



API V2

Technical specifications

Ver.

1.3 - 05/01/2022

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Introduction

The following describes the APIs made available by GBSCloud created through simple HTTP GET requests with which an external agent can independently request the reading of the data measured by the sensors. Authentication is carried out at each request through a Token Bearer which must therefore be contained within each authorization header in the format: **“Authorization: Bearer <token>”**



GET

`https://manage.gbscloud.eu/api/v2/sensor_data?firstDate=<First_Date>&lastDate=<Last_Date>&limit=<Max_Items>&device=<Device_Id>`

Returns a list of at most <Max_Items> elements (default and maximum value = 500), containing the measurements made by the device <Device_Id> from <First_Date> to <Last_Date>, structured as follows:

```
{
  "aggregationWindowMinutes": < >,
  "values":
  [
    {
      "_id": <>,
      "device": <>,
      "time": <>,
      "Altro 1": <>,
      .....
      "Altro N": <>
    }
  ]
}
```

The value of **`aggregationWindowMinutes`** field indicates on how many minutes any data aggregation was carried out. In the case of non-aggregated raw data, its value is null.



The **values** field contains an array of objects representing the individual measurements that are made up of three ever-present fields:

- **_id**: unique id of measurement
- **device**: unique id univoco of sensor requested
- **time**: date and time of measurement

and others depending on device type:

- **distance**: distance (or offset-distance if specified and offset value>0) between sensor and reflective surface [cm]
- **flowRate**: computed flow rate expressed according to the unit of measurement set
- **temperature**: measured temperature [°C]
- **x,y,z**: three axes acceleration module [mG]
- **mod**: vector sum module of three axes accelerations [mG]
- **generic**: array of values related to multichannel devices

Use example

Read request for C69369 device (which provides distance and flowRate values), from 1-10-2021 to 31/12/2021 with a maximum of 20 elements

Call

```
curl --location --request GET  
'https://manage.gbscloud.eu/api/v2/sensor_data?firstDate=2021-10-01&lastDate=2021-12-31&limit=20&device=C69369'
```



Server response

```
{
  "aggregationWindowMinutes": null,
  "values": [
    {
      "_id": "61c9dfe42d2f2c7f06cadab7",
      "device": "C69369",
      "time": "2021-12-27T15:46:41.000Z",
      "distance": 1206.8,
      "flowRate": 12.068
    },
    {
      "_id": "61c9d8db2d2f2c7f06cace81",
      "device": "C69369",
      "time": "2021-12-27T15:16:41.000Z",
      "distance": 1204.3,
      "flowRate": 12.043
    },
    {
      "_id": "61c9d1d32d2f2c7f06cac203",
      "device": "C69369",
      "time": "2021-12-27T14:46:41.000Z",
      "distance": 1205,
      "flowRate": 12.05
    }
  ]
}
```

