

TECHNICAL SPECIFICATION :-

DESCRIPTION

'SEMALARM 4002 & 6002' comes in modular construction based on a single micro controller chip, which is heart of the system. If lesser number of Windows/Channels are required, unwanted Window/Channels can be left blank. If higher number of Window/Channels are required, the modules can be stacked. Window display incorporates group of Super Bright LEDs. Fault legend inscription are provided on Film Negatives and Tracing Papers. Terminals are provided on back of the unit for connecting external Push Buttons and Hooter. Both NO/NC fault contacts can be selected on site. The sequence of operation listed below can also be selected on site. The healthiness of the unit is indicated with a watchdog LED indication.

The Modules consist of :-

- a) Central Processing Unit.
- b) Power Supply Unit.
- c) Facia Display Unit.
- d) Terminal Plate.

SEQUENCE OF OPERATION (AS PER ISA S. 18.1).

- | | | | |
|----|--------------|-----|-----------------------------|
| 1) | Manual Reset | - M | - ISA Ref. SEQUENCE - M |
| 2) | Auto Reset | - A | - ISA Ref. SEQUENCE - A |
| 3) | Ring Back | - R | - ISA Ref. SEQUENCE - R |
| 4) | First Out | - F | - ISA Ref. SEQUENCE - F2M-1 |

OPTIONAL FEATURES

Provision is available :-

- 1) **For Trip and Non -Trip Alarms. Display Windows are provided with different colour plastic / LEDs.**
- 2) **For Trip and Non -Trip faults two Nos. outputs provided for Hooter. (only M & A seq.)**
- 3) **Extra Relay contact can be provided for repeat annunciation.**
- 4) **Built in AC/DC fail annunciation.**
- 5) **Vertical modules also available.**
- 6) **Modules with Built in Push Buttons also available.**
- 7) **Split architecture Version.**
- 8) **RS 232 output.**

ORDERING INFORMATION

- 1) **Model & Type No.**
- 2) **Rated Supply Voltage**
- 3) **Trip and Non-Trip** facility required or not. – If required please specify
 - a) **Display Window in different colour.**
 - b) **Discrimination through Audio device.**
 - c) **Both.**
- 4) **Built in AC or DC failure Annunciation** facility required or not.
- 5) **Fault legend to be displayed. Please specify Tracing paper or Photo negative.**
- 6) **Type of Audio device used.**

SEMUDA CORPORATION

DATA SHEET No. : TDAA/209

TECHNICAL DATA OF ALARM ANNUNCIATOR		
SL. No.	Description	Details
1.	MAKE	SEMUDA
2.	MODEL No.	SEMALARM 4002 & 6002
3.	No. Of Window	MODEL 4002 – 6,8 & 12 MODEL 6002 – 4,6,8,10,12,16,20 & 24,30,32,36,40 Multiples of Channel up to 96 Channel on request Model 6002 only.
4.	Display Window Size	MODEL 4002 : 45 X 45 m.m. MODEL 6002 : 65 X 30 m.m. Or 30 X 30 mm.
5.	Type of Software	Microprocessor based.
6.	Scane Time	1 Micro sec. Approx.
7.	Power supply	SMPS
8.	Rated Supply Voltage	90 – 270V Universal / 22V – 60V Universal
9.	Power Consumption	1.2 Watt < 6 VA / 2 Watt < 3 VA
10.	Rated Frequency	50 / 60 Hz +/- 5%
11.	Interrogating Voltage	+ 12V DC.
12.	Power Pack protection	Over Load & Short Ckt. Protected
13.	Permissible Contact Resistance	Less than or equal to 1.2 KΩ
14.	Contact Through Initiating	6 Milli Amp.
15.	Display L.E.D. Rating	10 Milli Amp.
16.	Flashing Rate	60 / 30 per minute
17.	Insulation Resistance	Infinity
18.	Nature of Alarm	Potential Free
19.	Fault Input	N / O or N / C Selectable for each window
20.	No. of L.E.Ds / Window	5 Nos. Superbright L.E.D.
21.	L.E.D. Protection	Through Resistance
22.	Response time of Flasher	20 m.s.
23.	Alarm Sequence	ISA Standard Sequence : Manual Reset, Auto Reset, First Out & Ring Back.
24.	Enclosure Class	Industrial.
25.	Relative humidity	95% RH.
26.	Operating Temperature	55 Dg. C. Maxim.
27.	Inscription	On Tracing Paper or Photo Negatives.
28.	Material of PCB	Glassepoxy
29.	Push Button details / Quantity	N / O Contact. / 4 Nos.
30.	Colour of Window	Red (Green & Yellow on request)
31.	Audio Contact Rating	Potential Free N / O Contact, Contact Rating 5Amp. @ 250V AC. / 28V DC resistive.
32.	Cascading Facility	Provided
33.	Dielectric Test - At ERTL (E)	At 2 kV ac for 1 minute between Aux. supply & body. (CL. No. – 5 of IS : 3231 Pt. – 2, Sec. – 2)
34.	Impulse Test – At ERTL (E)	At 5 kV, 1.2mic.sec 3 positive & 3 nagative pulses between all terminals & body. (CL. No. – 5 of IS : 8686, 1977)
35.	Damped Oscillatory Wave Test SAMEER – EMC Center - Mumbai	As per IEC 61000-4-12 Edition 1.1 2001-04
36.	High voltage Test – At ERTL (E)	2 kV between all terminals & earth for 1 minute
37.	Vibration Test – At ERTL (E)	As per IS 9000 :- 3 Hrs. in all X, Y, & Z axis.
38.	Enviorment Test – At ERTL (E)	As per IS 9000 :- <ul style="list-style-type: none"> a) Dry Heat Test - 85°C, 16 Hrs. b) Damp Heat Test - 40°C, 48 Hrs., 95% RH. c) Cold Test - 0°C, 4 hrs. d) Performance Test – IR at 500V DC

'SEMUDA' ALARM ANNUNCIATORS

DIMENSION DETAILS :

Chart No. - DD / SEM / 0510

A. MODEL : SEMALARM 4002

TYPE NO.	NO.OF PTS.	BEZEL OUTSIDE	PANEL CUTOUT	DEPTH	WINDOW SIZE	PUSH BUTTON
MC44512	12	220(W)x170(H)mm.	203(W)x153(H)mm.	140mm.	45x45mm.	NO
MC4458P	8	220(W)x170(H)mm.	203(W)x153(H)mm.	140mm.	45x45mm.	YES
MC4456P	6	220(W)x170(H)mm.	203(W)x153(H)mm.	140mm.	45x45mm.	YES

B. MODEL : SEMALARM 6002

TYPE NO.	No. OF PTS.	BEZEL OUTSIDE	PANEL CUTOUT	DEPTH	WINDOW SIZE	PUSH BUTTON
MCD1004	4	72(W)x144(H)mm.	68(W)x138(H)mm.	200mm.	65x30mm.	NO
MCD1P06	6	72(W)x144(H)mm.	68(W)x138(H)mm.	200mm.	30x30mm.	YES
MCD2006	6	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	65x30mm.	NO
MCD2P06	6	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	65x30mm.	YES
MCD2008	8	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	65x30mm.	NO
MCD1008	8	72(W)x144(H)mm.	68(W)x138(H)mm.	200mm.	30x30mm.	NO
MCD3P10	10	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	65x30mm.	YES
MCD3P11	11	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	65x30mm.	YES
MCD3012	12	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	65x30mm.	NO
MCD4P12	12	288(W)x144(H)mm.	282(W)x138(H)mm.	200mm.	65x30mm.	YES
MCD2P14	14	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	30x30mm.	YES
MCD4P15	15	288(W)x144(H)mm.	282(W)x138(H)mm.	200mm.	65x30mm.	YES
MCD2016	16	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	30x30mm.	NO
MCD4016	16	288(W)x144(H)mm.	282(W)x138(H)mm.	200mm.	65x30mm.	NO
MCD5P18	18	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	65x30mm.	YES
MCD5020	20	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	65x30mm.	NO
MCD3P22	22	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	30x30mm.	YES
MCD3024	24	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	30x30mm.	NO
MCD4P30	30	288(W)x144(H)mm.	282(W)x138(H)mm.	200mm.	30x30mm.	YES
MCD4032	32	288(W)x144(H)mm.	282(W)x138(H)mm.	200mm.	30x30mm.	NO
MCD5040	40	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	30x30mm.	NO

Combination of Big & Small Window. (Big = 65X30mm.) & (Small = 30X30mm.)

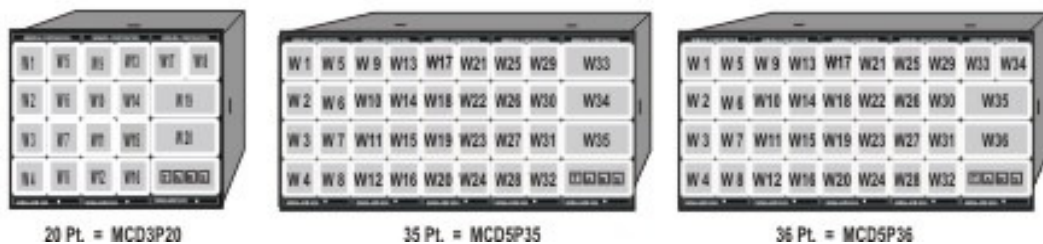
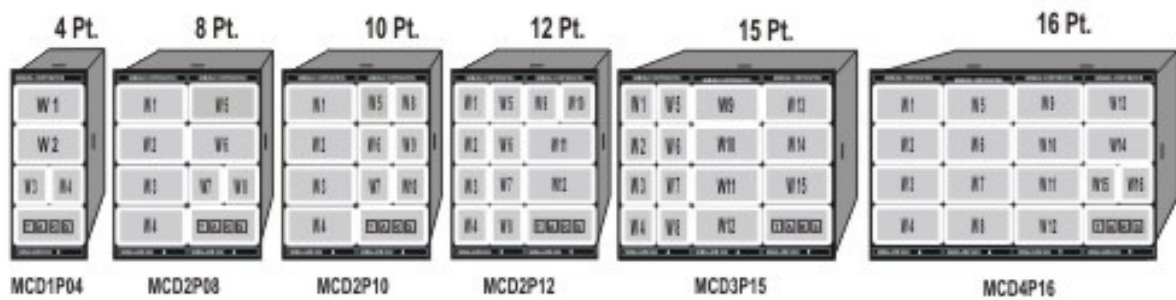
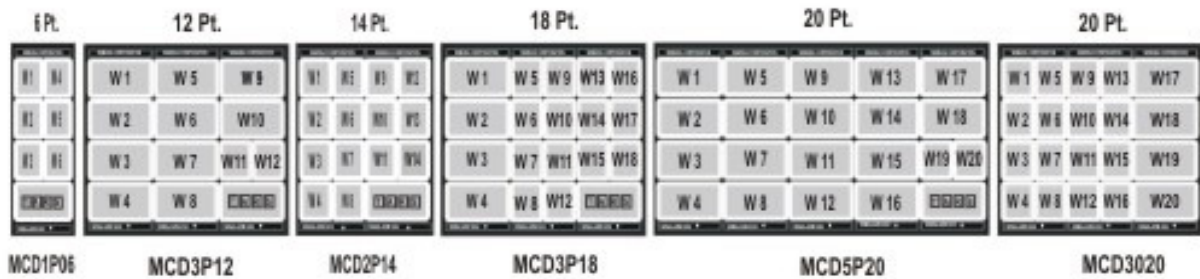
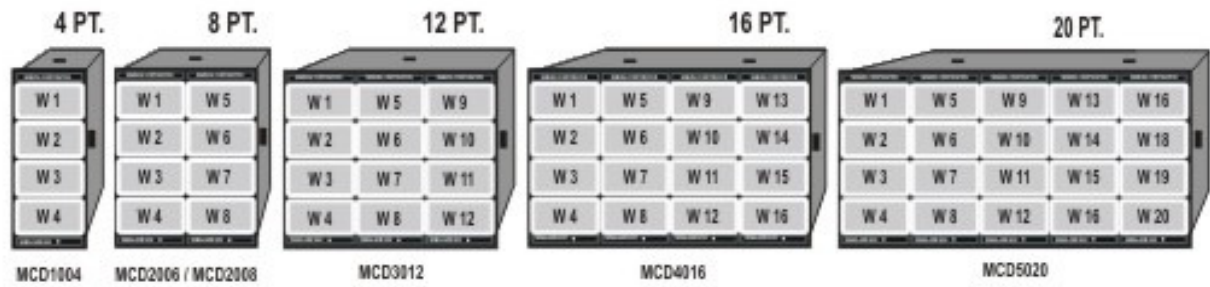
MCD1P04	4	72(W)x144(H)mm.	68(W)x138(H)mm.	200mm.	Combined.	YES
MCD2P08	8	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	Combined.	YES
MCD2P10	10	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	Combined.	YES
MCD2P12	12	144(W)x144(H)mm.	138(W)x138(H)mm.	200mm.	Combined.	YES
MCD3P12	12	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	Combined.	YES
MCD3P15	15	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	Combined.	YES
MCD4P16	16	288(W)x144(H)mm.	282(W)x138(H)mm.	200mm.	Combined.	YES
MCD3P18	18	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	Combined.	YES
MCD5P20	20	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	Combined.	YES
MCD3020	20	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	Combined.	NO
MCD3P20	20	216(W)x144(H)mm.	210(W)x138(H)mm.	200mm.	Combined.	YES
MCD5P32	32	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	Combined.	YES
MCD5P35	35	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	Combined.	YES
MCD5036	36	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	Combined.	NO
MCD5P36	36	360(W)x144(H)mm.	354(W)x138(H)mm.	200mm.	Combined.	YES

NOTE : Cascading facility provider up to 20 Pt. Units.

C. MODEL : DS DISPLAY FACIA

TYPE NO.	NO.OF PTS.	BEZEL OUTSIDE	PANEL CUTOUT	DEPTH	WINDOW SIZE
DS6PC4	4	72(W) x 144(H)mm.	68(W) x 138(H)mm.	65mm.	65 x 30 mm.
DS6PF4	4	72(W) x 144(H)mm.	68(W) x 138(H)mm.	200 mm	65 x 30 mm.
DS6PC8	8	72(W) x 144(H)mm.	68(W) x 138(H)mm.	65 mm.	30 x 30 mm.
DS6PF8	8	72(W) x 144(H)mm.	68(W) x 138(H)mm.	200 mm,	30 x 30 mm.

MODEL : SEMALARM 6002 DETAILS



OPEARATING INSTRUCTION MANUAL

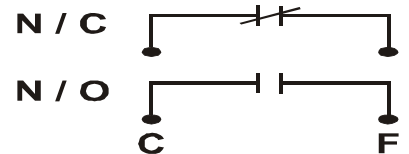
Chart No. : OM1 / 208 / 10

'SEMUDA' Microprocrssor Based Audio Visual Alarm Annunciators.
Model : SEMALARM 6002 & SEMALARM 4002.

Apply rated supply voltage between L & N
Connect potential free input contacts N/O or N/C

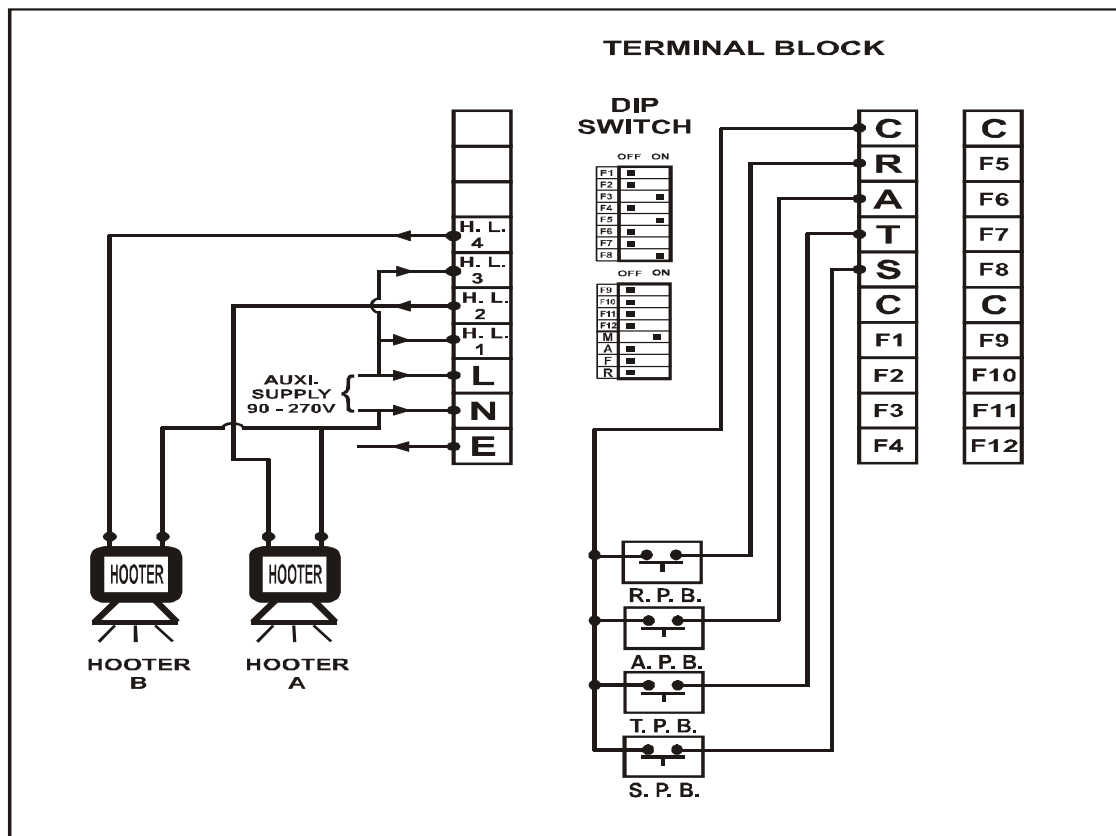
Example :-

- 1) F1 TO F12 - POTENTIAL FREE EXTERNAL INPUT (N / O or N / C) CONNECTION THRU DIP SWITCH.
- 2) C - COMMON POINT FAULT INPUT.



For site selection of N/O or N/C field contact & Operating Sequence thru DIP switch.
N/O contact - switch to be in OFF position.
N/C contact - switch to be in ON position.

For audio device connect between potential free H.L. 1 / 2 & H.L. 3 / 4



- Press. :-**
- 1) Test Push Button – All Windows Flash & Audio ON
 - 2) Silent Push Button – All Windows Flash & Audio OFF
 - 3) Ack Push Button – All Windows Steady & Audio OFF
 - 4) Reset Push Button – All Windows OFF & Audio OFF

For Replacing Legend :-

Remove window frame & insert required legend between 2 plastic Sheets.

How to stack multiple Annunciator Units :-

Connect Parallely Test, Silent, Ack & Reset Push Buttons, Hootet A & B audio terminals

- :-