



Flush-mounted room thermostat

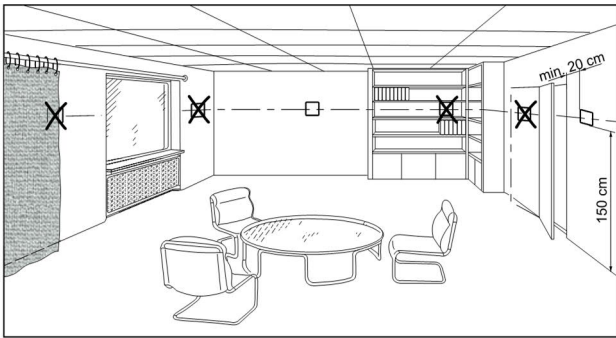


Installation video

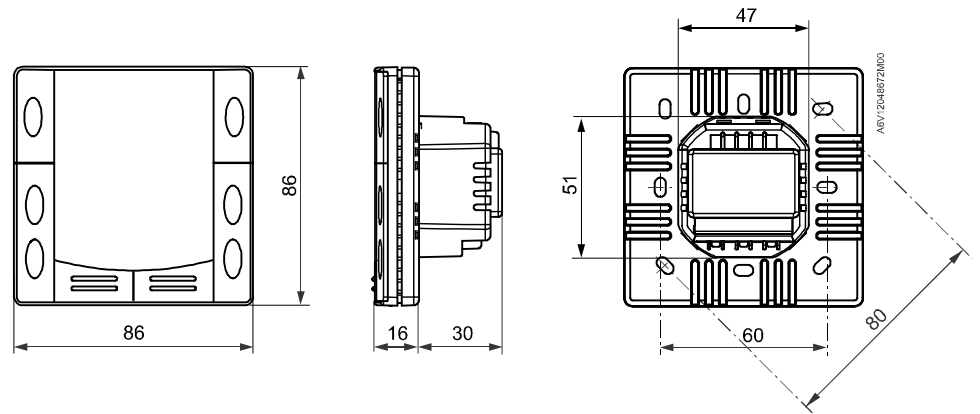


Datasheet

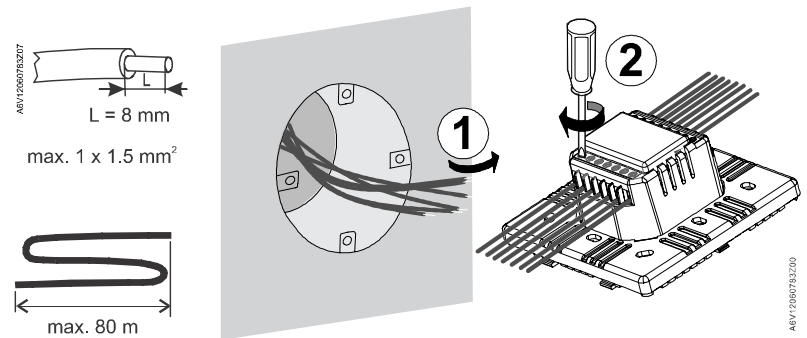
Mounting location



Dimensions (mm)

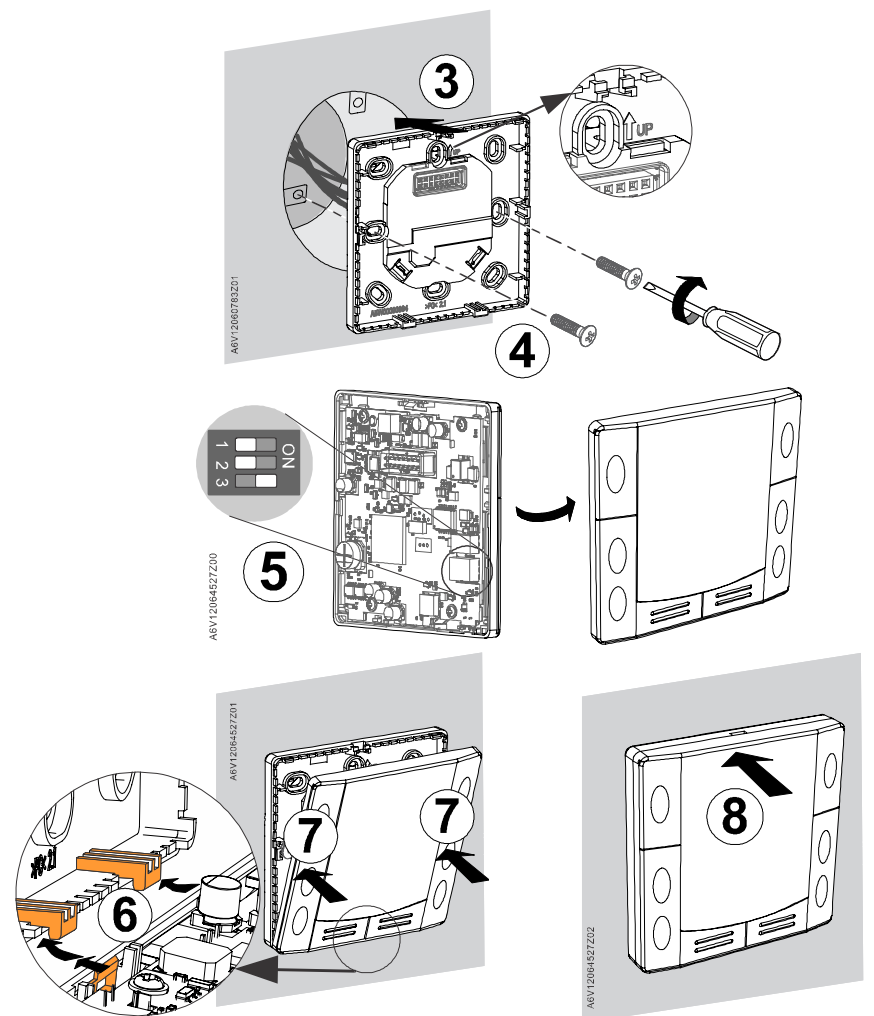


Mounting

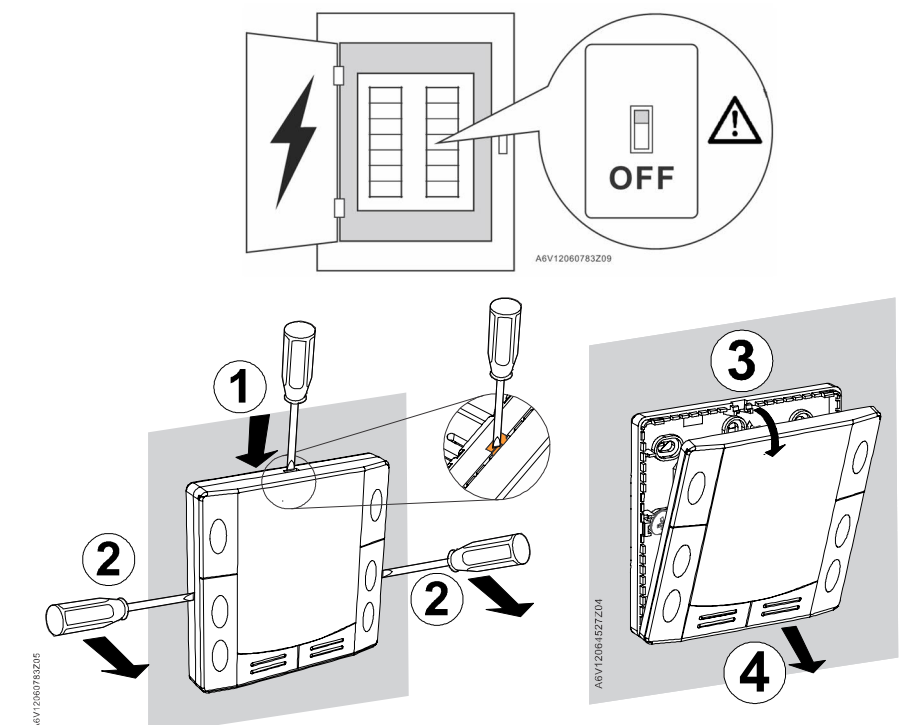


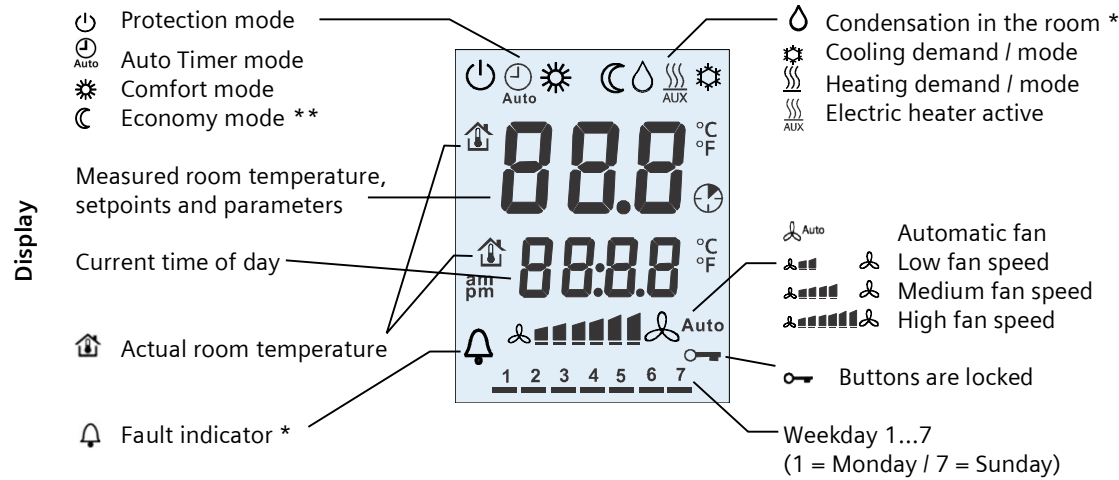
Wiring diagrams

Application		
 2-pipe fan coil, on/off valve output with DC fan		
 2-pipe fan coil, on/off valve, and electric heater outputs with DC fan		
 4-pipe fan coil, on/off valve outputs with DC fan		
 2-pipe fan coil, 3-pos valve outputs with DC fan		<p>Key</p> <ul style="list-style-type: none"> N1 RDF660T M1 ECM fan V1, V2 Valve C1, C2 Compressor S1 Operating mode switch-over contact (e.g. key card) B2 External room / return air temperature sensor E1 Electrical heater
No function DIP switches		



Dismounting





* Needs to be configured by your HVAC installer
 ** Needs to be enabled via parameter P02

Change room temperature setpoint

Press + or – buttons to increase or decrease the current room temperature setpoint for **Comfort** mode. The thermostat changes to Comfort mode. The setting range is 5...35 °C, unless limited by parameters P09 and P10.

Adjust fan speed/fan mode

Press the fan button to adjust the fan mode and fan speed. In Auto mode, the thermostat automatically selects the fan speed based on setpoint and actual room temperature. The fan is switched off (factory setting) after the room temperature reaches the setpoint. In manual mode, the fan always runs at the speed that user selects:
 Low fan speed
 Medium fan speed
 High fan speed

Change thermostat operating mode

Press operating mode button to change the operating mode display. In Comfort mode, the thermostat maintains the room temperature at the setpoint which can be readjusted using the + and – buttons. In Economy mode, the room temperature is maintained at a lower or higher fixed setpoint (factory-set: 15 °C, 30 °C) to save energy. Adjust parameters P11 and P12 to change the preselected setpoints. The availability of Economy mode depends on parameter P02 or via an external signal (switch) such as keypad or presence detector. In Protection mode, the thermostat stops operating. However, it will operate if the room temperature is below 8 °C (heating application) against frost (P65) and the value is adjustable. In Auto timer mode, the thermostat automatically switches between Comfort and Economy mode according to the time schedule.
Important: User can set Protection setpoints to OFF; the thermostat then is inactive, i.e. no protective heating or cooling function. **Risk of frost!**

Change from heating to cooling mode

Changeover between cooling and heating is either automatic using a heating/cooling changeover sensor or a remote changeover switch or manual by pressing operating mode button. No changeover is possible if the thermostat is configured for cooling only or heating only (see parameter P01).
 Meaning of cooling and heating symbols when displaying on LCD:
 • For automatic changeover or heating only/cooling only:
 - Heating valve is open
 - Cooling valve is open
 • For manual changeover only:
 - Thermostat is in heating mode
 - Thermostat is in cooling mode

Setting time of day and weekday

- Press button and the time digits start to flash. Press + or – to set the time of day. If the current time is in 24-hour format and user wishes to change to the 12-hour format, press + passing 23:59 or press – passing 00:00. Back to 24-hour format: same procedure with 11.59 PM.
- Confirm the time of day by pressing and the weekday indicator starts to flash.
- Press + or – to set the current weekday.
- Confirm the current weekday by pressing.

Parameter	Description	Factory setting	Setting range
P01	Control sequence	2-pipe = 1 [selection: 0...3] 4-pipe = 4 [selection: 2, 4]	0 = Heating only; 1 = Cooling only; 2 = H/C changeover manual 3 = H/C Changeover auto; 4 = Heating and cooling
P02	Mode selection by user via operating mode button	1	1 = Auto – Comfort – Protection; 2 = Auto – Comfort – Economy – Protection 3 = Comfort – Protection; 4 = Comfort - Economy - Protection
P04	Unit	0	0 = °C (Celsius); 1 = °F (Fahrenheit)
P05	Measured value correction (for built-in/external sensor)	0	-5 K...5 K
P06	Standard display	0	0 = Room temperature; 1 = Setpoint
P07	Additional display information	0	0 = No display; 1 = Room temperature °C or °F; 2 = Setpoint 3 = Time of day (12 h); 4 = Time of day (24 h)
P08	Comfort basic setpoint	21 °C	5...40 °C
P09	Minimum Comfort setpoint	5 °C	5...40 °C
P10	Maximum Comfort setpoint	35 °C	5...40 °C
P11	Economy heating setpoint (Wheat _{Eco})	15 °C	OFF, 5 °C...Wcool _{Eco}
P12	Economy cooling setpoint (Wcool _{Eco})	30 °C	OFF, Wheat _{Eco} ...40 °C
P13 ***	Electrical heater in cooling mode	1	0 = Disabled; 1 = Enabled
P14	Key lock	0	0 = Unlock; 1 = Lock (all lock); 2 = Setpoint adjustable

All temperature settings are in increments of 0.5 °C. *** Parameter P13 is only displayed for application "2-pipe with electric heater".

Set time schedules

To adjust the time schedule, keep pressing button for 3 seconds to enter the timer setting mode. This mode is indicated by displaying Ax (x= auto timer 1...8) and the time flashing. For each timer, proceed as follows:
 1. The Auto and Comfort symbols are displayed. Press + or – to adjust the comfort mode start time and confirm by pressing.
 2. The Auto and Economy symbols are displayed. Press + or – to adjust the comfort mode end time / Economy start time and confirm by pressing.
 3. Symbol 1 will flash. Press + or – to select or deselect each day and advance to the next day.
 4. Press to confirm the settings for the actual timer and advance to the next timer. The thermostat will leave the timer setting mode if no button is pressed within 20 seconds. All changes made after the last press of the button are not saved.

View the timer settings

Press the button to sequentially view the 8 auto timers.

Reload default timer settings

- Set the thermostat to protection mode.
- Press + and – simultaneously for 3 seconds. Release and, within 2 seconds, press twice button.

Default settings	Days	Thermostat is in Comfort mode	
	Mo (1) – Fr (5)	6:30 – 8:30 (A1)	17:30 – 22:30 (A2)
Sa (6)	8:00 – 23:00 (A3)		
Su (7)	8:00 – 22:30 (A4)		
	– In the remaining time thermostat is in Economy mode. – Timers A5...A8 are free, no default settings.		

Key lock

The key symbol indicates buttons are locked. Key lock can be configured via parameter P14.

Reminder to clean filters and for external faults

- FIL *This message reminds user to clean HVAC equipment filters.
- AL1 or AL2 indicates external faults.

Commissioning

User can adjust several different control parameters to adapt the thermostat to your system and optimize control performance. User can do this during operation via the buttons on the thermostat.

Control parameters

- Proceed as follows to change the most important control parameters
- Press the – and + buttons simultaneously for more than 6 seconds. Release, and within 2 seconds, press + again for more than 3 seconds. "P01" is displayed.
 - Repeatedly press the + or – button to select the required parameter.
 - Press + and – simultaneously once to enter EDIT mode. Then press + or – button to change the value of the selected parameter and press + and – simultaneously to save the change.
 - Repeat steps 2 to 3 to display and change additional parameters.
 - Press + or – until "End" is displayed, and then press + and – simultaneously to exit parameter entry mode.