IOMod 8AI

industrial 8 analog inputs module

IOMod 8AI is a stand-alone Modbus RTU, IEC60870-5-103 and IEC60870-5-101 8 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. 4-20mA). IOMod 8AI input measurement resolution, data scaling and data casting can be configured by user for each channel individually.

IOMod 8AI is an ideal solution for data acquisition, control, process monitoring, and remote measurement. Controlled over Modbus or IEC60870 protocols, it can be connected in parallel with other equipment in SCADA systems.

When used with a WCC Lite gateway, it enables monitoring voltage or current values over Ethernet LAN's or 3G/4G(LTE)/GSM/GPRS networks, facilitating remote monitoring, alarm management, and data logging on CloudIndustries.eu platform.

Applications

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

Technical documentation

Ordering

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 60870-5-101 and IEC-60870-5-103 communication over RS485
- Software selectable 120Ω termination resistor for RS485
- LED indication for data transmission
- Easy connection with WCC Lite gateway and CloudIndustries.eu platform.

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Measurement values and functions	
Analog inputs	8 configurable analog inputs
Inputs resolution	16 bit
Channel-independent programmable input types	Voltage and current inputs
Voltage input ranges	Bipolar: +-10.24V, +-5.12V, +-2.56V Unipolar: 10.24V, 5.12V
Current input ranges	Bipolar: +-51.2mA, +-25.6mA, +-12.8mA Unipolar: 51.2mA, 25.6mA
Overvoltage protection	+-20V
Interface and communication	
RS485 interface	ANSI/TIA/EIA-485-A-1998
Communication protocols	– Modbus RTU Slave; – IEC 60870-5-101 Slave; – IEC 60870-5-103 Slave.
Baudrate	600 – 115200 baud
Parity	None, Even, Odd
Terminating resistors	120 Ohm (configurable)
USB interface	2.0
Type	Mini USB
Use	Configuration/Firmware upgrade
Power supply	
Auxiliary power supply	9-33VDC (full range)
Power consumption	40mA @ 12VDC, 20mA @ 24 VDC
Insulation voltage	3 kV
Operating conditions	
Operating temperature	-40°C ... 85°C
Storage temperature	-40°C ... 85°C
Relative humidity	max. 95 % (non condensing)
Protection class	IP20

Dimensions and installation instructions	
Case height x width x depth	119 x 17.5 x 101 mm
Installation type	DIN Rail mounting

Order Code	
IOMOD-8AI	8x analog input module with IEC 60870-5-103, IEC 60870-5-101, or Modbus RTU Slave protocol