Citintelly Segment Controller is one of the elements of Citintelly Smart Lighting control system. It implements gateway function between Citintelly Luminaire Controllers and Citintelly Central Management Software (CMS). The Citintelly Segment Controller communicate with CMS over wired Ethernet connection or mobile operator network using TALQ protocol. It stores configuration of the energy profiles and event reporting profiles ensuring stable operation in any circumstances.

The Citintelly Central Management Software (CMS) allows remote control and monitoring of Luminaire Controllers, storing historical data and analyzing it. Citintelly Luminaire Controller should be installed in each street luminaire to enable its remote control and data monitoring.
<table>
<thead>
<tr>
<th>Description field</th>
<th>Qty</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply type</td>
<td></td>
<td>DC (for SC2MDxx) or AC (for SC2MAxx)</td>
</tr>
<tr>
<td>Supply voltage</td>
<td></td>
<td>AC 85-265 V / DC 19-72 V / PoE 18-48 V</td>
</tr>
<tr>
<td>Temperature range</td>
<td></td>
<td>-40 °C ... +75°C</td>
</tr>
<tr>
<td>Relay outputs</td>
<td>4</td>
<td>2 A@24 VDC (Max ratings 60W@220VDC, 62.5VA@250VAC)</td>
</tr>
<tr>
<td>Digital inputs</td>
<td>4</td>
<td>24 V tolerant digital inputs</td>
</tr>
<tr>
<td>Analogue input</td>
<td>2</td>
<td>1-10 V analogue input</td>
</tr>
<tr>
<td>Analogue output</td>
<td>1</td>
<td>1-10 V analogue output</td>
</tr>
<tr>
<td>Ethernet port</td>
<td>1</td>
<td>RJ45 connector with Power over Ethernet (PoE)</td>
</tr>
<tr>
<td>GSM network connection</td>
<td>1</td>
<td>GPRS/3G/LTE_Cat_M1 modem</td>
</tr>
<tr>
<td>WiFi/Bluetooth connection</td>
<td>1</td>
<td>Integrated WiFi (IEEE 802.11 a/b/g)/Bluetooth (BR/EDR v2.1) module with built-in antenna</td>
</tr>
<tr>
<td>DALI communication</td>
<td>1</td>
<td>DALI master (10 mA supply current @ 12V)</td>
</tr>
<tr>
<td>SIM slot</td>
<td>2</td>
<td>Push-pull dual micro SIM card (size 3FF) slot</td>
</tr>
<tr>
<td>Memory card</td>
<td>1</td>
<td>Push-pull slot for microSD card 4GB</td>
</tr>
<tr>
<td>Serial communication</td>
<td>1</td>
<td>RS232/RS485 (selected with jumper)</td>
</tr>
<tr>
<td>RF network connection</td>
<td>1</td>
<td>868MHz, IEEE 802.15.4 standard</td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
<td>WxHxD : 82x90x23 mm (82x90x46 mm for SC2MAxx...)</td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td>150 g (250 g for SC2MAxx...)</td>
</tr>
<tr>
<td>Mounting</td>
<td></td>
<td>DIN rail</td>
</tr>
<tr>
<td>Enclosure material</td>
<td></td>
<td>PA66 flame-retardant (UL94 V0)</td>
</tr>
<tr>
<td>Conductor cross-section</td>
<td></td>
<td>0.5-1.5 mm², strip length 8-9 mm</td>
</tr>
</tbody>
</table>
Drawings

SC2MDxx

SC2MAxx

Certificate conformity

Communication

* Provides interoperability with different vendors of CMS

RF and EMC matters

• *ETSI EN 300-220-2 - Electromagnetic compatibility and Radio spectrum Matters (ERM);
• *EN 301 489 - 1 (1.9.2) & 7 (1.3.1) - Electromagnetic compatibility and Radio spectrum Matters
• *EN 55015:2013 - Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
• *EN 61547:2009 - Equipment for general lighting purposes - EMC immunity requirements

Chemical

* Restriction of Hazardous Substances

* Self declaration
Features

- Support of TALQ protocol
- Flexible energy profiles based on astronomical/photocell/sensor data
- Built-in astronomical calendar based on GPS coordinates
- Versatile connection Ethernet/GSM/external modem (with CMS) and 868 MHz (with Luminary Controllers)
- Possibility to use two different operators SIM cards
- External RS232/485 communication interfacing Electrical Meters
- 4 relay outputs, 4 digital inputs, 2 analogue inputs, 1 analogue output, DALI line
- Up to 6 month of real time clock operation without external power supply
- Firmware update over the air

Smart city features

Citintelly provides superior functionality of its product by targeting topical and emerging needs of modern society referring requirements of the smart city concept. Main idea of the smart cities is based on efficient utilization of all resources. In case of outdoor illumination, the light should be provided, where and when it is needed. Therefore Citintelly luminaire controllers are equipped with two additional digital inputs to connect motion sensors thus extending system functionality in future. Moreover, taking into account wide diversity of the RF communication infrastructure, very fast deployment of distributed sensors could be realized, implementing monitor or control functions of some process.

The Central Management Software allows implementing electrical energy demand-side management depending the price of electrical energy or budget restrictions. Above mentioned functionality will automatically tune the dimming curves in defined ranges to minimize the consumption of electrical energy (consequently also operational costs). Thus, allows saving energy when there is lack of generation power and keeping planned budget.
Ordering codes

SC2M D72 868 4 4 TE BH S0000 W000 M00

Supply voltage
- 110 VAC: A11
- 230 VAC: A23
- 85-265 VAC: A26
- 19-72 VDC: D72
- 5 VDC: D05
- 12 VDC: D12

Communication frequency
- Europe band: 868
- North America band: 915

Relay quantity: 4

Digital input quantity: 2..4

RTC module
- Precision: TP
- Normal: TN

Internal backup source for RTC
- Hybrid (MAL219691205E3)
- SuperCap: BH
- None: B0

GSM modem
- GPRS (SARA Gxxx): SGxxx
- 3G (SARA Uxxx): SUxxx
- LTE Cat M1 (SARA Rxxx): SRxxx
- None: S0000

WiFi/Bluetooth modem
- ODIN W262: W262
- None: W000

Memory card slot
- microSD (4GB): M4G
- None: M00

For any questions contact:

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+371 26371717

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Segment Controller SC2M D72 868 4 4 TE BH S0000 W000 M00
6 – July – 2017 Data subject to change