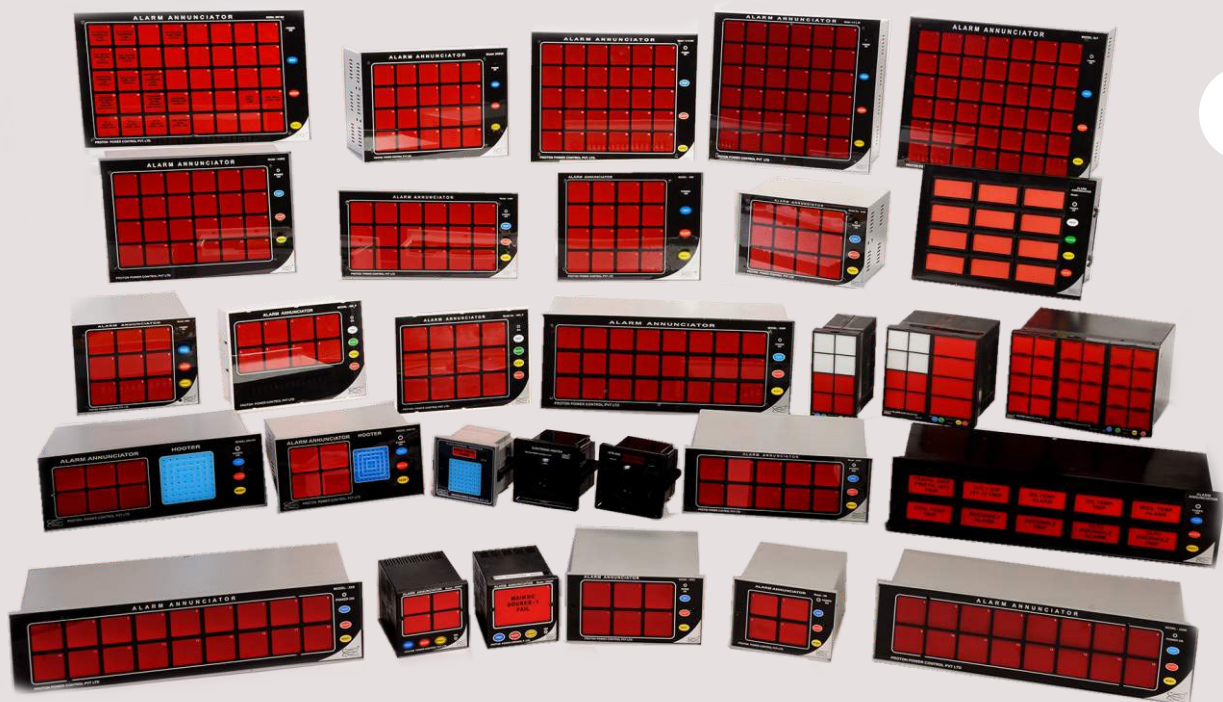


A ISO:9001-2008 CERTIFIED COMPANY

PROTON POWER CONTROL PVT.LTD.

# PRODUCT CATALOG

## ALARM ANNUNCIATOR



Providing excellence with  
Latest technology | Customized solution | Timely delivery

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

## Optional features

Prompt detection and rectification of any system failure or mal-operation is of vital importance for any power or process plant. PROTON Alarm Annunciators continuously monitor the various process parameters and equipment status in power- displayed at centralised control room or on control panel. PROTON Annunciators stand for Instant alarming of any protect the valuable equipments. PROTON Annunciators ensure a comprehensive service reliability and thus provide a comprehensive service to the industry for monitoring, alarm and control of process plant parameters. These highly advanced and compact systems use the latest single chip micro-computer technology for its design and offer multipoint annunciation with operating sequences as per prevailing standards and with many optional features as indicated aside.

### 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 ultimate 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 input, 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 polarized connectors for easy servicing.

Rugged M.S. 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.

Multicoloured inscription plate for easy differentiation of trip and non-Trip fault annunciations

Site selectable facility for grouping of Trip and Non-Trip faults or Trip and Alarm

faults for visual and audio discrimination thro two separate output relay contacts.

Extra relay output contact per channel for repeat annunciations.

Actuated thro' LIVE fault input contacts (AC or DC voltage directly can be given.)

Provision for Dual (AC & DC) power supply with automatic changeover with A.C. fail or D.C. fail annunciation

Computer interfaces with 485 Modbus ASCII protocol.

Output connections for remote Test, Accept and Reset operations.

Choice for in-built Hooter with 4 or 6 window model.

Partly POTENTIAL FREE and partly LIVE fault input contacts can be given in one single unit.

Choice of different window sizes 40x80 or 25x30 or 15x40mm.

LCD Annunciation module attachment with Real Time Clock.

### Technical Specifications

Supply voltage	: 1) 90-270 AC/ DC SMPS 2) 24V/48V DC +/-20%
No. of windows	: 4 to 64 windows available in different configuration (Refer chart)
No. of LED's per window	: Super bright 9 LED's in three rows
power consumption	: 0.8VA per window :
scan time	: 60 ms
Response time	: 10 ms
Flash rate	: 50 Flashes/ min - Fast Flashing of relay, micro switch or aux. contact of contactor (Potential contact on request)
Interrogation voltage	: 5 V DC and 12 V DC
Fault Input connection	: NO or NC site selectable potential free contacts of relay, micro switch or aux. contact of contactor (Potential contacts on request)
Output connections	: For remote Test, Accept & Reset Operations on specific demand
Output relay contact	: Potential free contact for external Hooter, Bell or Ring Back Alarm
Output contact rating	: 5 Amps at 230 V AC or 1 Amp, at 415 V AC
Noise immunity	: 2.5 KV as per IS 8686 Refer type test chart.
Impulse test	: 5 KV as per IS 8686
Environmental test	: As per IS 9000
Standard 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	: 40x40 mm.
Legends	: Photofilm (positive or negative)
Push button controls	: For Test, Accept & Reset functions
Overall size & cutout dimensions	: Refer chart.



### Standard sizes of 'PROTON' Annunciators

No. of Window Depth	Window Placement	Cutout	Bezel	Type tests as per various standards conducted on 'PROTON' Annunciator unit		
	Placement Row X Column	Dimension W X H	Dimension W X H	Electrical Tests		
				Test	Description	Reference
160	4	2X2	92X92	96X96	High voltage surge Susceptibility test 1974	2 KV AC (RMS) for 1 min. or 2.5 KV for 1 sec. IEC - 255-4, I E E E 4 7 2 - 1974
160	4	2x2	125x92	135x102	Impulse voltage withstand test	5 KV Impulse at all i/p and o/p points IS 3231
160	6	1x6	285x65	305x78	High voltage high frequency disturbance (Noise) test	Longitudinal (2.5 KV) Transverse (1 KV) IEC-61010 IEC-61000-4-12
160	6	2x3	172x92	180x102	Mains supply variation	+10% - 15% Mfr's test
160	8	1x8	365x65	388x78	Environmental Tests	
160	8	2x4	212x92	220x102	Dry Heat test	60 Hrs. at 70°C IS 9000/II/77
160	9	3x3	172x138	190x155	Burn in test in energised condition	90 Hrs. at 70°C IS 9000/77
160	10	2x5	247x92	265x105	Damp Heat test	72 Hrs. at 55°C at 95% R.H. IS 9000/IV/79
160	12	2x6	285x92	313x112	Cold test	-25oc for 48 Hrs. IS 9000
160	12	3x4	212x138	220x155	Bump test 9000/VII/64	1000 Bumps/axes @ 3 bumps/sec. I 5
160	16	2x8	360x92	395x114	Application Areas	
160	16	4x4	225x175	244x194	Thermal power stations and sub-stations of	
160	18	3x6	278x138	300x155		
160	20	4x5	258x190	280x210		
160	24	3x8	375x145	390x160		

### Operating Sequences Chart

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

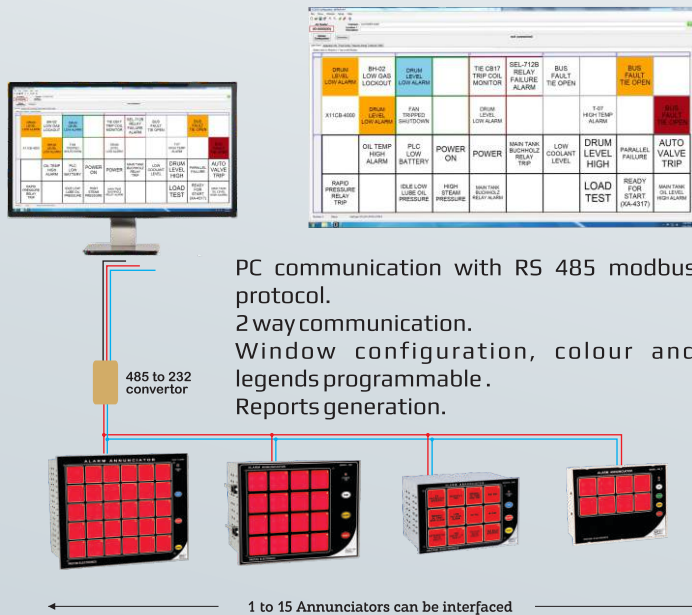
(I) - Initial Fault

(S) - Subsequent Fault

Other sequences available on specific demand



## Annunciation with Computer Interfacing



Ordering Specifications  
No. of windows and window configuration.

Supply voltage.

NO or NC fault input contacts.

Potential free or LIVE fault input contacts.

In case of LIVE fault inputs, the details of fault common connection.

Operating sequence.

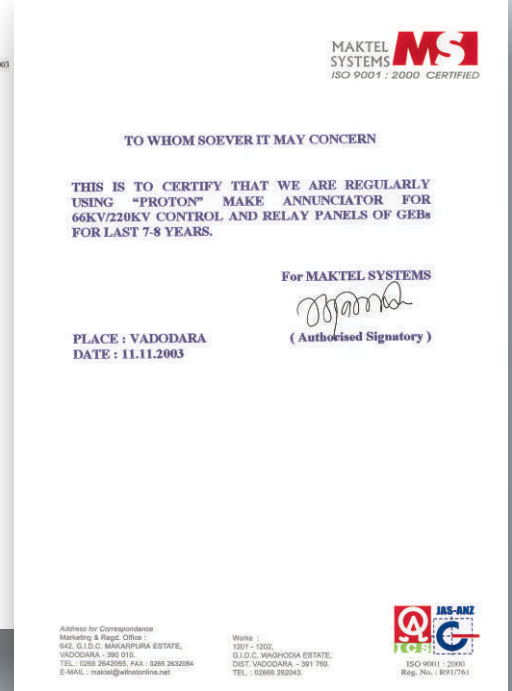
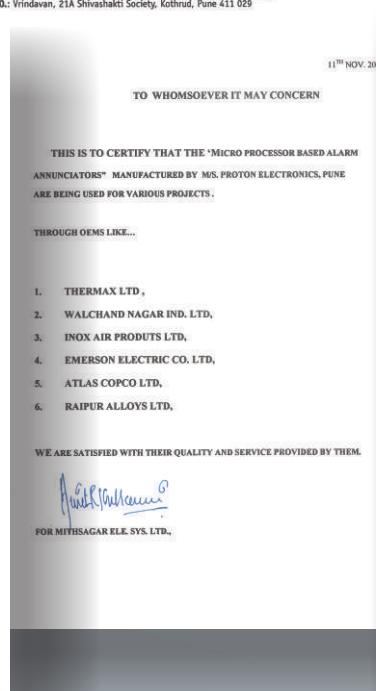
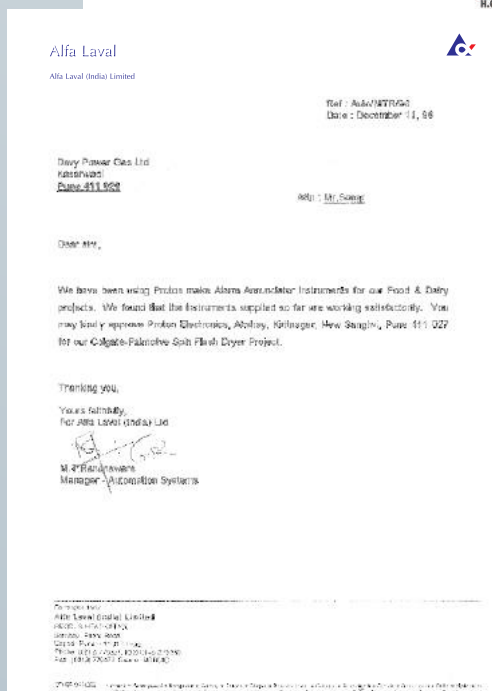
Grouping of trip & non trip faults and required relay output contacts for the same.



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