

Documentation

General

IOMOD modules Step file -> Download

IOMOD 8DI4RO



IOMOD 8DI8DO





IOMod 8DI8DO

Industrial 8 digital inputs and 8 digital outputs module



IOMod 8DI8DO is a stand-alone Modbus (RTU, IEC 60870-5-101, and IEC 60870-5-103) digital input and digital output controller, designed to be used in industrial applications where digital signaling is used and robust communication is essential.

IOMod 8DI8DO is an ideal solution for data acquisition, control, process monitoring and remote measurement. Controlled over Modbus or IEC protocols, it can be connected to parallel or RS-485 equipment in SCADA systems.

When used with a WCC Line gateway it is possible to monitor and control over a GPRS or 3G/4G/LTE/5G/6G network. It enables monitoring, alarm, and data logging on CloudIndustries.eu platform.

Features

- 8 digital inputs
- Configurable active input signal polarity or input inversion
- Configurable SPI, DDI, SDO, and ODO support
- Configurable feedback for outputs with inputs
- Configurable pulse outputs and permanent outputs
- Input grouping
- Output grouping
- Feedback configurable time
- 8 digital open collector outputs
- Galvanically isolated inputs and outputs
- Configuration over USB console
- Drag and Drop firmware upgrade over USB mass storage
- Modbus, IEC 60870-5-101 and IEC 60870-5-103 communication over RS485
- Software selectable termination resistor on RS485
- LED indication for input/output and data transmission
- Easy connection with WCC Line gateway and CloudIndustries.eu platform

Applications

- Power Grid
- Solar energy
- Wind energy
- Hydro energy
- Energy storage systems
- Factory resources supervision
- Substation automation projects

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IOMod 8DI8DO

IOMod 16DI



ELSETA
IOMOD 16DI
User manual

User Manual

Elseta
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V1.1



IOMod 16DI

Industrial 16 digital input module



IOMod 16DI is a stand-alone Modbus (RTU, IEC 60870-5-101, and IEC 60870-5-103) digital input and digital output controller. Designed to achieve a high technological level and compact fit on DIN rail (24 60mm), IOMod 16DI is used for industrial applications where digital signaling is used and robust communication is essential.

IOMod 16DI is an ideal solution for such applications as data acquisition, control, process monitoring, testing, and measurement. It is controlled over Modbus or IEC protocols, and can be connected to parallel or RS-485 equipment in a multi-drop system.

When used with a WCC Line gateway it is possible to monitor and control over a GPRS or 3G/4G/LTE/5G/6G network. It enables monitoring, alarm, and data logging on CloudIndustries.eu platform.

Features

- 16 digital inputs
- Configurable active input signal polarity or input inversion
- Configurable SPI, DDI
- Pulse count and ON time count
- Galvanically isolated inputs
- Configuration over USB console
- Drag and Drop firmware upgrade over USB mass storage
- Modbus, IEC 60870-5-101 and IEC 60870-5-103 communication over RS485
- Software selectable termination resistor on RS485
- LED indication for input and data transmission
- Easy connection with WCC Line gateway and CloudIndustries.eu platform

Applications

- Power Grid
- Solar energy
- Wind energy
- Hydro energy
- Energy storage systems
- Factory resources supervision
- Substation automation projects

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IOMod 16DI

IOMOD 8AI



User Manual



IOMod 8AI

Industrial 8 analog inputs module



IOMod 8AI is a standalone Modbus RTU, IEC60730-5-103 and IEC60730-5-104 analog input device, designed for applications requiring high accuracy in real-time voltage or current measurements. IOMod 8AI can be used for numerous applications where user needs to log voltage or current changes. IOMod 8AI can be used to measure temperature, pressure, water level or weight with corresponding sensors (e.g. 0-10mA). IOMod 8AI input measurement resolution, scaling and data casting can be configured by user's PC software individually.

IOMod 8AI is an ideal choice for data acquisition, control, process monitoring and remote measurement. Controlled over Modbus RTU, IOMod 8AI can be connected to other equipment in SCADA system.

With WCC Lite gateway, it enables monitoring current values over Ethernet LAN's or GPRS networks, facilitating remote alarm management, and data logging on cloudIndustries.eu platform.

Applications

- Power grid
- Solar energy plants
- Wind energy plants
- Hydro energy plants
- Energy storage applications
- Factory resources supervision
- Substation automation projects

Features

- Data measurement in 16-bit resolution
- Fully configurable data scaling and casting
- Selectable input sensitivity
- Configuration over USB console
- Drag and Drop firmware upgrade over USB mass storage
- Modbus RTU, IEC 60730-5-103 and IEC 60730-5-104 communication over RS485
- Software selectable load termination resistor for RS485
- LED indication for data transmission
- Easy connection with WCC Lite gateway and CloudIndustries.eu platform.

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IOMod 8AI

IOMOD 4Cs4Vs



User Manual



IOMod 4Cs4Vs

4xCurrent 4xVoltage sensors module



IOMod 4Cs4Vs is a stand-alone analog inputs measurement module for voltages and currents based on sensor technology with communication support based on Modbus RTU, IEC 60870-5-101, and IEC 60870-5-103 protocols. Designed to measure voltage and current values with high accuracy in real-time, IOMod 4Cs4Vs can be used for numerous applications like electrical distribution substations, power plants, and railway power supplies where the user needs many other measurements like active, reactive, and complex power for every phase, power factor, phase angles for currents and voltages, and harmonics.

Applications

- Power Grid
- Solar energy plants
- Wind energy plants
- Hydro energy plants
- Energy storage applications
- Factory resources supervision
- Energy sub-metering applications
- Substation automation projects

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IOMod 4Cs4Vs

IOMOD Meter



IOMOD Meter

User Manual

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IOMOD Meter

User manual

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IOMod Meter

meter module for LV and MV



IOMod Meter is a stand-alone metering measurement module for voltages and currents based on sensors technology with communication support based on Modbus RTU, IEC 60870-5-101, and IEC 60870-5-103 protocols.

Designed to measure voltage and current values with high accuracy in real-time, IOMod Meter can be used for numerous applications like electrical distribution substations, power plants, and railway power supplies where the user needs many other measurements like active, reactive, and complex power for every phase, power factor, phase angles for currents and voltages, and harmonics.

Applications

- Power Grid
- Solar energy plants
- Wind energy plants
- Hydro energy plants
- Energy storage applications
- Factory resources supervision
- Energy sub-metering applications
- Substation automation projects

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IOMod Meter

IOMOD FPI



IOMOD HT



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IOMOD 4RTD





IOMod 4RTD

Industrial 4 temperature sensors module



IOMod 4RTD is a stand-alone Modbus RTU, IEC 60870-5-101, and IEC 60870-5-103 temperature sensor device, designed for accurate indoor temperature measurement across a wide range, with high accuracy and repeatability even after frequent heating and cooling cycles. Equipped with 4 temperature measuring channels to enable temperature reading with default configuration.

IOMod 4RTD is ideal for acquisition, observation, and process monitoring over a broad temperature spectrum in its applications in industries like plastic, food, pharmaceuticals, and microelectronics.

Compatible with IEC 60870-5-101, IEC 60870-5-103, or IEC 60870-5-104, it can integrate seamlessly into SCADA systems.

When used as a WCC Lite gateway, it enables remote control of temperature readings over Modbus or IEC 60870-5-101/103 networks, alarm management and data logging on industrial SCADA platforms.

Applications

- Power Grid
- Solar energy plants
- Wind energy plants
- Hydro energy plants
- Energy storage applications
- Factory resources supervision
- Substation automation projects

Features

- Temperature measurement of 0.5°C accuracy for all operating conditions
- Temperature sensing ranges from -100 to 100°C using platinum RTD sensors
- Modbus, IEC 60870-5-101, IEC 60870-5-103 communication over RS485 physical layer
- Selectable IEC 60870-5-101 or IEC 60870-5-103 temperature RTD sensor and connection type (2, 3 or 4 wires) for each channel
- Configuration over USB console
- Plug and Drop firmware upgrade over USB mass storage
- LED indications for power, USB connection, sensor and temperature fault conditions for all channels
- Easy connection with WCC Lite gateway and CloudIndustries SCADA platform

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IOMod 4RTD

IOMod T

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V1.3



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IOMOD T
User manual



User Manual

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CLMod



CLMod

RS485 to current loop converter



CLMod is an RS485 to 2x mA current loop converter. CLMod can remotely gather data from electricity meters. This converter was developed to read multiple meters of data over a 2x mA current loop interface with long-distance lines up to 1 km. CLMod with 4 current loop interfaces is capable of reading data up to 30 meters (5 meters per single current loop). CLMod is protected against you can use any type of serial protocol.

Applications

- Power Grid
- Solar energy plants
- Wind energy plants
- Hydro energy plants
- Energy storage applications
- Factory resources supervision
- Energy sub-metering applications

Features

- 4 independent 2x mA current loop interfaces
- Galvanic (kVrms) isolation
- LED indication of data transmission on every current loop interface
- Supports 5 meters per current loop (30 meters total)
- Baud rates: 1200 to 9600
- Automatic open-loop detection and disconnection
- Fault indication for each current loop
- Integrated current loop protection
- Compatible with Eterna Electronic meters
- RS485 interface for RTU/Datalogger
- Operating temperature: -40°C to 80°C
- Dimension 100x50x20 mm

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CLMod

Voltage Sensor Amplifier

Voltage Sensor Amplifier

multi IOMOD Meter with single voltage sensor



The Voltage Sensor Amplifier is designed to allow a single voltage sensor (per phase) to interface with multiple IOMOD Meter and IOMOD PM devices, eliminating the need for amplitude and phase correction.

Enhance your engineering applications with our advanced three-channel Voltage Sensor Amplifier. Engineered for high precision, it provides a stable impedance load to maintain the accuracy of all voltage sensors. With a gain factor of 1, it ensures signals are amplified without distortion. Facilitate the simultaneous use of multiple metering devices to a single voltage sensor, eliminating the need for complex factor calculations and timing. Optimise your measurements with this robust and accurate solution.

This device is used for applications such as substation monitoring, calibration checks at the meter, power measurement, data logging, safety analysis. It's compatible with FTS, CTS, Meters, Multifunction Protection Relays, Werging and RTU applications.

Applications

- Power Grid
- Solar energy projects
- Wind energy projects
- Hydro energy projects
- Smart EMS applications
- Energy resource supervision
- Energy sub-metering applications
- Substation automation projects

Features

- Very simple installation
- Not affect amplitude and phase correction
- Isolated power circuit
- Wide operating range



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