

SDP-M010-DC

Potentiometer with Modbus RTU, min & max settings, dry contact



SDP-M010-DC potentiometer is developed to control equipment that needs a stepless control signal. The supply voltage is 24 VDC (suitable for PoM). The output voltage is adjusted steplessly from V_{min} to V_{max} or from V_{max} to V_{min} via a rotary knob. More parameters are adjustable via Modbus RTU. It is equipped with a switch (dry contact) for remote ON / OFF switching of external equipment. The potentiometer is suitable for both flush (IP44) and surface mounting (IP54).

Key features

- Stepless control of the output signal between V_{min} and V_{max}
- Minimum (V_{min}) and maximum (V_{max}) output adjustable via Modbus RTU
- Normal or reverse control selectable via Modbus RTU
- A switch (dry contact) at minimum position for remote ON/OFF switching of external equipment
- A splash waterproof enclosure
- Inset or surface mounting
- Analogue / modulating output type selectable via Modbus RTU

Technical specifications

Supply voltage	24 VDC	
Selectable analogue / modulating output	0–10 VDC mode	min. load 50 k Ω ($R_L \geq 50$ k Ω)
	0–20 mA mode	max. load 500 Ω ($R_L \leq 500$ Ω)
	PWM mode	PWM frequency: 1 kHz, min. load 50 k Ω ($R_L \geq 50$ k Ω)
Output	V_{min} – V_{max}	
V_{min}	0 – 7 VDC / 0 – 14 mA / 0 – 70% PWM	
V_{max}	7,5 – 10 VDC / 15 – 20 mA / 75 – 100% PWM	
Dry contact switch	max. 1 A	
Protection standard	IP44 / IP54 (according to EN 60529)	
Ambient conditions	Temperature	0–50 °C
	Rel. humidity	< 95 % rH (non-condensing)



Area of use

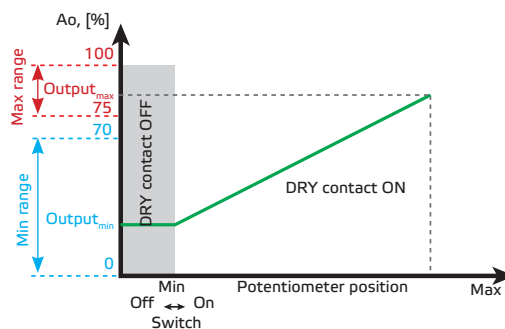
- A variety of applications where a stepless control signal is required
- Applications where manual control and BMS control is combined

Article codes

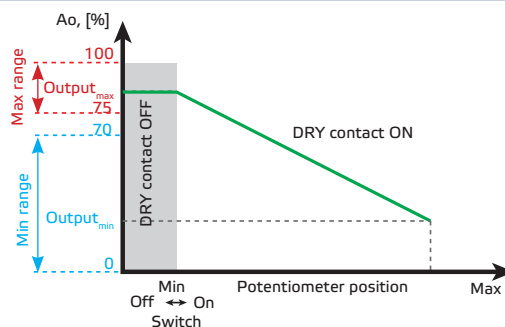
	Supply	Output	Remote ON/OFF
SDP-M010-DC	24 VDC (PoM)	V_{min} – V_{max}	yes

Operational diagram

Regulation type from minimum to maximum



Regulation type from maximum to minimum



Supply voltage

Analogue output

Dry contact remote ON/OFF

Modbus RTU communication

Wiring and connections

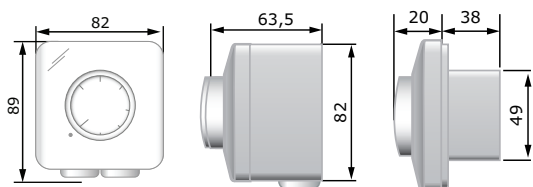
Us	DC supply voltage 24 VDC
GND	Supply, ground
DC	Dry contact for remote ON/OFF
A	Modbus RTU communication, signal A
/B	Modbus RTU communication, signal /B
Ao	Output signal (V_{min} – V_{max})
GND	Output, ground
Connections	Spring contact terminal block, solid wires 0,5–1,5 mm ² or wires with cable shoe 0,5–1,0 mm ² , length 9–10 mm

SDP-M010-DC

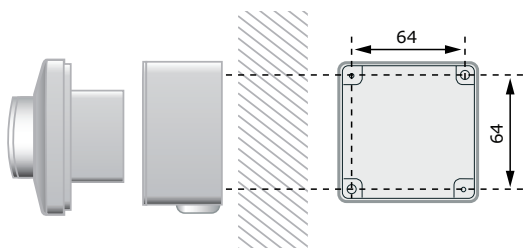
Potentiometer with Modbus RTU, min & max settings, dry contact



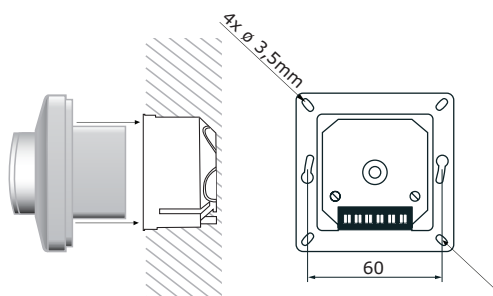
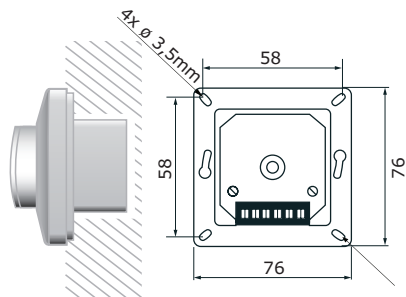
Fixing and dimensions



Surface mounting



Inset mounting

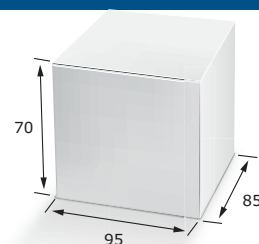


Standards

- Low Voltage Directive 2014/35/EU
 - EN 60529:1991 Degrees of protection provided by enclosures (IP Code) Amendment AC:1993 to EN 60529
 - EN 60730-1:2011 Automatic electrical controls for household and similar use - Part 1: General requirements
- EMC directive 2014/30/EU
 - EN 60730-1:2011 Automatic electrical controls for household and similar use - Part 1: General requirements
 - EN 61000-6-1:2007 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light industrial environments
 - EN 61000-6-3:2007 Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments. Amendments A1:2011 and AC:2012 to EN 61000-6-3
- WEEE Directive 2012/19/EU
- RoHS Directive 2011/65/EU



Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
SDP-M010-DC	Unit (1 pc.)	95	85	70	0,135	0,15 kg
	Carton (10 pcs.)	492	182	84	1,35 kg	1,65 kg
	Box (60 pcs.)	590	380	280	8,10 kg	10,9 kg
	Pal (1680 pcs.)	1,20	800	2,14	250,32 kg	356,10 kg

Global trade item numbers (GTIN)

Packaging	SDP-M010-DC
Unit	05401003018453
Carton	05401003302804
Box	05401003504109
Pal	05401003701157