



# Omni16C Remote Display for Hazardous Locations

Model C1486A-EX Omni16 Backlit Remote Display

DATASHEET

- Approved for use in Hazardous areas IEC60079-11 Ex ic I/IIC T4
- 24Vdc Powered
- Panel Mounted
- IP54 Rated enclosure
- Low Power Backlit LED displays
- SIL 1 Rated to IEC61508
- RoHS Compliance to 2011/65/EU



## FEATURES

- 24Vdc Powered
- Selection of Backlit LED Board Colours
- 16 Positive or Negative Common Inputs
- User printed legends on laser printer
- Complies with IEC 60079-0 / IEC 60079-11 Ex ic I/IIC T4

## Overview

The Omni16 C1486A-EX Remote Display is a backlit Remote Display suitable for use in hazardous environments. The Omni16C Display once mounted is fully enclosed in an Ex ic enclosure to allow location in the hazardous area.

## Configuration

The C1486A-EX accepts 16 inputs. The unit can be configured as either a positive-common or negative common by reversing the LED display boards.

## Mechanical

The restricted-breathing enclosure mounts around a panel cut-out which is made to accommodate the C1486A. The C1486A is secured with jacking bars and stud holes are drilled surrounding the cut-out to accommodate the gasketed front cover. Once the Remote Display is mounted into the panel cut-out the gasketed rear enclosure is then bolted over the Remote Display from behind the panel ensuring an airtight seal on the front and rear of the panel.

## Electrical

The wiring & electrical connections follow the same order as the standard C1486A except they enter the Ex ic enclosure via glands on the housing.

## Compliance to Standard

The C1486A-EX Remote Display complies with the same standards as the standard Omni16 and has been assessed as suitable for use in SIL1 applications as specified in IEC61508.

The additional standard that the C1486A-EX complies with is the Explosion Protection standard: IEC60079-0 and IEC60079-11, category Ex ic (formerly Ex nL).

## Backlit LED Display Boards

The C1486A-EX is only available in the 24Vdc backlit LED version. These LED Boards are available in Red, Yellow, White, Blue, Orange and Green.





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## Electrical Connections on Rear

**Omni16c**  
C1486A-Ex  
SANS60079-11/0

Manufacturer: Omniflex  
IA Number: MS-XPL/11.0964X  
Classification: Ex ic MICT4

Parameters:  $U_m = 27V$   
 $U_i = 24V$   
 $I_i = 1A$   
 $P_i = 675mW$   
 $C_i = \text{negligible}$   
 $L_i = \text{negligible}$

S/N: [REDACTED]

Terminal Block Labels: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, COM

## Housing Mechanical Dimensions (including Window Layout)

310.00  
352.00  
CABLE GLANDS FOR CABLE SIZE 10 mm  
PANEL

4 PITCHES AT 81.5 = 326.00  
280.00  
112.00  
52.00  
156.00  
Ø 8.0 HOLES  
PANEL CUT-OUT

PANEL  
FRONT BEZEL  
1 2 3 4  
5 6 7 8  
9 10 11 12  
13 14 15 16

181.00  
140.00  
142.00

PANEL  
FRONT BEZEL  
WINDOW  
GASKET CLOSED CELL RUBBER 3 mm  
OMNI-16a/REMOTE DISPLAY  
BACK COVER  
BACK PLATE  
JACKING BARS TO CLAMP OMNI-16a/REMOTE DISPLAY TO PANEL  
GASKET CLOSED CELL RUBBER 3 mm  
SECTION 'A-A'

BEZEL ASSEMBLY	98-8533-580-002
REAR COVER ASSEMBLY	98-8533-590-002





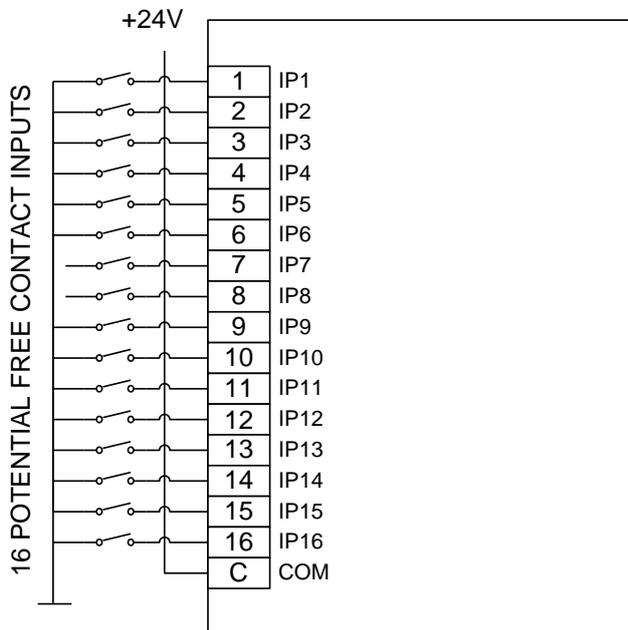
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## Electrical Connection Diagram

**NB!**  
 All Wiring to and from the Remote Display to comply with standards applicable to IEC 60079-0 / SANS 60079-11



## Specifications

### Power Supply

Voltage	21.6Vdc – 27Vdc Um = 27Vdc (absolute maximum)
Max. Ripple	2% peak to peak
Current Consumption	100mA typical (all lamps off) 1100mA (all lamps on)
Connection	Terminal Block
Wire Size	1,5mm <sup>2</sup> (17SWG/15.5AWG) recommended 2.5mm <sup>2</sup> (15SWG/13AWG) max.

### Alarm Inputs

Quantity /Type	16 / binary (contact or open collector)
Maximum Open Circuit Voltage	27V dc
Loop Resistance	100 ohms maximum
Contact wetting	Approx. 60mA at zero loop resistance
Scan Time	8ms
Connection	Terminal Block
Wire Size	0.4 mm <sup>2</sup> (22SWG/21AWG) recommended 1.5mm <sup>2</sup> (17 SWG/15.5 AWG) max.

### Environmental

Operating Temperature	0°C to 60°C (32°F - 140°F)
Humidity	Up to 90% RH, non condensing is recommended
Storage Temperature	-55°C to 125°C (-67°F to 257°F)
Humidity	Less than 40% RH recommended

### Mechanical

Mounting	Panel mounted
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Recommended Panel thickness	1,6mm (0.0630") minimum
Cut-out	280mm (11.02") horizontal 112mm (4.41") vertical
Overall	120mm (4.72") height 288mm (11.39") width 158mm (6.22") depth including connectors and front panel
Weight (Unpacked)	7.4kg (16.31 lbs)

### Compliance to Standards

Explosion Protection	IEC60079-0 IEC60079-11 Ex ic I/IIc T4
Functional Safety	IEC61508 SIL1
Safety	EN 60950:1995
Emissions	EN55011:1997 Group I Class A
Immunity - ESD	IEC 61000-4-2:2002, level 3
Immunity – RF Fields	IEC 61000-4-3:2003, level 3
Supply Variations	IEC 61000-4-7: 1991, 24Vdc + 15% -10%
Ingress Protection (IP)	IP54
Vibration	IEC60068-2-6: 10-150Hz. 1g
ROHS Compliance	2011/65/EU (RoHS2)

### Ordering Information

ORDER CODE	DESCRIPTION
C1486A-EX	Omni16C Ex ic Backlit 24 Vdc Display (No LED Boards) 24V COMM STD
C1150	Omni8/16 Red Backlit LED Board
C1151	Omni8/16 Yellow Backlit LED Board





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C1152	Omni8/16 Green Backlit LED Board
C1153	Omni8/16 Blue Backlit LED Board
C1154	Omni8/16 Orange Backlit LED Board
C1155	Omni8/16 White Backlit LED Board

.\*\*\*All wiring must be in accordance with the Ex ic standard

