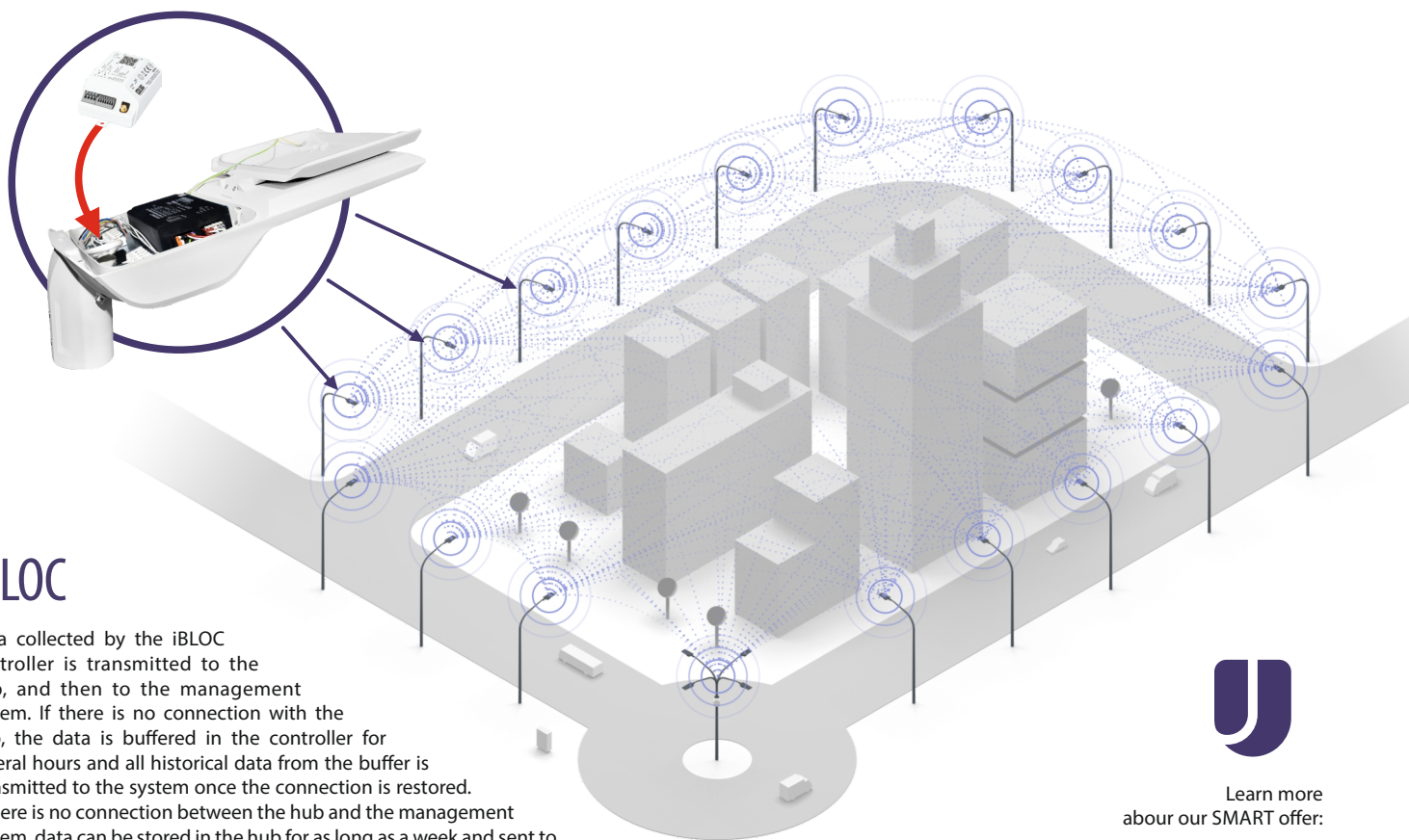




The iBLOC lighting controller has been created to facilitate the remote control of street lighting. It is available in multiple variants, which allow the user to control the lighting with the DALI 1...10 V power supply and to manage other components of luminaires (e.g. NTC thermistors). Thread radio communication enabled by iBLOC means, that the user can send commands and configurations, as well as receive alerts pertaining to events and current parameter values. iBLOC can be sold as a separate product for assembly in luminaires from different manufacturers, it is also used as a controller in LUG luminaires.



## iBLOC

Data collected by the iBLOC controller is transmitted to the hub, and then to the management system. If there is no connection with the hub, the data is buffered in the controller for several hours and all historical data from the buffer is transmitted to the system once the connection is restored. If there is no connection between the hub and the management system, data can be stored in the hub for as long as a week and sent to the system once the connection is restored.



Learn more  
about our SMART offer:

[www.lug.com.pl/Urban](http://www.lug.com.pl/Urban)

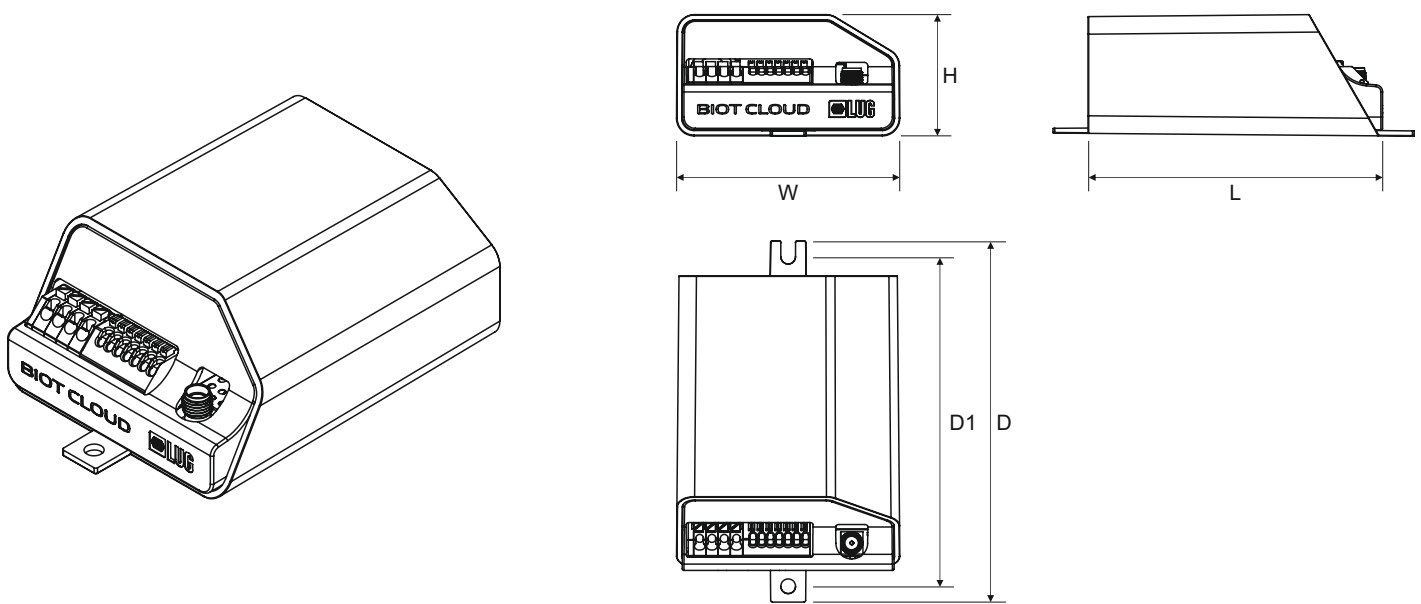
### GENERAL DATA

- 2.4 GHz radio controller with THREAD communication (radio-mesh)
- SMA connector for an external antenna
- Control via DALI interface or 1...10V output
- Can work in connection with an NTC thermistor temperature sensor
- Optional measurement of power consumed by the luminaire, of current, voltage, active, reactive and apparent power, as well as of the power factor
- Real-time clock which continues operation in the case of power breakdown
- Relay output for complete disconnection of the luminaire power supply
- 4 universal input/output lines
- Dedicated to the BIOTcloud lighting control system
- Lifetime of up to 100 000 h
- 5 year warranty

## AVAILABLE VERSIONS

Code	Type	Mounting	Power	Type of equipment	Dimensions [mm] LWHDD1
770011.210000011.000	basic	inside	230 V AC	1-10 V	84 64 35 103 94
770011.210010011.000	with power measurement	inside	230 V AC	1-10 V	84 64 35 103 94
770011.310000011.000	basic	inside	230 V AC	DALI	84 64 35 103 94
770011.310010011.000	with power measurement	inside	230 V AC	DALI	84 64 35 103 94

## DIMENSIONS



## ADDITIONAL PHOTOS



**ELECTRICAL PARAMETERS  
OF THE MODULE**
**TECHNOLOGICAL PROPERTIES  
OF THE ELECTRICAL MODULE**

<b>POWER SUPPLY</b>	Supply voltage [ $U_{in}$ ]: 220-240 V Supply frequency [ $f_{in}$ ]: 50 Hz Input power [ $P_{in}$ ]: 1,5 W	Net weight: 148 g Lifetime ( $T_a = 70^\circ\text{C}$ ): 100 000 h Warranty: 5 years
<b>INPUT/OUTPUT PARAMETERS</b>	Max. relay load current [ $I_{RL}$ ]: 3 A Max. relay load voltage [ $U_{RL}$ ]: 250 V Min. no. of relay operating cycles [ $N_{RL}$ ]: 10 000 Max. no. of controlled DALI devices [ $n$ ]: 5 Max. 1...10V output load current [ $I_L$ ]: 10 mA	Application: for outdoor luminaires Recommended connection (type of cable for power supply connectors): Cord or wire 22-18 AWG (0.5 - 1 mm <sup>2</sup> ), strip off isolation to 6 - 7 mm (galvanised cord) Recommended connection (type of cable for signal connectors): Cord or wire 20-24 AWG (0.2 - 0.75 mm), strip off isolation to 6 - 7 mm (galvanised cord)
<b>ENVIRONMENTAL PARAMETERS</b>	Ambient temperature [ $T_{amb}$ ]: -40 ... +70°C Storage temperature [ $T_{store}$ ]: -40 ... +85°C Relative humidity [h]: 10 ... 90% Degree of water and dust protection: Ip20	Type of power supply connector: Degson DG250-3.5-04P-11-01A Type of signal connector: Degson DG250-2.5-07P-11-10A
<b>OTHER</b>	Radio frequency protocol: IEEE 802.15.4, 6LoWPAN, Thread Frequency band: 2,4 GHz	

**DESCRIPTION OF MODULE CONNECTORS**

1	Nin	Input neutral cable
2	Lin	Input phase cable
3	Nout	Output phase cable
4	Lout	Output phase cable (operated with the relay)
5	+DALI/1...10 V	Positive output DALI or DIM 1...10 V
6	-DALI/1...10 V	Negative output DALI or DIM 1...10 V
7	Common	Signal ground, 1 NTC thermistor input
8	D IO-1	Digital In/Out port no. 1; 0-3.3 V
9	A IO-2	Analog In/Out port no. 2; 0-3.3 V
10	A IO-3	Analog In/Out port no. 3 with pull-up & pull-down resistors; 0-3.3 V;
11	D IO-4	Digital In/Out port no. 4; 0-3.3 V

The iBLOC controller has a range of analogue and digital interfaces for controlling the lighting points. Available in the basic version or in a version with a power supply parameter meter. The user can either control the operation of luminaires via the analogue interface (the on/off function with a contactor, controlling light intensity with the 1...10 V protocol) or digitally via the DALI 2.0 interface.

5 SLAVE-type DALI devices can be connected to each controller. The controller supports the connection of an NTC thermometer monitoring the luminaire temperature. A 4-pin extension socket enables the connection of devices with the use of UART, I2C, SPI, 1-Wire, RS485, GPIO, an analogue-to-digital converter and others. The controller has been designed in a modular way by separating the radio part from the rest of the device. This means it can be easily and quickly adjusted to the customer's needs. Such an approach creates the possibility of using a radio module which uses a different radio technology.

