

SfAR-S-16DI-M

SfAR-S-16DI-M can be used as a controller's I/O extension, which, thanks to its unique features, fits a variety of applications, for example, counting pulse signals from flowmeters.

The module has 16 **digital inputs** (DI). 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**. The SfAR-S-16DI-M module comes with a **FRAM memory**, allowing a user to save states of counters or timers in case of power loss. Digital inputs support both **PNP** and **NPN** input types. All inputs are isolated from the RS485 and power supply.

A built-in **RS485** interface allows easy connection over **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 for connecting up to 10 modules, which provide both RS485 communication and an external power supply.

Key Features

- 16 opto-isolated digital inputs
- Every DI can work as a 32-bit pulse counter or a time counter
- Support for 2 encoders
- Non-volatile FRAM memory for counters
- 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-16DI-M

Specification

Digital Inputs (DI):

- PNP or NPN transistor inputs
- Fast pulse counter up to 1 kHz saved to FRAM memory
- Timer
- Up to 2 encoders support
- 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

Dimensions:

Power Supply:

- 10-38 V DC; 10-28 V AC

Housing:

- Dimension 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

