BlueWave Intelligent Controller

The Chalmor BlueWave Intelligent controller is a remarkably versatile two-channel controller which provides a cost effective solution to many lighting and HVAC control applications based on combinations of occupancy and light level sensing and run on timers with optional manual switches in one or two zones.

Flexibility is a key feature of BlueWave, enabling a wide range of configurations to suit the control requirements of each project. Ease of use is assured by simple integrated push buttons and meaningful LED displays that clearly show the control status.

Each channel can be used to detect occupancy and/or light levels with the ability to connect up to six occupancy sensors to each BlueWave controller. The channels can operate independently of each other, providing a wide range of configurations within one, or across two zones.

BlueWave can be configured to operate with presence detection (lights come on automatically when someone enters the space) or demand-based absence detection (lights may be switched on manually and will be turned off automatically when no presence is detected for the set period). The light level control may also be set to prevent lights coming on in bright conditions.

BlueWave uses infra-red technology to provide precise movement detection. Extra low voltage in occupancy, light level sensors and manual switch wiring ensure simple installation. BlueWave sensors are also available with dual-detection technologies, combining passive infra-red (PIR) and microwave detection.

Chalmor BlueWave Intelligent Controller qualifies for the UK Government Enhanced Capital Allowances (ECA) scheme. Enabling businesses to write off the entire cost of purchase against their taxable profits in the same year, which can reduce the ‘cash out of pocket cost’ by up to 23%.
**Operating Environment**

- **Dimensions**: 216X 124X 62mm
- **Operating temperature range**: 0°C to 40°C
- **Operating humidity range**: 0 to 90% RH
- **Control IP rating**: IP30
- **Pollution degree**: II environment
- **Control safety construction**: Class II
- **Mains supply**: 230Vac nominal 200Vac to 265Vac actual, 50Hz
- **Recommended control supply fuse**: 3A
- **Rated impulse voltage**: 2500V
- **Conformities**: EMC – 89/336/EEC LVD – 73/23/EEC

**Performance Specification**

- **Maximum sensor rating**: 175mA
- **Timer Range**: 10s -60m or 10s-12 hours (selectable)
- **Light Level Control**: Min to Max
- **Status Indicators**: Red LED (Channel off) Blue LED (Channel on)
  
  **Explanation of flashing LED’s**
  - Flashing red *(Temporary Override off)*
  - Flashing blue *(Temporary Override on)*
  - Flashing red and blue *(Permanent override on)*

**BW2/C Version Electrical Specifications**

Power supply is isolated, therefore all remote sensor and remote switch wiring to the control does not need to be mains level rated, but should be insulated to the highest voltage present where entering the control box.

<table>
<thead>
<tr>
<th>Channel 1 relay rating</th>
<th>Channel 2 relay rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>16A / 240Vac resistive</td>
<td>16A / 240Vac resistive</td>
</tr>
<tr>
<td>6A / 240Vac inductive / fluorescent</td>
<td>6A / 240Vac inductive / fluorescent</td>
</tr>
<tr>
<td>3A / 240Vac compact fluorescent</td>
<td>3A / 240Vac compact fluorescent</td>
</tr>
</tbody>
</table>

**BW3/C Version Electrical Specifications**

All as above, plus additional relay (Channel 2).

<table>
<thead>
<tr>
<th>Channel 2 second relay rating</th>
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</thead>
<tbody>
<tr>
<td>16A / 240Vac resistive</td>
</tr>
<tr>
<td>6A / 240Vac inductive / fluorescent</td>
</tr>
<tr>
<td>3A / 240Vac compact fluorescent</td>
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</tbody>
</table>

**Product Codes**

- **BW2/C**: Blue Wave – Two Channel Controller
- **BW3/C**: Blue Wave – Two Channel Controller with additional Channel 2 relay output
- **PIR/CM**: Ceiling Sensor
- **BW/mini**: Blue Wave – Mini Sensor
- **PIR/WH**: Weather Proof Sensor
- **BW/35**: Blue Wave – Corridor Sensor
- **BW/CUR**: Blue Wave – High Bay / Curtain Sensor
- **BW/MW**: Blue Wave – Microwave Sensor
- **BW/LUX**: Light Level Sensor – for internal use
- **BW/LUX/WP**: Light Level Sensor – Weatherproof

**Disclaimer**

Due to continual research and product development, this specification is subject to change without notice.
BlueWave Configurations

These are just some examples of the configurations that can be easily achieved with BlueWave:
- Two stages of light level within a single zone
- Occupancy and light levels in a single zone
- Occupancy and light levels across two zones
- Occupancy and timed delay
- Two run-back timers

Plant Room

Sports Hall

Office with two zones