



# ENERGY DATA MANAGEMENT

Record, Visualize and Analyze Energy Data – Individual, Simple and Expandable

Our solution, consisting of software combined with a modular control system, records measurement data from different media and variables for energy monitoring and processes them for further analyses, archiving and reporting. The software automatically detects different signals from the connected meters and sensors, making them available for energy analysis tools via simple parameter settings.



## Controller and Input Modules

- High-performance controller with integrated Webserver
- Connects to existing networks via ETHERNET or WLAN router
- Extensive range of analog and digital input modules for 3-phase power measurement
- Interfaces connect to M-Bus meters and wireless-based EnOcean sensors

## Software

- Simple allocation of specific meter data and sensors
- Convenient data logging to suit your requirements
- Transparent function check via measurement data visualization
- Automatically detect hardware upgrade



## Components for Measuring Electrical Energy

- Current transformers for connecting electrical installations of different rated currents
- Ready to easily retrofit existing systems
- Voltage taps for voltage measurement



## Easy Configuration and Commissioning



Automatic detection of connected I/O modules

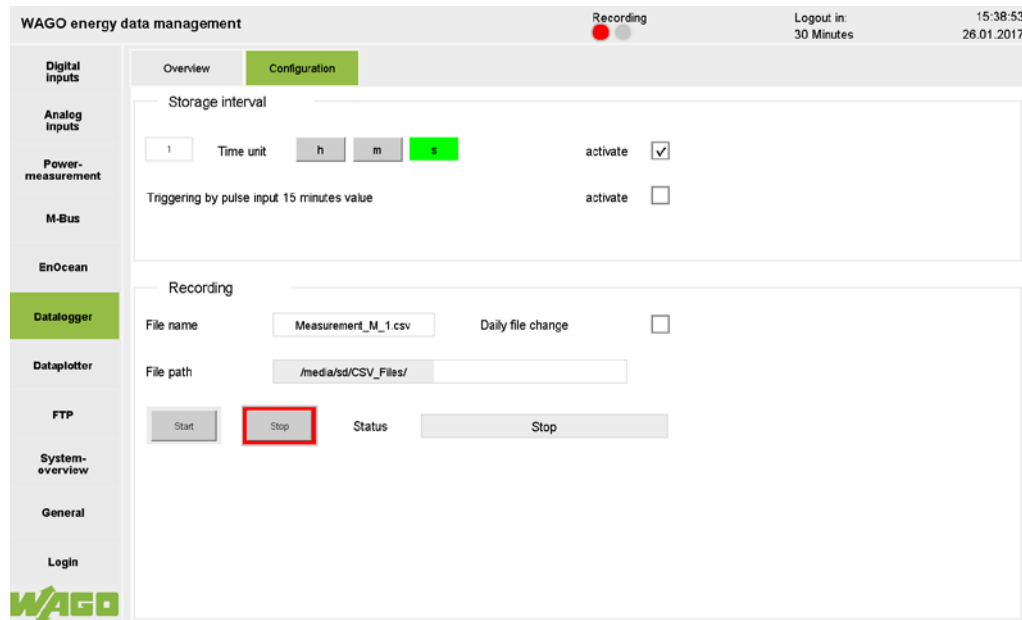


Transparent, clearly structured configuration pages



No previous program experience required!

## Data Logging and Visualization

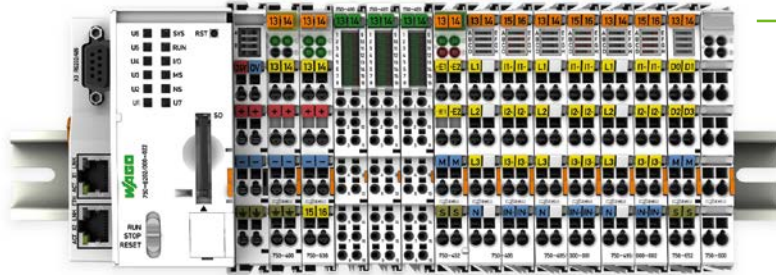


- Cyclically log data for up to 80 channels
- Conveniently select data point via data picker
- Easily export overview of logged channels as CSV data for documenting measuring points

- Adjust memory time flexibly
- Visualize configured data points as line or bar charts via data plotter

# SUPPORTED HARDWARE

## Base Unit



### 750-600

The end module completes the internal data bus, ensuring flawless data transmission.

### 750-8202/000-022

PFC 200 Application Controller for WAGO Energy Data Management System

The application controller is the basic platform for the energy data management application.

## GATEWAYS



### PW20 M-Bus Level Converter

(Item number upon request)

With the PW20 M-Bus Level Converter, up to 20 M-Bus meters can be connected to the WAGO Energy Data Management System. The level converter is connected via the serial interface (Item No. 750-652).








### EnOcean Gateway

(Item No. 2852-7101)

Wireless telegrams can be received from EnOcean temperature and humidity sensors via the EnOcean Gateway. The EnOcean Gateway is connected to the WAGO Energy Data Management System via the serial interface (Item No. 750-652).

## I/O Modules

The WAGO Energy Data Management System supports the following WAGO-I/O-SYSTEM modules:

	Module	Comment	Max. Number
	750-402 4-channel digital input, 24 VDC, 3.0 ms		1
	750-638 2-channel up/down counter, 24 VDC, 500 Hz		4
	750-496 8-channel analog input, 0 ... 20 mA/4 ... 20 mA, single-ended		2
	750-497 8-channel analog input, 0 ... 10 VDC / ±10 V, single-ended		2
	750-451 8-channel analog input, for resistance sensors		2
	750-452 2-channel analog input, 0 ... 20 mA / 4 ... 20 mA, differential input		1
	750-495 3-phase power measurement, 690 V, 1 A		Max. 18 (individually selectable)
	750-495/000-001 3-phase power measurement, 690 V, 5 A		
	750-495/000-002 3-phase power measurement, 690 V, RTC		
	750-652 RS-232/RS-485 serial interface	Data for connecting M-Bus Level Converter and En- Ocean Gateway	2

## ACCESSORIES

Power Supply		Data Recording	Commissioning
			
<b>787-1606</b>	<b>787-1012</b>	<b>758-879/000-001</b>	<b>750-923</b>
Switched-mode power supply, 24 VDC / 2 A	Switched-mode power supply, 24 VDC / 2.5 A	SD memory card, 2 GB	WAGO USB communication cable, 2.5 m long
24 VDC are needed to supply the I/O modules.		An SD memory card meeting industry standards is needed to save measurement values. Recommended: 2 GB	

# FEATURES

## Data Provision

### 1. Fixed MODBUS Interface

All measurement values of the up to 32 connected I/O modules are saved in the fixed MODBUS register area.

### 2. Dynamic MODBUS Interface

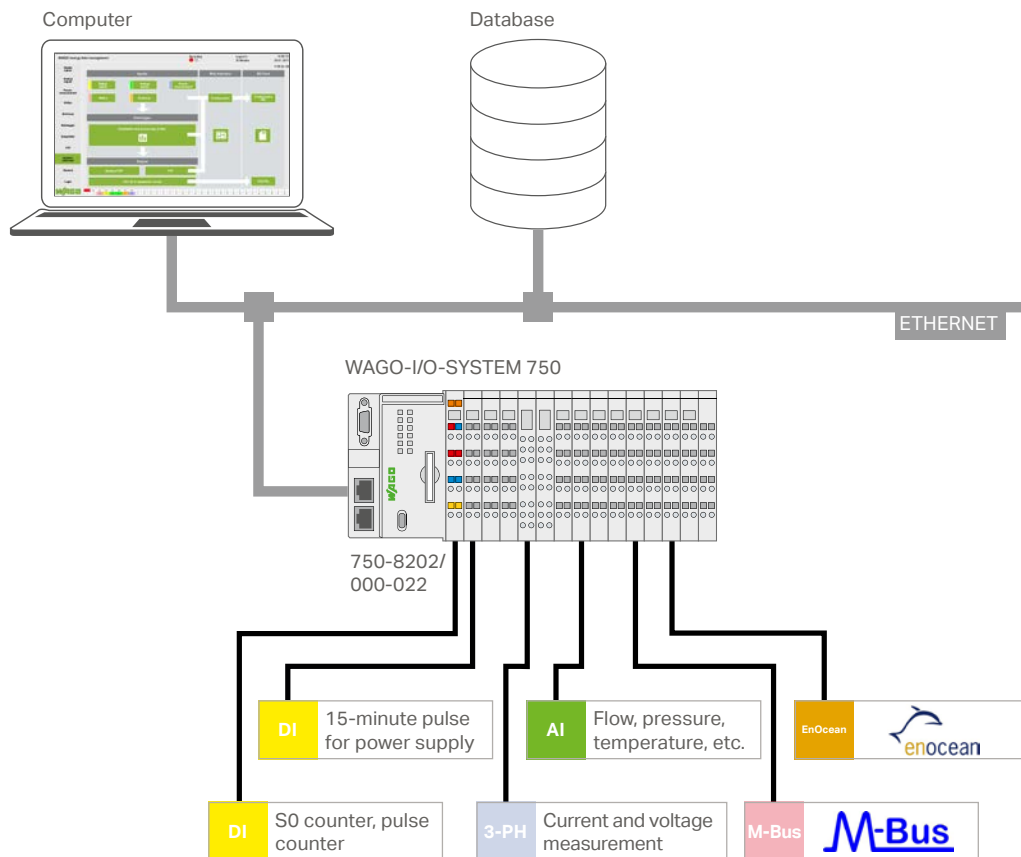
Up to 80 measuring channels are saved in the dynamic MODBUS register area, along with current measurement values and a specified designation for the measuring point. With this approach, you can conveniently transfer pre-specified designations of up to 80 measuring channels to a higher-order software system via MODBUS.

### 3. FTP Function

The measurement series saved on the SD card can be transmitted to a previously selected server via FTP or FTPS. The transmission can be actuated either manually or automatically at a user-specified time interval.

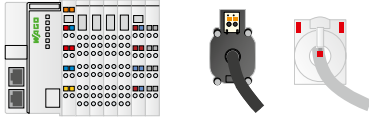
### 4. Maximum Return on Investment

Thanks to its scalability, the modular system can be expanded at any time.



# FIVE STEPS

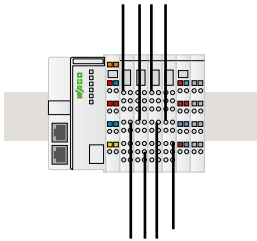
## To Your WAGO Energy Data Management



1. Select the hardware needed; information about the I/O modules to be used is available under:  
[www.wago.com/io-systems](http://www.wago.com/io-systems)  
You will find information about voltage converters under:  
[www.wago.com/cemt](http://www.wago.com/cemt)



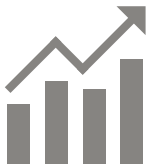
2. Download the WAGO Energy Data Management Software from:  
[www.wago.com/applicationcontroller](http://www.wago.com/applicationcontroller)  
and transfer the WAGO Energy Data Management Software to the application controller.



3. Install the hardware.



4. Configure the input signals.



5. Connect to the energy management software, SCADA or analysis tools (data transfer via MODBUS or FTPs).

We will be glad to assist you if you have questions!  
Phone: +49 (0) 571 887-222



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