



# Omni30 Alarm Annunciator System

Model C1620/1/2/3 Modular Annunciator System.

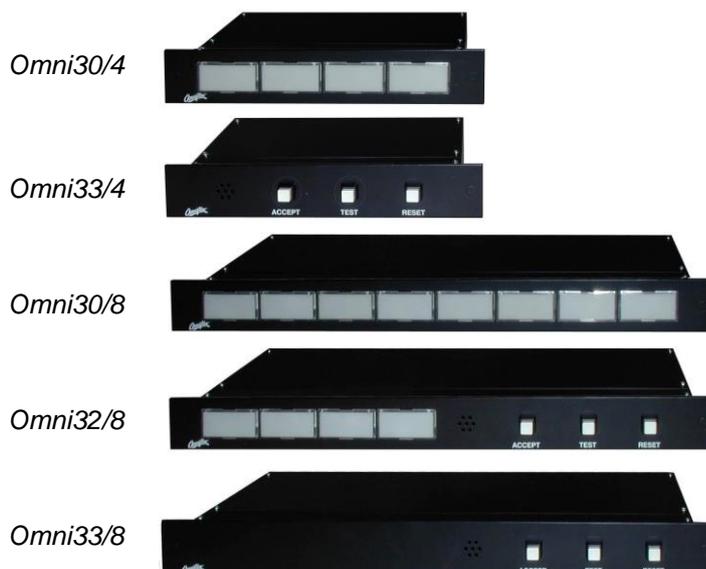
DATASHEET

## Features

- Compatible with "UC30" Series products
- Panel mount or 19" Rack mount
- Expandable up to 128 points
- Plug-in Terminals for easy maintenance
- 27 Standard Alarm Sequences
- Choice of Backlit Lamp or LED Display
- User printed legends on inkjet/laser
- All "DIP" Switches externally accessible
- 24Vdc Powered
- Flash synchronisation between modules
- Optional Serial Port - Modbus compatible

The Omni30 annunciator series is designed as a replacement for the RIS UC30 series products. Based upon the field proven OMNIFLEX Omni16C technology, this product range provides state of the art annunciation to fit existing installations. Available in panel mount or 19-inch Rack mount configurations, the Omni30 series annunciator can be fitted with incandescent lamp or solid state LED displays. These standard modules can be wired together to form an annunciator system of up to 128 points.

Inputs accept potential free contacts and are individually configured for N.O. or N.C. operation by a combination of wiring and externally accessible "DIP" switch. All wiring terminals are plug-in for easy system



maintenance.

Any one of 27 alarm sequences can be selected for each alarm module on the externally accessible DIP switches.

Window legends can be created by the user using a standard Laser or Inkjet Printer using the software template provided.

When wired together as a system, all alarm modules will be flash synchronised, and can share a common set of pushbutton controls.

Test pushbutton acts as combined Lamp Test and Circuit Test.

## SPECIFICATIONS

### Power Supply

Supply Voltage 24Vdc +/-15%

| Consumption: | Quiescent | Lamps On  | LED's ON  |
|--------------|-----------|-----------|-----------|
| Omni30/8     | 150mA max | 1A max    | 500mA max |
| Omni32/8     | 150mA max | 500mA max | 250mA max |
| Omni33/8     | 50mA max  | -         | -         |
| Omni30/4     | 150mA max | 500mA max | 250mA max |
| Omni33/4     | 50mA max  | -         | -         |

Note: "Lamps On" = Unit fitted with incandescent Lamps all illuminated  
"LEDs On" = Unit fitted with LED's all illuminated

### Alarm Inputs

Normally Closed Inputs: Wired to Common positive supply

Normally Open Inputs: Wired to Common negative supply

| Quantity: |                       |
|-----------|-----------------------|
| Omni30/4  | 4 Inputs/Alarm Points |
| Omni30/8  | 8 Inputs/Alarm Points |
| Omni32/8  | 4 Inputs/Alarm Points |

Max. Open cct Voltage 28Vdc

Max. Closed cct Current 4mA per input circuit

Max. Loop Resistance to detect closed contact 1 kohms

Min. Loop Resistance to detect open contact 200 kohms

|                 |   |
|-----------------|---|
| Input Scan Rate | 4 milliseconds                          |
| Wire size       | 1.5mm <sup>2</sup> (17SWG/15.5SWG) max. |
| Connections     | Via plug-in Terminals                   |

### Control Pushbuttons

Quantity Three buttons mounted on front facia of Omni32/4, 32/8 and 33/8 units  
External control pushbuttons may be connected to Alarm Modules.

Functions Acknowledge (Normally Open to +24Vdc)  
Reset (Normally Closed to +24Vdc)  
Test (Normally Open to 0V)

### Alarm Window Display

|             |  |
|-------------|--|
| Quantity    | 4 or 8 Alarm windows   |
| Type        | Backlit LED or Incandescent Lamp (Order Lamps or LED's separately)                           |
| Window Size | 24mmx53mm  |
| Legend Area | 21mmx49mm  |
| Legend Type | User printed on transparent film with laser/inkjet printer using software template provided. |

### Control Relay Contact Output

|                   |                                      |
|-------------------|--------------------------------------|
| Products equipped | Omni32/8; Omni33/8; Omni33/4         |
| Contact Type      | 1 Potential free changeover (Form C) |





# Omni30 Alarm Annunciator System

Model C1620/1/2/3 Modular Annunciator System.

Contact Rating 2A 30Vdc or 0.5A 230Vac

Isolation 1000Vac from contact to other circuits

### Repeat Lamp Outputs (Alarm Modules only)

Type Open Collector Transistor switch to 0V

Rating 30Vdc max 80mA max

### Temperature Range

Operating Temperature 0°C – 60 °C (+32°F – 140°F)

Storage Temperature -10°C – 70 °C (+14°F – 158°F)

### Weight

Unpacked 1.4kg (10.5Inch); 2.6kg (19Inch).

Packed 1.8kg (10.5Inch); 3.0kg (19Inch)

### Compliance to Standards

Safety EN 60950:1995

Emissions EN55011 & EN50081-2:1994 Grp I Class A

Immunity – ESD IEC 61000-4-2:1995, level 3

Immunity – RF Fields IEC 61000-4-3:1995, level 3

Immunity – IEC 61000-4-4:1995

Fast Transients 2 kV – DC power port  
1 kV – input/output lines

Supply Variations IEC 61000-4-7:1991, 24 V dc +15% -10%

### Sequence Options

| Seq. No. | Sequence Description   |
|----------|--|
| 1        | LAMP FOLLOWS INPUT   |
| 2        | MOMENTARY (FLEETING) ALARM, MANUAL RESET                             |
| 3        | ALARM ONLY (NON-LATCHING INPUTS) AUTO RESET                          |
| 4        | MOMENTARY ALARM, MANUAL RESET WITH ALARM RINGBACK                    |
| 5        | FIRST OUT, MULTIPLE GROUPS, MANUAL RESET                             |
| 6        | FIRST OUT, MANUAL RESET, AUTO RESET ON SUBSEQUENT ALARMS             |
| 7        | FIRST OUT, SINGLE GROUP, MANUAL RESET, FIRST OUT CONTINUOUS FLASH    |
| 8        | FIRST OUT, MANUAL RESET, SUBSEQUENT ALARMS WITHOUT HORN              |
| 9        | MOMENTARY ALARM, MANUAL RESET, AUTO SILENCE AFTER TIME DELAY.        |
| 10       | MOMENTARY ALARM, MANUAL RESET, REALARM AFTER TIME IF STILL ABNORMAL. |
| 11       | MOMENTARY ALARM, MANUAL RESET, CONSTANT FLASH (FOR MOTOR ALARMS).    |
| 12       | MOMENTARY ALARM, AUTO RESET, TIME DELAY ON RETURN TO NORMAL.         |
| 13       | PULSE MONITORING ALARM; MANUAL RESET                                 |
| 18       | MOMENTARY ALARM, AUTO RESET  |
| 21       | FIRST OUT, MULTIPLE GROUPS, AUTO RESET                               |
| 23       | FIRST OUT, SINGLE GROUP, AUTO RESET, FIRST OUT CONTINUOUS FLASH      |
| 24       | FIRST OUT, AUTO RESET, SUBSEQUENT ALARMS WITHOUT HORN                |
| 25       | MOMENTARY ALARM, AUTO RESET, AUTO SILENCE AFTER TIME DELAY.          |
| 26       | MOMENTARY ALARM, AUTO RESET, REALARM AFTER TIME IF STILL ABNORMAL.   |
| 27       | MOMENTARY ALARM, AUTO RESET, CONSTANT FLASH (FOR MOTOR ALARMS)       |
| 28       | PULSE MONITORING ALARM, AUTO RESET                                   |
| 30       | SERIAL PORT READ ONLY MODE   |
| 31       | SERIAL PORT READ/WRITE MODE  |

## ORDERING INFORMATION

| ORDER CODE | DESCRIPTION  |
|------------|--|
| C1620      | Omni30/8 - 8 Way Alarm Module Panel Mount (483mmW x 44.5mmH)               |
| C1620-1    | Omni30/8-SL - 8 Way Alarm Module 19 inch Rack mount (483mmW x 44.5H)       |
| C1621      | Omni32/8 -4 Way Alarm + Control Module Panel Mount (483mmW x 44.5mmH)      |
| C1621-1    | Omni32/8 -4 Way Alarm + Control Module 19 inch Rack Mount (483mmW x 44.5H) |
| C1622      | Omni33/8 - Control Module Panel Mount (483mmW x 44.5mmH)                   |
| C1622-1    | Omni33/8 - Control Module 19 inch Rack Mount (483mmW x 44.5H)              |
| C1623      | Omni30/4 - 4 Way Alarm Module Panel Mount (267mmW x 44.5mmH)               |
| C1624      | Omni33/4 – Control Module Panel Mount (267mmW x 44.5mmH)                   |

**ACCESSORIES** *To be ordered separately Will be fitted before delivery.*

### Window and Lamp Board Options

#### Backlit Solid State Light Emitting Diode (LED) Lamp Modules

|       |                                |
|-------|--------------------------------|
| C1650 | Red Backlit LED Lamp Module    |
| C1651 | Yellow Backlit LED Lamp Module |
| C1652 | Green Backlit LED Lamp Module  |
| C1653 | Blue Backlit LED Lamp Module   |
| C1654 | Orange Backlit LED Lamp Module |
| C1655 | White Backlit LED Lamp Module  |

#### Incandescent Lamps (two lamps per Window)

|       |   |
|-------|---|
| C1160 | Lamp and Holder 8 Window Pack                                 |
| C1161 | Incand. Lamp replacement 10 pack                              |
| C1162 | Incand. Lamp replacements 100 pack                            |
| C1663 | Assorted Colour Filter Kit (1 supplied with each annunciator) |

#### Serial Communications Option (Modbus)

|       |                                |
|-------|--------------------------------|
| C1423 | Isolated RS232/485 Serial Port |
|-------|--------------------------------|

#### Interface Accessories

|       |   |
|-------|---|
| C1168 | OmniSet Programming cable for Prog Port |
|-------|---|





# Omni30 Alarm Annunciator System

Model C1620/1/2/3 Modular Annunciator System.

## ELECTRICAL CONNECTIONS

Omni30/4

|      |    |      |    |      |    |      |     |      |     |    |    |
|------|----|------|----|------|----|------|-----|------|-----|----|----|
| +24V | 0V | +24V | 0V | HORN | 0V | TEST | ACC | +24V | RES | P  | DP |
| 1    | 2  | 3    | 4  | 5    | 6  | 7    | 8   | 9    | 10  | 11 | 12 |

|     |     |      |      |      |      |       |       |       |       |    |      |
|-----|-----|------|------|------|------|-------|-------|-------|-------|----|------|
| NC+ | NO- | IP 4 | IP 3 | IP 2 | IP 1 | LMP 4 | LMP 3 | LMP 2 | LMP 1 | GP | +24V |
| 1   | 2   | 3    | 4    | 5    | 6    | 7     | 8     | 9     | 10    | 11 | 12   |

Omni30/4 Rear View showing Terminal Layout

Omni33/4

|      |    |      |    |      |    |      |     |      |     |    |    |
|------|----|------|----|------|----|------|-----|------|-----|----|----|
| +24V | 0V | +24V | 0V | HORN | 0V | TEST | ACC | +24V | RES | P  | DP |
| 1    | 2  | 3    | 4  | 5    | 6  | 7    | 8   | 9    | 10  | 11 | 12 |

|   |    |      |   |   |    |    |     |   |    |    |      |
|---|----|------|---|---|----|----|-----|---|----|----|------|
| P | DP | +24V | L |   | NC | NO | COM |   |    | GP | +24V |
| 1 | 2  | 3    | 4 | 5 | 6  | 7  | 8   | 9 | 10 | 11 | 12   |

Omni33/4 Rear View showing Terminal Layout

Omni30/8

|      |    |      |    |      |    |      |     |      |     |    |    |
|------|----|------|----|------|----|------|-----|------|-----|----|----|
| +24V | 0V | +24V | 0V | HORN | 0V | TEST | ACC | +24V | RES | P  | DP |
| 1    | 2  | 3    | 4  | 5    | 6  | 7    | 8   | 9    | 10  | 11 | 12 |

|     |     |      |      |      |      |       |       |       |       |    |      |
|-----|-----|------|------|------|------|-------|-------|-------|-------|----|------|
| NC+ | NO- | IP 4 | IP 3 | IP 2 | IP 1 | LMP 4 | LMP 3 | LMP 2 | LMP 1 | GP | +24V |
| 1   | 2   | 3    | 4    | 5    | 6    | 7     | 8     | 9     | 10    | 11 | 12   |

|     |     |      |      |      |      |       |       |       |       |    |      |
|-----|-----|------|------|------|------|-------|-------|-------|-------|----|------|
| NC+ | NO- | IP 4 | IP 3 | IP 2 | IP 1 | LMP 4 | LMP 3 | LMP 2 | LMP 1 | GP | +24V |
| 1   | 2   | 3    | 4    | 5    | 6    | 7     | 8     | 9     | 10    | 11 | 12   |

Omni30/8 Rear View showing Terminal Layout

Omni32/8

|      |    |      |    |      |    |      |     |      |     |    |    |
|------|----|------|----|------|----|------|-----|------|-----|----|----|
| +24V | 0V | +24V | 0V | HORN | 0V | TEST | ACC | +24V | RES | P  | DP |
| 1    | 2  | 3    | 4  | 5    | 6  | 7    | 8   | 9    | 10  | 11 | 12 |

|   |    |      |   |   |    |    |     |   |    |    |      |
|---|----|------|---|---|----|----|-----|---|----|----|------|
| P | DP | +24V | L |   | NC | NO | COM |   |    | GP | +24V |
| 1 | 2  | 3    | 4 | 5 | 6  | 7  | 8   | 9 | 10 | 11 | 12   |

|     |     |      |      |      |      |       |       |       |       |    |      |
|-----|-----|------|------|------|------|-------|-------|-------|-------|----|------|
| NC+ | NO- | IP 4 | IP 3 | IP 2 | IP 1 | LMP 4 | LMP 3 | LMP 2 | LMP 1 | GP | +24V |
| 1   | 2   | 3    | 4    | 5    | 6    | 7     | 8     | 9     | 10    | 11 | 12   |

Omni32/8 Rear View showing Terminal Layout

Omni33/8

|      |    |      |    |      |    |      |     |      |     |    |    |
|------|----|------|----|------|----|------|-----|------|-----|----|----|
| +24V | 0V | +24V | 0V | HORN | 0V | TEST | ACC | +24V | RES | P  | DP |
| 1    | 2  | 3    | 4  | 5    | 6  | 7    | 8   | 9    | 10  | 11 | 12 |

|   |    |      |   |   |    |    |     |   |    |    |      |
|---|----|------|---|---|----|----|-----|---|----|----|------|
| P | DP | +24V | L |   | NC | NO | COM |   |    | GP | +24V |
| 1 | 2  | 3    | 4 | 5 | 6  | 7  | 8   | 9 | 10 | 11 | 12   |

Omni33/8 Rear View showing Terminal Layout

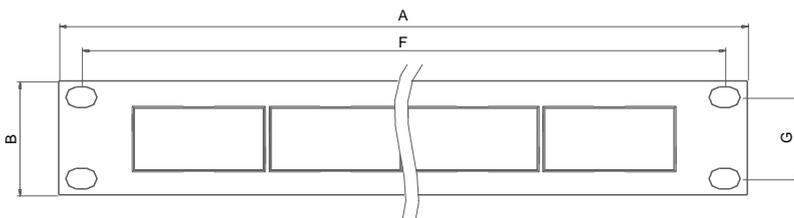
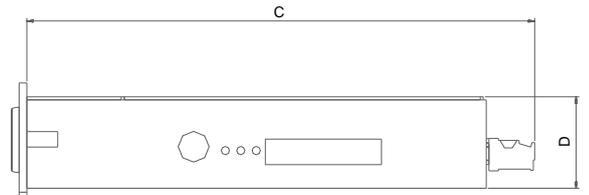
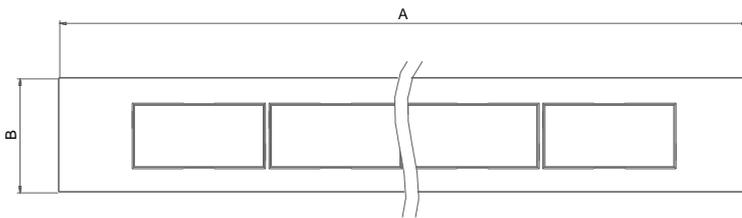
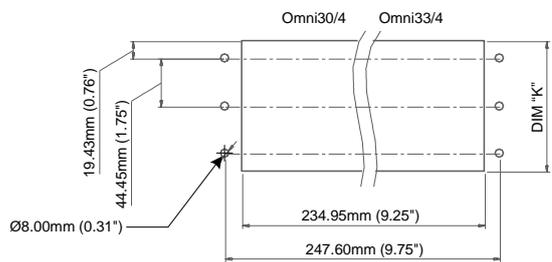
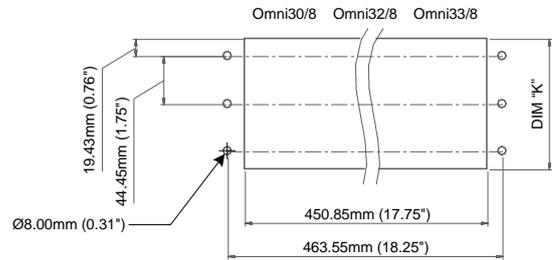
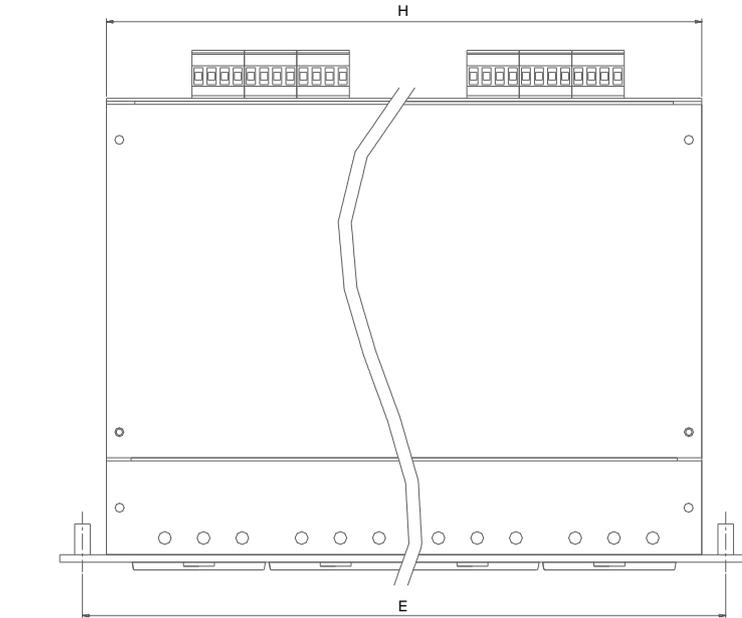




# Omni30 Alarm Annunciator System

Model C1620/1/2/3 Modular Annunciator System.

## MECHANICAL CONFIGURATION



|   | Omni30/4<br>Omni33/4 | Omni30/8<br>Omni32/8<br>Omni33/8 | Omni30/8-SIL<br>Omni32/8-SIL<br>Omni33/8-SIL |
|---|----------------------|----------------------------------|--|
| A | 266.7mm (10.50")     | 482.6mm (19.00")                 | 482.6mm (19.00")                             |
| B | 44.45mm (1.75")      | 44.45mm (1.75")                  | 44.45mm (1.75")                              |
| C | 196 mm (7.72")       | 196 mm (7.72")                   | 196 mm (7.72")                               |
| D | 35.7mm (1.40")       | 35.7mm (1.40")                   | 35.7mm (1.40")                               |
| E | 247.60mm (9.75")     | 473.1mm (18.63")                 | 463.5mm (18.25")                             |
| F | N/A                  | N/A                              | 465.06mm (18.30")                            |
| G | N/A                  | N/A                              | 31.75mm (1.25")                              |
| H | 230.60mm (9.08")     | 230.60mm (9.08")                 | 230.60mm (9.08")                             |

| No. of units to be mounted | Dimension "K"<br>±0.25mm (0.01") |
|----------------------------|----------------------------------|
| 1                          | 38.86mm (1.53")                  |
| 2                          | 83.31mm (3.28")                  |
| 3                          | 127.76mm (5.03")                 |
| 4                          | 172.2mm (6.787")                 |
| 5                          | 216.66mm (8.53")                 |
| 6                          | 261.1mm (10.28")                 |

