systemair

Installation instruction EN

ED-RUD

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1 Introduction

1.1 Product description

ED-RUD is a room unit with built in temperature sensor and backlit touch screen. The product is intended to control an air handling unit via Systemair Access control unit. The product has different functions, for example change fan speed, adjust temperature setpoint, extended running.

ED-RUD room unit is intended for indoor installation and is available in two versions:

ED-RUD FM; For flush mounting on an EU standard wall mounting box.

ED-RUD WM: For mounting directly on a wall.

2 Safety instructions

- Obey local conditions and laws.
- Do not install or operate the product if it is defective.
- Disconnect the power supply before installation or maintenance.
- The product is not to be used by persons, including children, with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Do not allow children to play with the device.

Caution

Make sure to read and understand the instruction before using the product.

3 Operation

The display consists of segments and buttons that correspond to functions in Access control unit. For more information regarding the function of buttons and segments as, see Access documentation.

Configure communication parameters in the display by doing this steps:

1 To configure in power up sequence:

- Turn on the display and press the On/Off button for 5 seconds.

To configure in running mode:

a. Press the down arrow and up arrow button simultaneously for 5 seconds.

b. Press the down arrow button twice.

2 Navigate in the Firmware configuration menu with the arrow buttons.

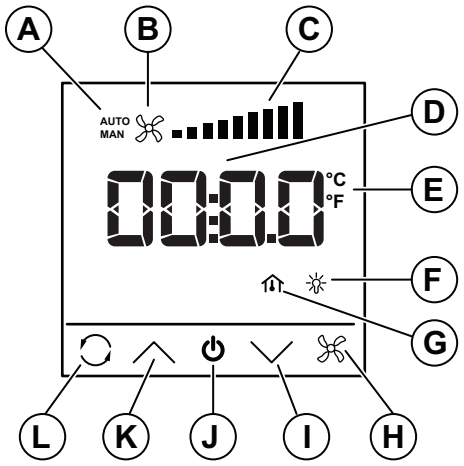
3 Press the On/Off button to select a parameter. Use the arrows to adjust the value. Always confirm with the On/Off button.

4 At the end of the menu the word EXIT appears in the display. To exit the menu press the On/Off button when in EXIT.

Note:

After changing parameters, make sure to have the power on at least 5 seconds to store the settings correctly.

3.1 Display



	Function	
A	Fan mode indicator: Automatic/Manual (also indicates Extended run)	
B	Fan running indicator (Alternates when running)	
C	Fan speed indicator:	Low (3 segments
		Normal (6 segments)
		High (9 segments)
D	16 segment display for numeric data (temperature, CO_2 ppm, or other data)	
E	Unit indicators for numeric data (°C, °F)	
F	Active AHU alarm indicator	
G	Temperature setpoint (House) / Room temperature (House + Thermometer) indicator	
H	Fan control button (Off, Auto, Low, Normal, High) or (Activate 60 min extended run)	
I	Button to decrease temperature setpoint	
J	Turn on display button	
K	Button to increase temperature setpoint	
L	Parameter display control button (Room temperature, Outdoor temperature)	

3.2 Firmware configuration parameters

Parameter	Description	Default
1	The Modbus Address the controller uses 1…254	1
2	Modbus stop bits and Parity 0 = 8N2 1 = 8O1 2 = 8E1	2
3	Modbus Time Out At least 1.5 times a character min = 2 ms (at 9 600 baud)	3
4	Modbus Answer delay At least 3.5 times a character min = 5 ms (at 9 600 baud)	5
5	Modbus baud rate 0 = 4800 bps 1 = 9600 bps 2 = 19200 bps 3 = 38400 bps	
6	Intensity Active Brightness of display when in Active or Setpoint mode 0…100 %	100%
7	Intensity Idle Brightness of display when in Idle mode 0…100 %	25%
8	Idle timeout Time to change from Active to Idle 5…600 s	20 s
9	Calibration of internal temperature sensor Used to correct the internal temperature reading if necessary –10°C…+10°C Scale 0.1	0.0

For more information regarding the configuration of the buttons and segments as well as the available Modbus variables, see the document Variable list ED-RUD-2 ….

4 Technical data

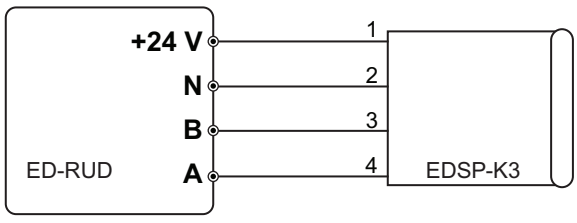
Supply voltage	24 V AC/DC (22…26 V AC/DC)
Power consumption	60 mA
Protection class	IP30
Ambient humidity	10...90% RH (non-condensing)
Ambient temperature	0...50 °C
Storage temperature	–20...+70 °C
Temperature sensor	Measuring range: 0...50 °C Tolerance: +/– 0.5 °C Type: NTC
Supply voltage	24 V AC/DC (22…26 V AC/DC)

Cable connection	Terminal block, push-in. Max. 1.5 mm² (AWG 16)
Mounting	Room (flush-mounted with screw distance cc 60 mm
Display	Built-in
Display type	LED-backlit LCD
Dimensions, external (WxHxD)	95 x 95 x 23 mm
Serial port	1
Port type	RS485
Supported protocol	Modbus (RTU)
Communication speed	38400 bps (4800…38400 bps)
Parity	Even (Even, Odd, None)
Stop bit	1 (1 or 2)

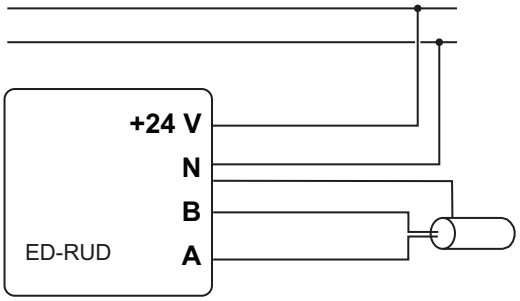
4.1 Wiring

Depending on the used controller there are two different wiring options:

1 The room unit is connected via a EDSP-K3 cable (optional) to the controller's EFX display port (CU27-C, CU40-C) or External display port (CU283W-4).



2 The room unit is connected to the controller's Ext-link serial port (CU27-C, CU40-C) or to the controller's P1 serial port (CU238W-4) with the supply voltage is connected to the same supply voltage as the controller (G and G0).



Terminal	EDSP-K… Wire color	Description
+24 V	Black	Supply voltage, G
N	White	Supply voltage, G0
A	Yellow	Serial communication port, Com A (+)
B	Brown	Serial communication port, Com B (–)

Systemair Sverige AB

Industrivägen 3

SE-739 30 Skinnskatteberg

+46 222 440 00

mailbox@systemair.com

www.systemair.com

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