

DAQ Systems - TRM

SPT-86L



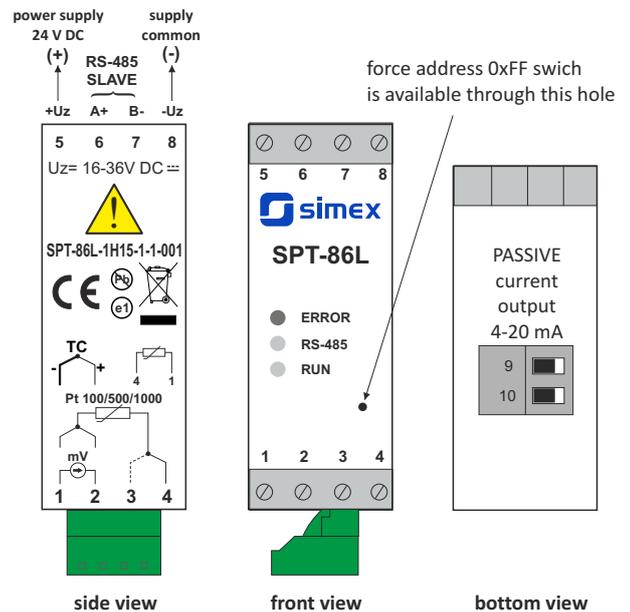
- temperature and voltage transmitter
- RTD, thermocouple or millivoltage input
- output signal 4-20 mA
- RS-485 / Modbus RTU
- peaks detection function
- free selection of characteristics
- free data reading and configuration software S-Config
- DIN rail mounting

SPT-86L module is the insulated temperature and voltage to current in the 4-20 mA standard transmitter, and has possibility of data reading via RS-485 interface. It has one input (Pt 100/500/1000, thermocouples K/S/J/T/N/R/B/E, 0-60 / 0-75 / 0-100 / 0-150 mV) and one passive current output 4-20 mA. During the measurement one type of input can be used at a time only. The measurement inputs have full linearization of characteristics and automatic compensation of the cold junction temperature in the thermocouple mode. Pt mode handles three methods of connection: 2-, 3- and 4-wire. For the millivoltage input user can choose between linear, square, square root or user defined characteristics. In the basic configuration the measurement, after being processed, is given to the current output, but current output can be also controlled directly thru serial interface. For configuring and data reading RS-485 (Modbus RTU) interface is used. The device parameters can be set by the S-Config software, directly from PC level. Every unit can be factory pre-configured on request.

TECHNICAL DATA

Power supply / Power consumption	10V ÷ 30V DC, insulated typically 0.65 W
Input signal and ranges	millivoltage: 0-60 mV, 0-75 mV, 0-100 mV, 0-150 mV, input resistance > 1,5 MΩ; accepted prolonged input overload +20% RTD: Pt100, Pt500, Pt1000, measurement wires resistance: max. 20Ω (every wire); measurement range: -100°C ÷ 600°C thermocouple: K, S, J, T, N, R, B, E; input range: -200°C ÷ +1370°C (K); -50°C ÷ +1768°C (S); -210°C ÷ +1200°C (J); -200°C ÷ +400°C (T); -200°C ÷ +1300°C (N); -50°C ÷ +1768°C (R); +250°C ÷ +1820°C (B); -200°C ÷ +1000°C (E)
Indication range	-999 ÷ 9999 + decimal point
Accuracy	± 0.1%@25°C (for TC N: ± 0.2%@25°C; for TC S, T, R, B: ± 0.5%@25°C); accuracy of cold junction temperature compensation: ± 1°C
Temperature stability	50 ppm/°C
Output	passive current: range max. 2.8 ÷ 24 mA, load resistance 0... (Us - 9.5V) / 24 mA [kΩ], resolution: 12 bits
Communication interface	RS-485, 8N1 and 8N2, Modbus RTU, not isolated from power supply circuit
Data memory	non-volatile memory, EEPROM type
Software	S-Config 2 for configuration and data reading
Operating temp.	0°C ÷ +50°C (standard), -20°C ÷ +50°C (option)
Storage temp.	-10°C ÷ +70°C (standard), -20°C ÷ +70°C (depending on option)
Humidity	5 to 90% no condensation
Protection class	IP 20
Mounting	DIN rail (35 mm)
Dimensions	101 x 22.5 x 80 mm
Weight	ok. 110 g

WIRING



ORDERING

SPT-86L-1HXX-1-1-XX1

number of outputs: 0, 1

options: 00 : no options, 08 : operating temp. -20°C ÷ +50°C

type of outputs: 0 : no output, 5 : passive current output

Note: S-Config software can be downloaded from SIMEX website at [www.simex.pl](http://www.simex.pl)