

# Pushing Boundaries in dimming technology



UNIVERSAL, LEADING AND TRAILING EDGE DIMMERS

# Advanced Technology

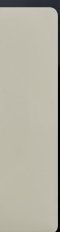
Forging a breakthrough in dimming technology with a new universal push button mechanism, the new HPM range of dimmers has been developed to provide solutions for a broad range of applications from small loads in first tier residential projects, to high - end residential and commercial loads.

With a selection including 250W, 400W, 450W, 700W and 1000W models, you can be confident you are optimising your costs and only paying for the capacity you need.

## Features:

- Models available to suit all transformers - electronic and wirewound
- Suitable for incandescent lighting, 240V halogen and dichroic lamps
- Flicker and noise free
- Short circuit protection (L&P series)
- Over temperature protection
- Soft start - lamp turns on gradually to increase lamp life
- Compatible with HPM plates - Standard, Excel, Linea and Architectural Metal.





# Push-button dimmers

Proving innovative, the HPM dimmer range now includes a universal, all-in-one switch and push-button dimmer mechanism which allows multi-way switching.

- Quick push to turn light on or off. Hold down to ramp light up or down
- Serene blue LED indicator - bright when load is activated and soft when load is off
- 450W rated
- Compatible with electronic and wirewound transformers
- Flicker and noise free
- Short circuit protection
- Soft-start to increase lamp life
- No accompanying switch required
- Allows multi-way switching
- Metallic button finishes available
- Upgrade existing switches to dimmers with ease
- Suitable for incandescent, 240V Linear halogen, low voltage halogen and GU10 240V halogen downlights



Master



Slave



## Multi-way switching

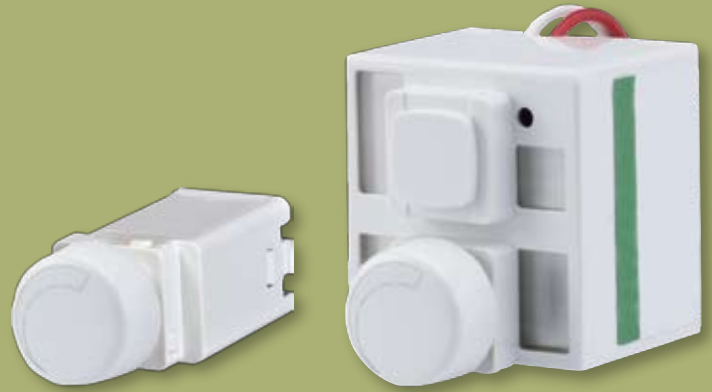
With the availability of a secondary (slave) mechanism, loads can now be controlled in multiple locations, a first for the Australian market. All functions of the 450P (switch on/off and dimming up/down) can be performed by the 450S. An existing two-way switch installation can be replaced by a 450P and 450S utilising existing wiring.

## One mechanism only – no accompanying switch mechanism required

Unlike the common rotary dimmer, this revolutionary new dimmer does not require an accompanying switch, so 6 dimmers can be installed on a 6 gang plate. This also means an existing switch can be easily replaced by the 450P for a no fuss upgrade.

# Rotary dimmers

HPM's rotary dimmers are split into two categories: the L series (leading edge) and the T series (trailing edge). The L series is suitable for wirewound transformers and the T series is suitable for electronic transformers (for a full compatibility chart see p.5).



- Soft-start to increase lamp life
- Over temperature protection
- Flicker and noise free
- Short circuit protection (L series)
- Models available to work with incandescent, 240V Linea halogen, low voltage halogen and GU10 240V halogen downlights

## Reliable and robust

HPM continues to improve and adapt technologies to suit changing conditions for optimum performance.

Here are 4 of our technical improvements explained:

### Flicker free

Electricity supply authorities send out a ripple signal on the power lines at various times during the day and night to control off peak hot water heaters. This signal can cause older-style dimmers to flicker slowly whenever this signal is transmitted. HPM's new dimmers contain a circuit to filter out this signal, thus preventing flickering.

### Noise free

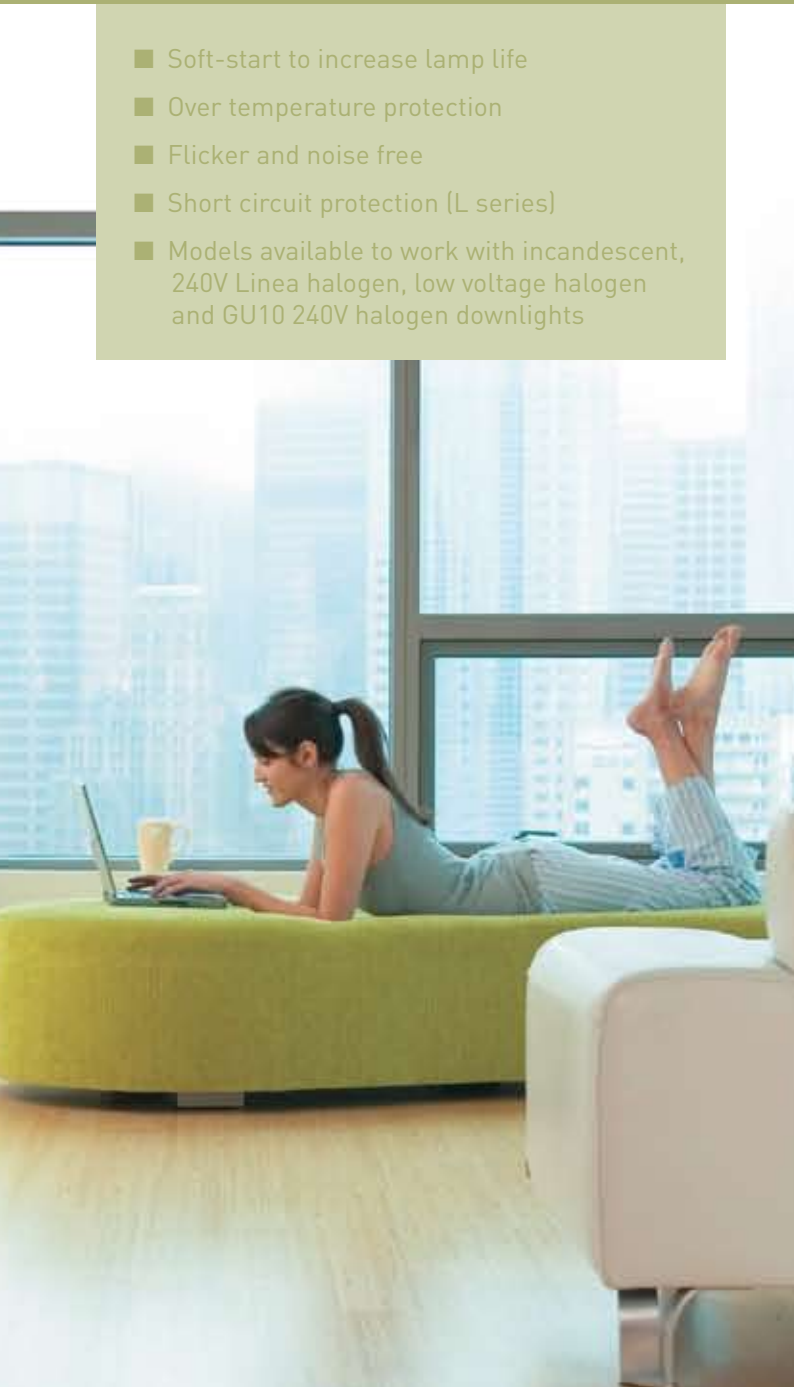
Some older-style dimmers also contain a large coil in order to pass EMC regulations. This coil can create an audible buzzing noise. To prevent buzzing, mosfet technology has been used in order to pass EMC without the use of coils.

### Over-temperature protection

If the dimmer is loaded beyond its maximum rating, a temperature sensor inside the dimmer will detect the resulting increase in temperature. The dimmer brightness will then reduce automatically until an acceptable temperature is reached.

### Short circuit protection

Dimmers can be damaged by abnormally large currents. For example, the failure of an incandescent lamp may cause a momentary surge current, or incorrect wiring could result in a short circuit across the load. Selected HPM dimmers contain a special circuit that detects these abnormally large currents and shuts the dimmer down before any damage can occur. Once the cause of the short circuit is removed, the dimmer returns to normal operation when it is switched off and then back on.



# Selecting the right dimmer

HPM's dimmer mechanisms are suitable for use with HPM's Standard, Excel, Linea and Architectural Metal ranges. Plated models are also available – please refer to HPM's Trade Catalogue for a full range of product codes. To help you choose the right dimmer for your projects, please check the tables below.

## Load Compatibility

Load Type	T Series (trailing edge)	L Series (leading edge)	Universal
Incandescent	✓	✓	✓
240V linear halogen	✓	✓	✓
Low voltage halogen with electronic transformer	✓	✗	✓
Low voltage halogen with wirewound transformer	✗	✓	✓
GU10 240V halogen downlights	✗	✓	✓

\* Universal dimmers are not compatible with any compact fluorescent lamps (CFLs). T and L series dimmers may work with some CFLs specifically marked as "dimmable". Dimmable CFLs may have different characteristics from brand to brand, and so each brand may require a specific type of dimmer to operate correctly. In some cases, the dimmable CFL may turn off or flicker when dimmed to a very low brightness. This can be overcome by ensuring that the dimmer brightness is not set too low.

## Maximum Loads

Dimmer Capacity	T Series (trailing edge)	L Series (leading edge)		Universal	
		Normal	with wirewound transformer	Normal	with wirewound transformer
250	250W	250W	200W	-	-
400	400W	400W	320W	-	-
450	-	-	-	450W	270W
700	700W	700W	560W	-	-
1000	1000W	1000W	800W	-	-

\* Compatible with XL, Linea and Architectural Metal plates. 700, 1000 series dimmer not compatible with Linea plates.

\*\* 700 and 1000 series dimmers require a 3 gang plate.



White



450PM - White



Cream



450PM - Cream



Black



450PM - Black



Beige



450PM - Matt Silver with white trim



Brown



450PM - Matt Silver with black trim

# Product codes

Product Code	Range	Plate Finishes	Power Rating (W)	Type	Colours
250LM	Mechanism	-	250	Leading	BE, BL, BR, CR & WE
250TM	Mechanism	-	250	Trailing	BE, BL, BR, CR & WE
400LM	Mechanism	-	400	Leading	BE, BL, BR, CR & WE
400TM	Mechanism	-	400	Trailing	BE, BL, BR, CR & WE
450PM	Mechanism	-	450	Universal	BL, CR, WE, BLMS & WEMS
450SM	Mechanism	-	-	Secondary Switch	BL, CR, WE, BLMS & WEMS
700LM	Mechanism	-	700	Leading	WE
700TM	Mechanism	-	700	Trailing	WE
1000LM	Mechanism	-	1000	Leading	WE
1000TM	Mechanism	-	1000	Trailing	WE

250L	Standard	Gloss	250	Leading	WE
250T	Standard	Gloss	250	Trailing	WE
400L	Standard	Gloss	400	Leading	WE
400T	Standard	Gloss	400	Trailing	WE
700L	Standard	Gloss	700	Leading	WE
700T	Standard	Gloss	700	Trailing	WE
1000L	Standard	Gloss	1000	Leading	WE
1000T	Standard	Gloss	1000	Trailing	WE

XL250L	Excel	Matt	250	Leading	WE
XLP250L	Excel	Gloss	250	Leading	WEWE
XL250T	Excel	Matt	250	Trailing	WE
XLP250T	Excel	Gloss	250	Trailing	WEWE
XL400L	Excel	Matt	400	Leading	BE, BL, BR, CR & WE
XLP400L	Excel	Gloss	400	Leading	WEWE
XL400T	Excel	Matt	400	Trailing	BE, BL, BR, CR & WE
XLP400T	Excel	Gloss	400	Trailing	WEWE
XL450P	Excel	Matt	450	Universal	WEMS
XLP450P	Excel	Gloss	450	Universal	BLBL, CR, CR, & WEWE
XL700L	Excel	Matt	700	Leading	WE
XLP700L	Excel	Gloss	700	Leading	WEWE
XL700T	Excel	Matt	700	Trailing	WE
XLP700T	Excel	Gloss	700	Trailing	WEWE
XL1000L	Excel	Matt	1000	Leading	BE, BL, BR, CR & WE
XLP1000L	Excel	Gloss	1000	Leading	WEWE
XL1000T	Excel	Matt	1000	Trailing	BE, BL, BR, CR & WE
XLP1000T	Excel	Gloss	1000	Trailing	WEWE

LN250L	Linea	Gloss	250	Leading	BL, CR & WE
LN250T	Linea	Gloss	250	Trailing	BL, CR & WE
LN400L	Linea	Gloss	400	Leading	BL, CR & WE
LN400LH	Linea (horizontal)	Gloss	400	Leading	BL, CR & WE
LN400T	Linea	Gloss	400	Trailing	BL, CR & WE
LN400TH	Linea (horizontal)	Gloss	400	Trailing	BL, CR & WE
LN450P	Linea	Gloss	450	Universal	BL, CR & WE



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