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## Sequence panel for TECHNICAL ALARM CENTRALIZATION <LED block» model

DIN 144 x 144 format


The parameter setting is done by selection of switches on rear (no PC programming required) :
-12 contact inputs NO/NC +12 remote reports ( 24 V ). Relay output card possible.

- 12 alarm LEDs on the front («LED block» type for effective contrast).
- 2 buttons on front (<LEDs Test», «Reset»).
- 3 inputs/outputs for process (Inhibition input, 1st fault, external synchronization).
- 4 push button inputs (Test, Sound Alarm Stop, Blinking Stop, Reset).
- 2 output relays 10C («Sound alarm», «Synthesis»).
- 1 RS422 / RS485 port (option) allowing connection to a BUS supervisor, or retrieving the last 64 events.
- 64 events buffer with date counter (only accessible by Bus)
- Selectable temporization on input (20ms, $750 \mathrm{~ms}, 3 \mathrm{~s}, 10 \mathrm{~s}$ ).
- Control of cable continuity on each input (loop control).
- 1st fault sequence, with rapid blinking.
- Storing fugitive information + blink + activated sound output + activated synthesis output + cancel.
- Storage of fleeting information + blinking.
-+ acoustic output activated + synthesis output activated + acknowledgement.
- 2 types of sequence possible.
- Remote transfer (channel by channel + one general).
- Outputs can be in <blinking» mode for use on mimic panel.
- Analog monitoring of power supply voltage.


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

- Memorization, flashing and acknowledgment.
- Modular, the installation can be extended to an infinite number of inputs.
- Directly built-in, it can be mounted in a bay, on a desk or in a cabinet.
Its climatic environment tolerances $\left(-10^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}\right)$, and its supply voltage tolerances ( $-40 \% /+30 \%$ ) make it the essential component of any high-risk installation.


## MAIN CHARACTERISTICS:

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

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


With the «LED pad» type, they have a very high contrast between the «on» or «off» state. The LEDs are mounted on a plug-in card with a switch allowing the selection of 7 colors for each of them.
The first channel activated will cause a "fast flashing" display. The following pathways cause "slow blinking". This makes it possible to differentiate the first alarm. In the «Sequence type 2» and «Sequence type 3» diagrams, the flashes are represented as «rapid».
a) Fault avalanche: The avalanche is an arrival of several consecutive alarms.

It is very important to know the first alarm, as this enables rapid intervention in troubleshooting.
The differentiation between the 1st fault (first alarm) and the 2 nd is done by flash and slow blink (1st fault is displayed in fast flashing mode; the following alarms are displayed in slow blink mode).
The avalanche begins with the arrival of the first alarm until operator cancellation. After cancellation by operator (all flashing LEDs are become fixed), a new alarm will be considered as a first fault. Discrimination time: 10 ms .
The various light states on the LEDs:
Fast blink $=1$ st alarm Slow blink $=$ following alarm in avalanche light out (OFF) = return to normal state
Fixed light (ON) = alarm present, memorized after acknowledgement
Very fast Flashing = cable fault (this luminous signal is not cancellable)
b) Simple indicator display function: The S22/S23 switches allow "simple indicator mode" type processing and display on certain channels ("all or nothing" status display). Selected channels will pass directly to fixed light (ON), without sound alarm or synthesis output. Input storage is inoperable.
The settings NO/NC and delay time on input are still active.

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

- The front is equipped with two buttons : «LEDs Test» and «RESET».
- If the «TEST LED» button is pressed for more than 10s, the J3105 activates the RS485 BUS setting mode and
all the LEDs flash (even if the BUS option is not present, see transmission manual). To exit this mode, just wait 5 seconds, the return will be automatic.
- The RESET button has several functions:
- 1st press $=>$ Stop Horn / 2nd press => Flashing off / 3rd press => Erase
The flash off (switching to fixed lights) will be processed only if the alarm has been stopped.
The rear switches can select a program choice. It is necessary to shut off the power supply before this operation.

One switch is positioned at :

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

S1 to S4: Allows the channel or channels to be selected as normally open or normally closed input. In the "Negative Input" model, the back marking and the switches are reversed).
S5 to S12: Adjusts the delaying time of input validation (filtering).
S13: Ensures the control of cable continuity for each input (monitoring of short-circuit and wire cut) (need for resistors on each input).
S14: To synchronize the blinking from several panels. With this switch, the panel will be pulse transmitter or pulse receiver.

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

S16/S17 : <Sound alarm» relay. Allows changing sound alarm modulation.
Fixed : S16=0 / S17=0
1 pulse : S16=1/S17=0
Flash $1 \mathrm{~s} / 1 \mathrm{~s}: \mathrm{S} 16=0 / \mathrm{S} 17=1$

Flash $1 \mathrm{~s} / 2 \mathrm{~s}: \mathrm{S} 16=1 / \mathrm{S} 17=1$

S18/S19 : Inhibit. It is possible to inhibit out information's arriving on certain inputs (if inhibit input is at $0=>$ none way inhibited).
channel 1: S18=0/S19=0 channels 1 to $3: \mathrm{S} 18=1 / \mathrm{S} 19=0$ channels 1 to $7: S 18=0 / \mathrm{S} 19=1$ channels 1 to $12: \mathrm{S} 18=1 / \mathrm{S} 19=1$
S20 : blinking outputs. Activates the outputs like the façade
LEDs. (Used for pilot external LED on mimic).
S21: Sequence type 2 or type 3 . Selects 2 different types of sequences. (see diagram).

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

S22/S23 : «Simple indicator» type. Some inputs can be treated in simple indicator (ON/OFF) and not in alarm (Blinking and fixed light, memory, sonorous alarm, Reset). none: S22=0 / S23=0 channels 10 to $12: \mathrm{S} 22=1 / \mathrm{S} 23=0$
channels 7 to $12: \mathrm{S} 22=0 / \mathrm{S} 23=1$ channels 1 to $12: \mathrm{S} 22=1 / \mathrm{S} 23=1$

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

- an alarm is present or if the internal «Watchdog» is activated.
- Only if the internal «Watchdog» is activated.

Alarm present or watchdog activated : SW24 to 0
Watchdog only: SW24 to 1

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

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



## INPUT FUNCTION:

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

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


## FUNCTION OF REAR TERMINALS :

a) TEST terminal 13A:

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

For the use of the following 3 terminals, an order of action must be respected. The AR CL and EFF terminals are inactive if the audible alarm is present. It is compulsory to activate the horn stop first.
In type 3 sequence, the EFF terminal is inactive as long as a light is flashing
 (impossible to delete before the flashing stop).
b) AR KL terminal 14A (Sound alarm stop) or button front face «RESET/Horn Stop » first impulse :

- Standard function: An input activation stops the alarm until the return to normal.
- With a R2 resistor connected between AR KL (14A terminal) and «+COM», an input activation stops the sound alarm but if the channel remains in alarm mode, the audible and flashing indications will be reactivated after 1 minute or 15 minutes. (Prevents a forgetting if an alarm is still present). (See the scheme of the external buttons).
- For 1 minute reactivation : 24 Vdc or $48 \mathrm{Vdc}: \mathrm{R} 4=22 \mathrm{kOhms}(1 / 2 \mathrm{~W})-110 \mathrm{Vdc} \mathrm{R} 4=100 \mathrm{kOhm}(1 / 2 \mathrm{~W})$.
- For 15 minutes reactivation : 24 Vdc or $48 \mathrm{Vdc}: \mathrm{R} 4=4,7 \mathrm{kOhms}(1 / 2 \mathrm{~W})$ - $110 \mathrm{Vdc} \mathrm{R} 4=22 \mathrm{kOhm}(1 / 2 \mathrm{~W})$.
c) ARCL terminal 15A (blinking stop) and the button front face «RESET/Horn Stop »: One activation changes the flashing mode to fixed mode (only after you have stopped the alarm sound). With the button front face «RESET/Horn Stop »: first impulse => Sound alarm stop / 2nd impulse => Blinking stop.
Functioning type 2 sequence :
When alarm will disappear, LEDs in fixed mode (ON) will turn OFF (After an activation on AR CL, if an input returns to normal, the blinking LED goes to fixed and quickly turns OFF.
Functioning type 3 sequence :
With this sequence, activation on AR CL terminal also turns ON the LED (fixe). But when the alarm will disappear, it will be necessary to use the EFF terminal to cancel the fixed light (turn OFF) or press the RESET button on the front panel again (3rd pulse).
A resistor can be connected to the AR CL terminal, allowing a different output process function (see «outputs» chapter).
d) RESET/EFF terminal 16A (RESET) or button front face «RESET/Horn Stop » third impulse :

Type 2 sequence operation : RESET/EFF this terminal is not used.
Type 3 sequence operation : The LEDs will turn OFF only after switching to fixed mode and after the input will be returned to normal and after activation of RESET/EFF terminal .(or after the third impulse on the RESET front button).
e) Self-test sequence : (TEST + AR CL terminals or by front panel push buttons simultaneously).

This is of the «chase» type.
Pressing the 2 push buttons or validating the 2 terminals simultaneously activates the test cycle by panel program, i.e.: test of the «voltage presence» LED, test of the LEDs one by one $+2 s+$ «audible alarm» relay test $+2 s+$ «synthesis» relay test + activation of the outputs one by one.
f) Bloc terminal 17A: The channel inhibition is activated by connecting a «+COM» on «Inhibition» input and with S18 + S19 switches. The selected inputs by $\mathrm{S} 18+\mathrm{S} 19$ will no longer be recognized as long as the inhibition input is activated.
One selected input is active only if the inhibit input is inactivated. If a selected channel inhibited (with S18 + S19) is already displayed before the activation of the terminal block (17A), the display management will continue until its extinction (return to normal of the input). For inhibition, the channel must be selected with S18+S19 AND the terminal 17A must be activated before the input change. This function is an indefinite delay equal to the duration of activation of the terminal 17A.
g) «+Com» Bloc terminal 18A : The «+COM» terminal is internally protected and provides power to the input contacts.
The supplied voltage varies depending on the model used.
These inputs can be powered directly from the " + " of the
J3105 supply voltage (terminal 19A).
The use of «+Com» is mandatory for the $80-265 \mathrm{Vac} / \mathrm{dc}$ version.
OUTPUTS FUNCTION:
a) Terminal $21 \mathrm{~B} / 32 \mathrm{~B}: 12$ outputs

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

The output can be controlled by the presence of the corresponding LEDs or by the corresponding input which makes it possible to know if the alarm disappears and returns.


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

=> With R5 resistor connected : The output will be associated with the presence of alarm on input : - If the input is activated, the associated output will be activated after time delayed on input.

- If the input returns to its normal position, the associated output turns OFF immediately. The LEDs will remain activated until RESET by the operator.
The output is associated to the input.


|  | $24 \mathrm{~V} / 48 \mathrm{~V}$ <br> $80-265 \mathrm{~V}$ | $110 / 127 \mathrm{~V}$ |
| :---: | :---: | :---: |
| R5 | 22 kOhms | 100 kOhms |

This function is activated by the presence of resistor connected between the 18A terminal and the AR CL terminal.
d) KL output Terminal 35B/37B: By 1RT relay, selectable with the S15 switch in positive security mode or not. A new alarm, an analog detection on electrical supply or the check of the bus will deactivate this output until operator cancellation.
It is possible to obtain various «Sound alarm» output types (S16/S17) :

- Fixed output (permanent up to cancellation).
- 1 pulse output (relay contact is deactivated for 1 second, and then goes back to its initial position. Sound cancellation is no longer useful on this selection).
- Blinking output $1 \mathrm{~s}+1 \mathrm{~s}=>$ fast blinking (output relay blinks at rhythm 1 second every 1 second and is cancellable).
- Blinking output $1 s+2 s=>$ slow blinking (output relay blinks at rhythm 1 second every 2 seconds and is cancellable).
e) Synthesis output Terminal 38B/40B : By 1RT relay with positive safety. It will be deactivated by the following cases : - If an alarm is displayed.
- If the watchdog function is activated (analog voltage supply detection, cable monitoring function on one channel or internal fault present).
It will go back to its initial position when the display of the phenomenon involved disappears. The synthesis relay is not deactivated by channels used as simple indicator (switches S22 and S23). The S24 switch allows use of the synthesis relay only as Watchdog. In this case, the relay will no longer be activated by inputs.


## PROCESS TERMINAL OPERATION :

a) Synchro terminal 34B: (Terminal in Input/Output mode). It synchronizes the blinking between all panels connected. If several flashing alarms are present on various panels, this can lead to visual fatigue for the operator.
With this function, all the flashes of the panels will synchronize with the signal arriving at this terminal.

- If synchronization is not selected on the panel (S14=0, transmitter), it is master and transmits timing clock pulses to the other users (it synchronizes itself on its own pulses).
- If synchronization is selected on this panel ( $\mathrm{S} 14=1$, receiver), it receives pulses coming from outside and synchronizes on them. In the unlikely event of connection failure, the panel would resume it own synchronization.
The power supply of this terminal is specific to this panel
(never connect other function than the <Synchro» terminal of another).
b) 1st fault terminal 33B: (Terminal in Input/Output mode). Used to group multiple panels to get the 1st fault sequence on all channels.
If a panel has a first alarm displayed, it changes the status of its terminal 33B which will be received by the other connected panels. When the other panels will receive an alarm, they will display in slow blinking mode.
The power supply of this terminal is specific to this panel. By connecting this terminal to the «+ COM» terminal, the 1st fault sequence will not displayed. (never connect another function as the <1st fault» terminal of another panel or the <<+COM».)
f) Buzzer Included (Option) : It works as the KL output relay. If the KL relay is selected in positive security (normally activated)(S15), do not forget to move the connector jumper. Open the box, the jumper is next the KL relay.


View in position SW15 $=0$ INTERNAL PROCESS FUNCTION:

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

- In the case of overvoltage, the green supply LED on the front turns to blinking red (tricolor LED).
- In the case of under-voltage, the green supply LED turns to blinking orange (tricolor LED). The panel remains operational.
- If the voltage drops and reachs : the light goes on with fixed orange and in order to avoid random operations, the panel

| Version | 24 V | 48 V | $110 / 127 \mathrm{~V}$ |
| :---: | :---: | :---: | :---: |
| Voltage | $13,5 \mathrm{~V}$ | $37,5 \mathrm{~V}$ | 85 V | is blocked. In the $80-265 \mathrm{~V}$ version, the control is done on the output voltage of the internal switching power supply and is similar to the 24 V version.

The alarm detection on the supply voltage is memorized on the front . the power supply LED turns to blinking mode. The synthesis relays and the sound alarm are triggered. It is necessary to cancel the sound alarm. After acknowledgement, the LED will turn fixed light (ON). As soon as the fault disappears and after cancellation, the power supply LED and the synthesis relay return to normal.
By turning in «anti-clockwise» (view from the rear), the detection range increases. (green zone authorized).
By turning in «clockwise» (view from the rear), the detection range decreases. (green zone authorized).
The tolerance zone around the supply voltage reduces in a «clockwise» (view from the rear). One turn corresponds to an increase or a decrease the adjustment range of about 5.5V (for the model with $110 / 125 \mathrm{~V}$ power supply, this variation is $+/-10 \%$ ).

## PRODUCING LABELS:



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

## www.ami-control.com

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

## CHANGING LEDS COLOUR:

Version J3105: 7 possible display colors per channel, selectable from the front panel by switches. Depending on the setting, the choice of colors is :

Red, Green, Yellow, Blue, White, Cyan, Magenta.
The change of the LED is no longer necessary.


## Application example :

- The Panel «1» can be connected with 11 contacts in NO mode and one in NC mode (connected on input 12 with selection S4 active).
- The Panel «2» can be connected with 9 contacts in NO mode (connected on inputs 1 to 9) and three in NC mode (connected on inputs 10 to 12 with selection S3/S4 active).
- The Panel «3» can be connected with 5 contacts in NO mode (connected on inputs 1 to 5 ) and seven in NC mode (connected on inputs 6 to 12 with selection S2/S3/S4 active).
But other configurations are possible.
The «Test», «AR KL», «AR CL» and «EFF/Reset» are centralized for the three panels.
- Contacts «Synthesis» of each panel are connected in series to send remote information. Synthesis relays are parameterized in positive safety (relays normally activated).
- Sound alarm relays are selected in positive safety(S15 = 1). Contacts are connected in parallel to an external general sound alarm.
- The blinking of the LEDs of this three panels is synchronized by the connection of the terminal 34B. (S14s on panels <1» and <2» is active and panels are used as receiver, S14 on panel «3» is inactive, the panel «3» is used as transmitter ).
Panels <1» and «2» are grouped to obtain the 1st fault among 24 inputs.
- The panel «3» uses its outputs directly to activate relays or external lamps.(terminals 21B and 32B).
A diode or resistor has been fitted as protection.
The maximum voltage on outputs is 48 Vdc only.

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


The «+COM» is to be used to power the input contacts.
The inputs can be powered directly from the "+" of the 33105 supply voltage (Terminal 19A). The use of «+Com» is mandatory for the $\mathbf{8 0 - 2 6 5 V a c} / \mathrm{dc}$ version.
+VREL : supply voltage on the outputs. This external voltage (+48Vdc max.) is useful only for particular connection. it is much safer to use the AMI relay cards. (Our relay cards are supplied directly by the panel with 24 Vdc ).

## CUT-OUT:

DIN $144 \times 144$ format


Numbering system

J3105



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


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

## ORDER REFERENCES:



The possible options are :

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

## ADDITIONAL PRODUCTS:



M0800 Front plate 19-inch, brushed aluminium Ht:4U Front for bay 3 pre-drilled holes $138 \times 138 \mathrm{~mm}$.

## M0815 Closing cover 144x144

Closing cover for mounting on M0800 front plate.

## EXTENSION RELAY CARDS WITH GALVANIC ISOLATION :

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

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

Two possible presentations :

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

These cards are available in versions :

- Complete (there are as many relays as there are outputs )
-2 relays 1 RT type with selectors, it allows you to sort the outputs in two directions: electrician / mechanic or Alarm high risk / Alarm ordinary.
M0900-02-01 Card 12 relays to plug at J3105 rear.
M0901-02-01 Card 12 relays to fit to DIN rail.
M0900-02-20 Card 2-synthesis-relays to plug at J3000 rear. M0901-02-20 Card 2-synthesis-relays to fit to DIN rail.
Panel supply minimum voltage : 17 Vdc .
Don't forget the cable connection :
M0901-02-50 Ribbon cable $L=1.5 \mathrm{~m}$ fitted for one relay card.
M0901-02-51 Ribbon cable $L=1.75 \mathrm{~m}$ fitted for two relay cards.
M0901-02-55 Additional length $L=0,5 \mathrm{~m}$.
KJ3000-1 Demonstration kit, please refer to «Accessories» chapter. Only for J3105-02, 24Vdc version.



## M0720

## M0720, IP54 sealed front

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

## M0730 Adapter to mount on DIN Rail profil

 TS35. 144×144 formatThis kit allows to mount panels with $144 \times 144$ format on a DIN rail TS35 retaining the display towards the operator.



Demonstration kit


Plug-in
relay card

The J3105 can be equipped with the Bus RS422 / RS485 option (2 wires or 4 wires),
it becomes possible with a PC or an automaton, to retrieve the «history» buffer, to print it or to archive it.
A free software is available on our website.
The «history» buffer : A history buffer memorises the last 64 events occurring on the panel :
event appearance with the type of display of the front LED (fast or slow blinking, fixed, off), the operator acknowledgement, and disappearance. The display types are :

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

The buffer is of the «FIFO» type, not memorised.
(A power cut resets its buffer).
The stored information includes:
number of events stored, channel and panel number, type of hardware installed, type of channel setting, type of front panel display, J3105 internal counter value, allowing dating.

| 4. Contenu du tampon |  |  |  |  |  | $x$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| $\mathrm{N}^{*} \mathrm{Eyt}$ | Compleur | Temps | Voie | Paramère | Affichoge |  |
| 01 | 000000] | 0.00 .00 .005 | V11 | Alame | Etcint |  |
| Q | 0000007 | 0:00:00.005 | V12 | Alame | Eteirt |  |
| 03 | 0000001 | 0:00:00.005 | V01 | Alame | Eteirk |  |
| 04 | 0000001 | 0:00:00.005 | VO2 | Alame | Eteirt |  |
| 06 | 0000001 | 0:00:00.005 | V03 | Alame | Eteirt |  |
| 05 | 0000001 | 0:00:00.005 | V04 | Alame | Eteirk |  |
| 07 | 0000001 | 0:00:00.005 | Үбб | Alame | Eteirt |  |
| 08 | 0000001 | 0:00:00.005 | vos | Alame | Eteirk |  |
| 09 | 0000001 | 0:00:00.005 | Y07 | Alame | Eteirt |  |
| 10 | 0000001 | 0:00:00.005 | V03 | Alame | Eteirt |  |
| 11 | 0000001 | 0:00:00.005 | Y09 | Alame | Eteirk |  |
| 12 | 0000001 | 0:00:00.005 | Y10 | Alame | Eteirt |  |
| 13 | 0000102 | 0:00:00.510 | V11 | Alame | Clignotart lert |  |
| 14 | 0000102 | 0:00:00.510 | Y12 | Alame | Cligmotart lerk |  |

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

BUS option : product reference : J3105-xx-x4 RS485 / MODBUS / JBUS protocol


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

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

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

The J3105 panel is a technical alarm controller which can be equipped with an RS485 type bus (2 or 4 wires).
It is a smart multitasking device. It works in degraded mode. In the event of a bus failure or when the supervisor shuts down, the panels will continue monitoring and display alarms locally.
It is possible to use 64 panels on the same bus. The bus is bi-directional :

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

The PANEL'PC is an alarm centralizer on a RS485 Bus. It can manage 64 panels with 12 alarms each. Its touch screen allows to perform all necessary operations without additional keyboard (RESET, operator assistance display, historics, archiving).
It may refer alarms and remote information to other sub-stations.
It can be used either in a sub-station or control room :

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

PANEL'PC:


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

The PANEL'PC integrates:

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

