UIS
Sensor Interface

iLIGHT

Introduction

The UIS Universal Sensor Interface provides a vital link point to integrate multi-sensor devices into any iCANnet network. This compact interface is equiped with a 5-way connector block at one end for the iCANnet link and three RJ12 connectors at the other end for connecting up to three combined sensors or three single purpose sensors, such as PE luminance sensors.

Each multi-sensor can be flexibly configured to use any combination of the sensory elements available. The UIS also features three independent 'Daylight Linking' engines.
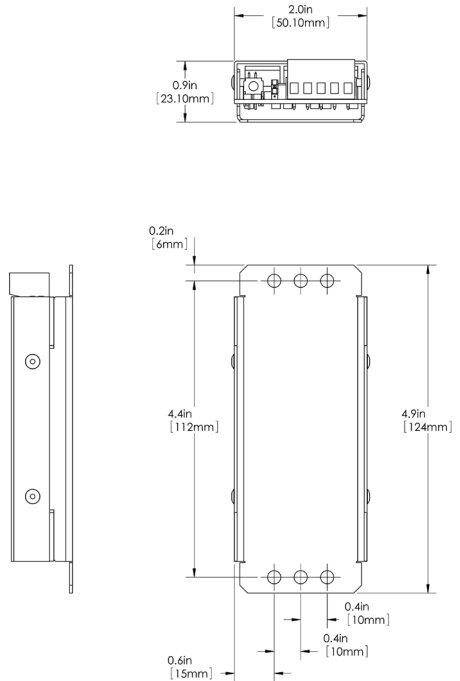
Location

The UIS should be installed in a dry ventilated location, where ambient conditions are maintained within the requirements of the unit.

Mounting

Note: All mounting holes are 4mm (0.15 in.) diameter. The two outer holes at either end allow you to attach the unit using plastic ties.
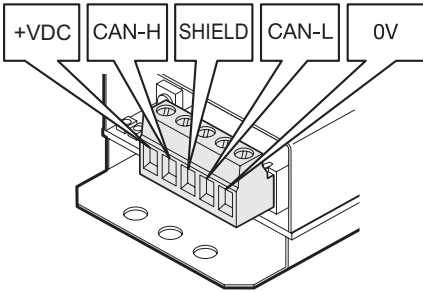
Dimensions

Weight

0.1kg

Environmental Data

Temperature: 0⁰C to +40⁰C
Humidity: 0 to 95% non-condensing

iCAN Network Connections

Connection to the iCAN network is made via a removable 5-way connector block located at one end of the UIS unit:

Function	iCANnet Cable Colours
0V	Black
CAN L	Blue
Shield	Silver
CAN H	White
+VDC	Red

Maximum segment distance: 500m (1640 ft)
Devices per segment: 100 (without bridge or repeater)
Additional power supplies may be required. Consult iLight for information on alternative cable types.

IMPORTANT NOTE: Connecting a mains potential cable to the iCAN Network terminals is likley to damage the unit and other devices connected, and invalidate warranty.

Network Power Requirements
Nominal operating voltage: 15V (12-18V)
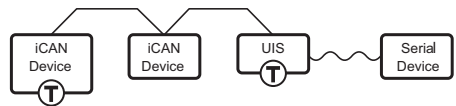Nominal operating current: 50mA (With up to three multi-sensors connected)

iCAN Network Identification
When pressed, the UIS will send an announcement message across the iCAN network.
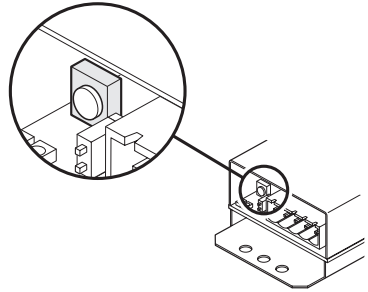

Network Termination
Connection to the iCAN network is made via a removable 5-way connector block located at one end of the UIS unit:
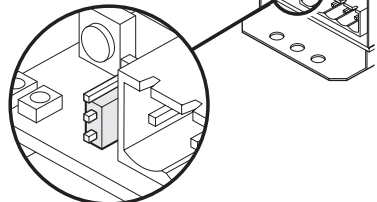

The UIS unit is supplied with termination disabled as standard. If it is connected as an end device in the iCAN network, you need to move the jumper to enable termination.

To enable UIS termination, move the jumper from the upper two pins to the lower two pins, as shown here:

Termination OFF
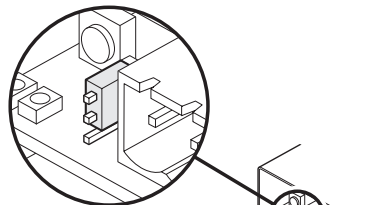
Termination ON

Sensor Connection

The UIS has three RJ12 connectors for up to three electrically compatible multi-sensors or single sensor devices in any combination.

Recommended multi-sensor types are:
iLight AXCS01SRJ Low Voltage Multi Sensor
Accessories:
AXCA05RJ: 5m Cable RJ12 to RJ12 (LSOH).
AX-FFRJ12: RJ12 to RJ12 Female Coupler.
AX-2FIMRJ12: 2 Female to 1 Male RJ12 Coupler.

Each multi-sensor has the following sensor elements:
An analogue proximity sensor
A digital Infra Red (IR) receiver which can be used in conjunction with the iLight HH17IR hand-held remote. The button actions are configurable via iCANsoft.
An analogue Photo Electric (PE) cell which indicates the light levels in the proximity of the sensor

RJ12 pin outs:
Pin 1   +12V
Pin 2   0V
Pin 3   +5V
Pin 4   PE sensor   [0 to 5V or 0 to 10V]
Pin 5   IR input   [digital 5V]
Pin 6   PIR sensor [analogue open collector]

Maximum recommended lead length is 10m (30').

The 5V & 12V supplies for the sensors are regulated and overvoltage protected.
The 12V supply is also current limited to 50mA.

Daylight Linking

The UIS module includes three iLight software driven 'daylight linking' engines.

These three independent controllers provide functionality, which allows iLight source controllers to modify area lighting, based on changing ambient lighting conditions.

At least one multi-sensor or PE sensor needs to be connected to the iCAN system for daylight linking to operate.

One to three multi-sensors, or PE sensors, can have their outputs averaged to provide a larger area to be controlled using a Daylight linking engine.

Lighting is controlled by selecting one of a maximum of seven predefined scenes. The scenes are determined by varying light levels.

For more information on how to configure and use the Daylight Linking function, please refer to the Technical Note: UIS Programming and Daylight Linking.