

# Bluetooth sensors

## Environmental Bluetooth sensors

for the DIRIS Digiware system



gamma\_860.psd

### Function

**B-TRH** and **B-MAG** sensors communicate via Bluetooth with **DIRIS Digiware M** gateways and **DIRIS / ISOM Digiware D** displays.

The **B-TRH** sensor allows you to integrate temperature and humidity data into your Digiware measurement system. So, when it comes to bringing your energy efficiency into conformity with ISO 50001, it is now possible to correlate energy consumption with changing external factors. The sensor can also be used to anticipate maintenance operations, by issuing an alert in the event of overheating of the electrical cabinet or in the event of a leak, for example.

The **B-MAG** sensor is capable of detecting a loss of magnetic contact and issues an alert when a door of an electrical cabinet or technical room is opened.

### Advantages

#### Easy to install

- Built-in mounting accessory for easy installation.
- No additional wiring is required, the data is sent to the gateway or display via Bluetooth.
- An ultra-compact design that fits into the tightest of spaces.

#### Easy to configure

Automatic detection and pairing of sensors via D-xx display or M-xx gateway.

#### Maximum responsiveness

Sends real-time alerts when the measured temperature or humidity exceeds a predetermined threshold or when a door opening is detected.

### The solution for

- > Data centres
- > Industry
- > Buildings



### Strong points

- > Easy to install
- > Easy to configure
- > Maximum responsiveness

### Conformity to standards

- > EN 300 328 v2.2.0 (Radio)



- > ISO 14025

### Create your own project

- > Find the best DIRIS Digiware configuration:  
[www.meter-selector.com](http://www.meter-selector.com)



### Expert Services



- > Socomec offers a range of services to ensure a functional, accurate and reliable energy monitoring system as part of your ISO 50001 strategy.
- > Radio audit.
- > Commissioning.

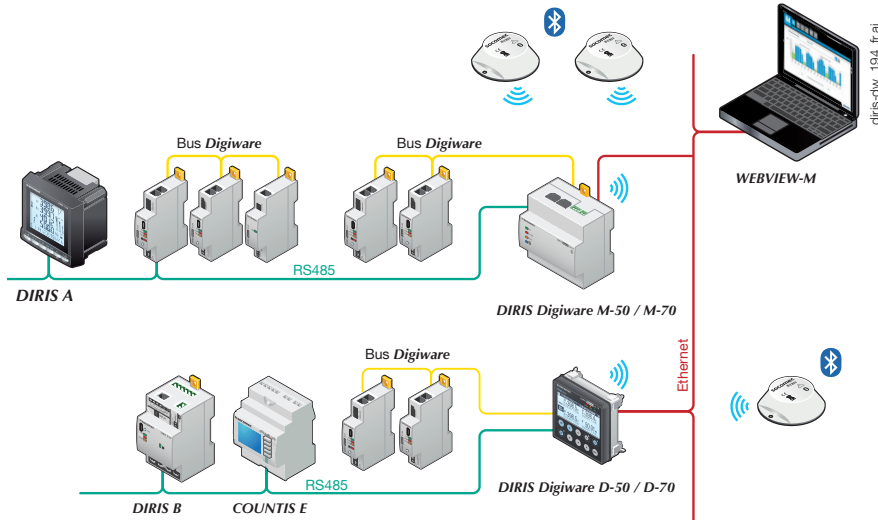
For further information, please talk to your Socomec contact.

## General characteristics

Pair up to 16 sensors with an M-xx gateway or D-xx display to enable local and remote viewing on the embedded WEBVIEW Web server.

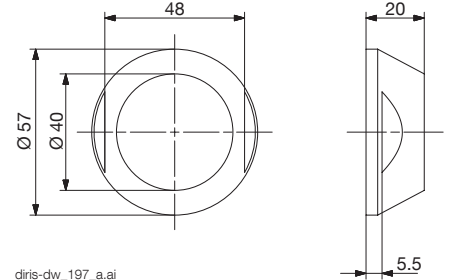
## Communication architectures

The data measured by the B-TRH and B-MAG sensors can be viewed locally on remote displays on the WEBVIEW server.  
Gateways and displays make this data available over the Ethernet network via Modbus TCP/RTU, BACnet IP and SNMP protocols.

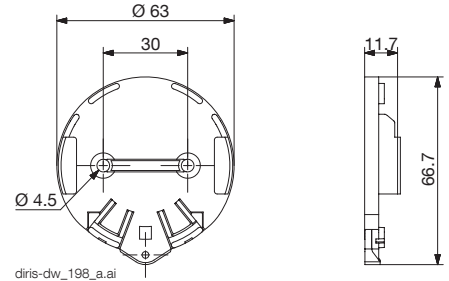


## Dimensions

### B-TRH and B-MAG



### Mounting bracket



## Technical characteristics

|                                      | B-TRH                                                                        | B-MAG                                          |
|--------------------------------------|------------------------------------------------------------------------------|------------------------------------------------|
| <b>Functional specifications</b>     |                                                                              |                                                |
| Frequency                            | 2.4 GHz – Bluetooth Low Energy 4.0/4.2                                       |                                                |
| Range                                | Up to 10 meters in open field (+4 dBm)                                       |                                                |
| Transmission frequency               | Adjustable from 0.1 to 10 seconds                                            | Adjustable from 0.1 to 10 seconds              |
| <b>Battery characteristics</b>       |                                                                              |                                                |
| Power supply                         | 3 VDC – internal lithium battery                                             | 3 VDC – internal lithium battery               |
| Lifetime                             | Up to 16 years                                                               | Up to 10 years                                 |
| <b>Measurement performance</b>       |                                                                              |                                                |
| Range                                | Temperature: -40 ... +85 °C<br>Humidity: 0 ... 100%                          | -                                              |
| Resolution                           | Temperature: 0.01 °C<br>Humidity: 0.01%                                      | -                                              |
| Accuracy                             | Temperature: ±0.4 °C<br>Humidity: ±2.5% max (0 - 90%); ±3.5% max (90 - 100%) | -                                              |
| <b>Mechanical characteristics</b>    |                                                                              |                                                |
| Weight                               | 41 g                                                                         | 41 g                                           |
| Case materials                       | DELFIN (POM C)<br>Food Compatible (90/128/EEC)                               | DELFIN (POM C)<br>Food Compatible (90/128/EEC) |
| <b>Environmental characteristics</b> |                                                                              |                                                |
| Ingress Protection rating            | IP65                                                                         | IP68                                           |
| Temperature                          | -40 ... +85 °C                                                               | -40 ... +85 °C                                 |

## References

| Range of Bluetooth sensors |                                         | Reference |
|----------------------------|-----------------------------------------|-----------|
| B-TRH                      | Temperature + humidity Bluetooth sensor | 4829 0800 |
| B-MAG                      | Magnetic contact Bluetooth sensor       | 4829 0801 |