COMPALARM C2C

GENERAL

• Compact alarm system, with a basic module of 12 signals
• Multiple modules coupling possibility
• Easy printing of the alarm points description
• Opto-isolated inputs for 24,48,115, 230 Vac/dc NO or NC contacts, which can be set point by point
• Signal power free inputs
• 7 alarm sequence possibilities according with ISA S 18.1
• Easy and fast programming by dipswitches
• "First out" feature for recognizing the first tripped alarm
• ModbusRTU protocol via RS485 serial port
• ModbusTCP protocol via Ethernet module
• Interconnected systems for Alarm Management, distributed in various units
• High safety and reliability

The **COMPALARM C2C** is a very compact and efficient alarm system, suitable for 12 points connection, with NO or NC input contacts and LED signals. This system is supplied in a 6 mm x 96 mm enclosure for flush mounting. An easy alarm's description printing, easy wiring by plug-in terminals and a good front protection degree, come to complete this attractive alternative.

The **COMPALARM C2C** is being manufactured, in such a way to be capable to ensure an intrinsically safe reading of the inputs. The know how, used in the present instrument, has simplify 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 behavior, according with the ISA S 18.1 standard, so as the inputs and outputs position.

ⅢⅢ **INPUTS -** The **COMPALARM C2C** 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.

ⅢⅢ **OUTPUTS -** The outputs are fitted with two voltage free contacts relays. One of them is intended for the acoustic or alarm signaling 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.

ⅢⅢ **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 unique system, in order to grant a correct operation of the various alarm sequences, "first out" function included. In such a case, the outputs can be detected by any of the interconnected modules.

ⅢⅢ **PROGRAMMING AND OPERATION**

Each **COMPALARM C2C** 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 M – ISA R – ISA M5 – ISA F1A – ISA F1M – ISA F3 A.

The mentioned sequences have following basic sequences:

ISA A Automatic reset.
ISA M Manual reset.
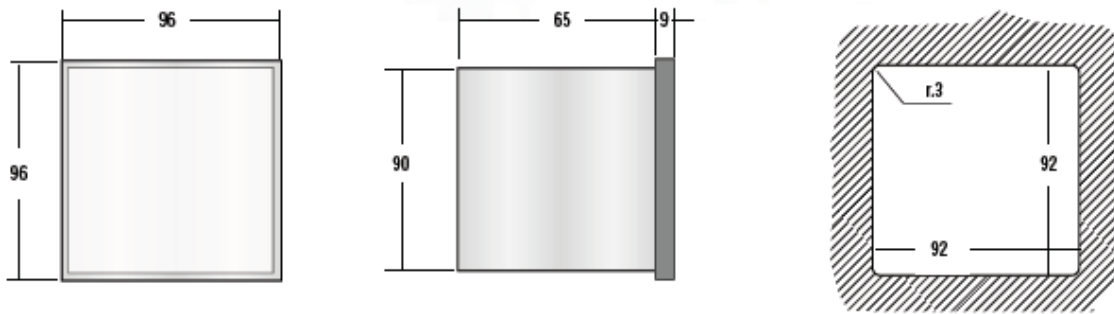**ISA R** Ringback.
ISA M5 Signaling like ISA-M, but without flashing, when optical signaling.
ISA F1A Automatic reset "first out" with no subsequent alarm state.
ISA F1M Manual reset "first out" with no subsequent alarm state.
ISA F3A Automatic reset "first out" with first out flashing and reset pushbutton

DIMENSIONS

ELECTRICAL CHARACTERISTICS

MAIN POWER SUPPLY TYPE		Input channels	**12 OPTOCOUPLED**
Supply voltage	**115 or 230 V - 50/60Hz or 85÷265Vac/dc**	Input pushbuttons	**4 OPTOCOUPLED**
Power consumption	**4.5 VA MAX**	Inputs Voltage	**24 / 48 / 115 / 230 Vac/dc ± 20%**
Line fuse (external)	**500 mA**	Inputs current	**5 mA MAX**
LOW VOLTAGE SUPPLY TYPE		Extension line	**1000 m MAX**
Supply voltage	**20÷60Vac/dc**	Power-on delay	**5 s**
Power consumption	**4.5 VA MAX**	Galvanic separation	**Inputs | Outputs | Supply**
Line fuse (external)	**1 A**	Test voltage	**2500 V @ 50 Hz, 1 minute**
TERMINALS SCREW AND PLUG TERMINAL BLOCK		Isolation voltage	**300 VRMS max**
Operating temperature	**0 ÷ 60 °C**	EMC Compliance Directive	**EMC 89/336/EEC**
Storage temperature	**-20 ÷ 80 °C**	Emission	**EN 50082-1**
Relative humidity	**NON CONDENSING max 95 %**	Immunity	**EN 50082-2**
Vibration allowed	**0.5 G**	**ETHERNET MODULE (OPTION)**	
Overall dimensions	**(DIN43700) 72 x 144 x 65 mm**	Speed	**10/100 base T magnetics on-board**
Cut-out dimensions	**92 x 92 mm**	Connector	**RJ45-8 (standard RJ Ethernet connector)**
Protection class	**(DIN VDE0470) IP40**	**SERIAL COMMUNICATION (OPTION)**	
Material	**Noryl UL V-0**	Standard	**RS485 Half-duple**
Mounting position	**Any**	Connector	**5.0 mm pitch extractible screw terminals**
Weight	**500 g MAX**	Isolation	**4KVpeak o 2.5KVRMS – transceiver stage self powered**
Text window dimensions	**34 x 9 mm**	BaudRate	**4800 – 9600 – 19200 – 38400**
Output channels	**2 SPDT contacts**	Node-ID	**1 ÷ 247**
Max switching voltage	**250 Vac**	Parity	**Even – Odd - None**
Max switching current	**5A @ 250V cosj=1**	Stop bit	**1 or 2**
Max switching power	**750 VA / 100 W**		

FRONT PANEL
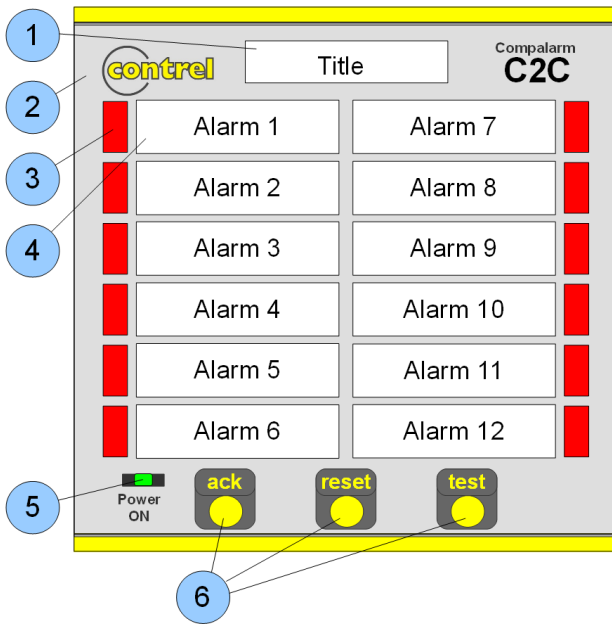
1	**Transparent window for alarm description**
2	**Frontal loose frame**
3	**LED signals**
4	**Transparent window for alarm description**
5	**"Power ON" LED**
6	**Push buttons**
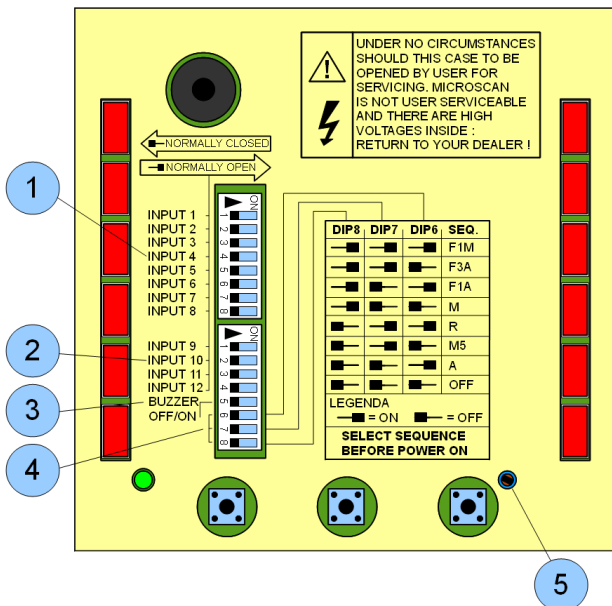
1	**Input Selection NO/NC IN1÷IN8**
2	**Input Selection NO/NC IN9÷IN12**
3	**Internal Buzzer OFF/ON**
4	**Alarm sequence selection**
5	**LED's light intensity adjust**

BACK SIDE PANEL
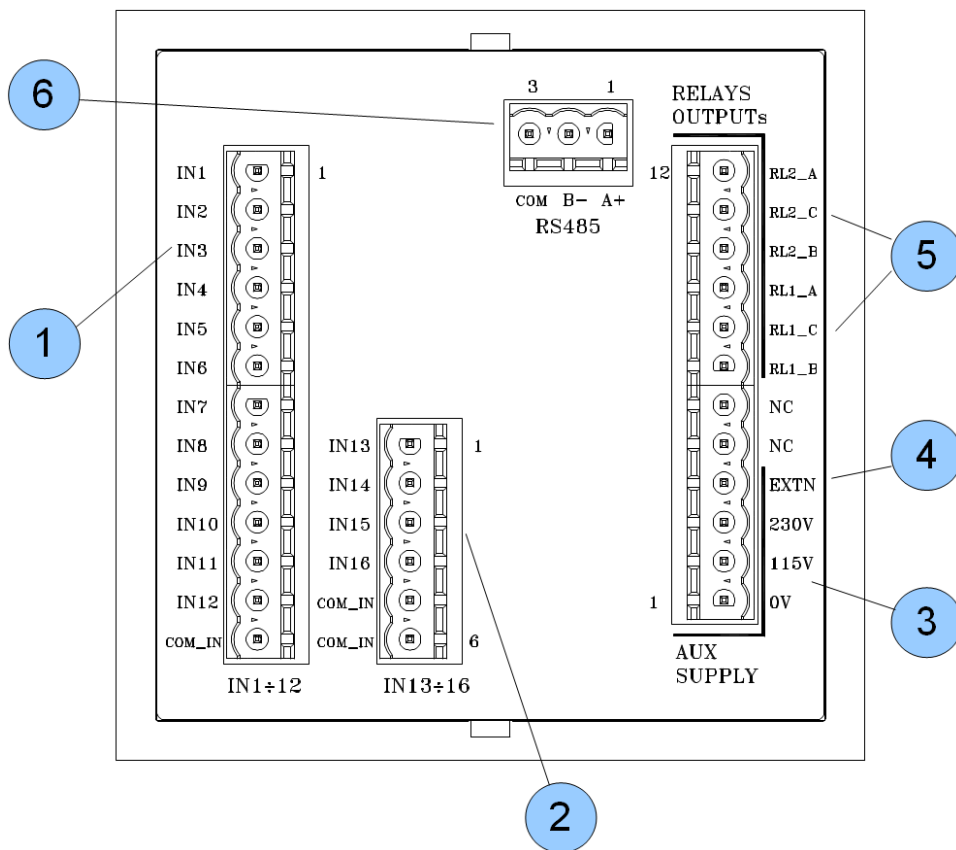
1	**Alarm Inputs terminal (ac/dc)**
2	**Ext. Switches Inputs terminal (ac/dc)**
3	**Power supply terminal**
4	Extension Line Connection
5	Output Relays
6	RS485 Serial Communication

WIRING DIAGRAM