

SDP-X10K-NA | 10K POTENTIOMETER

Mounting and operating instructions



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SAFETY AND PRECAUTIONS



Read all the information, the datasheet, Modbus map, mounting and operating instructions and study the wiring and connection diagram before working with the product. For personal and equipment safety, and for optimum product performance, make sure you entirely understand the contents before installing, using, or maintaining this product.



For safety and licensing (CE) reasons, unauthorised conversion and /or modifications of the product are inadmissible.



The product should not be exposed to abnormal conditions, such as extreme temperatures, direct sunlight or vibrations. Long-term exposure to chemical vapours in high concentration can affect the product performance. Make sure the work environment is as dry as possible; avoid condensation.



All installations shall comply with local health and safety regulations and local electrical standards and approved codes. This product can only be installed by an engineer or a technician who has expert knowledge of the product and safety precautions.



Avoid contacts with energised electrical parts. Always disconnect the power supply before connecting, servicing or repairing the product.



Always verify that you apply appropriate power supply to the product and use appropriate wire size and characteristics. Make sure that all the screws and nuts are well tightened and fuses (if any) are fitted well.



Recycling of equipment and packaging should be taken into consideration and these should be disposed of in accordance with local and national legislation / regulations.



In case there are any questions that are not answered, please contact your technical support or consult a professional.

PRODUCT DESCRIPTION

The SDP-X10K-NA potentiometer is developed to control equipment that needs a stepless control signal. The supply voltage is within the range 0–24 VDC. The output voltage is adjusted steplessly from 0 to the supply voltage (U_s) by a rotary knob. It is equipped with a switch (dry contact) for remote ON / OFF switching of external equipment. The potentiometer is suitable for both for inset (IP44) and surface mounting (IP54).

ARTICLE CODES

Code	Supply	Switch contact rating
SDP-X10K-NA	max. 24 VDC / 1 mA	1 A

INTENDED AREA OF USE

- Applications where a DC control signal is required
- For indoor use only

TECHNICAL DATA

- Power supply range: 0–24 VDC
- Regulated output: 0– U_s
- Enclosure:
 - ▶ External: ASA, white-ivory (RAL9010), IP54 (according to EN 60529)
 - ▶ Internal: polyamide, white-ivory (RAL9010), IP44 (according to IEC 60529)
- Operating ambient conditions:
 - ▶ temperature: 0–50 °C
 - ▶ rel. humidity: < 95 % rH (non-condensing)
- Storage temperature: -10–55 °C

STANDARDS

- Low Voltage Directive 2006/95/EC
- EMC directive 2014/30/EU
- WEEE Directive 2012/19/EU
- RoHS Directive 2011/65/EU



WIRING AND CONNECTIONS

Us	Supply voltage (max. 24 VDC / 1 mA)
+	Output voltage (0– U_s VDC)
–	Ground
⌀	Dry contact for remote ON / OFF
Connections	Cable cross section: max. 1,5 mm ² , wires with cable shoe 0,75–1,0 mm ² , length 7 mm

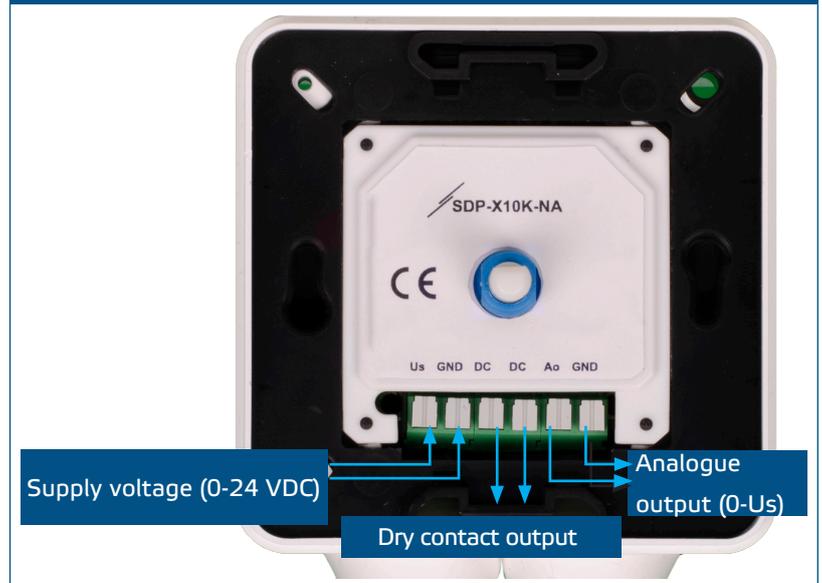
MOUNTING INSTRUCTIONS IN STEPS

Before you start mounting your potentiometer read carefully “**Safety and Precautions**”. Then proceed with the following mounting steps:

Flush mounting

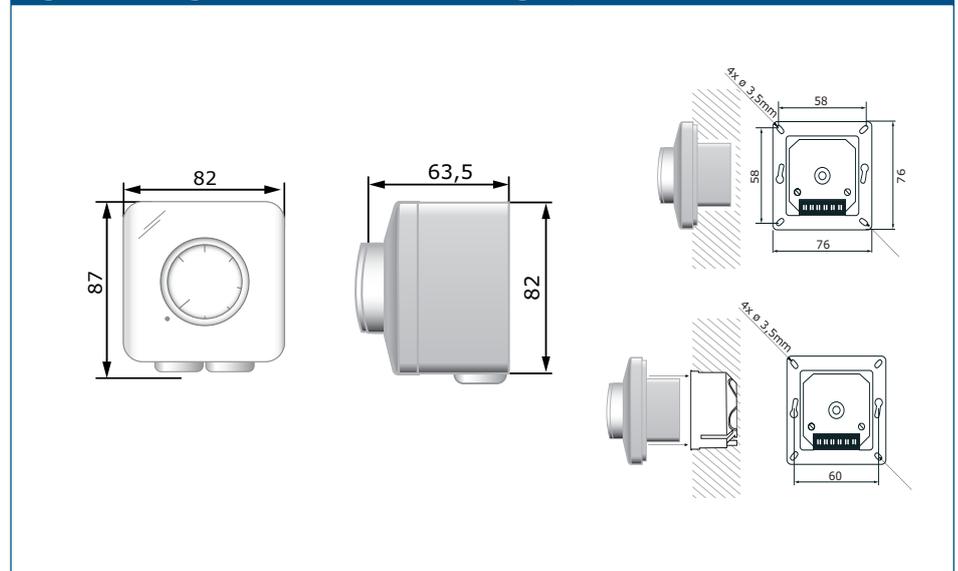
1. Remove the knob by pulling it out.
2. Unscrew the washer to remove the cover of the external enclosure.
3. Do the wiring according to the wiring diagram (see **Fig. 1 Wiring and connections**).

Fig. 1 Wiring and connections



4. Mount the internal enclosure into the wall according to the mounting dimensions shown in **Fig. 2 Mounting dimensions - flush mounting**

Fig. 2 Mounting dimensions - flush mounting



NOTE

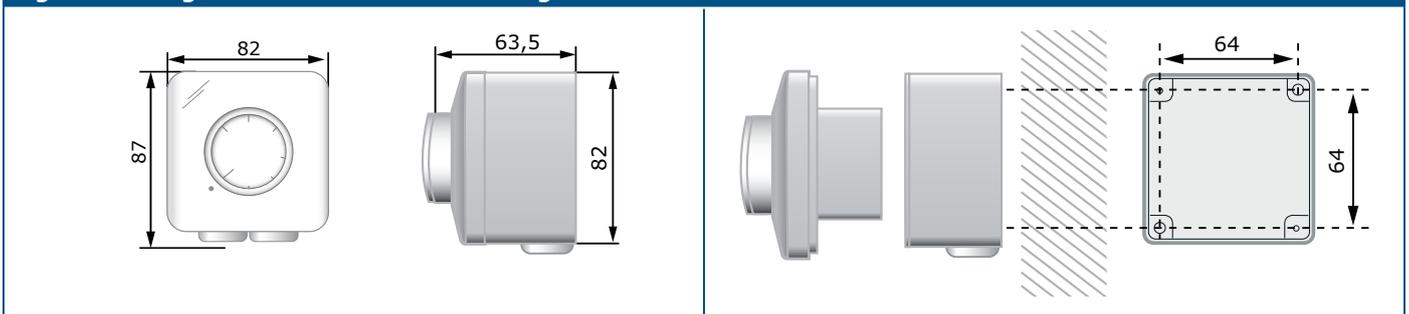
Mount the unit so that the terminal block and connections are at the lower side.

5. Mount back the cover and secure it with the washer.
6. Put back the knob and turn it to off position
7. Turn on the power supply.

For surface mounting

1. Remove the knob by pulling it out.
2. Unscrew the washer to remove the cover of the external enclosure.
3. Mount the external enclosure onto the surface by means of screws and dowels adhering to the mounting dimensions shown in **Fig. 3 Mounting dimensions - surface mounting**.

Fig. 3 Mounting dimensions - surface mounting



4. Insert the cables through the grommets.
5. Do the wiring according to the wiring diagram (see **Fig. 1 Wiring and connections**)
6. Insert the internal enclosure into the external one and fix it using the screws.
7. Mount back the cover and secure it with the nut.
8. Put back the knob and turn it to off position
9. Turn on the power supply.



NOTE

Mount the unit so that the terminal block and connections are at the lower side.



NOTE

A 5 mm hole can be drilled at the bottom of the external enclosure to drain the condensed water.

OPERATING INSTRUCTIONS

The potentiometer is intended to manually control EC fan speed, AC fan speed controllers, damper actuators or other devices that require an analogue input signal. Turn the knob to adjust the output voltage.

VERIFICATION OF INSTALLATION INSTRUCTIONS



ATTENTION

Use only tools and equipment with non-conducting handles when working on electrical devices.

- In case of faulty operation, please check if:
 - ▶ the right voltage is applied;
 - ▶ all connections are correct;
 - ▶ the regulated device is functioning.

TRANSPORT AND STORAGE

Avoid shocks and extreme conditions; stock in original packing.

WARRANTY AND RESTRICTIONS

Two years from the delivery date against defects in manufacturing. Any modifications or alterations to the product after the date of publication relieve the manufacturer of any responsibilities. The manufacturer bears no responsibility for any misprints or mistakes in this data.

MAINTENANCE

In normal conditions this product is maintenance-free. If soiled, clean with a dry or damp cloth. In case of heavy pollution, clean with a non-aggressive product. In these circumstances the unit should be disconnected from the supply. Pay attention that no fluids enter the unit. Only reconnect it to the supply when it is completely dry.