

SOFTWARE INFORMATION

ABB EQmatic

REST API Documentation

Follow this manual to read out instant meter values from EQmatic devices via REST API requests. The API can be used for all EQmatic devices QA/S x.yy.1.

Type	Version	Since	Note
QA/S 3.xx.1 Energy Analyzer, M-Bus	2.7.3 and higher	10/2018	
QA/S 4.xx.1 Energy Analyzer, Modbus RTU	2.0.0 and higher	-	Not released yet

Step 1. Obtain EQmatic API Authorization token

Login to EQmatic user interface via your browser. Navigate to user profile and click on "Authorization token" tab. Enable EQmatic API token authentication via the switch button, then generate token.

The token can be copied by clicking on the copy icon, next to the token input.

Now the generated token can be used in next steps to authenticate EQmatic API requests.

For the following description an example token with the following value is assumed:

44:c79e05852df8b4df4718447598286f33b9c0e22cbd (in reality the token value will be longer).

Please make sure to replace this token value with your own generated token when you make requests as described in next steps.

Step 2. Request meters list

Description

Returns list of all meters in the system. You must provide JWT token (received in the first step) in request header in order for it to work.

Request API endpoint

```
GET /api/meters/list
```

Request Header

Provide Authorization key in request header. The value for the key must be Long term <Token obtained in Step 1>. Sample header with Authorization key value:

Example:

```
{
  "Authorization": "Longterm 44:c79e05852df8b4df4718447598286f33b9c0e22cbd"
}
```

Response

Meter list. Use meter fingerprint in next request to get the data point list of the specific meter.

- Code: 200
- Sample response

```
[
  {
    "fingerprint": 1631407564,
    "primaryAddress": 2,
    "serialNumber": 73866,
    "manufacturer": "ABB",
    "medium": "Electricity",
    "version": 32,
    "baudrate": 2400
  },
  {
    "fingerprint": 3583338537,
    "primaryAddress": 4,
    "serialNumber": 73879,
    "manufacturer": "ABB",
    "medium": "Electricity",
    "version": 32,
    "baudrate": 2400
  },
  ...
]
```

cURL example

Replace requested parameters with your own.

```
curl --request GET --url http://192.168.56.1:1336/api/meters/list --header 'authorization: Longterm 44:c79e05852df8b4df4718447598286f33b9c0e22cbd'
```

Step 3. Request meter data points list

Description

Get data point list of a meter. Replace *:fingerPrint* in request URL with *fingerPrint* of one of the meters list obtained in Step 2. Then you will get list of data points for requested meter.

Request API endpoint

```
GET /api/meters/:fingerPrint/dataPoints/list
```

Request Header

Provide Authorization key in request header. The value for the key must be Longterm <Token obtained in Step 1>. Sample header with Authorization key value:

Example:

```
{  
  "Authorization": "Longterm 44:c79e05852df8b4df4718447598286f33b9c0e22cbd"  
}
```

Response

Meter data point list. It will contain properties like below, you can use this properties in next step to calculate final value for each data point:

- Code: 200
- Sample response

```
[
  {
    "unit": "Wh",
    "multiplier": 10,
    "coding": 4,
    "size": 2,
    "recordNumber": 0,
    "valueTypeDescription": "Power active imported total"
  },
  {
    "unit": "Wh",
    "multiplier": 10,
    "coding": 4,
    "size": 2,
    "recordNumber": 1,
    "valueTypeDescription": "Energy active imported"
  },
  ...
]
```

cURL example

Replace requested parameters with your own.

```
curl --request GET --url http://192.168.56.1:1336/api/meters/19/dataPoints/list --header 'authorization: Longterm 44:c79e05852df8b4df4718447598286f33b9c0e22cbd'
```

Step 4. Read meter's data points real time values

Description

Get real time data for meter with specific *:fingerPrint*.

Request API endpoint

```
GET /api/meters/:fingerPrint/values
```

Request Header

Provide Authorization key in request header. The value for the key must be Longterm <Token obtained in Step 1>. Sample header with Authorization key value:

Example:

```
{
  "Authorization": "Longterm 44:c79e05852df8b4df4718447598286f33b9c0e22cbd"
}
```

Response

Returns meter data points real time values, reads for each data point are available under values property. User can then use data from 3rd step to associate readings with specific data point of the meter by matching recordNumber value. This will allow obtaining information about unit and multiplier and to calculate final values. You can repeat this step to get real time updates of this data. See listing below with an example response.

- Code: 200
- Sample response

```
{
  "fingerPrint": 1631407564,
  "title": "Meter values",
  "values": [
    {
      "recordNumber": 0,
      "value": 1535711293
    },
    {
      "recordNumber": 1,
      "value": 1535711334
    },
    ...
  ]
}
```

cURL example

Replace requested parameters with your own.

```
curl --request GET --url http://192.168.56.1:1336/api/meters/19/values --header 'authorization: Longterm 44:c79e05852df8b4df4718447598286f33b9c0e22cbd'
```

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