



Smart  
connections.

## XML Data interfaces description

PIKO MP plus

# Version

Release date: 2021-02-15

Version: 2.1

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# 1. Introduction

This description is used to define the data transfer process and the data format between PIKO MP plus inverters and applications or devices that want to process the inverter data.

The service is designed for read access only. It is therefore possible to implement monitoring tasks and data loggers in the local network.

## 2. Data format

The data is transmitted in the form of an XML structure. The content of the transferred file can be represented graphically as follows:

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<root>
<Device Name="PIKO 4.6-2 MP plus (S)" Type="Inverter" Platform="Net16" HmiPlatform="HMI17" NominalPower="3600" UserPowerLimit="nan" CountryPowerLimit="nan"
Serial="xxxxxxxxxxxxxxxx" OEMSerial="xxxxxxx" BusAddress="1" NetBiosName="xxxxxxxxxxxxx" WebPortal="PIKO Solar Portal"
ManufacturerURL="kostal-solar-electric.com" IpAddress="xx.xx.xx.xxx" DateTime="yyyy-mm-ddThh:mm:ss" MilliSeconds="815" >
  <Siblings>
    <Measurements>
      ...
    </Measurements>
    <Events>
      ...
    </Events>
    <Yields>
      ...
    </Yields>
    <Versions>
      <Software Device="HMI" Name="BFAPI STM32F4" Version="2.8.0"/>
      <Software Device="HMI" Name="FBL" Version="1.4.0"/>
      <Software Device="HMI" Name="APP" Version="3.16.34"/>
      <Software Device="HMI" Name="OEM PIKO 4.6-2 MP p" Version="1.0.1"/>
      <Software Device="PU" Name="APP" Version="4.3.0"/>
      <Software Device="ENS1" Name="APP sim" Version="1.0.0"/>
      <Software Device="ENS2" Name="APP sim" Version="1.0.0"/>
      <Software Device="BDC" Name="APP sim" Version="3.10.0"/>
      <Hardware Device="HMI" Version="1"/>
      <Hardware Device="PU" Version="99"/>
      <Hardware Device="ENS1" Version="99"/>
      <Hardware Device="BDC" Version="99"/>
    </Versions>
    <State Value="Standby"/>
    <Tasks>
      ...
    </Tasks>
    <Statistics>
      ...
    </Statistics>
    <Settings>
      ...
    </Settings>
    <ReactivePower>
      ...
    </ReactivePower>
    <GridParameters CountryCode="4901" CountryName="D AR4105:2019">
      ...
    </GridParameters>
    <WebPortals>
      <WebPortal Name="PIKO Solar Portal" Protocol="HTTP" URL="www.pikoloop.de" Path="/impsrv" Port="80" Active="true"/>..
    </WebPortals>
  </Device>
</root>
```

## 2.1 Data transfer method:

The data is provided by the inverter's HTTP server via Ethernet using HTTP / GET.

In the simplest case, the data can be called up directly with a browser. To do this, enter the IP address or the NetBiosName (INV <the last 8 digits of the serial number, e.g. INV123456781234) followed by the desired file name.

e.g. **http://192.168.1.10/measurements.xml** or **http://INV123456781234/measurements.xml**

File name	Meaning / behavior
/all.xml	The <b>complete</b> XML structure is transferred.
/measurements.xml	Only the <b>Measurements</b> sub-area is transferred; current measured values are output here.
/events.xml	Only the <b>Events</b> sub-area is transmitted; event messages are output here.
/yields.xml	<b>Yield data</b> are transmitted.
/versions.xml	Only the <b>Versions</b> subsection is transferred, with information about the installed software and the hardware status of the device.

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