



# **ALARM ANNUNCIATORS**

#### Introduction

Since 1972, GIC has lead the way in designing and manufacturing of electronic control and automation products. Based on the same Ideology, GIC introduces Alarm Annunciators with the most advanced features. With increasing automation at every stage in a process control system, our Alarm Annunciators would play a vital role in immediate fault recognition by providing instant visual and audible alarms to protect valuable equipments. Our innovative design will provide exceptional flexibility and reliability in diverse fields like – Power Generation & Distribution, Oil & Gas, Fire monitoring systems & various other process industries.

However simple or complex your alarm requirement, our Alarm Annunciators will provide the most cost effective solution. We have a range of three window sizes in six colors with ultra-bright white LED illumination which will match your exact requirements. Units can be constructed from a dual window to a maximum of 32 windows by connecting up to 3 extension units.

Window programming is carried out from the front of the unit using the integral pushbuttons and device programming is done by DIP switches on the back of the unit which allow changes to be made easily during commissioning or at a later date after the equipment has been installed.

The base unit is supplied with four output relays – 1 for external hooter, 2 group relay outputs and 1 for ring back sequence function. Access for normal maintenance, window changes, legend/filter changes and programming is accomplished from the front of the panel without the use of special tools. The assembled unit is field programmable allowing the user to enable a number of predefined features to control the operation of the annunciator with regards to alarm sequence, internal buzzer, common alarm groups and modbus.

#### Features

- Expandable from 2 to 32 windows with maximum 3 extension units.
- 6 window colors Red, Yellow, Blue, Green, Amber, White
- 32 optoisolated inputs
- Normally open / closed input contacts
- Wide fault input voltage range (12V 265V AC/DC)
- Depth of only 100mm
- Master unit with 4 push button inputs (test, ack, mute, reset)
- Four 1C/O relay outputs (2 for grouping, 1 for external hooter, 1 for ringback sequence)
- No lamp maintenance required
- Low power consumption of 0.5 W per window
- 6 pre-selectable sequences: ISA A, ISA M, ISA R, ISA F2M1, ISA F2A-1, ISA A4
- Audible Output of 70dB
- Modbus Communication

#### **Working Principle**

Whenever there is a change of input contacts from Normally Open to Close or from Normally Close to Open position, annunciator changes from rest condition to alarm condition.

Hence there is an immediate recognition of fault input which will have a corresponding visual and audio alarm as per the particular selected program sequence.

The base unit of alarm annunciator has four programmable keys for Mute, Acknowledge, Reset & Test function. On pressing the Mute key the internal buzzer can be deactivated. Acknowledge key is used to accept the fault condition, Reset key enables to reset the alarm annunciator to its default state and Test key helps to perform the complete test of the system.

# **Construction Details**





# Components

1	Window	6	DIP switch for Device ID & Sequence Selection
2	Legend	7	Fuse
3	Diffusor	8	DIP switch for NO/NC & Group Selection
4	Window Housing	9	Ribbon Cable for Cascading Extension Blocks
5	LED with Reflector	10	Housing Lock

### **Technical Specifications**

Parameters	
Supply Voltage	90V - 270 V AC/DC
Supply Variation	±10%
Frequency	47 - 63 Hz
Power Consumption	0.5 W per window
Terminals	Plug-in terminal block
Line Fuse	Replaceable Slow-Blown
Windows	Ranging from 2 to 32 windows (configurable using DIP switches)
Display Device	Low power, super bright white LED
Illumination face	28 x 31 mm, 28 x 66 mm, 60 x 66 mm
Lens	28 x 31 mm, 28 x 66 mm, 60 x 66 mm
Engraving Area	26 x 29 mm, 26 x 64 mm, 58 x 64 mm
Facia Type	Individual Windows / Front Replaceable
Window bezel colours	Red, Yellow, Blue, Green, Amber, White
Flash Rate	Fast Flashing = 0.5sec On – 0.5sec Off, Slow Flashing = 0.5sec On – 1.5sec Off
Scan Time	50ms
Input Signal	Potential free contacts (NO or NC site selectable)
Fault Input Voltage	12V - 265V AC/DC (±10%)
Output Contacts	4 C/O (SPDT)
Contact Rating	5A (For 'NO') & 3A (For 'NC')
Operational Sequence	As per standard ISA – 18.1 (Configurable on site) 1] Manual Reset (M) 2] Auto Reset (A) 3] Ring Back (R) 4] Manual reset first out with no subsequent alarm flashing and silence push button (F2M-1) 5] Auto reset first out with no subsequent alarm flashing and silence push button (F2A-1) 6] Auto Reset with No Lock (A-4)
Operating Temperature	-10°C to +55°C
Storage Temperature	-15°C to +60°C
Communication Port	RS 485 communication with Modbus RTU
Certification	

## **Mounting Dimensions (mm)**









# General Industrial Controls Private Limited

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