OmniX Remote Displays
Model C1670/1/2/3 Series OmniX Custom Sized Remote Displays.

DATASHEET

FEATURES

- **Sizes from 8 to 144 Windows**

- **Bright Back-Lit Display.**

- **Choice of Incandescent or Solid-State LED Display**

- **Redundant Lamps in every window for fail safety.**

- **Plug-in or Screw Termination for low Cost integration**

- **Common Positive or Common Negative option**

- **Window legends easily printed on inkjet/laser**

- **Optional integral pushbuttons and audible.**

The OmniX Remote Displays provide from 8 to 144 points of annunciator display in a stand-alone panel-mount package.

Use with remote alarm logic such as the Omni16C RLU series for your safety critical alarms, or connect to your PLC or SCADA computer for an operator friendly display of essential alarm information.


OmniX Remote Display (6High x 4Wide)

Available in dual incandescent lamps or ultra-reliable solid state LED back-lighting, these displays provide panel indication where remote alarm handling or display logic is required. Common positive or common negative switching options are available. Add the optional Control Pushbutton station for easy alarm annunciator operation. These displays provide an ideal low cost alternative to individual panel lamps and matrix displays.

MECHANICAL DETAILS

WIDTH		
No. of Columns	Overall (W1)	Panel Cutout
4	236	216
6	342	322
8	448	428
10	554	534
12	660	640

(Panel cutout tolerance +/- 1mm)

HEIGHT		
No. of Rows	Overall (H1)	Panel Cutout (H2)
2	78	58
3	105	85
4	132	112
5	159	139
6	186	166
7	213	193
8	240	220
9	267	247
10	294	274
11	321	301
12	348	328
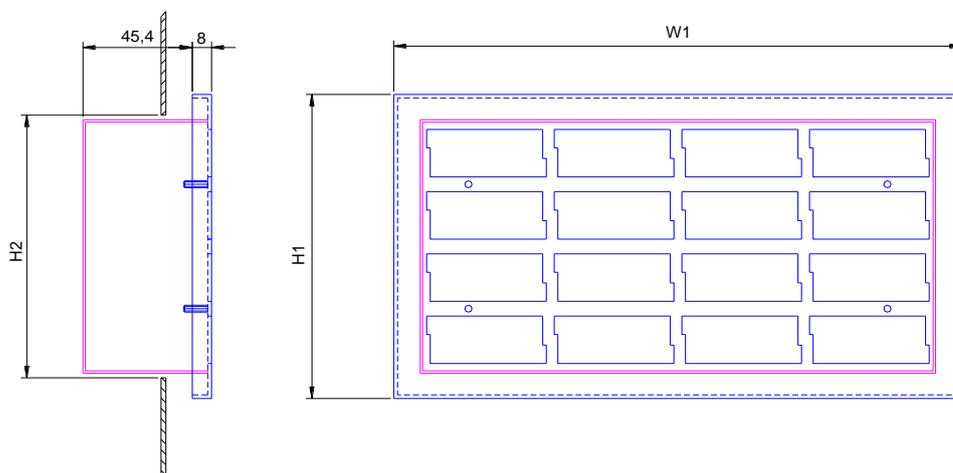
SPECIFICATIONS

Power Requirements

Voltage	24Vdc +/- 15%	
Model	C1670A/C1672A	C1671A/C1673A
Type	Solid State LED	Incandescent Lamp
Current per window	50mA	120mA

Electrical Connection

C1670A/C1671A	20 way insulation displacement ribbon cable connector per each 16 alarm windows (or part thereof). Compatible with the following products: • Omni16C Remote Logic Units • Maxiflex 16DO and 32DO modules
C1672A/C1673A	"Cage-Clamp" terminals (2.5mm^2 max - < 1.5mm^2 recommended)

Alarm Window Display

Window Size	24mm x 53mm
Legend Area	21mm x 48mm
Lamps per window	2 redundant LED's/Lamps per window for fail safe operation
Legend Type	Printed by the user on to clear film using a laser/inkjet printer using software template provided.
Common Voltage	Common Positive (std.) or Common Negative *Note: To be specified when ordering*

"SART" Control Pushbutton + Audible (optional)

No. of Pushbuttons	4 (Silence, Acknowledge, Reset, Test)
Pushbutton Location	Occupies bottom right window location. This window cannot be used for alarm display when the "SART" pushbutton station is installed
Contact Rating	30Vdc 100mA max.
Audible Device	Piezo Electric device internal to display
Audible Device Operating Voltage	2-28V dc
Audible Output	90dB at 1m (at 24Vdc operating voltage)

Temperature Range

Operating Recommended Humidity	0°C – 50°C (+32°F – 122°F) Incand Lamps 0°C – 60°C (+32°F – 140°F) Backlit LEDs Up to 90% RH, non condensing
Storage Recommended Humidity	-10°C – 70°C (+14°F – 158°F) Less than 40% RH

Compliance to Standards

Safety	EN 60950:1995
Emissions	EN 55011 and EN50081-2:1994 Group 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 – All Lines
Supply Variations	IEC 61000-4-7:1991, 24 V dc +15% -10%
Vibration	IEC60068-2-6: 1995 10-150Hz. 1g
IP Rating	IP42 (Front Panel) IP20 (Back Panel)

Ordering Information

ORDER CODE	DESCRIPTION
C1670A-R-C-P	Solid State LED Display with Ribbon Cable Termination Does NOT include LED Lamp Modules. Order separately from the list below Colours can be mixed in a display. Optional integral pushbuttons and Audible may be ordered.
C1671A-R-C-P	Incandescent Lamp Display with Ribbon Cable Termination Includes Lamps fitted Supplied with a Colour Filter kit that can be user fitted to individual windows. Optional integral pushbuttons and Audible may be ordered.
C1672A-R-C-P	Solid state LED Display with individual wire Termination Does NOT include LED Lamp Modules. Order separately from the list below Colours can be mixed in a display. Optional integral pushbuttons and Audible may be ordered.
C1673A-R-C-P	Incandescent Lamp Display with individual wire termination. Includes Lamps fitted. Supplied with a Colour Filter kit that can be user fitted to individual windows. Optional integral pushbuttons and Audible may be ordered.

Notes
R = Number of Rows
C = Number of Columns
P = Optional Pushbutton Station + Audible [0 = None; 1 = Included]
Common positive or common negative to be specified.
Example
C1672-4-8-1 is an LED display with 32 windows arranged as 4 rows by 8 columns, with pushbutton station+ audible fitted to bottom right corner window.
LED Lamp modules must be specified and ordered separately.
If multiple colours are selected, then specify positions if you wish to take advantage of the free factory assembly facility.

Accessories

LED & Lamp Modules

Backlit Solid State Light Emitting Diode (LED) Modules for Models C1670A and C1672A to be ordered separately.
Will be fitted before delivery if position information provided.
Module is common +ve when + mark is at top left and vice versa
ALL modules MUST be installed with the same polarity.

C1650	Red Backlit LED Module
C1651	Yellow Backlit LED Module
C1652	Green Backlit LED Module
C1653	Blue Backlit LED Module
C1654	Orange Backlit LED Module
C1655	White Backlit LED Module
C1161	Incand. Lamp replacement 10 pack
C1162	Incand. Lamp replacements 100 pack

Other Accessories
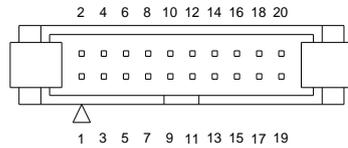
C1163	Assorted Colour Filter Kit (1 set supplied with each Lamp display)
C1664	OmniX/30 Window and diffuser kit (Set of eight spare windows + diffusers)

ELECTRICAL CONNECTIONS – 2.54mm Ribbon Cable (Display Models C1670A and C1671A)
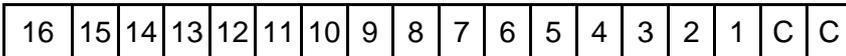

Ribbon Header Pin Layout
One connector per 16 windows (or part thereof).

Example: For a 5 high by 8 wide display (40 windows) there will be three ribbon connectors for windows1-16, 17-32, and 33-40 respectively

Note: Windows are illuminated by switching the Window Inputs to 0V.

Pin No.	Description
1	No connection
2	No connection
3	24 Volts
4	24 Volts
5	Window 16
6	Window 15
7	Window 14
8	Window 13
9	Window 12
10	Window 11
11	Window 10
12	Window 9
13	Window 8
14	Window 7
15	Window 6
16	Window 5
17	Window 4
18	Window 3
19	Window 2
20	Window 1

ELECTRICAL CONNECTIONS – Individual Wire Terminals (Display Models C1672A and C1673A)

Terminal Strip Layout (View from Rear of display)
One terminal strip per 16 windows (or part thereof).

Example: For a 5 high by 8 wide display (40 windows) there will be three terminal strips for windows1-16, 17-32, and 33-40 respectively.

Notes: For common positive, +24Vdc must be applied to pins 3 and 4 (3 & 4 are joined). Windows are illuminated by switching the Window Inputs to 0V.

For common negative, 0V must be applied to pins 3 and 4 (3 & 4 are joined). Windows are illuminated by switching 24V to the Window Inputs

Pin No.	Description	
	Common +ve	Common -ve
C	24 Volts	0V
C	24 Volts	0V
1	Window 1	Window 1
2	Window 2	Window 2
3	Window 3	Window 3
4	Window 4	Window 4
5	Window 5	Window 5
6	Window 6	Window 6
7	Window 7	Window 7
8	Window 8	Window 8
9	Window 9	Window 9
10	Window 10	Window 10
11	Window 11	Window 11
12	Window 12	Window 12
13	Window 13	Window 13
14	Window 14	Window 14
15	Window 15	Window 15
16	Window 16	Window 16

ELECTRICAL CONNECTIONS – "SART" Pushbutton and Audible (Models C167xA-R-C-1)
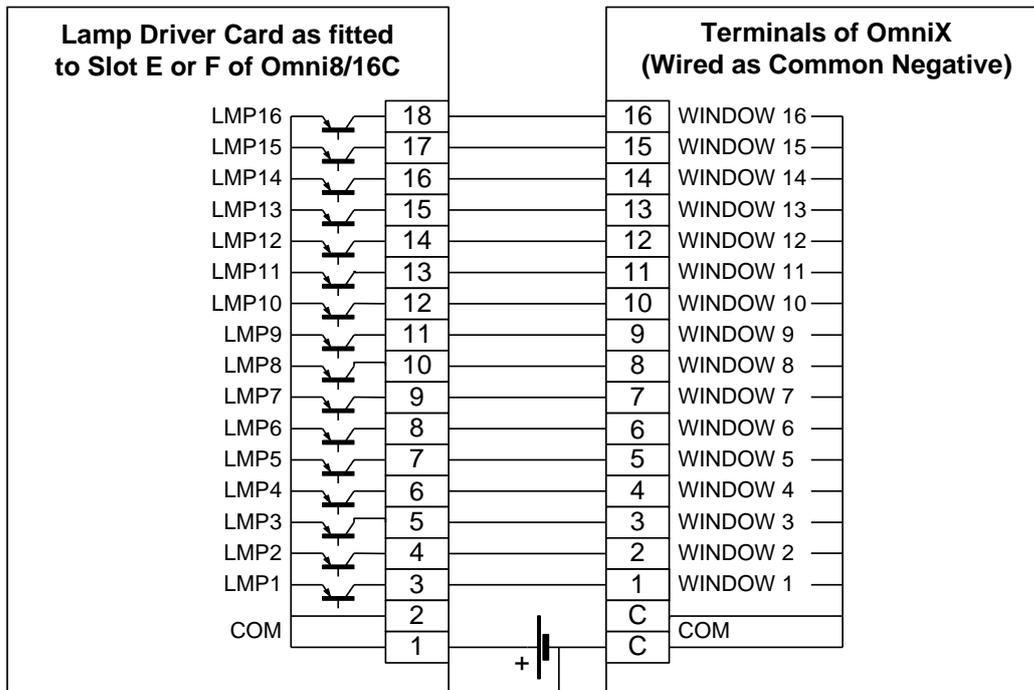
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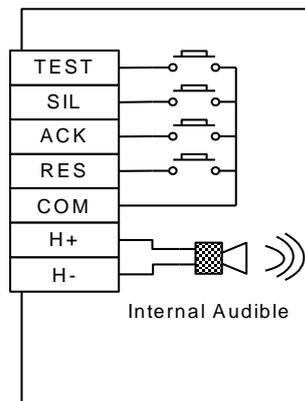
APPLICATION NOTES

Connecting the "SART" Pushbutton and Audible to Omni8C/16C Alarm Annunciators

OMNI8C/16C
C14xx

Terminal Strip D
Pushbuttons

Omni-X "SART"
Pushbutton
Connections

15	TEST
14	SIL
13	ACK
12	RES
11	COM

1	TEST
2	SIL
3	ACK
4	RES
5	COM
6	H+
7	H-

Internal Audible

Terminal Strip D
RL2 set as Horn O/P

4	NO
3	C

Terminal Strip C
24V Terminals

2	0V
1	+24V
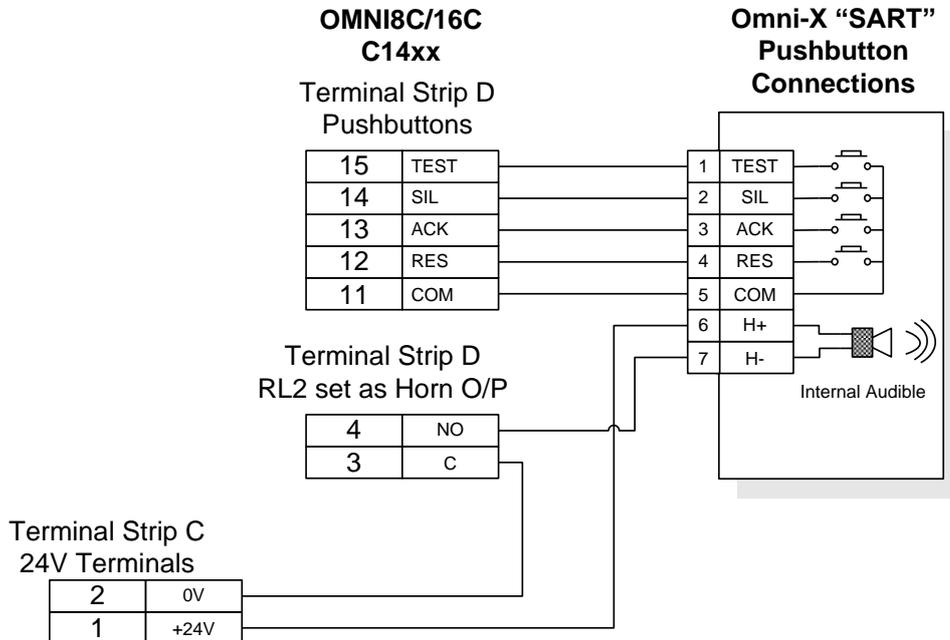
APPLICATION NOTES

Connecting the Lamp Driver Board to OmniX

Lamp Driver Card as fitted
to Slot E or F of Omni8/16C

Terminals of OmniX
(Wired as Common Negative)

LMP16	18	16	WINDOW 16
LMP15	17	15	WINDOW 15
LMP14	16	14	WINDOW 14
LMP13	15	13	WINDOW 13
LMP12	14	12	WINDOW 12
LMP11	13	11	WINDOW 11
LMP10	12	10	WINDOW 10
LMP9	11	9	WINDOW 9
LMP8	10	8	WINDOW 8
LMP7	9	7	WINDOW 7
LMP6	8	6	WINDOW 6
LMP5	7	5	WINDOW 5
LMP4	6	4	WINDOW 4
LMP3	5	3	WINDOW 3
LMP2	4	2	WINDOW 2
LMP1	3	1	WINDOW 1
COM	2	C	
	1	C	COM

Connect to annunciator 0V if different
supply is used for the lamps