COMPALARM C3

GENERAL

- Compact alarm system, with a basic module of 12 signals.
- Multiple modules coupling possibility.
- Easy printing of the Alarm points description.
- Optoisolated inputs for 5¸250V, NO or NC contacts, which can be set point by point.
- Signal power free inputs.
- 8 Alarm sequence possibilities according with ISA S 18.1
- Easy and fast programming by dipswitches.
- "First out" feature for recognizing the fi rst tripped alarm
- Programmable memory and signalling mode, when return to normal.
- Interconnected systems for Alarm Management, distributed in various units.
- High safety and reliability, with self diagnosis function.

The **COMPALARM C3** is a very compact and effi cient alarm system, suitable for 12 points connection, with NO or NC input contacts and LED signals.

This system is supplied in a DIN 72x144 mm enclosure for flush mounting. An easy alarm's description printing, easy wiring by plug-in terminals and a good front prtection degree, come to complete this attractive alternative.

The **COMPALARM C3** is being manufactured, in such a way to be capable to ensure an intrinsically safe reading of the inputs. The particular fi rmware and the internal watchdog, allow the functionality survey of the systems, in order to enable the outputs with fully operational instruments only.

The know how, used in the present instrument, has simplifi ed the circuits up to a maximum, granting a high reliability and safety for avoiding false signals. It has also enabled to have a high immunity degree against external disturbance and signal management with increased voltage capability.

The electronic management system allows to program the alarm behaviour, according with the ISA S 18.1standard, so as the inputs and outputs position.

INPUTS

The **COMPALARM C3** has 12 inputs that can be set as NO or NC by dipswitches. All inputs are optoisolated and can be supplied with any voltage between 5 ¸250V ac/dc. It has been also foreseen the inputs for acknowledgement, test and reset push buttons. Every alarm and push button inputs may accept a big range of voltages with only one common, in order to allow the installation of the system in parallel with the loads to be surveyed (without using a back up relay)or with other annunciators.

OUTPUTS

The outputs are fi tted with two voltage free contacts relays. One of them is intended for the acoustic or alarm signalling and the other for a cumulative of alarms (normally excited or diexcited in case of alarm) for process activation approval, in presence of one active alarm (or non resetted yet) at least. The mentioned relay will also react due to a lack of power supply or due to its internal malfunction.

INTERCONNECTION WITH OTHER MODULES

With the wiring of one cable through other similar devices, it is possible to enlarge the system, which will work as an unic system, in order to grant a correct operation of the various alarm sequences, "fi rst out" function included (see table of ISA sequences). In such a case, the outputs can be

detected by any of the interconnected modules.

Attention:

In this case, the push buttons should be fi tted with so many separated contacts as interconnected modules, in order to avoid the parallel input connection of different modules.

PROGRAMMING AND OPERATION

Each **COMPALARM C3** module accepts up to 12 contacts, with a common pole, either open or closed in a rest position, which can be set for each input by dipswitches, placed behind the alarms description panel.

The activation, memory and reset modes can be selected among the 8 most common sequences, according with the ISA 18.1 standard ISA A - ISA F1 A - ISA F3 A - ISA M - ISA M 5 - ISA F1 M - ISA R 8 - ISA F1 R8

(See table of sequences for more information)

The mentioned sequences have following basic sequences:

ISA A Alarm signalling with automatic reset, after detection.

ISA M Alarm signalling with manual reset after detection.

ISA R 8 Double fl ashing frequency for alarm signalling (fast for active alarm and slow when coming to normal status) with signalling to the return to normal situation and manual reset.

ISA M5 Signalling like ISA-M, but without fl ashing, when optical signalling.

ISA F1 "First out" function, to recognise the fi rst tripped alarm, within a group, by means of the optical signal fl ashing (distin guishing the main alarm from other coupled alarms). The function will be reset after the detection.

ISA F3A A particular "fi rst out" function, allowing the distinction of the first alarm from those "coupled alarms" and possible previous alarms already acknowledged.

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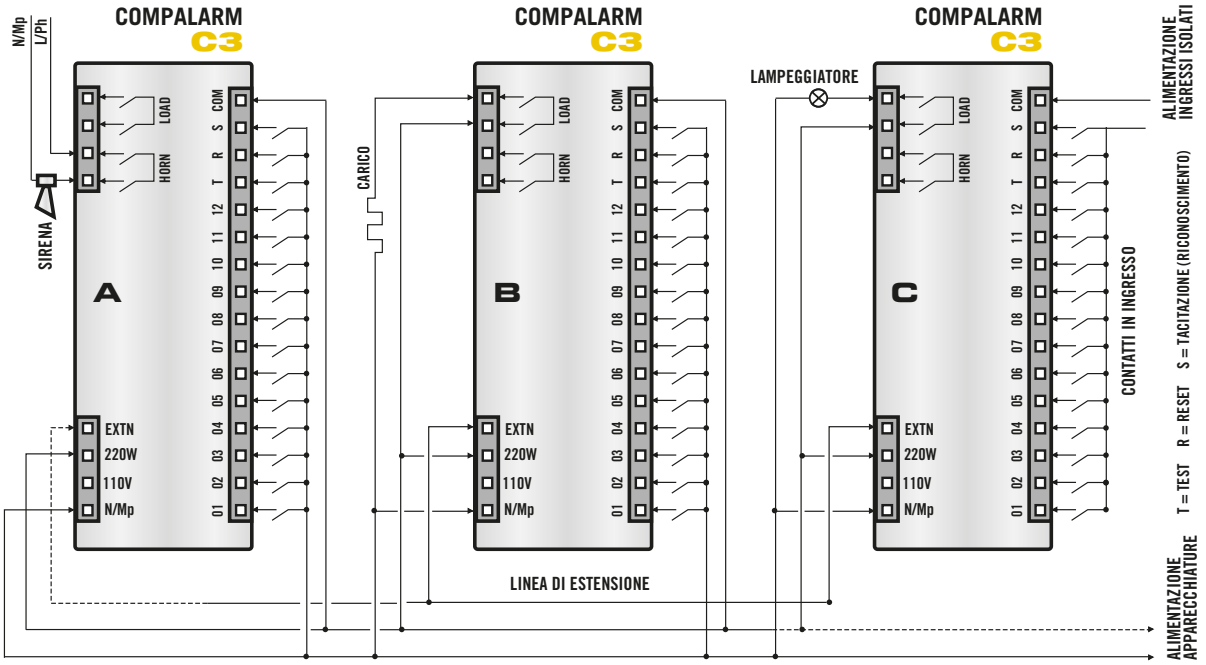
ELECTRICAL CHARACTERISTICS

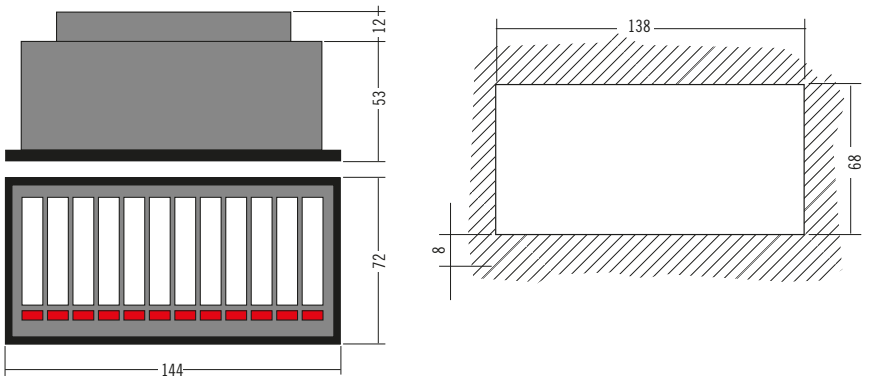
Tensione di alimentazione	24 Vca/cc o 115 - 230 Vca ± 20 %
Frequenza	50 ÷ 60 Hz
Consumo	4 VA MAX
Dissipazione	2 W MAX
Fusibile di linea (interno)	500 mA
Collegamento	Morsettiera a vite ed innesto
Temperatura di funzionamento	0 ÷ 60 °C
Temperatura di stoccaggio	-20 ÷ 80 °C
Umidità relativa	30 ÷ 90 % (non condensante)
Vibrazione massima consentita	0,5 G
Dimensioni di ingombro (DIN43700)	72 x 144 x 65 mm
Dimensioni di foratura	67 x 137 mm
Grado di protezione (DIN VDE0470)	IP40
Materiale	Noryl UL V-0
Posizione di montaggio	Qualsiasi

Dimensioni finestra di testo	45 x 9 mm
Uscite	2 contatti NO
Tensione massima commutabile	250 Vca
Portata massima contatti	3 A 250 V cosø = 1
Potenza massima commutabile	750 VA / 100 W
Ingressi	12 optoisolati
Ingresso pulsanti	3 optoisolati
Tensione	24 - 48 - 115 - 230 Vca/cc ± 20 %
Assorbimento	5 mA MAX
Linea di estensione per sistemi con alimentazione comune	1000 m MAX
Tempo di attesa all'accensione	5 secondi
Separazione galvanica	Ingressi I Uscite I Alimentazione
Compatibilità elettromagnetica	Direttiva 89/336/CEE
Emissione	EN 50081-1
Immunità	EN 50082-2

COLLEGAMENTO DI PIU' MODULI

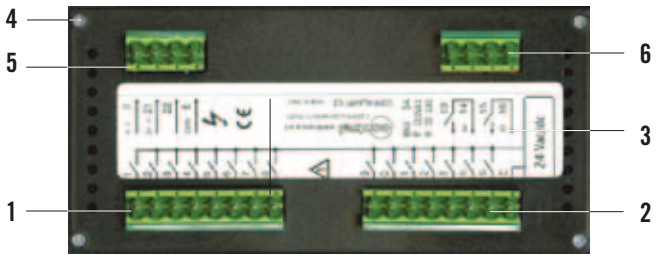


DIMENSIONS

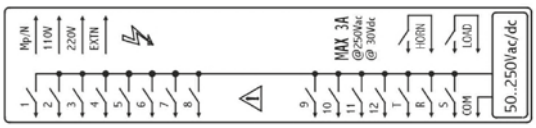


LEGEND

PANNELLO POSTERIORE

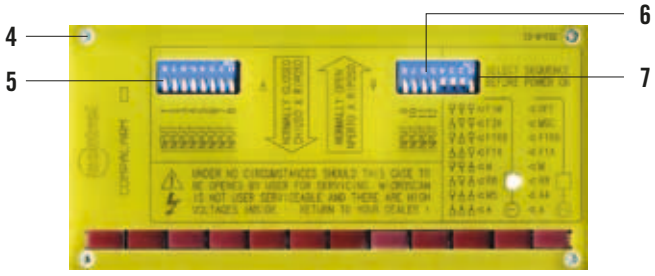


1	Inputs terminal (ac/dc independently of polarity.)
2	Inputs terminal / push buttons
3	Voltage indication
4	Fixing screws
5	Power supply terminal
6	Outputs terminal



1...12	Alarm input
T	Push button for test
R	Push button for reset
A	Push button for acknowledgement
S.A.	Acoustic signalling relay
S.T.	S.T. larms cumulative relay (excited in absence of alarms)
E	nterconnection with more modules

PANNELLO ANTERIORE



1	Frontal loose frame
2	Transparent window for alarm description
3	LED signals
4	Fixing screws
5	Input selection NO/NC 1÷8
6	Input selection NO/NC 9÷12
7	Alarms sequence selection

INFORMAZIONI PER L'ORDINE

C3 . 230 . 230

TENSIONE DI ALIMENTAZIONE
115 / 230 Vca = 230
24 Vca = 24

TENSIONE INGRESSI
230 Vca = 230
115 Vca = 115
48 Vca = 230
24 Vca = 24
12 Vca = 24