



SPV-8-010-MF

0–10 V potentiometer with Modbus communication

Description

The SPV-8-010-MF potentiometer is intended for stepless control of multiple EC motors requiring a 0–10 VDC control signal. The minimum output values can be adjusted via Modbus RTU communication within the ranges: 0–4 VDC and the maximum output values — within 6–10 VDC. The potentiometer SPV-8-010-MF has a dry contact output for remote switching on and off of an external device.

Key Features

- Device enclosure suitable for both inset or surface mounting
- Selectable minimum and maximum output values via Modbus RTU communication
- Regulation of multiple EC motors simultaneously
- EC fan speed regulation from minimum to maximum or vice versa

Article Code

Article code	Supply voltage
SPV-8-010-MF	85–264 VAC / 50–60 Hz

Area of Use

- Manual control of EC fan speed
- Manual control of a damper blade position

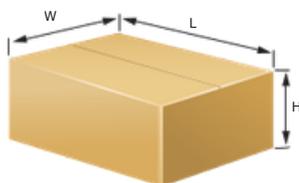
Standards

- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- Commission Delegated Directive (EU) 2015/863 (RoHS 3) of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances
- WEEE Directive 2012/19/EU

Warnings and Attention Points

- In case of faulty operation, please check if:
 - All connections are correct.
 - The potentiometer is supplied with the correct voltage.
 - Modbus communication is working and all settings are accessible via Modbus RTU.

Packaging



Article code	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight [kg]	Gross weight [kg]
SPV-8-010-MF	Unit (1 pc.)	85,50	95,50	70,50	0,20	0,22
	Carton (10 pcs.)	492	182	84	2	2,35
	Box (60 pcs.)	590	380	280	12	15,09
	Half pallet (960 pcs.)	1.200	800	1.290	192	259,24
	Pallet (1.680 pcs.)	1.200	800	2.160	336	442,12

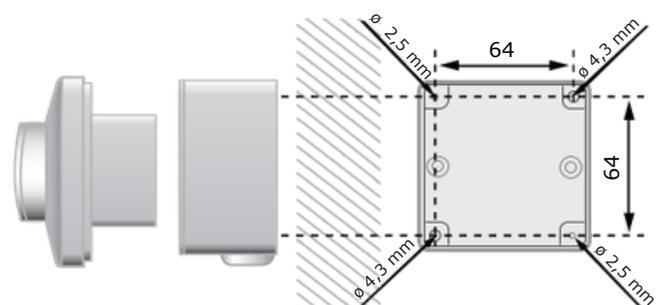
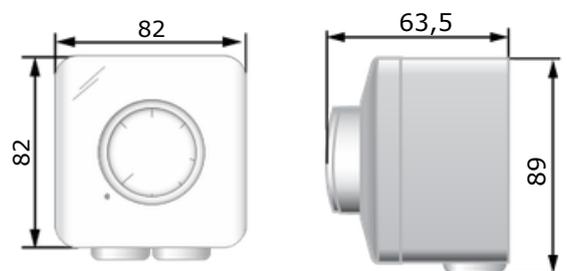


Technical Specifications

Analogue output signal	0–10 VDC	
Minimum load resistance	1 kΩ (RL ≥ 1 kΩ)	
Dry contact (remote ON/OFF) switching current	Max. 4 A	
Minimum input impedance	1kΩ	
Modbus RTU communication	Bootloader, unique ID, and automatic slave ID	
Storage temperature	-10–70 °C	
Operating conditions		
Temperature	0–65 °C	
Relative humidity	5–95 % rH, non-condensing	
Enclosure		
Material	ASA (Acrylonitrile Styrene Acrylate)	
Colour	White (28049P)	
Ingress protection	Inset mounting	IP44
	Surface mounting	IP54

Fixing and Dimensions

Surface mounting

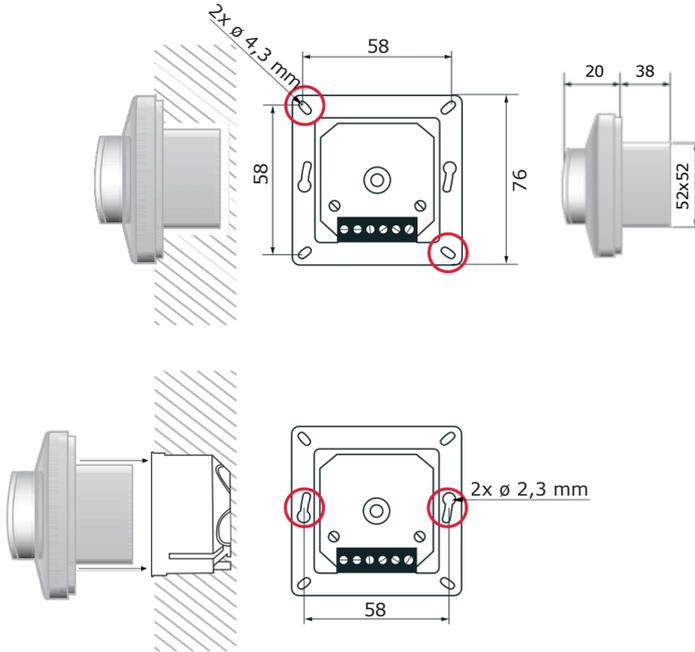




SPV-8-010-MF

0–10 V potentiometer with Modbus communication

Inset mounting



Wiring and Connections



Supply voltage

L	85–264 VAC/ 50–60 Hz
N	Neutral

Cable characteristics	Cable cross section: 2,5 mm ² , pitch: 5 mm, push-in cage clamp terminal block
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Dry Contact

_ / _	Dry contact (remote ON / OFF)
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Modbus RTU communication

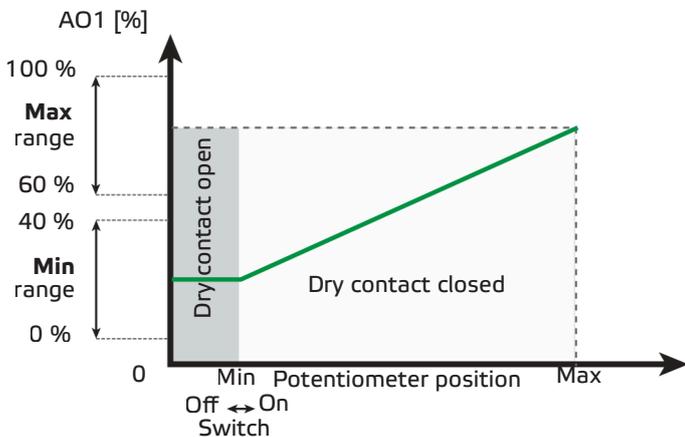
A	Modbus RTU (RS485), signal A
/B	Modbus RTU (RS485), signal /B

Analogue output

A01	Analogue output
GND	Analogue output, common ground
Cable characteristics	Cable cross section: 1,5 mm ² , pitch: 3,5 mm, push-in cage clamp terminal block

Operational Diagrams

Normal logic (from min. to max.)



Inverted logic (from max. to min.)

