

Modbus I/O Module

MODEL	DESCRIPTION
SfAR-S-16DI	Modbus I/O module with 16 digital inputs



APPLICATION AND USE

SfAR-S-16DI is 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 16 digital inputs (DI). Digital inputs can work as fast pulse counters with up to 1000 counts per second, or timers measuring the ON state and offering a possibility to connect 2 encoders. 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 an 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/Os, power supply, and RS485 communication. Configuration of the module is carried out with our free software, the SfAR Configurator. A built-in mini USB allows for performing a primary configuration of the unit without an additional power supply. The module has 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.

FEATURES

- 16 opto-isolated digital inputs
 - Every DI can work as a 32-bit pulse counter or time counter
 - Support for 2 encoders
 - Built-in LEDs for device status indication
 - Modbus RTU/ASCII communication
 - Baud rate: 2400-115200 bps
- Up to 128 modules on the bus
 - Built-in mini USB type B port for configuration
 - Space-saving housing, DIN rail mounting
 - DIP switch for configuration
 - Quick Connector for grouping modules and providing power and communication

TECHNICAL SPECIFICATION

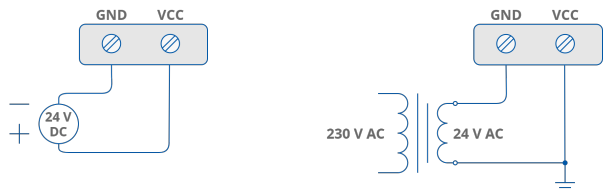
DESCRIPTION		SfAR-S-16DI
Power supply	Voltage	10-38 V DC; 10-28 V AC
Digital input	Number of inputs	8
	Type	PNP or NPN transistor inputs Fast pulse counter up to 1 kHz Timer Encoder support
TX	RS485 interface	Up to 128 devices
	Communication protocol	Modbus RTU/ASCII
	Ports	3-pin screw connector
	Baud rate	2400-115200 bps
USB	mini USB	Type B, for configuration

The performances stated in this sheet can be modified without any prior notice.

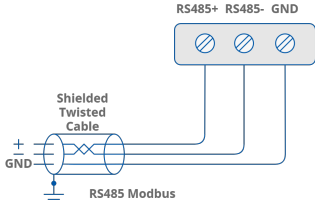
DESCRIPTION		SfAR-S-16DI
Ingress protection	IP rating	IP 40 for indoor installation
Temperature	Storage	-40°C to +85°C (-40°F to +185°F)
	Operating	-10°C to +50°C (14°F to 122°F)
Humidity	Relative	5 to 95% RH (without condensation)
Screw connectors	Type	2-pin (power supply), 3-pin (RS485), 10-pin (I/O)
	Maximum cable size	2.5 mm ² (18...12 AWG)
Housing	Material	Self-extinguishing plastic (PC/ABS)
	Cooling	Internal air circulation
	Mounting	DIN (DIN EN 50022 norm)
Dimensions	Width	119.10 mm/4.69 in
	Length	101.00 mm/3.98 in
	Height	22.70 mm/0.89 in

WIRING DIAGRAMS

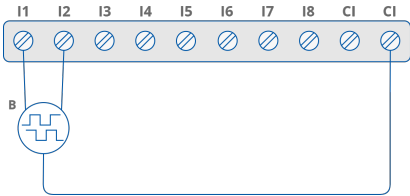
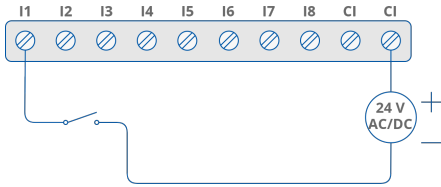
Power Supply



Communication



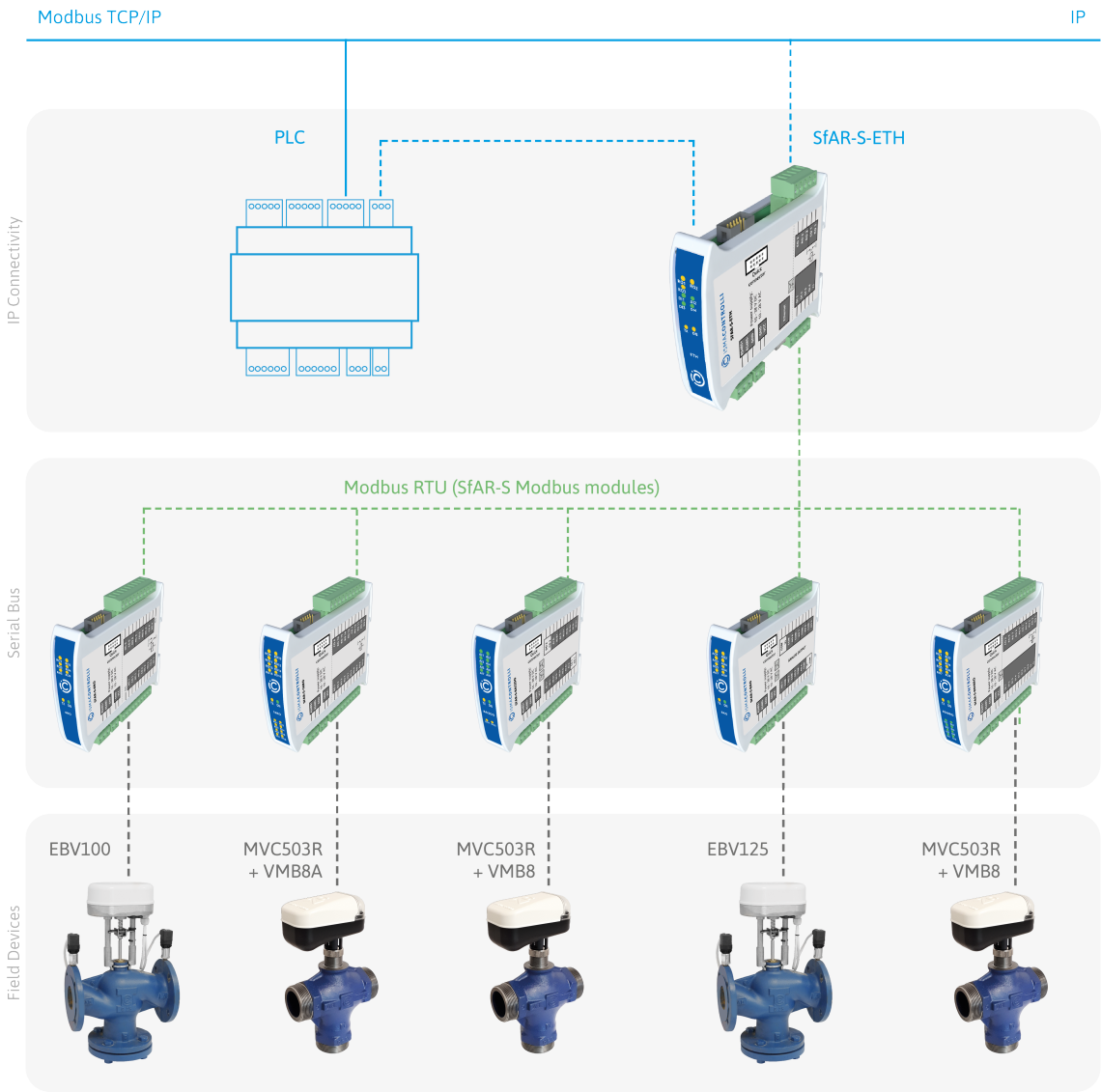
Digital Input



DEDICATED SOFTWARE



SfAR Configurator - Windows-based freeware configuration tool made for Modbus I/O modules



DIMENSIONS [mm]

