

SDP-E0US-DC

Potentiometer with min & max settings, dry contact



These potentiometers can control equipment that need a variable control signal. The supply voltage is between 5 VDC and 24 VDC. The output is adjusted continuously variable from minimum to maximum or from maximum to minimum via a rotary knob. This version is equipped with dry contact for remote ON / OFF switching of external equipment. The potentiometer is suitable for both inset (IP44) and surface mounting (IP54).

Key features

- Variable control of the output signal between minimum and maximum or vice versa
- Minimum and maximum output adjustable by two trimmers
- Analogue / modulating output type selectable via a jumper
- A splash waterproof enclosure
- Inset or surface mounting
- Dry contact for remote ON / OFF switching of external equipment

Technical specifications

Supply voltage (Us)	5–24 VDC	
Selectable analogue / modulating output types	0–100% Us mode	min. load 50 k Ω (RL \geq 50 k Ω)
	0–20 mA mode	max. load 500 Ω (RL \leq 500 Ω)
	PWM mode	PWM frequency: 1 kHz, min. load 50 k Ω (RL \geq 50 k Ω)
	PWM voltage level	3,3 VDC or 12 VDC
Output	Depends on the position of both trimmers: minimum to maximum or maximum to minimum	
Minimum output value	0 - 100% adjustable by trimmer	
Maximum output value	0 - 100% adjustable by trimmer	
Dry contact switch	max. 1 A	
Consumption	19 mA	
Off-position	no	
Protection standard	IP44 / IP54 (according to EN 60529)	
Ambient conditions	Temperature	0–50 $^{\circ}$ C
	Rel. humidity	< 95 % rH (non-condensing)



Area of use

- A variety of applications where a variable control signal is required

Article codes

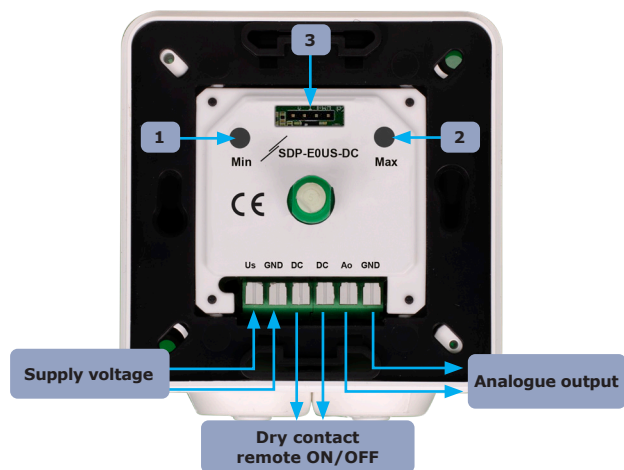
	Supply	Output	Remote ON/OFF
SDP-E0US-DC	5–24 VDC	Min - max or max - min	yes

Wiring and connections

Us	Supply voltage (5–24 VDC)
GND	Supply voltage, ground
DC	Dry contact for remote ON/OFF
Ao	Output signal (0 - 100% Us, 0-20 mA, 0-100% PWM)
GND	Output signal, ground
Connections	Spring contact terminal block, stranded wires 1,0–1,5 mm ² or wires with cable shoe 0,75–1,0 mm ² , length 7 mm

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 61000-6-2:2005 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments Amendment AC:2005 to EN 61000-6-2
 - 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
 - EN 61000-3-2:2014 Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current \leq 16 A per phase)
- RoHS Directive 2011/65/EU



Settings

1 - Min adjustment trimmer	There is always 20% minimum control range between the values determined by the trimmers.	0 - 80% Us
2 - Max adjustment trimmer		20 - 100% Us
3 - Header for analogue/modulating output type selection (voltage/current/PWM)		

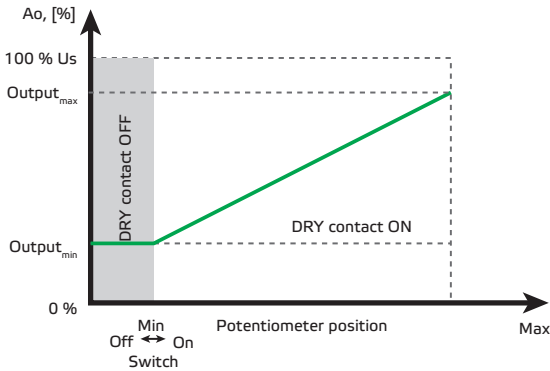
SDP-E0US-DC

Potentiometer with min & max settings, dry contact

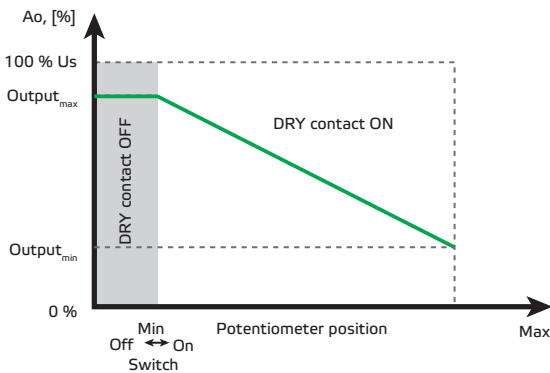


Operational diagram

Trimmers: Min < Max

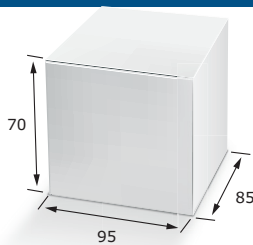


Trimmers: Min > Max



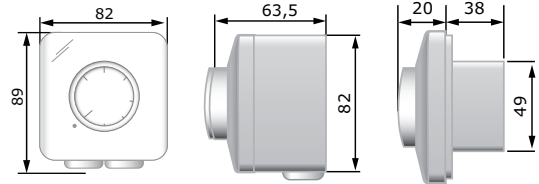
Note: By default, the output signal goes from minimum to maximum by turning the rotary knob clockwise. When minimum value is set higher than maximum value, the output signal goes from maximum to minimum by turning the rotary knob. There is always 20% minimum control range between the values determined by the trimmers. The Min trimmer value is taken as a basis. If both trimmers are set to their minimum the actual control of the output will be between 0% and 20%. If both trimmers are set to their maximum the actual control of the output will be between 80% and 100%.

Packaging

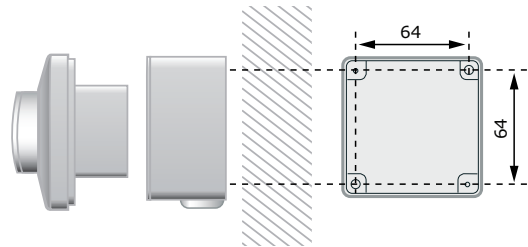


Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
SDP-E0US-DC	Unit (1 pc.)	95	85	70	0,132	0,15 kg
	Carton (10 pcs.)	492	182	84	1,32 kg	1,65 kg
	Box (60 pcs.)	590	380	280	7.92 kg	10,9 kg

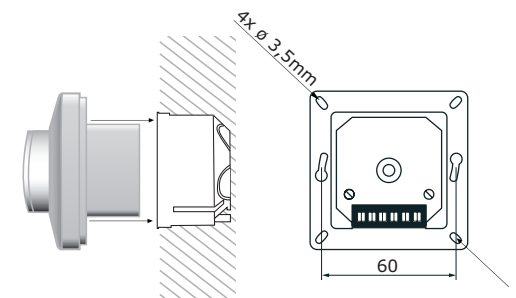
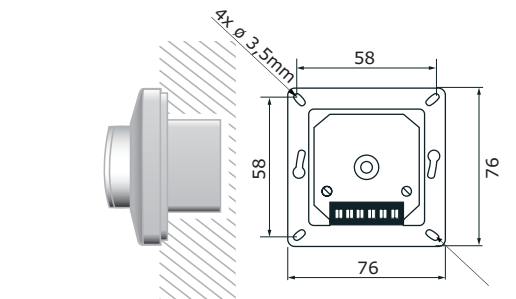
Fixing and dimensions



Surface mounting



Inset mounting



Global trade item numbers (GTIN)

Packaging	SDP-E0US-DC
Unit	05401003018552
Carton	05401003302842
Box	05401003504178
Pal	05401003701225