



# Multiload Take Control

Product order code: MTC

**Multiload Take Control** is a dimming control product with three input ports which allow up to 3\* Rotary Modules (or sliders) - situated at different locations - to control a single dimmed lighting circuit. Movement of any of the rotary modules automatically routes the signal from that module to the lighting dimmer, so that control of the lighting can be taken immediately from any location. If Multiload's Contactor Controller (LCC) is also used in the system, the lamps can also be switched OFF (below minimum brightness) or ON from any location.

Instead of a signal from a rotary module, any of the input ports will accept a 1V - 10V signal from an automated control system, which can then 'take control' of the lighting.

\* larger numbers can be accommodated by linking units together.

## Input ports

Each of the three input ports supplies a 10V DC reference level (S3) to the rotary module and a 0V ground (S1). The signal from the rotary module or from the automated control system (1V - 10V) is fed to the signal input (S2) of the port.

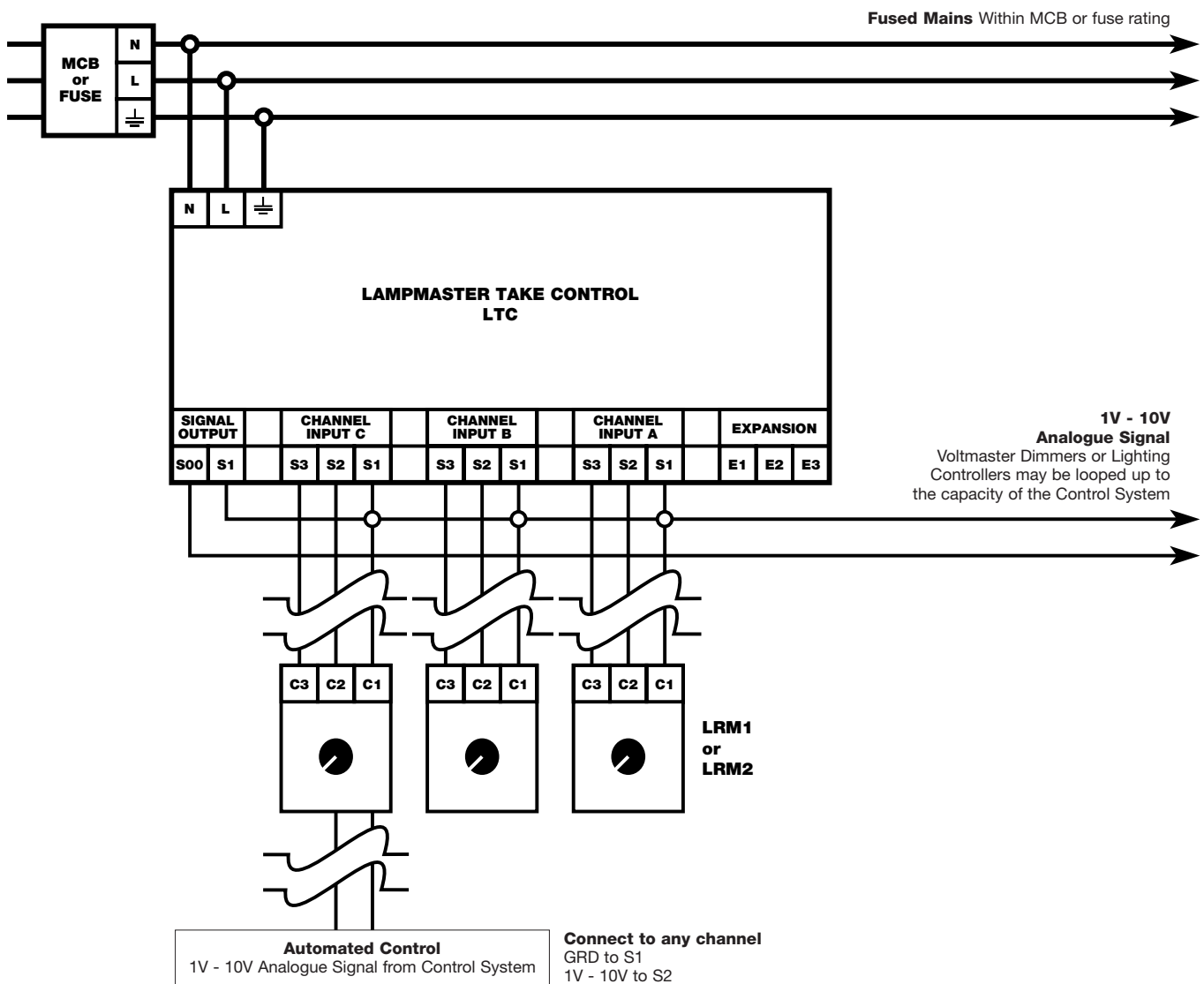
## Output port

The output port provides a boosted signal output (S00) and a 0V ground S1. The output signal (1V - 10V) follows the input signal (S2) which last underwent a significant change - due to adjustment of a rotary module or new command from a control system.

For safety, accidental disconnection of any input port gives a 10V output, resulting in full brightness at the lamps.

## Isolation

The unit is powered from the mains via a transformer isolated to SELV standards. This means that, provided all signal connections are suitably isolated, the rotary controls have SELV status and can be positioned in safety-sensitive areas.



## Technical data

### Terminal connections

#### Mains Input Terminals

- L Live
- N Neutral
- ⊕ Mandatory Earth

#### Mains input voltage

230V +/- 10%, A.C. 50/60Hz

#### Mains output terminals

- L Live
- N Neutral
- ⊕ Mandatory Earth

#### Low voltage signal connections

- S1 0V (ground reference)
- S2 10V analogue signal
- S3 10V output to potentiometer
- S4 Boosted output of signal on S2

#### Mains output ratings

10A resistive

### Specifications

#### Fuse

- F1 50mA T 5x20mm anti-surge
- F2 10A F1.25"

#### Relay

VDE approved. Isolation – coil to contacts 8mm 4KVA

#### Signal level for switching

Factory setting 1.5V (mean); hysteresis approx 0.5V

#### Disconnection – fault detection level

S2 less than 0.8

#### Maximum ambient temperature

50°C

#### Size

H270: W80: D40.

#### Mounting holes

4 of = 5mm : Centres 270mm x 60mm.

#### Finish

Matt Black; Powder Coated

#### Weight

800g.

#### Cable entries

Each end: 2 off 20mm holes fitted with blanking-off grommets.  
Remove to install 20mm cable glands.

#### Standards

Electrical Safety: conforms to EN60950, BS415 and IEC65 (with suitable cable entry, ie. cable glands or conduit)

SELV Isolation to EN60742 and BS3535

Manufacture is to ISO9001 and BS5750 quality standards.

CE Marked

## Installation procedure

### Preparation

Installation should be carried out by a suitably qualified person in accordance with good electrical practice and the appropriate national wiring regulations.

**Do not insulation test circuit wiring with units connected.**

Switch **off** mains electrical supply before commencement of installation. Using suitable fixing screws, secure the unit in a suitable position.

Wire in the unit as per the terminal connections given overleaf and shown in the diagram Fig.1 overleaf.

### Mains connections

- L1 Principal mains outlet**  
connect to mains lighting circuit or contactor
- L2 Ancillary mains outlet**  
connect to mains lighting circuit or contactor
- N Common neutral**

### Signal Connections

#### Input Options

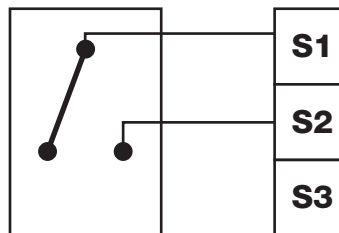
##### 1 from Rotary Module

- C1 on rotary module to S1 on MCC
- C2 on rotary module to S2 on MCC
- C3 on rotary module to S3 on MCC

##### 2 from switch

Select 0-10V operating mode on the internal selector switch.  
Connect external (low voltage) switch between S1 and S2.  
External switch open – principal mains output – **on**  
External switch closed – principal mains output – **off**

#### SWITCH



**0V-10V MODE**

##### 3 Control by automated system

OV ground from control system to S1 on MCC  
Analogue signal from control system to S2 on MCC

#### Output options

##### 1 VoltMaster Dimmer

S0 on MCC to C4 on VoltMaster  
S1 on MCC to C1 on VoltMaster

##### 2 output to Lighting Dimmerw (10V analogue DC)

S0 on MCC to analogue input signal of dimmer  
S1 on MCC to 0V ground of dimmer  
For full SELV status, verify isolation of lighting dimmer

##### 3 To fluorescent ballast (10V analogue DC)

Connect S0 and S1 to signal and ground terminals of ballast