

TERA Radon Program

IP Radon Probe TSRE 1
HTTP/1.1 access over methods GET, POST and PUSH



v.3 – 2021

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1 Introduction

This document describes technical specifications of HTTP/1.1 access over methods GET, POST and PUSH.

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2 Description

IP probe is also suitable for easy software integration to various and large network systems of third parties (smart house, industrial systems, etc.) due to standard communication protocol HTTP/1.1 and methods GET, POST and PUSH which allow read only current measuring data from probe. In case of HTTP on port 80 method GET functions and arguments are transferred by standard CGI (Common Gateway Interface). In case of HTTP method POST arguments are possible to transfer by "multipart/formdata" or "application/x-www-form-urlencoded".

Setting of probe basic parameters is made by standard web access over internet browser and IP address. See TSRE1 - Technical Specifications & Operation Manual.

3 Types of request and answer GET and POST

Location – Returns text chain with location of IP radon probe with *ipaddress*. This text is possible to set in „Location name“ in list „Connection“ on probe web.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=location](http://ipaddress/?@/unit=user&$.Value&name=location)

A: ROOM

Name – Returns text chain with product name and serial number of IP radon probe with *ipaddress*.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=name](http://ipaddress/?@/unit=user&$.Value&name=name)

A: TSRE1/16019

Short-term radon concentration – Returns current value of radon concentration (1-hour moving average) in Bq/m³ measured by IP radon probe with *ipaddress*. This value is updated every 4 minutes in IP radon probe.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=concentration](http://ipaddress/?@/unit=user&$.Value&name=concentration)

A: 152



Temperature – Returns current value of temperature (in measuring chamber) in °C measured by IP radon probe with *ipaddress*.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=temperature](http://ipaddress/?@/unit=user&$.Value&name=temperature)

A: 23

Relative humidity – Returns current value of relative humidity (in measuring chamber) in % measured by IP radon probe with *ipaddress*.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=humidity](http://ipaddress/?@/unit=user&$.Value&name=humidity)

A: 31

Long-term radon concentration – Returns current value of radon concentration (24-hour moving average) in Bq/m³ measured in IP radon probe with *ipaddress*. This value is updated every 4 minutes in IP radon probe.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=concentrationDay](http://ipaddress/?@/unit=user&$.Value&name=concentrationDay)

A: 83

Last record of radon concentration – Returns last recorded value of radon concentration in internal memory in Bq/m³. This value is updated according to adjusted time „Concentration Record“ in list „Settings“ on probe web.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=concentrationLast](http://ipaddress/?@/unit=user&$.Value&name=concentrationLast)

A: 155

Longitude – Returns current longitude of probe location. This value is possible to manually set in „Location longitude“ in list „Connection“ on probe web.

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=longitude](http://ipaddress/?@/unit=user&$.Value&name=longitude)

A: 16.6188150E

Latitude – Returns current latitude of probe location. This text is possible to manually set in „Location latitude“ in list „Connection“ on probe web

Q: [http://ipaddress/?@/unit=user&\\$.Value&name=latitude](http://ipaddress/?@/unit=user&$.Value&name=latitude)

A: 49.2107581N

4 Method PUSH

PUSH configuration in probe

Setting of PUSH parameters in probe is made by standard web access over internet browser and IP address. See TSRE1 - Technical Specifications & Operation Manual. On the list „Setting“ you can set:

HTTP push server – IP address of the server where the probe will regularly send the measured data

HTTP push port – Port number of the server where the probe will regularly send the measured data

HTTP push interval – Interval how often the probe will send the measured data to the server in minutes

Format and type of sending data

Example of data message is:

```
GET /tera?c=152&t=23&h=31&l=155&name=ROOM&lat=49.2107581N&lon=16.6188150E
```

where:

c... Current value of radon concentration (1-hour moving average) in Bq/m³ measured by IP radon probe. This value is updated every 4 minutes in IP radon probe.

t... Current value of temperature (in measuring chamber) in °C measured by IP radon probe.

h... Current value of relative humidity (in measuring chamber) in % measured by IP radon probe.

l... Last recorded value of radon concentration in internal memory in Bq/m³. This value is updated according to adjusted time „Concentration Record“ in list „Settings“ on probe web.

name... Text chain with location of IP radon probe. This text is possible to set in „Location name“ in list „Connection“ on probe web.

lat... Current latitude of probe location. This value is possible to manually set in „Location latitude“ in list „Connection“ on probe web.



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lon... Current longitude of probe location. This value is possible to manually set in „Location longitude“ in list „Connection“ on probe web.

5 Revision History

Revision	Date	Comments
Rev.1:	31.1.2017	Initial release
Rev.2:	5.3.2021	Add concentrationLast, longitude, latitude
Rev.3:	28.5.2021	Add PUSH metod