

DESCRIPTION

The Gooee WIM-D2 DALI Dongle provides a wireless interface between DALI systems and the Gooee Building Operating System (BoS).

It functions as a control device, acting as a communications and sensing interface for a luminaire incorporating DALI device(s) which can provide Bus power.

The WIM-D2 can be connected to a wireless network for control via Gooee's Bluetooth SmartMesh. The WIM-D2 provides switching, dimming and power monitoring capabilities using the DALI protocol.

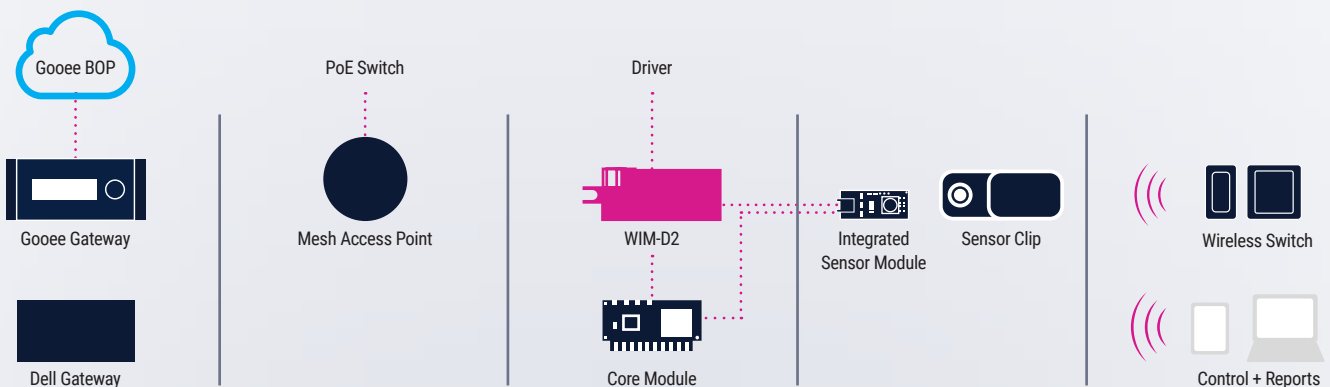
In addition, the WIM-D2 also provides an RS232 interface for the Gooee sensor module, providing environment & light quality data. Data from sensors is encrypted locally and communication between WIMs and Gateways or MAPs is encrypted using AES128 within the mesh. The WIM-D2 currently supports one-to-one bidirectional communication (for power metering) with a single OSRAM DEXAL or Philips SR driver, however introduction of this functionality for multiple (same type) drivers (max. total DALI Bus current 250mA) will be implemented in the near future. These drivers will be controlled as a single group.

Support for DALI/DALI2 PIR and Microwave sensors is also in development as well as additional WIM variants which support 0-10V analogue control.

FEATURES

- Standard DALI Bus powered, broadcast controller
- Currently compatible with Osram Dexas drivers (additional compatibility under testing). Compatibility with OSRAM DEXAL is in preparation.
- Supports:
 - Gooee's Bluetooth SmartMesh
 - Gooee sensor module interface on all versions
- Fully compatible with Gooee Building Operating System (BoS) and services
- The WIM-D2 supports over-the-air updates of firmware and passthrough updates for the Gooee sensor platform

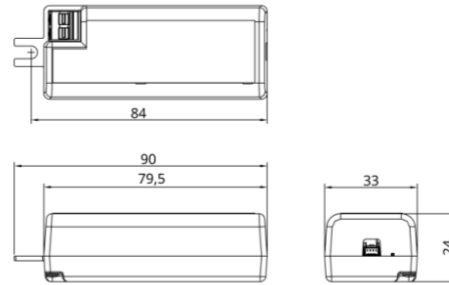
ECOSYSTEM ARCHITECTURE



TECHNICAL SUMMARY

Physical Characteristics

Dimensions(mm)	90 x 33 x 24mm
Dimensions(in)	3.6" x 1.3" x 0.95"
Mounting	M3 or M4 Screw
Weight	0.016 kg
Colour	White (RAL9010)
Connectors	DALI 0.25 - 2.5mm2 (1.5mm2 with ferrule)
Connector sensor	Molex 5019530407 (use compatible latching plug)



Environmental Requirements Intended for indoor use only!

IP rating	IP20
Ambient temperature (Celsius)	-20°C to 60°C
Ambient temperature (Fahrenheit)	-40°F to 140°F
Max case temperature (tc)	70°F
Humidity	0-95% non condensing
Approvals	CE (RED), (ENEC, EMC) EN 61347-1, EN 61347-2-11 EN 301 489-1, EN 301 489-17, EN 300 328

Reporting Luminaire Status

Reporting luminaire power usage (OSRAM DEXAL Version 1), (Philips SR)
DALI dimming (Logarithmic dimming curve support)
Sensor status (Gooee sensor interface)

Sensors

Compatible with Gooee Sensor Module

Electrical Supply

Supply voltage	DALI PSU according to IEC 62386 Part 101:2014
Voltage range	12 - 24V DC
Power requirements (peak) - with sensor	36mA / Average 21mA
Power requirements (peak) - without sensor	30mA / Average 15mA

Supported DALI commands

Only Broadcast functionality is presently supported; Further commands will be added in future releases, including address based messaging. The current command list is as follows:

BROADCAST_ADDRESS_DAPC	0xFE..... 0xXX (0-254)
BROADCAST_ADDRESS_COMMAND	0xFF.....
COMMAND_OFF	0x00
COMMAND_SET_DTR	0xA3
COMMAND_SET_DTR1	0xC3
COMMAND_SET_DTR2	0xC5
COMMAND_SET_FADE_TIME	0x2E
COMMAND_WRITE_MEMORY_LOCATION	0xC7
COMMAND_ENABLE_WRITE_MEMORY	0x81
COMMAND_QUERY_DEVICE_TYPE	0x99
COMMAND_QUERY_ONOFF_STATE	0x93
COMMAND_QUERY_DIM_LEVEL	0xA0
COMMAND_QUERY_POWER_LEVEL	0xA3
COMMAND_QUERY_STATUS	0x90
COMMAND_READ_MEMORY_LOCATION	0xC5

Physical Interfaces (Wired)

DALI / Power	2 pole screwless terminal block
Sensor	Gooee sensor interface (RS232)
Insulation	Casing - DALI = functional isolation DALI - RS232 = no This product is intended for build in use

Wireless Interfaces (Communications Module)

Gooee Bluetooth SmartMesh
Services (communications / control)

COMPATIBILITY SUMMARY

FEATURE	DALI	PHILIPS SR	OSRAM DEXAL
Unidirectional	✓	✓	✓
Bidirectional	✓	✓	✓
Dimming	✓	✓	✓
Power monitoring	✗	✓	✓
Operating hours	✗	✗	✗
Fault logs	✗	✗	✗
Broadcast	✓	✓	✓
Addressing of individual devices	✗	✗	✗

DIMMING CURVE

