REGMET

Thermometers and controllers with digital communication - Series SMD and SRD2

- Temperature is shown on a three digit display
- Wide range of power voltage
- High accuracy of measurement
- Temperature correction can be set
- Modbus RTU or ARION communication over RS485 line

The thermometers and controllers SxD Series are intended to sense and eventually correct the interior room temperature. The device measures, displays, and by means of control knob sets the temperature correction. The controller has a three digit LCD display. The measured temperature and correction value are evaluated by the processor which communicates with the supervisory system. The controllers, with their adjustable functions, can be used primarily in applications for individual room temperature control. With their low power consumption and high accuracy they are designed for use in systems for an extended number of controlled areas. The temperature sensor is contained in a metal casing on the front cover of the controller. Communication with the supervisory system is on line through the **RS485 protocol Modbus RTU or ARION.**

Technical data

Supply voltage	12 to 30 VDC	Nap. úroveň výstupu OUT	Hi ≈ Ucc - 0,8V, Lo ≈ 0V
Current consumption	max. 20 mA	Communication	RS485, ModBus RTU
Resolution	0,1°C (-9,9 ÷ 40 °C) ; 1°C(-30 ÷ -10 °C)	Attenuation mode	Button switch without locking
Accuracy	± 0,5 °C	Indication of attenuation mode	green LED
Time needed for equalization	30 min.	Galvanic separation of PWM Output	no
Meassuring range	-30 ÷ 40 °C	Galvanic separation of RS485	no
Ambient temperature	-30 ÷ 70 °C	Galvanic separation of terminal OKNO	no
Relative humidity	< 80 %	Protection type	IP40
Output OUT	active, max. 100mA	Terminals	screw terminal (wire max. 1mm²)

Provedení: **SRD2x, SMDx**

Typ	SRD2x	SMDx
Komunikace	RS485 Protokol Arion	RS485 protokol ModBus
Komunikační rychlost	2400 - 19200	1200 - 19200
konfigurace	Sw:Regmet ARconfig	Sw: Regmet MBSet

| x |
|---|
| Funkce: |
| **1** – měření teploty, korekce teploty, tlačítko útlumu, indikační LED |
| **2** – měření teploty, tlačítko útlumu, indikační LED |
| **3** – měření teploty, korekce teploty, indikační LED |
| **4** – měření teploty, indikační LED |

Assembly and connection:

The controlers are designed for direct wall mounting. Wiring is done on the terminal board using wires of 1 square mm. The A and B signal terminals on the controller are wired to the corresponding terminals on the control system. Jumpers J2 to J4 are used as defined by the rules of communication on RS485 lines. To supply power to the controllers, one source of 12 V= to 30 V= may be used, while the voltage is connected to the controller terminals marked + and -. It is recommended to wire the controllers with suitable multi-conductor shielded cables for data signals as well as power supply. The shield must be interconnected between the specific sections and then only once to the lowest voltage level, terminal PE.

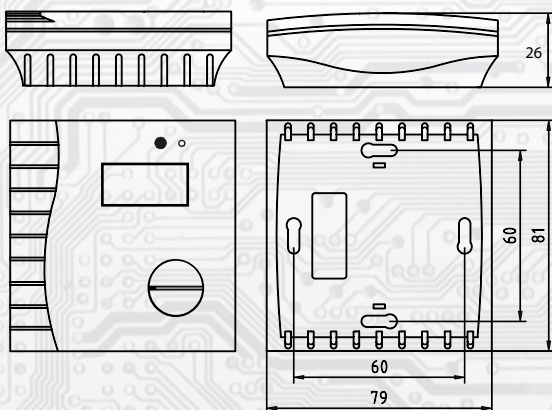Popis funkce a nastavení ovladačů jsou na samostatných listech:
Popis funkce a nastavení ovladačů SMD - protokol ModBus RTU
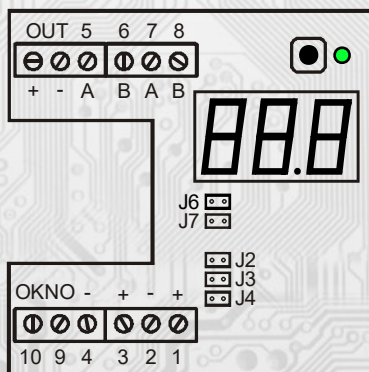Popis funkce a nastavení ovladačů SRD - protokol Arion

Version Types

SRD21 SMD1	SRD22 SMD2	SRD23 SMD3	SRD24 SMD4

Dimensions

26

60
81
60
79
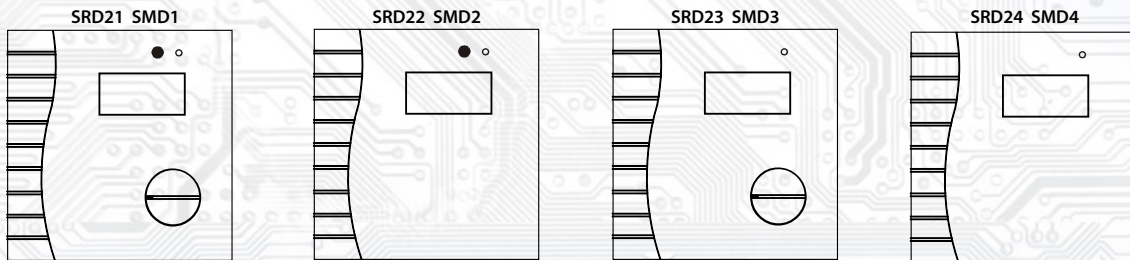
Arrangement of jumpers and connectors

OUT 5 6 7 8

+ - A B A B

J6
J7

J2
J3
J4

OKNO - + - +

10 9 4 3 2 1

Terminal
A, B   RS485 communication line
+   Power source positive terminal
-      Power source ground

J2… definition of idle status (conductor A)
J3… definition of idle status (conductor B)
J4… termination resistor 120R
J6… jumper "service"
J7.... jumper (setting a fixed address 255 and
       setup communication speed of 19200 baud

Terminal: 1,3 - Power source positive terminal
         2,4 - Power source ground
       OUT - Output of switching transistor
       OKNO (WINDOW) – input of window
       contact

Example of wiring the controllers in the system

Controller 1   Controller 2   Controller 3

Power supply
12 to 30V DC

+ - + - A B A B   + - + - A B A B   + - + - A B A B

PE

control system

address : 0

A
B
GND