but AMI staff are always available to offer help, or advice,
for any special applications you may have.

Jean-Pierre LACALMETTE

François LACALMETTE

Indicators

Same functions as a traditional warning light, but it's also possible to have an integral test LED and a «contact» report.

«Start by start» use

- To signal 3 or 4 status on a same electric departure.
- Example : Run/Stop/Alarm
- To display presence of 3 phases on the electric departure.
- To replace 3 or 4 warning lights.
- Exists with 2 controls and remote reporting.



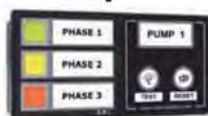
PAN35*
PAN3V



PAN45*
PAN4V



PAN3VBV



PAN3VSH

«Bunched together» use

To bunch together all luminous information in the same place.



J1805*



J1850



J2005*



J2405*



J2005RS*



J2405RS*

Bus RS485

Application



* Products fitted with a 7-colour LED set selector.

Technical Alarms

This automatic alarm processing system integrates all necessary functions with, in particular, a report by BUS and a channel-by-channel report by wire.



Alarm'Box



J1900



J3000



J3500

Centralization

Enables centralizing locally processed alarms into a BUS system using the J3000 and J3500 models. Integrates many functions (archiving, printing, operator assistance, etc.)



PanelPC



In the 2010 versions LEDs were fitted on an easily accessible detachable board so that the operator could change the various LED colours. The «Tri-LED cms» solution available from 2011 uses a channel selector that allows the choice of one colour out of 7. No longer is it necessary to change the colour of an LED by replacing it. A selector on the corresponding instrument for each channel allows the operator to make his choice of colour. Furthermore, this brings about a reduction in consumption (and temperature) of about 50%.

PAN35/PAN45 (NEW RANGE) :

- The PAN3V and PAN4V ranges have been fitted with the new «Tri-LED cms» technology with selection of 7 colours per channel. The references are now PAN35 and PAN45.
- Strengthened sealing : the casing has been changed to become IP65 on the front. The unit is delivered with a seal.
- This casing is fixed in place using a new 48x48 screw-insulated bracket.
- Power voltage tolerances have been extended to allow some models to be regrouped (the «02» model operates between 8Vac/dc and 60Vac/dc).
- The «LEDs Test» terminal is delivered as standard.

It will always be possible to obtain products in the PAN3V and PAN4V range until stocks are exhausted.

PAN3VBV AND PAN3VSH :

These products are delivered with new 96x48 dimensioned screw-fixed insulating brackets (replacing metal spring clips). This range should be fitted with the new «Tri-LED cms» technology with 7-colour selection by channel from the beginning of 2012.

J2005RS/J2405RS :

The J2000RS and 2400RS have been equipped with the new Tri-LED technology with 7-colour selection by channel. The references are now J2005RS and J2405RS.

Note that these panels are inputted by BUS RS485 (without «contact» inputs). They should be automatically run. They allow an offset display of simple presentation and alarms with operator RESET.

These panels integrate the various types of blinking (flash, fast, slow, out).

TEST AND DEMONSTRATION KITS :

In response to requests from many users, we have created Test Kits. These Kits allow testing and simulations on alarm panels, to check actual parameterization, to test all instrument inputs and outputs. They fit directly on to the rear terminals. They comprise a buzzer, input contacts and push buttons («LEDs test», blinking stop, Reset, etc.). A 230Vac power supply is provided.



**A.M.I. Building
at Saint-Marcel (France)**



**Manufacturing unit in Normandy
FRANCE.**

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Warranty
2 years

NEW PROGRAM «INDICATOR for EACH DEPARTURE»



PAN35-02-13* 8-60Vac/dc
PAN35-05-13* 10-300Vdc
10-250Vrms ac
PAN35-55-13* 70-300Vac Ph/N
70-500Vac Ph/Ph

Available

«7 COLOURS» VERSION

DIN 48x48 format

PAN45-02-13* 8-60Vac/dc
PAN45-55-13* 70-300Vac Ph/N
70-500Vac Ph/Ph

PAN45-05-13 is not existing.

* Products fitted with 7 colours selector per LED.

«WITHDRAWABLE LEDS» VERSION



PAN3V-02-10 24Vac/dc
PAN3V-02-13 24Vac/dc + «LEDs Test»
PAN3V-03-10 48Vac/dc
PAN3V-04-13 130Vdc + «LEDs Test»
PAN3V-05-13 24-230Vac/dc
+ «LEDs Test»

Until stocks are
exhausted

STANDARD VERSION

DIN 48x48 format

PAN3V-54-10 127-230Vac Tri
PAN3V-54-13 127-230Vac Tri + «LEDs Test»
PAN4V-02-13 24Vac/dc + «LEDs Test»
PAN4V-03-13 48Vac/dc + «LEDs Test»



PAN3VBV-02-10 24Vac/dc
PAN3VBV-03-10 48Vac/dc
PAN3VBV-04-10 130Vdc
PAN3VBV-05-10 24-230Vac/dc
PAN3VBV-54-10 127-230Vac Tri
PAN3VBV-55-10 230-400Vac Tri
PAN3VBV-xx-x3 «LEDs Test» terminal option

VERSION WITH 2 CONTROL BUTTONS

DIN 48x96 format

Available

PAN4VBV-02-10 24Vac/dc
PAN4VBV-03-10 48Vac/dc
PAN4V-xx-x3 «LEDs Test»
terminal option

Quick
delivery



PAN3VSH-02-10 24Vac/dc
PAN3VSH-03-10 48Vac/dc
PAN3VSH-xx-x3 «LEDs Test» terminal option
PAN3VSH-xx-xx1 1 transfer relay option
PAN3VSH-xx-xx2 2 transfer relay option
PAN3VSH-xx-xxx2 2 terminal switches option

VERSION WITH 2 INTEGRAL SWITCHES

DIN 96x48 format

Quick
delivery

1 and 2 relay options
are available only in versions
24Vac/dc and 48Vac/dc



DIN 48 x 48 format



PAN45

PAN35



AC/DC power supply :
8Vac/dc to 60Vac/dc

AC power supply :
70Vac to 300Vac

Presence display for the 3 phases :
70Vac to 500Vac

AC/DC power supply :
10Vdc to 300Vdc
10Vrms ac to 250Vrms ac



Strengthened protection

USE :

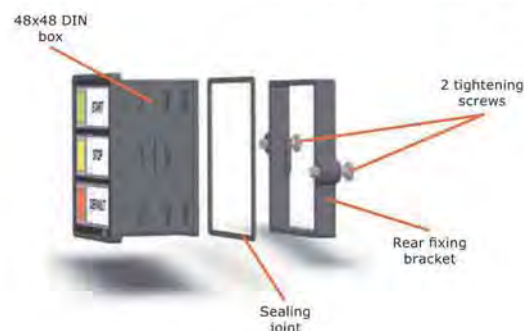
The new PAN35 series is very economical and is designed for cabinets with many repetitive outputs such as :

Detachable cell distribution cabinets, Pump multiple outputs, Circuit breakers...

The PAN35/PAN45 series can be used in the most difficult situations.

Advantages :

- Very wide scope of each voltage range allowing the grouping together of products and stock reductions through standardization. Supply voltage tolerances allow the use of the same model for several voltages from various supplies (example : One single model from 10Vac/dc to 300Vac/dc or 250Vrms ac).
- Strengthened over-voltage protection.
- Selectable choice of one colour out of 7 for each LEDs.
- Increased luminosity with reduction in consumption (and reduction in internal heating).
- Exceptionally long working life (LEDs).
- Facade sealing : IP65.
- Original «LEDs Test» terminal.
- Unpluggable terminal board to screw in.
- Label produced by printer (free software).



PRESENTATION :

- DIN type 48x48mm box with facade sealing (IP65) (facade seal).
- Assembly by screw-in bracket with possible of fitting at 90°.
- Unpluggable terminal board to screw-in (3 or 4 inputs + 1 common + «LEDs Test»).
- Very high luminosity.
- Very low consumption (10mA per light).
- Constant luminosity irrespective of supply voltage.
- Each LED protected against over-voltage.

Standard Versions :

- PAN35 (3 LEDs) :
It is made up of 3 10x10mm LEDs and a large common label with label holder.
- PAN45 (4 LEDs) :
It is made up of 4 5x10mm LEDs and a large common label with label holder.



LEDS COLOUR SETTING :

LEDs are tri-LED type cms. For each way a switch at rear allows selection of one display colour out of 7 :

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

The working life of this type of component is practically unlimited. To improve reliability, the LED control is run at 10mA ensuring substantial and constant luminosity irrespective of supply voltage. This control ensure effective protection in the case of over-voltage.

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



For safety (high voltage) reasons, the **PAN35-05-13**, **PAN35-55-13** and **PAN45-55-13** versions have the switches located in the front. To achieve this, it is necessary to takeout the «printed circuit» unit. Take out screw A and take out the unit from the back



Pan45-55-13
rear view with screw A



PAN45-55-13
front view cover removed

PRODUCING LABELS :

Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit. Labels can be made by hand, or produced on a colour printer (laser or ink-jet). PC software is provided to create labels, including images, to save and to duplicate the productions.



PAN35



PAN45

It is possible to print on plastic sheets for use in high-humidity areas.

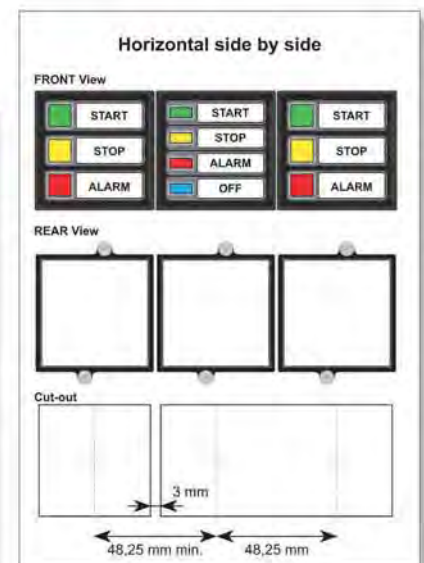
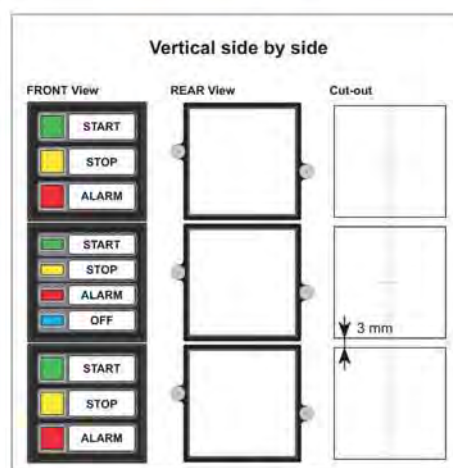
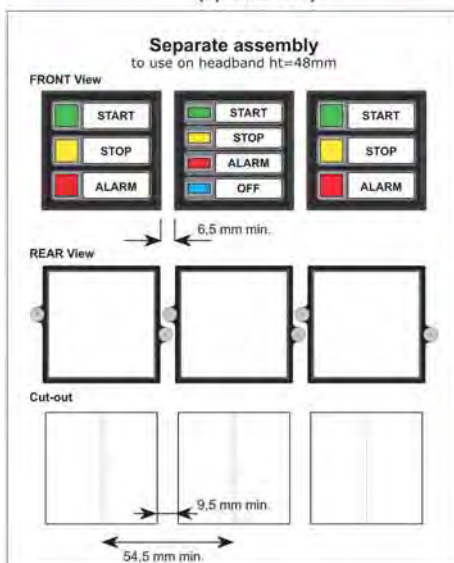
ASSEMBLY :



Use on headband ht=48mm
(special box).



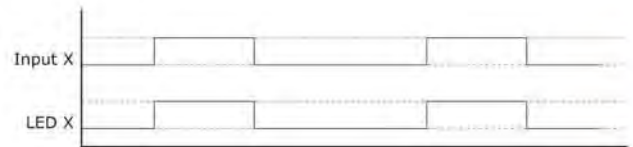
Possibility of rotating bracket through 90°



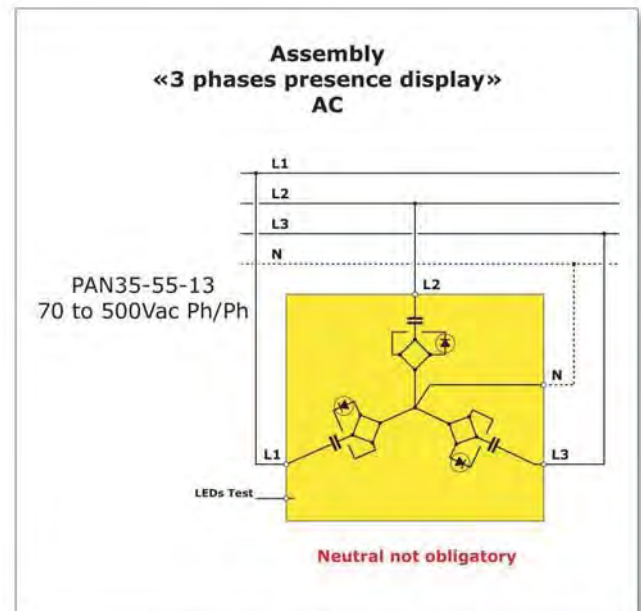
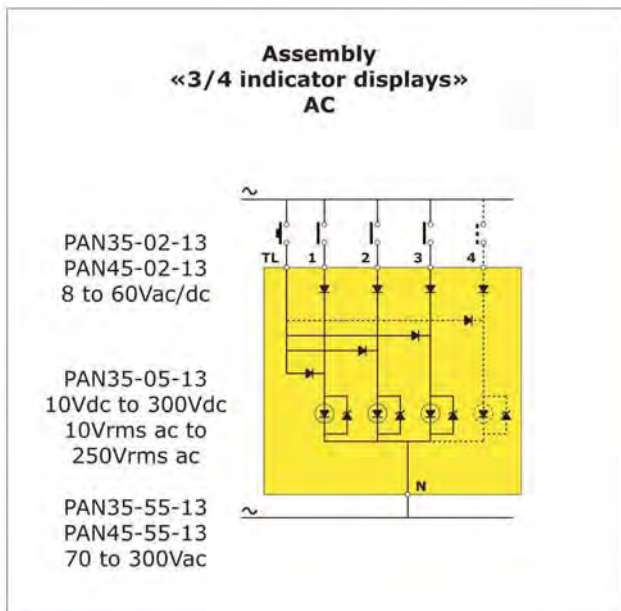
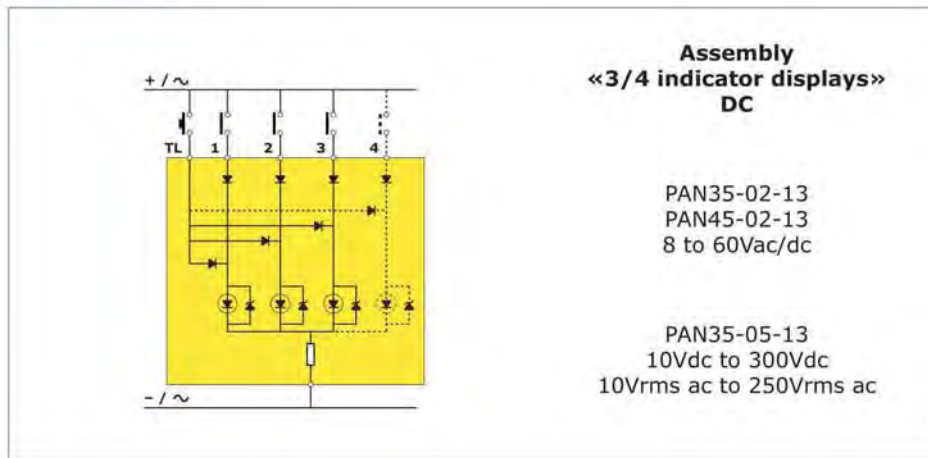
It is recommended that a 3 mm gap is left between boxes.
This cut-out interval is not essential, but it ensures cabinet façade sealing.

OPERATION :

- Closing the switch connected to the input, lights up corresponding LED.
- Opening the switch connected to the input, turns off the corresponding LED.
- A «LEDs Test» terminal allows the lighting up of all the PAN35/PAN45 LEDs connected to an external push button.

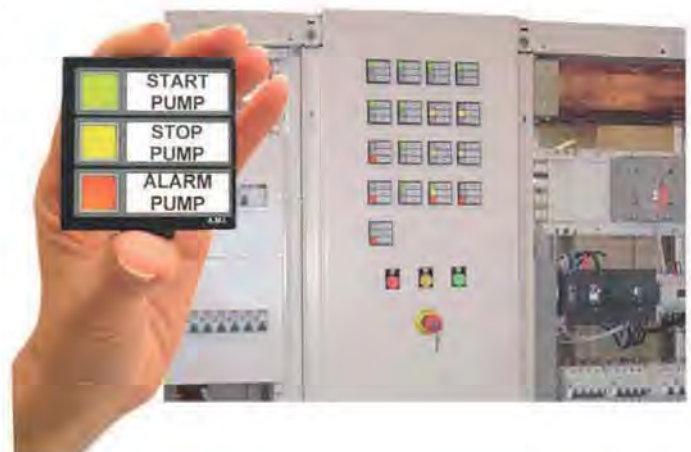


POSSIBLE CONNECTIONS :



CHARACTERISTICS :

Box	PA66 30gf polycarbonate
Colour	Black
Facade sealing	IP65
Flame resistance	UL94 class V2
Surface insulation	10 ¹⁵ Ohms/cm
Storage temperature	-20°C / +70°C
Working temperature	-20°C / +60°C
Working humidity	90% without condensation
Storage humidity	70%
Weight	55g
Packaging	Box of 20 units

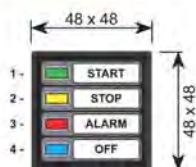


FRONT FACE :

Numbering system



PAN35-xx-13



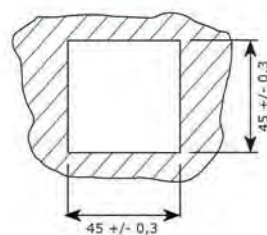
PAN45-xx-13

REAR FACE :



PAN35-02-13

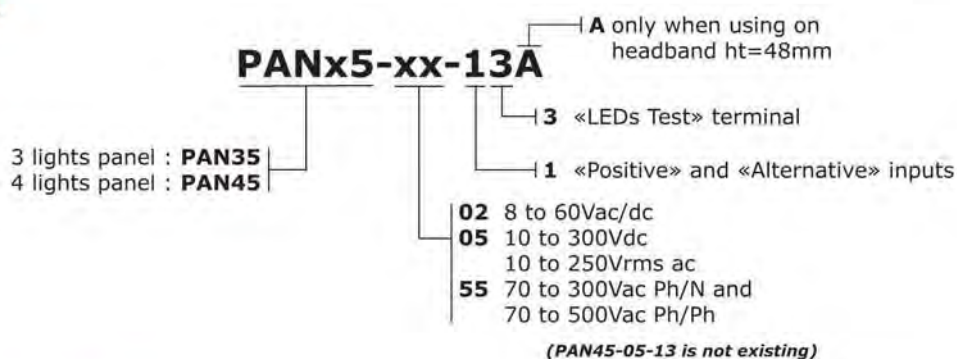
CUT-OUT :



ELECTRICAL CHARACTERISTICS :

	PAN35-02-13 PAN45-02-13	PAN35-55-13 PAN45-55-13	PAN35-05-13
Display	Tri-LEDs		
«Colour» setting	by LED, 7 possible colours per selector.		
Internal circuit / Protection	Transistor and over-voltage protection by Zener.	By 2 capacitors + discharge resistors.	LEDs are driven by Integrated Controller.
Consumption	10mA max per path.	3mA max per path.	0.5-5mA max per path, depending the supply value.
Working voltage	8-60Vac/dc	70-300Vac Ph/N 70-500Vac Ph/Ph	10-300Vdc 10Vrms ac-250Vrms ac (A slight luminous change can appear around the 24Vdc unit) The PAN35-05-13 should not be connected to power supplies that have voltage peaks greater than 400V.

ORDER REFERENCE :



COMPLEMENTARY PRODUCTS :



Mounting in wall cabinet or built-in with 1, 2 or 3 locations.

Reference : **MJ1900-01-02**

Mounting in association with modular systems :

One separator plate allows the PAN3V to be mounted on cabinet doors for modular switches or circuit-breakers. It is mounted with a flange ring like a simple spacer.

Dimensions : 56x56mm.
Deliverable in 10 unit bags.

Reference : **M0817**



There are many accessories
Refer to "ACCESSORIES" chapter

Warranty
2 years

DIN 48 x 48 format



PAN4V

PAN3V

3 or 4 LEDs indicator display
3 phases presence indicator

Very economical, with 3 or 4 LEDs
it is designed for cabinets where
one indicator is necessary for each
departure.

Available while
supplies last,
refer to
PAN35 / PAN45 series.



PAN3V / PAN4V
«Standard» version
with rear skirt
for protection

MODELS :

Standard version :

- **PAN3V** (3 indicators) :

Standard version applicable to all voltages. It has three 10x10mm unpluggable LEDs and three labels with label holder.

- **PAN4V** (4 indicators) :

Version actually only in 24V or 48Vac/dc today. It has four 5x10mm unpluggable LEDs and one big label with label holder.

All models in this range are fitted with an unpluggable connector, thus allowing the connecting up of each of the LEDs independently one from the other (3 or 4 inputs + 1 common).

As an option :

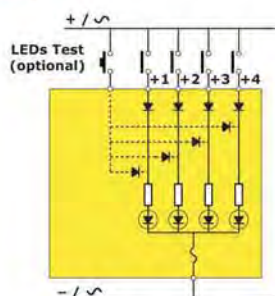
PAN3V or PAN4V units can be delivered with a «LEDs Test» terminal for an external push button.

SPECIFICATIONS :

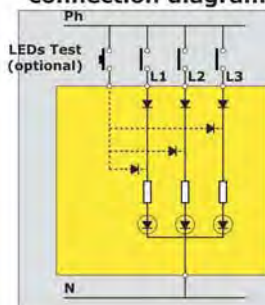
Fuse	electronic (24-48Vac/dc only)
Consumption	20mA per LED (at nominal voltage)
Sheet thickness of frontage possible	between 0.8 and 4mm
Protection	IP52 (possible IP55 on request)
Temperature	-20°C / +60°C
Weight	67gr

CONNECTIONS :

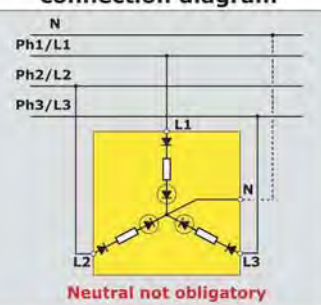
24/48Vac/dc
connection
diagram



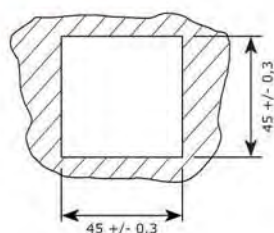
127Vac/230Vac
connection diagram



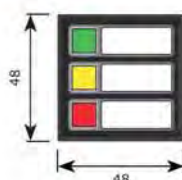
230Vac/400Vac 3 phases indicator
connection diagram



CUT-OUT :



FRONT FACE :

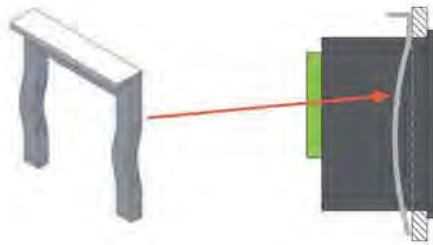


unpluggable terminal



FITTING UP ASSEMBLY :

Standard version
«with skirt» fixed with
clip at back.



LEDs AND LABELS :

Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit.

PC software is used to create labels including an image, to save and to duplicate productions. Label creation is done by using our free supplied software available at our website :

www.ami-control.com

Labels can be handwritten, or printed with colour (laser or ink-jet). For high-humidity countries printing on plastic sheets is recommended.



PAN3V



PAN4V



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

Green, Yellow, Red, Blue, White
(White only with PAN3V)

The working life of this type of component is practically unlimited.

The low consumption (max. 20mA per LED) and excellent luminosity contribute to the reliability of this type of panel.



Mounting in wall cabinet or built-in with 1, 2 or 3 locations.

Reference : **MJ1900-01-02**

Mounting in association with modular systems :

One separator plate allows the PAN3V to be mounted on cabinet doors for modular switches or circuit-breakers. It is mounted with a flange ring like a simple spacer.

Dimensions : 56x56mm.
Deliverable in 10 unit bags.

Reference : **M0817**



ORDER REFERENCE :

PAN3V/PAN4V panels are delivered in quantities of 20 units per pack.

As standard :

PAN3V panels are fitted with LEDs :

Green, Yellow, Red

PAN4V panels are fitted with LEDs :

Green, Yellow, Red, Blue

PANxV-xx-xxGYR

Letter defining LEDs colours

As standard :

GYR : Green / Yellow / Red (PAN3V)

GYRB : Green / Yellow / Red / Blue (PAN4V)

G : green

Y : yellow

R : red

B : blue

W : white (only PAN3V)

figure defining options

0 Without (standard)

3 «LEDs Test» terminal

Figure defining input polarity

1 «+ / Alternative» inputs (as standard)

2 «->» inputs (on request)

Figure defining panel type

Standard, 3 LEDs : **3**

Standard, 4 LEDs : **4**

Figure defining supply voltage

PAN3V	PAN4V
01 12Vac/dc	01 12Vac/dc
02 24Vac/dc	02 24Vac/dc
03 48Vac/dc	03 48Vac/dc
04 130Vdc	
05 24-230Vac/dc	
54 127Vac/230Vac Tri	
55 230Vac/380Vac Tri	

Example :

PAN3V-02-13GYR

- PAN3V, 48x48mm housing.

- 24Vac/dc supply.

- Positive inputs.

- «LEDs Test» terminal

- fitted from top to bottom with LEDs :

Green, Yellow, Red

Packing : 20 units per pack.

Warranty
2 years



DIN 48 x 96 format

PAN4VBV

PAN3VBV

The upper part of the housing consist of 3 or 4 LEDs type PAN3V/PAN4V indicator. It is designed for an unpluggable connector so that each of the LEDs can be used (3 inputs + 1 common). The PAN3VBV/PAN4VBV can be delivered with a «LEDs Test» terminal block as an option (see PAN3V/PAN4V instruction sheet for particular specifications).

The lower part of the housing has two positions in which to clip the micro switches of your choice. The connection can be made directly using «Faston» type terminals on the switches. The upper and lower parts of the housing are completely insulated electrically one from the other.

- Identification is done with a label adjacent to LEDs and switches. This label slides into a slot in the front. A general label provides identification to the panel.
- Free in-house PC software is available for creating labels.
- The rectangular form of the panel makes it easy to mount (the panel doesn't turn).
- Quick attachment using a spring that firmly holds the PAN3VBV/PAN4VBV to the front of the cabinet.

SPECIFICATIONS :

- 3 LEDs 10x10mm or 4 LEDs 5x10mm high-luminosity unpluggable LEDs.
- Colour change is possible.
- Standard colours is :

Green, Yellow, Red (PAN3VBV, Blue and White on request)

Green, Yellow, Red, Blue (PAN4VBV)

- Labels : 1 label for panel name, 1 label for LEDs, 2 labels for switches.
- Protection by electronic fuse (BT version only).
- Consumption 20mA per LED.
- Accept front panel thickness : between 0,8 and 4mm.
- «LEDs Test» terminal as an option.

3 or 4 LEDs indicator display with REMOTE CONTROL

Assembly without tools is easy and quick.
High visibility.
LED long life.
Wide choice of control units.
Competitive price.

«ALL in ONE»

This 3 or 4 LEDs unit is designed for cabinets where 3 or 4 indicators and 2 remote controls are necessary for each departure.

It combines 3 usual indicator displays :

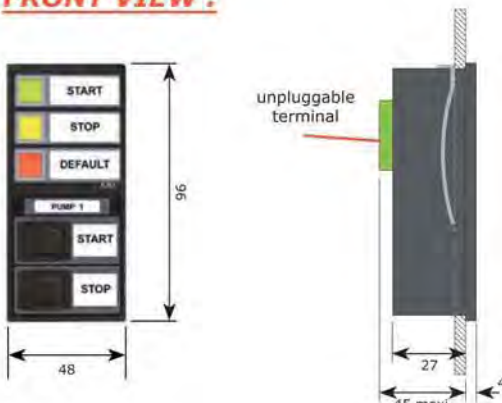
«RUN / STOP / ALARM»

and 2 buttons «START/STOP» for remote control.

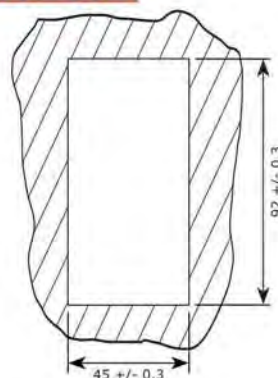


	Operating voltage
Indicators	12Vac/dc à 260Vdc/380Vac +/- 30% depending on PAN3VBV model used.
Buttons	6A-125Vac / 4A-250Vac max.

FRONT VIEW :



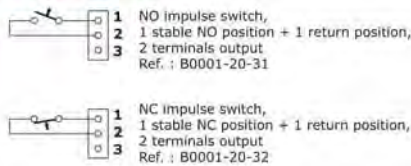
CUT-OUT :



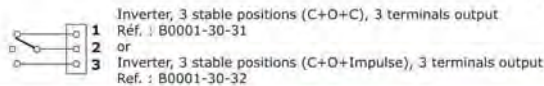
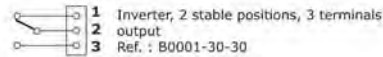
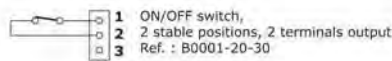
REAR VIEW :



CONTROL UNIT :



The 2 switches are included in panel.
Reference to be specified separately.



LEDs AND LABELS :

Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit.

PC software is used to create labels including an image, to save and to duplicate productions. Label creation is done by using our free supplied software available at our website :
www.ami-control.com

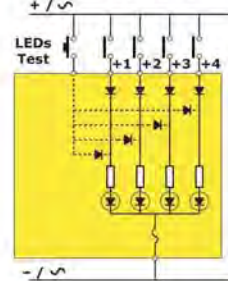
Labels can be handwritten, or printed with colour (laser or ink-jet).
For high-humidity countries printing on plastic sheets is recommended.

FITTING UP ASSEMBLY :

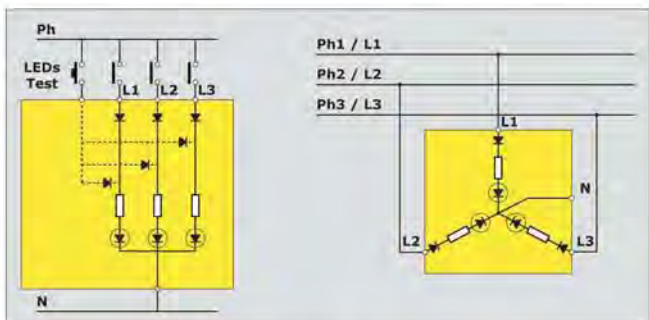
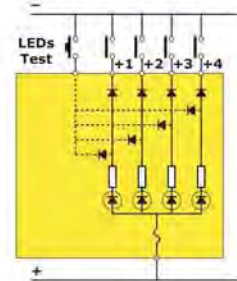


CONNECTIONS :

Model : «+» Inputs



Model : «-» Inputs



The LEDs are fitted on detachable sockets, enabling a change in colour.

The colours available are the following :

Green, Yellow, Red, Blue, White
(White only for PAN3VBV)

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

ORDER REFERENCE :

Panels PAN3VBV are delivered in quantities of 10 pieces per pack.
As standard, the PAN3VBV is equipped with LEDs :

Green, Yellow, Red

The LEDs are unpluggable and can be interchanged by the user.

PANxVBV-xx-xxGYR

Chiffre définissant le type de panneau

Standard, 3 LEDs : **3**
Standard, 4 LEDs : **4**

Figure defining supply voltage

PAN3VBV	PAN4VBV
01 12Vac/dc	01 12Vac/dc
02 24Vac/dc	02 24Vac/dc
03 48Vac/dc	03 48Vac/dc
04 130Vdc	
05 24-230Vac/dc	
54 127Vac/230Vac Tri	
55 230Vac/380Vac Tri	

Figure defining input polarity

«+ / Alternative» inputs (standard) : **1**
«-» inputs (on request) : **2**

Letter defining LEDs colours

As standard :

GYR : Green / Yellow / Red (PAN3VBV)

GYRB : Green / Yellow / Red / Blue (PAN4VBV)

G : green

Y : yellow

R : red

B : blue

W : white (only PAN3VBV)

Figure defining options

0 Without (standard)

3 «LEDs Test»

Example :

PAN3VBV-02-10GYR + B0001-20-31 + B0001-20-32

- PAN3VBV, 48x96mm housing.

- 24Vac/dc supply with positive inputs.

- Fitted from top to bottom with LEDs :

Green, Yellow, Red

- Fitted with one B0001-20-31 switch and one B0001-20-32 switch.

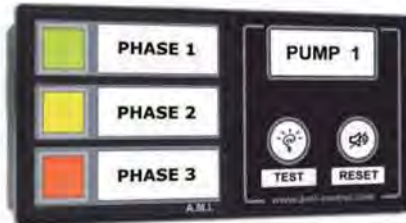
Both switches are supplied with the panel. The reference is to be specified separately.

Packing : 10 units per pack.

«ALL in ONE»

Warranty
2 years
Warranty

DIN 48 x 96 format



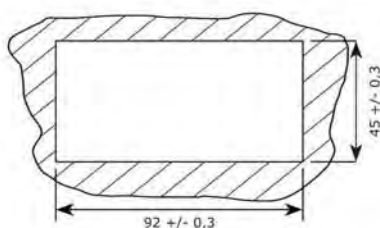
DIN standard cutting tool.
Assembly without tools is easy and quick.
High visibility.
LED long life.
Integrated «LEDs Test».
Integrated control button.
Competitive price.

The left part of the housing consists of 3 LEDs type «PAN3V» indicator. It is designed with an unpluggable connector so that each of the LEDs can be used (3 inputs + 1 common). As standard, the PAN3V is issued with a terminal block «LEDs Test» for centralized control over an external general button. The right part can have two possible configurations with buttons as follows :

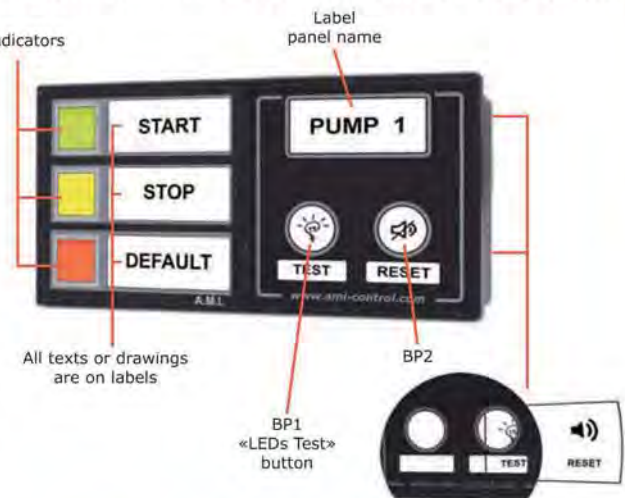
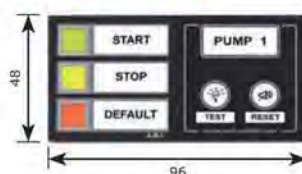
- The first on the left (BP1) is the integrated «LEDs Test» button. The second on the right (BP2) is a control button connected to the unpluggable terminal blocks screw located on the rear panel (NO/NC contact).
 - The two buttons are connected to the unpluggable terminal blocks screw located on the rear panel (NO/NC contact).
- The rectangular form of the panel makes it easy to mount. (The panel does not turn).
 - Quick attachment using a spring that firmly holds the PAN3VSH to the front of the cabinet.
 - Identification is with labels adjacent to LED's and buttons. This label slides into a slot in the front. A general label provides identification of the panel.
 - Free in-house PC software is available for creating labels.

CUT-OUT :

DIN 48x96 Format.



FRONT FACE :



MAIN CHARACTERISTICS :

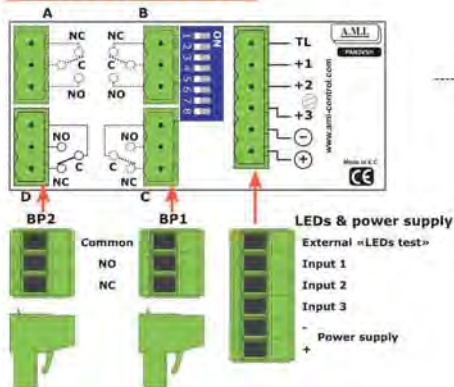
	Operating voltage
indicators	24Vac/dc, 48Vac/dc +/-30% others on request
BP1/BP2	U _{max} : 125Vdc/230Vac I _{max} : 5A nb of manoeuvres : 15 x 10 ⁶
Accept front panel thickness	to 0.8 from 4mm
Consumption	20mA each LED
Weight	100g
Front protection	IP52
Rear protection	IP20

- Three 10x10mm high-luminosity unpluggable LEDs.
- Colour change is possible.
- Standard colours available :
Green, Yellow, Red (blue and white on request)
- Labels : 1 label for panel name, 1 label for LEDs, 2 labels for switches.
- Protection by electronic fuse (BT version only).
- «LEDs Test» terminal as an option.

REAR FACE :



CONTROL UNIT :



LEDs AND LABELS :

Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit. PC software is used to create labels including an image, to save and to duplicate productions.

Labels can be handwritten, or printed with colour (laser or ink-jet). For high humidity countries printing on plastic sheets is recommended.



The LEDs are fitted on detachable sockets, enabling a change in colour.

The colours available are the following :

Green, Yellow, Red
(White and Blue only on request)

The working life of this type of component is practically unlimited.

The low consumption (max 20mA per LED) and excellent luminosity contribute to the reliability of this type of panel.

ORDER REFERENCE :

Panels PAN3VSH are delivered in quantities of 10 pieces per pack.

As standard, the PAN3VSH is equipped with LEDs :

Green, Yellow, Red

The LEDs are unpluggable and can be interchanged by the user.

PAN3VSH-xx-xxxxGYR

Figure defining supply voltage

24 Vac/dc (standard) : **02**

48 Vac/dc : **03**

(others voltage on request)

Example :

PAN3VSH-02-131GYR

- PAN3VSH, 48x96mm housing.

- 24Vac/dc supply with positives inputs.

- fitted from top to bottom with LEDs :

Green, Yellow, Red

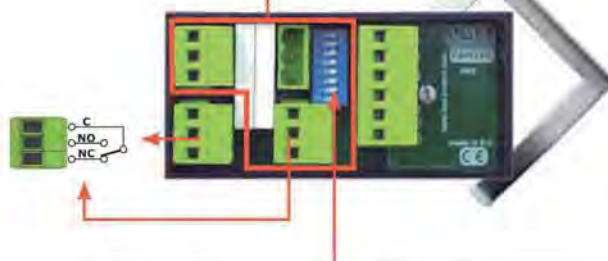
- «LEDs Test» terminal.

- 1 relay.

- BP1 used for «LEDs Test», BP2 connected to the unpluggable terminal blocks screw located on the rear panel.

Packing : 10 units per pack.

Options



Selector num.	COMMAND
1	Channel 1 activates relay A
2	Channel 2 activates relay A
3	Channel 3 activates relay A
4	The «LEDs test» function activates «LEDs test» relay A
5	Channel 1 activates relay B
6	Channel 2 activates relay B
7	Channel 3 activates relay B
8	The «LEDs test» function activates «LEDs test» relay B

FITTING UP ASSEMBLY :

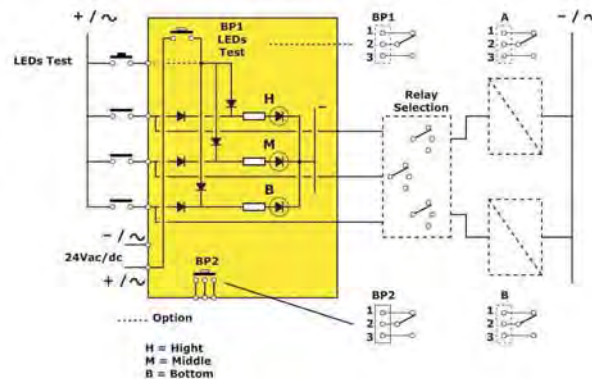
The PAN3VSH is fixed using a clip at the back.



CONNECTIONS :

In option «LEDs Test» terminal

Model : «+» Input



Letter defining LEDs colours

GYR : Green / Yellow / Red
(in standard)

G : green
Y : yellow
R : red
B : blue
W : white

Figure defining button options :

- BP1 used «LEDs Test», BP2 to rear terminal
2 BP1 and BP2 connected to rear terminals

Figure defining relay options :

0 Without (standard)

1 1x Relay (option)

2 2x Relays (option)

Figure defining «LEDs Test» terminal

0 Without «LEDs Test» terminal

3 With «LEDs Test» terminal (standard)

Figure defining input polarity

1 «+ / Alternative» input (standard)

2 «-» inputs (on order)



J2405



J2005



J1805



J2405

J2005



J3500

Panels 96 x 96 Panels 144 x 144 Centralization



J1900



J3000



Alarm'Box



PanelPC Bus Alarms Centralization







Warranty
2 years
Warranty



At least 50% less energy.
7 LEDs colours available.
15V to 60Vac/dc or 230Vac with galvanic insulation.
Integrated LEDs test.
Integrated transfer relays.
Interchangeable labels.
Unpluggable terminal boards.



Voltage presence LED
«LEDs Test» button
Control button

USE :

- Enables display and economic clustering of your indicators with your texts.
- Your indicator lights be differentiated with seven different colours for better visibility.
- Integrated «LEDs Test» button and «voltage presence» light.
- Wide power supply voltage range facilitates stock reduction.
- Possibility of sending back information remotely concerning only certain ways (clustering).

SPECIFICATION :

On front :

- «Voltage presence» LED.
- «LEDs Test» push button.
- «AUX» impulse push button brought out to rear terminal board for «user» use.

At rear of unit :

- 8, 12 or 24 «dry contact» inputs.
- One input per rear terminal board for external «LEDs Test».
- Rear terminals for «AUX» push button wiring.
- 1 general synthesis relay contact (inverter contact).
- Selector for synthesis relay activation.



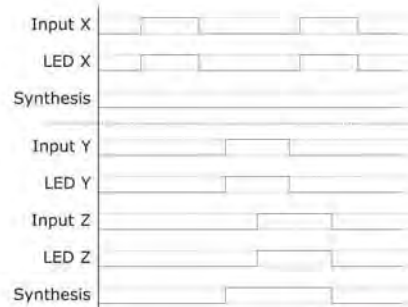
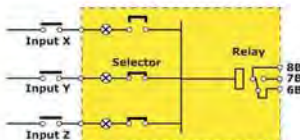
Our indicator display panel range allows you to install and cluster 8, 12 or 24 multicolour indicators with integrated «LEDs Test» facility in one single cut-out. As your switch closes, the high-luminosity LED lights up and changes from bright grey to the selected colour (seven possible choices : red, green, yellow, white, blue, cyan, magenta) and the transfer relay activates if it has been selected.

Using this technology means warning LEDs consume only 10mA each, that is a reduction of 50% from the previous generation (J1800, J2000, and J2400) and with increased longevity.



OPERATION :

- Closing the switch connected to the input lights up corresponding LED. If the way was selected with transfer, synthesis relay will be activated.
- Opening the switch connected to the input turns off corresponding LED. If the way was selected with transfer, synthesis relay will be deactivated.
- If several ways are selected towards the relay, the relay will be deactivated only when all ways that were activated have disappeared.



LED COLOUR SETTING :

Choice of 7 colours of display possible per LEDs, selectable using switches on the front. Following the setting procedure, you have a choice of the following colours :

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

Changing LEDs is no longer necessary.



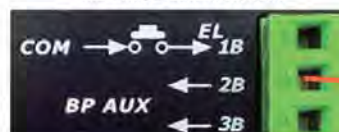
	OFF	ON
Bleu Blue		
Vert Green		
Rouge Red		
Jaune Yellow		
Magenta		
Cyan		
Blanc White		
Eteint Off		

«TEST» & «AUX» BUTTONS :

A «LEDs Test» button on the unit front allows you to carry out a general «LEDs Test». One «EL» terminal at rear of unit allows you to have a general external push button, to connect a «LEDs Test» on one or several panels. It is possible to test the set of LEDs and the synthesis relay by pushing on the «LEDs Test» button or by activating the «EL» terminal.

On the unit front beside the «Test» button can be found the «AUX» impulse push button, it is free of potential, this closing contact is linked to the «BP AUX» terminal at the rear of the unit and enables the remote despatch of information (for example : call operator).

External «LEDs test» connection and «AUX» button on front



SYNTHESIS RELAY :

The synthesis relay allows you remotely to send information indicating that at least one selected way is present.

Jumpers allow selection of ways that will activate the synthesis relay.

The relay will remain excited as long as one of the inputs is activated, allowing the remote selective despatch of information.

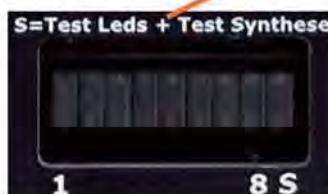
- «Relay Test» possible or not with the «LEDs Test» function, by putting the jumper on the «S» terminals. This relay allows you to recover a dry contact (output with inverter contact).

The relay terminal board is located at the rear of the unit and deliver the two contact points and the common point.

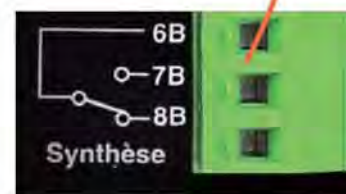


Inputs	Input condition	Selector	Synthesis relay
Input X	Off	On or Off	Deactivated
Input X	On	Off	Deactivated
Input X	On	On	Activated
Input X + Input Y	On + On	On + On	Activated
Input X + Input Y	On + Off	On + On	Activated
Input X + Input Y	Off + Off	On + On	Deactivated

The relay is activated as long as one single selected input is present



Selection jumpers



Synthesis relay output

PRODUCING LABELS :

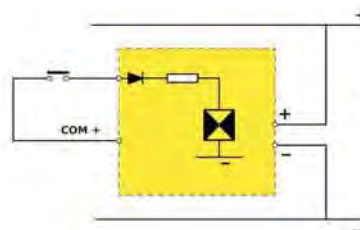


Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit. PC software is provided free to create labels, including an image, to save and to duplicate productions. It is possible to load it on our website .

Labels can be handwritten, or printed with colour (laser or ink-jet). For high-humidity countries printing on plastic sheets is recommended.

INPUT DEFINITION :

One «+» polarity on the input, lights up LED (LEDs are connected to «-» in the panel).
«Positive input» model is standard.



Input contact closure causes the lighting up of the LED and closing of synthesis relay (if selected).

POSSIBLE CONNECTIONS :

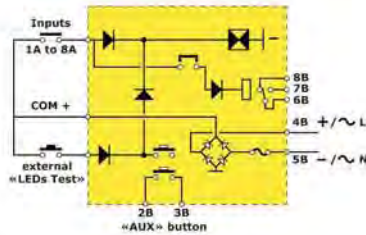


Diagram 1 :
Power supply by AC or DC voltage.
Use of «dry contact» inputs (contacts are supplied by an internal voltage to the unit on the «COM»). Contact power supply is protected by the fuse.
Diagram for version :
15 to 60Vac/dc and 127Vac/dc.

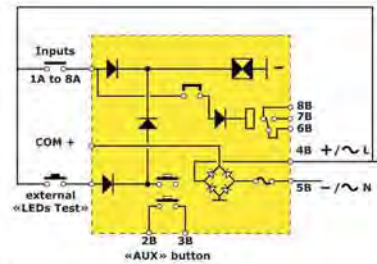


Diagram 2 :
Power supply by AC or DC voltage.
Use of «Live» inputs (contacts are supplied with the same voltage as that of the unit and with polarity coming to terminal 4B or 5B). Contact power supply is not protected.
Diagram for version :
15 to 60Vac/dc and 127Vac/dc.

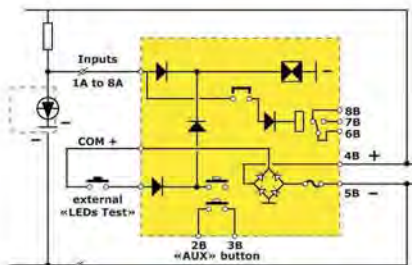


Diagram 3 :
Supply with DC voltage and «open collector» for inputs.
A pull-up resistor to «+» is necessary.
A «-» power supply return is necessary.
Input power supply is not protected.
The LED lights up when the «open collector» is blocking.
Diagram for version :
15 to 60Vac/dc and 127Vac/dc.

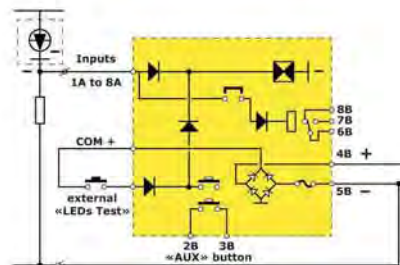


Diagram 4 :
Supply with DC voltage and «open collector» for inputs.
A pull-up resistor to «-» is may be necessary.
A «-» power supply return is necessary.
Input power supply is not protected.
The LED lights up when the «open collector» is open.
Diagram for version :
15 to 60Vac/dc and 127Vac/dc.

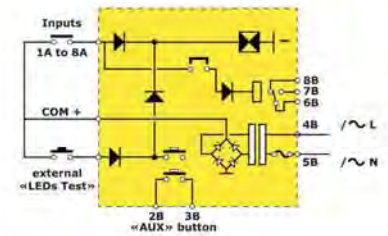


Diagram 5 :
Supply with AC voltage with galvanic insulation.
Use of «dry contact» inputs (contacts are supplied by an internal voltage to unit on the «COM»). Contact power supply is fuse-protected.
Diagram for version :
127Vac and 230Vac with galvanic insulation (04T and 05T versions).

FRONT FACE :



J1805

Numbering system

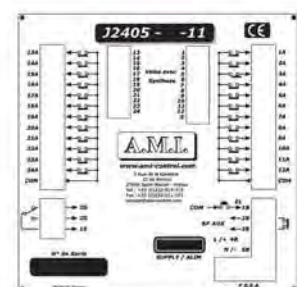
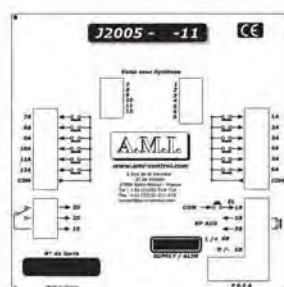
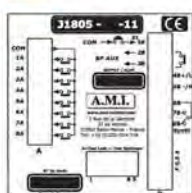


J2005



J2405

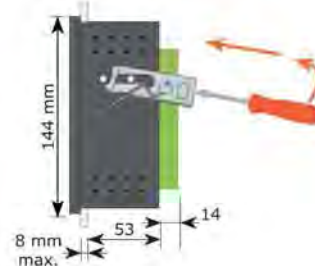
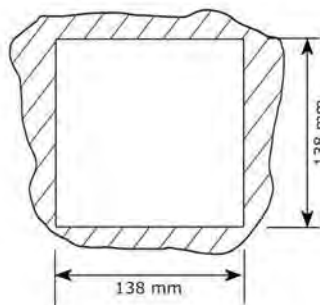
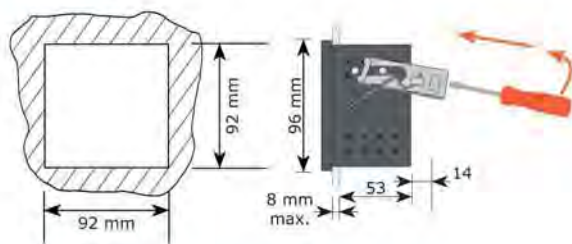
REAR FACE :



CUT-OUT :

DIN 96x96 format

DIN 144x144 format



TECHNICAL SPECIFICATIONS :

		Input voltage	Tolerance	Minimum total consumption	Maximum total consumption	Dimensions in mm L x l x p	Weight in g.
J1805	15 - 60Vac/dc	02	15 - 60Vac/dc	5mA	95mA	96 x 96 x 75	260g
	127Vac/dc	04	127Vac/dc	5mA	95mA		260g
	127Vac *	04T	COM+	1mA	15mA		370g
	230Vac *	05T	COM+	0.5mA	9mA		370g
J2005	15 - 60Vac/dc	02	15 - 60Vac/dc	5mA	135mA	144 x 144 x 75	530g
	127Vac/dc	04	127Vac/dc	5mA	135mA		530g
	127Vac *	04T	COM+	1mA	25mA		640g
	230Vac *	05T	COM+	0.5mA	15mA		640g
J2405	15 - 60Vac/dc	02	15 - 60Vac/dc	5mA	255mA	144 x 144 x 75	560g
	127Vac/dc	04	127Vac/dc	5mA	255mA		560g
	127Vac *	04T	COM+	1mA	52mA		750g
	230Vac *	05T	COM+	0.5mA	28mA		750g

* Galvanically insulated power supply with UL506, CSA 22-1, VDE & EN60950, EN61558-1, EN61558-2-6 accreditation.

Transfer relay :
1RT 6A/12Vdc - 0.15A/240Vac

«AUX» button :
6A (12Vac/dc)
0.2A (240Vac/dc)

Nominal temperature :
127Vac/dc : -20°C / +50°C
Others : -20°C / +60°C

Storage temperature :
-20°C / +70°C

Humidity :
90% without condensation

Storage humidity :
70%

Front/Rear protection :
IP52 / IP22

Protection with cap in
optional front :
IP54

ORDER REFERENCE :

Jxx05-0x-11

Panel with 8 LEDs **J1805**
Panel with 12 LEDs **J2005**
Panel with 24 LEDs **J2405**

1 Integrated synthesis relay
1 «Positive» input/Dry contact
02 15 to 60Vac/dc
04 127Vac/dc
04T 127Vac galvanically insulated
05T 230Vac galvanically insulated

Example :

J1805-02-11, J1805 for 15 to 60Vac/dc power supply, positive inputs with integrated transfer relay.

COMPLEMENTARY PRODUCTS :

M0720 / M0721 / M0722 / M0723, IP54 sealed front

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 and open door.

M0720 «Quarter-turn» closing button 144x144 format

M0721 lock with key 144x144 format

M0722 «Quarter-turn» closing button 96x96 format

M0723 lock with key 96x96 format

M0800 19-inch brushed aluminium Ht : 4U front for bay

3 pre-drilled holes 138x138mm.

M0815 Cover mask 144x144

for fitting to M0800 front.

M0810 19-inch brushed aluminium Ht : 3U front for bay

4 pre-drilled holes 92x92mm.

M0816 Cover mask 96x96

for fitting to M0810 front.



M0722



M0720



M0800 / M0815



M0810 / M0816

Refer to Chapter ACCESSORIES, please.

Warranty
2 years

DIN 96 x 96 format



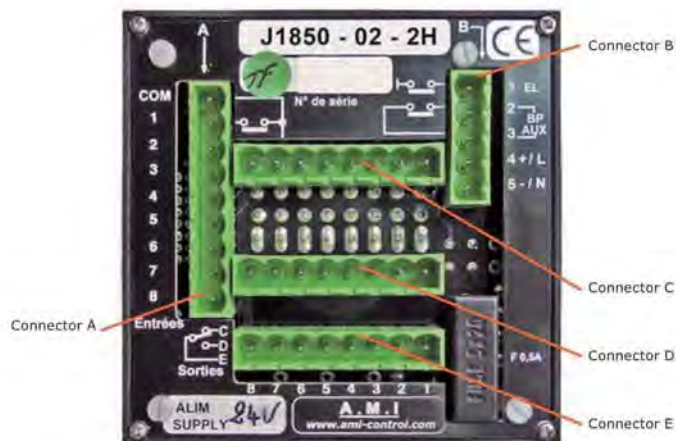
Voltage
presence
LED

«LEDs Test»
button

«Auxiliary»
button

Indicator display panel
with selectable inputs

NO/NC selection
Fixed or blinking display
TRANSFER relay per way



LED Indicator
Display

USE :

- Allows local indicator display (for example in «Sub-station») of different type (Run / Stop / Alert) when the reset and the acoustic alarm are not needed.
- Allow better identification of alarms (blinking LED).
- Accepts inputs in NO/NC contact (to avoid relaying).
- Allows informations clustering for processing supervisor.
- Indicator displays with various colours :

Green, Yellow, Red, Blue
(easily unpluggable LEDs).

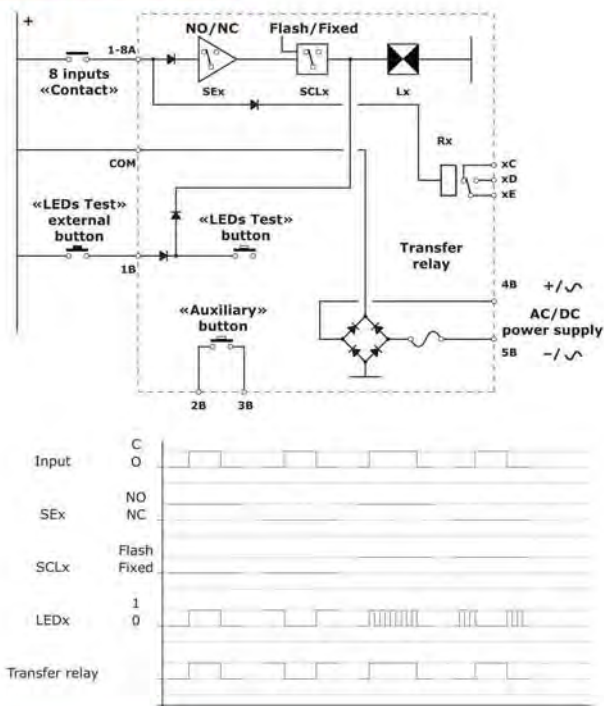
For each way :

- Selection of direction of input contact (NO = Normally Open, NC = Normally Closed).
- Selection of type of display : Blinking or fixed.
- Relays with 1RT contact for remote transfer of each way separately (depending on chosen model).

For the unit :

- 8 unpluggable LEDs for easy colour change.
- «LEDs Test» button on front + input for external button.
- Auxiliary button on front brought out to terminals.
- One green LED for supply voltage presence.
- Unpluggable terminals block screw.

MAIN DIAGRAM :



OPERATION :

- If way is selected with SEx at NC, the input contact being closed, the light is out and the transfer relay is activated. When the input contact opens, LED lights up or blinks following its SCLx selection, the transfer relay drops (relay is at safety positive). In «light out» condition with the panel live, the contact is closed on terminals xD and xE).
- If way is selected at NO with the input contact open, the light is out and the transfer relay is de-activated. When the input contact closes, the LED lights up or blinks following its selection, the transfer relay is activated (in «light out» condition with the panel live, the contact is closed on terminals xC and xE).

SPECIFICATIONS :

Power supply voltage	24 to 48Vac/dc +/-30%
Consumption	20mA per LED + 7mA per relay
Temperature	-20°C / +60°C
Humidity	90% noncondensing
Transfer relay	1 RT-6A/12Vdc - 0.15A/240Vac
Aux. push button	6A/12Vdc - 0.2A/250Vac
Weight	250g
Dimensions	96 x 96 x 67 mm
Protection without cover	IP52
Protection with cover	IP54

PRODUCING LABELS :



Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit.

Labels can be handwritten, or printed with colour (laser or ink-jet).

PC software is provided free to create labels, including an image, to save and to duplicate productions. It is possible to load it on our website .

For high-humidity countries printing on plastic sheets is recommended.

CHANGING LED COLOURS :



The LEDs are fitted on detachable brackets, enabling a change in colour. The colours available are the following :

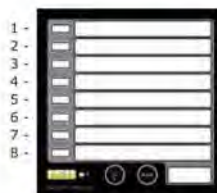
Green, Red, Yellow, Blue.

(Blue is available on request).

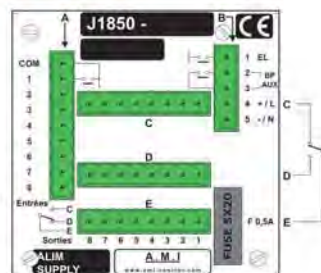
The working life of this type of component is practically unlimited. The low consumption (max 20mA per LED) and excellent luminosity contribute to the reliability of this type of panel.

FRONT VIEW :

Numbering system

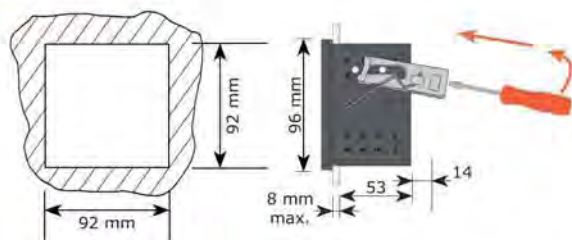


REAR VIEW :



CUT-OUT :

DIN 96x96 format.



Selection made on product front :

- Lift off frame.
- Lift off label support label.

SEx (1 à 8)	SCLx (1 à 8)
NO	Blink
NC	Fixed

ORDER REFERENCE :

J1850-0x-xxR

24Vac/dc : **02**
48Vdc : **03**

R Red
G Green
Y Yellow
B Blue

Indicates general colour of panel LEDs.

«Positive» inputs / dry Contact (standard) : **1**
«Negative» inputs : **2**

0 no relay (standard)
H 8 transfer relays (ways 1 à 8)

example :

J1850-02-1HR

J1850 width 24Vac/dc power supplied, «positive» inputs with 8 transfer relays integrated, 8 red LEDs equipped.

Possible complementary LEDs :

J2101-00-00	LED 5x10mm, color GREEN, code : 2500
J2101-00-10	LED 5x10mm, color YELLOW, code : 2400
J2101-00-20	LED 5x10mm, color RED, code : 2300
J2101-00-30	LED 5x10mm, color BLUE, code : 2300MBW.

To have LEDs of different colours, it is necessary to order a panel with one same colour and LEDs of desired complementary colour.

example : J1850 with 5 green LEDs and 3 red LEDs.
Order : 1 x J1850-02-10G (all LEDs green)
3 x J2101-00-20 (3 LEDs 5x10 red)

COMPLEMENTARY PRODUCTS :

M0810 9-inch brushed aluminium Ht : 3U

Front for bay, 4 pre-drilled holes 92x92mm.

M0816 Cover mask 96x96

For fitting to M0810 front.

M0722 / M0723, sealed front IP54

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 and open door.

M0722 «Quarter-turn» closing button 96x96 format.

M0723 lock with key 96x96 format.



M0810
M0816



M0722

Refer to Chapter ACCESSORIES, please.



Indicator display panel using RS485/RS422 bus

Warranty
2 years

DIN 144 x 144 format



J2405RS

Voltage presence LED

«LEDs Test» button

«Auxiliary» button

J2005RS

PRINCIPLE :

This panel allows to use indicators and informations managed by a programmable automatic unit with distance (Run/Stop information, technical alarm indicator displays, etc.). This solution easily allows to distribute informations along the bus and allows to have information to the desired place whilst minimising wiring.

It also allows preservation of the «synoptic» function carried out by the LEDs, which is not present on a screen or text display panel.

Connection and management through a single RS485 link gives significant economy (1 single RS485 card replaces all outputs cards, whatever the number of LEDs).

MAIN CHARACTERISTICS :

Fitted in housing 144x144 that can be fitted on front of cabinet.

Front fitted with :

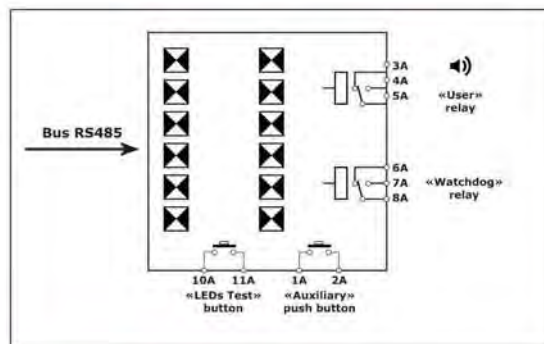
- 12 or 24 «LED block» 10x10mm/5x10mm LEDs, 7 colour choices can display per channel, selectable from the front panel with switches.
- LED power supply with tricolour alarm.
- 1 «LEDs Test» front button that can be used for RESET by the operator.
- 1 «Auxiliary» front button brought out to terminals.

Panel is fitted with :

- 1 «User» relay (1RT/2A)
- 1 optional buzzer operating in parallel with the above relay.
- 1 (1RT/2A) «Watchdog» relay with positive security.
- 1 auxiliary push button brought out to terminals that can be used by the operator.
- 1 input to external «LEDs Test» button than be used for RESET by the operator.
- 1 input/output to synchronize panels between them.
- 1 Half Duplex RS485 link (reception and transmission are not simultaneous), (1 transmission/reception pair or 1 transmission pair + 1 reception pair).
- A micro-controller manages the interface.

At least 50% less energy.
7 LEDs colours available.

Integrated LED test.
Integrated transfer relays.
Interchangeable labels.



POSSIBLE FUNCTIONS :

a) Use :

The automatic unit can send a Modbus/Jbus signal and trigger the following actions :

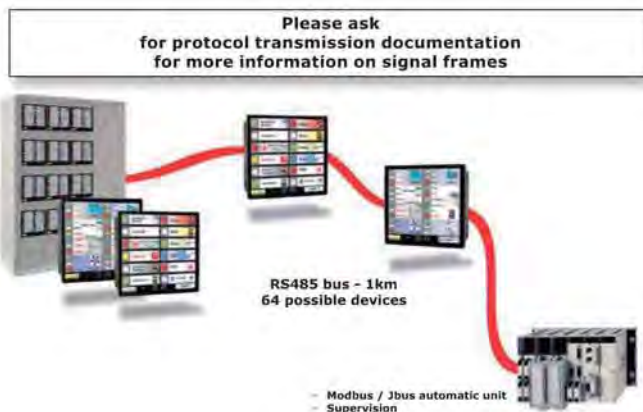
- Light up one chosen LED.
- Light up all LEDs.
- Light up one chosen LED with slow blink.
- Light up all LEDs with slow blink.
- Light up one chosen LED with fast blink.
- Light up all LEDs with fast blink.
- Light up one chosen LED with flash.
- Light up all LEDs with flash.
- Turn off one chosen LED.
- Turn off all LEDs.
- Activate «User» relay (+ optional buzzer).
- De-Activate (or acknowledge) user relay (+ optional buzzer).
- Configure a channel at once (LEDs, relay).
- Read total panel condition in one go.

b) Configuration :

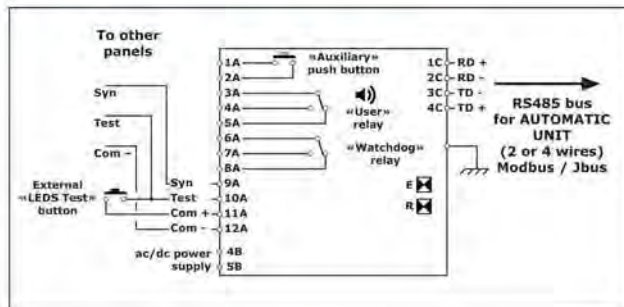
It's possible to activate a display program for the panel configuration with panel front LEDs.

This configuration can be modified through the bus.

- RS485 link configuration.
- Synchronization signal reception mode.
- Synchronization signal transmission mode.
- To authorize or not local operator to reset user relay (+ optional buzzer) from push button or «LEDs Test» terminal.
- Bus control security selection with 4 possible times.



REPRESENTATIVE DIAGRAM :



ANNEXE OPERATIONS :

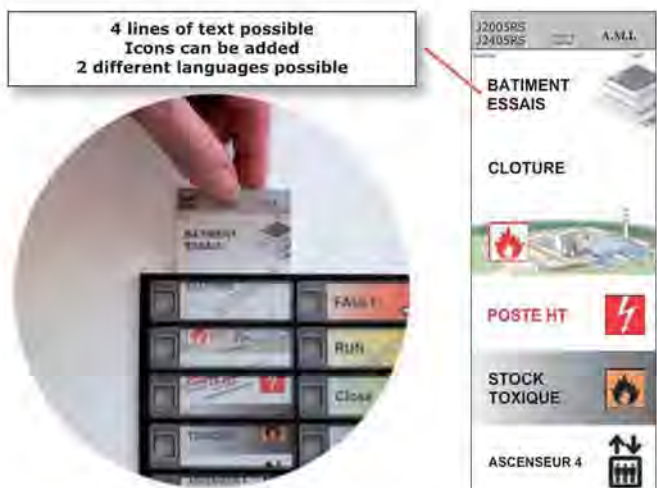
- **«Power supply» LED on front :**
Green in normal. It becomes orange if there is transmission error or loss of transmission.
- **RS485 connection control by J2x05RS :**
A control of presence and bus activity and control of automatic unit activity can be activated. A delay will be armed and reactivated at each transmission read by the panel. In the case when the time delay period is completed, an alarm is generated (the voltage presence LED on the front becomes orange). Time delay values are adjustable through the RS485 link (0, 1, 5 and 10 minutes). (The 0 minute period de-activate bus control)
- **J2x05RS presence control on bus by automatic unit :**
Allows to supervisor or automatic unit to control rapidly the j2x05RS presence on the bus, thus the whole installation. The automatic unit can call cyclically all J2x05RS units present on the bus, witch will answer with return signal containing their slave unit number.
- **«Reset» or «Acknowledge» function :**
The panel can be calibrated «with or without acknowledgement». If the «Acknowledge» function is activated, any action on «LEDs Test» (button on front or rear terminal) will deactivate «User» relay and buzzer. This action will be saved by the panel for 30 seconds, allowing the automatic unit to monitor operator acknowledgement (for example : to change blinking light conditon to fixed condition).
- **particular «Modbus» function :**
The panel send back its slave number on interrogation with the slave number 65. Take the slave number 0 into account (carries out order but does not send back response).
- **«User» relay (1RT/2A) used as «Sound alarm» relay :**
This relay can be reseted from the front TEST button (if authorization has been activated in panel configuration).
- **Internal buzzer (as an option) :**
Operating in parallel with the above relay, this buzzer is activated or deactivated by the RS485 bus or deactivated by the operator (following the panel setting) and at the same time as the «User» relay.
- **«Watchdog» relay (1RT/2A) :**
Positive security relay (module fault detection). This relay will be deactivated in case of any panel fault, or in case of exceeding the time set in the panel for bus monitoring.
- **1 «Auxiliary» button on front face + «Auxiliary» terminals (terminals 1A/2A) :**
The front «Auxiliary» push button is brought out to terminals. It is a NO type, free of potential and can serve as a remote information return function for the operator.

- **1 «LEDs Test» button on front face + terminal «LEDs Test» (terminal 10A) :**
It allows to be carried out a «LEDs Test», to display panel configuration, to reset user relay and buzzer. The «LEDs Test» terminal enables the same functions as the front «LEDs Test» button and enables the function on several panels simultaneously, using an external closure button (use «COM +» terminal originating from only one panel to supply this external button).
- **1 Input/Output synchronization «Syn» terminal (terminal 9A) :**
Each panel manages the blinking of its own LEDs. When an operator is in front of several panels, blinking lights can slide between panels causing visual fatigue. It is enough to connect the «Syn» terminals between the different panels and then to set up one single panel as transmitter. This latter will send out «clock pips» to synchronize the other panels.
 - If external synchronization disappears, the panel will resort to its own internal clock.
 - If external synchronization re-appears, the «receiver» panel re-synchronizes itself.
 - Please note : there should be only one single parameterized panel as a synchro transmitter.
 - It is necessary to connect the «Syn» terminals together and do the same with the «COM -» terminals of the panels concerned to ensure normal functioning.
- **«COM +» terminal (terminal 11A) :**
Allows to connect external button for «LEDs Test». **Never connect together one or more «COM +» terminals, or any «COM +» with a «COM -» terminal.**
- **«COM -» terminal (terminal 12A) :**
Allows to connect external synchronization circuit. **Never connect together one or more «COM +» terminals, or any «COM +» with a «COM -» terminal.**
- **Power supply (terminals 4B/5B) :**
Power supply can be «DC» or «AC». There is no particular polarity to be observed.

PRODUCING LABELS :

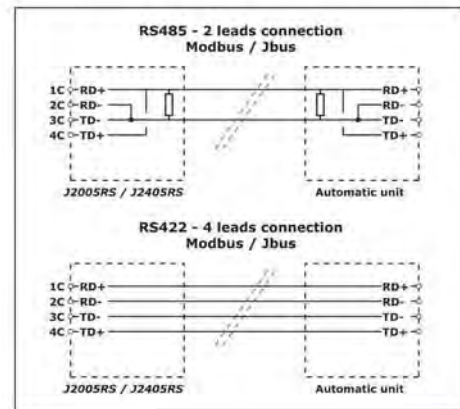
Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit.
Labels can be handwritten, or printed with colour (laser or ink-jet).
PC Software is provided free to create labels, including an image, to save and to duplicate productions.
It's possible to download it on our website .

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



RS485 TERMINAL BOARD : 2 OR 4 LEADS :

- RS485 (2 leads) : Half Duplex interface (reception et transmission not simultaneous). Possibility of being connected with one transmission/reception pair.
- RS422 (4 leads) : 1 transmission pair + 1 reception pair (selection by strap on terminal board). 1200, 2400, 4800, 9600 and 19200 bauds Transmission speeds, no-parity mode, 8 bits transmission, 1 bit per stop-bit, slave number from 1 to 64 configurable through serial link. Possibility of direct display of current configuration on panel front.
- Slave number 0 is recognized by all modules, but no module responds.
- Slave number 65 is used during maintenance to find a module address.
- RS485 link line end resistor of 120 Ohms are external to the interface (refer to «Programming» chapter).
- Earth terminal : Earth to be connected to shielding of the bus cable and to the general chassis.
- «yellow» E LED : Impulses display signal passage in Emission from panel.
- «red» R LED : Impulses display signal passage in Reception coming from bus.

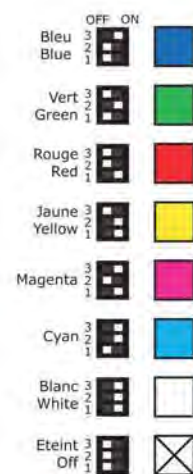


SETTING THE COLOR OF LEDS :

Choice of 7 colours of display possible per LEDs, selectable using switches on the front. Following the setting procedure, you have a choice of the following colours :

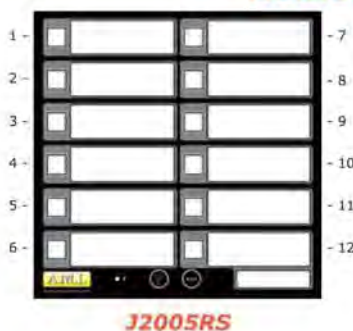
Red, Green, Yellow, Blue, White, Cyan, Magenta.

Changing LEDs is no longer necessary.

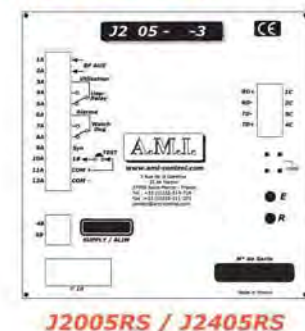


FRONT FACE :

numbering system

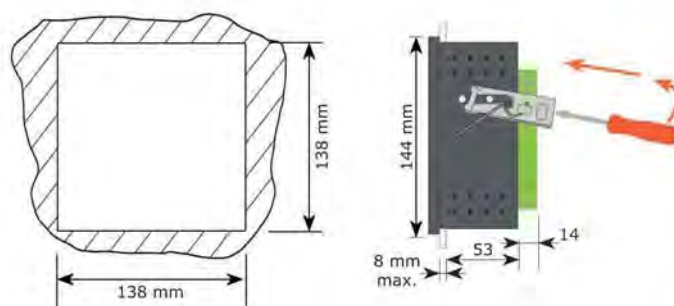


REAR FACE :



CUT-OUT :

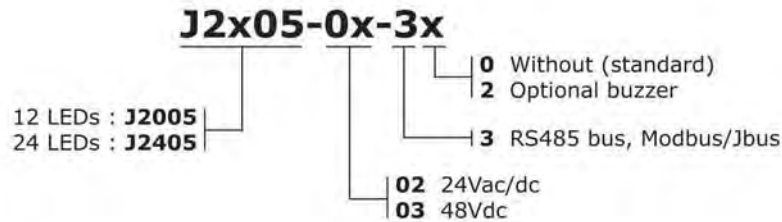
144x144 DIN format



SPECIFICATIONS :

Possible voltages	24Vac/dc, 48Vdc +/-30%
Consumption	10mA per LED + 7mA per relay
RS485 insulation	1500V + protection against line spikes (using CTP and Transil) and charge faults
Temperature	-20°C / +60°C (at nominal voltage)
Humidity	90% noncondensing / 70% during storage
Transfer relay	1RT 6A/12Vdc - 0.15A/240Vac
Auxiliary push button	6A/12Vdc - 0.2A/250Vac
Weight	750g
Dimensions	144 x 144 x 67 mm
Protection without cover	IP52
Protection with cover	IP54 (M0720, M0721)

ORDER REFERENCES :



Example :

J2405-03-32, J2405 (24 LEDs), 48Vdc powered with buzzer as an option.

COMPLEMENTARY PRODUCTS :



M0800
M0815

M0800 19 inch brushed aluminium front, Ht : 4U
For bay, 3 pre-drilled holes 138x138mm.

M0815 cover mask 144x144
For fitting to M0800 front.

See the **ACCESSORIES** section of our catalog.



M0720

M0720 / M0721, IP54 sealed front

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 and open door.

M0720 «quarter-turn» closing button 144x144 format.
M0721 lock with key 144x144 format.

COMPLETE TECHNICAL ALARM CENTRALISATION :

The Panel PC is an alarm centralizer on a RS485 bus.

Manages 64 offset 12 alarm modules or input/output modules. Its touch screen allows operations to be done without additional keyboard (operator assistance, histories, archiving).

It can send despatches or transfers to other sub-stations.

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

- In local sub-station cabinet front, for monitoring alarms and local conditions, with histories for traceability.
- In control room with clustering by offset local alarm bus from local alarm panels.
- Transfer to other possible sub-stations.

It is possible very simply to make up a technical alarm management bus unit.

Possibility of using modules equally :

- J3500/J3000 technical alarm automatic panel.
- J2x05RS 12 or 24 LEDs indicator display receiver panel.
- I/O modules input/output blind modules.
- Panel PC.



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

PANEL PC :



The Panel PC brings together :

- Alarm display with reset on the screen.
- Operator assistance or instructions for each of the inputs allowing indications to operator of the information to follow depending on the alarm under way.
- Display of history periods.
- Re-display of histories of a recorded period (possible 10,000 pages).
- Printing in continuous with time stamping.
- Remote alarm reporting to one or more indicators display by BUS (for example, guard posts, technical service, control room).
- Remote control outputs possible.
- USB key archiving.
- Several safety levels.

Warranty
2 years



8 to 96 channels modulation (1 to 3 stages)

For each channel :

- Data storage, blinking, operator acknowledgement on selected «Alarm» ways.
- Fixed simple display on selected simple indicator display ways.
- NO/NC selection.
- 0-1min and 1-10min time delay (filtering input processing).
- Remote input inhibiting.
- Selection of ways to «synthesis» output (general alarm) for remote reporting.

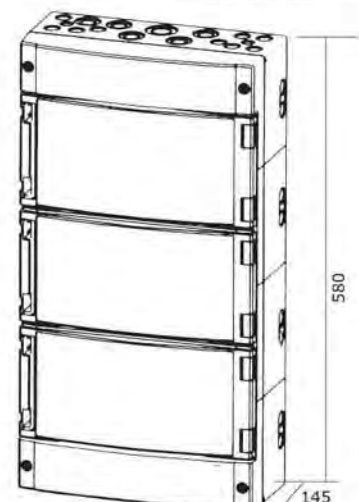
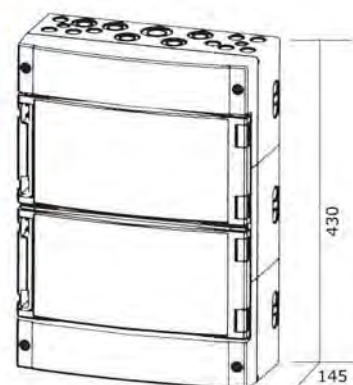
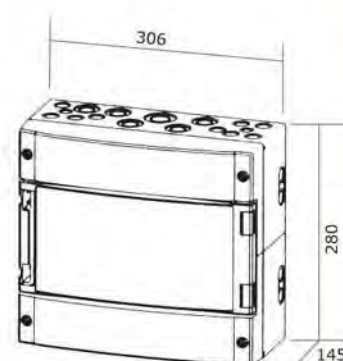
One cabinet includes :

- 1 to 3 stages IP65 wall-fixed cabinet with double insulation.
- Front buttons for «Test» and «operator acknowledge».
- A certain number of 8 inputs cards.
- 1 internal buzzer and one output contact for external sound alarm.
- 1 «General alarm» output contact.
- 1 «power supply alarm» output contact.
- 1 x 230Vac power supply.
- Charger with battery for autonomous operation.

Wiring to be done :

It is fully pre-wired. It is enough to connect up :

- Two leads for 230Vac power supply.
- Two leads per «contact» input.



MODELS :

Number of ways	Type	12Vdc without battery	230Vac without battery	230Vac with battery	Autonomy standard *
8 inputs	1 stage	AJ1900-01-11	AJ1900-05-11	AJ1900-05-11B	85 h
16 inputs		AJ1900-01-12	AJ1900-05-12	AJ1900-05-12B	76 h
24 inputs		AJ1900-01-13	AJ1900-05-13	AJ1900-05-13B	67 h
32 inputs		AJ1900-01-14	AJ1900-05-14	AJ1900-05-14B	60 h
40 inputs	2 stages	AJ1900-01-21	AJ1900-05-21	AJ1900-05-21B	45 h
48 inputs		AJ1900-01-22	AJ1900-05-22	AJ1900-05-22B	42.5 h
56 inputs		AJ1900-01-23	AJ1900-05-23	AJ1900-05-23B	40 h
64 inputs		AJ1900-01-24	AJ1900-05-24	AJ1900-05-24B	37.5 h
72 inputs	3 stages	AJ1900-01-31	AJ1900-05-31	AJ1900-05-31B	31 h
80 inputs		AJ1900-01-32	AJ1900-05-32	AJ1900-05-32B	30 h
88 inputs		AJ1900-01-33	AJ1900-05-33	AJ1900-05-33B	29 h
96 inputs		AJ1900-01-34	AJ1900-05-34	AJ1900-05-34B	28 h
8 inputs	additional card	AJ1900-01-10C			

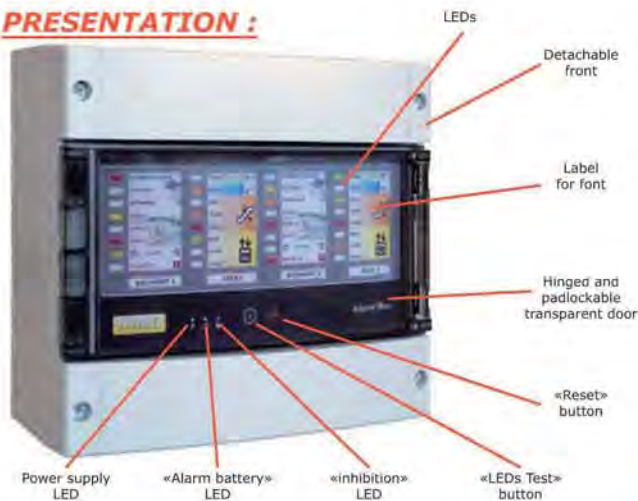
Additional 8 inputs card with connector for relay card : AJ1900-01-10CA

* standard autonomy : ALARM'BOX with batteries are delivered with 12V/7Ah battery as standard.

The autonomous time is that which allows the following test, after 24h battery charge (mains supply present) :

- Unit running on standby (no mains supply), with indicator displays or alarms.
- Detection and noting alarm for maximum 1 minute at end of autonomous time.

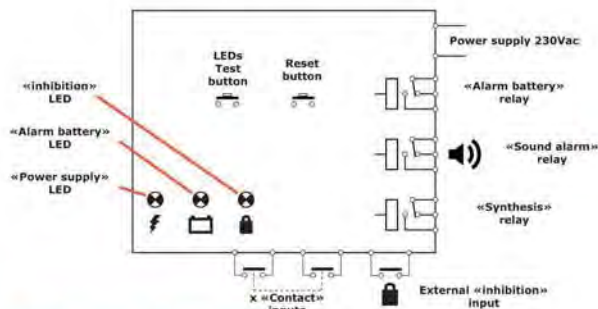
PRESENTATION :



Front cover is easily removable and includes :

- One «LED test», and a «Reset» or «Acknowledge» button.
- One «Mains presence» green light that changes to orange in the case of any activated path shut-down.
- One «Battery alarm» light that shows red in case of too high a battery discharge.
- An «inhibit» LED, normally off, which will light orange when inhibition input is activated.
- The «Contact» input terminal board is fitted with two terminals per way (4 terminal boards each with 2x8 terminals, corresponding to each the 4 input cards).
- One auxiliary terminal board with :
 - One input to connect an external contact to enable inhibiting of certain ways (also called Day/Night). Possibility of inhibition ways per separate stage.
 - One inverter contact for external siren.
 - One inverter contact for general alarm (for sending out «alarm present» information to the outside).
 - one terminal board with a «Battery supply» alarm contact, as well as 230Vac general power supply.

All relays are set at positive security.



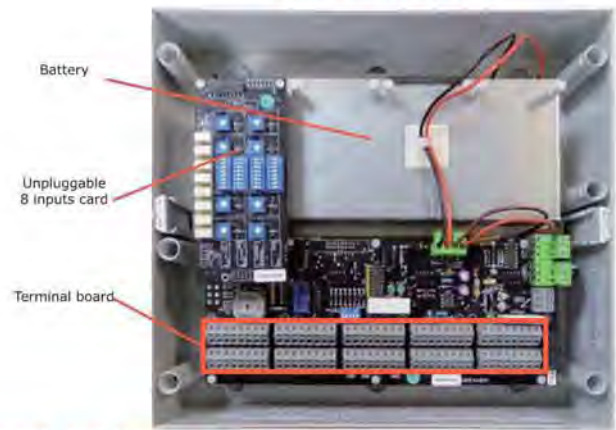
SPECIFICATIONS :

Delivered with red LEDs as standard, other colours : **Green, Yellow, Blue.**

Possible voltages	12Vdc	230Vac
Supply tolerance	-20/+30%	-30/+30%
Consumption :		
without path card	70mA	0.2A
through path card (standby)	9mA	9mA
through path card (max.)	230mA	230mA

Consumption per input	2.4mA
Permitted line resistance on contact	2kOhms
Time delay accuracy	+/- 20%
Protection with cover	IP65
Temperature (at nominal voltage)	-10°C / +50°C
Relay contact (positive security)	1RT 6A/12Vdc - 0.15A/240Vac
Weight (with battery)	1 stage : 7kg 2 stages : 8.5kg 3 stages : 10kg

Lifted central cover



POSSIBLE SETTINGS :

Possible settings for each way :

- NO/NC contact input.
- 0-1min or 1-10min confirmation time delay.
- «Simple display» or «Alarm» type process selection.
- Selection to General Alarm relay or Not.
- Selection to inhibit ways.

General adjustments possible :

- To inhibit all ways.

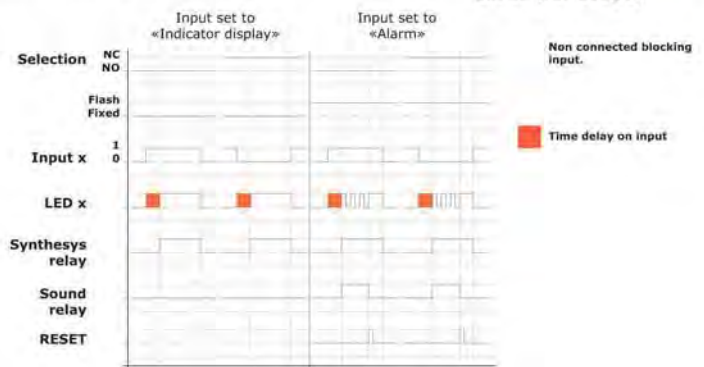
Detection :

- Mains power loss / low voltage battery.

Selection switch «Times delay» adjustment



8 inputs card (4 possible cards per stage)



PRODUCING LABELS :

The labels are simple sheets of paper that slid into a transparent pocket included within the front panel thickness. A blank label is supplied with each unit. Labels can be made by hand, or produced on a colour printer (laser or ink-jet). PC software is provided free to create labels, including one image, to save and duplicate any creation. It is possible to print on plastic sheets for high-humidity countries.



Mural report cabinet with 1, 2 or 3 places.

Reference : **MJ1900-01-02**

Warranty
2 years

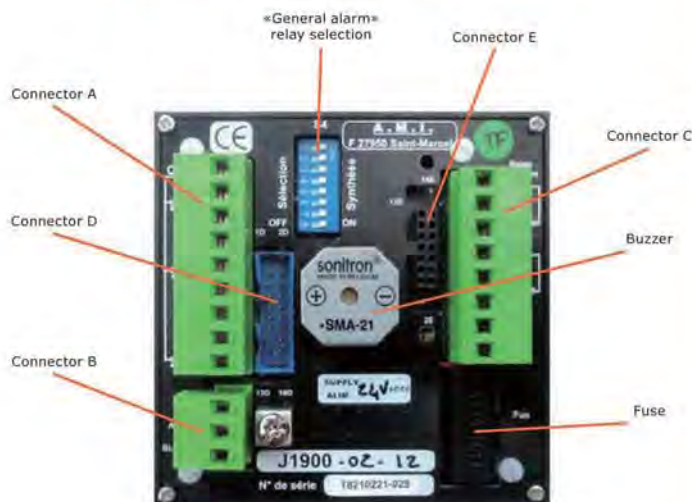
DIN 96 x 96 format

LED mixed panel alarm and indicator display

Each channel can be selected :
either ALARM or simple indicator display.



FRONT VIEW



REAR VIEW

USE :

This universal panel enables displays on the same front, that is either a simple indicator display or an alarm indicator display.

It now becomes possible to use one single display model, whatever type of information is to be displayed.

Example :

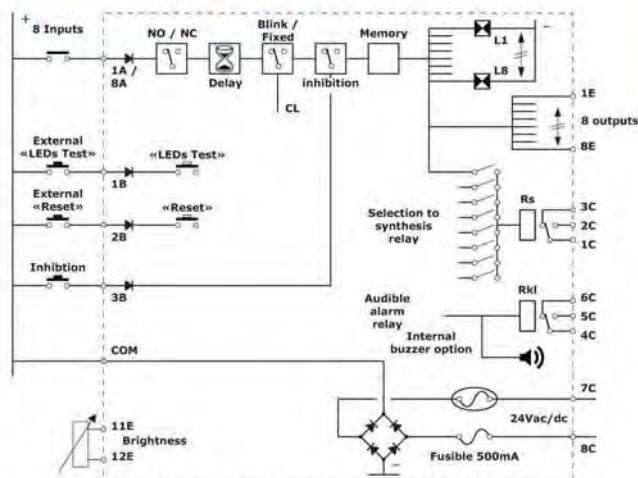
- Fixed display of simple conditions with different colours :
«Run» in green, «Stop» in yellow.
- Process blinking alarms (with blink, memory and reset).

Its principle enables easy and economical use :

- LED colour change is possible.
- Labels created on PC.
- Unpluggable connectors.

Furthermore, its power supply accepts direct or alternating current on the same model.

MAIN DIAGRAM :

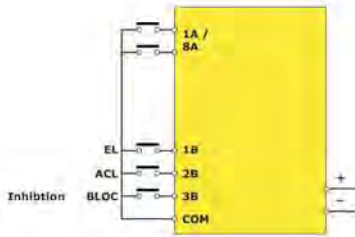


For each channel :

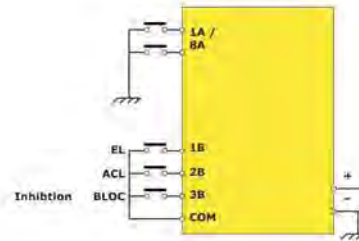
- 8 inputs and 8 LEDs indicator displays, with large label.
- Selection of type of display : simple indicator display or alarm (blinking then fixed after reset).
- Selection in direction of input contact (NO = Normally Open, NC = Normally Closed).
- Time delay to accept input from 0 to 1min. and from 1min. to 10min. (per channel, including on channels used for «indicator display»).
- Alarm information stored until operator reset.
- «Sound alarm» relay output to positive safety (+ optional internal buzzer).
- «General alarm» relay output (synthesis relay) for positive security report (selectable path by channel) used in «Watchdog» protection.
- 8 «open collector» separate outputs for individual reports.
- «Inhibition» input with selection of channels to block.
- Luminosity adjustment possible by external potentiometer.
- «LEDs test» and «Reset» buttons on front + terminals for external buttons.
- Unpluggable LEDs for colour change easier.
- Detachable screw-in terminals.
- 24Vac/dc (-40%/+25%) or 48Vdc supply.

DESCRIPTION OF VARIOUS USE POSSIBILITIES :

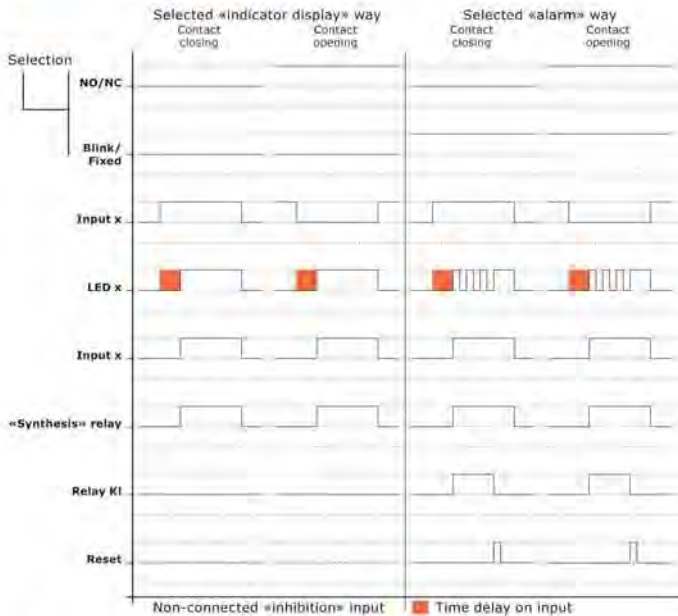
Connection diagram for positive input J1900



Connection diagram for negative input J1900 (contacts connected to chassis)



OPERATION :



«Simple indicator display» selected channel :

- S2x selects way «x» for simple indicator display : Depending on the input contact «x» sense selected with S1x (Normally Open / Normally Closed) and after time delay Tx has expired, the «Lx» 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 (open collector type output, delivers a 0V).
- Rs «Synthesis» relay can be activated if the S4x selection is programmed.
- The Rkl «Sound alarm» relay is not activated.
- When the contact returns to its normal position, the LED goes off.
- If the «inhibition» input is activated before LED illumination and the way was selected by S3x inhibit authorization, the display will be cancelled.

«General alarm» or synthesis relay output :

1RT output to galvanic insulation.
The relay is «positive security», that is to say «excited normally». The relays will be deactivated by each of the S4x selected ways, that the ways are selected for simple indicator display or for alarm.
The relays will be reactivated when all the selected ways have disappeared.

The microprocessor is provided with a «Watchdog» that drops the synthesis relay and «Sound alarm» relay in case of system shut-down.

The «Sound alarm» and «Synthesis» relay are positive security (in our diagrams they are represented in J1900 position without voltage supply).

Adjusting luminosity :

It is possible to reduce LED luminosity by connecting a 1kOhm potentiometer between the terminals 11E and 12E (0V).

Extensions :

Two extension connectors are at the rear of the unit. They allow quick connection of inputs and outputs by ribbon cable to cabinet bottom. The «open collector» type outputs accept a current of 150mA.
There is the possibility of connecting a 8 relay DIN assembly A.M.I. module for particular projects.

«Alarm» selected channel :

- S2x selects way «x» for alarm : following the direction of «x» input contact selected with S1x (Normally Open / Normally Closed) and after expiry of time delay period Tx, alarm recognition will be saved. LED will blink.
- The corresponding «x» output is activated (open collector type output delivers a 0V).
- Rs «Synthesis» relay can be activated if the S4x selection is programmed.
- The Rkl «Sound alarm» relay is activated (along with the buzzer if it is present).
- Pushing the «Reset» button on the front (or activating the cancel using the rear terminal) stops buzzer and turns the LED to fixed if the alarm is still present, or turn-off the LED when input return to normal. The «open collector» output and general alarm relays (if the latter is selected by S4x) are activated until LED goes off.

«Inhibition» input :

Cancels the «recognition» of certain inputs selected by the S3x switches. This function is valid for simple indicator display and alarm ways. This cancellation will be begin at the moment when the external contact on the «Inhibition» input is closed (connected to «COM +»). When a LED is lit (blinking or fixed) and the «Inhibition» input is activated, the inhibition becomes operative after LED goes off (for the next alarm). It is used in the case of ways having to be cancelled for a certain period (day/night), cycles start with non active securities, interventions technical.
If «Inhibition» input is activated, the «Power supply» LED on the front lights up in red.

So that a way is inhibited, it is necessary :

- That the inhibiting contact be closed.
- That the way had been selected using S3x.

PRODUCING LABELS :

Labels are simple paper sheets that slid into transparent pockets included in the thickness of the front. A blank label is supplied with each unit.

PC Software is provided free to create labels, including an image, to save and to duplicate productions. It's possible to download it on our website .

Labels can be handwritten, or printed with colour (laser or ink-jet).

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



CHANGING LEDS COLOURS :



The LEDs are fitted on brackets unpluggable, allowing colour change easier from the front.

The possible standard colours are :

Red, Green, Yellow, Blue.

The life of this type of component is practically unlimited.

Low consumption (max 20mA per LED) and excellent luminosity contribute to the reliability of the J1900.

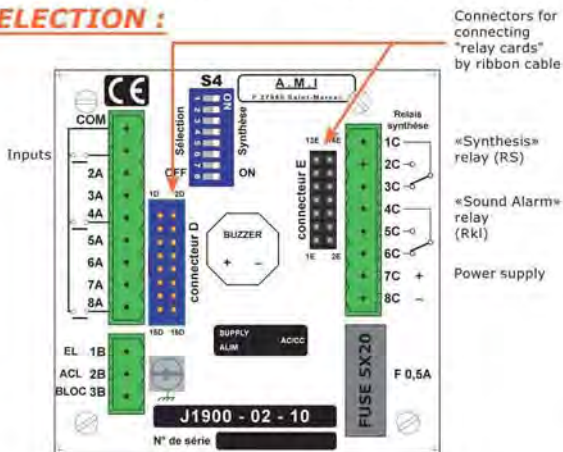
LEDS LUMINOSITY ADJUSTMENT :

LED luminosity can be adjusted using a connected external potentiometer between terminals 11E and 12E of «input» connector for ribbon cable.

- No potentiometer => maximum luminosity.

- With 1 kOhm potentiometer => adjustments.

SELECTION :

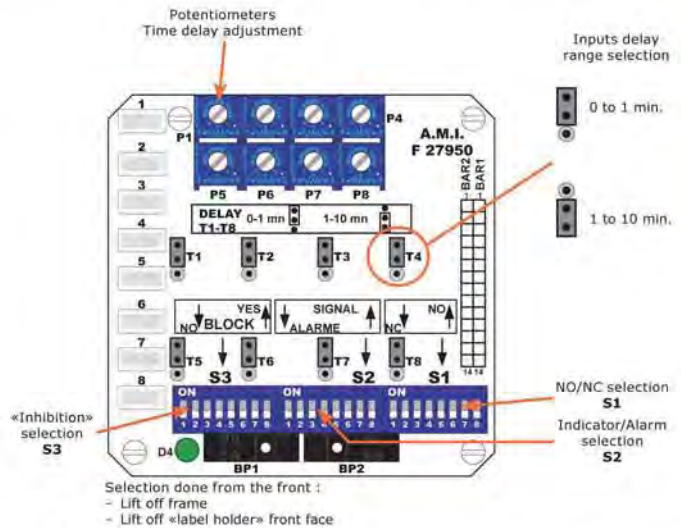


Connector D

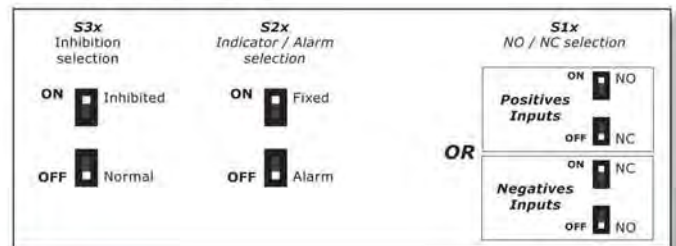
1	2	1	COM	2 = channel 1
3	4	2 to 9	Channel inputs	3 = channel 2
5	6	10	COM	.../...
7	8	11	0V	8 = channel 7
9	10	12	External «LEDs Test»	9 = channel 8
11	12	13	External acknowledge	
13	14	14	External Inhibit	
		15	Supply (terminal 8C)	
		16	Supply (terminal 7C)	

Connector E

1	2	1 to 8	Channels outputs (150mA)	1 = channel 1
3	4	9	«external relays» power supply	2 = channel 2
5	6	10	0V	.../...
7	8	11	Luminosity adjustment input	7 = channel 7
9	10	12	0V	8 = channel 8
11	12	13	«Sound Alarm» relay coil control	
13	14	14	Synthesis relay coil control	

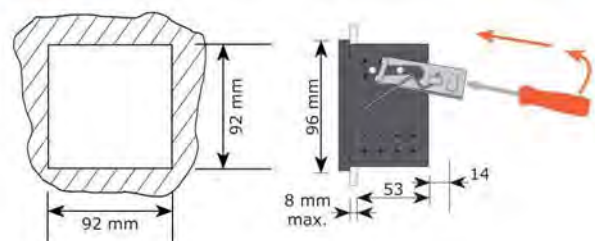


Selection done from the front :
- Lift off frame
- Lift off «label holder» front face



CUT-OUT :

DIN 96x96 format.



ORDER REFERENCE :

example :

J1900 with 5 green LEDs and 3 red LEDs :

order :

1 x J1900-02-10G (all LEDs in green)

3 x J2101-00-20 (3 LEDs 5x10mm red)

J1900-0x-xxR

24Vac/dc : **02**
48Vdc : **03C**

R red
G green
Y yellow
B blue

Indicates general colour of panel LEDs.
To have LEDs of different colours, it is necessary to order a panel with one same colour and LEDs of the desired complementary colours.

0 Without (standard)
2 Internal buzzer
1 «positive» input
2 «negative» input

SPECIFICATIONS :

	24Vac/dc	48Vdc
Power supply range	-40% / +25%	36V to 70V
Consumption	20mA per LEDs + 7mA per relay	12mA per LEDs + 4mA per relay
Max. consumption	200mA	135mA
Min. consumption	42mA (positive inputs)	30mA (positive inputs)

Temperature	-20°C / +60°C
«Synthesis alarm» relay	1RT 6A/12Vdc - 0.15A/240Vac
«Sound alarm» relay	1RT 6A/12Vdc - 0.15A/240Vac
Weight	250gr (300gr for 48V)
Dimensions	96 x 96 x 67 mm
Protection without cover	IP52
Protection with cover	IP54 (M0722, M0723)

COMPLEMENTARY PRODUCT :

Possible complementary LEDs :

J2101-00-00 LED 5x10mm colour GREEN, code : 2500

J2101-00-10 LED 5x10mm colour YELLOW, code : 2400

J2101-00-20 LED 5x10mm colour RED, code : 2300

J2101-00-30 LED 5x10mm colour BLUE, code : 230MBW.

M0810 19 inches satinised aluminium finish facade Ht : 3U
4 pre-drilled holes 92x92mm for a bay.

M0816 cover mask 96x96 for fitting to M0810 front.

M0722/M0723 IP54 sealed front.
IP54 sealed front that is mounted directly to the J1900 front. An O-ring seal ensures sealing between panel sheeting and the unit.

M0722 «Quarter turn» closing button.

M0723 Lock with key.

KJ1900-1 **Demonstration kit**, refer to «Accessories» pages.



M0810 / M0816



M0722 / M0723



EXTENSION CARDS :

They are fitted to a DIN rail at cabinet bottom and are connected by a ribbon cable directly the J1900 rear extension connector.

- The relays are powered directly by the J1900.

- One LED for each relay, displays its condition.

- An unpluggable terminal board allows «contact output» connection.

M0901-02-02 Relay cards, galvanic insulation
Fitted with 8 1RT type outputs + one common, it can use the «open collectors» outputs through a 1RT contact at no voltage.
Specification : 8 relays 1RT 6A/12Vdc - 0.15A/240Vac.

M0901-02-22 «Synthesis relay» card, selectable with galvanic insulation.
The M0901-02-22 is a galvanically insulated unpluggable output interface.
It is fitted with two 1RT type relay outputs + one common. It allows the operation of two different syntheses (sort outputs into two families, for example «high risk» and «low risk» alarms).
Each relay can be activated by one or more J1900 outputs.
One J1900 output can also activate the two relays.
The relays can be at positive security (activated when starting card).



M0901-02-22



M0901-02-03



DIN type «report relay» M0901 card connected J1900 panel

Refer to Chapter ACCESSORIES, please.

Warranty
2 years

DIN 144 x 144 format



Sequence panel for FULL TECHNICAL ALARM CENTRALIZATION «LED block» model



FONCTION :

The J3000 is an automatic technical alarm treatment unit, integrating all functions needed for local or deported indicator display :

- Storage, blink and reset.
- This modular installation can be extended to an infinite number of inputs.
- It is immediately installable and can be fitted into a bay, console or cabinet.

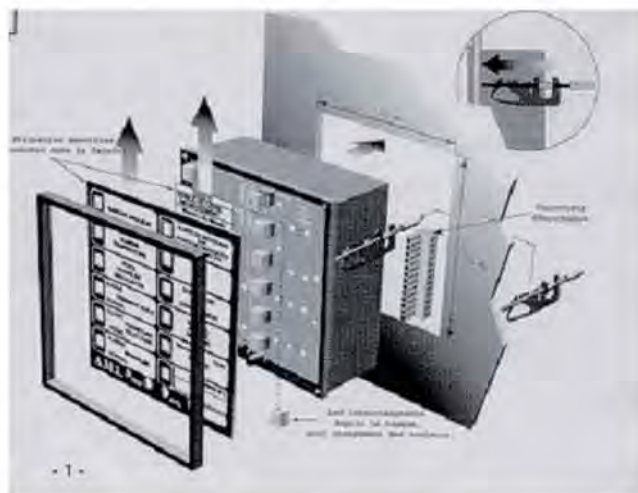
Its climatic ambience tolerances (-10°C/+50°C) and its supply voltage tolerances (-40%/+30%) make the component essential for any installation at significant risk.

MAIN CHARACTERISTICS :

- 12 «high luminosity» large area 10x10mm LEDs visible in even in non-softened light.
- High legibility and ease of making labels (typewriter, laser printer transfer) that can be slid behind a transparent window.
- Rapid and compact clustering of indicators on cabinet front.
- Rapid fixing in place using clips.
- 138x138mm drilling in compliance with DIN 144x144 standard.
- LED colour change possible.
- Long life LEDs (eliminating short-circuit problems with filament lamps).
- Low consumption.
- Tropicalised at factory.
- Voltage presence LED.
- Flame retarding cabinet.

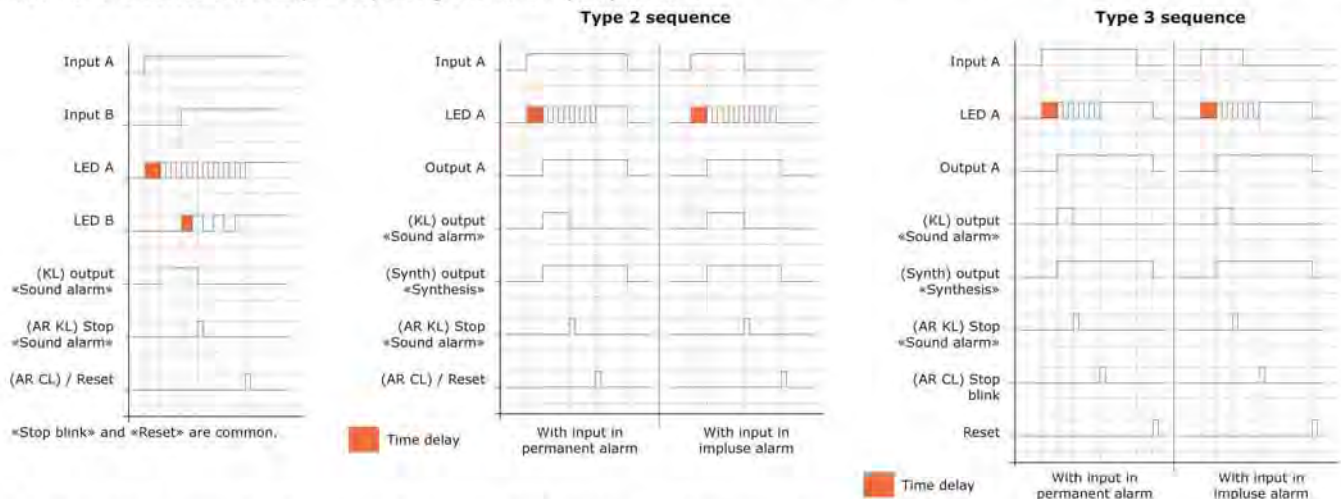
Parametering is done through simple rear switches selection (no PC programming required) :

- 12 NO/NC contact inputs + 12 remote reports (at 24V). Relay output card possible.
- 12 front alarm LEDs («LED block» type for effective contrast).
- 2 buttons on front («LEDs Test», «Reset»).
- 3 process inputs/outputs (Inhibition input, 1st fault, external synchronization).
- 4 push button inputs (Test, Sound Alarm Stop, Blink Stop, Reset).
- Two 1RT output relays («Sound alarm», «Synthesis»).
- Selectable time delay on input (20ms, 750ms, 3s, 10s).
- Cable continuity check on each input.
- 1st fault sequence, with rapid blink.
- Storing fugitive information + blink + activated sound output + activated synthesis output + cancel.
- 2 types of sequence possible.
- Remote transfer (channel by channel + one general).
- Outputs can be in «blink» mode for use on synoptic.
- Analog monitoring of power supply voltage.



OPERATING PRINCIPLE :

Any input condition change, after time-delay filtering, causes LED blinking and the release of horn and synthesis outputs. This action will be stored even if the input disappears. Resetting will be done step by step, after pressing the push buttons and as a function of the selected sequence, along with the input position.



The first enabled channel will cause a display in «fast blink». The following channels will cause a «slow blink». This helps differentiate the first alarm. In diagram «Type 2 sequence» and «Type 3 sequence», the LEDs are represented in «slow».

PARAMETERING :

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

One switch is positioned :

- At 0 when it is down.
- At 1 when it is up.

Switches
S1 to S24



Inputs		NO		NC		Selection						
S1	1, 2, 3, 4, 5	0		1		S13	Loop control : without=0 / with=1					
						S14	Synchronization : transmitter=0 / receiver=1					
S2	6, 7, 8, 9	0		1		S15	Sound alarm relay :		Normally activated=1 Normally off=0			
S3	10, 11	0		1			Selection					
S4	12	0		1		S16	Sound alarm relay	A>=> Fixed B>=> 1 pulse C>=> Fl 1s/1s D>=> Fl 1s/2s	A	B	C	D
						S17		0 0	1 0	0 1	1 1	
Time delay		20 ms	750 ms	3s	10s	S18	Inhibit	A>=> V1 B>=> V1 à V3 C>=> V1 à V7 D>=> V1 à V12	0 0	1 0	0 1	1 1
S5 S6	1, 2, 3, 4, 5	0 0	1 0	0 1	1 1	S19						
S7 S8	6, 7, 8, 9	0 0	1 0	0 1	1 1	S20	Normal outputs=0		Blinking=1			
S9 S10	10, 11	0 0	1 0	0 1	1 1	S21	Type 2 sequence=0		type 3=1			
S11 S12	12	0 0	1 0	0 1	1 1	S22 S23	Simple Indicator	A>=> none B>=> V10 à V12 C>=> V7 à V12 D>=> V1 à V12	0 0	1 0	0 1	1 1
						S24		Synthesis=0		watchdog=1		

S15 : «Sound alarm» relay KL can be used in «watchdog» mode (normally activated) or not. It will be disabled if an internal failure, loss of power or input enabled.

S16/S17 : «Sound alarm» relay. Varies sound alarm modulation.

Fixed : S16=0 / S17=0
1 pulse : S16=1 / S17=0
Flash 1s/1s : S16=0 / S17=1
Flash 1s/2s : S16=1 / S17=1

S18/S19 : Inhibit. It is possible to inhibit out informations arriving on certain inputs (if inhibit input is at 0 => no selected channels will be 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 front LED image outputs (used for despatching to external LED on synoptic).

S21 : type 2 or type 3 sequence. Selects two different types of sequence (see diagram).

S22/S23 : «Simple indicator» type. Some inputs can be treated in simple signaling and not alarm.

none : S22=0 / S23=0
channels 10 à 12 : S22=1 / S23=0
channels 7 à 12 : S22=0 / S23=1
channels 1 à 12 : S22=1 / S23=1

S24 : Synthesis. Relay «Synthesis» is disabled when alarm is present both Watchdog or only as a Watchdog.

Alarm + Watchdog : 0
Watchdog : 1

Example : To obtain channel 12 in NC, with a 3s time delay, with synchronization coming from outside, sound alarm activated and type 3 sequence, the switches will be :

S4 on 1 S11 on 0 S12 on 1 S14 on 1
S15 on 1 S21 on 1

INPUT FONCTION :

- Terminal 1A/12A : 12 contact inputs can be at «Positive or Negative common». TEST + AR KL + AR CL + RESET + BLOC terminals will still be linked to external contacts powered by a positive polarity. It is possible to detect a 0 or 1 level (NO/NC selection, with S1, S2, S3 & S4 switches knowing that the contact is inverted to negative).

- A time delay 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 a duration greater than the selected time delay.

a) **TEST terminal 13A** : This is a micro-controller activated «LEDs Test» program. By adding a resistor R1 between «+» and the «LEDs Test» terminal, it becomes possible to test front LEDs and outputs. The order of use sequences for the 3 following terminals should be respected. The AR CL and EFF terminals are inactive if the sound alarm is present. In type 3 sequence mode, the EFF terminal is inactive if a LED is blinking (impossible to go out before blink stop).

- For 24V supply : R1=43 kOhms.
- For 48V or 110V supply : R1=270 kOhms.

b) **AR KL terminal (Sound alarm stop) 14A** :

- Standard function : Input activation during 0-9s stops sound alarm until return to normal. If the information is greater than 10s, the setting mode of BUS RS485 is activated.

- With an R2 resistor linked between AR KL (terminal 14A) and «+», input activation stops sound alarm but if the channel persists in alarm mode, sound and blinking indications will be reactivated after 1 minute or 15 minutes (Avoids any oversight if an alarm is still present).

- For 1 minute reactivation : R2=22 kOhms.
- For 15 minute reactivation : R2=4,7 kOhms.

c) **AR CL Blink STOP terminal 15A** : One press changes light to fixed mode (after you stop the alarm sound).

Type 2 sequence operation :

When alarm disappears, LEDs in fixed mode are deleted (an AR CL action on a blinking light with an input becomes normal thus deleting the LED since it goes to fixed then soon goes off).

Type 3 sequence operation :

When the alarm disappears, it will be necessary to use the EFF terminal to cancel the fixed light.

A resistor can be connected to the AR CL terminals, allowing a different output process function (see «outputs» chapter).

d) **RESET/EFF terminal 16A** :

Type 2 sequence operation :

EFF terminal is not used.

Type 3 sequence operation :

The LEDs will go off only after they go to fixed mode after input disappearance and when the button is pressed.

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

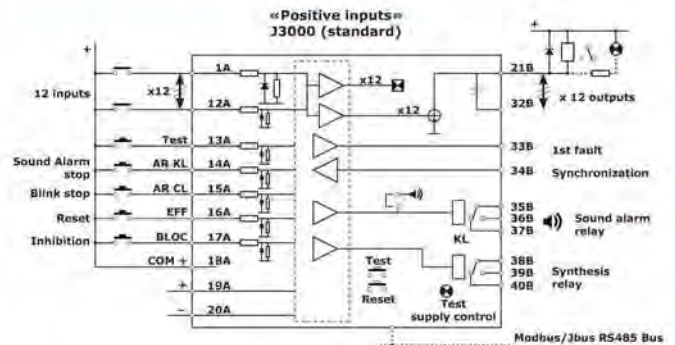
One push on the 2 push buttons or validation of 2 terminals simultaneously, active the internal test cycle (test lamp + 2s + horn test + 2s + synthesis test + output activation). Is an «incremental» test witch activates the contact inputs, one after the other, and the selected outputs (outputs, «Synthesis» relay, «Sound alarm» relay).

f) **Bloc terminal 17A** : Channel inhibition is activated by connecting to through to the «Inhibition» input «+» and following S18 + S19 switches positions. The selected inputs will no longer be recognized as long as the inhibition input is activated. The processing of displayed channels before Inhibition will continue (along with non-selected channels). When processing of the displayed channels before Inhibition is terminated, they will automatically go into inhibit mode (for selected inhibited channels only) (inhibit is activated with inhibition input at «+» and selection). One selected input is active if the inhibit input is inactive.

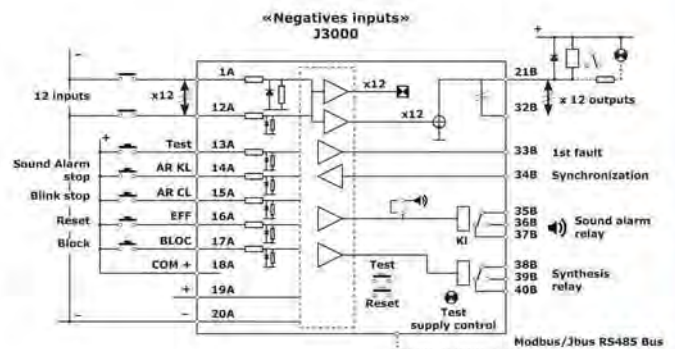
g) **«COM+» terminal 18A** : Terminal «COM+» supplies input contacts by ensuring protection.

However these inputs can be powered with the «+» of the supply voltage J3000.

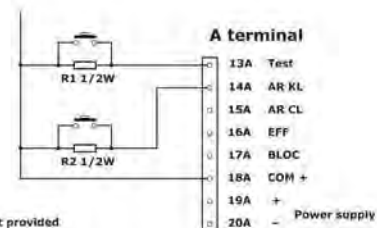
REPRESENTATIVE DIAGRAM :



- 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».



The contacts are represented with the J3000 off

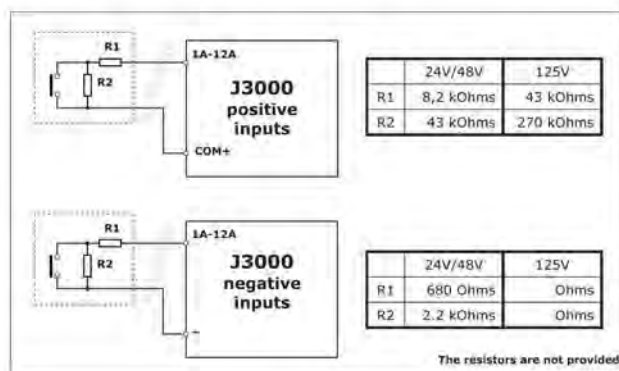


The resistors are not provided

h) «Cable monitoring» function :

This function (switch 13) monitors short-circuits and cable breaks between the J3000 and the contacts. It is enough to put two resistors (one in series and the other in parallel) directly on the contact permanently to monitor line current. A cable fault will cause «flash» to flash + sound alarm.

Only «Sound alarm» is cancellable. Output will not be activated.



LEDS FUNCTION :

«Inhibit LEDs» have very high contrast between «on» and «off». Being unpluggable, it is possible to change the colour.

a) Fault avalanche :

The differentiation between the 1st fault and the 2nd is done through flash or slow blink (1st fault is displayed in fast mode, the following avalanche is displayed in slow blink mode).

The avalanche begins with the arrival of the first alarm recognition until operator cancellation (fixed light on). After operator cancellation, a new alarm will be reconsidered as a first fault. Discrimination time : 10ms.

The various light states :

Fast blink = 1st fault Slow blink = following fault in avalanche Light out = return to normal state

Fixed light = stored and acknowledged channel Flash = cable fault (this luminous signal is not cancellable).

b) Simple indicator display function :

The S22/S23 switches allow processing and a «light» type display on certain channels. Selected channels will pass directly to fixed light on, without sound alarm or synthesis output. Input storage is inoperable. Time delay on input is still active.

OUTPUTS FUNCTION :

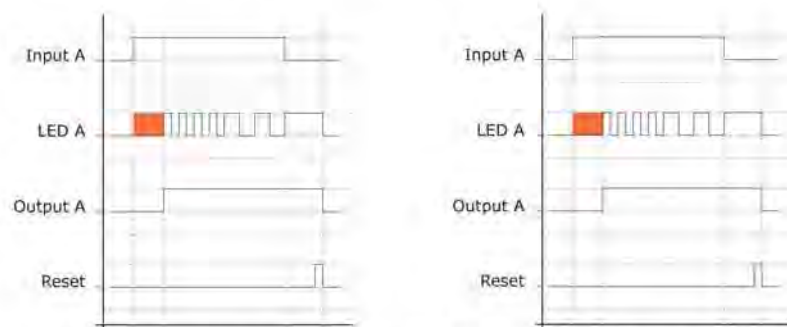
a) Terminal 21B/32B : 12 outputs

The panel has 12x150mA electronic outputs. This output transmits a «0V» (collector open). The external receiver should be connected to «+» (maximum voltage : +48Vdc). In certain cases there is a reason for it to be protected against break surges, and against start surges (cold filament) by the use of a low resistor in series. These outputs are enabled or disabled at the onset of activation of the input or the appearance of LED. This is based on the setup. There are different interfaces relay output (optional) with galvanic isolation. They are clipped directly to the output terminals. They ensure optimum and fast operation without the risk of destruction. (Refer to chapter «Accessories»).

b) The S20 switch modifies the output type. These will become «blinking», that is to say to the front light image (flash, fast or slow blinking, light out). Can be used for despatch on external synoptic. The «test» function directly activates the outputs (same as for the front lights).

c) Association of outputs at the input position or at the alarm memory :

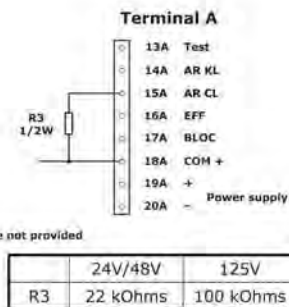
The output can be controlled by the corresponding input or by activation of the corresponding LED.



Reminder : in standard function the output activates when the input is activated and after a time delay. The output will be deactivated after complete deletion by the operator, that is to say after light is off. The output is coupled to the memory of alarm.

=> With R3 resistor attachment : The output will be associated with the presence of alarm input :

- If the input is activated, the associated output will be activated after time delayed input recognition.
- If input drops, the associated output drops at the same time as the input.



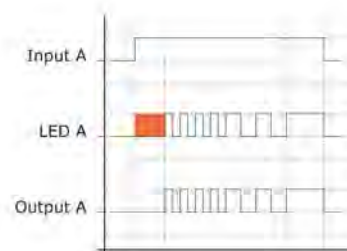
This function is activated by the presence of resistor between the terminal and the terminal AR CL to «+».

«Blinking outputs» in parameterizing mode (switch S20 to 1) :

The operation is similar to that of the above, but the output will be in blinking mode without storage. The output will blink fast, slow, flash as the LED.

Function to use to animate a synoptic with light.

A relay output interface (optional) can be used for galvanic isolation. It snaps directly onto the output terminals (The 12 outputs J3000 standards are of the type «open collector» of 150mA. In case of direct use, it may be necessary to add the optional output interface).



- 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 supply or the bus monitor releases this output for 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 tips for 1 second, and then resumes its initial position. Sound cancellation is no longer useful on this selection).
 - Blinking output 1s+1s => fast blink (output relay blinks at 1 second every 1 second rythm and is cancellable).
 - Blinking output 1s+2s => slow blink (output relay blinks at 1 second every 2 seconds rythm and is cancellable).
- e) **Synthesis output Terminal 38B/40B** : By positive safety 1RT relay. It is de-activated (thus drops) :
- If an alarm is recognized.
 - If an analog detection on voltage supply, an alarm by cable monitoring on one channel or an internal fault are present (Used in «Watchdog»).
- It will resume its initial position when the display of the phenomenon having caused disappears. The synthesis relay is not de-activated by channels used in simple indicator display (switches S22 and S23). The S24 switch allows use of the synthesis relay only as Watchdog. The relay will no longer be activated by inputs.
- f) **Integrated buzzer (Option)** : It starts as the KL output relay. If the KL relay is in positive security, do not forget to move the connector jumper. Open box, the jumper is near KL relay.

PROCESS TERMINAL OPERATION :

- a) **Synchro terminal 34B** : (Terminal in Input/Output mode). Synchronizes blinking between the various panels. All panel light flashing synchronizes on the signal coming from this terminal.
- If synchronization is not selected on this panel, as master it transmits synchro time markers to the other users (it synchronizes itself on its own time markers).
 - If synchronization is selected on this panel, it receives pips coming from the outside and is synchronized as above. The power supply of this terminal is specific to this apparatus (**never connect another function as the «Synchro» terminal of another panel**).
- b) **1st fault terminal 33B** : (Terminal in Input/Output mode). Clusters several panels so as to have 1st fault sequence on all channels. The presence of a 1st fault on one of the clustered panels will be transmitted to the others by this terminal. The panel that sees a 1st fault sends a condition report on this terminal linked to other panels. Those receiving this condition will display all the following information in slow blink mode (valid also for the transmitter panel). The power supply of this terminal is specific to this apparatus (**never connect another function as the «1st fault» terminal of another panel**).

INTERNAL PROCESS FUNCTION :

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

- In the case of overvoltage, the front supply LED goes from green to blinking red (tricolor LED).
- In the case of under-voltage, the front supply LED goes from green to blinking orange (tricolor LED). The panel remains operational.
- If the voltages falls to 13.5V, the LED goes to fixed orange and the panel is blocked.

Supply voltage alarm detection is stored in the front LED that passes to blinking mode. The synthesis relays and the sound alarm are triggered. It is necessary to cancel the sound alarm. The LED changes to fixed. From the time of the fault disappearing and after cancellation, the «live voltage» LED and the synthesis relay returns to normal. The tolerance zone around the supply voltage increases in an «anti-clockwise» direction (view from the rear). The tolerance zone around the supply voltage reduces in a «clockwise» direction (view from the rear). The adjustment turn corresponds to an increase or a reduction of the adjustment range, about 5.5V (for 110/125V supply a variation of +/-10%).

PRODUCING LABELS :



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

CHANGING LEDS COLOURS :

The LEDs are fitted on detachable sockets, enabling a change in colour. The colours available are the following :
Red, Green, Yellow
(Blue and White available on request)

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

Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit.
PC software is provided free to create labels, including an image, to save and to duplicate productions. It is possible to load it on our website .

Labels can be handwritten, or printed with colour (laser or ink-jet). For high-humidity countries printing on plastic sheets is recommended.

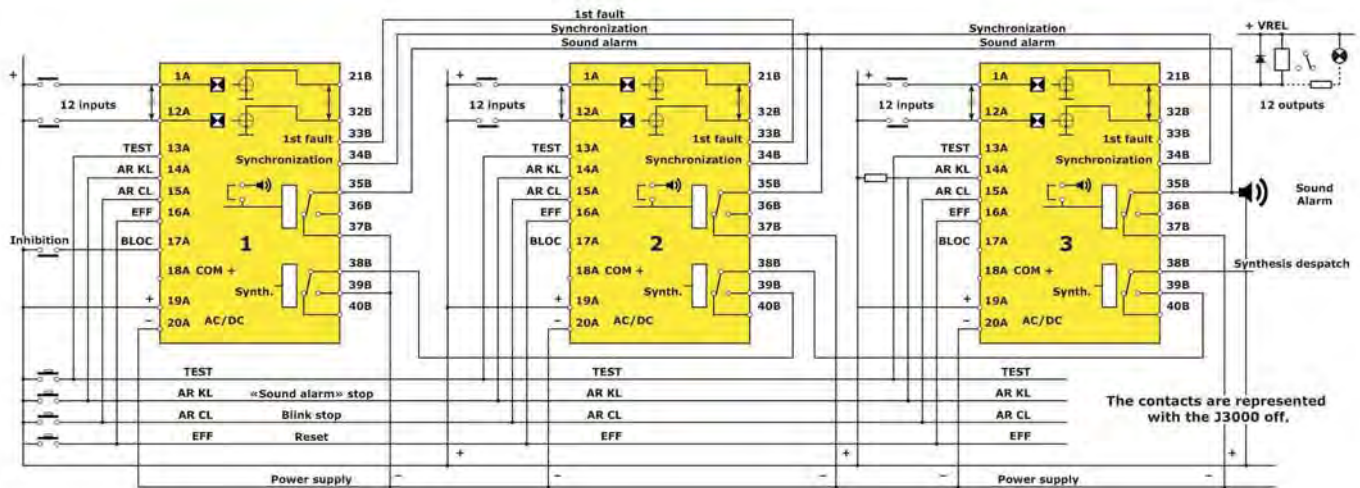


CONNECTIONS :

Application example :

- Panel «1» is fitted with 3 contacts in NO mode and one in NC mode on inputs (Selection S4 active).
- Panel «2» is fitted with 1 contact in NO mode and two in NC mode on inputs (S3/S4 selection active).
- Panel «3» is fitted with 1 contact in NO mode and one in NC mode on inputs (S4 selection active).
- The «Test», «AR KL», «AR CL» and «EFF/Reset» are centralized for the three panels.
- «Synthesis» contacts are connected in series to a remote despatch point. Synthesis relays are set at positive safety (relays normally activated).
- Sound alarm relays are selected at positive safety. Contacts are connected in parallel to an external general sound alarm (S15 = ON).

- Blinking LED is synchronized for the three panels (terminal 34B) (S14s for «1» and «2» are active, S14 for «3» is inactive, «3» synchronizes «1» and «2»).
- «1» and «2» are clustered to obtain the 1st fault among 24 inputs.
- «3» uses its outputs on one relay and one external light. (terminals 21B and 32B). A diode and resistor have been fitted as protection. Alarm relaunch is used (R connected to + on terminal 14A. the maximum voltage on outputs is 48Vdc only).

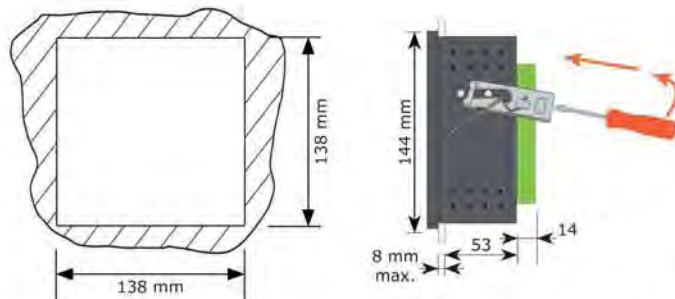


+VREL : supply voltage on the outputs. This external voltage (+48Vdc max.) is useful only for particular connection.
(Our relay cards are supplied directly by the panel).

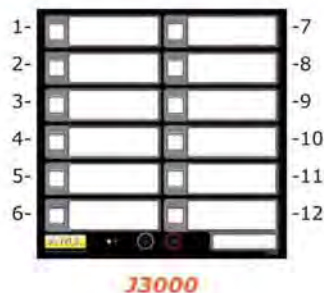
«COM+» is used to supply the input contacts.
It is possible to use the 19A terminal «+» to supply several J3000 contacts.

CUT-OUT :

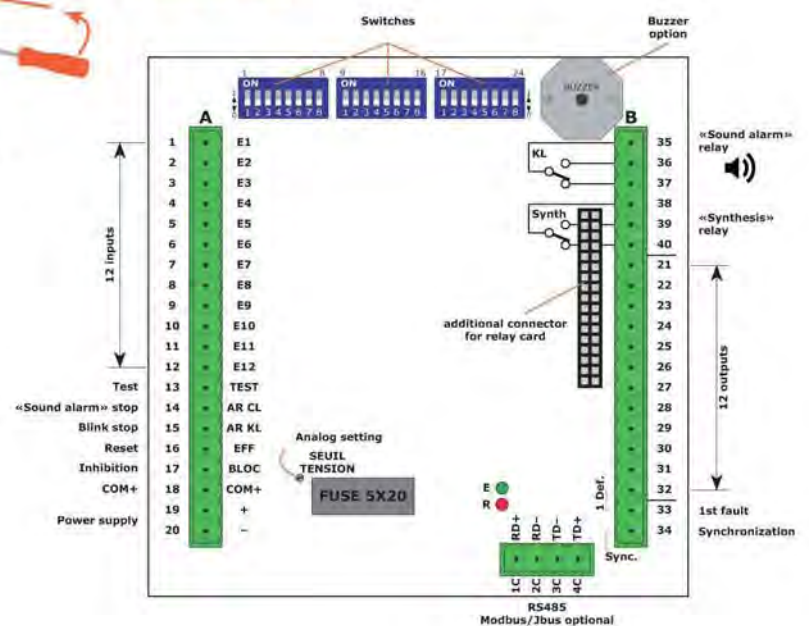
DIN 144x144 format



Numbering system



Rear view :



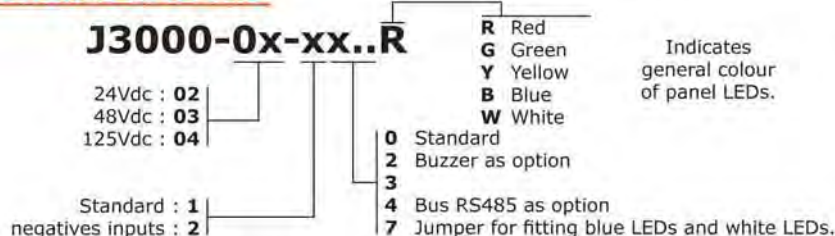
SPECIFICATIONS :

Possible voltages	24Vdc, 48Vdc or 125Vdc
Voltage supply tolerance	at 24V : -40% to +30% other voltages : +/- 30%
Minimum consumption	100mA/24V
Maximum consumption	395mA (300mA for 110Vdc)
Input current	2.4mA
Permitted line resistance on input	2 kOhms
Time delay accuracy	+/- 20%

Delivered with red LEDs as standard (see below for another colour).

Discrimination between 1st and 2nd fault	10ms
Temperature (at nominal voltage)	-10°C / +50°C
Voltage on outputs	24Vdc outputs on 48/125Vdc models (see output interface)
Current by output	150mA max.
With A.M.I. relay card	
Minimum voltage supply (when using relay cards)	17Vdc
Consumption by output	9mA per relay
Relay contact	1RT 6A/12Vdc - 0.15A/240Vac

ORDER REFERENCES :



Indicates general colour of panel LEDs.

If multiple options, indices are placed in ascending order.

Example :

J3000-03-124R
J3000-02-2247B

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.

COMPLEMENTARY PRODUCTS :



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

M0815 Cover mask 144x144
for fitting to M0810 front.

Relay cards with galvanic insulation :

They deliver a dry contact (no voltage) with galvanic isolation for each output.

It is powered directly by the J3000.

- A LED on each relay displays its condition.

- A 3 terminal board allows each «contact output» connection.

Two presentations :

- Plug-in the back of J3000.

- DIN rail mounting bracket for wiring in the cabinet bottom.

Connection to J3000 by ribbon cable. Avoids too many wires on the cabinet door.

Two possible models :

- An output interface with galvanic insulation equipped with 12- or 14-relay 1RT type (12 for outputs + 1 for synchro + 1 for the 1st fault).

The two additive relays can be used differently.

Example : double 2 relays among the 12.

M0900-02-00 14 plug-in relay/card at J3000 rear.

M0900-02-01 12 plug-in relay/card at J3000 rear.

M0901-02-00 14 relay/card to fit to DIN rail.

M0901-02-01 12 relay/card to fit to DIN rail.

- An output interface with galvanic insulation equipped with 2-relay 1RT type. They are fitted with two relays with selectors, and sort outputs in two directions : electrician/mechanic or Alarm with high risk/ordinary alarm.

M0900-02-20 2-synthesis-relay plug-in card.

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

Specifications :

2, 12 or 14 relays with contact 1RT 6A/12Vdc - 0.15A/240Vdc.

Panel supply minimum voltage : 17Vdc.

Do not forget the cable connection :

M0901-02-50 ribbon cable L=1.5m fitted with connectors.

KJ3000-1 **Demonstration kit**, refer to «Accessories» pages.



M0720 / M0721, IP54 sealed front

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 and open door.

M0720 «Quarter-turn» closing button 144x144 format.

M0721 Lock with key 144x144 format.



DIN relay card



DIN relay card with flat ribbon



Demonstration kit



Plug-in relay card

Please refer to chapter ACCESSORIES from our catalog.

J3000 RS485 BUS VERSION, PROTOCOL MODBUS/JBUS :

RS485 bus : product reference : J3000-xx-x4

The J3000 panel is a technical alarm processing automatic unit that can be fitted with an RS485 type BUS link (2 or 4 leads).

It becomes a multi-task-linked intelligent peripheral in degraded mode when used with an automatic supervisor unit. It is possible to connect 64 panels to the same Bus.

- The automatic unit can recover locally processed information (status, alarms, histories) stored in the panel.

- The automatic unit can send sound and visual information to a remote operator by activating a channel through the Bus.

This information can come from the automatic unit (from its internal management system). It can also come from another panel and be sent to a «receiver» panel.



*Please ask
for protocol transmission documentation
for more information on signal frames*

COMPLETE TECHNICAL ALARM CENTRALISATION :

The Panel PC is an alarm centralizer on a RS485 Bus. Manages 64 offset 12-alarm modules or input/output modules. Its touch screen allows operations to be done without additional keyboard (operator assistance, histories, archiving).

It can send despatches or transfers to other sub-stations).

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

- In local sub-station cabinet front, for monitoring alarms and local conditions, with histories for traceability.
- In control room with clustering by offset local alarm bus from local alarm panels.
- Transfer to other possible sub-stations.

It is possible very simply to make up a technical alarm management BUS unit :

Possibility of using modules equally :

- J3500/J3000 technical alarm automatic panel.
- J2x05RS 12 or 24-LEDs indicator display receiver panel.
- I/O Modules input/output blind modules.
- Panel PC.



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

PANEL PC :



The Panel PC brings together :

- Alarm display with reset on the screen.
- Operator assistance or instructions for each of the inputs allowing indications to operator of the information to follow depending on the alarm under way.
- Display of history periods.
- Re-display of histories of a recorded period (possible 10,000 pages).
- Printing in continuous with time stamping.
- Remote alarm reporting to one or more indicators display by BUS (for example, guard posts, technical service, control room).
- Remote control outputs possible.
- USB key archiving.
- Several safety levels.

Warranty
2 years

DIN 144 x 144 format



FUNCTION :

The parametering can be done from the front, thanks to the text display, or by PC with software provided in several languages. Parameters are storable on detachable, printable and duplicable support systems.

«channel by channel» reset is possible, with a button push offset on the input (see manual start-up).



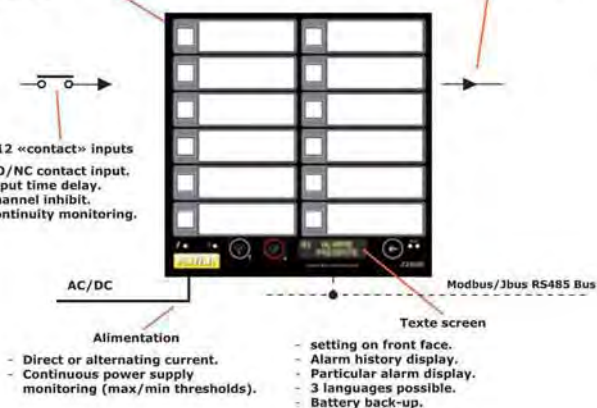
- Simple alarm or indicator display.
- Multiples sequence types.
- Alarm relaunch.
- Reactivation following «input» status.
- Global or per channel cancellation.
- Management of buttons and reset terminals.

12 «open collector» outputs

- «Contact outputs» possible.
- Association of 4 outputs possible on each input.
- Selectable outputs in synthesis.

12 «contact» inputs

- NO/NC contact input.
- Input time delay.
- Channel inhibit.
- Continuity monitoring.



- setting on front face.
- Alarm history display.
- Particular alarm display.
- 3 languages possible.
- Battery back-up.

PLC CENTRALIZATION TECHNICAL ALARMS with text display



The J3500 is technical fault processing automatic unit, integrating all necessary functions for local or deported indicator display. 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 presented on the J3500 designed for remote surveillance, for automatic operation. A luminosity adjustment system is available. The multilingual text display (3 languages) allows easy parametering channel by channel and display alarm history.



Free PC parametering software

It includes the management of information storage, blinking and acknowledgement systems.

- This modular installation can be extended to an infinite number of inputs.
- It is immediately installable and can be fitted into a bay, in a 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 :

A 2-line 16-character display panel helps easy parameterization using facade buttons.

1. 12 unpluggable high-luminosity LEDs 10x10mm. It's possible to change colours (red as standard, yellow, green, blue). Different blinkings modes depending on the sequence used.
2. Large label with 4 lines of text possible.
3. «Power voltage presence» LED.
4. LED «Alarm» : BUS alarm / power supply level alarm.
5. «LEDs Test»/«Next» button.
6. «Reset»/«Preceding» button.
7. 2-line 16-character text display panel : History, Alarms/Program.
8. Program/History button.
- 9/10. Transmission Bus LED.



Language : Screen display can be selected in English, French or Spanish.

History : In normal mode the display panel can recall the previous 64 events. It indicates the channel concerned along with its type. The pieces of information are numbered and classified in order of arrival. It is possible to delete the history.

Luminosity adjustment : It is possible to adjust facade and display panel LED luminosity for particular cases, such as in marine applications. Control is transferable to several panels.

PRODUCING LABELS :

Labels are simple paper sheets that can be slid into a transparent pocket as part of the thickness of the front. One blank label is supplied with each unit. PC software is provided free to create labels, including an image, to save and to duplicate productions. It is possible to load it on our website .

Labels can be handwritten, or printed with colour (laser or ink-jet). For high-humidity countries printing on plastic sheets is recommended.



CHANGING LEDS COLOURS :



The LEDs are fitted on detachable sockets, enabling a change in colour. The colours available are the following : **Red, Green, Yellow, Blue, White.**

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

FUNCTIONS :

The J3500 settings can be made on a PC screen or directly from the front panel through luminous display and user-friendly menus. An access code is necessary.

Setup from the front :

Since the J3500 front, you can set the J3500 whole. A menu appears on the display of text for editing all parameters. Access the programming menu is protected by an editable password.

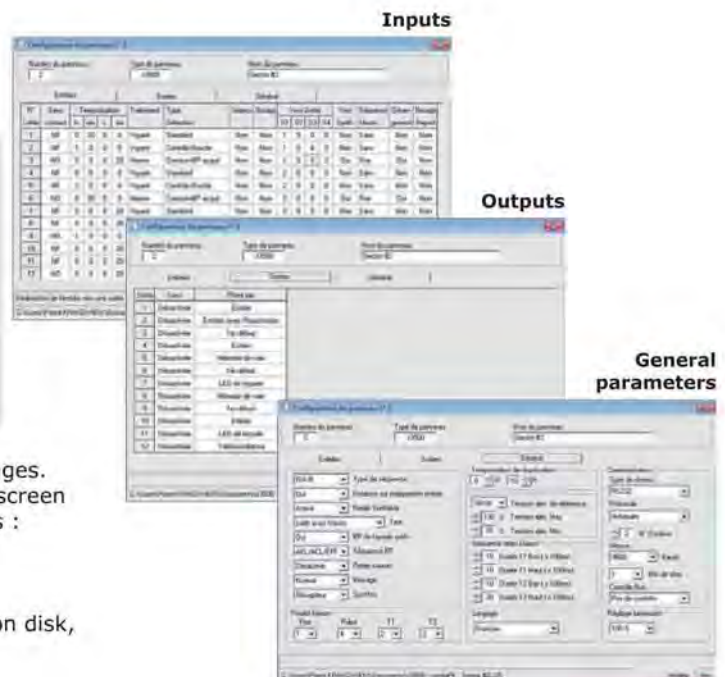
Language : It is possible to choose the language on screen display : French, English, Spanish.

Setup with software :

The software is free and available on our website in 3 languages. It allows quick setup by selecting values on the screen. The screen consists of 3 windows giving access to various menu settings :

- Inputs.
- Outputs.
- General parameters J3500.

This software lets you copy the settings panels, store them on disk, print, duplicate.



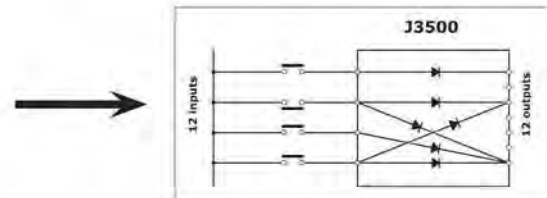
INPUT PARAMETERS :

Setting of each input separately :

- **Direction of inputs** : In Normally Open or Normally Closed mode.
- **Time delay input filtering** : 100ms to 23h59min59s900ms in 100ms increment.
- **Channel processing type** : In Alarm or in Indicator Display.
 - Channel in alarm mode is stored, activates sound alarm and requests cancellation.
 - Channel in indicator display mode is simply displayed. The corresponding light goes off on input disappearance.
- **Input detection type** : Standard/Loop monitoring.
 - «Standard» is the normal configuration.
 - «Loop monitoring» monitors short-circuits and input link breaks.
- **Alarm relaunch** : Triggers sound and visual reactivation after a set time delay to avoid an active alarm being forgotten.
- **Channel inhibited** : Momentarily stops channel by activating «Inhibition» contact input.
- **Output attributions** : Selection up to 4 possible outputs that are activated by the presence of this path. Allows specific synthesis channels clustering for remote reports. This allows you to group reports according to many criteria.
Example :
 - Outputs «high risk».
 - Mechanical alarms to the mechanical engineer and electrical alarms to the electrician.
 The output will remain activated as a cause having generated will be present (equivalent to an «OR»).

Configuration des paramètres n° 2														
N° du paramètre			Type de paramètre			Nom du paramètre								
2			J3500			Secteur 02								
Entrées					Sorties					Général				
N°	Sens	Temporisation	Traitement	Type	Relance	Stockage	Vitesse	Suivre	Vitesse	Suivre	Séquence	Driver	Stockage	Report
Entrée	contact	h	min	s	ms			S1	S2	S3	S4	Synth	clavier	général
1	NF	0	10	0	0	Voyant	Standard	Non	Non	1	5	0	0	Non
2	NF	1	0	0	0	Voyant	Contôle Boucle	Non	Non	1	0	4	0	Non
3	NO	0	0	0	20	Alarme	Contact-BP acquit	Non	Non	1	0	0	2	Oui
4	NF	0	5	0	0	Voyant	Standard	Non	Non	2	0	0	0	Non

- **Despatch to synthesis relay** : Channel activates synthesis relay or not.
- **Sound sequence type** : Select 1 from four sound sequences activated at the appearance of this channel. Allows better auditory discrimination depending on the danger of the incoming alarm.
 - «Without» : Sound alarm is de-activated.
 - «Fixed» : Sound alarm is activated in continuous mode until cancellation.
 - «One pulse» : Sound alarm activated for only 1 second rendering sound cancellation unnecessary.
 - «T1/T2» : 2 types of sequences defined by user.
Example : 1s/1s blinking and 1x/2x blinking. These two sequences need sound cancellation.
- **Inhibition** : Allows you to block (inhibit) a channel when his contact is not working properly.
- **Inhibit output on disturbance** : Stop or not the activation of output when the channel is Inhibited.



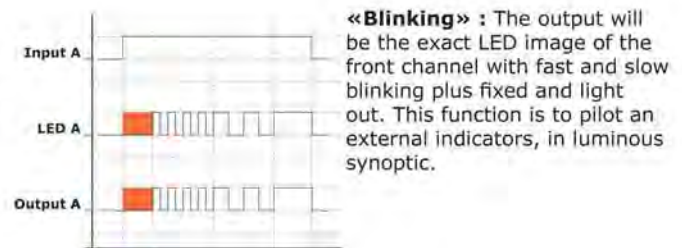
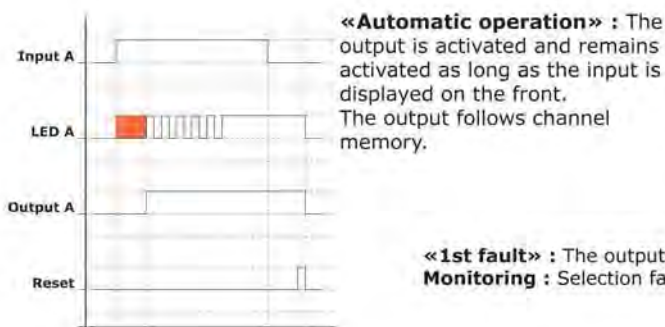
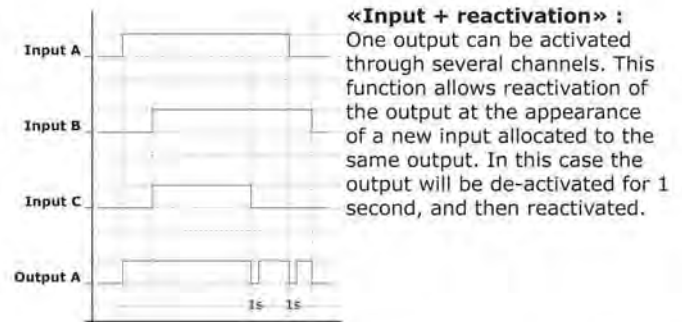
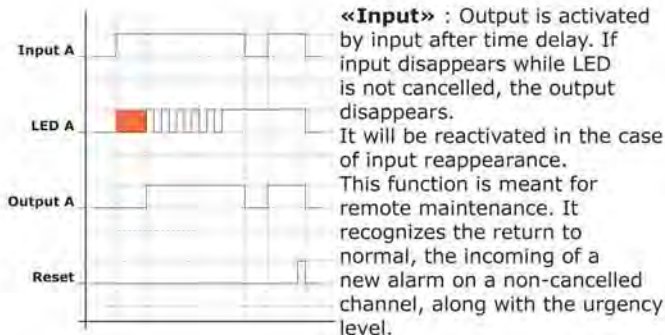
OUTPUT PARAMETERS :

Setting of each output separately :

- **Direction of outputs** : Positive or negative security.
- **Drive by** : An output can be activated by :
 - The appearance of input and follow the movements of input.
 - The memory of the channel.
 - Monitor the status of the LED (and blinking like it).

Entrées			Sorties			Général		
Sortie	Sens	Piloté par						
1	Déactivée	Entrée						
2	Déactivée	Entrées avec Réactivation						
3	Déactivée	Yei défect.						
4	Déactivée	Entrée						

Outputs become «Blinking» mode as the image of the front LED (flash, blink fast or slow, light off). Can be used to drive an external synoptic. The «LEDs Test» can directly activate the outputs (like the front LEDs).



«1st fault» : The output will be activated only in the case when the input channel is a first fault.
Monitoring : Selection facilitating the postponement to remote surveillance society.

GENERAL PARAMETERS :

This setting affects the whole panel.

Sequence type : ISA2 / ISA3 / Slow blinking

- **ISA2** : Sequence displays with fast blink on 1st fault and slow blink on subsequent alarms. LED goes off automatically at return to normal after cancellation. Cable fault displays in «flash».
- **ISA3** : same but deletion by operator. Fixed light then alarm disappears (1st fault possible, loop monitoring possible).
- **CL** : Sequence similar to ISA3. Fast blink displays at incoming alarm. If channel is cancelled and displayed in fixed mode, the LED will slow blink after return to normal, indicating to the operator that it can be cancelled. Loop monitoring display is possible, 1st fault display is impossible.
- **Alarm re-activate** : One channel can be in alarm mode displaying «cancelled» while waiting to return to normal then «operator delete». Indicator display and sound reactivate if input reappears.
- **Synthesis relay** : Normally activated (positive or negative security).
- **«LEDs Test» mode** : The «LEDs Test» button can have several actions :
 - «LEDs alone» : Carry out LED tests only on facade LEDs.
 - «LEDs + outputs» : Test front LEDs and outputs (used when outputs trigger a synoptic in blinking mode).
 - «LEDs + KL» : Facade LED and sound alarm test.
 - «LEDs + outputs + KL» : Facade LED, outputs and sound alarm tests.
- **Facade push buttons** : Shuts down facade buttons when remote «Test» and «Reset» buttons are in use.
- **Rear push button processing** :
 - «AKL/ACL/EFF» : 3 rear buttons are necessary : «Sound alarm» stop, Cancel (Blink stop), Reset.
 - «AKL+ACL/EFF» : 2 rear buttons are necessary : Cancel Stop, (Sound alarm and Blink stop), Reset.
- **KL relay** : Normally activated (positive security) or not.
- **Inhibit sequence** : Defines how the inhibit is done when an alarm is present in display mode.
- **Synchronization for visual comfort** : the panel becomes transmitter or receiver synchronization signal. The synchronization of the blinking LEDs on all J3500 facing an operator, increases visual comfort.
- **KL relay sequences priority** : Alarms with various sound sequences can take place in the same time fraction. The priority function decides which sequence is used first. This function allows a sound discrimination unit to manage the degree of urgency.



- **Reactivation delay** : 0 to 23h. Sets display reactivation time if a cancelled alarm is still present.
- **Supply voltage** : the panel has a level control voltage. Adjusts the threshold level «under» and «over» voltage in % of specified voltage.
Possible values : 24Vdc, 24Vac, 48Vdc, 110Vac, 125Vdc, 200Vdc, 220Vac.
- **Sequence relays Klaxon T1/T2** : It is possible to set the sound alarm relay blink activation/de-activation periods. 2 different settings can be done.
- **Language** : It is possible to choose the language on the screen display : French, English and Spanish.
- **BUS type** : Determines the connection type on port «BUS» : RS232/RS485 4 leads / RS485 2 leads.
- **Protocole** : No slave / Baud rate / Stop bits.
- **BUS control** : Enables and sets the security monitoring presence BUS.
- **Brightness** : Adjust the LEDs brightness.

Output ports :

- The RS232 port for configuration via PC type subD/9 points is present as standard.
- Option : port RS485/422 bus link with Modbus/Jbus protocol.

OPERATING PRINCIPLE :

The J3500 provides optimized information management. Each channel can be processed in simple display mode or in alarm mode. However it is possible to select contact direction and confirmation time delay for each channel (even those in indicator display mode).

Display or simple indicator display :

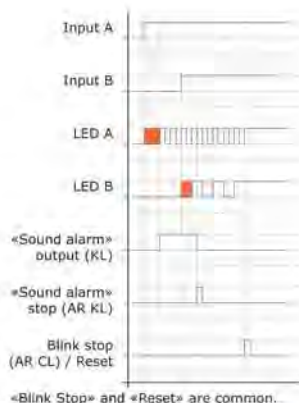
Processing to provide stable and straightforward information, such as Run, Stop, Level, Temperature.
One channel in «indicator display» is displayed in fixed mode as long as it remains present without sound alarm or reset. It can activate one or more outputs and the synthesis relay. Input continuity loop control and Time delay are possible.

Alarm :

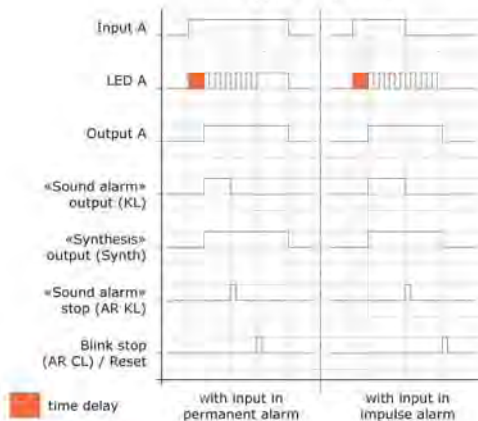
Processing destined for information in the nature of Danger, Emergency situations, where it might be necessary to call for the operator (such as with too high levels or temperature, fire or alarms set off). Since the operator could be absent, the information is stored and the display remains present until cancellation by the operator. It can activate one or more outputs and the synthesis relay sound alarm and synthesis relay. Loop monitoring on input continuity is possible.

Type 2 sequence

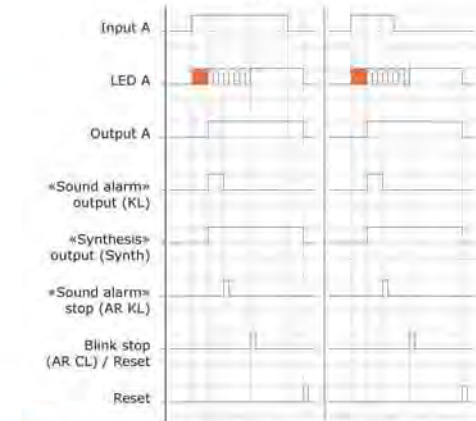
Type 3 sequence



«Blink Stop» and «Reset» are common.



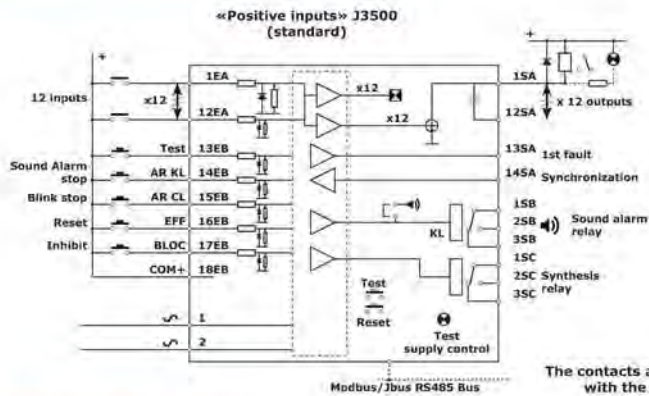
time delay



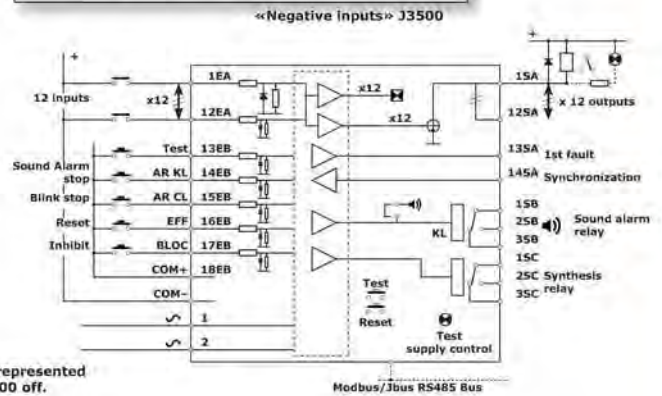
time delay

This helps differentiate the first alarm. In diagram «Type 2 sequence» and «Type 3 sequence», the blinks are only represented in «slow».

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».



LEDS FUNCTION :

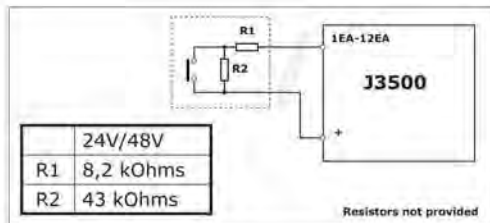
The various light states :

- Fast blink = 1st fault
- Slow blink = following fault in avalanche
- Fixed light = stored and acknowledged channel
- Light out = return to normal state
- Flash = cable fault (this luminous signal is not cancellable).

PARTICULAR FUNCTION :

«1st fault» function 13SA : (see diagram #1) Helps maintenance, allows signalling of the origin of a breakdown. In the case of an avalanche of alarms, differentiation between the 1st and 2nd alarms is indicated by fast or slow blinking (1st fault displays as fast blink, avalanche faults displayed in slow blink). The avalanche begins with the arrival of the first alarm recognition until operator cancellation (goes to fixed light on). After operator cancellation, a new alarm will be reconsidered as a first fault.

It is possible to cluster several panels so as to obtain «first fault» on an unlimited number of inputs. The discrimination time remains identical at 10ms.



«Cable monitoring» function : Ensure effective monitoring of wire continuity at each input. Allows monitoring of short-circuits and cable breaks.

It is enough to put in two resistors (one in series and the other in parallel) directly on the contact, for continuous monitoring of the line current. A cable fault will cause flashing + sound alarm. Only the «sound alarm» is cancellable. Output will not be activated.

Auto-test sequence : A configurable «LEDs Test» function allows testing of any desired elements : LEDs, outputs, «Sound alarm» relays, synthesis relay. The complementary «Auto-test» function respects the «LEDs Test» selection.

Reset buffer events : From the front of the J3500 erases the memory of last 64 events.

Automatic monitoring of power supply voltage : The J3500 is supplied with an automatic monitoring unit with thresholds adjustable to the supply voltage value. An «over-voltage» or «under-voltage» will be detected and displayed on flashing on the front «supply» LED with sound alarm and cancellation.

Thresholds are adjustable. This function can be cancelled by parameterization.

OUTPUT FUNCTION :

Synthesis output 15C/25C/35C : by positive safety or not, 1RT relay. It is activated or de-activated (thus drops) :

- If an alarm is recognized.
- If analog detection, the cable monitoring or an internal fault activates (watchdog use). It will resume its initial position when the display of the phenomenon having caused it will disappear.

A selection allows the sorting of channels that should act on the «Synthesis» relay or not. From that point, it can be activated by a input in «indicator display» mode as for a input in «Alarm» mode.

Output KL 15B/25B/35B : through the 1RT relay, a new alarm or power supply analog detection triggers this output up to the point of operator cancellation.

Possible parameterizing modes : To positive or not security. Different «Sound alarm» output types :

- fixed output (permanent up to cancellation).
- 1 pulse output (relay contact tips for 1 second, and then resumes its initial position. Sound cancellation is no longer useful on this selection).
- T1 blinking output defined through parameterization. Example: 1 sec + 1 sec (output relay blinks at a 1 second every 1 second rhythm and is cancellable).
- T2 blinking output defined through parameterization. Example: 1 sec + 2 secs (output relay blinks at a rhythm of 1 second every 2 seconds and is cancellable).

In the case of the simultaneous arrival of several alarms, the «Sound alarm» relay will execute the highest level sequence type (fixed, pulse, T1 or T2) parameterized by the operator.

Integrated buzzer (Option) : An internal buzzer can be provided as an option, added to the «sound alarm» relay. It is triggered as the KL output relay is triggered.

TERMINALS FUNCTION :

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

It is possible to carry out the test on : LEDs, outputs/sound alarm relays.

This terminal also can remotely set the luminosity.

The order of sequences of use of the 3 following terminals should be respected. The AR CL and EFF terminals are inactive if the sound alarm is present.

The EFF terminal is inactive if the light blinks in the type 3 sequence. (Impossible to delete before blink stop).

AR KL terminal (Sound alarm stop) 14EB : Traditional function : Input activation stops sound alarm. It is possible to cluster the AR KL and AR CL terminals through parameterization. In this case, one single external button stops the sound alarm and cancels the channel (connected to the AR CL terminal).

BLINK STOP terminal AR CL 15EB : one press passes to fixed light.

- Type 2 sequence operation : When the alarm disappears, the lights in fixed mode will delete themselves (one AR CL on a blinking light with an input that has become normal thus deletes the light since it passes to fixed light mode then soon goes off).
- Type 3 sequence operation : When the alarm disappears, it is necessary to use the EFF terminal to delete the light in fixed mode.

RESET/EFF terminal 16EB :

- Type 2 sequence operation : EFF terminal is not used.
- Type 3 sequence operation : The lights go out only after fixed light passage, after input disappearance and at the moment the EFF button is pressed.

Auto-test sequence : (TEST + AR CL terminals or front push buttons) One push on the two push buttons or validating two terminal simultaneously activates the internal test cycle of the panel (LED test + 2s + horn test + 2s + synthesis test + output activation). Is an «incremental» test witch activates the contact inputs, one after the other, and the selected outputs (outputs, «Synthesis» relay, «Sound alarm» relay).

Inhibiting terminal 17EB : Selected inputs are inhibited by putting «Inhibition» input to «+» voltage. The selected inputs are no longer recognized as the «Inhibition input» is activated. The processing of displayed channels before inhibit will continue (also with non-selected channels). It is possible to have different inhibit sequences. One selected input is active if the inhibition input is inactive.

CONNECTIONS :

Application example :

- Panel «1» is fitted with 3 contacts in NO mode and one in NC mode on inputs.
- Panel «2» is fitted with 1 contact in NO mode and two in NC mode on inputs.
- Panel «3» is fitted with 1 contact in NO mode and one in NC mode on inputs.
- The «test», «sound stop», «blink stop» and «EFF/Reset» are centralized for the three panels.
- «Synthesis» contacts are connected in series to a remote despatch point. Synthesis relays are set at positive safety (relays normally activated).

«COM+» terminal 18EB : Supplies input contacts by ensuring protection. But these inputs can be supplied with another voltage. **Synchro terminal 14SA** : (I/O terminal). Terminal in Input/Output mode. Synchronizes blinking between the various panels. All panel light blinking synchronizes on the signal coming from this terminal.

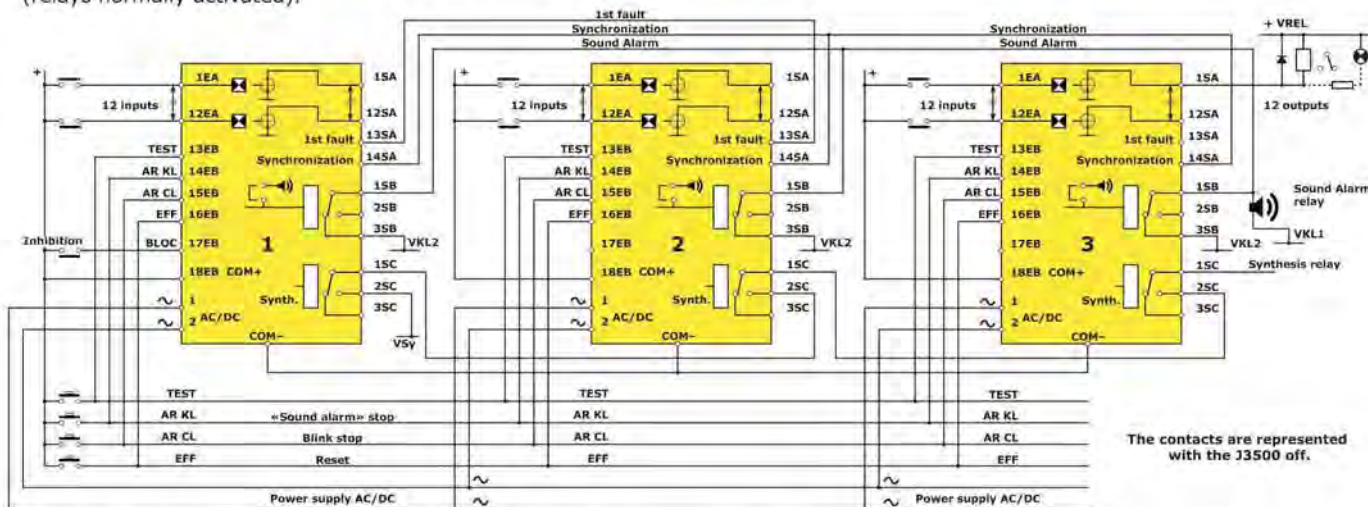
- If the synchronization is not selected on this panel, it is master and is transmitting synchro signals to the other users. (It self-synchronizes on its own time markers).
- If synchronization is selected on this panel, it receives pips coming from the outside and synchronizes above.
- The power supply of this terminal is specific to this apparatus (**never connect another function as the «1st fault» terminal of another panel**).

1st fault terminal 13SA : Terminal in Input/Output mode. Clusters several panels so as to have the 1st fault sequence on all the channels. The presence of a 1st fault on one of the clustered panels will be transmitted to the others by this terminal. The panel that sees a 1st fault sends a condition on this terminal linked to other panels. Those receiving this condition will display all the following information in slow blinking mode (valid also for the transmitter panel).

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

- Sound alarm relays are selected at positive safety. Contacts are connected in parallel to an external general sound alarm.
- Blinking LED is synchronized for the three panels (terminal 14SA).
- «1» and «2» are clustered to obtain the 1st fault among 24 inputs.
- «3» uses its outputs on one relay and one external light. A diode and resistor have been fitted as protection (terminals 1SA to 12SA).

the maximum voltage on outputs is 48Vdc only.



+VREL : supply voltage on the outputs. This external voltage (+48 Vdc max) is useful only if the particular mount (our relay cards are supplied directly by the panel).

VKL : voltage independent of J3500 and feeding the «horn» with galvanic isolation. For example : 230Vac.

VSy : Independent Voltage of J3500 and feeding the relay Synthesis with galvanic isolation.

- «COM+» is used to supplied the input contacts.

- With the 14-65Vdc version, it is possible to use the «+» power supply to feed several contacts J3500. **In this case, DO NOT CONNECT the «COM+».**

- The «COM-» is required in case of J3500 80-260Vac/dc version. Otherwise, it is not necessary.

CHARACTERISTICS :

Delivered with red LEDs as standard (see below for another colours).

Mixed power supply voltage	14Vdc-65Vdc, 14Vac-49Vac, 80Vac/dc-230Vac/dc
12 «open collector» outputs	according to 24Vdc supply voltage (see input interface)
Output power	150mA
Consumption per input	2.4mA
Permitted line resistance on contact	2 kOhms
Time delay accuracy	+/- 20%
Discrimination between 1st and 2nd fault	10ms

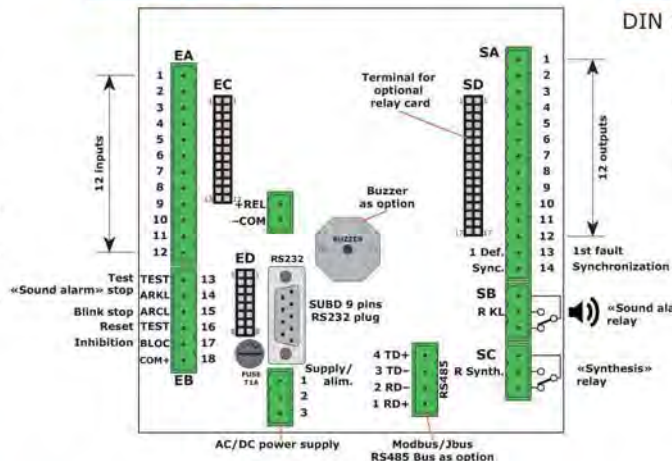
Minimum voltage (if relay cards used)	17Vdc
Maximum consumption	500mA/24Vdc, 256mA/48Vdc 116mA/110Vdc, 130mA/230Vac
Minimum consumption	100mA/24V
Temperature (with nominal voltage supply)	-10°C / +50°C
Relay contact	1RT 6A/12Vdc - 0.15A/240Vac
Weight	750g
Dimension	144 x 144 x 65 mm
Protection without cover	IP52
Protection with cover	IP54

Numbering system



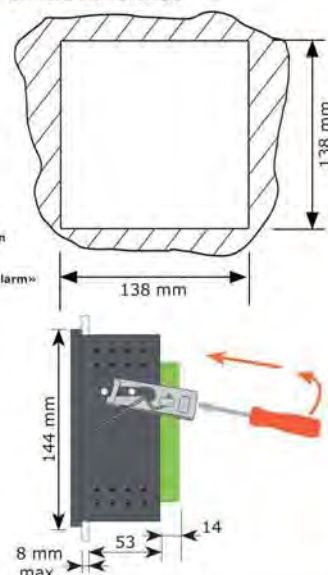
J3500

REAR VIEW :



CUT-OUT :

DIN 144x144 format



ORDER REFERENCES :

J3500-0x-x x..CR

14-65Vdc : 02
14-49Vac : 02
80-260Vac/dc : 04

Standard : 1
negatives inputs : 2

R Red
G Green
Y Yellow
B Blue
W Blanc

Indicates general colour of panel LEDs.

C output card for flat cable
V output card screw terminals
0 Standard
2 Buzzer as option
4 RS485 Bus as option

Output card : 2 models :

- «C» type : With ribbon connector for connecting an optional DIN relay card (SD terminal block).
- «V» type : With screw-on connector 12 outputs.

All other connectors are «screw, plug».

If multiple options, indices are placed in ascending order.

Example :

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

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.

COMPLEMENTARY PRODUCTS :



M0800
M0815

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

M0815 Cover mask 144x144
for fitting to M0810 front.

Relay cards with galvanic insulation :

They deliver a dry contact (no voltage) with galvanic isolation for each output.

DIN rail mounting bracket for wiring in the cabinet bottom.
Connection to J3500 by ribbon cable. Avoids too many wires on the cabinet door.

It is powered directly by the J3500.

- A LED on each relay displays its condition.
- A 3 terminal board allows each «contact output» connection.

Two possible models :

- An output interface with galvanic insulation equipped with 12- or 14-relay 1RT type (12 for outputs + 1 for synchro + 1 for the 1st fault). The two annexe relays can be used differently.
Example : double 2 relays among the 12.

M0901-02-00 14 relay/card to fit to DIN rail.

M0901-02-01 12 relay/card to fit to DIN rail.

- An output interface with galvanic insulation equipped with 2-relay 1RT type. They are fitted with two relays with selectors, and sort outputs in two directions : electrician/mechanic or Alarm with high risk/ordinary alarm.

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

Specifications :

2, 12 or 14 relays with contact 1RT 6A/12Vdc - 0.15A/240Vac.

Panel supply minimum voltage : 17Vdc.

(For J3500 used in 48Vac/dc, use the type card M0901-03-01)

Do not forget the cable connection :

M0901-02-50 ribbon cable L=1.5m fitted with connectors.



M0720

M0720 / M0721, IP54 sealed front

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 and open door.

M0720 «Quarter-turn» closing button
144x144 format.

M0721 Lock with key
144x144 format.



J3500-1 Demonstration kit, see «Accessories» pages.



Please refer to chapter ACCESSORIES from our catalog.

RS485 bus : product reference : J3500-xx-x4

The J3500 panel is a technical alarm processing automatic unit that can be fitted with an RS485 type BUS link (2 or 4 leads).

It becomes a multi-task-linked intelligent peripheral in degraded mode when used with an automatic supervisor unit. It is possible to connect 64 panels to the same Bus.

- The automatic unit can recover locally processed information (status, alarms, histories) stored in the panel.

- The automatic unit can send sound and visual information to a remote operator by activating a channel through the Bus.

This information can come from the automatic unit (from its internal management system). It can also come from another panel and be sent to a «receiver» panel.



*Please ask
for protocol transmission documentation
for more information on signal frames*

COMPLETE TECHNICAL ALARM CENTRALISATION :

The Panel PC is an alarm centralizer on a RS485 Bus. Manages 64 offset 12-alarm modules or input/output modules. Its touch screen allows operations to be done without additional keyboard (operator assistance, histories, archiving).

It can send despatches or transfers to other sub-stations).

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

- In local sub-station cabinet front, for monitoring alarms and local conditions, with histories for traceability.
- In control room with clustering by offset local alarm bus from local alarm panels.
- Transfer to other possible sub-stations.

**It is possible very simply to make up
a technical alarm management BUS unit :**

Possibility of using modules equally :

- J3500/J3000 technical alarm automatic panel.
- J2x05RS 12 or 24-LEDs indicator display receiver panel.
- I/O Modules input/output blind modules.
- Panel PC.



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

PANEL PC :



The Panel PC brings together :

- Alarm display with reset on the screen.
- Operator assistance or instructions for each of the inputs allowing indications to operator of the information to follow depending on the alarm under way.
- Display of history periods.
- Re-display of histories of a recorded period (possible 10,000 pages).
- Printing in continuous with time stamping.
- Remote alarm reporting to one or more indicators display by BUS (for example, guard posts, technical service, control room).
- Remote control outputs possible.
- USB key archiving.
- Several safety levels.

Warranty
2 years

PanelPC is a TECHNICAL ALARM management system using a BUS to integrate operator-assisted capacities to the history with file storage on a USB key.

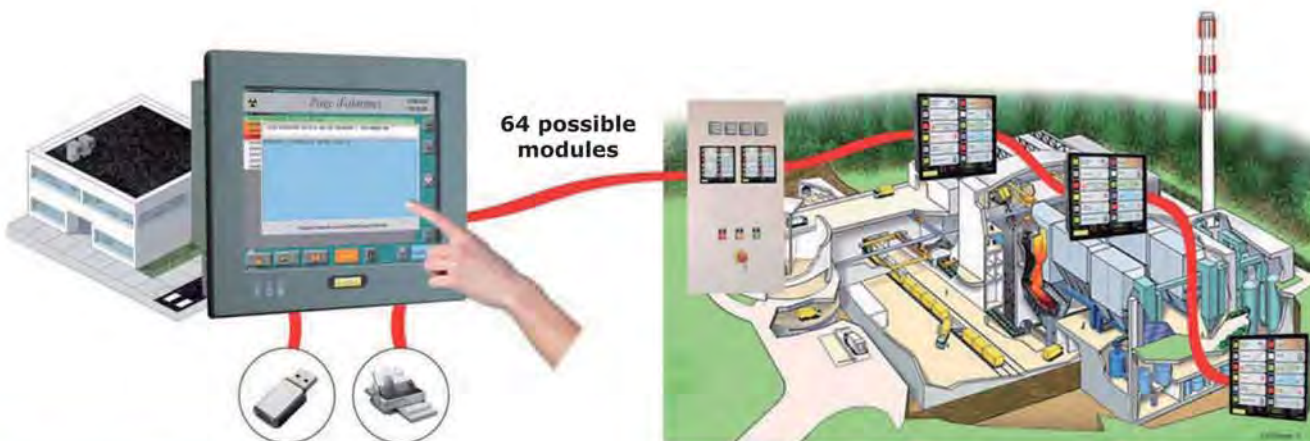


PanelPC



USE :

- PanelPC is an alarm centralizing system on a RS485 BUS. It can manage 64 12-alarm offset modules or input/output modules. Its touch screen facilitates the carrying out of all operations with an additional keyboard (operator assistance, history and filing). It sends despatches or transfers to other sub-stations). It can be used either in a sub-station or control room.
- In the front of a local cabinet for monitoring alarms and local conditions, with history for traceability.
- In a control room with clustering by offset local alarm bus from local alarm panels.
- Using the facility for transfer to other possible sub-stations.



SPECIFICATIONS :

PanelPC integrates:

- Alarm display with screen cancellation.
- Operator assistance or instructions for each path indicating to the operator the procedure to follow in relation to the present alarm.
- Display of history periods.
- Re-display of histories of a recorded period (possible 10 000 pages).
- Printing in continuous with time stamping.
- Remote alarm reporting to one or more subscribers by BUS (for example, guard post, technical service, control room).
- Possible remote control outputs.
- Archiving on USB key.
- Several security levels.

OPERATORS MENUS :



PanelPC has a touch screen and thus does not need a keyboard.

Automatic display of alarm page. It is possible to display operator assistance that gives information on the process to follow as a function of the displayed path.

Consultable history on PanelPC screen or at another station.

Hierarchical access code system to protect some functions.



SETUP MENUS :

All menus are intuitive using easy-to-use touch screens. A «General Menu» page gives access to the other sub-menus.

«Access code» screen :

Various hierarchical levels, with operator name and personal code.

Alarm screen :

Each channel in input mode can be parameterized in multiple ways :

- With screen appearance.
- With cancellation.
- By printing.
- With history storage.

It is possible to associate specific operator assistance or INSTRUCTIONS with each channel.

The «Mirror» function or report despatches alarms, including in synthesis mode, to post clusters (including guard posts, local technical services or technical surveillance and control rooms). Instructions or «operator assistance» modes can be created at any moment.

It is possible to carry out parameterization on another station and load it subsequently to the PanelPC.

Upgrading :

A software upgrading system is integrated. From any new start-up, the PanelPC will load any new program in the USB key.

Integrated maintenance menu :

The USB key uses data or parameterization on another station, without stopping current PanelPC use.

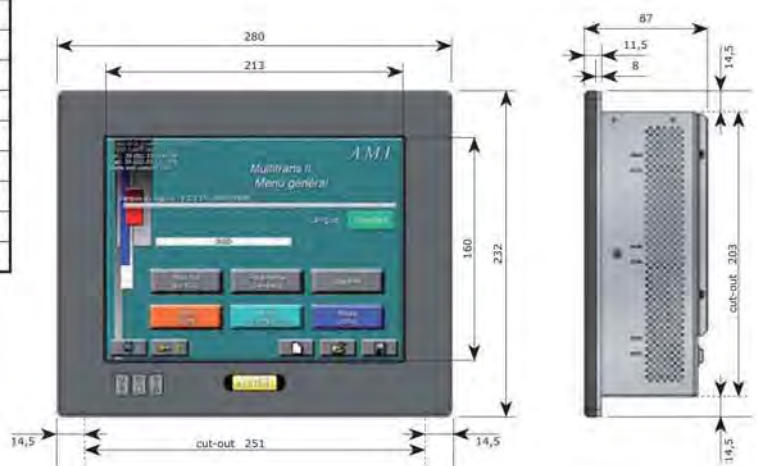


CHARACTERISTICS :

Power supply	24Vdc or 230Vac
Temperature rated	0°C / +40°C
Temperature storage	-20°C / +60°C
Humidity	20% to 90%
Front protection	IP65
Rear protection	IP22
Dimensions :	
L x l x p	280 x 232 x 87 mm
cut-out	251 x 203 mm
Weight	7kg

Equipment supplied :

- PanelPC with factory settings.
- USB key with program.
- Additional loudspeaker.



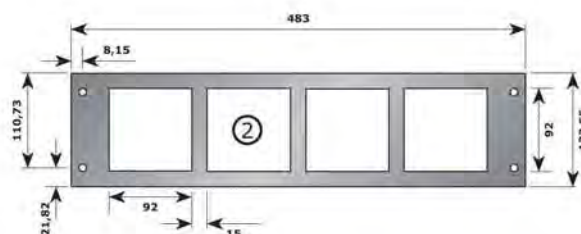
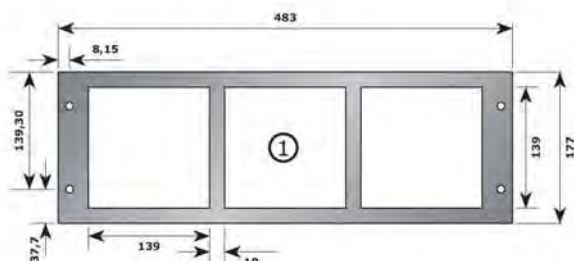


1U = 44,55mm
Height : 3U = 132mm
Width = 484mm

Height : 4U = 178mm
Width = 484mm



For «PRISMA» cabinet



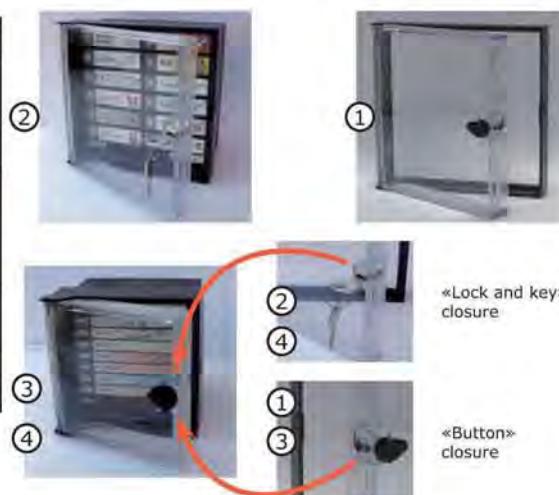
PRE-DRILLED MOUNTING FACADES :

Fig	Product	
1	J2005-J2405 J2005RS J2405RS J3000-J3500	M0800 : Aluminium facade for 19 inches bay, pre-drilled 3 holes 138x138mm for panel fitting 144x144 and drilled with 4 holes for fixing to bay vertical rails. Satinised finish.
2	J1805-J1850 J1900	M0810 : Aluminium facade for 19 inches bay, pre-drilled 4 holes 92x92mm for panel fitting 96x96 and drilled with 4 holes for fixing to bay vertical rails. Satinised finish.
3	J2005-J2405 J2005RS J2405RS J3000-J3500	M0812 : Also in Merlin Gérin «PRISMA» type facade. Height 200mm.
4	J2005-J2405 J2005RS J2405RS J3000-J3500	M0815 : Cover mask format 144x144 : covers cut-outs waiting for any future extension. Clips directly to sheeting : cut-out 138x138mm.
5	J1805-J1850 J1900	M0816 : Cover mask format 96x96 : covers cut-outs waiting for any future extension. Clips directly to sheeting : cut-out 92x92mm.

OPEN FACADES, IP54 SEALING :

IP54 sealed front panel is delivered with an o-ring seal. The sealed facade is clipped in place of the original banding holding the facade in place. The front is a transparent door opening.

Fig	Product	
1	J2005-J2405 J2000RS J2405RS J3000-J3500	M0720 : Quarter-turn closing button model.
2	J2005-J2405 J2000RS J2405RS J3000-J3500	M0721 : Lock and key closing model.
3	J1805-J1850 J1900	M0722 : Quarter-turn closing button model.
4	J1805-J1850 J1900	M0723 : Lock and key closing model.



These are essential when you want to use outputs.

EXTENSION CARDS :

Our panels have «open collector» type outputs. These outputs can handle 150mA currents.
Extension cards increase output power and provide galvanic insulation for the unit with the rest of the installation.
They save significant assembly and wiring time. The panel itself ensures relay power supply. Red LEDs indicate when each relay is activated.
Screw-in detachable terminal boards ensure relay «inverter contact» output connection.

Output contacts : 1RT 6A/12Vdc - 0.15A/240Vac.
Potential free per output.

There are two types of cards :

- Complete relay card :

It has as many relays as the panel has outputs : that means 8 relays for the J1900 family and 12 relays for the J3000 and J3500 families. There is a model with two supplementary relays that can be used with the «1st fault» and «Synchronization» outputs.

- Card with 2 relay outputs with selectors :

This sorts panel outputs to 2 synthesis relays.
The allocation of paths on each relay is done using micro switches that direct the output to one OR the other of the relays or to one AND the other. Relays can be selected as «positive security» or not.

Use : sends alarms to «electrician» or «mechanic» personnel, separates out «high risk», «medium risk» and «intervene/Emergency intervene» alarms.

DIN cards :

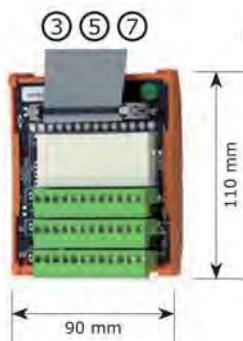
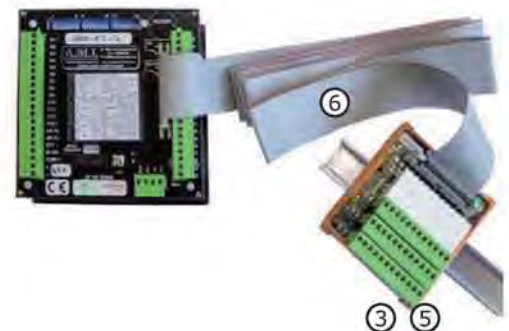
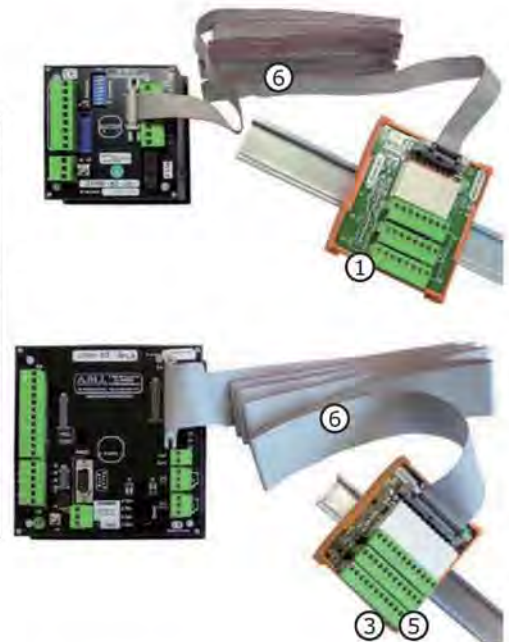
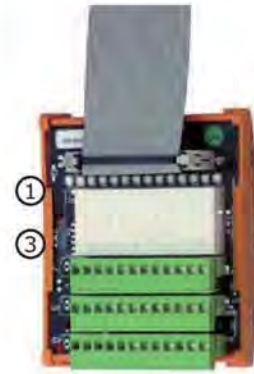
They are fitted to a DIN rail at cabinet bottom and connected to the panel by a ribbon cable.

Plug-in cards :

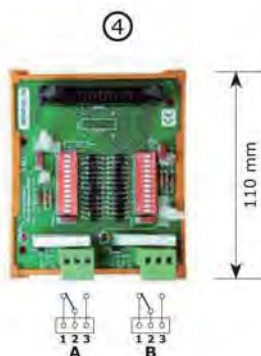
They are mounted directly to the back of the J3000. DIN cards are preferable since the limit the number of cables on the cabinet door.

DIN CARDS :

Fig	Product		I.
1	J1900	M0901-02-02 8 relays DIN card. M0901-02-03 8 relays DIN card + 2 relays (Sound alarm and Synthesis).	90
2	J1900	M0901-02-22 2 relays DIN card with selectors.	90
3	J3000 J3500 (except 48Vdc)	M0901-02-01 12 relays DIN card for 24Vdc output. M0901-02-00 12 relays DIN card + 2 relays (synchro and 1st fault).	90
4	J3000 J3500 (except 48Vdc)	M0901-02-20 2 relays DIN card with selectors.	90
5	J3500 (with 48Vdc)	M0901-03-01 12 relays DIN card for 48Vdc output. The 48Vdc powered J3500 has 48Vdc powered outputs	90
7	Alarm'Box	M0901-01-02 8 remote report relay DIN card (with cable supplied).	



Depth : 50mm



RIBBON CABLE :

Ribbon cable with 2 keyway connectors makes the link between panel rear and relay card. It also provides power supply to the relay coils. There are cables for 1, 2 or 3 cards (maximum). The standard length is 1.5m. supplementary 50cm sections can extend this up to 3 meters maximum.

Cable for J1900 :

- M0901-02-53** Ribbon cable fitted up for 1 additional card.
- M0901-02-54** Ribbon cable fitted up for 2 additional cards.
- M0901-02-56** Ribbon cable fitted up for 3 additional cards.

M0901-02-55 0.5 meter additional length.

Cable for J3000 and J3500 :

- M0901-02-50** Ribbon cable fitted up for 1 additional card.
- M0901-02-51** Ribbon cable fitted up for 2 additional cards.
- M0901-02-52** Ribbon cable fitted up for 3 additional cards.

PLUG-IN CARDS :

Only for the J3000 :

Complete relay card :

- M0900-02-01** 12 relays plug-in card.
- M0900-02-00** 12+2 relays (synchro & 1st fault) plug-in card.

Card with 2 relays outputs with selectors :

- M0900-02-20** 2 relays plug-in card.



Dimension of the card : 95x85mm
Depth additional : 105mm
(card mounted on the J3000)

M0900-02-01



M0900-02-00



Mounting in wall cabinet or built-in with 1, 2 or 3 locations.

Reference : **MJ1900-01-02**

Assembly together with modular systems :

One separator plate allows the PAN3V to be mounted on cabinet door for modular switches or circuit-breakers. It is mounted with a flange ring like a simple spacer.

Dimensions : 56x56mm.
Delivered in 10 unit bags.

Reference : **M0817**



TEST AND DEMONSTRATION KITS :

Comprising 2 cards with connectors, they attach directly to rear panel connectors. Input contacts can be simulated through the micro-switch that is on the Kit. Push buttons in the Kit are used for cancellations and resets. The sound alarm output is audible through a buzzer in the Kit and is visible through LEDs. Outputs are visible through LEDs. A 230Vac power supply is provided. A connection instruction sheet is included.

FOR J1900 :

Ref. : KJ1900-1

Comprising :

- 1 input card with 8-contact switch, 2 push buttons (LED test, Reset), 1 «Inhibit» switch, 1 power supply jack.
- 1 output card with 8 LEDs for outputs, 2 LEDs for «Synthesis» output contact, 2 LEDs for «sound alarm» output contact, 1 Buzzer.
- 1 230Vac/24Vdc power supply with jack output.
- 1 connection and use instruction sheet.

FOR J3000 :

Ref. : KJ3000-1

Comprising :

- 1 input card with 12-contact switch, 4 push buttons (LED test, Horn stop, Blink Stop/Reset, Delete), 1 «Inhibit» switch, 1 power supply jack.
- 1 output card with 12 LEDs for outputs, 2 LEDs for «Synchro» and «1st Fault» outputs, 2 LEDs for «Synthesis» output contact, 2 LEDs for «Sound Alarm» output contact, 1 Buzzer.
- 1 230Vac/24Vdc power supply with jack output.
- 1 connection and use instruction sheet.



demonstration kit not include the panel.
(Use only on panels with 24V supply voltage.
For other, please contact us.)

FOR J3500 :

Ref. : KJ3500-1

Comprising :

- 1 input card with 12-contact switch, 4 push buttons (LED test, Horn stop, Blink Stop/Reset, Delete), 1 «Inhibit» switch, 1 power supply jack.
- 1 output card with 12 LEDs for outputs, 2 LEDs for «Synchro» and «1st Fault» outputs, 2 LEDs for «Synthesis» output contact, 2 LEDs for «Sound Alarm» output contact, 1 Buzzer.
- 1 230Vac/24Vdc power supply with jack output.
- 1 connection and use instruction sheet.

CHOICE OF SUPPLEMENTARY LEDS :

Normal LEDs have only one single colour.

It is necessary to change the LED to change the colour.

Our preceding version products use this solution and are unpluggable from the facade, allowing the user to choose the desired colour.

Technology development means that we can use the CMS tri-LED unit giving us 7 different colours per LED with the same component.

All our products will be modified to use this new technology as we go along.

Fig	Product	Preceding version of the product detachable from the facade	
1	PAN4V	 J2101-00-00	5x10mm GREEN colour LED, code 2500
	PAN4VBV	 J2101-00-10	5x10mm YELLOW colour LED, code 2400
	J1800-J2400	 J2101-00-20	5x10mm RED colour LED, code 2300
	J1850	 J2101-00-30	5x10mm BLUE colour LED, code 230 MBW
	J1900	(exists as J2101-xx-x5 => 12 LEDs pack)	
2	PAN3V	 J2001-00-00	10x10mm GREEN colour LED, code 2855
	PAN3VBV	 J2001-00-10	10x10mm YELLOW colour LED, code 2755
	PAN3VSH	 J2001-00-20	10x10mm RED colour LED, code 2655
	J2000	 J2001-00-30	10x10mm BLUE colour LED, code 2655 MBW (assembly possible in factory only)
	J2000RS	 J2001-00-40	10x10mm WHITE colour LED
	J3000	(exists as J2001-xx-x5 => 12 LEDs pack)	
	J3500		



The new version with 7 colours selectable from the front

You have seven choices of display colour per path, selectable using switches on the front.

When you follow the setting up procedure, you have a choice of the following colours :

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

Changing LEDs is no longer necessary.

Already possible on :

PAN35
PAN45
J1805
J2005
J2405
J2005RS
J2405RS



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

J0500-00-00 LABEL PRODUCTION :

Software developed under EXCEL™ (Microsoft Company) easily produces facade labels for all A.M.I. products. After on screen creation, it is enough to print them on a laser printer, and store them on disk for later modification as needed.

You select the A.M.I. product for which you want to produce labels, using a PC with EXCEL™ software.

You type in your text in the predefined templates for the exact dimensions of the desired product.

Depending on the capability of your printer you can choose :

- Basic colours or text colours to attract the eye for certain significant paths,
- The normal or plastic paper type depending on the environmental ambience of the product destination.



References

Details of some installations fitted with our systems

NUCLEAR CENTER FOR ELECTRICITY PRODUCTION

EDF CNPE de BLAYAIS
EDF CNPE de BUGEY
EDF CNPE de CATTENOM
EDF CNPE de CHINON
EDF CNPE de CREYS-MALVILLE
EDF CNPE de CRUAS
EDF CNPE de DAMPIERRE
EDF CNPE de FESSENHEIM
EDF CNPE de FLAMANVILLE
EDF CNPE de GRAVELINES
EDF CNPE de PENLY
EDF CNPE de SAINT- LAURENT
EDF CNPE de TRICASTIN



NUCLEAR FIELD

CEA de Cadarache
CEA de Marcoule
AREVA NC Marcoule
AREVA NC de Beaumont la Hague
AREVA NC COMURHEX de Pierrelatte
AREVA NC EUROFDIF de Pierrelatte
AREVA NP CERCA FBFC de Romans sur Isère
ILL Institute Laue Langevin de Grenoble
George Besse



ENERGY PRODUCTION

EDF Thermique BLENOD
EDF Thermique BORGIO
EDF Thermique LE HAVRE
EDF Thermique PORCHEVILLE
EDF Thermique VAIRES SUR MARNE
EDF Thermique VITRY SUR SEINE
EDF Hydraulique COUESQUE (Usine de LARDIT)
EDF Hydraulique FESSENHEIM
EDF Hydraulique GERSTHEIM
EDF Hydraulique KEMBS
EDF Hydraulique MARCKOLSHEIM
EDF Hydraulique OTTMARSHEIM
EDF Hydraulique REVIN
EDF Hydraulique RHINAU
EDF Hydraulique VOLGELGRUN



Alstom Power Hydraulique NEROUÉ (SOUDAN)
Alstom Power Hydraulique KARUN 5 (TURQUIE)
Alstom Power Hydraulique UPPER VON GAND (TURQUIE)
Alstom Power Hydraulique DA-NHIM (VIETNAM)
Alstom Power Hydraulique KARIBA (ZAMBIE)

Details of some installations fitted with our systems

CIVIL AIRPORTS

Aéroport de Paris ADP	Roissy Charles De Gaulle
	Orly
DGAC DAC Ouest	Rennes - Saint-Jacques
	Deauville - Saint-Gatien
	Dinard, Pleurtuit, Saint-Malo, Lannion,
	Saint-Brieuc, Morlaix
DGAC DAC Sud-Est	Bastia, Poretta
DGAC DSNA	Sainte-Baume



MILITARY AIR BASES

BA 106	Bordeaux / Mérignac
BA 112	Reims / Champagne
BA 113	Saint-Dizier / Robinson
BA 118	Mont-de-Marsan
BA 120	Cazaux
BA 123	Orléans / Bricy
BA 125	Istres / Le Tubé
BA 128	Metz / Frescaty
BA 132	Colmar / Meyenheim
BA 217	Brétigny-Sur-Orge
BA 705	Tours



OTHER AERONAUTICAL REFERENCES

Airbus	Méaulte
	Nantes
	Saint-Nazaire
EADS Eurocopter	Marignane
EADS MBDA	Bourges
EADS Socata	Tarbes
EADS Sogerma	Merignac
	Rochefort



Details of some installations fitted with our systems

PARIS HOSPITALS

Hôpital Armand-Trousseau
Hôpital Cochin
Hôpital Foch
Hôpital Saint-Antoine



HOSPITALS

CH de Béthune (62)
CHU de Nice (06)
CHU de Nîmes (30)
CHU de Rouen (76)
CHI de Creteil (94)
CHI de Meulan - Les Mureaux (78)
CHS de Dole - Saint Ylie (39)
Hôpital de Tournon (07)
Hôpital de Vierzon (18)
Hôpital de La Loupe (28)
Hôpital de La Ferté Bernard (72)
Hôpital d'Elbeuf (76)
Hôpital de Remiremont (88)

OTHER REFERENCES

Air Liquide
Air Products



AJ1900-01-10C	p30	J1850-02-2H	p24
AJ1900-01-10CA	p30	J1850-03-10	p24
AJ1900-05-11B	p30	J1850-03-1H	p24
AJ1900-05-12B	p30		
AJ1900-05-13B	p30	J1900-02-10	p32
AJ1900-05-14B	p30	J1900-02-12	p32
AJ1900-05-20B	p30	J1900-02-12MAT	Product reserved
AJ1900-05-21B	p30	J1900-02-20	p32
AJ1900-05-22B	p30	J1900-02-22	p32
AJ1900-05-23B	p30	J1900-03-10C	p32
AJ1900-05-24B	p30	J1900-03-12C	p32
AJ1900-05-31B	p30	J1900-03-20	p32
AJ1900-05-32B	p30		
AJ1900-05-33B	p30		
AJ1900-05-34B	p30		
AJ1900-0x-20	on demand		
B0001-10-00	Please, contact us	J2000-02-10	replaced by J2005-02-11
B0001-10-10	Please, contact us	J2000-02-11	replaced by J2005-02-11
B0001-10-20	Please, contact us	J2000-02-20	Please, contact us
B0001-12-00	Please, contact us	J2000-02-21	Please, contact us
B0001-12-10	Please, contact us	J2000-02-30	replaced by J2005-02-30
B0001-12-20	Please, contact us	J2000-02-32	replaced by J2005-02-32
B0001-13-00	Please, contact us	J2000-03-10	replaced by J2005-02-11
B0001-13-10	Please, contact us	J2000-03-11	replaced by J2005-02-11
B0001-13-20	Please, contact us	J2000-03-20	Please, contact us
B0001-20-30	p15	J2000-03-30	replaced by J2005-02-30
B0001-20-31	p15	J2000-03-32	replaced by J2005-03-32
B0001-20-32	p15	J2000-04-10	Please, contact us
B0001-30-30	p15	J2000-04-10C	Please, contact us
B0001-30-31	p15	J2000-04-11	Please, contact us
B0001-30-32	p15	J2000-04-20	Please, contact us
B0001-40-00	Please, contact us	J2000-05-10C	Please, contact us
B0001-40-10	Please, contact us	J2000-05-10T	replaced by J2005-05-11T
B0001-40-20	Please, contact us	J2000-05-11T	replaced by J2005-05-11T
B0001-40-30	Please, contact us		
B1201	Please, contact us	J2001-00-00	p57
B1202	Please, contact us	J2001-00-05	p57
B1203	Please, contact us	J2001-00-10	p57
G0100-05-00	Please, contact us	J2001-00-15	p57
G0100-05-10	Please, contact us	J2001-00-20	p57
G0200	Please, contact us	J2001-00-25	p57
G0700-02-30	Please, contact us	J2001-00-30	p57
H3000	Please, contact us	J2001-00-35	p57
H3600	Please, contact us	J2001-00-40	p57
J2124	Please, contact us	J2001-00-45	p57
J0500-00-00	p57	J2005-02-11	p20
J1003	Please, contact us	J2005-02-30	p26
J1800-01-10	replaced by J1805-02-11	J2005-02-32	p26
J1800-02-10	replaced by J1805-02-11	J2005-03-30	p26
J1800-02-11	replaced by J1805-02-11	J2005-03-32	p26
J1800-02-20	Please, contact us	J2005-04-11T	p20
J1800-03-10	replaced by J1805-02-11	J2005-05-11T	p20
J1800-03-11	replaced by J1805-02-11		
J1800-04-10	Please, contact us	J2101-00-00	p57
J1800-04-10T	replaced by J1805-04-11T	J2101-00-05	p57
J1800-04-11T	replaced by J1805-04-11T	J2101-00-10	p57
J1800-04-20T	Please, contact us	J2101-00-15	p57
J1800-05-10T	replaced by J1805-05-11T	J2101-00-20	p57
J1800-05-11T	replaced by J1805-05-11T	J2101-00-25	p57
J1800-05-20T	Please, contact us	J2101-00-30	p57
J1800-14-10	Please, contact us	J2101-00-35	p57
J1805-02-11	p20	J2400-01-11	replaced by J2405-02-11
J1805-04-11T	p20	J2400-02-10	replaced by J2405-02-11
J1805-05-11T	p20	J2400-02-11	replaced by J2405-02-11
J1850-02-10	p24	J2400-02-20	Please, contact us
J1850-02-1H	p24	J2400-02-30	replaced by J2405-02-30
J1850-02-20	p24	J2400-02-32	replaced by J2405-02-32
		J2400-03-10	replaced by J2405-02-11
		J2400-03-11	replaced by J2405-02-11
		J2400-03-20	Please, contact us
		J2400-03-30	replaced by J2405-02-30
		J2400-03-32	replaced by J2405-02-32
		J2400-04-10C	Please, contact us
		J2400-04-10T	replaced by J2405-04-11T
		J2400-04-11C	Please, contact us
		J2400-05-10T	replaced by J2405-05-11T
		J2400-05-11T	replaced by J2405-05-11T

J2400-05-20T	replaced by J2405-05-11T	
J2400-14-10	Please, contact us	
J2405-02-11		p20
J2405-02-30		p26
J2405-02-32		p26
J2405-03-30		p26
J2405-03-32		p26
J2405-04-11T		p20
J2405-05-11T		p20
J3000-02-10		p36
J3000-02-12		p36
J3000-02-124		p36
J3000-02-14		p36
J3000-02-147		p36
J3000-02-17		p36
J3000-02-20		p36
J3000-02-22		p36
J3000-03-10		p36
J3000-03-12		p36
J3000-03-124		p36
J3000-03-14		p36
J3000-03-147		p36
J3000-03-17		p36
J3000-04-10		p36
J3000-04-12		p36
J3000-04-14		p36
J3000-06-10		p36
J3001-00-50		p36
J3001-02-10		p36
J3001-03-10		p36
J3001-03-14		p36
J3001-04-10		p36
J3500-02-10C		p44
J3500-02-10V		p44
J3500-02-124C		p44
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J3500-02-12C		p44
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J3500-02-14C		p44
J3500-02-14V		p44
J3500-02-20C		p44
J3500-02-20V		p44
J3500-02-224C		p44
J3500-02-224V		p44
J3500-02-22C		p44
J3500-04-10C		p44
J3500-04-10V		p44
J3500-04-124C		p44
J3500-04-12C		p44
J3500-04-12V		p44
KJ1900-1		p56
KJ3000-1		p56
KJ3500-1		p56
M0601-02-02	Please, contact us	
M0601-02-04	Please, contact us	
M0601-02-11	Please, contact us	
M0601-02-20	Please, contact us	
M0601-02-40	Please, contact us	
M0605-02-01	Please, contact us	
M0605-02-02	Please, contact us	
M0700-02-30	replaced by PanelPC	
M0700-30-10	replaced by PanelPC	
M0720		p54
M0721		p54
M0722		p54
M0723		p54
M0800		p54
M0800-00-10	Please, contact us	
M0800-00-11	Please, contact us	
M0800a	Please, contact us	
M0810		p54
M0812		p54
M0812a	replaced by M0812	
M0812b	Please, contact us	
M0815		p54
M0815a		
M0816		p54
M0816a	replaced by M0816	
M0817		p56
M0900-02-00		p56
M0900-02-01		p56
M0900-02-20		p56
M0901-01-02		p55
M0901-02-00		p55
M0901-02-01		p55
M0901-02-02		p55
M0901-02-03		p55
M0901-02-20		p55
M0901-02-21	Please, contact us	
M0901-02-22		p55
M0901-02-50		p56
M0901-02-50a	Please, contact us	
M0901-02-51		p56
M0901-02-52		p56
M0901-02-53		p56
M0901-02-53a	Please, contact us	
M0901-02-54		p56
M0901-02-55		
M0901-02-56		p56
M0901-03-01	Please, contact us	
M1900-04-10	Please, contact us	
M2900-0x-00	Please, contact us	
M2901-0x-00	Please, contact us	
MJ1900-01-02		p56
PAN35-02-13		p8
PAN35-02-13A		p8
PAN35-05-13		p8
PAN35-05-13A		p8
PAN35-55-13		p8
PAN35-55-13A		p8
PAN3V-02-10	replaced by PAN35-02-13	p12
PAN3V-02-11	replaced by PAN35-02-13	p12
PAN3V-02-13	replaced by PAN35-02-13	p12
PAN3V-03-10	replaced by PAN35-02-13	p12
PAN3V-03-13	replaced by PAN35-02-13	p12
PAN3V-04-10	replaced by PAN35-05-13	p12
PAN3V-04-13	replaced by PAN35-05-13	p12
PAN3V-05-13	replaced by PAN35-05-13	p12
PAN3V-54-10	replaced by PAN35-55-13	p12
PAN3V-54-13	replaced by PAN35-55-13	p12
PAN3V-55-10	replaced by PAN35-55-13	p12
PAN3V-55-11	replaced by PAN35-55-13	p12
PAN3V-55-13	replaced by PAN35-55-13	p12
PAN3VBV-02-10		p14
PAN3VBV-02-13		p14
PAN3VBV-03-10		p14
PAN3VBV-03-10		p14
PAN3VBV-55-10		p14
PAN3VBV-55-13		p14
PAN3VE-02-10	replaced by PAN35-02-13	
PAN3VE-02-13	replaced by PAN35-02-13	
PAN3VE-03-10	replaced by PAN35-02-13	
PAN3VE-03-13	replaced by PAN35-02-13	
PAN3VSH-02-13		P16
PAN3VSH-02-1302		P16
PAN3VSH-02-132		P16
PAN3VSH-02-1322		P16
PAN3VSH-03-13		P16
PAN3VSH-03-1302		P16
PAN3VSH-03-132		P16
PAN3VSH-55-1322		P16
PAN4V-02-10	replaced by PAN45-02-13	p12
PAN4V-02-13	replaced by PAN45-02-13	p12
PAN4V-03-10	replaced by PAN45-02-13	p12
PAN4V-03-13	replaced by PAN45-02-13	p12
PAN45-02-13		p8
PAN45-02-13A		p8
PAN45-55-13		p8
PAN45-55-13A		p8
PanelPC		p52



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File number: AP 3251
Product code: 39911

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A.M.I. Automatisme Micro Informatique Industriels
 Saint Marcel - FRANCE

for the type of product

MAIN ALARM SYSTEMS
 Machinery Alarm Panel
 Type, J3000

Requirements:



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Product code: 4161D

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MISCELLANEOUS SWITCHBOARD INSTRUMENTS

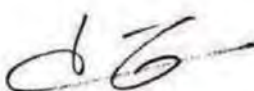
J2000 Series: J1800, J1805, J2000, J2005, J2100, J2200, J2300, J2405 & B1200 Series: B1200, B0400.

Requirements:
 BV Rules for the Classification of Steel Ships.

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 29 Oct 2015

For BUREAU VERITAS,
 At BV SAINT QUENTIN-EN-YVELINES, on 29 Oct 2010,
 Jerome Letellier



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