

## SIAi-8

- ▣ analogue inputs module
- ▣ 8 independent analogue inputs (voltage or current)
- ▣ RS-485 / Modbus RTU
- ▣ LEDs for module operation and Modbus transmission signalling

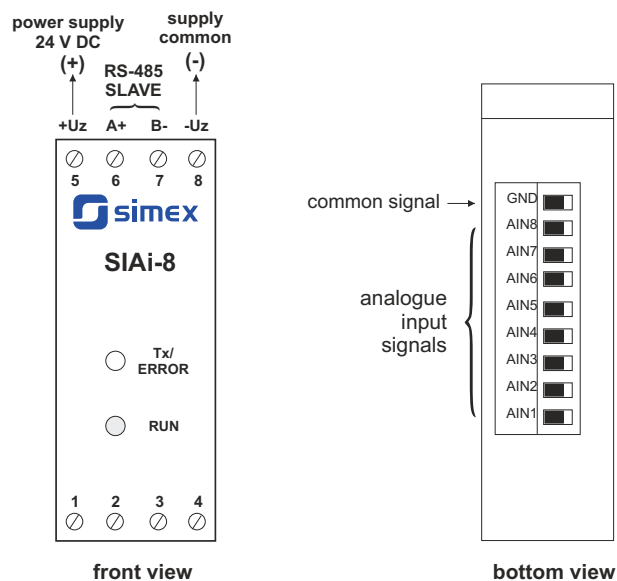


Module **SIAi-8** allows to measure analog values from 8 current (or voltage) inputs via the RS-485 connection, with speed rate about 10 Hz (every channel). Measurement results can be internally recalculated due to one of available characteristics: linear, square or user definable multipoint (max. 20 points length). It finds application in distributed control and visualization systems.

Standard functions of Modbus transmission allow to changing of device address or detect its type. All **SIAi-8** operating functions, available via the RS-485, can be implemented from any typical visualization software or, for instance, with a suitably **MultiCon CMC-99** controller.

- galvanic separation of the analogue inputs from the module supply voltages,
- signalling MODBUS correct operation and transmission,
- input signals connected by means of the socket-plug connectors.

### Connection terminals



### Connection and principle of operation

Connect the supply voltage to the module (+Uz, -Uz, typically 24V DC) and two wires RS-485 (A+, B-) communication interface. Module inputs are located on the lower edge of the case (look: bottom view).

Directly after power on the device is signalling its normal operation flashing green LED, marked „RUN“ (about 2 times/sec.). Short flashes of LED marked “TX/ERROR” signalize activity of RS-485 interface, and permanent light of this LED means malfunction of the device.

Module makes the measurements from eight inputs in cycles.

### Technical data

- Power supply voltage:** 24V DC typically
- Maximum supply voltage fluctuations:** from +16V DC to +30V DC
- Current consumption:** 55 mA typically
- Number of independent analogue inputs:** 8
- Inputs (depending on version):**
  - SIAi-8P:** current 0-20 mA; 4-20 mA
  - SIAi-8N:** voltage 0-10 V; 2-10 V; 0-5 V; 1-5 V
- Measurement accuracy:**  $\pm 0.25\% \pm$  one digit
- Accepted prolonged inputs overload:** 20%
- Galvanic separation:** all 8 inputs are galvanically isolated from module supply and RS-485 interface
- Communication interface:** RS-485
- Transmission protocol:** Modbus RTU
- Baud rate:** 1200  $\div$  115200 bit/sec.
- Number of modules in a single network:** max. 128
- Data memory:** non-volatile memory, EEPROM type
- Operating temperature:** 0°C  $\div$  +50°C
- Storage temperature:** -10°C  $\div$  +70°C
- Humidity:** max. 90%, non-condensing
- Protection class:** IP 20 (housing and connection clips)
- Installation method:** on the 35 mm strip
- Case dimensions:** 101 x 22,5 x 80 mm

### Ordering

#### SIAi-8X-001

- type of inputs:**  
**N** : voltage inputs  
**P** : current inputs