

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

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

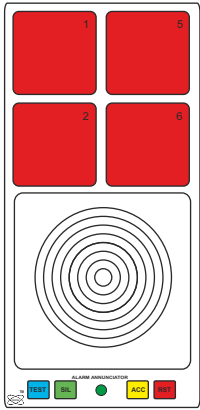
- ◆ IS 9000/77
- ◆ IS 9000/77
- ◆ IS 9000/IV/79
- ◆ IS 9000
- ◆ IS 9000/VII/64

4 Window / Point Alarm Annunciator with Hooter

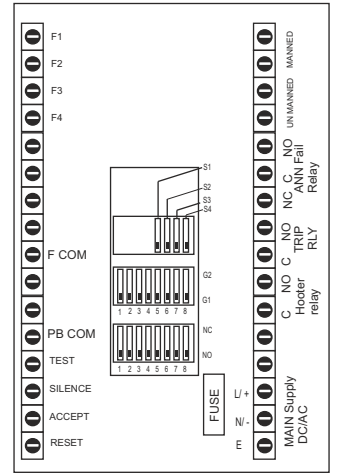


PRO4-1D-H

Front View



Terminal diagram



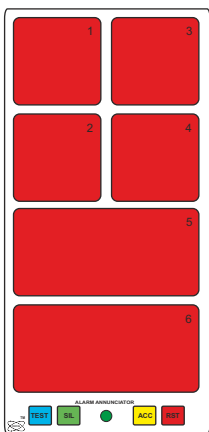
Cutout Dimension : 68 mm (W) x 138 mm (H)
 Overall Dimension : 72 mm (W) x 144 mm (H) x 120 mm (D)

6 Window / Point Alarm Annunciator with Hooter

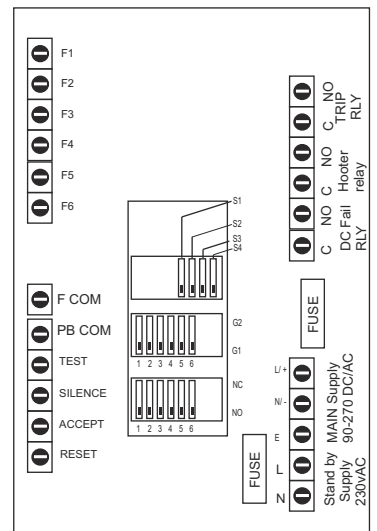


PRO6-1D-H

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

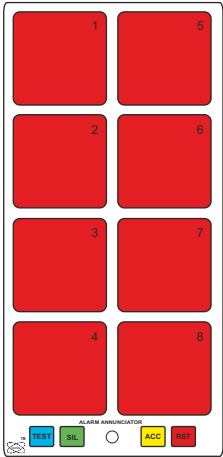


8 Window / Point Alarm Annunciator

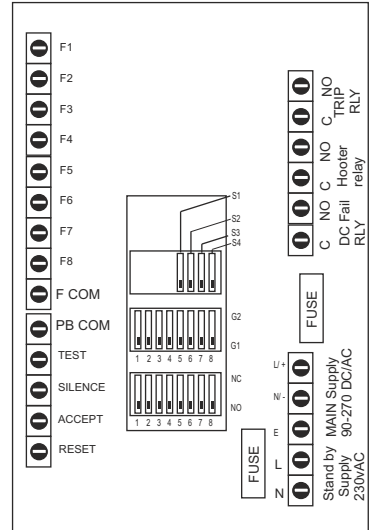


PRO8-1D

Front View



Terminal diagram



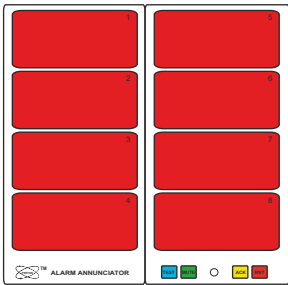
Cutout Dimension : 68 mm (W) x 138 mm (H)
 Overall Dimension : 72 mm (W) x 144 mm (H) x 120 mm (D)

8 Window / Point Alarm Annunciator

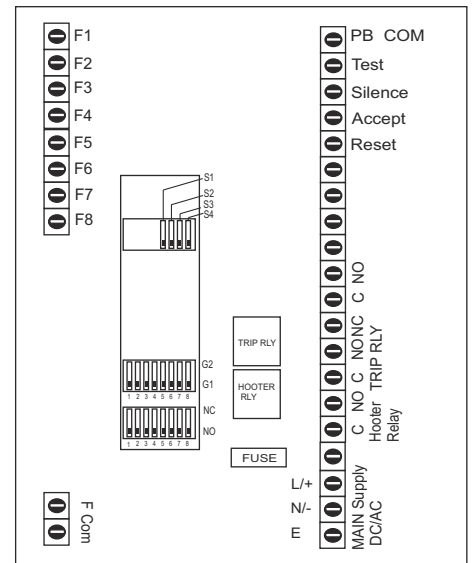


PRO8-2D

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

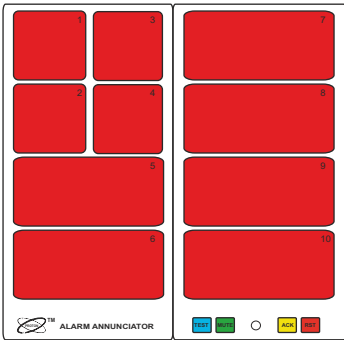


10 Window / Point Alarm Annunciator

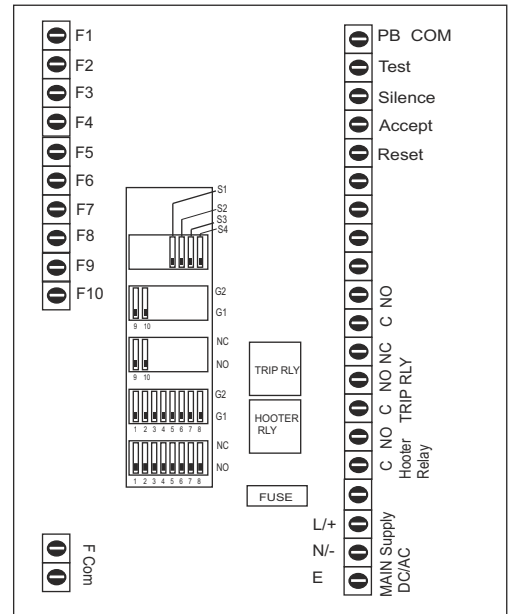


PRO10-2D

Front View



Terminal diagram



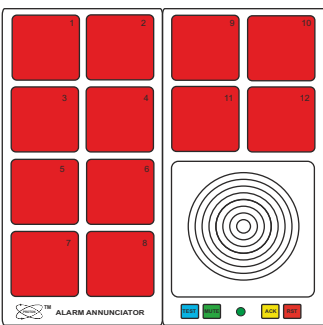
Cutout Dimension : 138 mm (W) x 138 mm (H)
Overall Dimension : 144 mm (W) x 144 mm (H) x 120 mm (D)

12 Window / Point Alarm Annunciator with Hooter

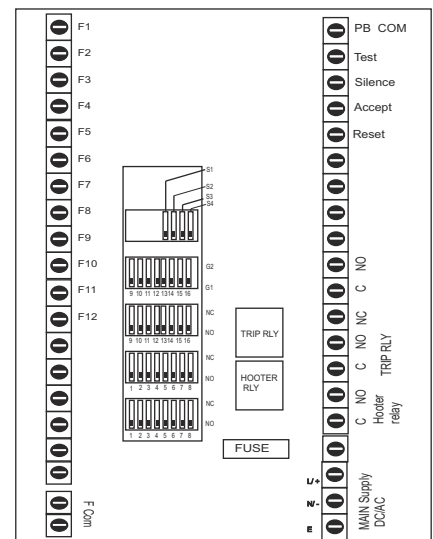


PRO12-2D-H

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

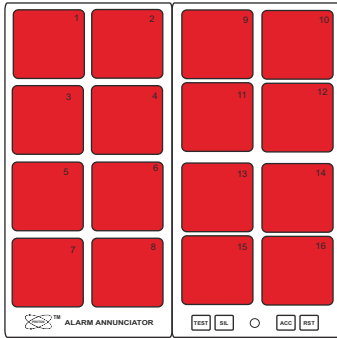


16 Window / Point Alarm Annunciator

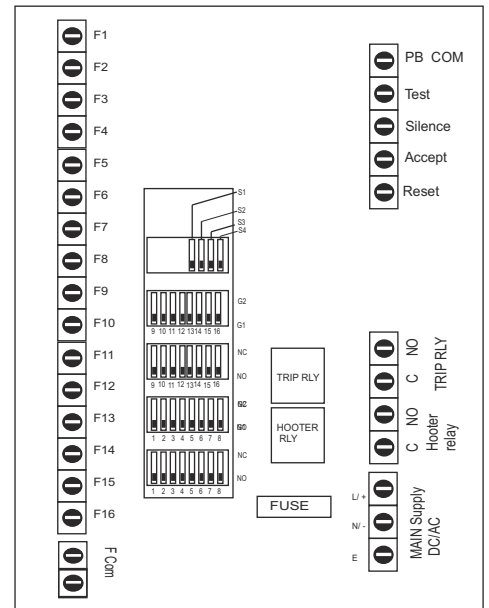


PRO16-2D

Front View



Terminal diagram



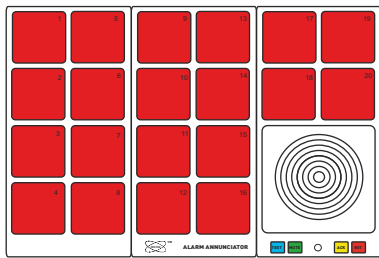
Cutout Dimension : 138 mm (W) x 138 mm (H)
Overall Dimension : 144 mm (W) x 144 mm (H) x 120 mm (D)

20 Window / Point Alarm Annunciator

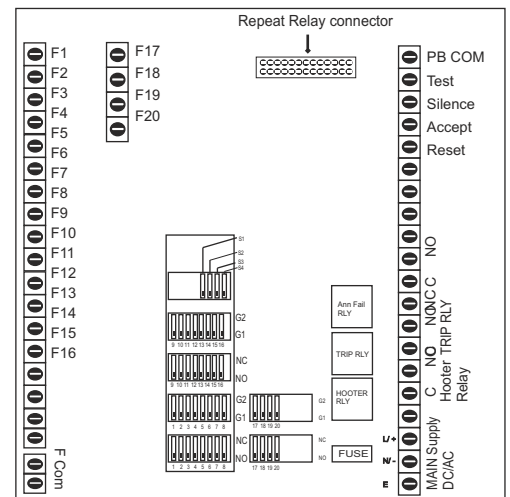


PRO20-3D-H

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)

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

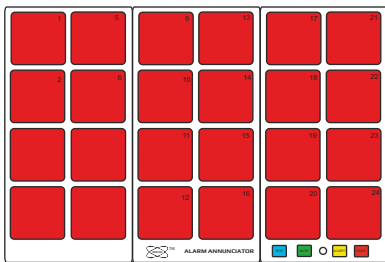


24 Window / Point Alarm Annunciator

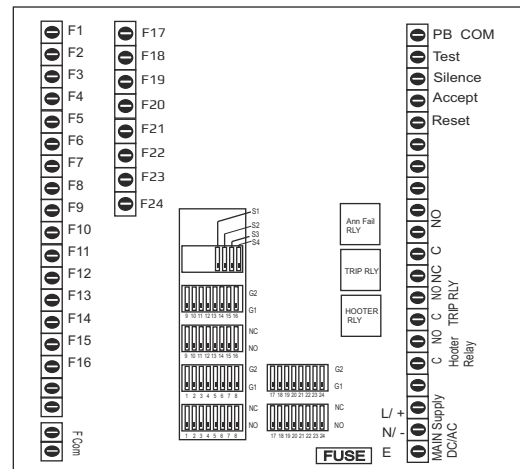


PRO24-3D

Front View



Terminal diagram



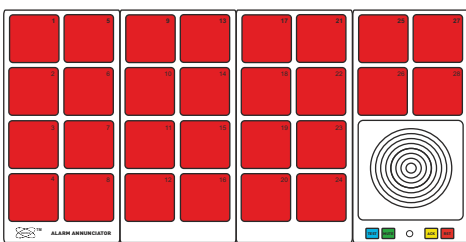
Cutout Dimension : 208 mm (W) x 138 mm (H)
 Overall Dimension : 216 mm (W) x 144 mm (H) x 140 mm (D)

28 Window / Point Alarm Annunciator

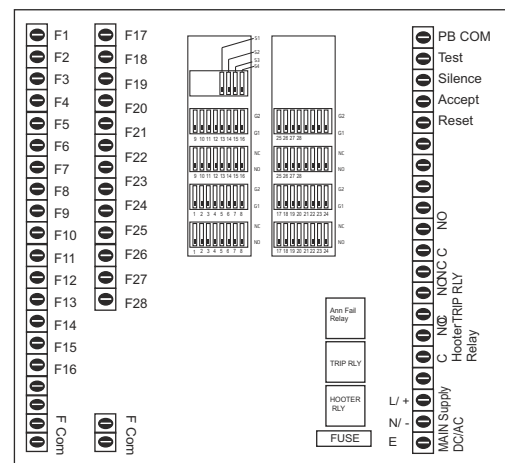


PRO28-4D-H

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

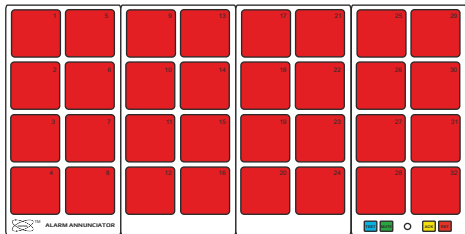


Cutout Dimension : 280 mm (W) x 138 mm (H)
 Overall Dimension : 288 mm (W) x 144 mm (H) x 140 mm (D)

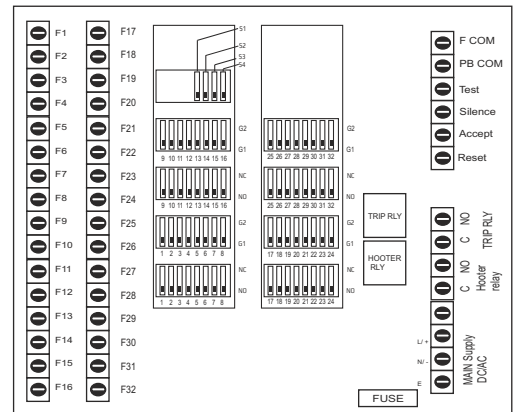
32 Window / Point Alarm Annunciator

PRO32-4D

Front View



Terminal diagram

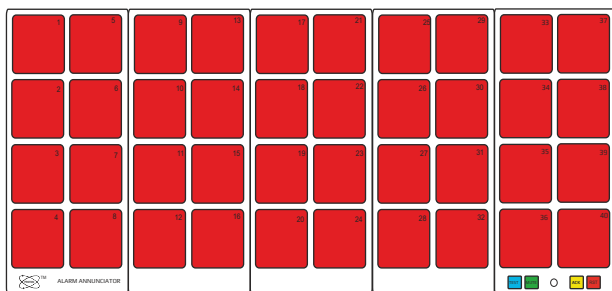


Cutout Dimension : 280 mm (W) x 138 mm (H)
Overall Dimension : 288 mm (W) x 144 mm (H) x 140 mm (D)

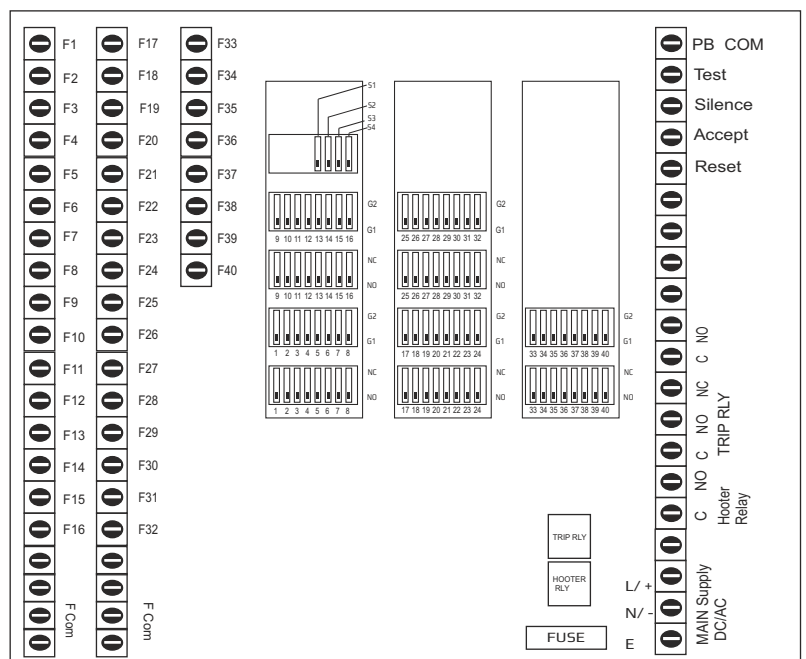
40 Window / Point Alarm Annunciator

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)

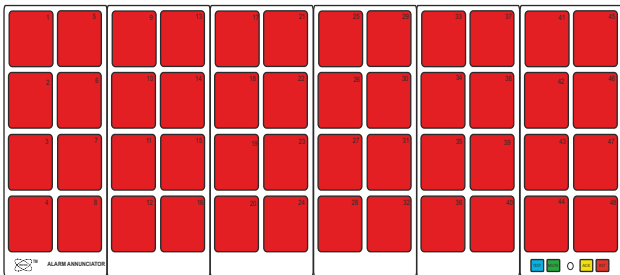
F : Fault input
G : Group
S1 : Sequence
S2 : Sequence
S3 : Sequence
S4 : Sequence
NO : Normally Open Fault
NC : Normally Close Fault
F COM : Fault Input common
PB COM : Push Button Common

48 Window / Point Alarm Annunciator

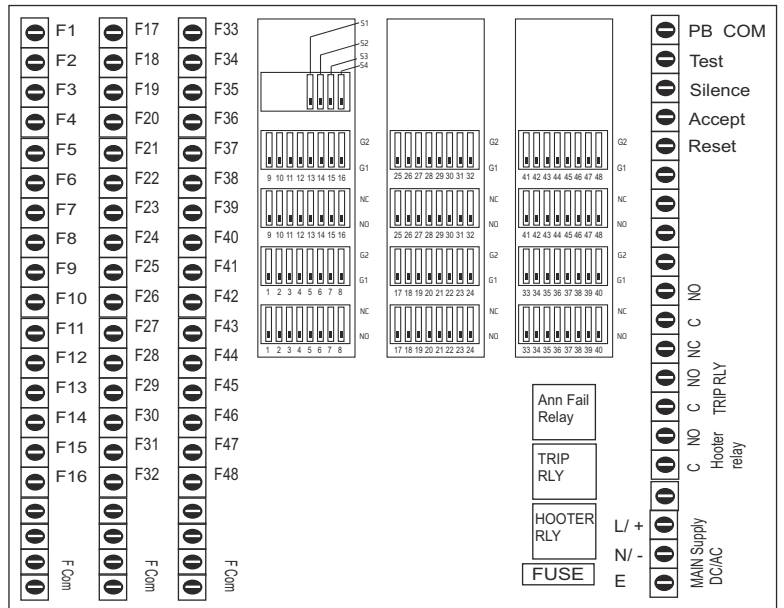


PRO48-6D

Front View



Terminal diagram



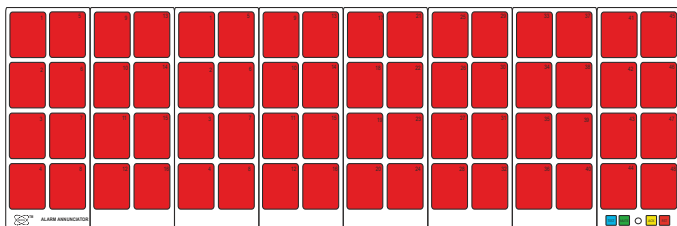
Cutout Dimension : 414 mm (W) x 138 mm (H)
Overall Dimension : 422 mm (W) x 144 mm (H) x 140 mm (D)

64 Window / Point Alarm Annunciator

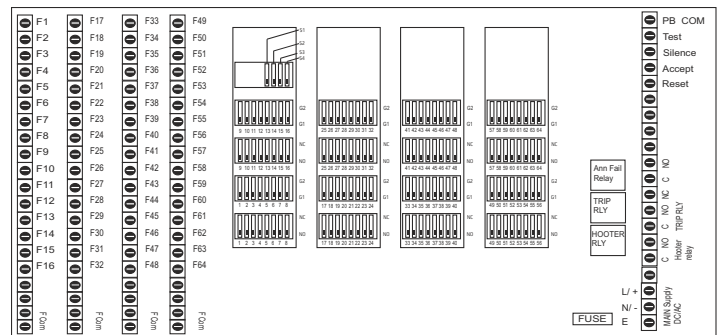


PRO64-8D

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)

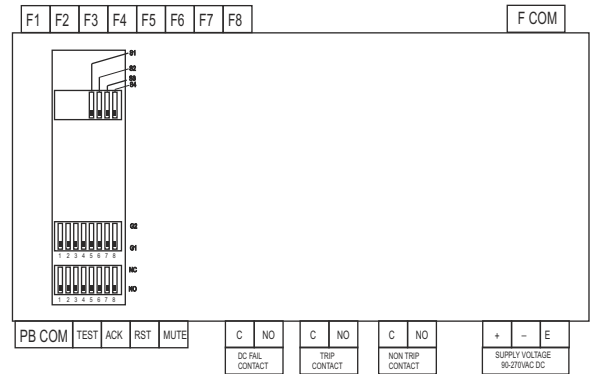
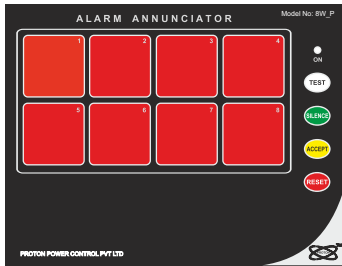
F : Fault input
G : Group
S1 : Sequence
S2 : Sequence
S3 : Sequence
S4 : Sequence
NO : Normally Open Fault
NC : Normally Close Fault
F COM : Fault Input common
PB COM : Push Button Common



8 Window / Point Alarm Annunciator



8W_P

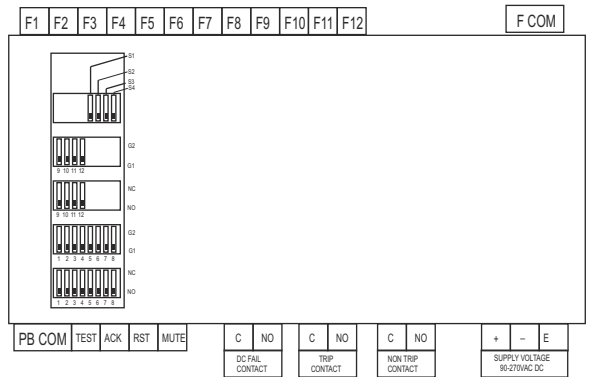
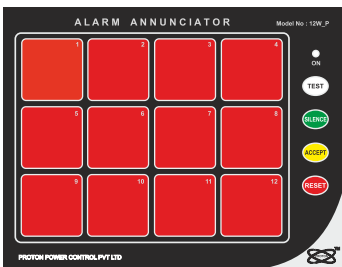


Window Size : 40 mm (W) x 40 mm (H)
 Cutout Dimension : 202 mm (W) x 152 mm (H)
 Overall Dimension : 215 mm (W) x 165 mm (H) x 80 mm (D)

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)

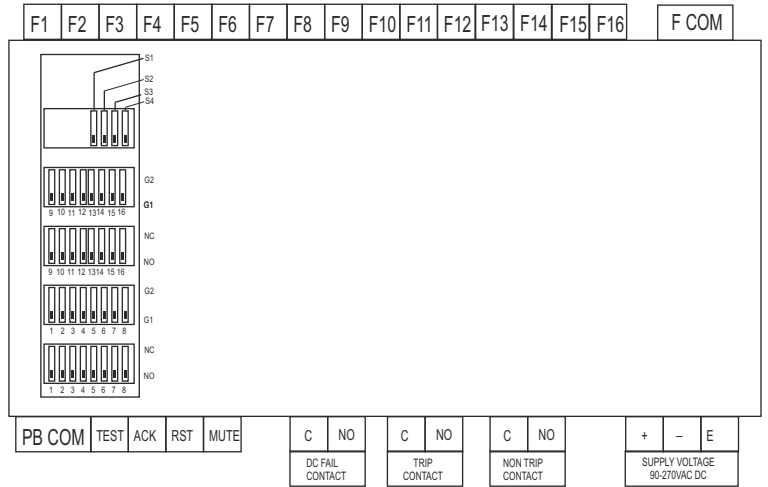
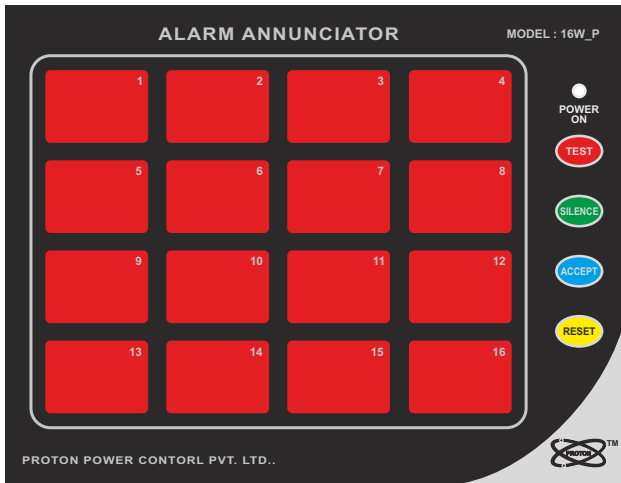
F : Fault input
 G : Group
 S1 : Sequence
 S2 : Sequence
 S3 : Sequence
 S4 : Sequence
 NO : Normally Open Fault
 NC : Normally Close Fault
 F COM : Fault Input common
 PB COM : Push Button Common



16 Window / Point Alarm Annunciator



16W_P

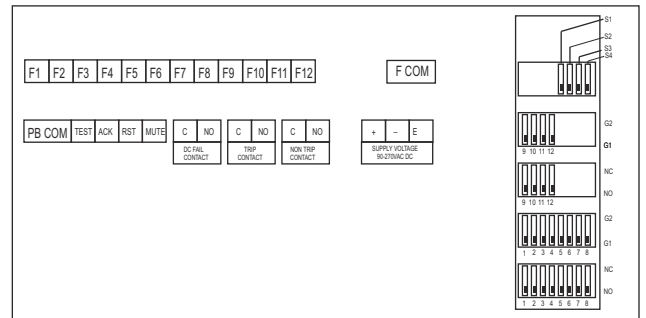


Window Size : 35 mm (W) x 25 mm (H)
 Cutout Dimension : 202 mm (W) x 152 mm (H)
 Overall Dimension : 215 mm (W) x 165 mm (H) x 80 mm (D)

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)

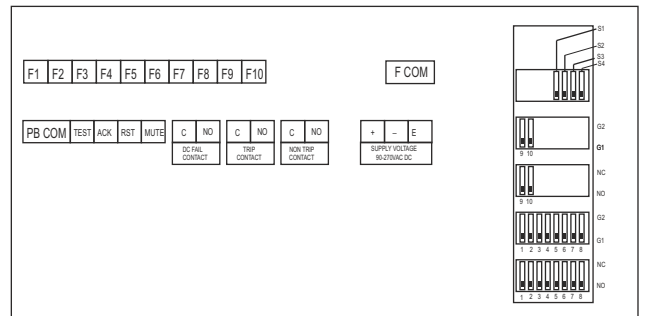
F : Fault input
 G : Group
 S1 : Sequence
 S2 : Sequence
 S3 : Sequence
 S4 : Sequence
 NO : Normally Open Fault
 NC : Normally Close Fault
 F COM : Fault Input common
 PB COM : Push Button Common



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, Sugar 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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 E mail : sales@protonpowercontrol.com
 response@protonelectronic.com

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