



Omni16C RLU Remote Logic Annunciator

Model C1182, C1478 and C1479B 16 Point Remote Annunciator Logic Modules.

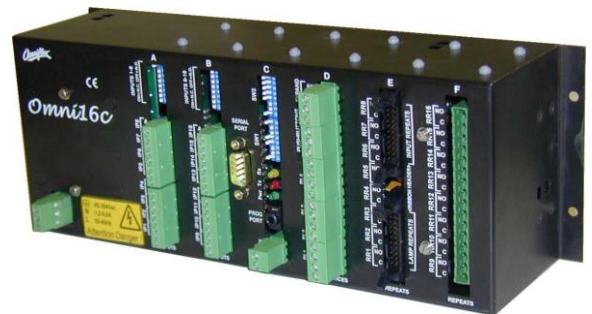
DATASHEET

Features

- Provides reliable alarm functions for critical alarms
- Small, compact, surface mounted and easy to use
- 16 Potential Free Contact Inputs
- 27 Standard Alarm Sequences
- Fully "DIP" Switch Configurable
- 24Vdc, 48Vdc or 85-264Vac/dc Powered
- Normally Open/Closed Selectable via DIP switch
- Four versatile Group Alarm output contacts
- Optional High Power Lamp Driver outputs
- Optional Serial Port - Modbus/PLC compatible



Model C1182



Models C1478 and C1479

The Omni16c RLU is a full function alarm annunciator logic module for 16 alarm points with NO display. Interconnect up to 16 modules together to produce an alarm annunciator up to 256 points. Connect to remote alarm displays such as the Omniflex Model [C1670](#) or [C1486](#) series for a complete window alarm annunciator system, or wire to individual mimic lights to provide full critical alarm functionality to your mimic display.

Inputs

The 16 inputs accept potential free inputs and are individually "DIP" switch configured for N.O. or N.C. operation.

Optional High Voltage Input Boards

Two optional input boards are available. They are designed for use in applications where the input source voltage is supplied externally to the Omni16C. They provide 1500 Vac input to logic isolation and 500Vac inter channel isolation.

Alarm Sequences

The alarm sequence for the 16 inputs can be configured by DIP switch with a choice of 27 standard sequences. More individualised or advanced settings are done through the programming port accessible on the unit using the free Omniset Configuration Utility.

Control Pushbuttons

Test, Silence, Acknowledge and Reset Pushbutton input terminals are provided for a wide variety of control options.

Group Alarm Functions

The four common output relays can be configured as group alarm, horn output and watchdog. Functions such

as Relay follows input or alarm, Multiple Re-flash, or Ring-back horn are easily settable on these relays.

An Inhibit input function is provided which disables all the inputs on the annunciator, for example during plant startup or shutdown periods.

Optional Communications Serial Port

An optional RS232/485 serial port can be fitted to allow all alarm functions to be accessed from your PLC or SCADA using the popular Modbus protocol.

Optional Housing Size

This product can be ordered in two housing sizes. The full size housing has space for the optional ac/dc internal power supply, and the optional repeat output and lamp driver modules. The compact housing suits small spaces where these options are not required, and back-of-panel space is limited.

Optional High Power Lamp Driver Outputs

A version of this product is available equipped with high power lamp drivers. These drivers can source 24Vdc up to 250 mA, with short circuit protection, to drive higher power mimic lights, or large alarm displays.



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SPECIFICATIONS

Power Supply Options

Voltage Option	24Vdc (STD)	20/30-60Vdc**	85-264Vac**
Option**:	None	C1422 installed	C1420 installed
Isolation PSU to inputs	None	1500Vrms	1500Vrms

** To be ordered as an option see accessories list Fitted prior to shipment
 C1182 & C1479 operating range is 20-60Vdc
 C1479 operating range is 30-60Vdc

Max dc Ripple	10% pk. to pk.	10% pk. to pk.	N/A
Consumption excluding display	0.4 Amp max	0.4-0.3 Amps	0.3-0.2A

Alarm Inputs - Potential Free Contact

Input Board Option	C1xxx-0	C1xxx-1
Input Type	Common +ve **	Common -ve
	** Standard Option	Order
Quantity and Type	16 Potential Free Contacts	
Max. Open cct Voltage	28Vdc	
Max. Closed cct Current	5mA per input circuit	
Max. Loop Resistance to detect closed contact	200 ohms	
Min. Loop Resistance to detect open contact	100 kohms	

Alarm Inputs - Individually Isolated

Input Option	C1xxx-2	C1xxx-3
Input Voltage range	19 to 60Vdc	90-150Vdc/ac rms
Isolation Input to Logic	1500V ac rms	1500V ac rms
Isolation Input to Input	500V ac rms	500V ac rms
Quantity and Type	16 dc or ac inputs (powered externally)	
Compliance to standards		
Safety	IEC950	
EMC	EN50081-2; EN50082-2	
Compliance to CEGB EES 1988 and Eskom NWS1819 specifications		

Inputs General

Input Scan Rate	4 milliseconds
Terminations	3.81mm pitch plug-in terminals
Wire size	1.5mm ² (17SWG/15.5SWG) max.
Connections	Via plug-in Terminals

Pushbuttons

Quantity	Four buttons inputs
Functions	Silence; Acknowledge; Reset; Test

Relay Contact Outputs

Contact Type	2 Potential free changeover (Form C) 2 Potential free normally Open (Form A)
Contact Rating	2A 30Vdc or 0.5A 230Vac
Isolation	1000Vac from contact to other circuits
Functions	RL1: Watch Dog+Group Alarm 1 RL2: Horn RL3: Group Alarm 2 RL4: Group Alarm 3 (Other functions software programmable)

Lamp Driver Outputs (Model C1478)

Connection Type	Two Part Detachable Screw Terminals
Type	Transistor switch to +24Vdc

On State volt drop	2 Volts max at 250mA
Off State leakage current	280µA max
Voltage Max.	+28Vdc (External)
Load Current Max.	250mA per channel
Protection	Output short circuit protected for up to 5s Continuous short circuit will damage outputs

Ribbon Cable Outputs (Model C1182 & C1479)

Connection Type	20 way Ribbon Header
Type	Transistor switch to 0Vdc
On State volt drop	1.1 Volts max at 100mA
Off State leakage current	100µA max
Voltage Max.	+28Vdc (External)
Load Current Max.	100mA per channel
Protection	No short circuit protection. Short circuit will damage outputs

Temperature Range

Operating Temperature	0°C – 60 °C (+32°F – 140°F)
Humidity	Up to 90% RH, non condensing is recommended
Storage Temperature	-10°C – 70 °C (+14°F – 158°F)
Humidity	Less than 40% RH is recommended

Weight

Unpacked	1.6kg approx.
Packed	2.0kg approx.

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 – Fast Transients	IEC 61000-4-4:1995 2 kV – DC power port 1 kV – input/output lines
Supply Variations	IEC 61000-4-7:1991, 24 V dc +15% -10%
Vibration	IEC60068-2-6: 1995 10-150Hz. 1g

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



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ORDERING INFORMATION

ORDER CODE	DESCRIPTION
C1479-x ¹	Remote Logic Unit Annunciator; 24Vdc with space for internal power supply and extra slots for optional repeat relay modules. Equipped with ribbon header lamp outputs compatible with Omniflex Model C1670 and C1486 remote displays
C1182-x ¹	Remote Logic Unit Annunciator; 24Vdc in space saving housing. Equipped with ribbon header lamp outputs compatible with Omniflex Model C1670 and C1486 remote displays
C1478-x ¹	Remote Logic Unit Annunciator; 24Vdc with space for internal power supply and extra slots for optional repeat relay modules. Equipped with high power lamp driver outputs. (Cannot accept C1425 repeat relay boards)

¹Input Option:

x=	0 (default)	1	2	3
	+ve Com	-ve Com	30-60Vdc iso	90-150Vac/dc iso

Accessories

To be ordered separately; will be fitted before delivery.

PSU Option – fitted into the Omni16C Model C1479 Housing Only.

C1421	85-264Vac/dc Isolated Power Supply
C1422	20/30-60Vdc Isolated Power Supply

Serial Communications Option (Modbus) (available for both models)

C1423	Isolated RS232/485 Serial Port
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Repeat Outputs – fitted into the Omni16C Model C1479 Housing Only.

C1425	8 way Repeat Relay Board
C1426	16 way Ribbon-Header Repeat Output Board (Input and Lamp Repeats)
C1169	16 Way Repeat Lamp Driver Terminals

Pushbutton Stations

C1415	Remote Pushbutton Station with Audible
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Alarm Displays

C1486	Compatible with Omni16C 16 point alarm displays. (see separate data sheet)
C1670	Compatible with large display systems (see separate data sheet)

Interface Accessories

C1168	OmniSet Programming cable for Prog Port
C1416	Ribbon Header to terminals converter
C6308	Ribbon to 16 Relays Form C 5A

Spares

To be ordered separately; will NOT be fitted before delivery.

Isolated Input Boards

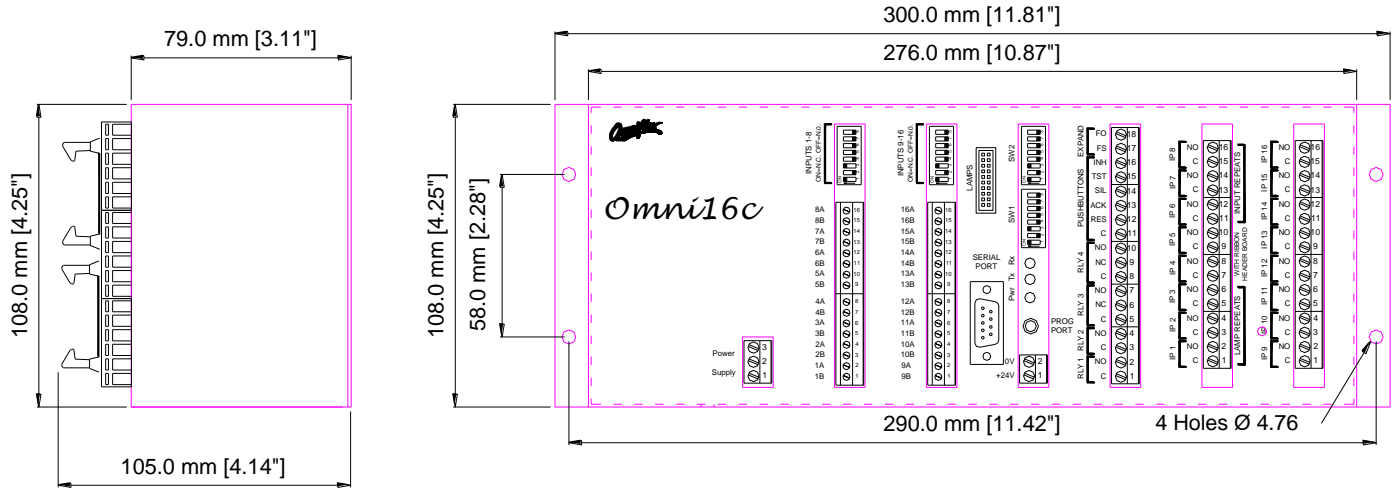
C1171	Omni8/16C Standard 8 Channel Common Positive
C1173	Omni8/16C Standard 8 Channel Common Negative
C1172	Omni 8/16C 8 Channel Isolated 19-60Vdc Inputs
C1170	Omni 8/16C 8 Channel Isolated 90-150Vac/dc Inputs



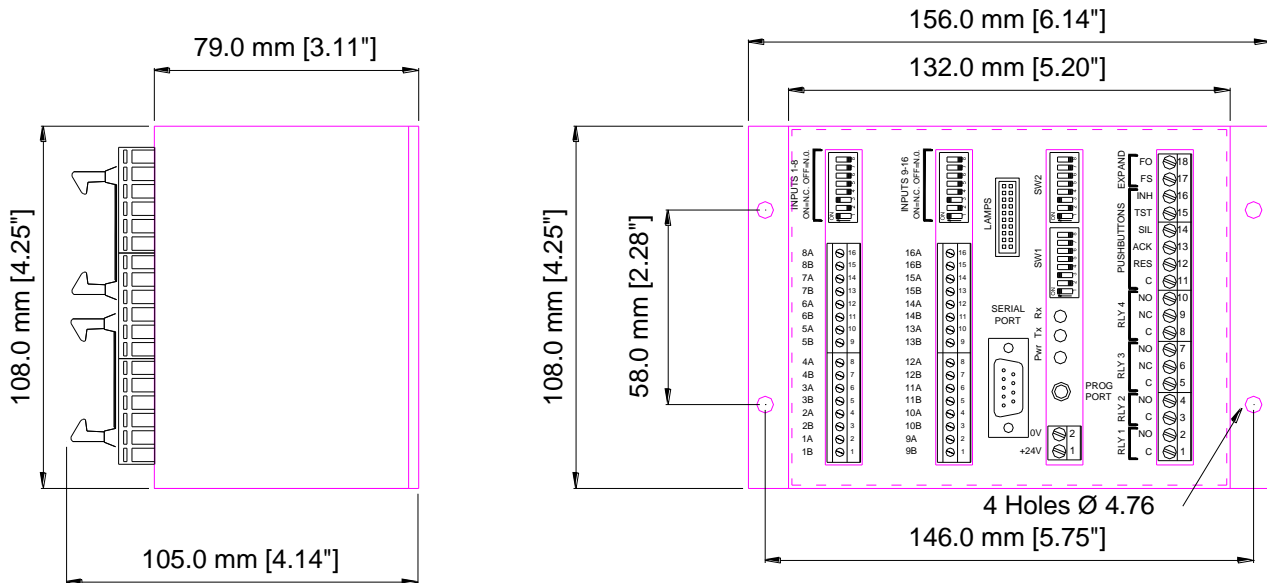
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MECHANICAL CONFIGURATION



C1478B and C1479B Housing Mechanical Detail



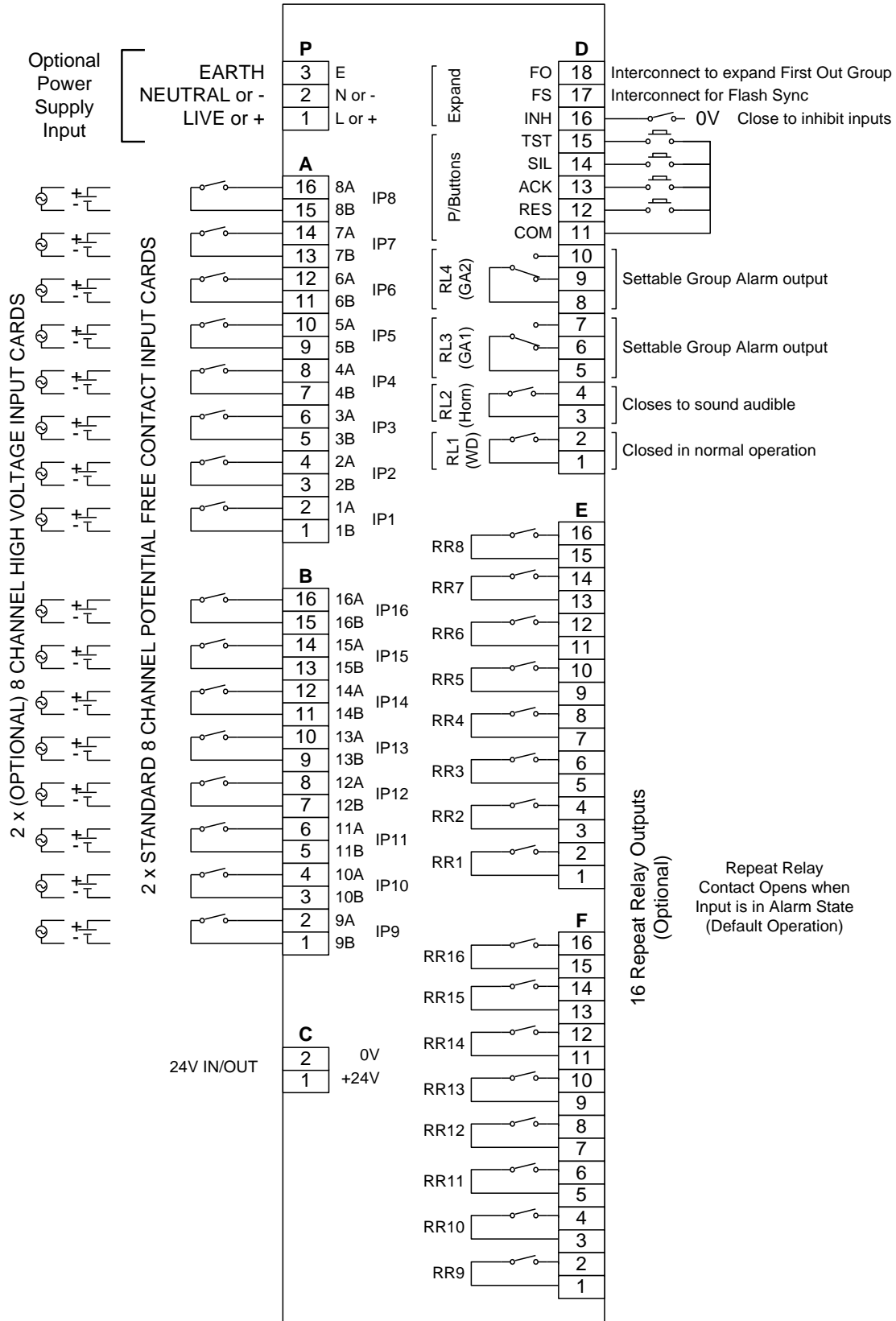
C1182 Housing Mechanical Detail



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C1182 and C1479B ELECTRICAL CONNECTION DIAGRAM



NOTE: Terminal Strips TS-P, TS-E and TS-F are not available on the Model C1182 annunciator.



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C1478B ELECTRICAL CONNECTION DIAGRAM

