

Overview:

Web-IO Digital

Capabilities and application possibilities

When appropriately configured, there are various ways to access the outputs, inputs and counters of the Web-IO Boxes.

Browser access



In the simplest case you can access the inputs and outputs of the Web-IO directly from the browser. The Web-IO offers ready-to-use web pages for this:

- **For PC browser**

The home and user page are self-refreshing and show the status of outputs, inputs and counters. It is also possible to switch the outputs and clear the counters.

- **For smart phone**

The Smart page gives you a very compact overview of the status of outputs, inputs and counters, optimized for a cell phone display. In addition you can switch the outputs.

- **Your own web pages**

Of course it is also possible to display the IOs and counters of the Web-IO in your own web pages and replace the ready-made pages with your own.

Box-to-Box



In this mode the outputs on one Web-IO follow the inputs on another. In this way switching signals between two locations can be sent over the network.

Integration into existing systems



For simple integration into existing systems the Web-IO supports the common communication standards.

- **OPC**

The free OPC server for W&T devices is included on the included product CD. This allows you to incorporate Web-IOs into all OPC-capable visualization and control systems.

- **Modbus TCP**

The Web-IO can function as a Modbus TCP client and provides the states of outputs, inputs and counters using corresponding memory ranges.

- **SNMP - Simple Network Management Protocol**

Because it supports SNMP the Web-IO can very simply pass switching states to network management systems. Sending SNMP traps is also possible.

An appropriate MIB can be downloaded directly from the Web-IO.

Access from your own applications



The (socket) interface of the Web-IO offers three ways:

- **Communication via HTTP requests**

Using HTTP requests the Web-IO can be accessed from Web applications using techniques such as JavaScript, AJAX and PHP. This allows you to create individual applications for the browser.

- **Communication via command string**

In this mode a readable command set based on HTTP is used.

- **Communication using binary structures**

In this mode communication takes place using binary data structures.

In the last two variants the Web-IO can be used as a TCP client or server, but also as a UDP peer. All programming languages which permit TCP/IP communication are suitable for programming applications for the Web-IO (C, C++, C#, VB, VB.net, JAVA, Delphi, Lazarus, Pearl, Python, ...).

Even access from embedded systems and PLCs is possible.

E-mail and more - get information when status changes



The Web-IO has an internal alarm system. Triggered by the occurrence of certain states on the inputs, outputs or counters an alarm can be triggered.

The following methods can be used to send alarms:

- e-mail
- SNMP trap
- SYSLOG
- Message to TCP server
- Message via UDP
- FTP

Recording switching states



The alarm system of the Web-IO can also be used to record the switching states of the Web-IO with a time stamp. In addition to a status change in the IOs, a timer can be used as the trigger.

Recommended ways of storing data are:

- SYSLOG
- Message to TCP server
- Message via UDP
- FTP

E-mail and SNMP traps can also be used.

Recording IO states in the W&T Motherbox

The W&T Motherbox is a web server which also provides a MySQL database for saving data from Web-IO products.

Two recording models are available:

- The Motherbox cyclically polls the associated Web-IO and saves the obtained data in a fixed time grid.
- The Web-IOs send their data to the Motherbox when there is a status change.

Logic functions - linking inputs and outputs



Another way to switch the outputs is to create a logical link between inputs and outputs. The state of an output can be switched to ON or OFF depending on a defined input pattern.

Basic behavior of the ports



Inputs

The inputs are configured for 24V automation signals, but they can be switched using voltages between - 30V and + 30V. An ON signal is reliably detected at 8V +/1V. Using a configurable time filter you can suppress contact bounce and noise pulses.

Outputs

Many models have current sourcing outputs which can handle a load of 500mA each. To drive higher currents up to four outputs can be combined into a common switching group. The outputs can then be configured so that they return to the rest state after a specified time after turning on (pulse mode)

General functions



In addition to the functions of the Web-IO which directly access inputs and outputs, there are a few important system functions.

These include:

- Web-based management
- System clock incl. time server synchronization
- Firmware updating

[We are available to you in person:](#)

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