SfAR-S-8AO

Modbus I/O Module

MODEL	DESCRIPTION
SfAR-S-6RO	Modbus I/O module with 8 analog outputs

APPLICATION AND USE

SfAR-S-8AO can be used for sending multiple setpoints to devices, for example, for pipelines branching with multiple valves requiring opening percentage setpoints. The module has 8 analog outputs (AO). Analog outputs can work as 0-10 V DC, 0-20 mA, or 4-20 mA outputs. All outputs are isolated from the logic with optoisolators. 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 external power supply.

FEATURES

- 8 analog outputs with 12-bit resolution
- Voltage and current output
- ADC processing time: 16 ms/channel
- 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 mounting
- Quick Connector for grouping modules and providing power and communication

TECHNICAL SPECIFICATION

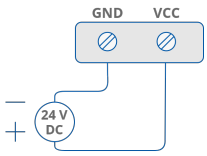
DESCRIPTION		SfAR-S-8AO
Power supply	Voltage	10-38 V DC; 10-28 V AC
Analog output	Number of outputs	8
	Voltage output	0 V do 10 V (resolution 1.5 mV) Maximum current load 0-10 V 5 mA Accuracy ±2%
	Current output	0-20 mA (resolution 5 µA) 4-20 mA (value in ‰ – 1000 steps) (resolution 16 µA) Maximum resistance 500 Ohm Accuracy ±1%
	Resolution	12-bit
	Processing time	16 ms/channel

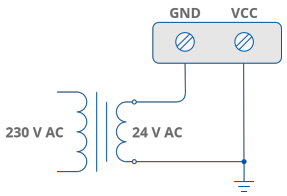
The performances stated in this sheet can be modified without any prior notice.

DESCRIPTION		SfAR-S-8AO
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
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 mm2 (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

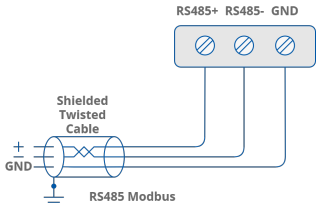
WIRING DIAGRAMS

Power Supply

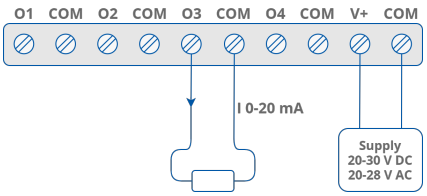


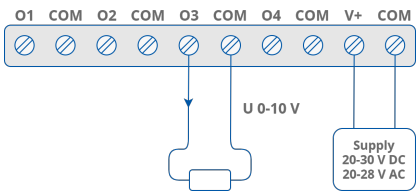


Communication



Analog Output

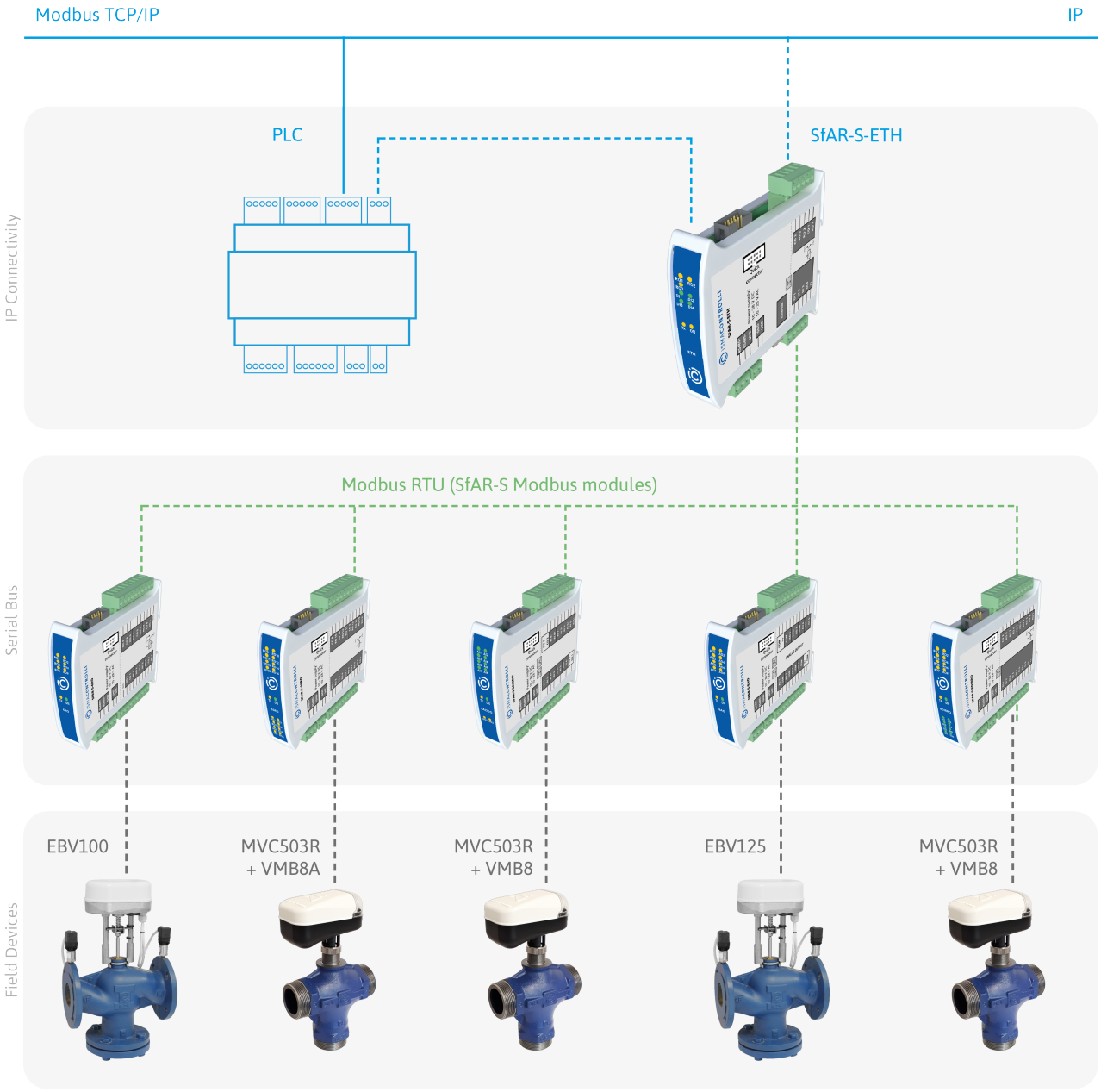




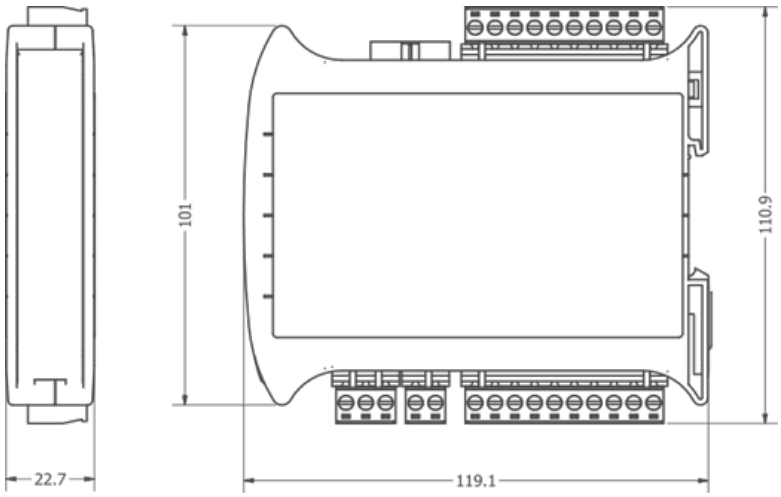
DEDICATED SOFTWARE

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

APPLICATION EXAMPLE



DIMENSIONS mm



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