MINIATURE AND SUB-MINIATURE PHOTOCELLS

THE MOST TECHNOLOGICALLY ADVANCED MINIATURES AVAILABLE
ZODION TECHNOLOGY DELIVERS SMALLER PHOTOCELL UNITS THAT COMBINE LOAD HANDLING CAPABILITY WITH ADVANCED FUNCTIONALITY

Designed to meet the ever-increasing demand for smaller photocells, the Zodion miniature range shrinks technology to fit into even the tightest of spaces. Highly cost-effective, exceptionally efficient and now including the innovative MicroMini - a photocell that’s pushing back technological boundaries - Zodion miniature units save space, save money and save precious resources through ultra-precise switching.

Ground-breaking sub-miniature photocells

With a thread diameter of just 10mm (compared to a standard photocell’s 20mm) the MicroMini™ will go into the most restricted areas. Because it’s so small it’s far easier to seal than conventional units. It’s also much less obtrusive visually, leaving the lines of the lighting design uninterrupted.

There are two versions - one for a wide range of general applications, the other designed to meet the specific needs of street lighting OEMs.

TECHNICAL SUMMARY

<table>
<thead>
<tr>
<th>MicroMini™</th>
<th>MicroMini™ Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type: Solid State</td>
<td>EM Relay</td>
</tr>
<tr>
<td>Sensor: Photodiode</td>
<td>Filtered Photodiode</td>
</tr>
<tr>
<td>Voltage: 198 to 264VAC</td>
<td>198 to 264VAC</td>
</tr>
<tr>
<td>35Lux</td>
<td>70Lux</td>
</tr>
<tr>
<td>Switch on level: 1:1.5 Positive</td>
<td>1.05 Negative</td>
</tr>
<tr>
<td>Switching diff: 150W HPS subject to de-rating at higher temps</td>
<td>250W HPS</td>
</tr>
<tr>
<td>Typical load: -20°C to +75°C</td>
<td>-20°C to +75°C</td>
</tr>
<tr>
<td>Operating temperature: IA</td>
<td>2.5A</td>
</tr>
<tr>
<td>Max switching capacity: 10 - 15 Secs</td>
<td>10 - 15 Secs</td>
</tr>
<tr>
<td>Switching delay: Polycarbonate</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Enclosure material: &lt;5W</td>
<td>&lt;0.25W</td>
</tr>
<tr>
<td>Power consumption: EN 50081 - 1 EMISSIONS</td>
<td>EN 50081 - 1 EMISSIONS</td>
</tr>
<tr>
<td>Approvals: EN 50082 - 1 IMMUNITY</td>
<td>EN 50082 - 1 IMMUNITY</td>
</tr>
<tr>
<td>IP rating: IP 66 Correctly Fitted</td>
<td>IP 66 Correctly Fitted</td>
</tr>
</tbody>
</table>
**C-10 Cylinder Cell**

**TECHNICAL SUMMARY**

- **Type:** Solid State
- **Sensor:** Photodiode
- **Voltage:** 198 to 264VAC
- **Switch On Level:** 35 Lux
- **Switching Diff:** 1:0.5 Negative
- **Typical Load:** 150W subject to de-rating at higher temperatures
- **Opening Temperature:** -20°C to +75°C
- **Operating Temperature:** -20°C
- **Max Switching Capacity:** 1A
- **Switching Delay:** 10 - 15 Secs
- **Enclosure Material:** Polycarbonate
- **Power Consumption:** <1W
- **Approvals:** EN 50081 - 1 EMMISSIONS
- **IP Rating:** IP 66 Correctly Fitted

**ANOTHER ZODION INNOVATION**

A specialised solution developed to meet the demands of an ever-varying range of luminaire designs. The C-10 utilises the same innovative circuitry as the MicroMINI to offer the twin advantages of cylindrical body shape and tamper-resistant internal lock fixing.

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**HL2M (One Part) HL2M/R (Two Part Remote)**

**TECHNICAL SUMMARY**

- **Type:** Solid State
- **Sensor:** Photodiode 1C
- **Voltage:** 198 to 264VAC
- **Switch On Level:** 70 Lux
- **Switching Diff:** 1:1.5 Positive
- **Typical Load:** 2 x 250W HPS
- **Operating Temperature:** -20°C to +70°C
- **Max Switching Capacity:** 5A 60µF
- **Switching Delay:** 10 - 15 Secs
- **Enclosure Material:** Polycarbonate
- **Power Consumption:** <1W
- **Approvals:** EN 50081 - 1 EMMISSIONS
- **IP Rating:** IP 66 Correctly Fitted

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**HL4M (One Part) HL4M/R (Two Part Remote)**

**TECHNICAL SUMMARY**

- **Type:** EM Relay
- **Sensor:** Photodiode 1C
- **Voltage:** 198 to 264VAC
- **Switch On Level:** 70 Lux
- **Switching Diff:** 1:1.5 Positive
- **Typical Load:** 2 x 250W HPS
- **Operating Temperature:** -20°C to +75°C
- **Max Switching Capacity:** 5A or 60µF
- **Switching Delay:** 10 - 15 Secs
- **Enclosure Material:** Polycarbonate
- **Power Consumption:** <1W
- **Approvals:** EN 50081 - 1 EMMISSIONS
- **IP Rating:** IP 66 Correctly Fitted
**TECHNICAL SUMMARY**

**Type:** Fully electronic solid state  
**Sensor:** Photodiode 1C  
**Voltage:** 198 to 264V 50Hz  
**Switch on level:** 70 lux  
**Switching diff:** 1:0.5 neg 1:1.5 pos 1:3 option  
**Typical load:** 70W  
**Operating temperature:** -20°C to +75°C  
**Max switching capacity:** 0.625A or 10µF (subject to derating at higher temps)  
**Switching delay:** 15 seconds approx  
**Enclosure material:** Polycarbonate  
**Power consumption:** <0.5W  
**Stud length:** SS10: 13mm  SS11: 20mm  
**Approvals:** EN 50081 - 1 EMISSIONS  EN 50082 - 1 IMMUNITY  
**IP rating:** IP 66 Correctly Fitted

**LOW-LIGHT**

Developed for use within base-lit bollards, the Low-Light uses a discrete circuit which allows the unit to be installed into the gear tray.

When in position the sensor receives daylight from the top of the bollards and is unaffected by the fluorescent lights used within the unit.

**TECHNICAL SUMMARY**

**Type:** Solid state  
**Sensor:** Photodiode (infra red)  
**Voltage:** 198V to 264V 50Hz  
**Switch on level:** Dusk  
**Switching diff:** Off at dawn  
**Typical load:** 70W  
**Operating temperature:** -20°C to +75°C  
**Max switching capacity:** 0.625A or 10µF (subject to derating at higher temps)  
**Switching delay:** 15 secs  
**Enclosure material:** Polycarbonate  
**Power consumption:** <0.5W  
**Approvals:** EN 50081 - 1 EMISSIONS  EN 50082 - 1 IMMUNITY

**SS10/SS11 (One Part)**  
**SS10R (Two Part Remote)**  
**Increased life**  
**Long life components**  
**Energy saving**  
**0.5W power consumption**  
**Reduced burning hours**  
**Superior grade sensor utilised**  
**Ease of fitting**  
**Small case size and remote sensor option**  
**Peace of mind**  
**Proven Zodion reliability and performance**
Type: Electronic electro magnetic relay load switching
Sensor: Filtered photodiode
Voltage: 198V to 264V 50Hz
Switch on level: 70 lux and 55 lux options
Switching diff: 1:0.5 neg
Typical load: 2 x 250W (3 x 400W HD and 1 x 400W HT)
Operating temperature: -20°C +75°C (105°C high temp option)
Max switching capacity: SS12A - 5A or 60µF
SS12HD - 8A or 90µF
SS12HT - 4A or 50µF
Switching delay: 15 seconds approx
Enclosure material: Polycarbonate
Power consumption: <0.25W
Approvals: EN 50081 - 1 EMISSIONS  EN 50082 - 1 IMMUNITY
UMSUG CODE 9400011 ¼ Watt
IP rating: IP 66 Correctly Fitted
ONE OF THE UK'S FOREMOST TECHNOLOGY SPECIALISTS

With over thirty years of experience, Zodion enjoys a worldwide reputation for the manufacture and supply of advanced electronic photo control units and lamp ballasts. These include the breakthrough SmartCELL, an outstanding development that delivers power factor correction through innovation.

Our technologies are used extensively by local authorities, utility companies, original equipment manufacturers and contractors. We also provide lighting controls for highway signage applications.

LUMO LIGHTING

A sister company of Zodion, Lumo Lighting is a leading supplier of interior low voltage lights that combine innovative technology with stylish design and outstanding quality.

Particularly suited for caravans, boats, motor homes, recreational, commercial and specialist vehicles, the Lumo range is available with energy-saving fluorescent, halogen and incandescent light sources for 12 and 24 volt applications.

Zodion pursue a policy of continuous product improvement and reserve the right to change technical specifications without notice.

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