

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.

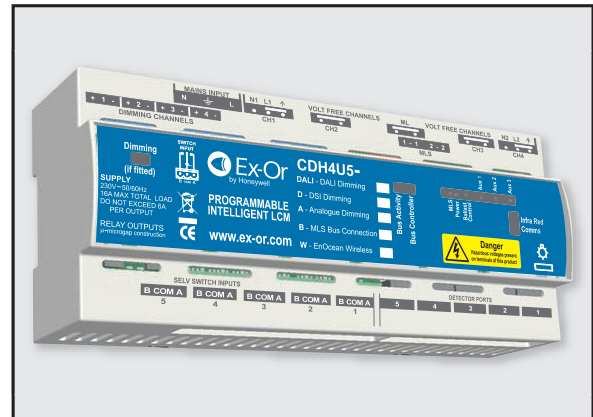
Additionally, the unit features a switched output for Maintained Live to allow initiation of Emergency Lighting Test. The CDH4U5 has the ability to operate from dual supplies with the capability to modify its operating behaviour when failure is detected on one of the supplies. This feature is described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

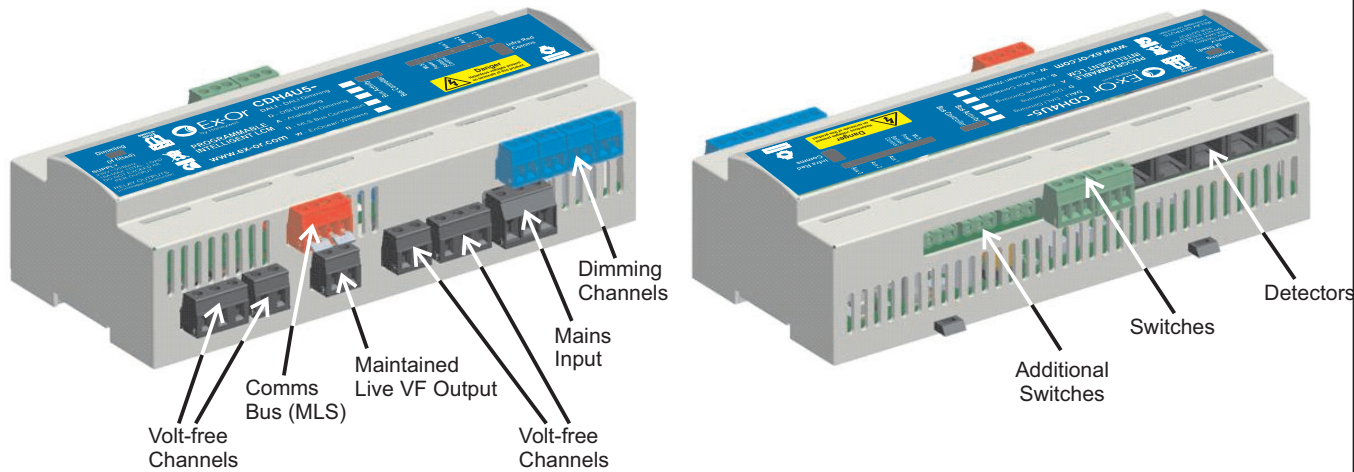
Commissioning

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 programme 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

Connections

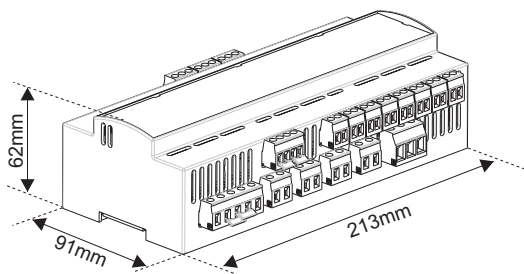


Technical Data

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:	2x2.5mm ² or 1x4mm ²
Override switch input connector:	2.5mm ²
MLS bus connector:	2.5mm ²
MLS bus cable:	1.5mm ² unscreened twisted pair: see Application Note AN4001
Case material:	Self-extinguishing blend PC/ABS
Case finish:	Gray RAL 7035
IP rating:	20

Dimensions

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	4-Channel LCM with MLS Bus - Analogue Dimming
CDH4U5-BD	4-Channel LCM with MLS Bus - DSI Dimming
CDH4U5-BDALI	4-Channel LCM with MLS Bus - DALI Dimming
CDH4U5-RB*	4-Channel LCM with MLS Bus Power Supply Unit
CDH4U5-RBA*	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
MLS2401CDR	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