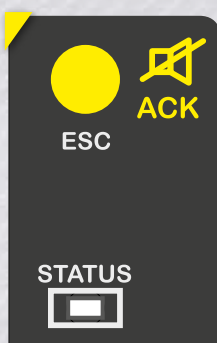




ALARM ANNUNCIATORS TEMPERATURE MONITOR DEVICES



AP



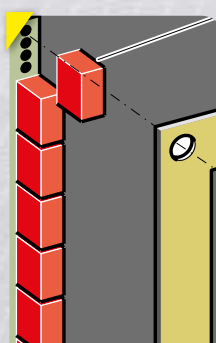
D2m



SQ



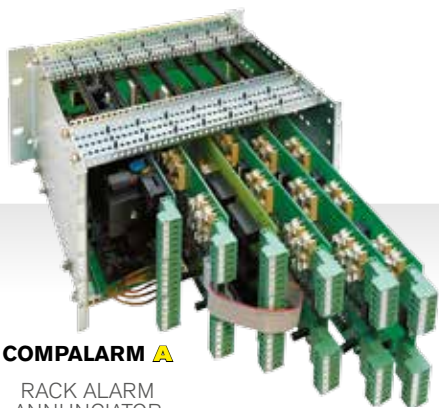
GW



C3sq



CTT



COMPALARM A
RACK ALARM
ANNUNCIATOR



**PANEL
SIGNALING
SQ**



COMPALARM AP
ALARM ANNUNCIATOR



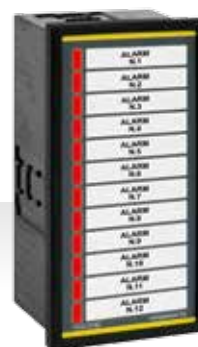
COMPALARM CM
MECHANICAL
ALARM ANNUNCIATOR



COMPALARM C0/sq
ALARM VISUALIZATION
48 x 48 mm



**COMPALARM
C2/sq**
ALARM VISUALIZATION
96 x 96 mm



**COMPALARM
C3/sq**
ALARM VISUALIZATION
72 x 144 mm



**COMPALARM
C2C**
ALARM ANNUNCIATOR
WITH MODBUS COMMUNICATION



COMPALARM D2 - D2m
DISPLAY ALARM ANNUNCIATOR
WITH MODBUS COMMUNICATION

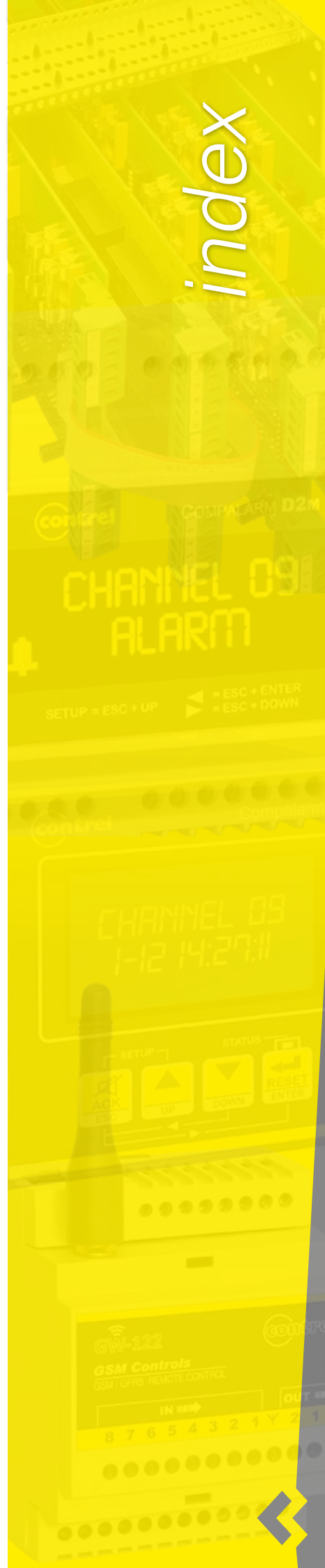


COMPALARM GW
ALARM GSM
MODULE COMMUNICATION



**TEMPERATURE
MONITOR DEVICES
CTT**

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COMPALARM A

RACK ALARM ANNUNCIATOR

GENERAL

The system is composed by:

- Alarm card
- Power supply and flashing card
- Relay card
- Timing card
- Card holder unit
- Power transformers and Dc/Dc converters
- Signalling cells, SQ type (with LED on request)

It's available in 2 different executions:

- The first one being supplied with its various components unassembled, but fitted with their corresponding wiring terminals.
- The second is being supplied as a prewired solution in a flush mounting rack.

The first solution is the most versatile either for assembling or displaying.

As far as its operation is concerned, the alarm unit (optical and acoustic signalling) is excited, when its input contact changes its status (i.e. When it changes from open or normal condition to close or alarm condition).

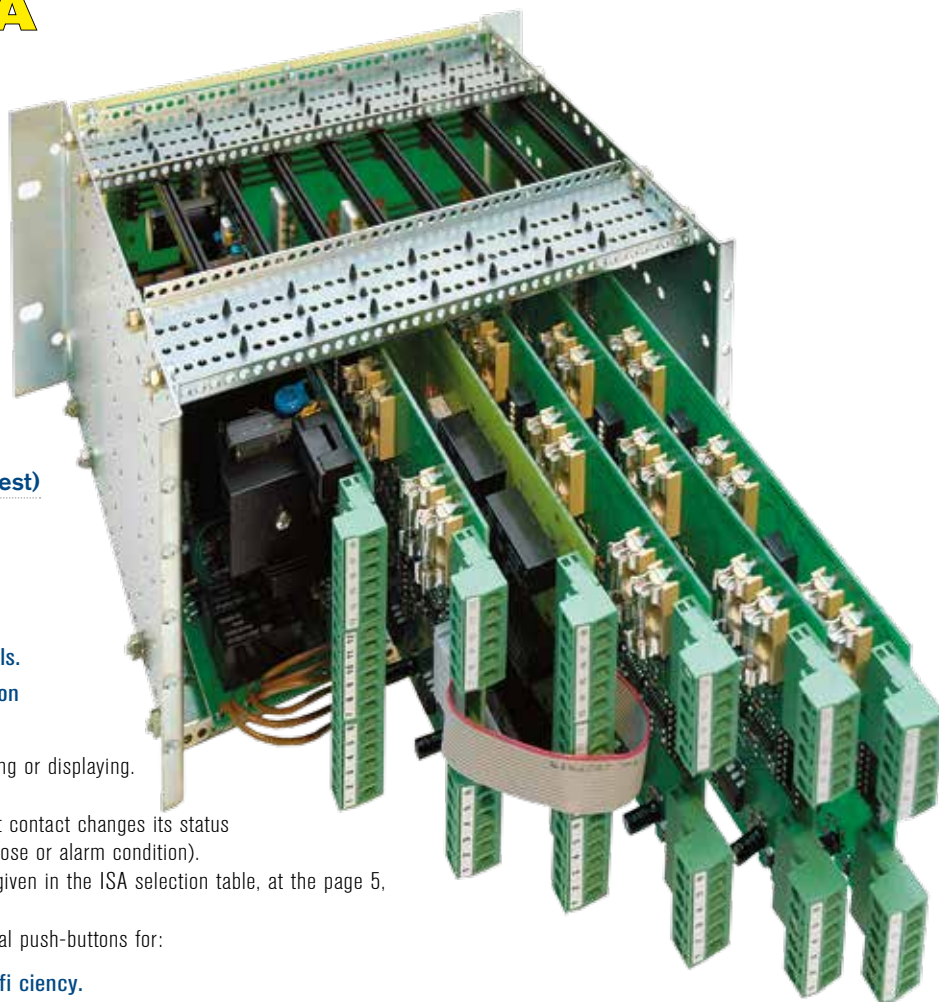
The alarm action behaviour follows the detailed patterns given in the ISA selection table, at the page 5, according with the selected sequence.

The system is also fitted with terminals for wiring external push-buttons for:

- Sequence test, in order to control the system's efficiency.
- Acknowledge, in order to intervene on the siren during its normal operation.
- Resetting the cards, which memorize the tripping of the functions.

An interesting feature of the COMPALARM A, are the interconnections available at its splittable terminal, which makes the wiring much easier, as it allows to wire the terminal block detached from the card.

The particular position of the terminal block allows also to optimize the available space at the board.



TECHNICAL CHARACTERISTICS		A
Auxiliary power supply		24-48-110-220-380
Operating contact voltage		18 ÷ 38 V
Current input		4mA Approximately
Electronic circuits consumption		Negligible compared to that of the lamps
Optical signalling output		250 mA max
1 change-over contact for acoustic signalling		10 A - 250 Va.c. Resistive load
Output relay for remote control 1 change-over		10 A - 250 Va.c. Resistive load
Remote repeating output relay (for all points) 1 change-over load		10 A - 250 Va.c. Resistive
Static output for remote control of the relay		24 Vc.c - 250 mA max
Flashing frequency	1F Slow frequency	1÷1,5 Hz
	2F Fast frequency	2÷3 Hz
Power of transformers a.c./a.c.		30-50-100-200 VA
Power of converters d.c./d.c.		50-100-250 W
Working temperature		-10°C ÷ 60°C
Storing temperature		-20°C ÷ +80°C
Relative Humidity		90%
Isolation test		2kV 60 seg

COMPALARM A

RACK ALARM ANNUNCIATOR

SEQUENCE TABLE													
ALARM SEQUENCE		TYPE OF SIGNAL		NORMAL CONDITION (NO ALARM)	MAINTAINED ALARM			RETURN TO NORMAL	RESET OR RETURN TO NORMAL	MOMENTARY ALARM			RESET OR RETURN TO NORMAL
ISA-18.1	FIRST TO ABNORMAL				AFTER ACKNOWLEDGED		FIRST TO ABNORMAL			AFTER ACKNOWLEDGED			
					ACKNOWLEDGE	FIRST OUT RESET				ACKNOWLEDGE	FIRST OUT RESET		
A	⊗		OFF	FLASHING	ON SLOW	-	OFF	-	FLASHING	OFF	-	-	
	🔊	🔊	SILENT	AUDIBLE	SILENT	-	SILENT	-	AUDIBLE	SILENT	-	-	
F1A	⊗	1	OFF	FLASHING	ON SLOW	-	OFF	-	FLASHING	OFF	-	-	
		2	OFF	ON SLOW	ON SLOW	-	OFF	-	ON SLOW*	OFF	-	-	
	🔊	🔊	SILENT	AUDIBLE	SILENT	-	SILENT	-	AUDIBLE	SILENT	-	-	
M	⊗		OFF	FLASHING	ON SLOW	-	ON SLOW	OFF	FLASHING	ON SLOW	-	OFF	
	🔊	🔊	SILENT	AUDIBLE	SILENT	-	SILENT	SILENT	AUDIBLE	SILENT	-	SILENT	
F1M	⊗	1	OFF	FLASHING	ON SLOW	-	ON SLOW	OFF	FLASHING	ON SLOW	-	-	
		2	OFF	ON SLOW	ON SLOW	-	ON SLOW	OFF	ON SLOW	ON SLOW	-	OFF	
	🔊	🔊	SILENT	AUDIBLE	SILENT	-	SILENT	SILENT	AUDIBLE	SILENT	-	SILENT	
R8	⊗		OFF	FAST FLASHING	ON SLOW	-	FLASHING	OFF	FAST FLASHING	FLASHING	-	OFF	
	🔊	🔊	SILENT	AUDIBLE	SILENT	-	AUDIBLE	SILENT	AUDIBLE	AUDIBLE	-	SILENT	
F1R8	⊗	1	OFF	FLASHING	ON SLOW	-	FLASHING	OFF	FAST FLASHING	FLASHING	-	OFF	
		2	OFF	ON SLOW	ON SLOW	-	FLASHING	OFF	ON SLOW*	FLASHING	-	OFF	
	🔊	🔊	SILENT	AUDIBLE	SILENT	-	AUDIBLE	SILENT	AUDIBLE	AUDIBLE	-	SILENT	
F3A	⊗	1	OFF	INTERMIT- TENT FC.	FLASHING	ON SLOW	OFF	-	INTERMIT- TENT FC.	FLASHING	OFF	-	
		2	OFF	FAST FLASHING	ON SLOW	ON SLOW	OFF	-	FAST FLASHING	OFF	OFF	-	
	🔊	🔊	SILENT	AUDIBLE	SILENT	SILENT	SILENT	-	AUDIBLE	SILENT	SILENT	-	
F3M	⊗	1	OFF	INTERMIT- TENT FC.	FLASHING	ON SLOW	ON SLOW	OFF	INTERMIT- TENT FC.	FLASHING	ON SLOW	OFF	
		2	OFF	FAST FLASHING	ON SLOW	ON SLOW	ON SLOW	OFF	FAST FLASHING	ON SLOW	ON SLOW	OFF	
	🔊	🔊	SILENT	AUDIBLE	SILENT	SILENT	SILENT	SILENT	AUDIBLE	SILENT	SILENT	SILENT	
M5	⊗		OFF	ON SLOW	ON SLOW	-	ON SLOW	OFF	ON SLOW	ON SLOW	-	OFF	
	🔊	🔊	SILENT	AUDIBLE	SILENT	-	SILENT	SILENT	AUDIBLE	SILENT	-	SILENT	
⊗	VISUAL DISPLAY 1 = FIRST TO ABNORMAL 2 = SUBSEQUENT TO ABNORMAL			SLOW FLASHING: 1HZ									
				FAST FLASHING: 2HZ									
🔊	ALARM AUDIBLE DEVICE			RELAY OUTPUT S.A.									

COMPALARM A

RACK ALARM ANNUNCIATOR

ALARM CARD

MODELS		
AC61	6 channel inputs	ISA A alarm sequence
AC41	4 channel inputs	ISA A alarm sequence
AC62	6 channel inputs	ISA M alarm sequence
AC42	4 channel inputs	ISA M alarm sequence
AC43	4 channel inputs	ISA R8 alarm sequence
AC44	4 channel inputs	ISA F3A alarm sequence
AC65	6 channel inputs	ISA F3M alarm sequence
OPTIONS		
F	First out function	
485	RS485 communication port	

With 100 x 190 mm size, it is capable of governing up to 6 alarm points (4-alarm point card is also available). This card is subdivided in 6 or 4 different sections, in order to allow them a totally independent operation, to prevent that good working of more than one alarm point can be affected by failure of one single component. This card is capable of accepting either normally open input contacts (NO) or normally closed contacts (NC). Selection is made by means of dipswitches, placed on the card and can be varied at any instant without involving the electronics circuitry. The selection of the input contact is independent for each point and therefore, the card operation is being possible partly with some normally open contacts (NO) and other normally closed contacts (NC). In a few applications it can be of use to discriminate which of a certain group of alarms has tripped first. To check this, it is necessary to resort to a different behavior between the first tripped alarm and the subsequent alarms, by using the first out. Successive alarms show to be in already acknowledged, in this case. The lamp does not flash and siren remains still when tripping of successive alarm, this until the first tripped alarm has been acknowledged. The first out is applicable to the sequences ISA 1 - ISA2C - ISA2A (A-M-R8), whilst it is of no use if applied to sequences ISA1 A, ISA1 B, ISA1C - ISA1 D (A5-A4-A45 -M5). The ISA1 is the most used sequence with first out and it is identified with the reference ISA4A (F 1A). When the card is arranged to operate with first-out sequence, adequate dipswitches are fitted to it. It allows the eventual exclusion of the function for each alarm, thus ensuring the possibility of miscellaneous rating on same card and in the meantime allowing variations in the rating logic during normal use without variations on the electronic circuitry. The operated alarm sequences are all those as per ISAS18.1 specifications, the most common of which are those indicated in the table at page 4.

POWER SUPPLY AND FLASHING CARD

MODELS	
2FT-VDC	Flash card with power supply 24 VDC
2FT-VAC	Flash card with power supply 24 VAC

With 100 x 190 mm overall size, it can produce 2 flashing types, 1-1.5Hz and 2-3Hz frequency. On the flash card is located also the relay for the acoustic signaling, the capacity of which is featured by 10 A 250 Vac and 2500 VA as max commutable power. There is also possibility of inserting in same card the remote control cumulative relay for distance detection of a tripped system, having the same characteristics as for the acoustic signaling relay. The auxiliary power supply is also signaled by means of green LED on the flashing card. Whilst the simple and double flashing are visualized by two red LEDs, which show the alarm condition.

RELÉ CARD

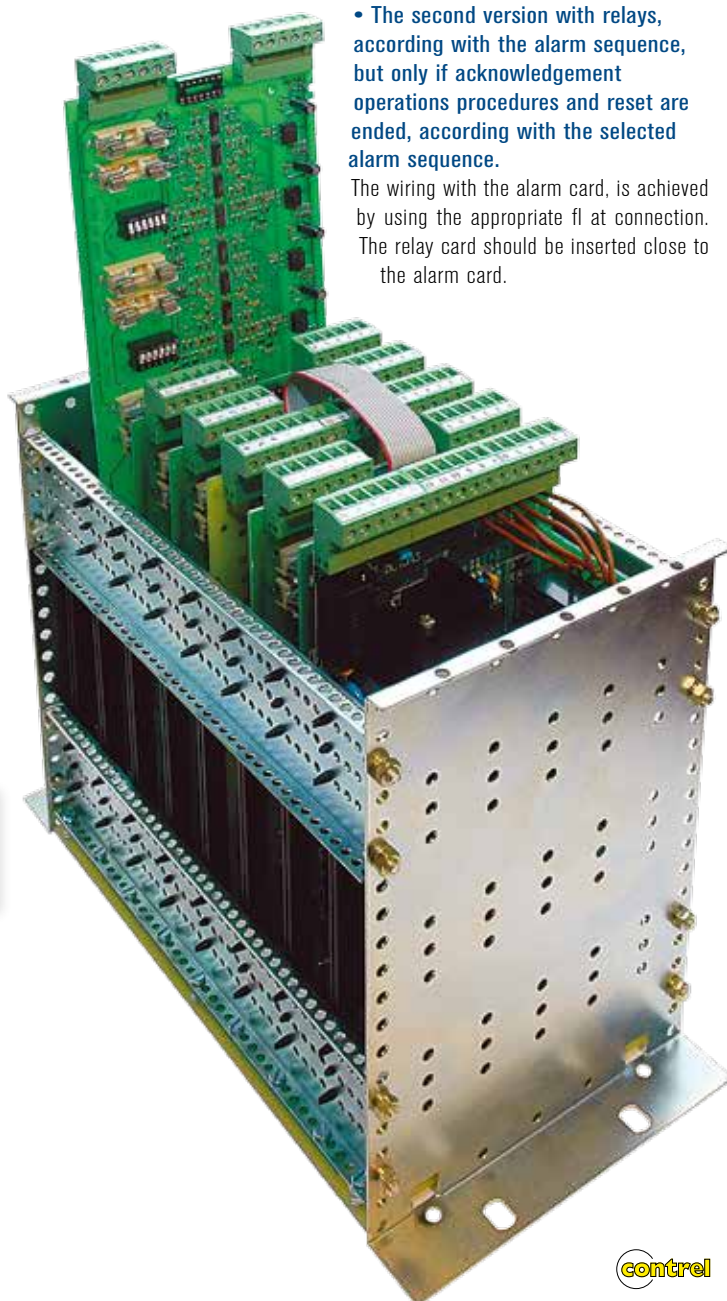
MODELS	
RC65	6 repeat relays without memory
RC45	4 repeat relays without memory
RC65M	6 repeat relays with memory
RC45M	4 repeat relays with memory
RC65M1	6 repeat relays with memory and reflash pulse feature
RC45M1	4 repeat relays with memory and reflash pulse feature

With 100 x 190 mm size, it is capable of housing C6 relays with the following electric characteristics of capacity: 10A, 250Vac and 2500VA, as commuting power. Said card is used when it is necessary to remotely detect the signals of all single alarm points. There are 2 different versions available:

- The first one with repeating relays of the alarm condition input contact, i.e. they are deenergized when the alarm signal appears, independently from effected operations.
- The second version with relays, according with the alarm sequence, but only if acknowledgement operations procedures and reset are ended, according with the selected alarm sequence.

The wiring with the alarm card, is achieved by using the appropriate fl at connection.

The relay card should be inserted close to the alarm card.



COMPALARM A

RACK ALARM ANNUNCIATOR

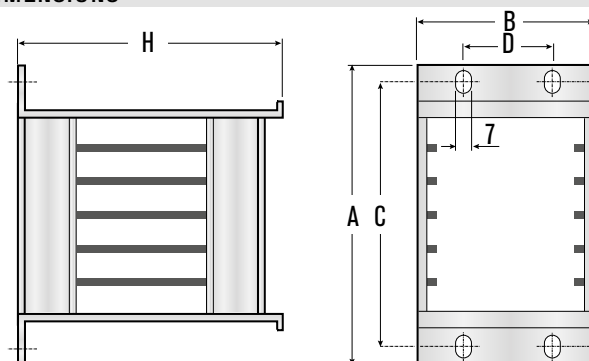
RELAY CARD

MODELS	
CH4	Card holder 4+1 locations
CH7	Card holder 7+1 locations
CH11	Card holder 11+1 locations\
CH15	Card holder 15+1 locations
CH5	Card holder 4 with interconnection card
CH8	Card holder 7 with interconnection card
CH12	Card holder 11 with interconnection card
CH16	Card holder 15 with interconnection card

They are available for 4-7-11-15 card locations, in basic versions. They have the same dimensions as those given in table here below.

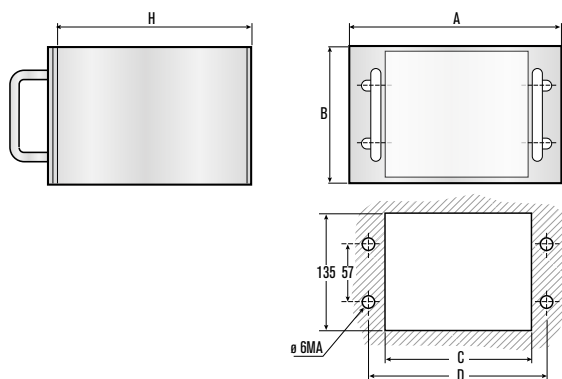
These locations can be combined so as to reach the desired number of card locations (by using the interconnection card).

DIMENSIONS



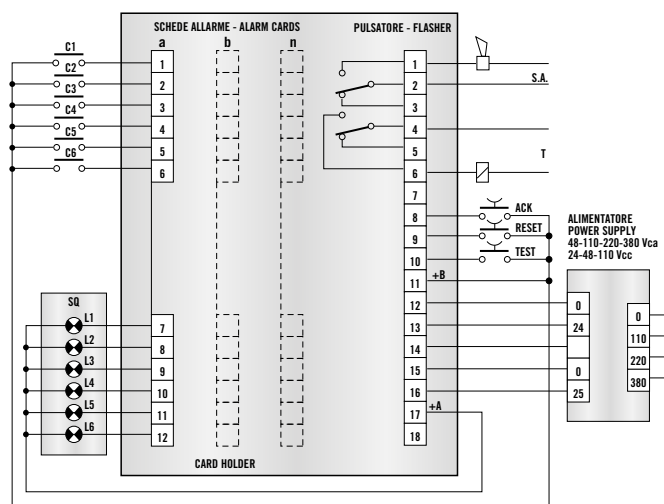
MODELS	A	B	C	D	E
CH4/CH5	200	132,5	183	57	200
CH7/CH8	270	132,5	253	57	200
CH11/CH12	375	132,5	360	57	200
CH15/CH16	484	132,5	467	57	200

VERSIONS PRE-WIRED RACK - DIMENSIONS



MODELS	N° OF POINT	A	B	C	D	E	H
EP12	12	200	150	170	183	135	300
EP18	18	270	150	240	253	135	300
EP24	24	270	180	240	253	165	300
EP30	30	375	150	347	360	135	300
EP39	39	484	150	454	467	135	300
EP48	48	484	180	454	467	165	300
EP60	60	484	210	454	467	165	300

WIRING DIAGRAM



CHARACTERISTICS

a, b ... n	Alarm cards (1...6 channel inputs - 7...12 lamp outputs)
Flasher	Power supply card and flashing lamps
S.A.	Audible relay output
T	Alarm remote output
ACK	Ack key
RESET	Reset key
TEST	Test alarm sequence key
+A	Common return for all lamps
+B	Common return for all channel inputs and keys

COMPALARM **A**

RACK ALARM ANNUNCIATOR

TRANSFORMERS

When the provided auxiliary power supply is different from 24 VAC or 24 VDC, you cannot power the alarm directly on the card flasher 2ft but you have to use upstream power transformers series TR or converters DC series.

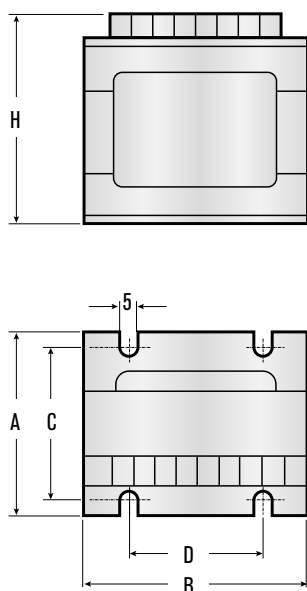
If the auxiliary power supply is 110 VAC or 230 VAC or 400 VAC are used transformers TR series with the secondary 24 VAC which then feed then the card flasher 2FT VAC. The transformers are available in various capacities from 50 VA to 300 VA.

If the auxiliary power supply is 48 VDC, 110 VDC or 220 VDC are used DC converters with secondary 24 VDC which then feed into the card flasher 2FT VDC.

MODELS

TR 5	50 VA	110-230-400 Vca / 24 Vca
TR 10	100 VA	110-230-400 Vca / 24 Vca
TR 15	150 VA	110-230-400 Vca / 24 Vca
TR 20	200 VA	110-230-400 Vca / 24 Vca
TR 25	250 VA	110-230-400 Vca / 24 Vca
TR 30	300 VA	110-230-400 Vca / 24 Vca

TRANSFORMERS - DIMENSIONS



MODELS	POWER	A	B	C	D	H
TR 5	50 VA	80	85	70	60	95
TR 10	100 VA	85	85	70	60	95
TR 15	150 VA	86	85	70	60	95
TR 20	200 VA	86	85	70	60	95
TR 25	250 VA	86	85	70	60	95
TR 30	300 VA	100	85	70	60	95

CONVERTERS

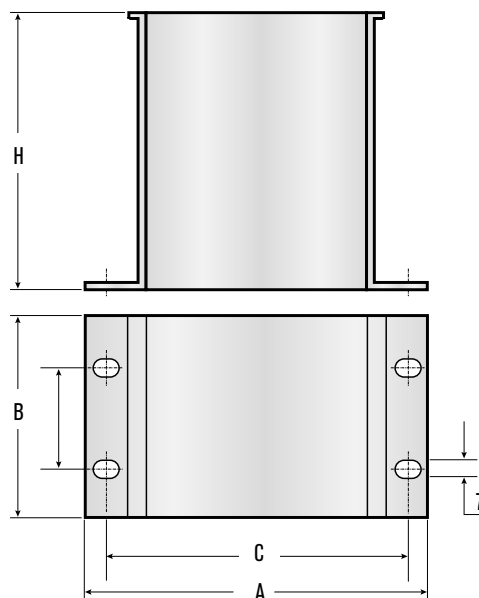
The converters are available in power ratings from 30W, 100W and 250W. The first two running on card to be inserted in the card holder CH, while the last one in the outer card holder.

In 30W and 100W versions of card is not necessary to use the card flasher 2FT, since the same is incorporated in the converter card. In case you use the external converter 250W must consider the use of the card flasher 2FT VDC in the card holder.

MODELS

DC3F-48	30 W	48 Vcc / 24 Vcc	with flasher card intergrate
DC3F-110	30 W	110 Vcc / 24 Vcc	with flasher card intergrate
DC3F-220	30 W	220 Vcc / 24 Vcc	with flasher card intergrate
DC10F-48	100 W	48 Vcc / 24 Vcc	with flasher card intergrate
DC10F-110	100 W	110 Vcc / 24 Vcc	with flasher card intergrate
DC10F-220	100 W	220 Vcc / 24 Vcc	with flasher card intergrate
DC25-48	250 W	48 Vcc / 24 Vcc	-
DC25-110	250 W	110 Vcc / 24 Vcc	-
DC25-220	250 W	220 Vcc / 24 Vcc	-

CONVERTERS - DIMENSIONS



MODELS	POWER	A	B	C	D	H
DC3F- 48/110/220	30 VA	EXECUTION ON BOARD				
DC10F- 48/110/220	100 VA	EXECUTION ON BOARD				
DC25 - 48	250 VA	200	132,5	183	57	200
DC25 - 110	250 VA	200	132,5	183	57	200
DC25 - 220	250 VA	200	132,5	183	57	200
-	-	-	-	-	-	-

PANEL SIGNALING SQ

GENERAL

The SQ type basic signaling cells are available in the 30 x 30 mm versions. From the cells, it is possible to obtain other four types (A-B-C-D). The 30 x 30 mm dimension has been chosen, since one may reach the DIN 72 x 72 dimension with a possible combination of 4 cells. All above to allow its installation with other systems built, according with DIN standard.

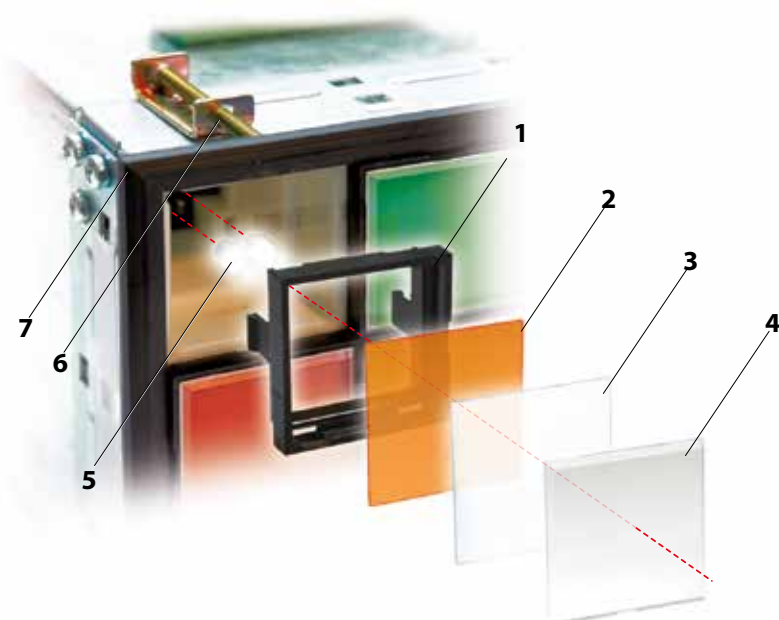
The SQ series are prepared to accept incandescent lamps or MULTILED, with BA9S fixing and a power of 1W.

It is possible to reach up to 200 cells, with the COMPALARM A.

The lamp substitution is being made from the front side of the panel.

While in the case the white LED are used, the substitution of the same must be made from the rear of panel.

The available tensions are 24 V (when the visual display are with the alarm system COMPALARM A) or 48 - 110 - 230 (this last tension only for the white LED high light).



COMPONENTS

1	Frame
2	WINDOW COLOURS: BLUE, GREEN, RED, YELLOW, WHITE, ORANGE
3	Printing plate
4	Lens
5	Lamp
6	Fixing clips
7	Lens fixing frame

For printing, it's possible to print the number 3 part, or introduce a printed transparent film, similar to those used in luminous screens with printed texts, preferably printed with laser printers.

TECHNICAL CHARACTERISTICS	SQ
Operation voltage	24 ÷ 30 V
Lamps power	1 W MAX
Lamps type	BA9S or MULTILED BA9S or white LED high light
Number of lamps	1 per cell type A 30 x 30 - 2 per cell 60 x 30 - 4 per cells 60 x 60
Maximum number of points	200
Isolation resistance	> 10 Mohm (Megger 500 V)
Isolation test	2 kVca 60 seconds
Colour of plates	WHITE, RED, GREEN, YELLOW, BLUE, ORANGE
Material	Synthetic resin
Screw terminal	Screw M 3,5
Working temperature	-20 ÷ 40 °C
Relative humidity	90 %

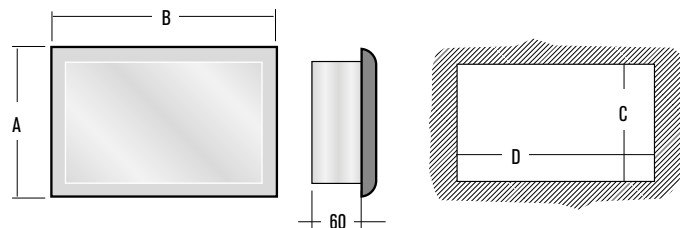
PANEL SIGNALING SQ

- The number of visualisation cells is equal to the result of multiplying the number of rows by the number of columns.
- The drill dimensions are C (height).
- The tolerance is of 0,1 mm.

Example:

5 ROWS BY 7 COLUMNS VISUALISATION PANEL

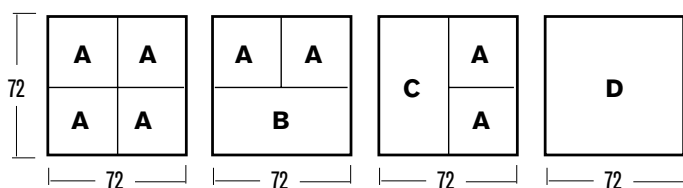
- The total number of cells would be 35.
- The external dimensions would be 162 mm of height by 222 mm of width.
- The drill dimension would be 155 mm height by 215 mm of width.



Columns			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Rows	B		42	72	102	132	162	192	222	252	282	312	342	372	402	432	462	492	522	552	582	612
	A	D	35	65	95	125	155	185	215	245	275	305	335	365	395	425	455	485	515	545	575	605
	C																					
01	43	35	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
02	72	65	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
03	105	95	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
04	132	125	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
05	162	155	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
06	192	185	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
07	222	215	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140
07	252	245	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
09	282	275	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180
10	312	305	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200

WINDOW

	A	B	C	D
Dimensions	30 X 30	60 X 30	30 X 60	60 X 60
Writable area	25 X 25	55 X 25	25 X 55	55 X 55



COMPALARM AP

ALARM ANNUNCIATOR

GENERAL

The COMPALARM AP is a point alarm system, with as many normally closed input contacts. It gives the possibility of selecting the alarm sequence according with 30 x 30 mm cells, fitted with ultra bright white LED's, achieving a low power consumption and a lamp maintenance free operation. The interconnecting possibility allows to design other supervision alarm systems with many extensions. The alarm systems type COMPALARM AP has been conceived with its very reduced dimensions, but maintaining the characteristics of the COMPALARM A system. This system has been studied for the most critical uses, i.e. electrical plants in which a malfunctioning of a single component should only harm the function of one channel at most. Each channel is protected by optoisolators, which keep free of any external disturbances. Every channel is fitted with a micro-switch allowing the selection of a normally open (N.O.) or a normally closed (N.C.) contact.

It is also possible to select a different functioning of the output relays for the acousting signalling in order to have 2 signalling types according with the alarm type. With regard to this possibility, there might be the following options, which might be selected by a micro-switch:

- 6 inputs on relay 1 and 6 inputs on relay 2
- 8 inputs on relay 1 and 4 inputs on relay 2
- 10 inputs on relay 1 and 2 inputs on relay 2
- 12 inputs on relay 1 and the relay 2 working as cumulative for indication of a group in alarm situation

The visualisation is being made by special LED's granting a high brightness together with a long lasting life (millions of working hours), which saves the lamps replacement problems.

MAIN FEATURES

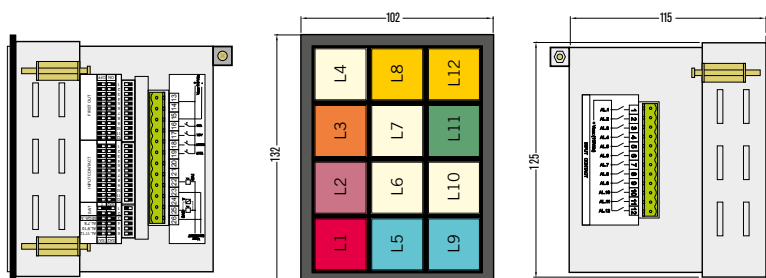
- 12 contact inputs
- 4 push button inputs (test, horn off, ack, reset)
- Optoisolated inputs
- Normally open / closed input contacts
- Horn output
- Alarm cumulative output
- Flush panel mounting
- 1 wire expansion line
- Low power consumption
- No lamp maintenance required
- Auto-reset power supply fuse
- 4 pre-selectable sequences: ISA A, ISA M, ISA F1A, ISA F1M

OPERATION

Whenever there is a change over the input contacts, from the normally open (N.O.) to close situation of from normally closed (N.C.) to open situation, the COMPALARM AP device changes from rest condition to the alarm condition. There will be therefore an optic and acoustic signalling with the particular behaviour, which will depend on the particular selected sequence (see the sequence table). All the operations required by the sequences, which the device can perform, may be achieved by the push buttons, as silence, acknowledge and reset. The silence push button particularly, reacts only on the siren, without interfering the lamp. Whenever the silence push button is not being used, it is possible to perform simultaneously the silence of the acoustic alarm so as the change of the optic signalling from flashing to fix, by using the acknowledge push button. We can perform the complete test of the system through the test push button. On request, it is possible to perform the LED's test only, instead of the complete test.



DIMENSIONS



COMPALARM AP

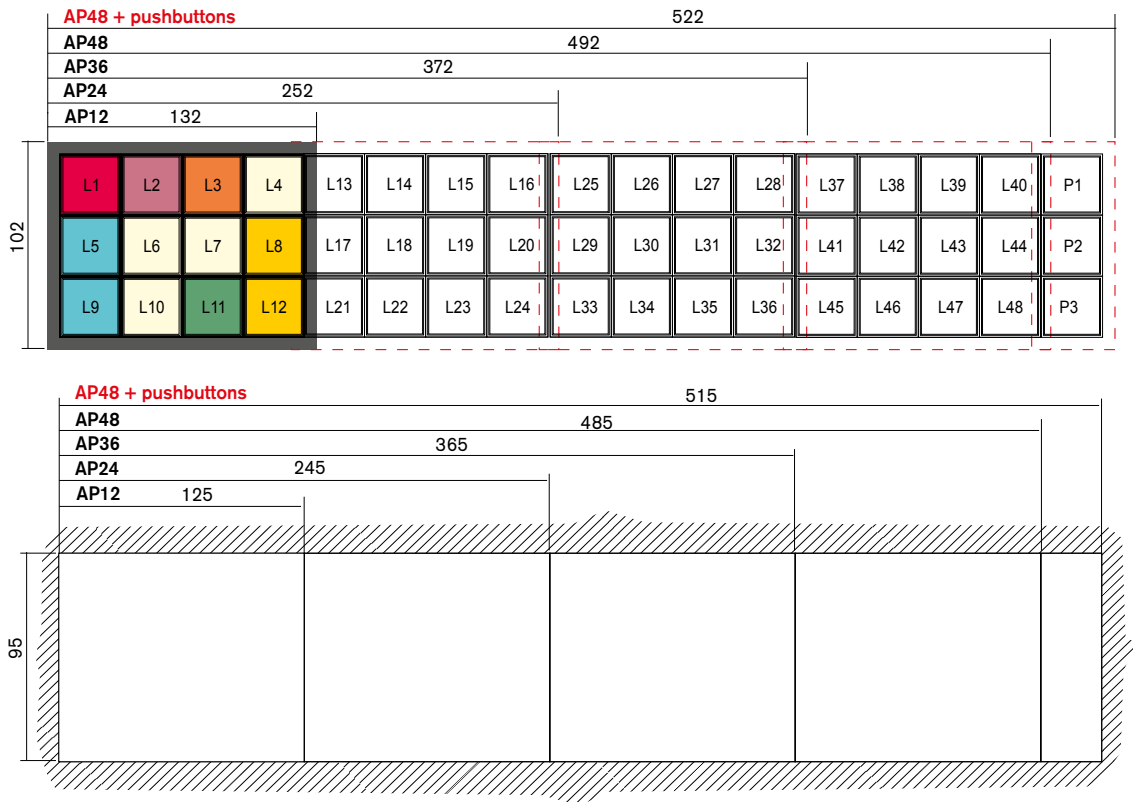
ALARM ANNUNCIATOR

TECHNICAL CHARACTERISTICS		AP	
AUXILIARY SUPPLY			
Rated voltage		24 VAC/DC - 48 VDC - 115 VDC	
Frequency		50 ÷ 60 Hz	
Power consumption		10 W max	
CHANNEL INPUTS			
Number of inputs		12 (standard) or more	
Voltage inputs		24 VAC/DC - 48 VAC/DC - 115 VDC	
Frequency		0÷1000 Hz	
Consumption (each input)		0,5 W max	
Window illumination		Hi-efficiency white LED	
LED color		Red, yellow, green, blue, white, orange	
OUTPUTS			
Number of outputs		2	
AMBIENT CONDITIONS			
Operating temperature		0 ÷ +60 °C	
Storage temperature		-20 ÷ +70 °C	
Relative humidity		45 ÷ 90 % (not condensing)	
HOUSING			
Version		Flush mount	
Dimensions w x h x d		132 x 102 x 80 mm	
Cutout		125 x 125 mm	
Degree of protection		IP52	
Weight		800 g max	
CERTIFICATIONS AND COMPLIANCE			
Reference standards		EMC 89/336/EEC - EN 50082-1 - EN 50082-2	
OPTION		AP	
ORDER CODE		DESCRIPTION	
AP...24		Power supply 24 VAC/DC - Voltage inputs 24 VAC/DC	
AP...48		Power supply 48 VDC - Voltage inputs 48 VDC	
AP...110		Power supply 110 V/DC - Voltage inputs 110 VDC	
AP...220		Power supply 220 VDC - Voltage inputs 220 VDC	
OPTION 1			
Keyboard functions		ACK, TEST SEQUENCE, RESET, HORN OFF keys	
Test function		TEST lamp key	
First out		First out function	
Fail safe		Relay (R2) normally excited	
Models			
COMPALARM AP12		12 channel inputs	
COMPALARM AP24		24 channel inputs	
COMPALARM AP36		36 channel inputs	
COMPALARM AP48		48 channel inputs	

COMPALARM AP

ALARM ANNUNCIATOR

DIMENSIONS AND PANEL CUT OUT

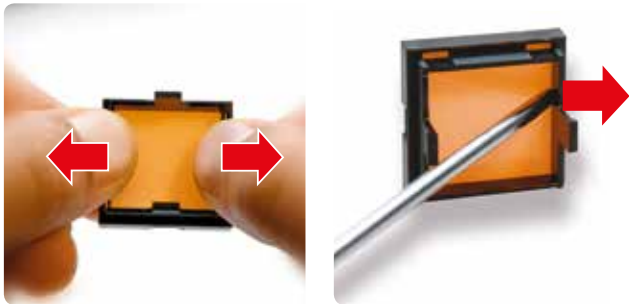


FRONT PANEL



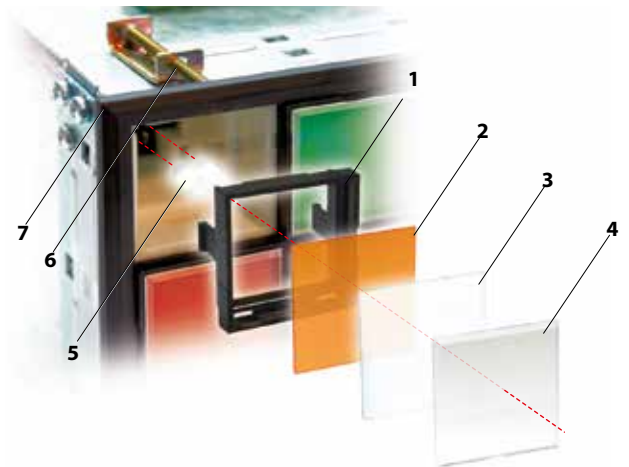
1 - For removing the lens groups, it's sufficient to insert the screwdriver tip into the frame's groove and lever up slightly, as indicated.

2 - To separate the parts of the group, press on the rear of the plate, enlarging slightly the frame, as indicated on the left image, or levering up with a small screwdriver.



COMPONENTS

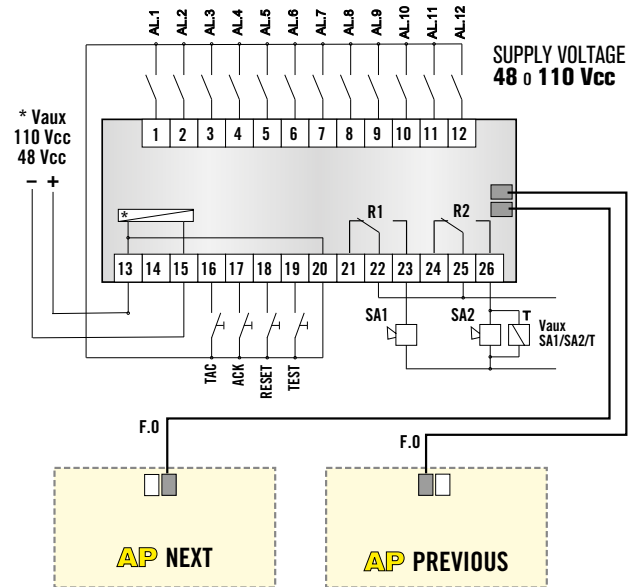
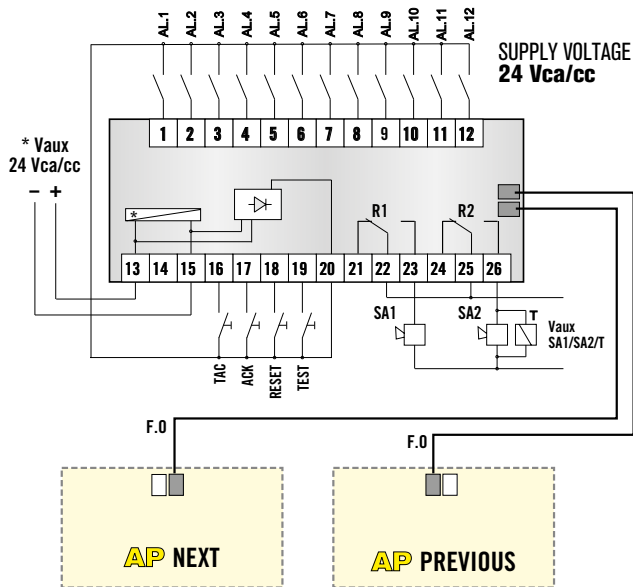
1	Frame
2	Window colours: Blue - Green - Red - Yellow - White - Orange
3	Printing plate
4	Lens
5	Lamp
6	Fixing clips
7	Lens fixing frame
Note:	For printing, it's possible to print the number 3 part, or introduce a printed transparent film, similar to those used in luminous screens with printed texts, preferably printed with laser printers.



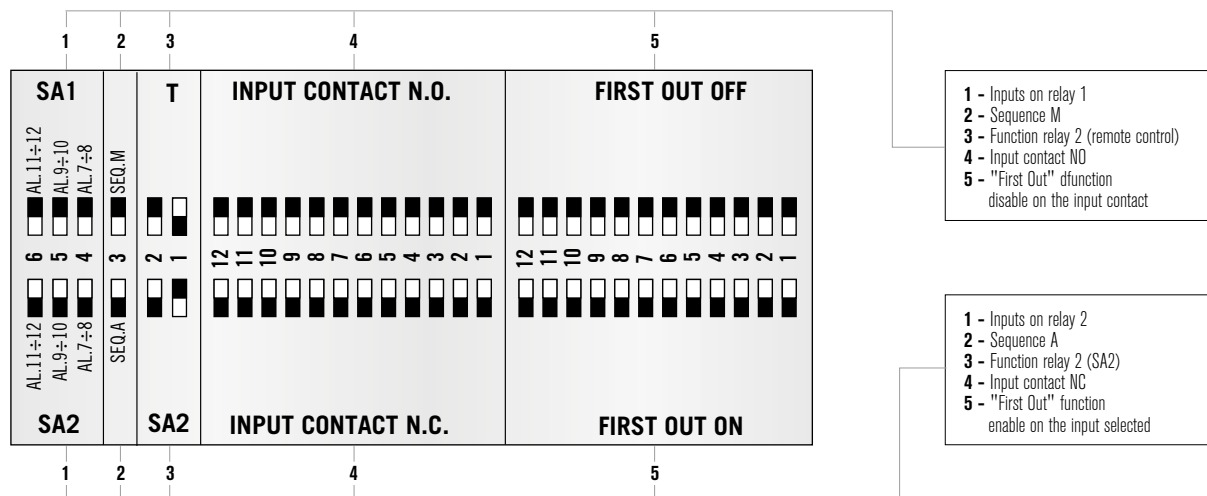
COMPALARM AP

ALARM ANNUNCIATOR

WIRING DIAGRAM



PROGRAMMING



GROUP FIXING



- 1 - Insert the device by the front of the panel through the available location.
 - 2 - Install the fixing devices into their available grooves, as shown in the image and screw down up to their complete fixing.
- Should the device be subject to vibrations, block the screws with the varnish or similar fixing material.
 - The number of fixings varies according with the dimensions of the group, which should be supported. Four fixings are sufficient for a basic unit, up to the maximum of twelve for 16 units groups.

COMPALARM CM

MECHANICAL ALARM ANNUNCIATOR

GENERAL

The COMPALARM CM devices allow to maintain the information of the parameter in every or alarm, even without the auxiliary power supply or voltage black out.

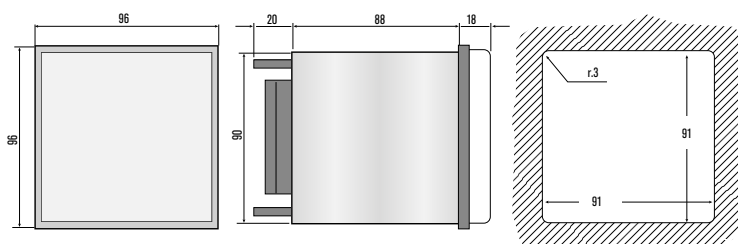
As a matter of fact, whenever any parameter fails and it is associated to an alarm signal, the mobile flag sited at the front panel will turn to orange, due to its magnetic withholding. It is only possible to return to the initial position (black colour) by an opposed polarity pulse by pressing the reset button, after that the external anomaly (associated to the alarm) has disappeared. The COMPALARM CM is fitted with two output relays, with a different switching system, according with different version types. In the CM4 and CM6 versions, the output relays (S.A. And T) will be excited simultaneously, when one of the input contacts is closed. Then the associated relay to the acoustic signal (S.A.) may be brought to the rest position by pressing the acknowledging push button, even with an existing external anomaly. Whilst the cumulative alarms relay (T) can only be brought to the rest position by pressing the Reset push button, provided that all the input contacts are re opened, because the external alarm causes have disappeared. In the CMT2, CMT4 and CMT6 versions, the acoustic signal associated relay (S.A.) will be excited, when one of the input alarm contacts is closed, and it follows same behaviour as the CM4 and CM6. Whilst the (T) relay, which is used to open the breakers in this version, will only be excited with the closing of the C4-C5 and C6 contacts. The most suitable solution for the Transformers control is the CMT type, this is to say: it becomes the idoneous substitution



of the classic relays built in a panel, with the addition of the DIN 96x96 mm drill, the grouping of 6 signals in an unic compact enclosure and the possibility of controlling 2 output relays (siren and disconnecting coil) without further wiring. Other particular feature, common to all COMPALARM CM series, is the multiple auxiliary supply and the possibility of remote acknowledgment of the siren.

TECHNICAL CHARACTERISTICS	CM2	CM4	CM6
CHANNEL INPUTS			
Rated voltage	24/48 VAC/DC 110 VDC - 110/230/400 VAC	24/48 VAC/DC 110 VDC - 110/230/400 VAC	24/48 VAC/DC 110 VDC - 110/230/400 VAC
Power consumption	5 VA	5 VA	5 VA
CHANNEL INPUTS			
Number of inputs	2	4	6
Contact type	Normally open	Normally open	Normally open
MECHANICAL SIGNALS			
Number of signals	2	4	6
PUSHBUTTONS			
Number of pushbuttons	3 (ACK, RESET, TEST)	3 (ACK, RESET, TEST)	3 (ACK, RESET, TEST)
AMBIENT CONDITIONS			
Operating temperature	-10 ÷ +60 °C	-10 ÷ +60 °C	-10 ÷ +60 °C
Storage temperature	-20 ÷ +80 °C	-20 ÷ +80 °C	-20 ÷ +80 °C
Relative humidity	30 ÷ 90 % (not condensing)	30 ÷ 90 % (not condensing)	30 ÷ 90 % (not condensing)
HOUSING			
Material	Noryl	Noryl	Noryl
Version	Flush mount	Flush mount	Flush mount
Dimensions w x h x d	96 x 96 x 88 mm	96 x 96 x 88 mm	96 x 96 x 88 mm
Cutout	91 x 91 mm	91 x 91 mm	91 x 91 mm
Degree of protection	IP40	IP40	IP40
Weight	500 g	500 g	500 g
MECHANICAL SIGNALS			
Reference standards	EMC 89/336/EEC - EN 50082-1 - EN 50082-2		

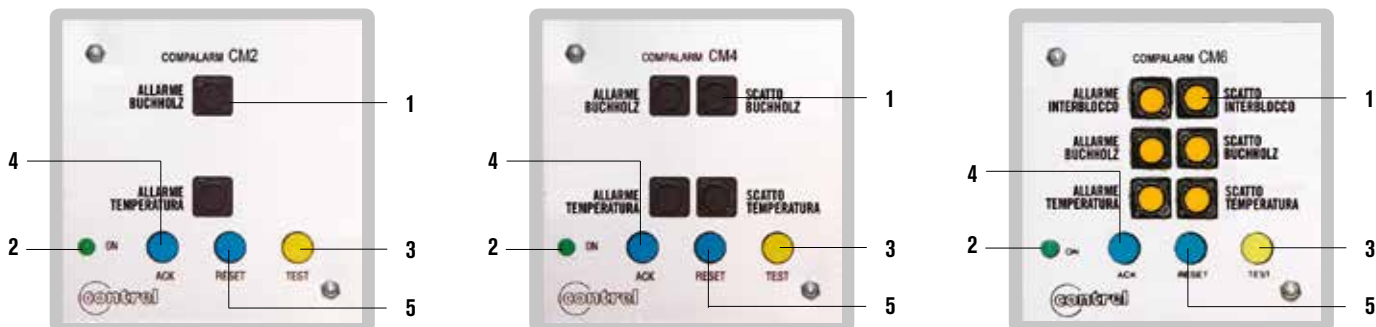
DIMENSIONS



COMPALARM CM

MECHANICAL ALARM ANNUNCIATOR

FRONT PANEL



CM2 / CM2-T

1	Mechanical signalisation of avery (orange flag)
2	Auxiliary voltage supply signalisation (green) LED
3	Push button for test of alarm sequence
4	Push button for acknowledging
5	Push button for resetting

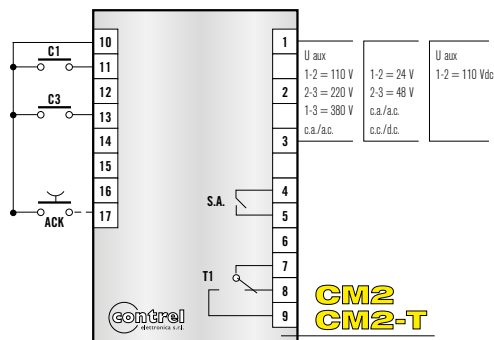
CM4 / CM4-T / CM4-T3

1	Mechanical signalisation of avery (orange flag)
2	Auxiliary voltage supply signalisation (green) LED
3	Push button for test of alarm sequence
4	Push button for acknowledging
5	Push button for resetting

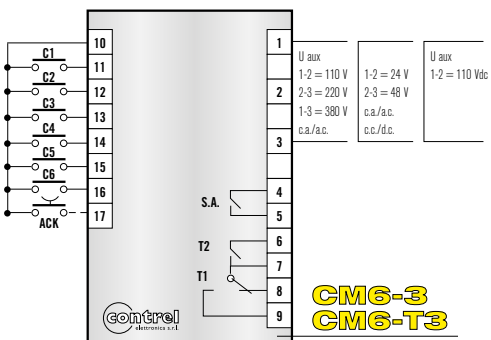
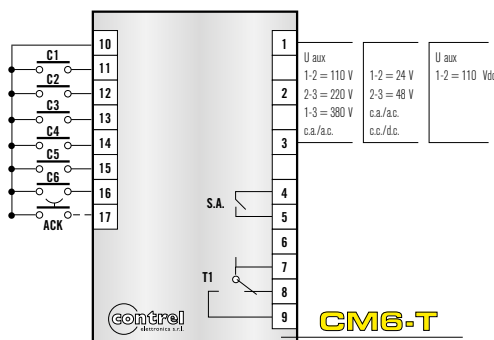
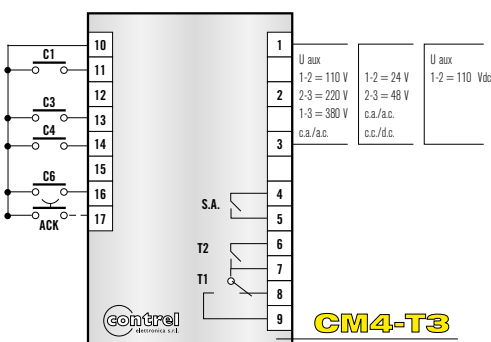
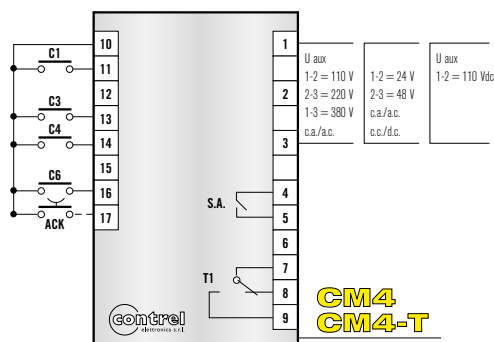
CM6-3 / CM6-T / CM6-T3

1	Mechanical signalisation of avery (orange flag)
2	Auxiliary voltage supply signalisation (green) LED
3	Push button for test of alarm sequence
4	Push button for acknowledging
5	Push button for resetting

WIRING DIAGRAM



C1÷C 6	Alarm input contacts
S.A.	Acoustic signal
T1-T2	Remote signal or tripping
ACK	Remote acknowledgement



COMPALARM C2C

ALARM ANNUNCIATOR

GENERAL

The C2C alarm system has been designed to join the maximum possible easiness of operation together with an high level of reliability. Allow the supervision of 12 alarm inputs from configurable contacts (NO,NC). The flush-mount 96x96mm housing combines both the microprocessor logic and alarms display, obtained through LEDs. It is possible to expand with serial and Ethernet communication.

MAIN FEATURES

- Flush mount housing, 96x96mm
- 12 LED for alarms display
- 3 keys (ACK, RESET, TEST)
- Easy printing alarm legend
- Configuring alarm inputs for use with NO or NC field contacts
- Selectable alarm sequence by dip-switch
- Integral audible alarms
- First-out function
- Two output relays (common and audible)
- Remote keys
- Serial and ethernet communication

KEYBOARD FUNCTIONS

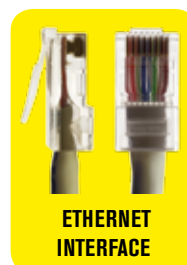
ACK key-is used to silence the alarm and change the state of the associated alarm LED in accordance with the selected ISA sequence. RESET key-is used to return the alarm to the normal off state once the input has returned to the normal condition. TEST key-is used to test the LED assemblies by illuminating them in a steady state for as long as the pushbutton is pressed.

DIP-SWITCHES FUNCTIONS

Dip-switch up-is used to configure alarm inputs 1÷8 for use with NO or NC field contacts. Dip -switch low (1÷4)-is used to configure alarm inputs 9÷12 for use with NO or NC field contacts. Dip -switch low (5)-is used to enable internal audible alarms. Dip -switch low (6÷8)-is used to select the alarm sequence.

RELAYS OUTPUTS FUNCTIONS

"R1" output is suitable for alarms cumulative, this output will be activated at normal condition. After an alarm event this contact can be re-enabled only with RESET key, only for sequences that require this key. "R2" output is for audible device. Activates on alarm and remains active until the acknowledge key has been pressed. The contact state of both relays can be programmed to NC or NO using serial or Ethernet communication.



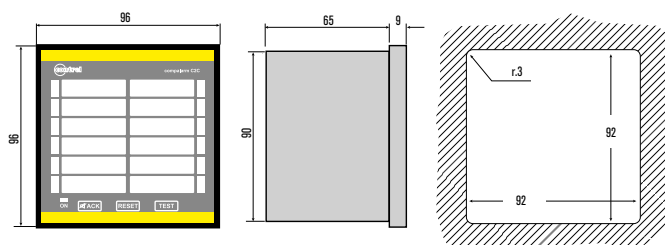
ETHERNET
INTERFACE



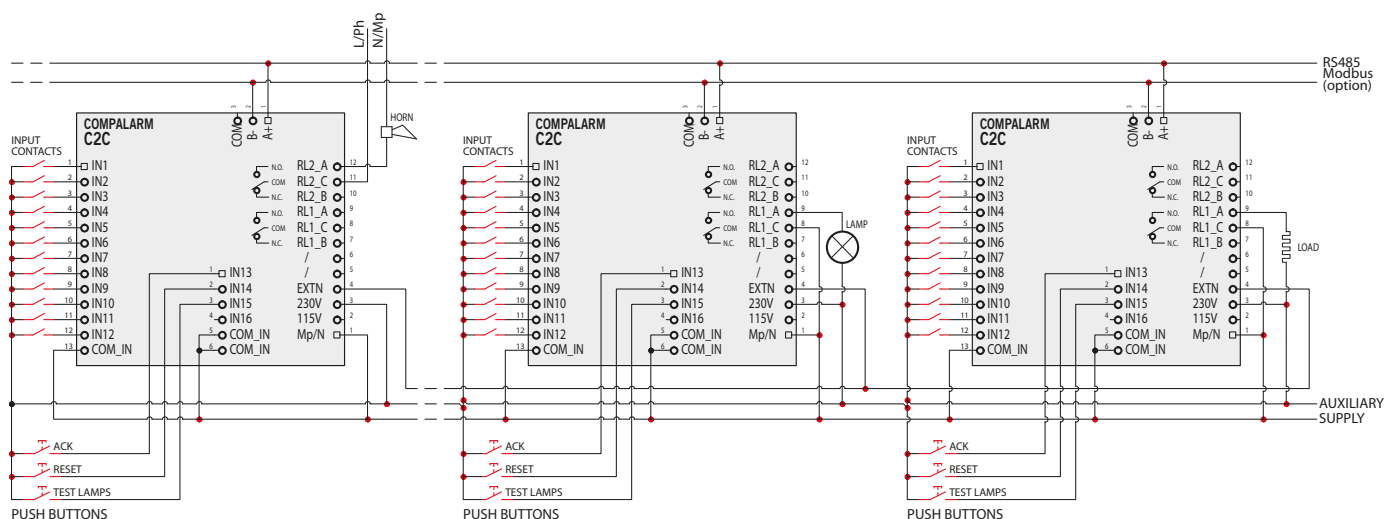
EXPANSION

The option units are designed and developed to enhance the functions of connectivity. The 485 option implements the isolated RS485 serial interface. The ETH option implements the ETHERNET interface.

DIMENSIONS



WIRING DIAGRAM



COMPALARM C2C

ALARM ANNUNCIATOR

TECHNICAL CHARACTERISTICS		C2C
AUXILIARY SUPPLY		
Rated voltage	20...60 Vac/dc - 115/230 Vac - 90...260 Vac/dc	
Frequency	50...60Hz	
Power consumption	4,5 VA	
ALARMS/REMOTE KEYS INPUTS		
Voltage	24 Vac/dc - 48 Vac/dc - 115 Vac/dc - 230 Vac/dc	
Current	5 mA max	
ALARM INPUTS		
Number of inputs	12	
REMOTE KEYS		
Number of remote keys	3 (ACK, RESET, TEST)	
OUTPUT RELAYS		
Number of outputs	2 (Alarm comulative, audible device)	
RS485 SERIAL INTERFACE		
Baud-rate	Programmable 9600...38400 bps	
Connection	Screw (removable)	
ETHERNET INTERFACE		
Network Interface	RJ45 10BASE-T or 100BASETX(auto-sensing)	
Compatibility	Ethernet: Version 2.0/IEEE802.3	
Protocol	TCP/IP,SMTP,FTP HTTP	
Terminal type	RJ45	
HOUSING		
Version	Flush mount IEC 61554	
Degree of protection	IP40	
Weight	500g	
AMBIENT CONDITIONS		
Operating temperature	Relative umidity	
Storage temperature	-0...+60 °C	
Relative umidity	<90%	
CERTIFICATIONS AND COMPLIANCE		
Compliant with standards	EN-50081 - EN-50082-2 - EMC89/336/CEE	
OPTION		C2C
ORDER CODE		DESCRIPTION
C1		Power supply 20÷60 VAC/DC
C2		Power supply 90÷260 VAC/DC (only for D2 model)
IN24		Voltage inputs 24 VAC/DC
IN48		Voltage inputs 48 VAC/DC
IN115		Voltage inputs 115 VAC/DC
COMMUNICATION		
485		RS485 communication port
ETH		Ethernet interface

COMPALARM D2 - D2m

DISPLAY ALARM ANNUNCIATOR



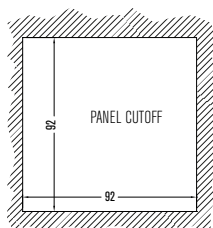
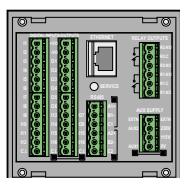
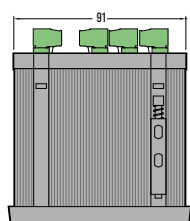
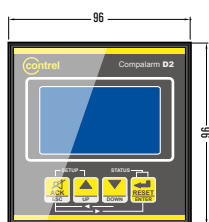
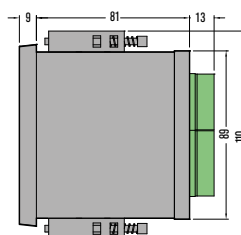
ETHERNET
INTERFACE



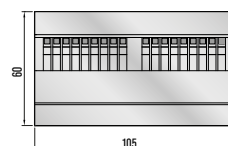
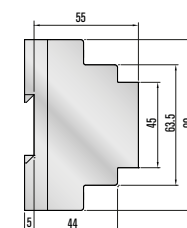
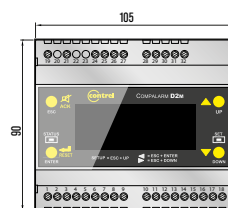
GENERAL

The D Series alarm display is used to inform the operator that a process has gone beyond set limits using visual messages and audible device. The warning lights can be replaced with pre-stored messages. Several modes of operation, enclosed in a single versatile device, allow to adapt the D series displays to the most diverse conditions of use. Once connected to a PC running the D2-D2m supplied configuration software, the user can enable or disable functions as required. Using the software the user can set visual alarm messages.

DIMENSIONS D2



DIMENSIONS D2m



FEATURES

- 16 input channels
- Up to 8 digital outputs
- Each channel fully field programmable, either from front panel or using PC
- Contact follower Normally Open or Normally Close
- User-friendly configuration software will be supplied free of charge
- Output relays
- Real Time Clock
- Internal audible device
- Multiple languages setup
- Auto acknowledge
- Option RS485 MODBUS-RTU communication
- Option Ethernet interface MODBUS-TCP communication

COMPALARM D2 - D2m

DISPLAY ALARM ANNUNCIATOR

TECHNICAL CHARACTERISTICS	D2	D2m
AUXILIARY SUPPLY		
Rated voltage	115 - 230 VAC	90÷260 VAC/DC
Frequency	50÷60 Hz	50÷60 Hz
Power consumption	4.5VA	4.5VA
CHANNEL INPUTS		
Number of inputs	16	16
Voltage inputs	24 - 48 - 115 - 230 VAC/DC	24 - 48 - 115 - 230 VAC/DC
Current input	5mA max	5mA max
Filter input	Digital	Digital
DIGITAL OUTPUTS		
Number of outputs	6	2
Nominal voltage	24 VDC	Up to 230 VAC/DC
RS485 SERIAL INTERFACE		
Baud-rate	Programmable 4800...115200 bps	Programmable 4800...115200 bps
Insulation	2.5 kV - 4 kV peak	2.5 kV - 4 kV peak
Protocols supported	MODBUS-RTU	MODBUS-RTU
ETHERNET INTERFACE		
Network interface	RJ45 Ethernet 10BASE-T or 100BASE-TX (auto-sensing)	RJ45 Ethernet 10BASE-T or 100BASE-TX (auto-sensing)
Protocols supported	HTTP, FTP, SMTP, MODBUS-TCP	HTTP, FTP, SMTP, MODBUS-TCP
AMBIENT CONDITIONS		
Operating temperature	-20÷ +60 °C	-20÷ +60 °C
Storage temperature	-30÷ +80 °C	-30÷ +80 °C
Relative humidity	<90%	<90%
HOUSING		
Material	Noryl UL V-0	Noryl UL V-0
Version	Flush mount	6 modules DIN rail
Dimensions w x h x d	96 x 96 x 65 mm	105 x 91 x 60 mm
Cutout	92 x 92 mm	-
Degree of protection	IP40	IP40
Weight	500 g	450 g
COMPLIANCE		
Reference standards	EMC 89/336/EEC - EN 50082-1 - EN 50082-2	

OPTION	D2 - D2m
ORDER CODE	DESCRIPTION
C1	Power supply 20÷60 VAC/DC
C2	Power supply 90÷260 VAC/DC (only for D2 model)
IN24	Voltage inputs 24 VAC/DC
IN48	Voltage inputs 48 VAC/DC
IN115	Voltage inputs 115 VAC/DC
COMMUNICATION	
C2	RS485 communication port
IN24	Ethernet interface
IN48	RS485 master communication port

COMPALARM D2 - D2m

DISPLAY ALARM ANNUNCIATOR

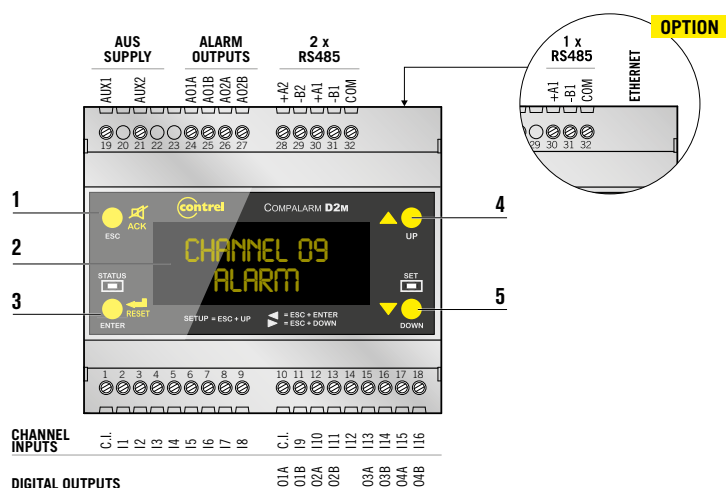
FRONT PANEL D2



LEGEND D2

- | | |
|---|-------------|
| 1 | LCD display |
| 2 | ACK key |
| 3 | RESET key |
| 4 | DOWN key |
| 5 | UP key |

FRONT PANEL AND CONNECTIONS D2m



LEGEND D2m

- | | |
|---|-------------|
| 1 | ACK key |
| 2 | LCD display |
| 3 | RESET key |
| 4 | UP key |
| 5 | DOWN key |

DISPLAY

The device is supplied with an LCD display:

- resolution 128 x 64 pixel for Compalarm D2
- resolution 20 x 4 rows for Compalarm D2m

In normal conditions (without any alarms) the display shows the text defined by user, the date and time (A).

When an alarm is detected the display shows the associated text and internal alarm audible device rings (B).

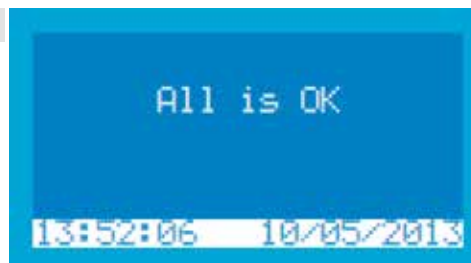
The line on the top of display shows the channel input number.

The symbol in the upper left shows the status of the input channel:

- **Flashing bell:** alarm present not acknowledge
- **Fixed bell:** no alarm, not acknowledge
- **Flashing square:** acknowledge while alarm present
- **Fixed square:** acknowledge while alarm not present

Using the UP and DOWN keys, it's possible to view all the input channels in alarm.

A



B



COMPALARM GW

MODULES FOR SUPERVISION AND REMOTE CONTROL THROUGH GSM NETWORK

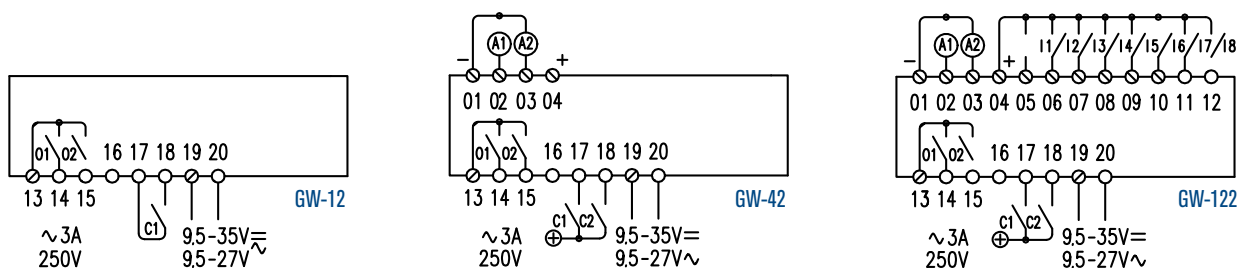
GENERAL

GW Series is an industrial DIN rail GSM modem for the supervision and control of remote inputs and outputs by means of enhanced features available through GSM network and the Web. GW sends user defined messages via SMS, tweet, e-mail or free phone rings. GW can provide detailed reports on input status and notify local events.

Outputs can be controlled by authorized users via SMS, tweet, Web, free phone rings and phone keyboard. The user can configure the unit to deploy actions when a specific event occurs. Quad band GSM / GPRS / EDGE communication with automatic or manual selection on bands 850 / 900 / 1800 / 1900 MHz for data, sms, fax and voice applications. Full Type Approved and compliant with ETSI GSM Phase 2+ and with Part 15 of the FCC Rules.



WIRING DIAGRAM



MODELS AND DIMENSIONS

GW-12 1 digital inputs and 2 relay outputs

GW-42 2 analog + 2 digital inputs and 2 relay outputs

GW-122 Up to 12 inputs and 2 relay outputs

GW-12

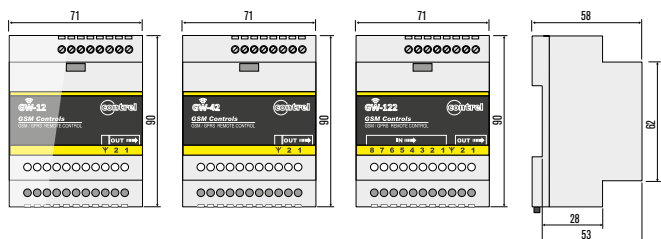
- 13 Output common
- 14 Relay Out 1
- 15 Relay Out 2
- 16 NC
- 17 Counter In 1
- 18 Positive 2,8V
- 19 Power Supply
- 20 Power Supply

GW-42

- 01 Negative
- 02 Analog In 1
- 03 Analog In 2
- 04 Positive 3,3V
- 13 Output common
- 14 Relay Out 1
- 15 Relay Out 2
- 16 NC
- 17 Counter In 1
- 18 Counter In 2
- 19 Power Supply
- 20 Power Supply

GW-122





- 01 Negative
- 02 Analog In 1
- 03 Analog In 2
- 04 Positive 3,3V
- 05 Digital In 1
- 06 Digital In 2
- 07 Digital In 3
- 08 Digital In 4
- 09 Digital In 5
- 10 Digital In 6
- 11 Digital In 7
- 12 Digital In 8
- 13 Output common
- 14 Relay Out 1
- 15 Relay Out 2
- 16 NC
- 17 Counter In 1
- 18 Counter In 2
- 19 Power Supply
- 20 Power Supply



COMPALARM GW

MODULES FOR SUPERVISION AND REMOTE CONTROL THROUGH GSM NETWORK

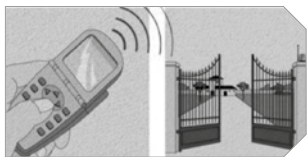
ELECTRICAL CHARACTERISTICS	GW-12	GW-42	GW-122
AUXILIARY SUPPLY			
Rated voltage	9,5 ... 35 VCC - 9,5 ... 27 VCA		
Idle Power	< 200 mW		
Peak Power	< 5 W		
Optional battery	Li-Poly		
MODEM GSM/GPRS			
Bands	Quad band 850/900/1800/1900 MHz		
Output power	Class 4 (2W for GSM850 e EGSM900) Class 1 (1W for DCS1800 e PCS1850)		
SIM			
Compability	3v and 1.8v SIM card allowed		
ANTENNAS			
Connector	SMA male or FME female		
GSM antenna	Integrated omnidirectional antenna		
External GSM antenna	(view table)		
DATA INTERFACE			
Connector	RS-232 (RJ45 modular connector)		
USB cable (optional)	RJ45 - USB communication cable to manage configuration and control		
232 cable (optional)	RJ45 - DB9 communication cable to manage configuration and control		
INPUTS			
Number of inputs	1	4	12
Input voltage	3 ... 9 VDC		
Input current	5mA @ 5V		
OUTPUTS			
Number of outputs	2		
Rated voltage	250 VAC		
Rated current	3 A		
Max breaking capacity	750 VA		
AMBIENT CONDITIONS			
Operating temperature	-30 ... 60°C	4	12
Storage temperature	-20 ... 60°C		
Relative humidity	5 ... 95% non condensing		
HOUSING			
Material	Polycarbonate self-extinguish UL94-V0		
Version	DIN EN-50022 rail 4 modules		
Dimensions w x h x d	71 x 90 x 58 mm		
Degree of protection	IP40		
Weight	200 g		
COMPLIANCE			
HEALTH AND SAFETY REQUIREMENTS PURSUANT TO CLAUSE 3.1a	EN 60950-1:2006 EN 60950-1 A11:2009 EN 60950-1 A1:2010 EN 60950-1 A12:2011 EN 50385:2002		
PROTECTION REQUIREMENTS CONCERNING EMC CLAUSE 3.1b	EN 301 489-7 V1.3.1:2005-11 EN 301 489-1 V1.9.2:2011-09		
MEASURES FOR THE EFFICIENT USE OF THE RADIO FREQUENCY SPECTRUM CLAUSE 3.2	EN 301 511 V9.0.2:2003-03		
COMPLIES WITH PART 15 OF THE FCC RULES	FCC Part 15 part A FCC Part 15 part B ANSI C63.4		

EXTERNAL GSM ANTENNA - REF. FOR ORDER					
STRIP + SMA STRIP + FME		Adhesive antenna for non-metallic surfaces. Mounting: Adhesive strip	BODY SMA BODY FME		Body mount outdoor antenna. IP69K Mounting: M10 passthru + adhesive gasket
MAGNETIC + SMA MAGNETIC + FME		Magnetic antenna for metallic surfaces. Mounting: Magnetic base	MiniFINGER SMA MiniFINGER FME		Multi band outdoor antenna. Mounting: Wall / Pole

COMPALARM GW

MODULES FOR SUPERVISION AND REMOTE CONTROL THROUGH GSM NETWORK

APPLICATIONS



ACCESS CONTROL

Any phone becomes a virtual key !

Gates and other types of barriers can be controlled by calls from the authorized users' mobile or landline phone (no answer, no cost).

Manage hundreds of user, perfect for hotels, b&b, resorts, condominiums, public parking...



CLIMATE CONTROL

Send a free phone call or an SMS from your mobile to run the heating (or cooling) system a few hours before your arrival. You can also specify the temperature setpoint and how long it should run or the exact date/time it turns off.

Optional alerts for blackouts and low/high temperature.



HOME AUTOMATION

Control household appliances from remote by means of SMS, calls and even tweets.

Ask for status or receive alerts for local events.

Create an output control strategy based on input signals and schedule up to 100 activities on a time basis by means of embedded programmer.



CRITICAL ALERTS

Prompt alerts (phone calls, SMS, Emails, Tweets) issued on local events.

... when a door is opening or the door is left open for long time (you can set the activation time)...

... at main power supply blackout or restore (you can set a minimum duration)...



ALARMS

In isolated or unguarded buildings, alarm sirens are not enough to ensure immediate reporting and actions in case of emergency.

Receive an emergency alert wherever you are: in case of fire, for instance, you can call the fire brigade and emergency medical services.



FAILURES

Report technical faults to the A.M.O. and receive a further message when the equipment is back to operating condition.

Internal time counter could be set to keep trace of working time for industrial machinery, boilers, elevators, freezers, vending machines...



GREENHOUSES

Detect soil moisture content, activating irrigation when the sensor records an insufficient moisture level, preventing water waste.

Keep temperature under control and inform maintenance operators when is falling below or rising above the specified thresholds.



STREETLIGHTS

To reduce light pollution and energy waste the public lighting for rural areas can be activated on demand by free phone call of inhabitants.

Set scheduled operation in order to turn on and off the lights on a time basis to guarantee the minimum service level.



ROAD SAFETY

Promptly inform the maintenance service in case of failure or blackout of public services and manage auxiliary power supplies.

Control traffic lights and road signs from service center, allowing local policemen to take control from their phones in case of emergency.



UNATTENDED PLANTS

Send alerts up to 100 recipients in case of power supply interruptions or any other failure at unmanned plants.

At the same time you may trigger the motor operating device which recloses the circuit breaker and restores power supply.

COMPALARM CO/sq

ALARM VISUALIZATION

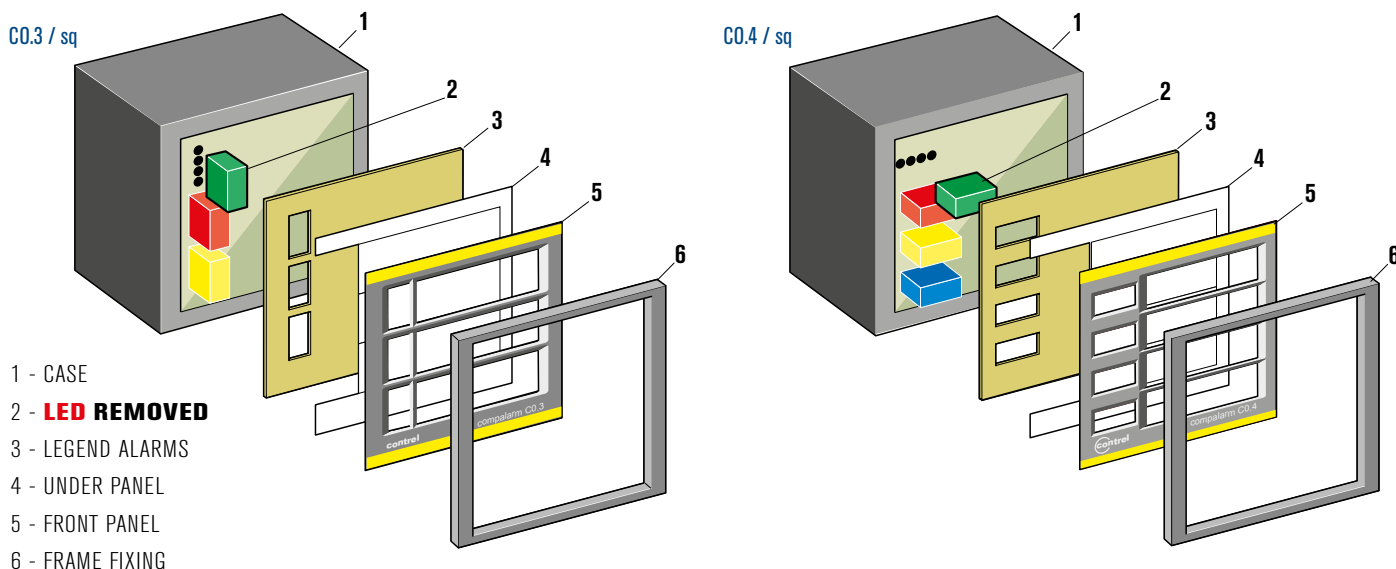
GENERAL

The COMPALARM CO/sq is a very attractive and economic alternative to the traditional signalling lamps, by grouping 3 or 4 light signals. COMPALARM CO/sq in a very compact enclosure 48 x 48 mm is available in different versions: CO.3/sq three lights points and CO.4/sq four lights points: these versions can be demanded with various different voltages, by accepting either dc or ac power supply. The alarm description can be printed in a normal paper, in order to place it under the polycarbonate front panel, which will be fixed by a frame. As an option, the multited could be supplied with interchangeable lights, which can be easily substituted by the front, with red, blue, amber or green colours.

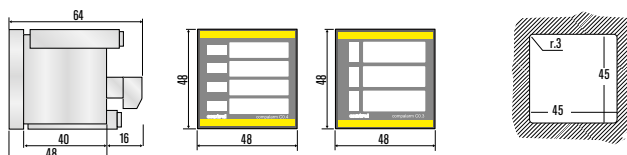
OPERATION - The wiring is being made, in the same manner as a standard lamp. The required indications are given at the back of the units and a sole common return is available.



LED REPLACEMENT



DIMENSIONS CO.3/sq, CO.4/sq



COMPALARM CO/sq

ALARM VISUALIZATION

TECHNICAL CHARACTERISTICS	C0.3/sq	C0.4/sq
CHANNEL INPUTS		
Number of inputs	3	4
Voltage inputs	24 VAC/DC - 48 VAC/DC 115 VAC - 115 VDC - 230 VAC	24 VAC/DC - 48 VAC/DC 115 VAC - 115 VDC - 230 VAC
Frequency	0÷1000 Hz	0÷1000 Hz
Consumption (each input)	0,5 W max	0,5 W max
LED color	Red, Yellow, Green, Blue, White, Orange	Red, Yellow, Green, Blue, White, Orange
AMBIENT CONDITIONS		
Operating temperature	-20 ÷ +60 °C	-20 ÷ +60 °C
Storage temperature	-20 ÷ +70 °C	-20 ÷ +70 °C
Relative humidity	30 ÷ 90 % (not condensing)	30 ÷ 90 % (not condensing)
HOUSING		
Material	Noryl	Noryl
Version	Flush mount	Flush mount
Dimensions w x h x d	48 x 48 x 65 mm	48 x 48 x 65 mm
Cutout	45 x 45 mm	45 x 45 mm
Degree of protection	IP52	IP52
Weight	50 g	50 g
COMPLIANCE		
Reference standards	EMC 89/336/EEC - EN 50082-1 - EN 50082-2	

COMPALARM C2/sq

ALARM VISUALIZATION

GENERAL

COMPALARM C2/sq is a very attractive and economic alternative to the traditional signalling lamps, by grouping 12 light signals.

COMPALARM C2/sq in a very compact enclosure 96 x 96 mm is available in different versions of various different voltages, by accepting either dc or ac power supply.

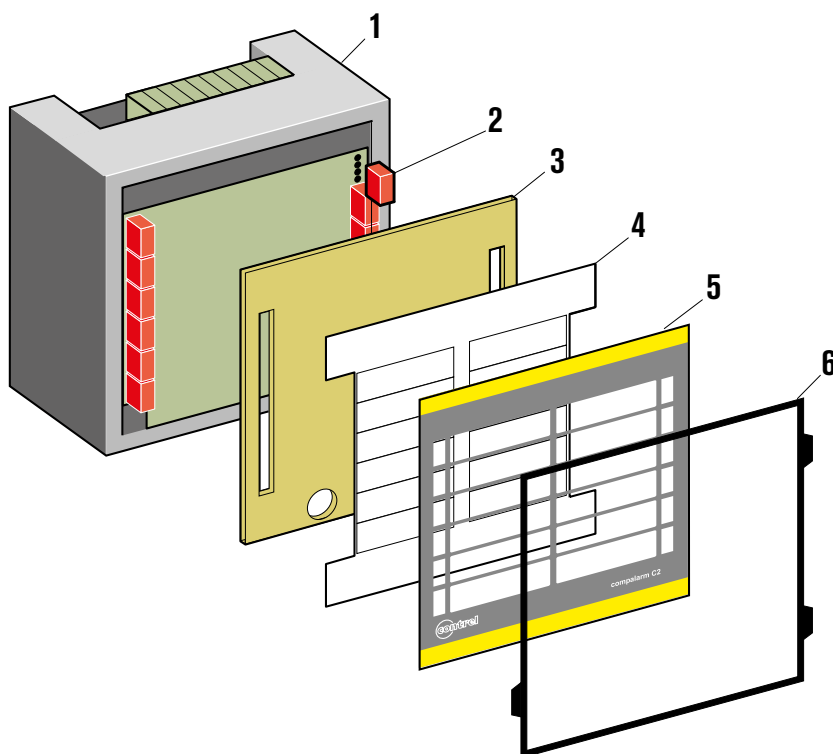
The alarm description can be printed in a normal paper, in order to place it under the polycarbonate front pane, which will be fixed by a frame.

As an option, the multiled could be supplied with interchangeable lights, which can be easily substituted by the front, with red, blue, amber or green colours.

OPERATION - The wiring is being made, in the same manner as a standard lamp: all light signals are already supplies of a common return and a specific input supplies to turn on all lights indicators, carrying out the test function lamps.

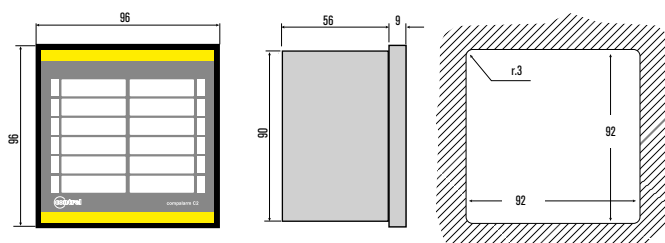


LED REPLACEMENT



- 1 - CASE
- 2 - **LED REMOVED**
- 3 - LEGEND ALARMS
- 4 - UNDER PANEL
- 5 - FRONT PANEL
- 6 - FRAME FIXING

DIMENSIONS C2/sq



COMPALARM C2/sq

ALARM VISUALIZATION

TECHNICAL CHARACTERISTICS		C2/sq	
CHANNEL INPUTS			
Number of inputs	12		
Voltage inputs	24 VAC/DC - 48 VAC/DC - 115 VAC - 115 VDC - 230 VAC		
Frequency	0÷1000 Hz		
Consumption (each input)	0,5 W max		
LED color	Red, Yellow, Green, Blue, White, Orange		
AMBIENT CONDITIONS			
Operating temperature	-20 ÷ +60 °C		
Storage temperature	-20 ÷ +70 °C		
Relative humidity	30 ÷ 90 % (not condensing)		
HOUSING			
Material	Noryl		
Version	Flush mount		
Dimensions w x h x d	96 x 96 x 65 mm		
Cutout	92 x 92 mm		
Degree of protection	IP52		
Weight	200 g		
COMPLIANCE			
Reference standards	EMC 89/336/EEC - EN 50082-1 - EN 50082-2		
OPTION		C2/sq	
ORDER CODE		DESCRIPTION	
C2/sq 24		Voltage inputs 24 VAC/DC	
C2/sq 48		Voltage inputs 48 VAC/DC	
C2/sq 115		Voltage inputs 115 VAC	
C2/sq 115 C		Voltage inputs 115 VDC	
C2/sq 230		Voltage inputs 230 VAC	
T		Remote test lamps key	
VT		Test lamps key	

COMPALARM C3/sq

ALARM VISUALIZATION

GENERAL

COMPALARM C3/sq is a very attractive and economic alternative to the traditional signalling lamps, by grouping 12 light signals.

COMPALARM C3/sq in a very compact enclosure 72 x 144 mm is available in different versions of various different voltages, by accepting either dc or ac power supply.

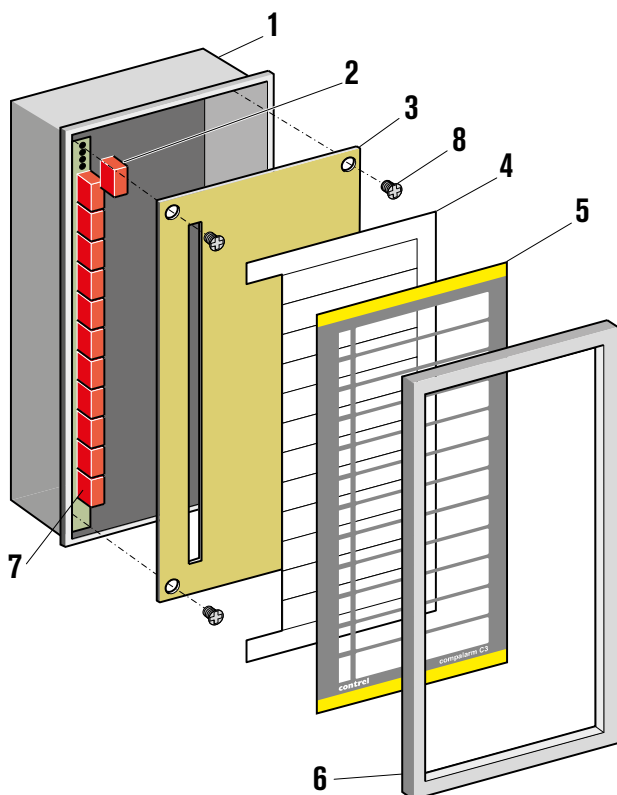
The alarm description can be printed in a normal paper, in order to place it under the polycarbonate front panel, which will be fixed by a frame.

As an option, the multiled could be supplied with interchangeable lights, which can be easily substituted by the front, with red, blue, amber or green colours.

OPERATION

The wiring is being made, in the same manner as a standard lamp: all light signals are already supplies of a common return and a specific input supplies to turn on all lights indicators, carrying out the test function lamps.

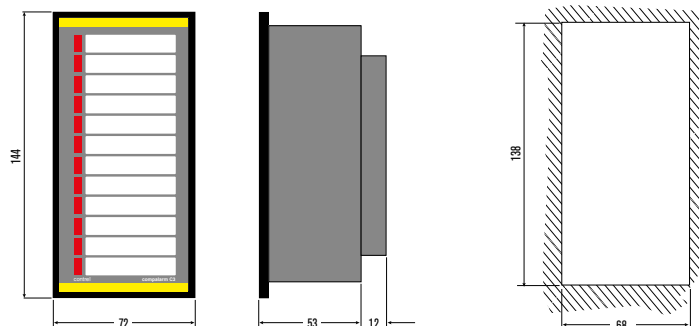
LED REPLACEMENT



- 1 - CASE
- 2 - **LED REMOVED**
- 3 - LEGEND ALARMS
- 4 - LEGEND ALARMS
- 5 - FRONT PANEL
- 6 - FRAME FIXING
- 7 - SCREW FIXING



DIMENSIONS C3/sq



COMPALARM C3/sq

ALARM VISUALIZATION

TECHNICAL CHARACTERISTICS	C3/sq
CHANNEL INPUTS	
Number of inputs	12
Voltage inputs	24 VAC/DC - 24 VDC - 48 VAC/DC - 115 VAC - 115 VDC - 230 VAC
Frequency	0÷1000 Hz
Consumption (each input)	0,5 W max
LED color	Red, Yellow, Green, Blue, White, Orange
AMBIENT CONDITIONS	
Operating temperature	-20 ÷ +60 °C
Storage temperature	-20 ÷ +70 °C
Relative humidity	30 ÷ 90 % (not condensing)
HOUSING	
Material	Noryl
Version	Flush mount
Dimensions w x h x d	72 x 144 x 53 mm
Cutout	68 x 138 mm
Degree of protection	IP52
Weight	200 g
COMPLIANCE	
Reference standards	EMC 89/336/EEC - EN 50082-1 - EN 50082-2
OPTION	C3/sq
ORDER CODE	DESCRIPTION
C3/sq 24	Voltage inputs 24 VAC/DC
C3/sq 24 C	Voltage inputs 24 VDC
C3/sq 48	Voltage inputs 48 VAC/DC
C3/sq 115	Voltage inputs 115 VAC
C3/sq 115 C	Voltage inputs 115 VDC
C3/sq 230	Voltage inputs 230 VAC
T	Remote test lamps key

TEMPERATURE MONITOR DEVICES CTT

GENERAL

Programmable thermal control unit up to 4 or 8 inputs from Rtd Pt100 sensors.

- Programmable alarm, trip and ventilation threshold on each input
- It shows the parameters and measures on 2 ample digital displays, added function of maximum values memory, it displays automatically the highest temp
- Extendend range of power supply $20 \div 250$ Vcc/cc or $110 - 230 - 400$ Vca
- Serial output RS485 Modbus Rtu with management software (optional)
- Analog output $0/4 \div 20$ mA measures conversion (optional)



APPLICATIONS

Overtemperatures caused by overloads or internal failure due to degradation of the dielectric qualities of insulating materials in transformers and electrical machines, inevitably leads to a reduced efficiency and energy loss in distribution systems.

To prevent and control degradation of insulating materials in electrical machines due to the thermal stress, it is necessary to use integrated measurement systems such as CTT control units.

CTT control units are able to read four temperature values (8 values on model CTT-8) with the help of four Pt100 probes.

For each input it is possible to set the threshold temperature of alarm and trip with great accuracy and to display the maximum values reached.

Control units are enclosed in a self-extinguishing thermoplastic housing of 96 x 96 mm in compliance with DIN 43700 and are built in conformity with CEE directives 93/68 safety and 89/336. CTT control units can be supplied with the serial interface to allow remote monitoring of temperatures using a PC.

FUNCTIONS

The control unit is programmed through keys located on the front panel:

ELECTION OF THE NUMBER OF ACTIVE CHANNELS

Setting up the number of active measurement channels 3 or 4 (8 fixed channels for model CTT-8).

VENTILATION CONTROL

The following ventilation control modes can be selected:

- Fan control off – fan control on, 4 inputs
- Fan control on 3 input – fan control on, only the 4 input

When the fan control is on, the temperature setting values for fan control can be fully selected by the user.

ALARM AND TRIP TEMPERATURES (HOLD FUNCTION)

For each measurement input, the values of alarm and trip can be chosen in the range $1 \div 200$ °C.

STORAGE OF ALARM AND TRIP CONDITIONS

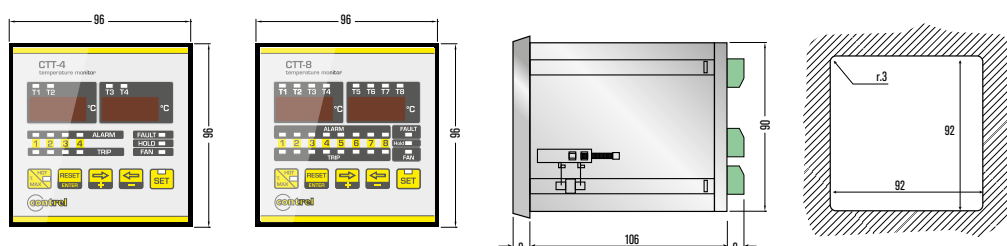
This function will store alarm and trip values until they are manually reset.

TEMPERATURE MONITOR DEVICES **CTT**

ELECTRICAL CHARACTERISTICS	CTT-4		CTT-8	
AUXILIARY SUPPLY				
Rated voltage	20÷250 VAC / VDC ±15% - 115-230-400 VAC			
Frequency	50 ... 60 Hz			
Power consumption	4 VA			
MODEM GSM/GPRS				
Sensor	4 PT 100 RTD		8 PT 100 RTD	
Type	3 wires (supported 2 and 4 wires)			
Error	1 degree every 0,39Ω			
Measure range	-30 ... +200 °C			
Compensation	20 Ω max			
Trip delay / hysteresis	5s / 2 °C			
OUTPUTS				
Number of outputs	4			
Type	NO-C-NC			
Rated voltage	12 VDC			
Rated current	8 A			
Functions	Alarm, Trip, Fan, Fault			
DISPLAY				
Type	7-segment LED			
CONNECTIONS				
Terminals	Screw (Removable)			
INSULATION				
Insulation voltage	2.5 kVAC for 1 minute			
AMBIENT CONDITIONS				
Operating temperature	-10 ... 55°C			
Storage temperature	-25 ... 80°C			
Relative humidity	max 90%			
HOUSING				
Material	Polycarbonate self-extinguish UL94-V0			
Version	DIN EN-50022 rail 4 modules			
Dimensions w x h x d	71 x 90 x 58 mm			
Degree of protection	IP52			
Weight	800 g			
COMPLIANCE				
Reference standards	CEI EN 50081-2, CEI EN 50082-2, CEI 14.1, CEI EN 60255			

OPTION	
ORDER CODE	DESCRIPTION
A0	Analog output 0-20 mA
COMMUNICATION	
485	RS485 communication port

DIMENSIONS



TEMPERATURE MONITOR DEVICES CTT

TEMPERATURE DISPLAY

CTT control units show normal temperatures on measurement channels and higher temperatures on large displays. Using the "T-Max" function it is possible to recall and display the maximum temperatures which have occurred in each channel.

DIAGNOSTIC

Electronic relays contain many self-diagnostic functions to prevent the unseen malfunctioning of system components which could lead to possible dangerous conditions and unsafe operation of machines. The device is provided of the thermic probes diagnostic functions.

- **Probe Pt100 interrupted:** signalling on the display of the message OPE
- **Probe in short circuit:** signalling on the display of the message SHr
- **Probe out of order for the temperature reading wrong:** signalling on the display of the message FDC

ALARMS AND INDICATORS

CTT controls units are equipped with light indicators and alarms relays whose change of state is set during the programming procedure:

- **Led Prog.:** indicating the programming phase
- **Led Fault :** indicating fault trip on Pt100 thermal probe
- **Led Fan:** indicating alarm ventilation threshold exceeded
- **Led Alarm:** indicating alarm threshold exceeded
- **Led Trip:** indicating the trip threshold exceeded
- **Led Hot:** indicating display of higher temperature channels

OUTPUT RELAYS

- **Fan Relay:** intervening when the fan switch-on threshold is exceeded
- **Fault Relay:** intervening when there is abnormally on Pt100 probe (relay normally excited, therefore fail safe)
- **Alarm Relay:** intervening when alarm threshold is exceeded
- **Trip Relay:** intervening when the trip threshold is exceeded

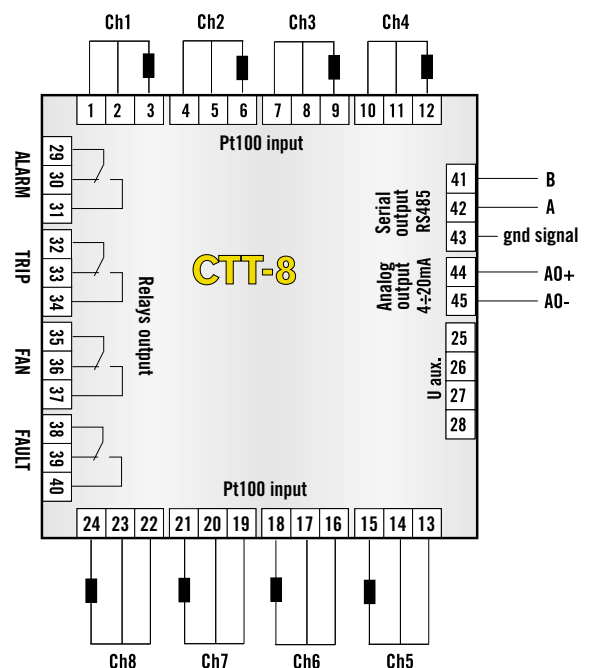
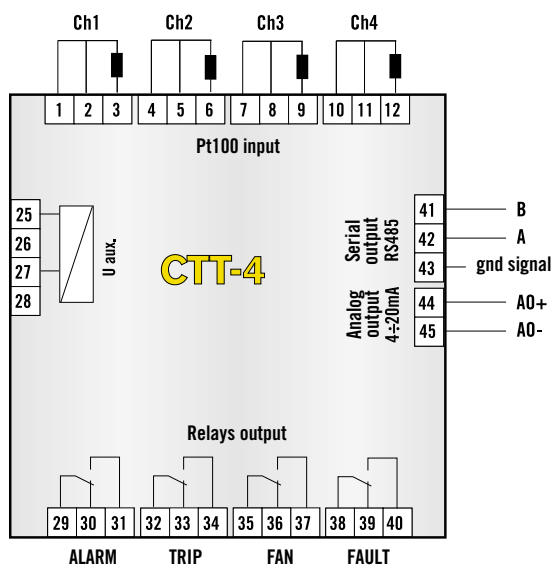
COMMUNICATION INTERFACE

CTT control unit can be supplied with RS485 serial connection for communication with PCs or data acquisition control systems. The communication protocol used is Modbus-Rtu

MEASUREMENT INPUTS

For the measurement of temperature, the control units must be provided with Rtd thermal probe of the Pt100 type. The temperature measurement range is between -30 °C and + 200 °C.

WIRING DIAGRAM



This image shows a full page of blank graph paper. The grid consists of thin, light gray horizontal and vertical lines that intersect to form small squares across the entire surface. There are no margins, text, or other markings on the paper.

CERTIFICAZIONI



CERTIFICATIONS



CSQ
ISO 9001:2008
9105.C035

Progettazione,
produzione e vendita
di dispositivi elettronici di:
protezione,
misura,
sistemi di allarme,
sorveglianza di isolamento
e software di gestione

IQNET
ISO 9001:2008
IT - 417

Design,
production and sale of
electronic devices for:
protection,
measurement,
alarm systems,
insulation monitoring
and management software



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