

SMSD-1.5Modbus ver.3

PROGRAMMABLE STEPPER MOTOR CONTROLLER



SMSD-1.5Modbus ver.3 is a programmable stepper motor controller with extended functionality. The device can be controlled from a PLC using the Modbus RTU/ASCII protocol, and also work autonomously according to a user program. The controller provides high microstepping up to 1/256. The morphing function provides a smooth transition from microstepping mode to full-step mode at a given speed, thereby maintaining torque at high speeds. Overheating protection is provided.

Technical parameters

Voltage	12 - 36 VDC
Max. current per phase	0.15 - 15 A
Microstepping	1/1 - 1/256
Control methods	program mode, analog speed control, STEP/DIR
Interfaces	USB, RS-485 (Modbus ASCII/RTU)

Inputs/Outputs

8 logic inputs:

- 2 fast inputs: > 70 nsec
- 6 general inputs: > 5 mks
- Logic inputs reset voltage: 0.7 VDC
- Logic inputs setting voltage: 2.4 VDC

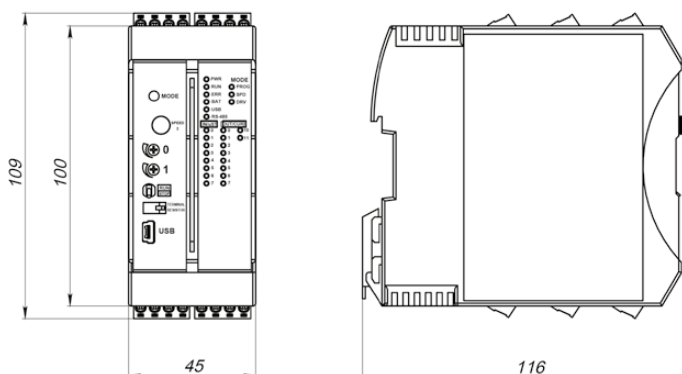
10 logic outputs:

- 8 transistor type: max 80 VDC, max 50 mA
- 2 relay type: max 350 VAC/VDC, max 250 mA (AC) / max 120 mA (DC)
- PWM signal generation frequency: 0.3 – 50000 Hz

Control modes

- The program mode - for autonomous operation according to a given user program and for direct control of a stepper motor using the Modbus protocol. The controller can be pre-programmed similarly to general industrial PLC. The software for adjusting of the device and user programs assembling and motor control is provided free of charge. SMSD-1.5Modbus ver.3 provides the function for debugging of user programs. This function makes it easier to write long and complex operation algorithms and allows finding errors quickly at the stage of user program debugging;
- Analog speed control with an internal potentiometer, with external buttons or an encoder;
- STEP/DIR standard pulse position control.

Dimensions



Software for the controller

