Modular Switching System

Standards and approvals

Switch modules
BS EN 60669-1: 2000
Indicator units, Buzzer units, Card units
BS 5733: 1995
Dimmer switches
BS EN 60669-2-1, BS EN 55015

TV/FM socket
Single non-isolated, BS 3041 Part 2: 1977
Universal Socket
BS 5733: 1995

Features

- Grid modules clip fit to frame without special tools
- Modules can be removed/replaced when grid frame is fixed in position
- Grid Plus styling matches Edge plate switch range
- All products are 100% tested before delivery
- Options of neon/filament indicators label in rocker or printed rockers
- Wide variety of switch modules rated at 10 or 20 amps
- Single or double dimmer modules available
- Vast range of grid plates and modules from one source
- High quality grid frame
- Grid frame earth terminal has 16mm² cable capacity
- Backed out and captive terminal screws
- Plated grid frame prevents corrosion
- Up to 24 gang in decorative metal finish frontplates
- Top access terminal screws

Description

Grid Plus is a comprehensive modular switching and monitoring system ideal for a variety of applications within the commercial, public and domestic sectors.

Grid Plus cover plates have the advantageous design features of the Edge range and the interchangeable modules also feature many of the wiring and installation benefits common to the Edge range.

The system is extremely easy to assemble (see illustration) and modules can be individually changed without re-wiring of complete assembly by removal of frontplate and simply clipping in or out as required. For further installation details see ‘Installation’ overleaf.

Universal Socket

The Universal Socket does not incorporate an earth contact. Therefore appliances needing earth connection, (class 1 equipment), must NOT be used with the socket.

The socket is intended for use with BS, USA & CEE standard plugs.

Module Dimensions (mm)

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24/240V buzzer units</td>
<td>65 x 25 x 34</td>
</tr>
<tr>
<td>Single dimmer module</td>
<td>65 x 25 x 57</td>
</tr>
<tr>
<td>Double dimmer module</td>
<td>65 x 49 x 57</td>
</tr>
<tr>
<td>All switch and indicator modules</td>
<td>65 x 25 x 22</td>
</tr>
<tr>
<td>Universal Socket unit</td>
<td>65 x 25 x 31.5</td>
</tr>
<tr>
<td>Fuse unit</td>
<td>65 x 25 x 31.5</td>
</tr>
<tr>
<td>Cord unit</td>
<td>65 x 25 x 42</td>
</tr>
</tbody>
</table>

Multiple dimmer installation load ratings When installing more than one dimmer in multi-gang plates, the power rating must be reduced to allow for heat generation.
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**Technical specification**

**Electrical**

**Switches**
- Voltage rating: 250V a.c., 50 Hz
- Current rating: 10 or 20 amps – no derating when used on fluorescent or inductive loads.
- Load type: No restriction
- Terminal capacity:
  - 4 x 1mm², 4 x 1.5mm², 4 x 1mm², 3 x 2.5mm², 2 x 4mm², 1 x 6mm²

**Indicator Units**
- Voltage rating:
  - 24V indicators - min. 21V, max. 36V
  - 240V indicators - min. 200V, max. 250V
- Terminal capacity: as switches

**Buzzer Unit**
- Voltage rating: 240V
- Terminal capacity: as switches

**Fuse Unit**
- Voltage rating: 250V
- Current rating: 13 amps
- Terminal capacity: 2 x 4mm²

**Cord Outlet**
- Voltage rating: 250V
- Current rating: 16 amps
- Terminal capacity:
  - Supply: 2 x 4mm²
  - Load: 1 x 1.5mm² multi-strand

**Dimmers**
- Voltage rating: 230V a.c., 50Hz
- Load rating:
  - For single dimmer installations:
    - K4500 min. 40W/VA, max. 400W/180 VA
    - K4501 min. 40W/VA, max. 220W/180 VA
  - K4510 min. 40VA, max. 400W
  - K4511 min. 40VA, max. 220W
- Load types:
  - K4500, K4501 tungsten filament (GLS) lamps
  - Low voltage lighting electronic or wire-wound transformers
- Soft start:
  - Raises from low to control knob setting in 1-3 secs, (increases lamp life significantly)
- Terminal capacity:
  - 1 x 2.5mm², 2 x 1.5mm²

**Universal Socket**
- Voltage rating: 125/250V
- Current rating: 16 amps
- Terminal capacity:
  - 2 x 6mm² (stranded)
  - 3 x 4mm² 3 x 2.5mm²

**Frontplate Dimensions (mm)**

1 module K14331

2 module K14332

3 module K14333

4 module K14334

6 module K14346

8 module K14348

9 module K14349

12 module K14352

18 module K14358

24 module K14354
Modular Switching System

Installation

General
Cut cables to length and make earth connections to grid. Earth: bond Grid Frame to metal mounting box. Grid frames are screwed to back box, modules wired as appropriate and simply clipped into grid frame by hand. No tools are necessary. The front plate is screw fixed to the grid frame to finish the assembly.

To remove or change modules, simply remove front plate. Individual modules fit perfectly into the front plate in flush fitting installations.

Grid mounting
An integral design feature automatically ensures that the modules fit perfectly into the front plate in flush fitting installations.

Some manual adjustment may be required for surface mounted applications.

1. Locate bottom tab of module in base of grid.
2. Module pushes into place at top with a ‘click’.
3. To remove module, press tab at top and lever forward.

Dimmers
The two module size dimmer can be fitted to any grid mounting frame over 1 gang. The supplied blank module can be placed at the required pitch to fill in the second position on the grid.

To avoid overheating when using more than one dimmer in the same Grid Plus Enclosure it is recommended that the dimmers are preferentially mounted on the bottom row on 6, 8, 9, 12, 18 and 24 Gang Enclosures, before mounting on any other rows and its load adjusted in accordance with the information provided in the Load adjustment Table 1 at the bottom of the next page.

Technical specification

Physical (all products)
Operating temperature: -5°C to +40°C
IP rating: IP4X
Max. installation altitude: 2000 metres

Dimmer wiring diagram

Typical mounting arrangement

Rocker window labels
The following labels are available for insertion into window rockers.

- air conditioner
- water heater
- dish washer
- store
- bedroom
- dining area
- kitchen
- lounge
- pool
- lights
- bar
- conference room
- office
- reception
- hall
- front
- middle
- bottom
- rear
- back
- top
- landing
- hall
- porch
- ladies
- gents
- exterior
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The simple installation process is shown below.

Spare labels and windows are available.

**TV/FM socket outlets**

The TV outlet must not be mounted in the same enclosure as mains exceeding 50V.

<table>
<thead>
<tr>
<th>Frontplate Size, Number of Gangs</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>9</th>
<th>12</th>
<th>18</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Power/Load per Row – Tungsten GLS Lamps – W</td>
<td>400</td>
<td>480</td>
<td>480</td>
<td>480</td>
<td>480</td>
<td>480</td>
<td>720</td>
<td>720</td>
<td></td>
</tr>
<tr>
<td>Max Power/Load per Row – Mains Tungsten Halogen Lamps or Low Voltage Transformers – W or VA</td>
<td>320</td>
<td>380</td>
<td>380</td>
<td>380</td>
<td>380</td>
<td>380</td>
<td>580</td>
<td>580</td>
<td></td>
</tr>
<tr>
<td>Max Power/Load for Total Plate – Tungsten GLS Lamps – W</td>
<td>400</td>
<td>480</td>
<td>480</td>
<td>740</td>
<td>740</td>
<td>940</td>
<td>940</td>
<td>1440</td>
<td></td>
</tr>
<tr>
<td>Max Power/Load for Total Plate – Mains Tungsten Halogen Lamps or Low Voltage Transformers – W or VA</td>
<td>320</td>
<td>380</td>
<td>380</td>
<td>600</td>
<td>600</td>
<td>750</td>
<td>750</td>
<td>1155</td>
<td></td>
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