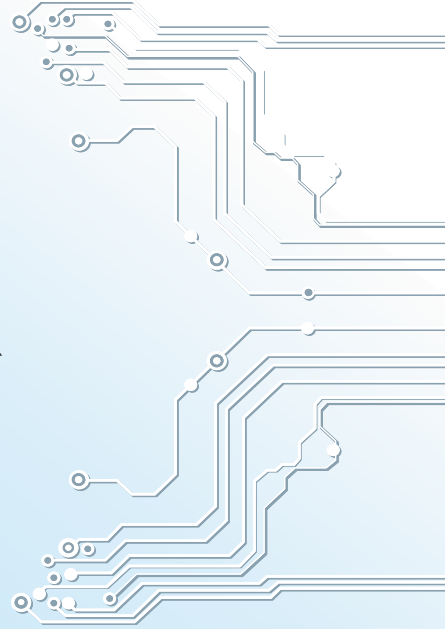




A ISO:9001-2008 CERTIFIED COMPANY

# ALARM ANNUNCIATOR

Providing excellence with  
Latest technology | Customized solution | Timely delivery



**PROTON POWER CONTROL PVT.LTD.**

[www.protonelectronic.com](http://www.protonelectronic.com)

## Salient Features

- ◆ Based on latest single chip micro-computer technology Sleek, compact design for reliable and accurate operation.
- ◆ Fast response time.
- ◆ Models available from 4 to 64 windows.
- ◆ Field selectable operational sequences.
- ◆ Incorporates a group of super bright LED's instead of twin filament lamps for ultimated life at very less power consumption.
- ◆ Actuated thro' potential free fault input contacts.
- ◆ Fault input contacts NO/NC site selectable by means of DIP switches.
- ◆ Opto-isolated all fault inputs, immune to noise disturbances.
- ◆ Provision for external audible (Bell or Hooter) thro' potential free relay output contact.
- ◆ All models are with built-in feather touch push buttons for Test, Accept and Reset operations.
- ◆ Test facility checks flashing, accept and reset operations.
- ◆ Specially designed power supply for high noise immunity, wide input variations and having built-in transient protection.
- ◆ The extensive protection so provided safeguards all I.C.'s and components from failure, thereby offering complete reliability.
- ◆ All cards interconnected with plug-in polaride connectors for easy servicing.
- ◆ Rugged M.S. enclosure with high strength.
- ◆ Designed to give an economic, No Frills alarm annunciator system that is both easy to install, commission and maintain.
- ◆ Type tested for noise, impulse and functional test as per various standards.

## Technical Specifications

Supply voltage	: 1) 90-270 AC/DC SMPS 2) 20V/60V DC
No. of windows	: 4 to 64 windows available in different configurations
No. of LED's per window	: Super bright 2 LED's in a rows
Power consumption	: 0.5VA per window
Terminal	: Suitable for 0.2 to 2.5 sq. mm cable
Scan time	: less than 5 ms
Response time	: less than 10 ms
Flash rate	: 60 Flashes/min - Fast flashing 30 Flashes/min - Slow flashing
Interrogation voltage	: 12 V DC/110V DC* (*optional)
Fault input contacts	: potential free NO or NC site selectable (potential* optional)
Output connections	: For remote Test, Accept & Reset operations on specific demand
Output relay contact	: 2 potential free contact (1 No. Alarm+ 1 No. Trip+1 No. optional for DC fail)
Output contact rating	: 7 Amps at 230 V AC (Resistive)
Noise immunity	: 2.5 KV as per IS 8686 Refer type test chart.
Impulse test	: 5 KV as per IS 8686
Environmental tests	: As per IS 9000
Operational Sequences	: 1. Auto Reset 2. Manual Reset 3. First Up 4. Ring Back Alarm
Max. ambient temp.	: 0 - 60° C
Humidity	: 95% R.H.
Window dimension	: 30 (H) x 30 (W) mm, 30 (H) x 65 (W) mm
Window Colour	: Red, Yellow, Green, Blue & White
Facia Type	: Printed on photo film replaceable from front
Push button controls	: For Test, Silence, Accept & Reset functions
* Modbus over 485 electrical standard	: Slave ID site selectable through DIP switch (Optional feature)

## Operating Sequences Chart

Fault Condition	Manual Action	Auto Reset		Manual Reset		First up		Ring Back Alarm		
		Audio	Visual	Audio	Visual	Audio	Visual	Audio	Visual Alarm	Ring Back
Normal		Off	Off	Off	Off	Off	Off	Off	Off	Off
AB-Normal		On	Flash	On	Flash	On Steady (S)	Flash (I)	On	Fast Flash	Off
Normal Before Accept		On	Flash	On	Flash	On Steady (S)	Flash (I)	On	Fast Flash	Off
Normal	Accept	Off	Off	Off	Steady	Off Steady (S)	Steady (I)	Off	Steady	Off
AB-Normal	Accept	Off	Steady	Off	Steady	Off Steady (S)	Steady (I)	Off	Steady	Off
Normal Before Reset		Off	Off	Off	Steady	Off Steady (S)	Steady (I)	Off	Slow Flash	Off
Normal	Reset	Off	Off	Off	Off	Off	Off	Off	Off	Off
AB-Normal	Reset	Off	Steady	Off	Steady	Off	Steady	Off	Steady	Off
Normal	Test	On	Flash	On	Flash	On	Flash	On	Slow Flash	Off

(I) - Initial Fault (S) - Subsequent Fault Other sequences available on specific demand

## DIP Switch selectable features

### Sequence Selection according to ISA 18.1

#### Normal

ON Alarm	: Window Blinks
ON Accept	: Window Steady
ON Reset	: Window Steady if alarm exists Window OFF if no alarm

#### Auto Reset

ON Alarm	: Window Blinks
ON Accept	: Window Steady if alarm exists Window OFF if no alarm
ON Reset	: No action

#### Manual Reset

ON Alarm	: Window Blinks
ON Accept	: Window Steady
ON Reset	: Window blink if alarm exists Window OFF if no alarm

#### Ring Back

ON Alarm	: Window Blinks
ON Accept	: Window slow blink
ON Reset	: Window Steady if alarm exists

#### Alarm Group

Trip Group	: Relay Output 1
Non-Trip Group	: Relay Output 2 Window OFF if no alarm

## Optional Features

#### Man / Unmanned

Unmanned Mode	: Alarms with held & stored without display
Man Mode	: All the withheld alarms displayed

#### Power Fail / Memory Retention

Power Fail	: Current Alarm status saved
Power Resumes	: Saved status Displayed

#### Annunciator Malfunctioning

Green LED Off	: Power Off / Fail
Control Relay	: Healthy contact open Unhealthy contact Closed

#### Modbus

Modbus over 485 electrical standard (Function Code 03, 10)	: Slave ID site selectable through DIP switch
--	---

## Tests

### Electrical Test

- ◆ High voltage surge susceptibility test
- ◆ Impulse voltage withstand test
- ◆ Mains supply variation
- ◆ High voltage, high frequency disturbance (Noise) test

### Description

- ◆ 2 KV AC (RMS) for 1 min. or 2.3 KV for 1 sec.
- ◆ 5 KV impulse at all i/p and o/p points
- ◆ +10% - 15%
- ◆ Longitudinal (2kV) Transverse (1kV)

### Reference

- ◆ IEC - 255 - 4, IEEE 472 - 1974 IS 3231
- ◆ IEC60255-5I IEEE - 472 B5 - 923
- ◆ Mfrs. Test
- ◆ IEC - 61000-4-12

### Environmental Test

- ◆ Dry heat test
- ◆ Burn in test in energized condition
- ◆ Damp heat test
- ◆ Cold test
- ◆ Dump test

### Description

- ◆ 60 Hrs. at 70° C
- ◆ 90 Hrs. at 70° C
- ◆ 72 Hrs. at 55° C at 90% R.H
- ◆ -25° C for 48 Hrs.
- ◆ 100 Bumps/axes @ 3 bumps/sec.

### Reference

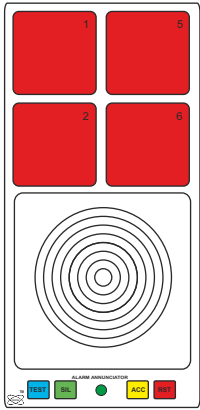
- ◆ IS 9000/77
- ◆ IS 9000/77
- ◆ IS 9000/IV/79
- ◆ IS 9000
- ◆ IS 9000/VII/64

## 4 Window / Point Alarm Annunciator with Hooter

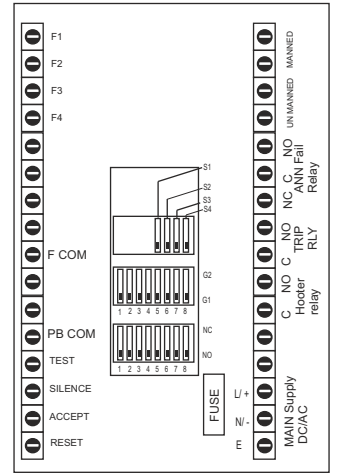


### PRO4-1D-H

Front View



Terminal diagram



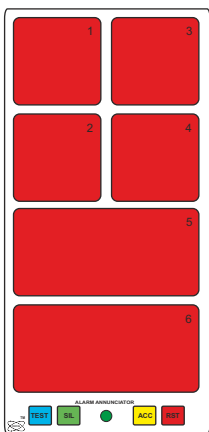
Cutout Dimension : 68 mm (W) x 138 mm (H)  
 Overall Dimension : 72 mm (W) x 144 mm (H) x 120 mm (D)

## 6 Window / Point Alarm Annunciator with Hooter

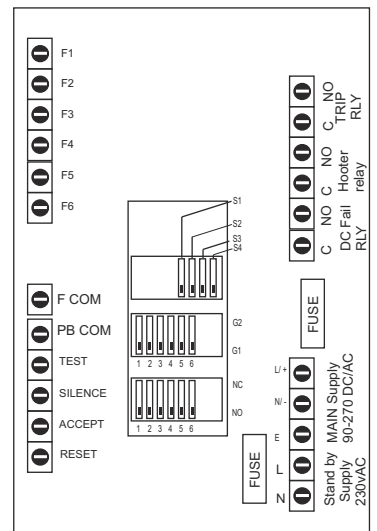


### PRO6-1D-H

Front View



Terminal diagram



Cutout Dimension : 68 mm (W) x 138 mm (H)  
 Overall Dimension : 72 mm (W) x 144 mm (H) x 120 mm (D)

F : Fault input  
 G : Group  
 S1 : Sequence  
 S2 : Sequence  
 S3 : Sequence  
 S4 : Sequence  
 NO : Normally Open Fault  
 NC : Normally Close Fault  
 F COM : Fault Input common  
 PB COM : Push Button Common

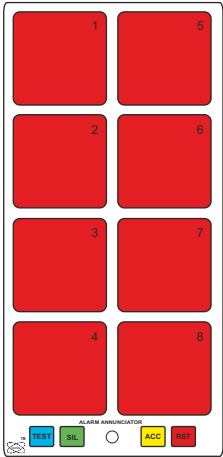


## 8 Window / Point Alarm Annunciator

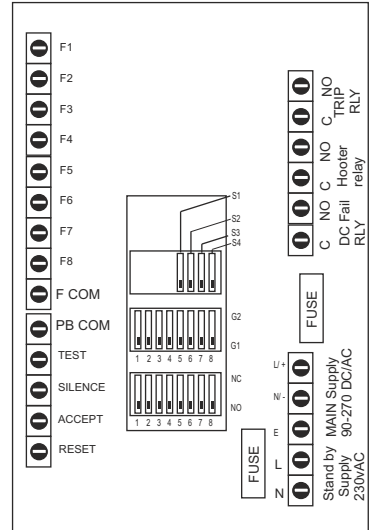


### PRO8-1D

Front View



Terminal diagram



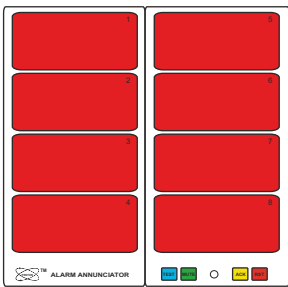
Cutout Dimension : 68 mm (W) x 138 mm (H)  
 Overall Dimension : 72 mm (W) x 144 mm (H) x 120 mm (D)

## 8 Window / Point Alarm Annunciator

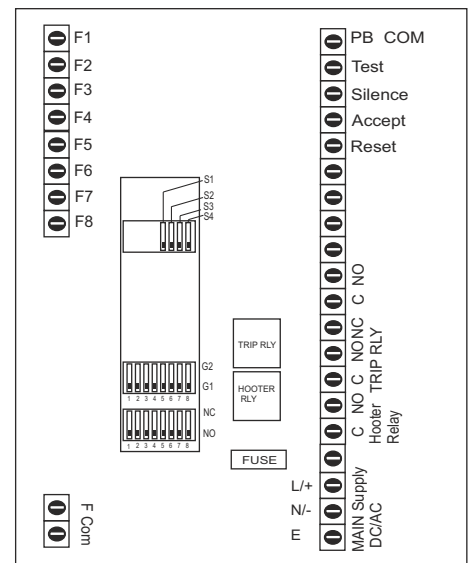


### PRO8-2D

Front View



Terminal diagram



Cutout Dimension : 138 mm (W) x 138 mm (H)  
 Overall Dimension : 144 mm (W) x 144 mm (H) x 120 mm (D)

F : Fault input  
 G : Group  
 S1 : Sequence  
 S2 : Sequence  
 S3 : Sequence  
 S4 : Sequence  
 NO : Normally Open Fault  
 NC : Normally Close Fault  
 F COM : Fault Input common  
 PB COM : Push Button Common

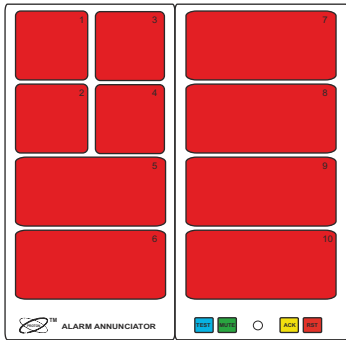


## 10 Window / Point Alarm Annunciator

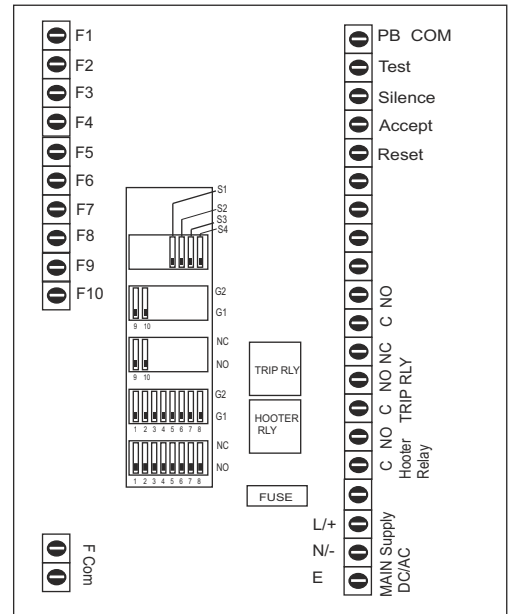


### PRO10-2D

Front View



Terminal diagram



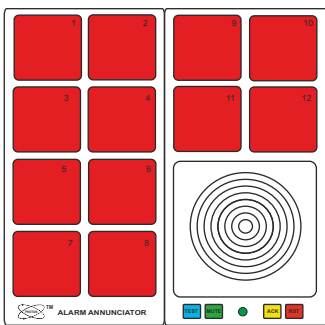
Cutout Dimension : 138 mm (W) x 138 mm (H)  
Overall Dimension : 144 mm (W) x 144 mm (H) x 120 mm (D)

## 12 Window / Point Alarm Annunciator with Hooter

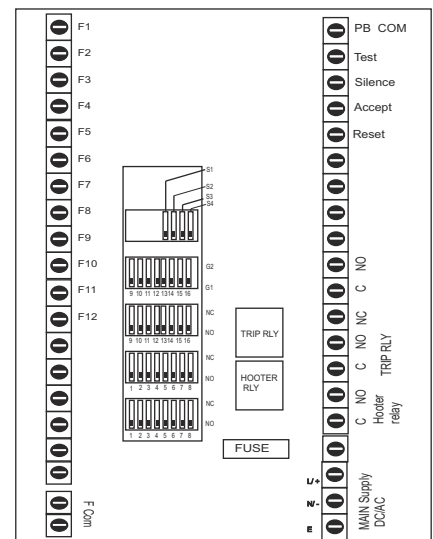


### PRO12-2D-H

Front View



Terminal diagram



Cutout Dimension : 138 mm (W) x 138 mm (H)  
Overall Dimension : 144 mm (W) x 144 mm (H) x 120 mm (D)

F : Fault input  
G : Group  
S1 : Sequence  
S2 : Sequence  
S3 : Sequence  
S4 : Sequence  
NO : Normally Open Fault  
NC : Normally Close Fault  
F COM : Fault Input common  
PB COM : Push Button Common

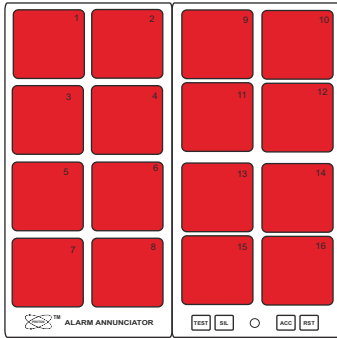


## 16 Window / Point Alarm Annunciator



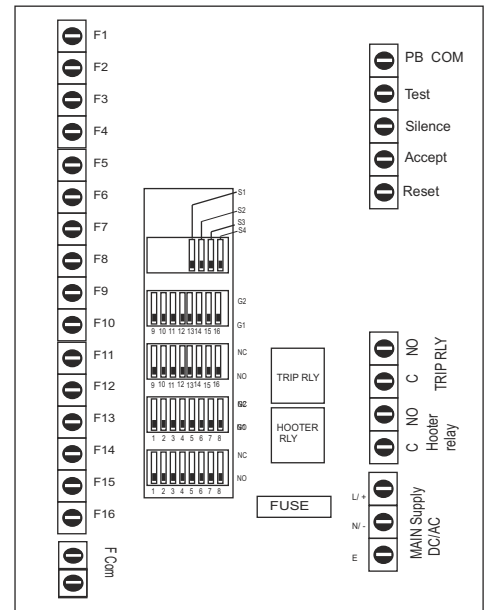
### PRO16-2D

Front View



Cutout Dimension : 138 mm (W) x 138 mm (H)  
Overall Dimension : 144 mm (W) x 144 mm (H) x 120 mm (D)

Terminal diagram

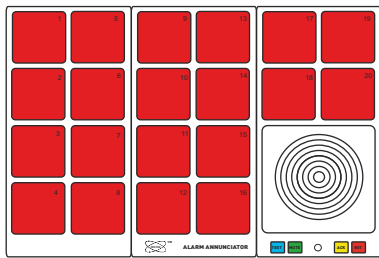


## 20 Window / Point Alarm Annunciator



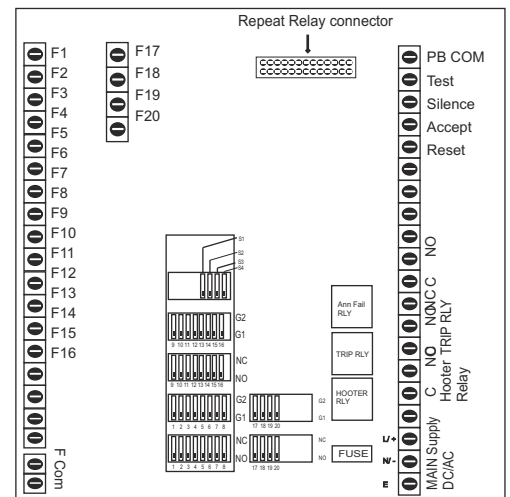
### PRO20-3D-H

Front View



Cutout Dimension : 208 mm (W) x 138 mm (H)  
Overall Dimension : 216 mm (W) x 144 mm (H) x 140 mm (D)

Terminal diagram



F : Fault input  
G : Group  
S1 : Sequence  
S2 : Sequence  
S3 : Sequence  
S4 : Sequence  
NO : Normally Open Fault  
NC : Normally Close Fault  
F COM : Fault Input common  
PB COM : Push Button Common

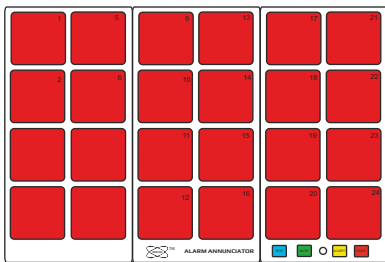


## 24 Window / Point Alarm Annunciator

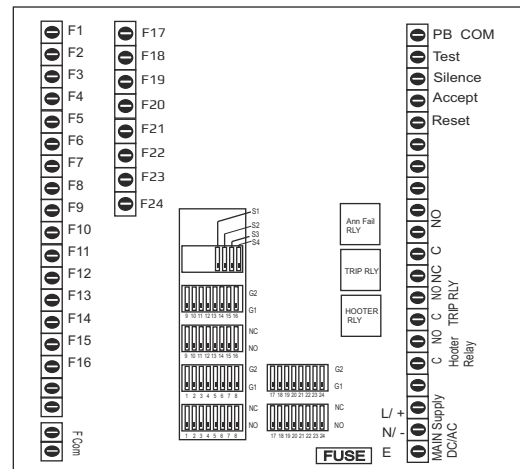


### PRO24-3D

Front View



Terminal diagram



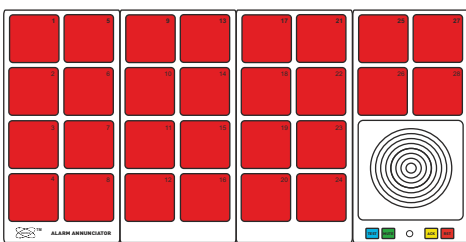
Cutout Dimension : 208 mm (W) x 138 mm (H)  
Overall Dimension : 216 mm (W) x 144 mm (H) x 140 mm (D)

## 28 Window / Point Alarm Annunciator

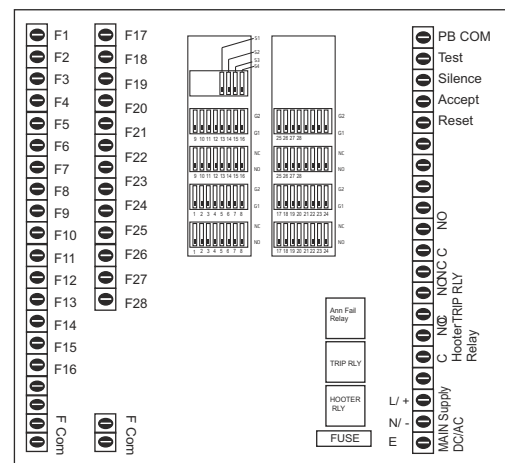


### PRO28-4D-H

Front View



Terminal diagram



Cutout Dimension : 280 mm (W) x 138 mm (H)  
Overall Dimension : 288 mm (W) x 144 mm (H) x 140 mm (D)

F : Fault input  
G : Group  
S1 : Sequence  
S2 : Sequence  
S3 : Sequence  
S4 : Sequence  
NO : Normally Open Fault  
NC : Normally Close Fault  
F COM : Fault Input common  
PB COM : Push Button Common



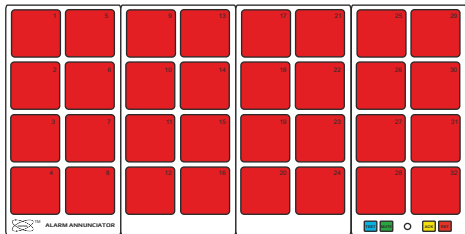
Cutout Dimension : 280 mm (W) x 138 mm (H)  
Overall Dimension : 288 mm (W) x 144 mm (H) x 140 mm (D)



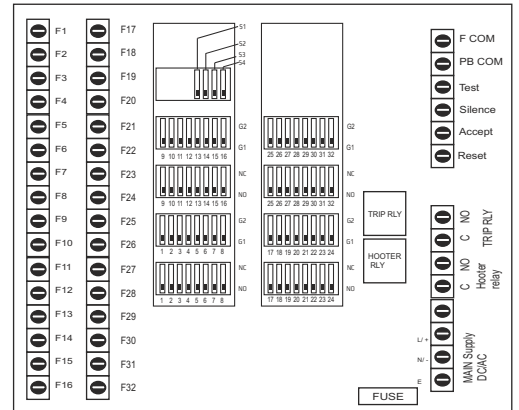
## 32 Window / Point Alarm Annunciator

### PRO32-4D

Front View



Terminal diagram

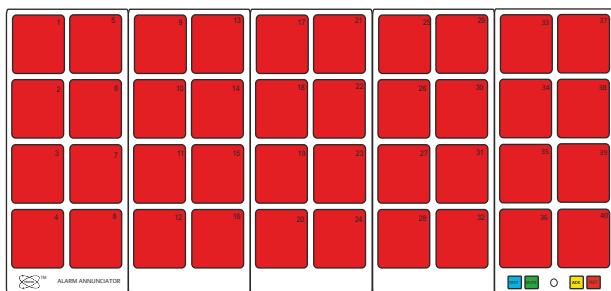


Cutout Dimension : 280 mm (W) x 138 mm (H)  
Overall Dimension : 288 mm (W) x 144 mm (H) x 140 mm (D)

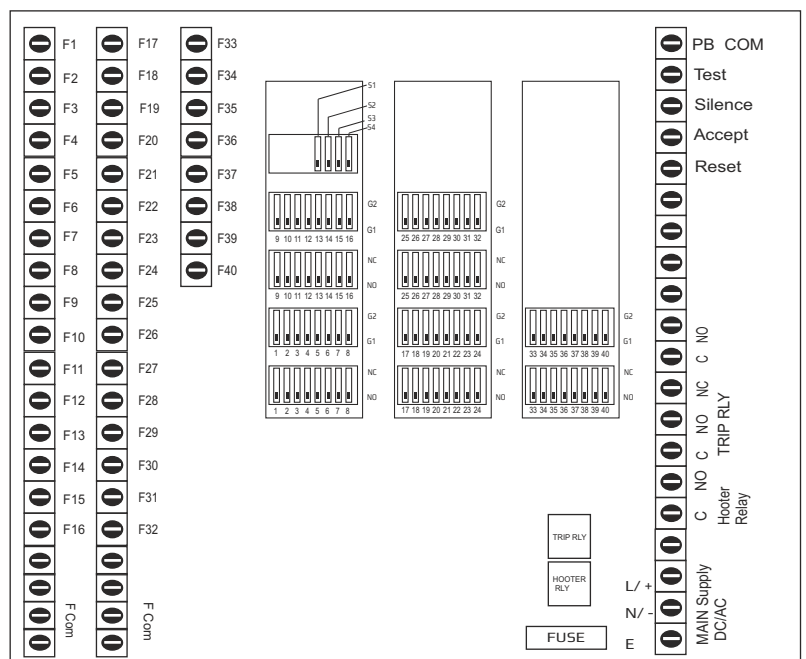
## 40 Window / Point Alarm Annunciator

### PRO40-5D

Front View



Terminal diagram



Cutout Dimension : 345 mm (W) x 138 mm (H)  
Overall Dimension : 353 mm (W) x 144 mm (H) x 140 mm (D)

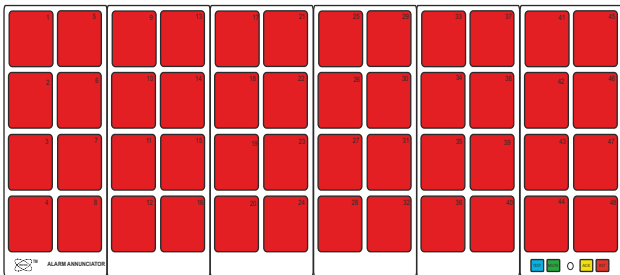
F : Fault input  
G : Group  
S1 : Sequence  
S2 : Sequence  
S3 : Sequence  
S4 : Sequence  
NO : Normally Open Fault  
NC : Normally Close Fault  
F COM : Fault Input common  
PB COM : Push Button Common

## 48 Window / Point Alarm Annunciator

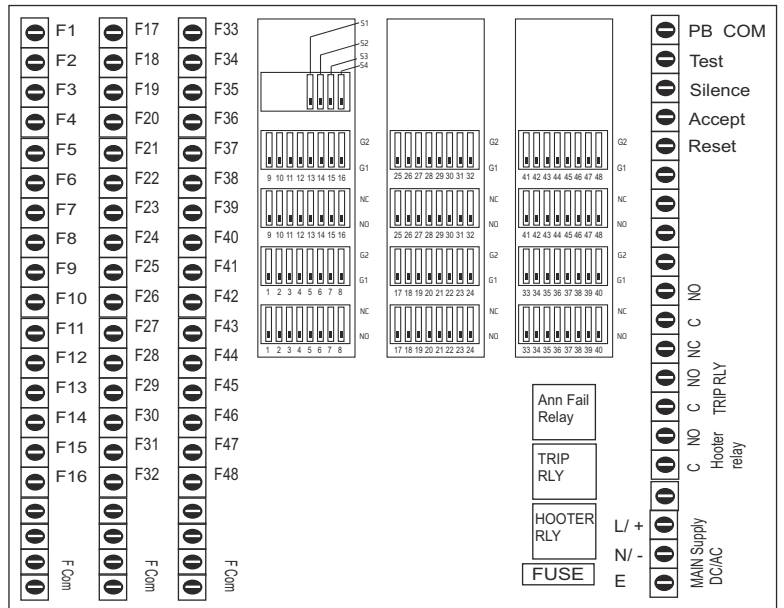


### PRO48-6D

Front View



Terminal diagram



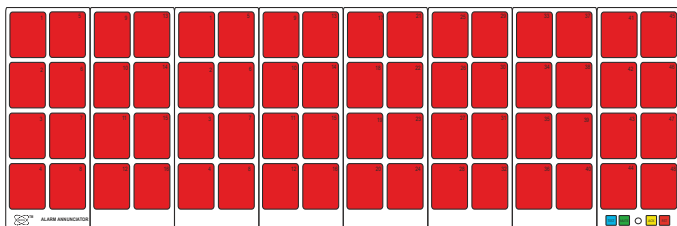
Cutout Dimension : 414 mm (W) x 138 mm (H)  
Overall Dimension : 422 mm (W) x 144 mm (H) x 140 mm (D)

## 64 Window / Point Alarm Annunciator

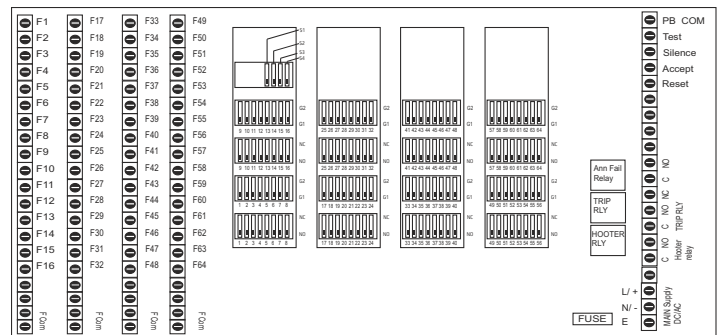


### PRO64-8D

Front View



Terminal diagram



Cutout Dimension : 552 mm (W) x 138 mm (H)  
Overall Dimension : 560 mm (W) x 144 mm (H) x 140 mm (D)

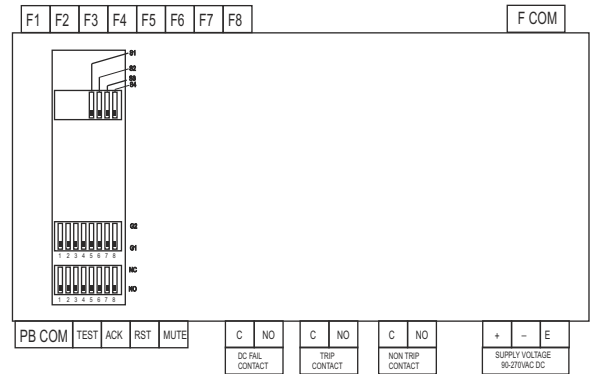
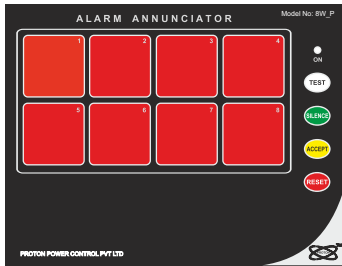
F : Fault input      S1 : Sequence      NO : Normally Open Fault  
G : Group            S2 : Sequence      NC : Normally Close Fault  
                             S3 : Sequence      F COM : Fault Input common  
                             S4 : Sequence      PB COM : Push Button Common



## 8 Window / Point Alarm Annunciator



8W\_P

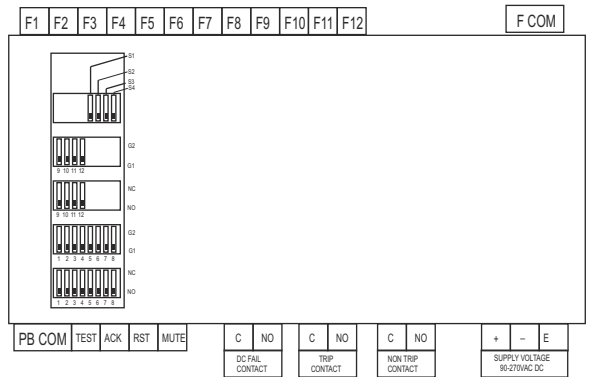
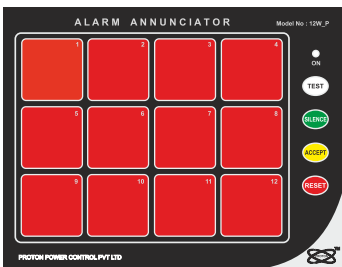


Window Size : 40 mm (W) x 40 mm (H)  
 Cutout Dimension : 202 mm (W) x 152 mm (H)  
 Overall Dimension : 215 mm (W) x 165 mm (H) x 80 mm (D)

## 12 Window / Point Alarm Annunciator



12W\_P



Window Size : 40 mm (W) x 40 mm (H)  
 Cutout Dimension : 202 mm (W) x 152 mm (H)  
 Overall Dimension : 215 mm (W) x 165 mm (H) x 80 mm (D)

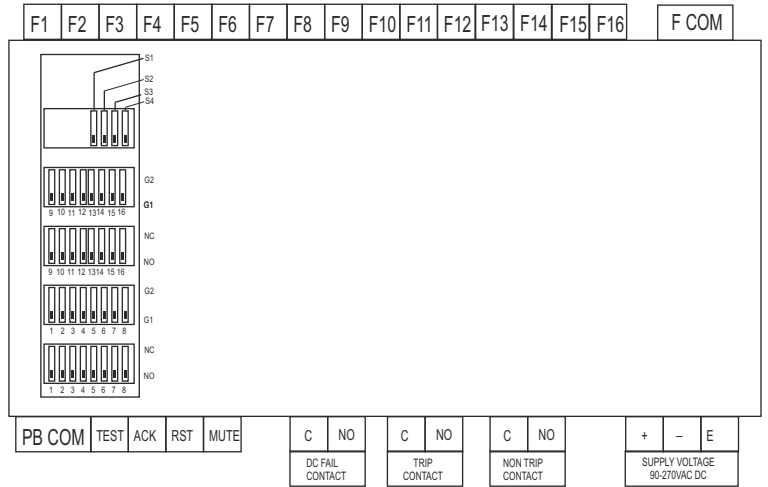
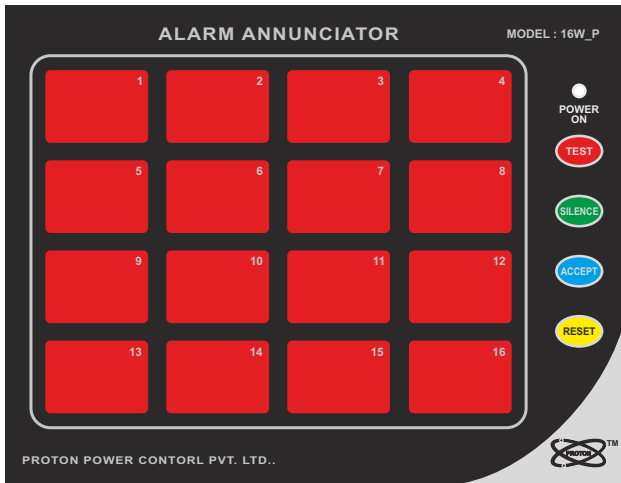
F : Fault input  
 G : Group  
 S1 : Sequence  
 S2 : Sequence  
 S3 : Sequence  
 S4 : Sequence  
 NO : Normally Open Fault  
 NC : Normally Close Fault  
 F COM : Fault Input common  
 PB COM : Push Button Common



## 16 Window / Point Alarm Annunciator



16W\_P

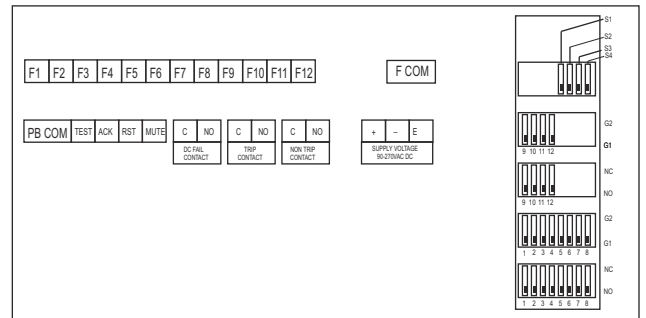


Window Size : 35 mm (W) x 25 mm (H)  
 Cutout Dimension : 202 mm (W) x 152 mm (H)  
 Overall Dimension : 215 mm (W) x 165 mm (H) x 80 mm (D)

## 12 Window / Point Alarm Annunciator



12W\_RW



Window Size : 35 mm (W) x 70 mm (H)  
 Cutout Dimension : 260 mm (W) x 176 mm (H)  
 Overall Dimension : 300 mm (W) x 210 mm (H) x 120 mm (D)

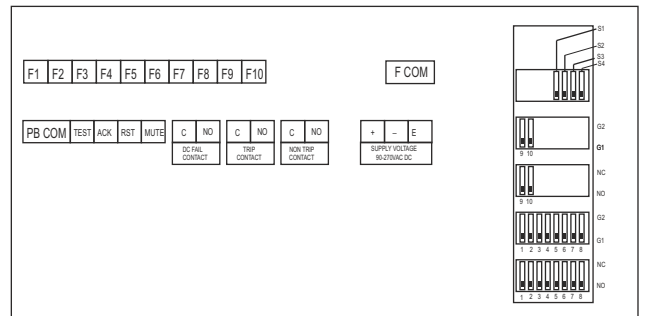
F : Fault input  
 G : Group  
 S1 : Sequence  
 S2 : Sequence  
 S3 : Sequence  
 S4 : Sequence  
 NO : Normally Open Fault  
 NC : Normally Close Fault  
 F COM : Fault Input common  
 PB COM : Push Button Common



## 10 Window / Point Alarm Annunciator



10W\_RW



Window Size : 35 mm (W) x 70 mm (H)  
 Cutout size: 410(W) x 90(H) x 160 (D)mm.  
 Over all Size: 430(W) x 110(H) x 160 (D) mm.

F : Fault input      S1 : Sequence      NO : Normally Open Fault  
 G : Group            S2 : Sequence      NC : Normally Close Fault  
                              S3 : Sequence      F COM : Fault Input common  
                              S4 : Sequence      PB COM : Push Button Common

## Electronic Industrial Hooters / Buzzers



### Electronic Hooter (HTR\_BU)



### Window Hooter (HTR\_W)



### Window Hooter (HTR\_W\_O)



Cutout size: 92(W) x 92(H) mm.  
 Over all Size: 96(W) x 96(H) 80 (D) mm

Supply Voltage : 90-270 VAC/DC or 12V DC, 20-60 VDC.  
 Sound Audibility : Sound Audibility of 90-100 DB.@ 1 Meter  
 Push Button Controls : On board Push button to silent sound(optional)  
 Terminals : Suitable for 0.2 to 2.5 sq. Mm. Cable.  
 Response Time : Less than 10 ms.  
 Multi-tone (Optional) : 1 C/NO Contact for tone selection at terminal  
 Enclosure : 96\*96 Plastic with high strength.



### Application Areas

Thermal power stations and sub-stations of Electricity Boards, Steel Plants, Suger Industries, Cement and Chemical Industries, A.C. Plants, Process Plants, Heat Treatment Plants, Hotels, Fire Alarm Systems and in telephone exchanges as Audio-Visual panels etc.



Proton power Control Pvt. Ltd. was established in 1988 with a vision to provide innovative products and reliable solutions for optimum power management, added many more professional electronic systems and products through in-house Design and Development.

House design facility, timely delivery, CE certified, latest testing setup, as per IEC standards & EMI EMC tested, AHU controller, controller for water treatment plant.

We, at Proton Power Control, are committed to design, development, manufacturing and supply of professional electronic equipment for the customer and strive for their complete satisfaction.

We cater to customer requirements, which are dynamically changing due to advancement of technology. Our strength is to adapt to these changes and bring out solutions in the form of products and systems in a minimal throughput time, without sacrificing on quality, reliability and delivery commitments.

We achieve quality through high level of commitment to it while optimizing costs. This has been possible due to continued improvement in the areas of design, operations and an ability to embrace latest technology.

We continuously invest in our technology base, maintain a strong team with an eye on customer satisfaction and service support.



## PROTON POWER CONTROL PVT. LTD.

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