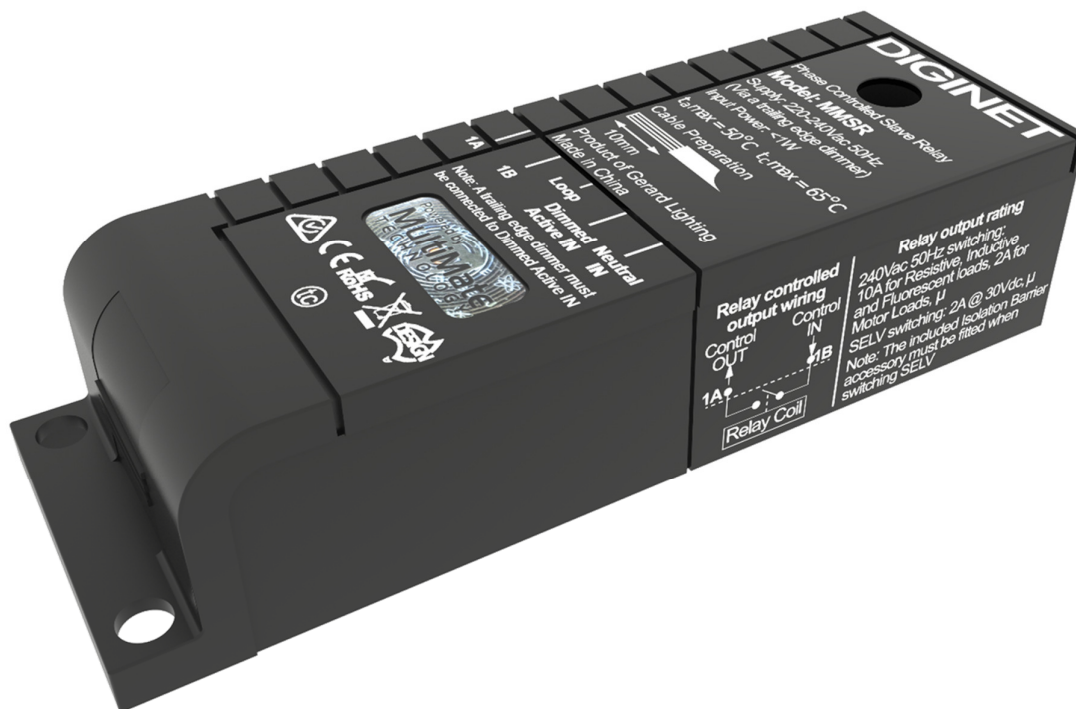


LEDsmart+ Phase Controlled Slave Relay

Provides general purpose ON/OFF control via 2-wire trailing edge devices

Compatible with

- Diginet MEDM Dimmer
- Diginet LEDsmart+ Dimmers (Rotary and Push Button versions)
- Diginet LEDsmart+ Timers (Minute and Hour versions)
- Diginet LEDsmart+ Electronic Switch
- Diginet Sitara Bluetooth Dimmer
- 3rd Party 2-wire trailing edge dimmers



Designed in Australia to meet Australian Standards and installation conditions



Introduction

Important notes and safety information



Electric shock may result in serious injury or death. Follow all warnings in this guide and on the product while working in accordance with the latest electrical safety practices. Connecting the LEDsmart+ Slave Relay Device to mains must be carried out by a suitably qualified installer who must work in accordance with standard safety procedures for mains-powered electrical equipment

There are no user serviceable parts inside this device. Do not attempt to disassemble or operate the device with any covers removed.

If you require information or assistance regarding the installation or operation of this product, contact Technical Support at Diginet Control Systems. Contact details are provided on the back cover of this guide and also at www.diginet.net.au

Package contents

The product package contains:-

- 1 x Slave Relay Device, Item MMSR
- 1 x Isolation barrier for switching SELV applications
- 4 x cable ties



A trailing edge dimmer, timer or electronic switch is required to control the Slave Relay Device. These are purchased separately

Product summary

The Slave Relay Device works in conjunction with 2-wire trailing edge dimmers / timers / electronic switches / sensors to enable general purpose ON/OFF control of loads up to 10AX. This makes it suitable for applications such as:-

- Bathroom exhaust fans and heat lamps
- Non-dimmable light fixtures or light fixtures with dimmer compatibility issues
- Switching large groups of light fixtures on/off
- Control of relay/contactor coils
- SELV load switching

The Slave Relay Device is designed to switch ON when a connected dimmer is dimmed to a threshold level of approximately 30% or more, and switches OFF at a threshold level of approximately 25% or less. The exact threshold values are dependent on the specific dimmer used.

The Slave Relay Device can be connected in parallel with a lighting load to allow dimmed control of lighting and switch control of other loads from the same dimmer (see connection diagram on page 4).

As well as being compatible with Dignet MEDM, LEDsmart+ and Sitara ranges, the Slave Relay Device is also compatible with most 3rd party 2-wire trailing edge / universal dimmer models in the market.

Product Features

- Allows general purpose switching from a 2-wire trailing edge dimmer / timer / electronic switch
- Can be controlled in parallel with a dimmed lighting load
- Switching capacity up to 10AX
- Voltage Free relay output contacts – suitable for both mains and SELV switching applications
- Includes an Isolation barrier accessory for SELV applications
- Large screw terminals suitable for 2 x 1.5mm² or 1 x 2.5mm² cables
- Large termination space for all cables
- Cable tie slots to assist installation
- Compatible with Dignet MEDM, LEDsmart+ and Sitara Bluetooth Dimmers
- Compatible with most 3rd party trailing edge, 2-wire dimmers
- Load bypass can improve or solve dimmer compatibility problems (see below)

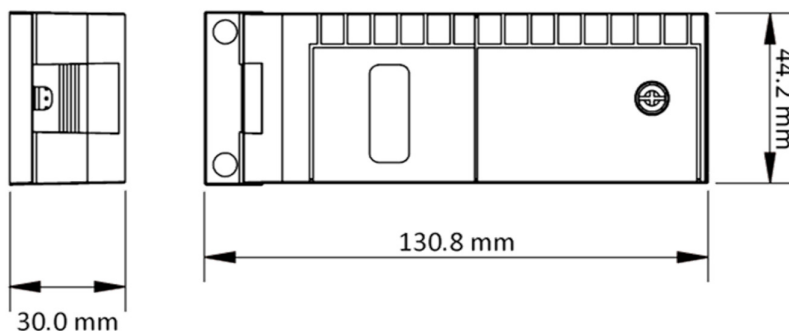
Load correction / Load bypass features

The device can function as both an off-state load bypass and on-state load bypass.

When switched off using 2-wire dimmers with an integrated on/off switch, some LED lights flicker/pulse and the dimmer backlight can also flicker. The off-state load bypass feature eliminates these issues.

When connected to a 2-wire dimmer, some LED lights can flicker when on. The on-state load bypass feature can improve compatibility of some LED load types with 2-wire dimmers and eliminate this issue.

Dimensions



Installation and wiring

Installing the Slave Relay Device

The LEDsmart+ Slave Relay Device is primarily designed for installing in a roof space. As long as the relevant AS3000 wire rules are adhered to, there are no further special requirements for the mounting of this device.

Wiring the device

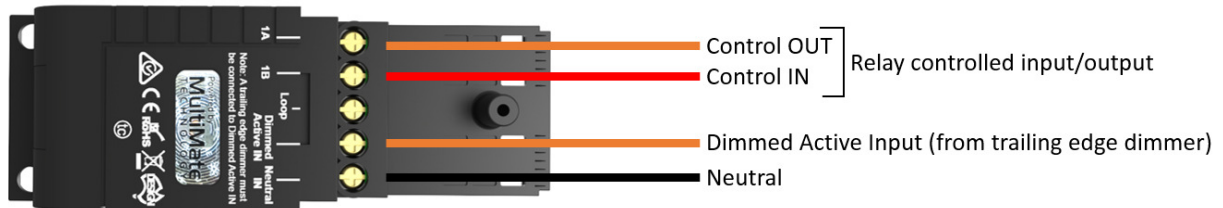


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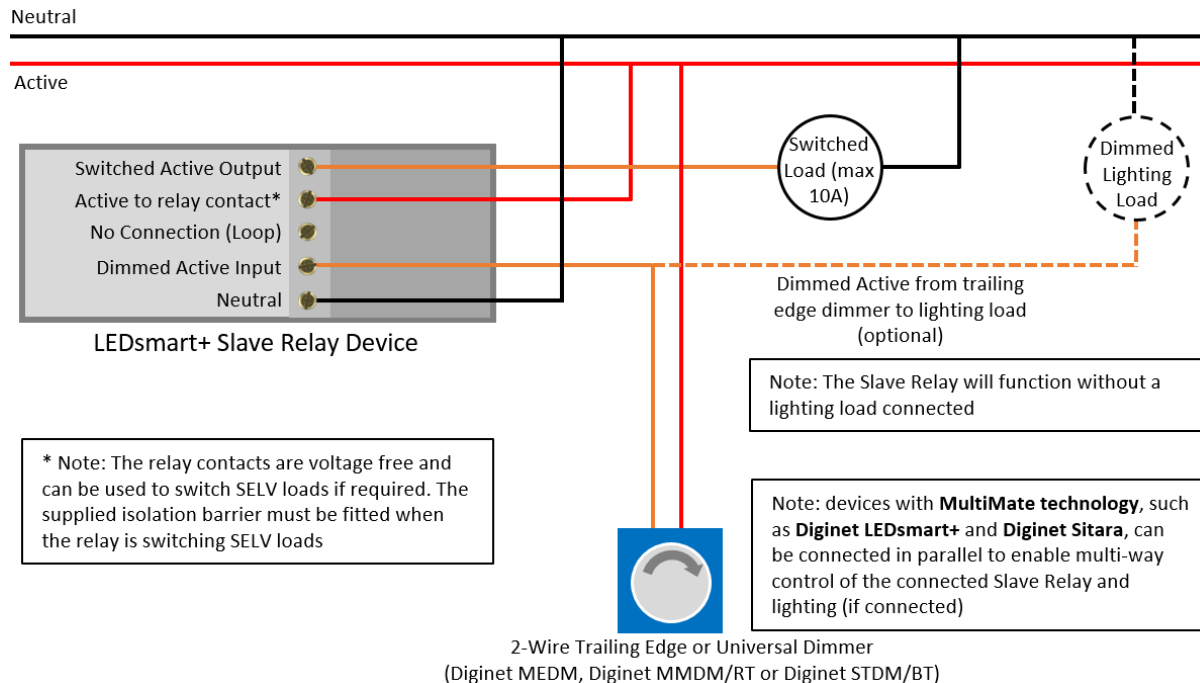
Connections

To power the device a 240Vac controlled Active input from a 2-wire trailing edge dimmer and a Neutral connection is required. The relay contacts are voltage free and are suitable for both 240Vac mains and SELV switching applications.

A separate 'Loop' terminal is also provided. This is not connected internally and can be used to loop additional conductors. The Loop terminal cannot be used for SELV applications.



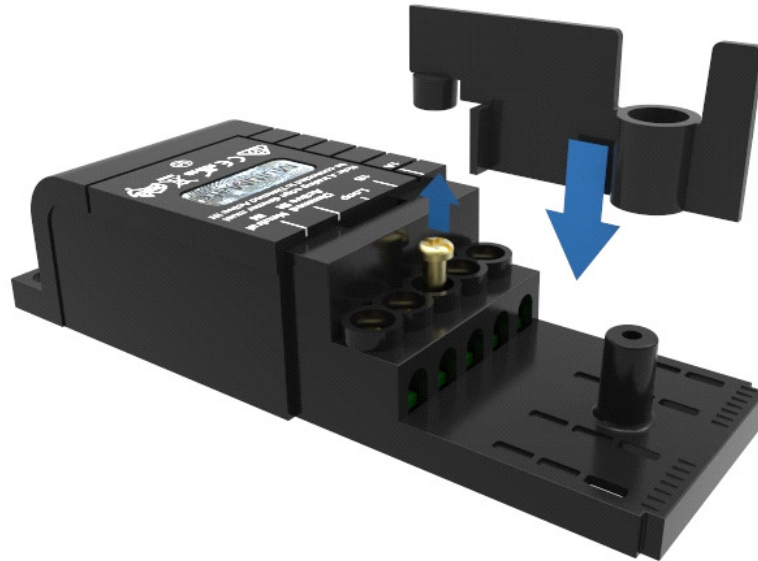
Wiring



Switching SELV loads via the Slave Relay Device

The relay contacts in the Slave Relay Device are voltage free and can be used to switch SELV loads if required. The supplied isolation barrier must be fitted when the relay is used to switch SELV loads.

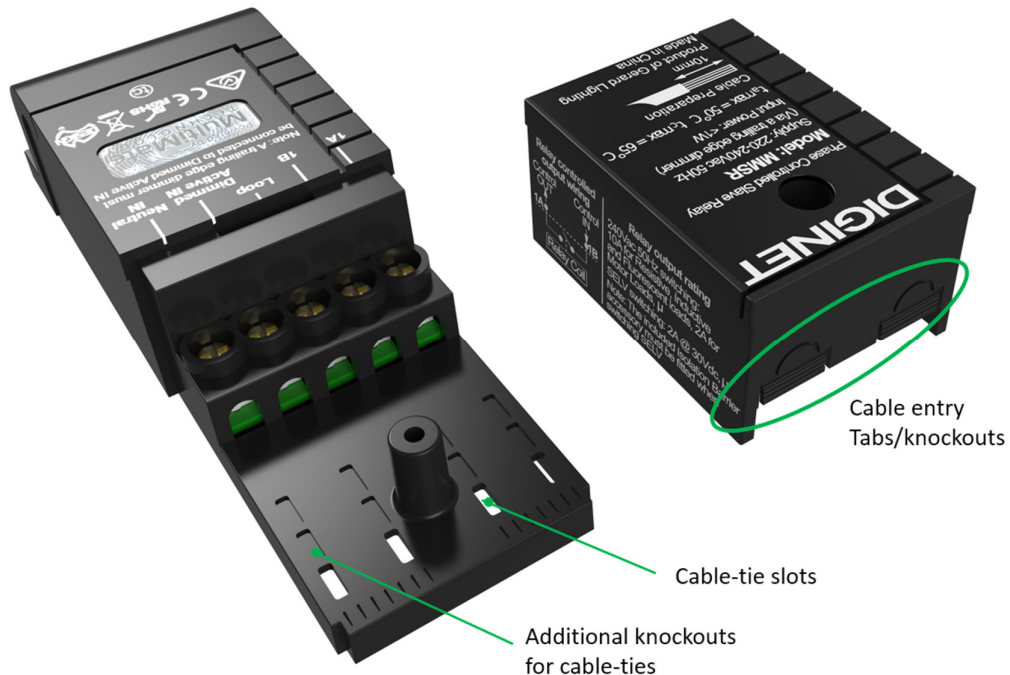
The isolation barrier is installed into the central (spare) terminal screw aperture and over the termination screw post, as shown below. The spare (loop) terminal screw must be removed before installing the isolation barrier which then push-fits into place.



Cable entry tabs/knockouts and cable ties






The terminal cover includes a series of cable entry tabs/knockouts for use with typical 1.5mm² and 2.5mm² Flat TPS/building cables. Knockouts are also provided for circular multi-core cables.

The base of the cable termination area includes a series of slots for securing cables with cable-ties. A series of knockouts is also provided, should more cable tie locations be required. Four suitable cable ties are included in the packaging.



Specifications and standards compliance

Product Specifications

Voltage	220 - 240Vac		
Frequency	50Hz		
Off-state power consumption	20mW		
On-State power consumption	0.75W		
Dimmer compatibility	Trailing Edge / Universal 2-wire dimmers Note: The device is not compatible with leading edge dimmers		
Thermal tolerance	Thermally protected against excessive ambient temperature conditions, or excessive capacitive loading associated with some LED loads		
Utility ripple signal tolerance	Tolerant to line voltage ripple signal injection found in AU/NZ markets		
Relay Type	Latching, high inrush capacity		
Relay Load Compatibility		LED Lighting	10A
		Fluorescent lighting	
		Incandescent lighting	
		Low Voltage lighting with electronic transformers	
		Low Voltage lighting with iron-core transformers	
Isolation Voltage	3.75KV line input to relay contact output		
MultiMate Control Limit	4 x MultiMate devices (maximum). A Diginet MMBP device can be added to increase the number of MultiMate devices connected to a Slave Relay Device. Each Diginet MMBP device increases the MultiMate Control Limit by an additional 4 devices		
Off-state Input Voltage Clamp level	< 20V at 50mA peak source current		
Off-state Input Current Sink capacity	50mA		
Conduction angle Relay-ON threshold	3.0ms		
Conduction angle Relay-OFF threshold	2.5ms		
Relay Response time	≤ 100ms typical (control device dependent)		
Wiring Input Terminals	Load (from controlling device) + Neutral + Loop		
Wiring Output Terminals (via Voltage-Free Relay Terminals)	Terminal 1A - Relay Output Terminal 1B - Relay Common		
Ambient Temperature	0 - 50°C		

Standards and compliance

AU/NZ, European & International EMC and Electrical Safety Frameworks and Standards

Regulation	Standard	Title
EMC	IEC 60669-2-1, EN 60669-2-1 AS/NZS 60669.2.1	Switches for household and similar fixed electrical installations - Part 2-1: Particular requirements - Electronic switches. (EMC clauses)
	AS/NZS CISPR 15	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
Electrical Safety	IEC 60669-1, EN 60669-1 AS/NZS 60669.1	Switches for household and similar fixed-electrical installations - Part 1: General requirements
	IEC 60669-2-1, EN 60669-2-1 AS/NZS 60669.2.1	Switches for household and similar fixed electrical installations - Part 2-1: Particular requirements - Electronic switches

The product range is in conformity with the essential requirements of the following EC Directives and accordingly carries the CE marking.

EC Council Directive	Title
2006/95/EC	Low Voltage
2004/108/EC	Electromagnetic Compatibility (EMC)
2011/65/EU	Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS)

Product warranty

This Diginet LEDsmart+ Slave Relay Device, item number MMSR has a two-year warranty against manufacturing defects in accordance with the following terms:

1. Nothing in this Warranty affects any person's rights under the Australian Consumer Law. The benefits to any person under the Gerard Lighting Warranty are in addition to the rights and remedies available under any Consumer Guarantees.
2. Subject to the other clauses of this Warranty, Gerard Lighting warrants that the Goods will be free of manufacturing defects and will perform to Gerard Lighting's specifications.
3. The benefit of the Gerard Lighting Warranty extends only to the owner of the property in which the Goods are installed (the Owner) for two (2) years after the date of purchase (Warranty Period).
4. If within the Warranty Period the Goods fail to perform to Gerard Lighting's specifications as a result of some defect in material or workmanship in the Goods (Defect) then Gerard Lighting will, at its option, repair the Goods or supply replacement Goods free of charge.
5. The Gerard Lighting Warranty will not apply to Goods:
 - 5.1. installed by any person other than a qualified tradesperson; or
 - 5.2. subjected to misuse, neglect, negligence or accidental damage; or
 - 5.3. operated in any way contrary to any operating or maintenance instructions; or
 - 5.4. improperly handled, installed or maintained; or
 - 5.5. altered or modified prior to or after installation.
6. The Gerard Lighting Warranty does not apply to faulty or defective design of Goods unless Gerard Lighting has designed the Goods and Gerard Lighting expressly accepts responsibility for such design in writing.
7. In order to make a claim under the Gerard Lighting Warranty, the Owner must:
 - 7.1. contact Gerard Lighting to obtain a Returned Goods Authorisation Number for the Goods and to be notified of Gerard Lighting's return address for the Goods by:
 - 7.1.1. freecall 1300 95 DALI (3254); or
 - 7.1.2. post to PO Box 314, Padstow NSW 2211; or
 - 7.1.3. fax to 1300 95 3257; or
 - 7.1.4. email to sales@diginet.net.au.
 - 7.2. return the Goods at the Owners expense to the return address notified by Gerard Lighting together with all accessories, instructions, specifications or other material supplied with the Goods and a notice in writing:
 - 7.2.1. stating the Returned Goods Authorisation Number for the Goods;
 - 7.2.2. describing in detail the defect or fault in the Goods;
 - 7.2.3. setting out the Owner's contact details (including postal address, email address and telephone numbers at which the Owner can be contacted during usual business hours).
 - 7.3. Gerard Lighting will not accept any returned Goods which have not been returned strictly in accordance with the above instructions.
8. Gerard Lighting will examine any returned Goods and if Gerard Lighting determines that they are defective through no fault of the Owner and are otherwise undamaged, Gerard Lighting will repair or replace the Goods free of charge.
9. Gerard Lighting will notify the Owner whether it accepts the Goods are defective within a reasonable time of return.
10. Gerard Lighting will not be responsible for any costs of de-installation, re-installation, returning Goods or for redelivery of the Goods (whether original or repaired and/or replacement Goods) by Gerard Lighting and any other related expenses of the Owner in claiming under the Gerard Lighting Warranty.
11. Gerard Lighting will not be responsible for any loss or damage to the Goods occurring while the Goods are in transit (either on return to Gerard Lighting or upon redelivery to the Owner of the original or repaired and/or replacement Goods).
12. Gerard Lighting will not be responsible (whether arising in contract or tort (including negligence) or under any statute) for any special, indirect, incidental, consequential or economic losses or damages (including loss of data, business, profits, revenue, anticipated savings, bargain, opportunity or goodwill) whether or not the possibility of those losses or damages being suffered had been brought to the attention of Gerard Lighting.

The Australian Consumer Law requires the inclusion of the following statement with the Gerard Lighting Warranty:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Gerard Lighting Pty Ltd (Gerard Lighting) reserves the right to alter the specifications, designs or other features of any items and to discontinue any items at any time without notice and without liability. While every effort is made to ensure that all information in this user and installation guide is correct, no warranty of accuracy is given and Gerard Lighting shall not be liable for any error

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July 2018

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Product of Gerard Lighting Pty Ltd

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