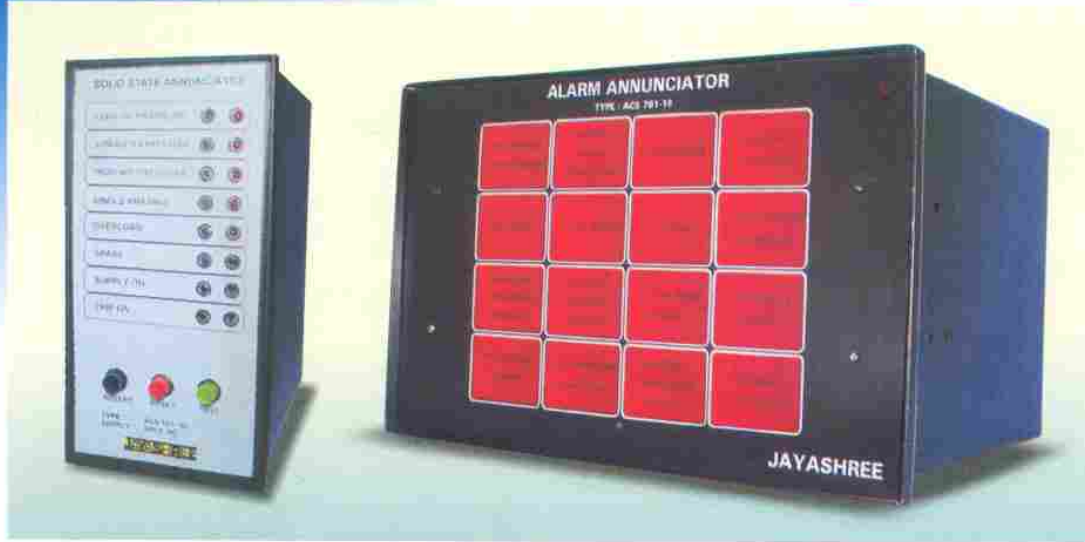


# Annunciation & Control System



## INTRODUCTION

With increasing automation at every stage in a process control system, the Alarm Annunciators play a vital role. Alarm Annunciator is a unit which faithfully indicates (with visual & audible alarm) status of various field devices such as sensors, switches, instrument outputs etc. at a remote place to call attention. The Annunciator units are also useful for monitoring operation of complex equipments such as Compressors, D.G. Set or for monitoring status of different signals in a process control plant at a central control room.

JAYASHREE alarm Annunciators are in service since 1978 for different key applications. The units are available with all latest state-of-the-art technology related to the application.

## APPLICATIONS

- Compressor Plants
- D. G. Sets
- Process Control Plants
- Pharmaceutical Plants
- Thermal Power Stations
- Textiles
- Mobile Power Plants etc.

## FEATURES

The Jayashree Annunciator and Control Systems serve as an Annunciator and also as Control unit. The operating features are as below ;

- Super bright LED windows in different sizes and colours.
- Optical isolation for Input signals.
- Micro-controller based and CMOS discrete IC based reliable circuitry.
- Field selection facility for operating sequence, fault logic.

- Data Logging with MODBUS communication (RS 485 port)
- All ISA operating sequences.
- Available for 12/24/110/240 V AC/DC supply with special SMPS power supply to operate in noisy environment.
- Custom built features such as Initial by-pass delay for specific Inputs, Control action for selective groups.
- Electronic Hooter as an accessory.
- Audible fault messages
- Environmental Compliance as per IS-9000
- Surge & EMC compliance as per IEC 1000-4-4 and IEC 1000-4-5

## CONSTRUCTION

The Annunciator units are available in different enclosures and circuits based on application requirement and the number of channels.

### Series ACS 701

These units are based on Discrete CMOS IC's and are available from 4-channels (windows) to 12-channels. The visual display is either Twin-Dot LED type or conventional twin bulb type. The units are suitable for flush mounting on panel front and are available in standard DIN type enclosures. Push buttons for Accept, Test, Reset are provided on panel front. One "NO" output contact each for hooter and control is provided on terminals.

### Series MCS 761

These units are based on latest Micro-controllers and are available from 8-channels up to 64 channels. The visual display is either 30 x 30 or 55 x 40 size bright LED window. These units are available in MS fabricated enclosures for mounting on panel front with PCB type terminals on rear side. The Accept, Test, Reset commands are provided on terminals for external control.

All enclosures have IP-30 grade of protection, however the input/output terminals are exposed i.e. IP-00 grade.

## STANDARD OPERATING SEQUENCE

Various options of standard ISA Annunciation sequences are available. Details of one particular sequence are given in the table below.

**Sequence Type - ACMR with Alarm Relay, Control Relay**

Fault (signal) Status	Action	Window	Alarm Relay	Control Relay
Healthy (NC)	----	OFF	OFF	ON
Faulty (Open)	----	Flashing	ON	OFF
Faulty (Open)	Accept	Steady	OFF	OFF
Return to Normal	Reset	Steady	OFF	OFF
Return to Normal	----	OFF	OFF	ON
Healthy	Test	Flashing	ON	ON

ACS 701 are supplied with one specific sequence of operation.

For MCS 761 the sequence is selectable at site from three standard sequence.

## STANDARD SPECIFICATIONS

Supply Voltage : 24 to 240 V AC/DC

Fault Input : Potential free NO/NC or Analog voltage signal

Display : Bright LED Window / Twin LED / Twin Bulb

Output Contacts : 2 NO (1 NO each for control & Alarm)

Power : 6 A resistive at 240 V AC

## OPTIONAL FEATURES

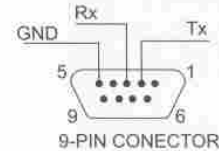
- Mode / sequence selection through DIP switches
- RS-485 Communication Port
- MODBUS Data Acquisition System
- Built-in hooter
- Windows in different LED colours

## MODBUS DATA ACQUISITION SYSTEM

Data Communication between various field mounted Annunciator units and a central PC is provided for series MCS 761 units. Standard 'MODBUS' protocol is used for accessing data from maximum 32 units at the remote places. A special software with attractive individual front fascias designed as per individual system requirement is available.

## RS-485 COMMUNICATION

Option of RS-485 communication is available for Annunciators Series MCS 761 for Data communication with PC. The connection details are shown below.



## ACCESSORIES

Standard Annunciators are supplied with output contacts for external hooter alarm device or a built-in or spare hooter and Remote push button station are provided against specific request.

## SPECIAL MODELS

Annunciator systems for hazardous area applications are supplied in FLP enclosures with Display windows integrated with the enclosure. Contact our works for further details.

## STANDARD DIMENSIONS

No. of channels	ACS 701 *			MCS 761 **		
	W	H	D	W	H	D
6	92	192	160	----	----	----
8	144	144	160	144	144	160
12	196	150	220	196	196	180
16	----	----	----	216	394	250
24	----	----	----	216	394	250
30	----	----	----	408	260	235

\* For individual window size of 30 x 30

\*\* For individual window size of 55 x 40

## OTHER PRODUCTS

- ◆ Digital Counters
- ◆ Indicators
- ◆ Ultrasonic Level Sensors
- ◆ Transducers

## ORDERING INFORMATION

1. Number of Points
2. Enclosure Dimensions
3. Initiating Contact : Whether open to fault (NC) closed to fault (NO) or logic signals (Specify sinking/sourcing characteristics)
4. Control Supply voltage
5. Desired Operation Sequence
6. Display window type
7. Legend inscription details
8. Type of legends - Normally visible/invisible (In case of LED window only)
9. Ambient conditions & optional features

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