

## MLS Digital - Networked Managed Lighting System

# CDH4U5 4-Channel Programmable Intelligent Lighting Control Module

The Ex-Or Connect Digital family of Intelligent Connection Centres is being expanded with the launch of Hard-wired 4 and 8 channel products which, in common with the existing CDW125U5, are designed to provide flexible lighting control solutions in applications such as:

- Offices
- Classrooms
- Corridors
- Atria
- Hotel Rooms
- Meetings and Conference Rooms
- · Factories and Warehouses.

#### Introduction

The CDH4U5 is an intelligent LCM providing connections for multiple luminaires\*, up to 5 presence detectors and SELV inputs. The product simplifies installation whilst providing an intelligent lighting control system. Provision is made for 4 volt-free power outputs rated for 415V isolation.

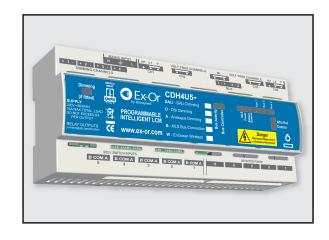
Additionally, the unit features a switched output for Maintained Live to allow initiation of Emergency Lighting Test. The CDH4U5 has the ability to operate from dual supplies with the capability to modify its operating behaviour when failure is detected on one of the supplies. This feature is described in greater detail in application note AN4027.

\*Note: Refer to Technical Data section to find out maximum allowable number of luminaires.

### **Key Features**

- Multiple SELV Occupancy Detector Inputs (Remote and Luminaire Integral Options)
- Multiple SELV User Override Switch / Volt-Free Contact Inputs
- · Signal level Volt-Free Outputs
- Multiple Independently Controllable Switching and Dimming Luminaire Drive Outputs
- Fully flexible mapping of Occupancy Detector and Switch Inputs to Luminaire Outputs
- Maintained Live Disconnect for Emergency Lighting Test Mode Initiation
- · Options for EnOcean Wireless Switch Inputs\*
- · Optional MLS Bus Connection
- Field upgradable to add dimming, MLS Bus and EnOcean Wireless\* communications post installation
- DIN Rail mounted.

\*Currently not available for the Australian market



#### **Key Benefits**

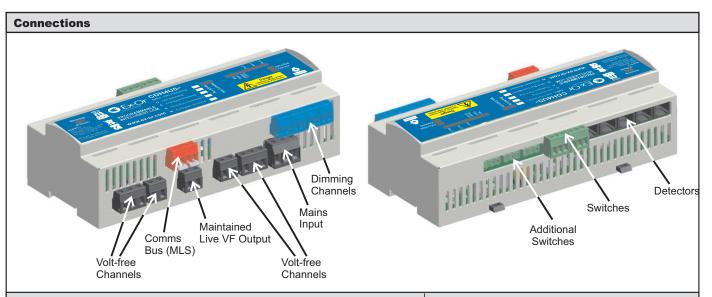
- · Quicker and easier installation
- Greater flexibility and detectors can be 'soft' adjusted without major disruption
- Operation from dual supplies with automatic changeover (option for 4-channel variant)
- Simple programming changes are made via an infrared programmer.

#### Commissioning

With the Connect Digital system, all configuration information is held within the Connection Centre itself, not the individual detectors. Most of the parameters are set up with the aid of a dedicated progamme running on a portable PC which communicates with the Connect Centre either by an infrared link , via one of the attached detectors, or by a specialised serial link into the Connect Centre itself.

When setting the actual light levels around which dimming or switching decisions are made, the system utilises the same simple and convenient method as used for Ex-Or's traditional stand-alone detectors. An infrared programming tool (HP2000 or HC5) is used to set the controlling or switching set-point for the photocell. The setting is then transmitted from the detector to the Connect Centre where it is uniquely associated with that particular detector. The setting will be preserved in the event of power failure. All settings can be re-programmed any number of times.

Please check www.ex-or.com to ensure this is the most recent issue - Ref: D5055A



Technical Data Dimensions

Operational supply: 230VAC ~50Hz/60Hz
Power consumption: 18W maximum
Product rating & recommended circuit protection: 16A or 20A MCB

Maximum load (per channel): 6A

Digital dimming ballasts per channel: 10 maximum
Digital dimming ballasts per LCM: 40 maximum

1-10V dimming ballasts per channel: 20mA (sinking only). See manufacturer's

specification: worst case 10 Ballasts but Philips HF-R, for example, 20 Ballasts.

Maintained live output: 6A

Mains supply terminal capacity: 2x2.5mm² or 1x4mm²

Override switch input connector: 2.5mm<sup>2</sup>
MLS bus connector: 2.5mm<sup>2</sup>

MLS bus cable: 1.5mm<sup>2</sup> unscreened twisted pair: see

Application Note AN4001

Case material: Self-extinguishing blend PC/ABS

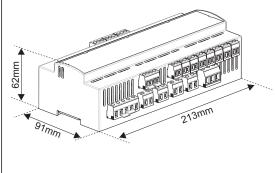
Case finish: Gray RAL 7035

IP rating: 20

#### Width (W) = 213 mm Height(H) = 62 mm

Depth(D) = 91 mm

Weight = 0.55kg approx



#### **Part Numbers**

Programmable Intelligent Lighting Control Modules (LCM):

CDH4U5 4-Channel LCM

CDH4U5-A 4-Channel LCM - Analogue Dimming
CDH4U5-D 4-Channel LCM - DSI Dimming
CDH4U5-DALI 4-Channel LCM - DALI Dimming
CDH4U5-B 4-Channel LCM with MLS Bus

CDH4U5-BA
CDH4U5-BD
CDH4U5-BDALI
CDH4U5-BP
4-Channel LCM with MLS Bus - DSI Dimming
4-Channel LCM with MLS Bus - DALI Dimming
4-Channel LCM with MLS Bus - DALI Dimming
4-Channel LCM with MLS Bus Power Supply Unit
4-Channel LCM with MLS Bus Power Supply Unit

- Analogue Dimming

CDH4U5-RBD\* 4-Channel LCM with MLS Bus Power Supply Unit

- DSI Dimming

CDH4U5-RBDALI\* 4-Channel LCM with MLS Bus Power Supply Unit

- DALI Dimming

#### Plug-in Cards:

CDHDC Plug-in Digital Dimming Card
CDHAC Plug-in Analogue Dimming Card
CDHBC Plug-in MLS Bus Interface
CDHRB\* Plug-in MLS Bus Power Supply Unit
CDHWL\* Plug-in Wireless EnOcean Card

#### Presence Detectors with photocell:

MLS2500CDR Corner-mount Microwave, semi-flush mounted MLS2500CDRSM Corner-mount Microwave, surface mounted 360° Microwave, flush mounted

MLS2401CDRSM 360° Microwave, surface mounted MLS2001CDR 360° PIR, flush mounted MLS2001CDRSM 360° PIR, surface mounted

MLSM2002 CDR Control Module for integration within luminaire
DHS 360° PIR detector for use with MLSM2002CDR - silver bezel
DHW 360° PIR detector for use with MLSM2002CDR - white bezel
DHFK-S Flush-mounting Kit for integral detector (DHS) - silver
DHFK-W Flush-mounting Kit for integral detector (DHW) - white

#### **Detector Patch Leads:**

BT5E030GY 3m Patch Lead BT5E050GY 5m Patch Lead BT5E100GY 10m Patch Lead

#### **Connectors:**

CDHDOP 2-way Plug - blue - dimming outputs (2 pieces)
CDHSLOP 2-way Plug - black - switched live outputs (2 pieces)
CDHIP 3-way Plug - green - SELV switch inputs and auxiliary relay

(5 pieces)

CDHBUSP 4-way Plug - red - MLS (1 piece)
CDHMIP 3-way Plug - black - mains input (1 piece)
CDH4VFP 3-way Plug - black - volt-free channels (2 pieces)

#### **Ancillary Items:**

UIRD1 USB Programming Dongle
RB2000 MLS Digital Bus Power Supply
RB2000LT MLS Digital Bus Power Supply 'Lite'

\* Planned

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