# **PROGRAMMABLE ALARM ANNUNCIATOR**

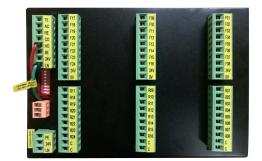


# **Application**

- Extension of several inputs and outputs of the Alarm System.
- Extension of the number of signal duplicating relays for SCADA, RTU, or DCS system
- Central process connection for MODBUS system.

### Communication Interface

• MODBUS RTU





# **Description**

The MEEKA-AN Alarm System, developed from the fieldproven. MEEKA-AN range of alarm annunciators provides the user with the best combination of flexibility and reliability. The MEEKA-AN is designed as a complete alarm system with integral redundant supplies, audible, relays, and pushbuttons for the most cost-effective solution for monitoring critical process alarms.

The programmable alarm sequence, signal duplicating relays, dual horn relays, lamp, and power supply of MEEKA-AN are an ideal choice for all industrial sectors.

# FEATURES & BENEFITS

### Various Sizes

Various sizes are available from 16 to 64 alarm points.

Dimensions are as follows:

Layout size (16 to 64 alarm)

- Height: 143 mm
- Wide: 30 x n + 25 mm
- Deep: 170 mm

Cutout size (16 to 64 alarms)

- Height: 130 mm
- Wide: 30 x n + 10 mm

#### Fully Field Programmable

The flexible design allows the selection of a range of features and a choice of operational alarm sequences, which are compliant with ISA S18.1 1979. Alarms can be set to operate from either a normally open or a normally closed volt-free signal contact.

### Connections

All connections are made on the rear of the unit using two-part quick disconnect rising clamp terminals accepting up to 12 AWG (2.5mm2) wire.

#### Inputs

All inputs are optically coupled and comply with the stringent requirements of the European Electromagnetic Compatibility and Low Voltage directives. The standard input voltage is 24VDC.

#### Common Outputs

As standard, each unit is fitted with three common relays: Critical Audible Relay, Non-Critical Audible Relay, and Common Alarm Relay. The common alarm relay is equipped with a reflash feature to indicate the occurrence of a new alarm within the unit

#### Auxiliary Relay

Each channel is equipped with an integral relay facility, typically used to initiate inputs to third-party devices such as RTU, SCADA, or DCS systems.

# Integral Redundant Supplies

To maintain the highest level of safety-critical reliability in models applications, all are equipped with integrated dual power supplies. The standard unit is equipped with one fully isolated universal input supply, each capable of accepting either 110-250VAC/VDC. As an option, the secondary supply can be suitable for 24VDC if specified at the time of order.

#### Configure alarm way (Horn, Bell)

All alarm ways are configured by pushbutton controls Test, Accept, Reset, and input Configure (input Configure connect to customer terminal or Configure pushbutton)

To enter configure setup alarm ways, press and hold the pushbutton ACCEPT first and active input CONFIG together for 5 seconds (see connection diagram)

The lamp panel will light steady and the lamp first is light flashing. Parameter number 01 is selected.

Press the pushbutton ACCEPT to configure the alarm way (Horn, Bell)

- + Default is Horn
- + One pressing is Bell
- + Two pressings are Horn and Bell
- + Three pressings is no Horn, no Bell

+ Four pressings are returned Horn

Press the pushbutton TEST as function DOWN and RESET as function UP to change other alarm ways that are needed to configure.

To exit setup with store configure, press and hold the pushbutton ACCEPT first and active input CONFIG together for 3 seconds.

To exit setup without store configure, active only input CONFIG.

#### Power Auto Accept Timer

In unmanned applications it is common to have an automatic accept facility after a pre-set time, typically one minute; this is a standard feature on the MEEKA-AN.

Horn and Bell output are fitted as standard and each pair of alarm ways can be selected to operate either a critical or non-critical integrally mounted horn output. In substation applications, it is common for one extension relay to be used to operate the externally mounted station Horn and the second extension relay to be used to operate the externally mounted Bell. Input response station standard, the input response is set to 2ms for optimum performance, however, this delay is user programmable and can be reduced or extended to suit the exact site conditions.

#### **Pushbutton Controls**

Integral pushbuttons are provided for Test, Accept, Reset, and Configure (if any) which control the operation of the standard alarms within the instrument. The two power failure alarms have their pushbutton control lines wired to Customer terminals for connection to remote Functional Test, Accept and Reset

#### Order code

#### MEEKA-AN-Vnn-ppp-xx-c

#### MEEKA-AN:

programmable alarm annunciator

#### - Vnn: version of MEEKA-AN

- ppp: power supply
  - 024: 24Vdc
  - 110: 110Vdc
  - 220: 220Vdc

#### - xx: number of alarm ways

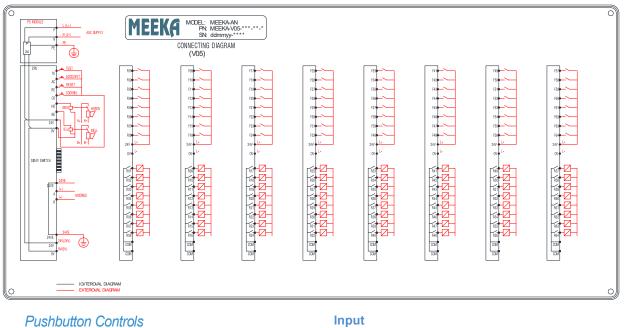
- 08	- 16	- 24	- 32
- 40	- 48	- 56	- 64

- c: communication interfaces

- N: None
- R: Repeated relay
- M: Modbus RTU
- Example:

MEEKA-AN-V02-220-32-R

# **CONNECTIONS DIAGRAM**



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	TEST	: Test – tiếp điểm NO			
	ACCEPT	: Accept – tiếp điểm NO			
	RESET	: Reset – tiếp điểm NO			
	CONFIG	: Configure (if any) – NO contact			
	LP (24VDC)	: Power com + (24VDC)			
Test-Accept- Reset-Configure					

#### **Alarm output**

HORN: Horn (24VDC) – Trip signal BELL: Bell (24VDC) – Alarm signal LN (0VDC) : Power com 0VDC

#### **Communication interface**

PE: Earthing for communication MOD (+) / (-) : Modbus

#### Power supply 24Vdc

ΡE : Earthing LP-LN : 24VDC

# **CONNECTING**

#### **Push buttons**

ACCEPT RESET CONFIG	: Test – NO contact : Accept – NO contact : Reset – NO contact : Configure (if any) – NO contact : common point of push buttons Test-Accept- Reset-Configure				
Alarm devices					
	: Horn (24Vdc) – for Trip signals				
	: Bell (24Vdc) – for Alarm signals				
LN(0Vdc)	: Horn-Bell common point				
Communication Interface					
	: Canbus protocol interface				
	: Earthing				
MOD (+) / (-)	: Modbus protocol interface				
Output 24Vdc					
PE	: Earthing				
LP-LN	: 24Vdc				

F01 to F64 : Input signals – NO contacts LP (24Vdc) : COM contact 24VDC+

**Repeat relay** R01 to R64 : NO contact

#### Aux power supply

P-N : 110VDC/ 220VDC/24VDC PE: Earthing

#### **Input signals**

F01 to F64 LP (24Vdc)	: Input signals – NO contacts : common point of input signals					
Output signals						
L01 to L64 LN(0Vdc)	: Display windows 01-64 (24Vdc) : common point of display windows					
Repeat signals						
R01 to R64	: repeated NO contacts	input	signals			
COM	: common point NO contacts					
Power Supply						
P-N	: 110Vdc or 220Vdc					
PE	: Earthing					