

# SfAR-S-8DI8DO

**SfAR-S-8DI8DO** can be used as a controller's I/O extension, which, thanks to its unique features, fits a variety of applications, for example, measuring the working time of devices.

The module has 8 **digital inputs** (DI) and 8 **digital outputs** (DO). Digital inputs can work as fast pulse **counters** with up to 1000 counts per sec, or **timers** measuring the ON state and also offering a possibility to connect 2 **encoders**. Digital inputs support both **PNP** and **NPN** input types. Digital outputs are PNP transistor outputs. All inputs and outputs are isolated from the logic with optoisolators.

A built-in **RS485** interface allows easy connection over the **Modbus RTU/ASCII** protocol. A 32-bit ARM core processor provides fast processing and communication.

The module is equipped with a set of **LEDs** used to indicate the status of I/O, power supply, and RS485 communication.

Configuration of the modules is carried out with our free software, the **SfAR Configurator**. A built-in mini **USB** allows performing a primary configuration of the unit without an additional power supply.

The modules have been equipped with the Quick Connector system to simplify installation. Using a dedicated SfAR-S-LINK cable allows connecting of up to 10 modules, which provide both RS485 communication and external power supply.

## Key Features

- 8 opto-isolated digital inputs
- 8 opto-isolated digital outputs
- Every DI works as a 32-bit pulse counter or time counter
- Support for encoder
- 55 V @ 250 mA per output
- 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
- DIP switch for configuration
- Quick Connector for grouping modules and providing power and communication



# SfAR-S-8DI8DO

## Specification

### Digital Inputs (DI)

- PNP or NPN transistor input
- Fast pulse counter up to 1 kHz
- Timer
- Up to 2 encoders support
- Opto-isolated from RS485 and power supply

### Digital Outputs (DO)

- PNP transistor output max. 500 mA, 30 V DC
- Opto-isolated from RS485 and power supply

### Platform

- ARM Cortex-M3

### Communication

- RS485 interface
- Up to 128 devices on the bus
- Modbus RTU/ASCII
- Baud rate: 2400 to 115200 bps
- Mini USB type B
- Quick Connector system
- Built-in LED indicators
- Free software: SfAR Configurator

### Power Supply

10-38 V DC; 10-28 V AC

### Housing

- Dimensions WxHxD: 22,7x110,9x119,1 mm (0.894x4.366x4.689 in)
- 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 (14°F to 122°F)
- Storage temperature: -40°C to 85°C (-40°F to 185°F)
- Relative humidity: 5% to 95%, no condensation
- Ingress protection rating: IP40 – for indoor installation

## Dimensions

