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Special Documentation
Density Computer QML51 OPC-UA server

Vibronic
Density computer for liquids

Endress+Hauser
People for Process Automation

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1 Introduction

This protocol guide explains the structure of the OPC UA server for the Endress+Hauser Density Computer QML51. The OPC-UA server can be enabled via the operating menu under Output → Configuration.

The default TCP port is 4840.

For details on the configuration and operation of the devices, refer to the Operating Instructions as specified in the following table.

Device	Operating Instructions
Density Computer QML51	BA02545S

2 Structure of the OPC-UA server

After the server has been enabled, it can be accessed via the server address according to the following format:

opc.tcp://{Device Name/IP address}:{Port address}/QML51Server

Example: opc.tcp://serialnumber:4840/QML51Server

The following view describes the structure of the server. Text representations in the form {text} indicate variable identifiers or text that can change depending on personal settings. All other identifiers are fixed and do not change. Text representations in the form [Text] designate the data type of the relevant data point.

Only configured and activated devices and data points are displayed on the server.

If the configuration is correct, pressure and temperature can be configured as writable input parameters, allowing values to be written to the QML51 via the OPC-UA client.

- Objects
  - {QML51 Host-Name}
    - Name [String]
    - FirmewareVersion [String]
    - SerialNumber [String]
    - OrderCode [String]
    - W&M Status [String]
    - W&M Switch [String]
    - DSC [String]
    - {Device 1 name}
      - Name [String]
      - Tag [String]
      - Type [String]
      - GaugeCommand [Number]
      - {Data point 1 name}
        - Alias [String]
        - Value [Double]
        - Status [Double]
        - TimeStamp [Timestamp]
        - Unit [String]
      - {Data point 2 name}
        - Value [Double]
        - Quality [Number]
        - TimeStamp [Timestamp]
      - {...}
      - {Data point n name}
    - {Device 2 name}
      - Name [String]
      - ...
    - {Measurement Point 1}
      - {Data point 1 name}
        - Alias [String]
        - Value [Double]
        - Status [Double]
        - TimeStamp [Timestamp]
        - Unit [String]
      - {Data point 2 name}
        - Value [Double]
        - Quality [Number]
        - TimeStamp [Timestamp]
      - {...}
      - {Data point n name}
    - {Mesurement Point 2}
      - Name [String]
      - ...
  - Server
- Types
- View

3 Connection setup

If establishing a connection for an OPC-UA client via the address specified in Chapter 2 was not successful, the connection must be marked as trusted.

Navigate in the operating menu:

1. Settings → System → Certificates → Trusted client certificates.
2. Select "Unknown client".
3. Specify the client in more detail if required.
4. Under Status, change the option Rejected to Trusted.
5. Save.
   ↳ The connection can then be established.

www.addresses.endress.com

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