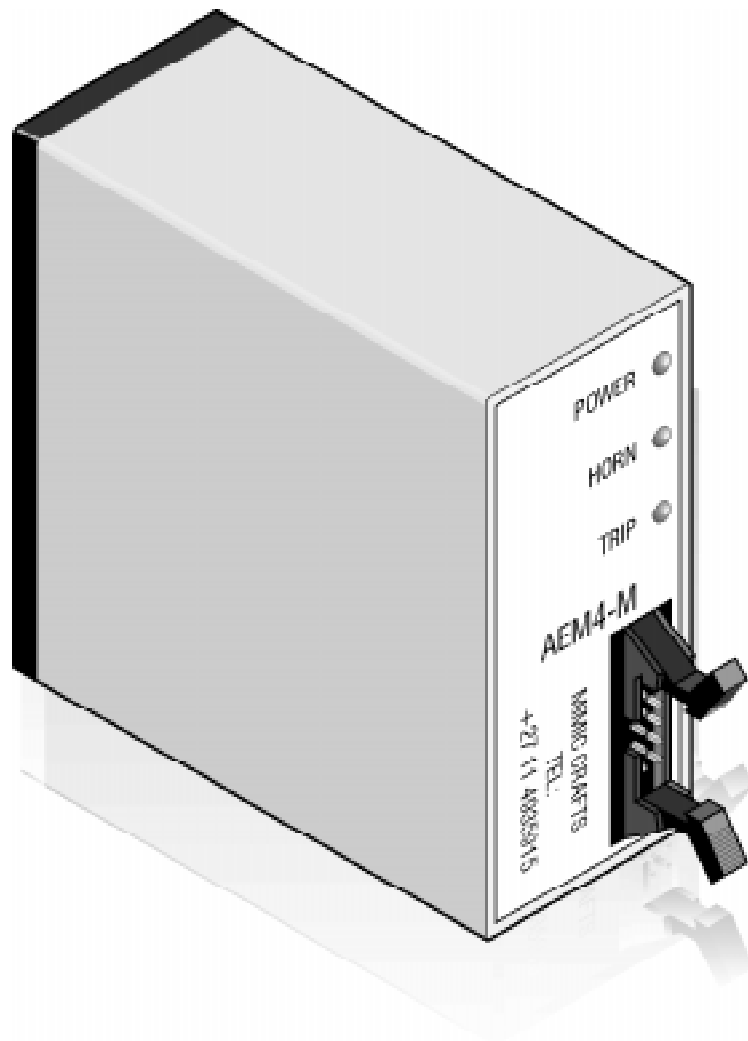


AEM4

MICRO CONTROLLER BASED ALARM ANNUNCIATOR SYSTEM



AEM4 ALARM ANNUNCIATOR SPECIFICATION & INSTALLATION MANUAL

General description:

The Aem4 micro controller based alarm annunciator system was designed for use as an industrial rail mount alarm system. This modular system comprises of 11Pin plug-in modules which wire directly to the field. The system comprises of a master unit which consists of the user pushbutton inputs and supply inputs as well as potential free contacts for the horn and trip functions. The slave units consist of 4way alarm modules with field inputs and display outputs.

One master unit can drive up to 16 slave units, thus expanding the alarm unit to a 64 way(maximum) alarm.

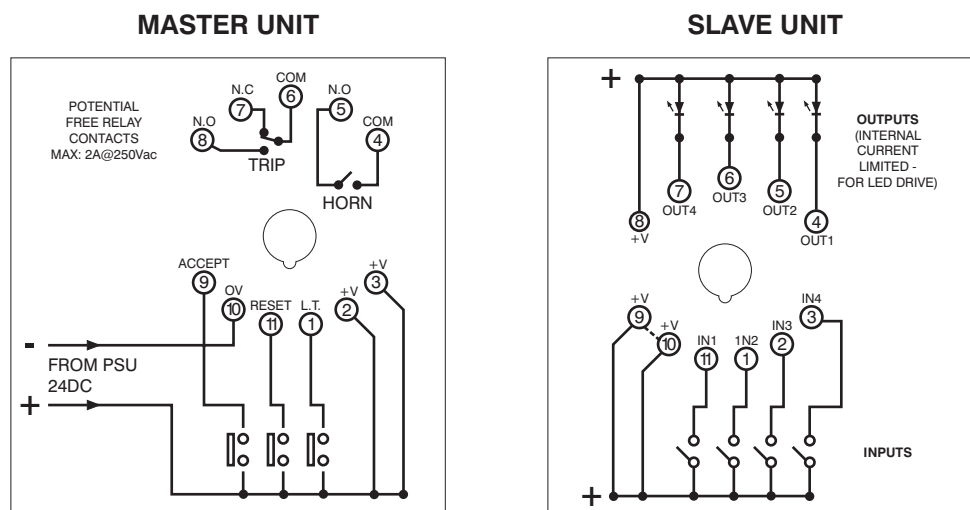
Main Functions:

- Each inputs provides for normally open or normally closed alarms via a basemounted dip-switch.
- Each unit provides for normally on (inverse) led drive e.g. For use as Mains On alarms etc.
- This is an internal jumper setting.
- All slave modules have dip-switch settings for the following control options: First on fast flash / Manual or Auto reset / Ringback / and input fast or slow response time.
- The system is modular expandable - up to 32 slave units.
- All connections are via standard 11PIN relay bases.
- The units are interconnected via a standard 10-way ribbon system.
- The master unit has pushbutton facilities for Lamp Test / Accept / Reset inputs as well as potential free relay contacts for Horn and Trip outputs.

Installation instructions:

- Mount 11 pin bases on Din rail and wire to inputs/outputs as per Fig 1.
- Set the slave units dip-switches to the required settings as per Fig 2.
- Plug modules into respective bases ensuring that the Master unit is in the correct position.
- Connect all modules via 10 way ribbon connector.
- Apply 24Vdc to the system.
- Test each circuit for correct functioning and make corrections as required.

NOTE: Remove power to the system before unplugging or re-plugging modules. This ensures that all modules are synchronized with the master clock.



SLAVE DIPSWITCH FUNCTIONS			
No.	FUNCTION	OFF	ON
1	INPUT 1 POLARITY	N.O.	N.C.
2	INPUT 2 POLARITY	N.O.	N.C.
3	INPUT 3 POLARITY	N.O.	N.C.
4	INPUT 4 POLARITY	N.O.	N.C.
5	FIRST ON FAST FLASH	N.A.	Activate
6	AUTO/MANUAL RESET	Manual	Auto
7	RINGBACK	N.A.	Active
8	INPUT RESPONSE TIME	5mS	0.5 Sec.
	N.O. = Normally Open		
	N.C. = Normally Closed		
	N.A. = Not Active		

FUNCTIONS DESCRIPTION

Dip-switch functions:

Normally Open/normally closed:

Normally open alarm is activated when a positive input is present.

Normally closed: alarm is activated when the positive input is not present.

First on fast flash: The first alarm received flashes faster than the alarms that follow. This function works in groups of four for each alarm slave unit.

Auto/manual:

Auto: Momentary (fleeting) alarms, Leds flash . Horn is silenced with Accept pushbutton, lamps go to steady. The alarm auto resets when inputs return to normal state:

Manual: Momentary (fleeting) alarms, Leds flash. Horn is silenced with Accept pushbutton, lamps go to steady. The alarms will only reset when the Reset pushbutton is pressed and the inputs have returned to the normal state.

Ringback: The ringback option will sound the horn for one second each time an alarm returns to the normal state. I.e. after Accepting alarms in the Auto reset state or manually resetting alarms.

Input response time: This setting allows for each slave unit's input response time to be set. This allows for fast response on required inputs or ½ second debounce on noisy input lines.

Internal functions: (slave units)

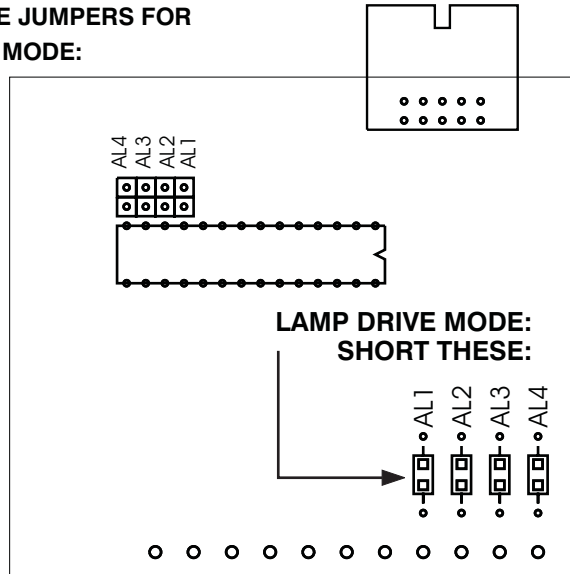
Led invert function: This function allows for the inversion of the lamp output for normally on situations. This allows for alarm inputs where the alarm must be activated when the led goes to the off state. E.g. Mains on lamps etc. The lamp will normally be on and when the input is activated the lamp will start flashing, upon acceptance of the alarm the lamp will be cleared. Once the alarm is returned to the normal state and the alarm unit reset the lamp will return to the normally on state. This function can be selected by removing the internal jumpers as indicated in Fig3.

Lamp driving function: The alarm slave units have internal led current limit resistors for use with leds driven from the 24v of the system. If lamps or other devices requiring more current is to be driven these resistors can be shorted out by bridging the solder pads on the bottom side of the pcb according to Fig3. **NOTE:** If this function is used it must be ensured that the total lamp current for the system does not exceed 2A and that individual lamp currents do not exceed 50mA.

Master unit functions:

Horn: The horn output is activated when a flashing alarm is active. This is silenced when the alarm is accepted. It is also active in the ringback option as described before.

**REMOVE JUMPERS FOR
INVERT MODE:**



Trip: The trip relay is active whenever an alarm is active. This output is only cleared when all alarms are in the normal state.

Specifications:

Power supply:

Supply voltage	24Vdc \pm 10%
Slave current consumption (leds)	80mA (max) / module
Slave current consumption (lamps)	20mA + (4* lamp current)/module
Master unit current consumption	90mA (max)

Alarm inputs:

Input voltage	24Vdc \pm 30%
Input current	7mA @ 24V (max)

Alarm outputs:

Open collector type outputs.	
Max. output current (led mode)	17mA each
Max output current(lamp mode)	50mA each
Total max current	2A (all lamps+leds)

Relay outputs:

Horn relay	SPST
Trip output	SPDT
Contact rating	2A @ 250Vac

We appreciate your feedback.

If you have any feedback regarding this product or any of our products or services, please contact us.

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