CONNECTED SOLUTIONS

LUMANDAR AS4

CONNECTED ANNUAL ASTRONOMICAL CLOCK, PROGRAMMABLE VIA SMARTPHONE OR IOT-COMETA NETWORK FOR PUBLIC LIGHTING APPLICATIONS

10 year Warranty*

DESIGNED AND MADE IN FRANCE

ELIGIBLE Energy Savings Certificate PRODUCT

DESCRIPTION

Consistent with a spirit of sustainable development, this clock uses unlimited-life components only (no cell or battery) and has very low consumption. It is therefore fully eligible for Energy Savings Certificates.

Combined with its GPS antenna, the clock is automatically radio-synchronized and geolocated without any other intervention, i.e. it is totally «Plug & Play».

The programming software is used to set the functions that will be transmitted to the clock via secure Bluetooth from a Smartphone or an IoT-COMETA network. These programming functions allow the definition of twilight offset periods, weekly cuts as well as exceptional cut periods.

The software also offers consultation capabilities (ephemerides, lighting duration calculations, upcoming night instructions, night time instructions on a given date, GPS antenna reception information).

Access to programming can be secured by PIN code.

The clock has 2 independent relay outputs allowing the control of different outgoing lines, for example the management of street lighting and festive lighting.

It is also equipped with an optional sensor input that adds comfort by brightness measurement or presence detection.

POSSIBLE APPLICATIONS

- Automatic switching of street and public lighting when «On» and «Off» timing is required
- Independent management of traffic lane and pedestrian zone lighting or festive lighting
- Remote Management (Smart City)

*Warranty:
10 years: AS4 clock housing:
6 years: other equipment:

Doc no 104216C - Issue 20

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Features and Advantages

- Intuitive programming via Smartphone or IoT-COMETA network
- Energy saving device eligible for Energy Savings Certificates
- Radio-synchronization by GPS (accuracy: 3.43 km²)
  IGN localization possible by software (accuracy: 560 km²)
- Optimized ephemeris algorithm for public lighting
- 2 independent channels programmable for:
  - 12 annual twilight offset periods ± 99 minutes
  - 1 weekly daily program (1 cut-off/night)
  - 20 exceptional annual periods (2 cutoffs/night)
- Automatic and configurable summer / winter time change
- Four-digit PIN code locking
- 5 rapid diagnostic status indicators
- Optical sensor input or optional presence detector
- Reduced size: 3 pitches of 17.5 mm
- Wide range and low consumption power supply
- No cell or battery backup

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Technical Specifications

Settings:	Features:
Power Supply	85 to 265 Vac - 50 /60 Hz
Consumption	1 W typical or 11 mA @230 Vac
Outputs	2 potential-free NO relay contacts Max 6 A/250 Vac cos φ = 1 / AC-1 1500 W max incandescent or halogen lamps Max 300 W / 45 µF magnetic ballast discharge lamps Powerful relay for any other load type (LED, compact fluorescent lamps, electronic ballast...)
Operating temperature	-20 °C to +75 °C
Time stability	With GPS antenna: ± 0,3 s typ. / ± 0,8 s max. Without GPS antenna: ± 2 mn typical per year / ± 5 mn per year max. (Typical values at +25 °C, max values from -20 °C to +75 °C)
Backup	Program: Permanent (EEPROM) Date and time: 72 hours without power voltage (no cell or battery / automatique GPS time reset when power is turned on)
Sealing	Clock Housing: IP 20 Antenna / Sensor: IP 67
Communication	Bluetooth (mini 4.0)
Connection	Clock housing: Screw terminal block (for wire of 2.5 mm² diameter max) Antenna / Sensor: M12/4 pins screw-in connector - up to 50 m max
Mounting	Clock housing: DIN rail / 3 modules Antenna / Sensor: wall or bracket fitting
Weight	Clock housing: 200 g - Antenna / Sensor: 100 g
Conformity	Class II RoHS CE
*Warranty	Clock housing: 10 years Accessories (GPS antenna, sensor): 6 years

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10 year Warranty*

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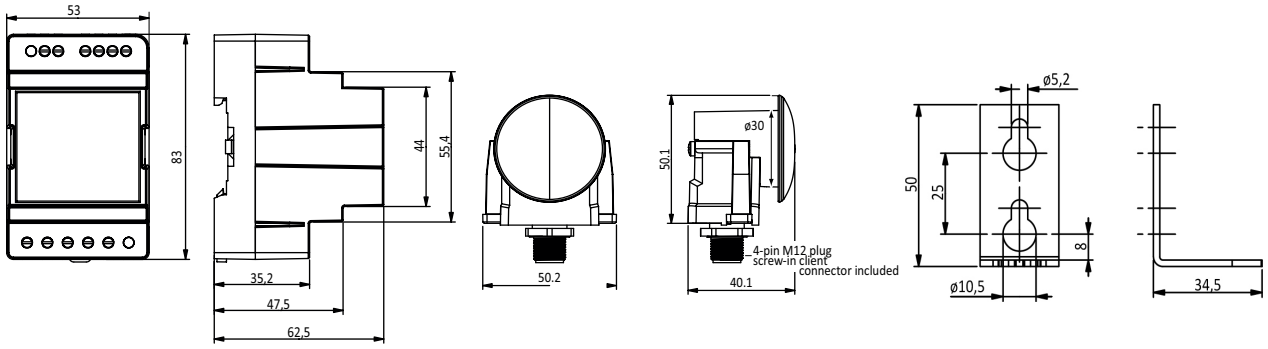
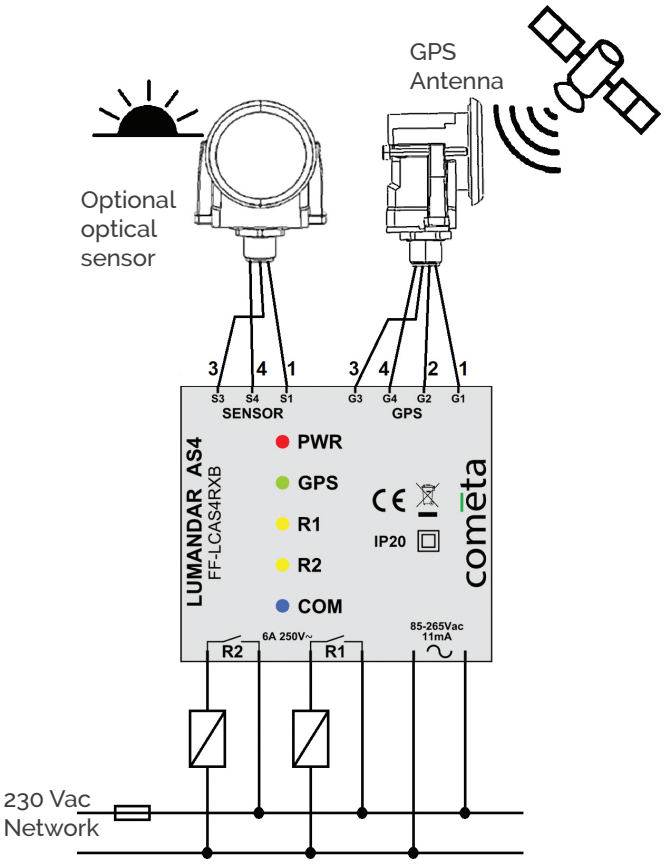
Diagrams

Figure 1: Fitting dimensions



Clock Housing | GPS Antenna or Sensor | Bracket

Figure 2: Typical application



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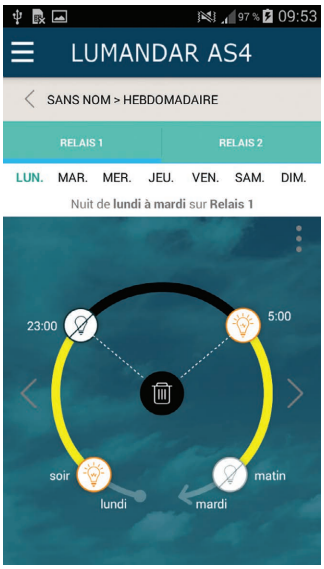
Figures 3: Software

Homepage

Main Menu

Offsets

Weekly



Exceptional

Simulation and performance