BALLUFF

## Enhanced web server

# SIMPLIFY IO-LINK DEVICE INTEGRATION

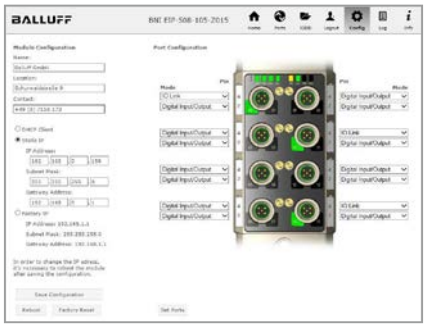
IO-Link devices are smarter and bring with them information that goes far beyond basic functionality. For example, IO-Link devices offer parameters for configuration in different modes of operations, provide condition-based alerts and diagnostics information to help eliminate or reduce downtime and simplify overall connectivity. To utilize the IO-Link devices to their fullest potential requires the ability to configure the devices. Unfortunately, until now, one has had to rely on the controller or PLC provided functionality for configuration, or purchase expensive configuration software from IO-Link master providers. Balluff's market-leading IO-Link master portfolio now makes it simple to configure, monitor and troubleshoot IO-Link devices with a built-in, enhanced web server.

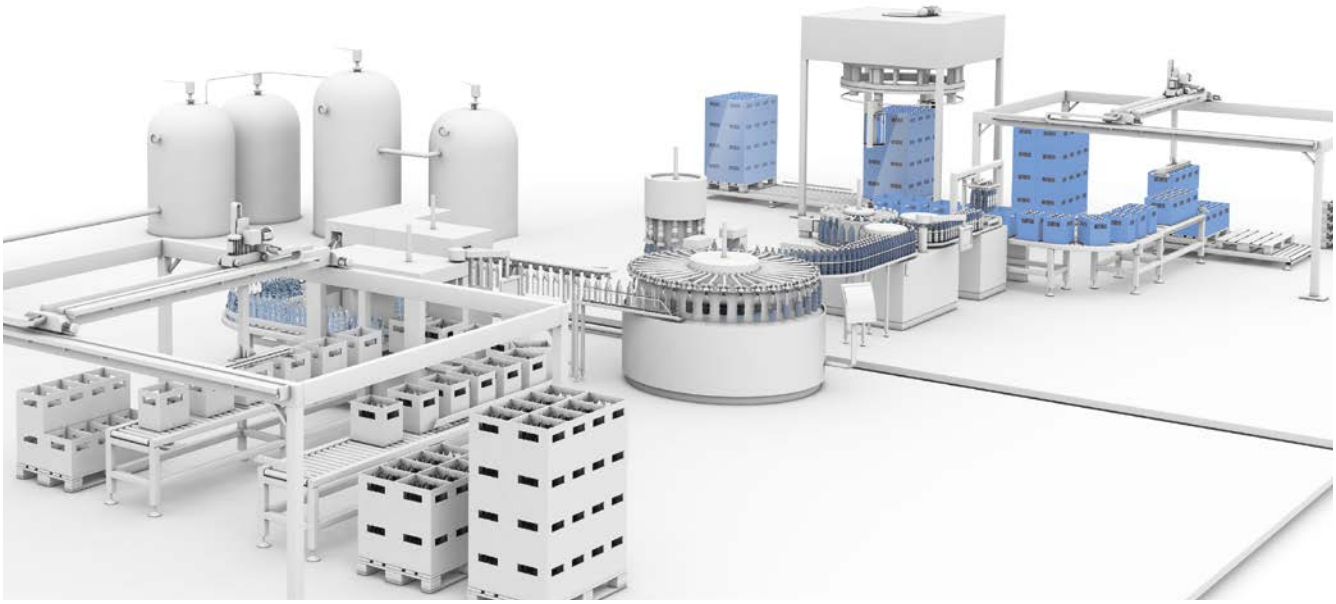
This powerful web server is available with all of the Balluff IO-Link masters for EtherNet/IP, PROFINET, and EtherCAT. The web server utilizes the IODD (IO-Link Device Description) file that comes standard with each IO-Link device to enable configuration of the devices in human readable format and drop down menus.

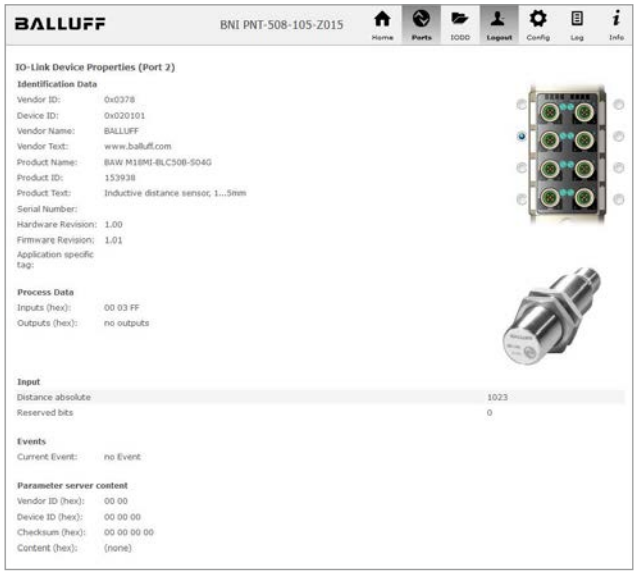
In addition to monitoring process data and configuring the IO-Link device with IODD, the web server also allows the preloading of IODD files for devices that may be required in the field.

### Features

- Configure IP address and network parameters, and manage port configurations
- Status and diagnostics information about network and connection ports
- Upload IODD files, and configure IO-Link devices with easy-to-use interface
- Remote monitoring and troubleshooting of IO-Link device's diagnostics data



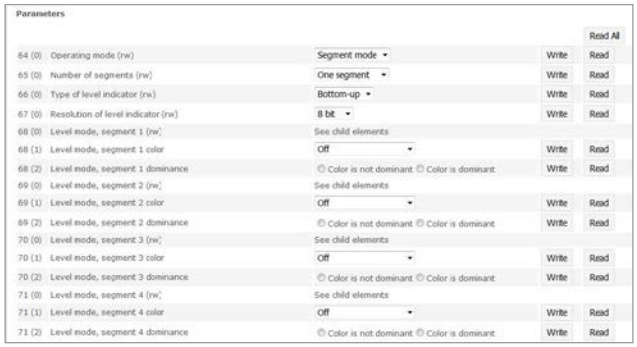






**Appropriate IODD uploaded**

If an IODD has been uploaded that is appropriate to the IO-Link device connected to the currently selected port (see "Dialog IODD"), the normal dialog for "Process Data" and "Parameters" is not displayed. Instead, it will show an expanded "Dialog IODD". Information from the IODD of the device is used so the data can be better understood.

Thus, in this screenshot not only is the input data of the distance sensor displayed as a hex number, but it is also interpreted and labeled under "Input". Since the sensor has no parameters, none are displayed.




If the IODD of the IO-Link device on the currently selected port has parameters, these are shown in table format (see screenshot). In this example, the parameters for the Balluff SmartLight are shown. The SmartLight is a signal light which can be used in three different modes. These modes can be set using an IO-Link parameter. The parameter values and associated texts are stored in the IODD. This means "Operation Mode" can be read out and displayed ("Read" and "Read All" buttons) or written to the device ("Write" button).

If subindexes have no buttons they cannot be individually processed, but rather requires the entire index to be processed at once.

Note: Each changed value must be individually written by clicking on the "Write" button.

"Ports" dialog: Parameter list of an IO-Link device with uploaded IODD

NETWORK BLOCKS





| | BNI006A | BNI005H | BNI0077 | BNI009T | BNI0092 |
|---|---|---|---|---|---|
| Interface | EtherNet/IP | Profinet I/O | EtherCAT | EtherNet/IP | Profinet I/O |
| Digital inputs | 16x PNP, Type 3 | 16x PNP, Type 3 | 16x PNP, Type 2 | 8x PNP, Type 3 | 8x PNP, Type 2 |
| Digital outputs | 16x PNP | 16x PNP | 16x PNP | 8x PNP | 8x PNP |
| Auxiliary interfaces | 8x IO-Link | 8x IO-Link | 8x IO-Link | 4x IO-Link | 4x IO-Link |

This list provides popular IO-Link masters. There are more masters available.