

SFAR-1M-2DI1AO

SFAR-1M-2DI1AO has 2x DI (Digital Inputs) and 1x AO (Analog Output). Digital Inputs can work as fast pulse counter up to **1 kHz** and support both **PNP** or **NPN** input types. Analog Output can work as 0-10 V DC or 0-20 mA output with 12-bit DAC support. All inputs and output are separated from power supply and RS485 block with use of optical isolators. Built-in **RS485** interface allows to easy connection over **Modbus RTU/ASCII** protocol with a PLC makes the modules an external I/O.

The use of **32-bit ARM** core processor provides fast processing and communication with the baud rate from 2400 to 115200 bps. The module is equipped with a set of **LEDs** used to indicate the status of inputs, outputs, power supply and RS485 communication. This feature is useful for diagnostic purposes and helping to find errors. Built-in mini **USB** allows for initial configuration of the unit without power supply.

Key Features

- 2x opto-isolated Digital Input
- 1x Analog Output with 12-bit resolution
- Every DI works as 32-bit impulse counter or time counter
- Support for encoder
- Voltage and current ranges
- Built-in LEDs for device status indication
- Modbus RTU/ASCII communication
- Baud rate: 2400 bps to 115200 bps
- Up to 128 modules on the bus
- Built-in mini USB type B port for configuration
- Space-saving housing, DIN rail mount



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Specification

Digital Inputs (DI)

- Input type: PNP or NPN
- Fast pulse counter up to 1 kHz
- Time counting in ms for active input
- DI1-DI1- 1x encoder support

Analog Output (AO)

All Analog Outputs have 12-bit DAC resolution which support the following types of outputs:

- Voltage output: 0-10 V DC, resolution 1,5 mV
- Current output: 0-20 mA, resolution 5 μ A
- Current output: 4-20 mA, resolution 16 μ A
- Voltage measurement accuracy $\pm 0.5\%$
- Current measurement accuracy $\pm 0.5\%$
- DAC processing time: 16 ms/channel

Platform

- ARM Cortex-M3

Communication

- Interface RS485 half-duplex
- Up to 128 devices on the bus
- Protocol: Modbus RTU/ASCII
- Baud rate: 2400 to 115200 bps
- Interface mini USB type B

Power supply

- 12-24 V DC $\pm 20\%$

Housing

- Dimension WxHxD: 17x90x56 mm
- Construction: UL approved, self-extinguishing plastic (PC/ABS)
- DIN rail mounting DIN (DIN EN 50022 norm)
- Cooling: internal air circulation

Environment

- Operating temperature: -10°C to 50°C
- Storage temperature: -40°C to 85°C
- Relative humidity: 5% to 95%, no condensation
- Ingress Protection Rating: IP40 – for indoor installation

Dimensions

