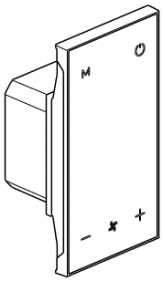
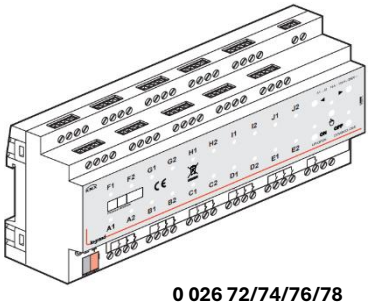
4-pipes temperature control
2-ON/OFF valves with automatic change over
3-ON/OFF speed ventilation

Cat. No(s): KG4691F3
0 026 72/74/76/78



KG4691F3



0 026 72/74/76/78

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1. USAGE SCENARIO

Meeting room, hotel, home

2.Description

The thermostat combined with an RCU actuator is used to control a fan coil equipped with 4 pipes, 2 points ON/OFF valves and 3 - ON/OFF fan.
Automatic change over to switch between Heating/Cooling mode

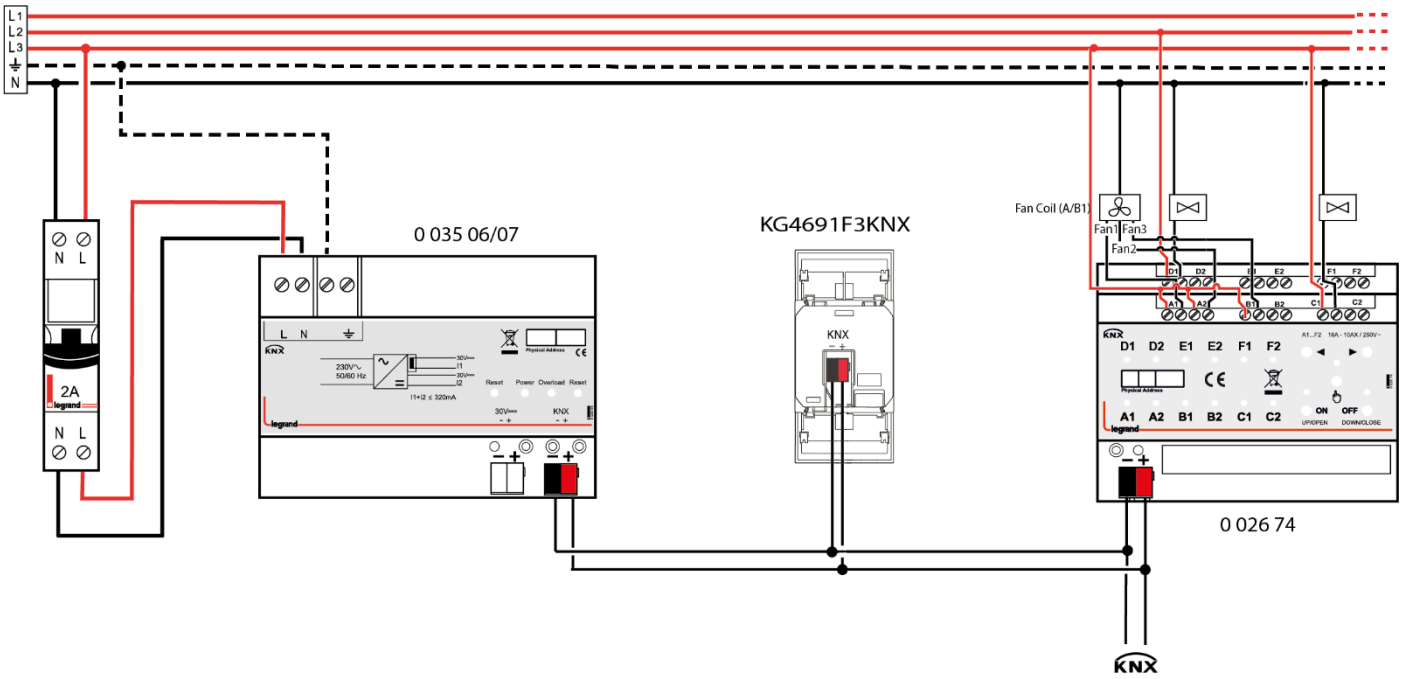
The system will regulate the temperature of an office around the set point.

Using the thermostat's touch-sensitive buttons, the user can:
- Change the temperature setpoint.
- Adjust the fan speed.

4-pipes temperature control
2-ON/OFF valves with automatic change over
3-ON/OFF speed ventilation

Cat. No(s): KG4691F3
0 026 72/74/76/78

3. WIRING DIAGRAM



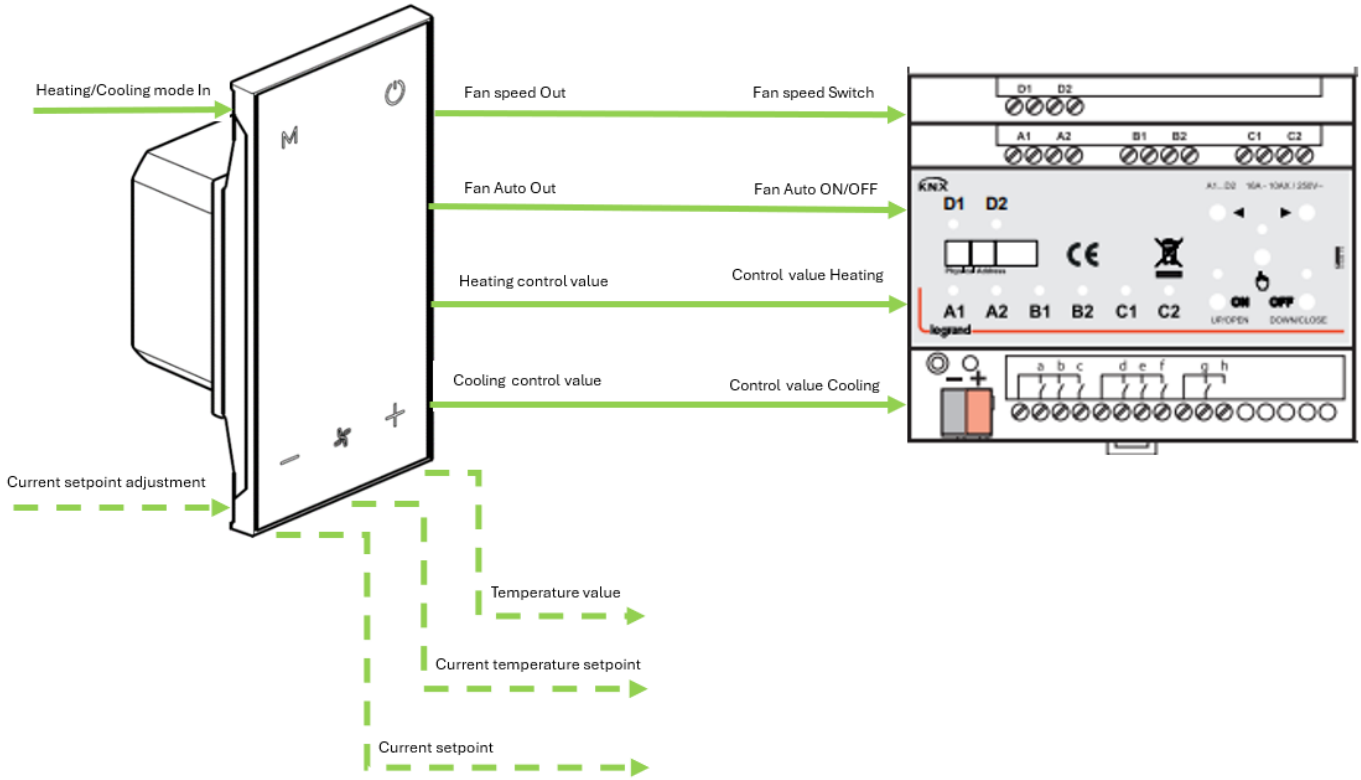
NB:
For more information about wiring each device, refer to the instructions on site.

www.legrand.com

4-pipes temperature control
2-ON/OFF valves with automatic change over
3-ON/OFF speed ventilation

Cat. No(s): KG4691F3
0 026 72/74/76/78

4. KNX DIAGRAM



5. KNX PROJECT

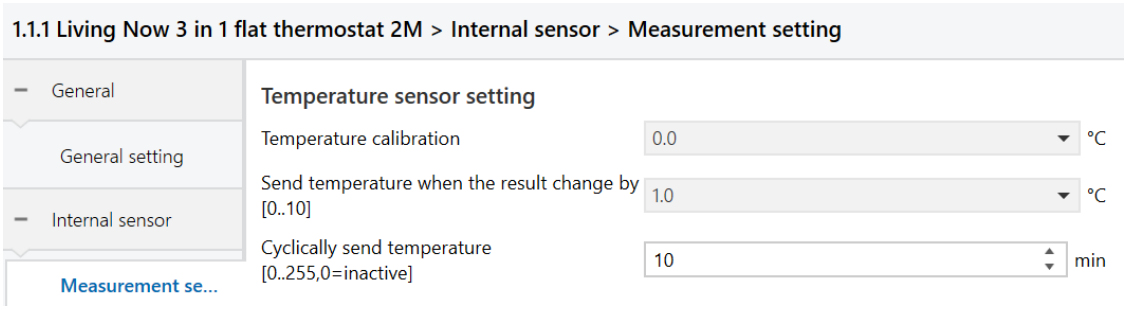
This project **002674-LNow_Thermoregulation 4P ON-OFF** is available on www.legrand.com and can be imported into ETS5.

6. DEVICE PARAMETERS WITH ETS5

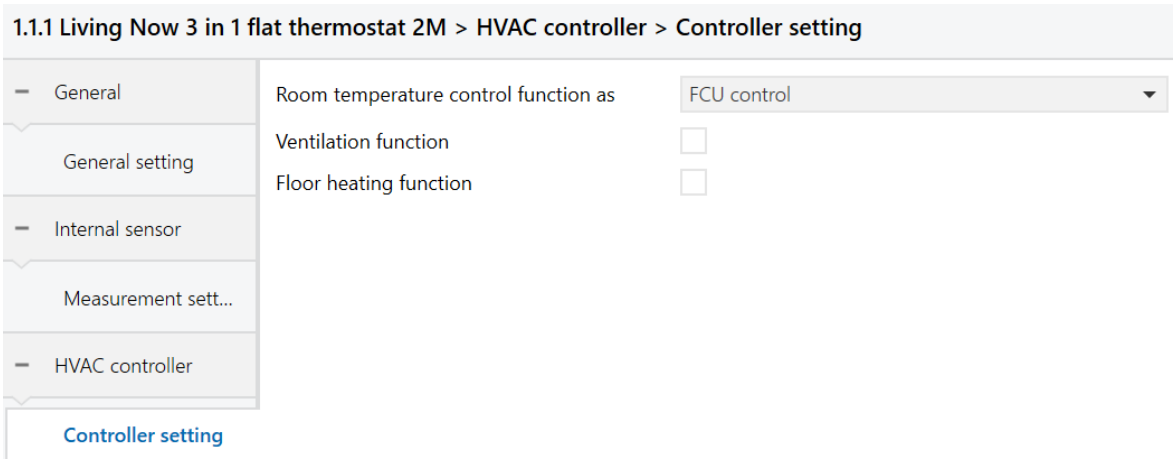
6.1 Thermostat KG4691KNX

1.1.1 Living Now 3 in 1 flat thermostat 2M > General > General setting

1.1.1 Living Now 3 in 1 flat thermostat 2M > Internal sensor > Measurement setting



1.1.1 Living Now 3 in 1 flat thermostat 2M > HVAC controller > Controller setting



6. DEVICE PARAMETERS WITH ETS5 (continued)

6.1 Thermostat KG4691KNX (continued)

1.1.1 Living Now 3 in 1 flat thermostat 2M > HVAC controller > FCU setting

- General
  - General setting
- Internal sensor
- HVAC controller
  - Controller setting
  - FCU setting
    - Heating/Cooling control
    - Fan

Work mode	Master / Slave
Room temperature reference from	Internal sensor / External sensor
Control value after temp. error [0..100] (if 2-point control, set value '0'=0, set value '>0'=1)	0 %
Interface display temperature	Setpoint temperature / Actual temperature
Setpoint temperature adjustment step	0.5K / 1K
Min. setpoint temperature [5..37]	5 °C
Max. setpoint temperature [5..37]	37 °C
Power on/off status after download	OFF / ON
Power on/off status after voltage recovery	As before voltage failure
Low temperature protection when power off	✓
Temperature	10 °C
Room temperature control mode	Heating and Cooling
Heating/Cooling switchover	Automatic changeover
Heating/Cooling status after download	Heating / Cooling
Heating/Cooling status after voltage recovery	As before voltage failure
Room temperature control system	2 pipes system / 4 pipes system
Initial setpoint temperature	20.0 °C

Automatic H/C mode changeover dead zone

Upper dead zone	2.0 K
Lower dead zone	2.0 K
Fan	✓

6. DEVICE PARAMETERS WITH ETS5 (continued)

6.1 Thermostat KG4691KNX (continued)

1.1.1 Living Now 3 in 1 flat thermostat 2M > HVAC controller > FCU setting > Heating/Cooling control

- General
  - General setting
- + Internal sensor
- − HVAC controller
  - Controller setting
  - − FCU setting
    - Heating/Cooling control
    - Fan

Type of heating control	Continuous control(use PI control)
Invert control value	☐
Heating speed	Hot water heating(5K/150min)
Send control value on change by [0..100,0=inactive]	4 %
Type of cooling control	Continuous control(use PI control)
Invert control value	☐
Cooling speed	Cooling ceiling(5K/240min)
Send control value on change by [0..100,0=inactive]	4 %
Cyclically send control value[0..255]	0 min

6. DEVICE PARAMETERS WITH ETS5 (continued)

6.2 Actuator 0 026 74

1.1.2 LG-002674 Room Control Unit, 12 Output > General

- General
- Enable Output A...J
- A/B1 - Fan
- A/B1 - Status Message
- A/B1 - Automatic Operation
- A/B1 - Direct Mode
- C/D - Control Input

Enable manual operation	○ disable ◉ enable
Reset manual operation to KNX operation	◉ via push button ○ automatically and via push button
Device alive operation active	○ yes ◉ no
First telegram send time in s[2...255]	2
Telegram limit active	○ yes ◉ no
Activate scene	◉ yes ○ no
Weather alarm function	○ yes ◉ no

1.1.2 LG-002674 Room Control Unit, 12 Output > Enable Output A...J

- General
- Enable Output A...J
- A/B1 - Fan

Output group A and B	fan coil
Output group C and D	valve control
Output group E and F	no function

6. DEVICE PARAMETERS WITH ETS5 (continued)

6.2 Actuator 0 026 74

1.1.2 LG-002674 Room Control Unit, 12 Output > Enable Output A...J

- General
- Enable Output A...J
- A/B1 - Fan
- A/B1 - Status Message

Output group A and B	fan coil
Output group C and D	valve control
Output group E and F	individually
Output group E	shutter/blind AC / 2 x switch
Output group F	shutter/blind AC / 2 x switch

1.1.2 LG-002674 Room Control Unit, 12 Output > A/B1 - Fan

- General
- Enable Output A...J
- A/B1 - Fan
- A/B1 - Status Message
- A/B1 - Automatic Operation
- A/B1 - Direct Mode
- C/D - Control Input
- C - Valve General
- C - Function
- D - Valve General
- D - Function
- E1 - General

Select valve with working	valve C/D
Number of fan levels	3
Controlling the fan levels	only one fan output / fan hierarchically
Fan operation mode	changeover switch / step switch
Delay between fan speed switching in ms[50...5000]	500
Fan speed on bus voltage failure	fan off
Fan speed on bus voltage recovery	fan off
Enable forced operation	yes / no
Forced operation on object value	0 / 1
Limitation on forced operation	3, 2, 1, OFF
Enable automatic operation	yes / no
Enable direct operation	yes / no
Starting characteristic of fan	yes / no

6. DEVICE PARAMETERS WITH ETS5 (continued)

6.2 Actuator 0 026 74

1.1.2 LG-002674 Room Control Unit, 12 Output > A/B1 - Direct Mode

- General
- Enable Output A...J
- A/B1 - Fan
- A/B1 - Status Message
- A/B1 - Automatic Operation
- A/B1 - Direct Mode

Enable communication object "Switch speed "Â 1 bit	○ yes ◉ no
Enable communication object "Fan speed UP/DOWN"Â 1 bit	○ yes ◉ no
Enable communication object "Fan speed switch"Â 1 byte	◉ yes ○ no

1.1.2 LG-002674 Room Control Unit, 12 Output > C/D - Control Input

- General
- Enable Output A...J
- A/B1 - Fan
- A/B1 - Status Message
- A/B1 - Automatic Operation
- A/B1 - Direct Mode
- C/D - Control Input

HVAC system	two control four pipe
Monitoring control valves	○ yes ◉ no

1.1.2 LG-002674 Room Control Unit, 12 Output > C - Valve General

- General
- Enable Output A...J
- A/B1 - Fan
- A/B1 - Status Message
- A/B1 - Automatic Operation
- A/B1 - Direct Mode
- C/D - Control Input
- C - Valve General

Valve control	◉ two point on/off ○ three point open/close
Valve contact type	○ normally closed ◉ normally open
Valve position after bus voltage return	◉ unchanged ○ selected
Valve limitation	○ yes ◉ no

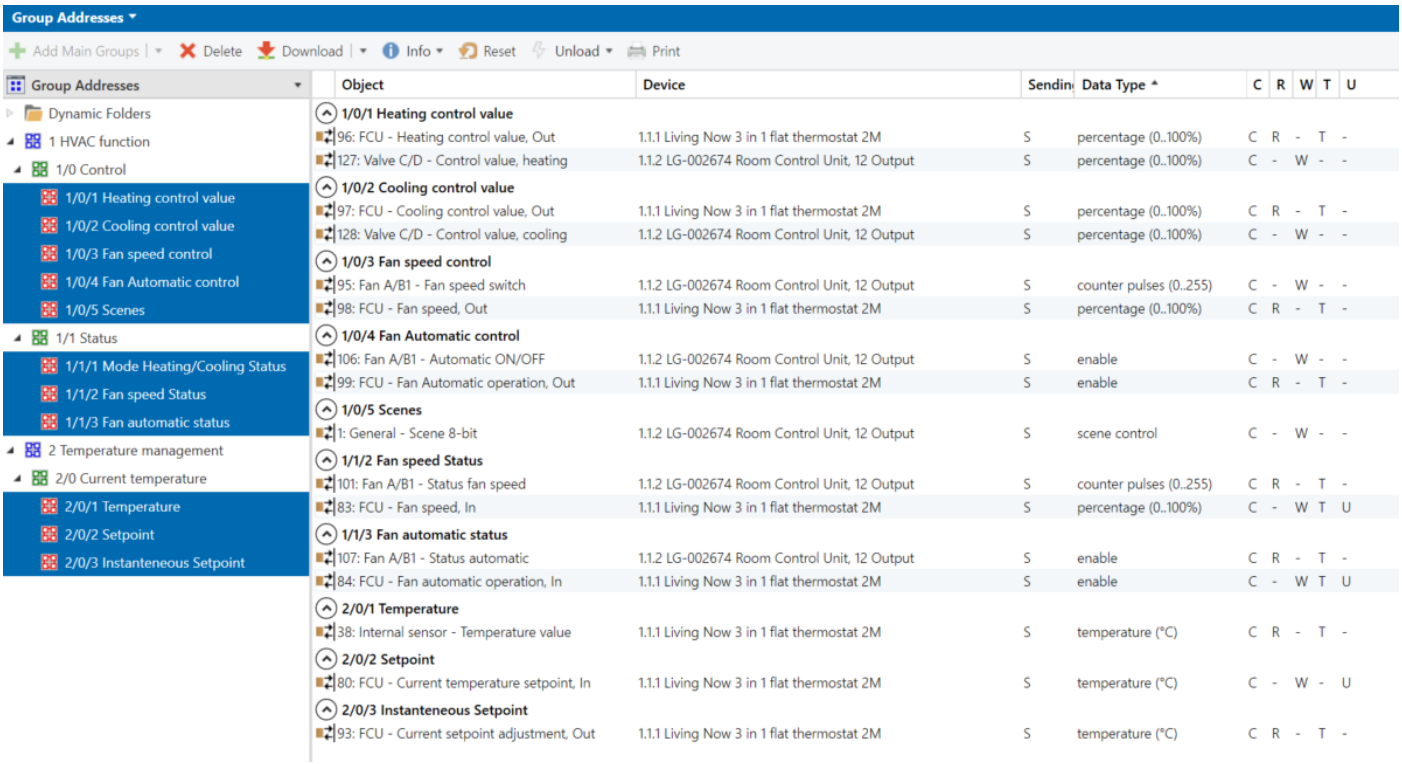
6. DEVICE PARAMETERS WITH ETS5 (continued)

6.2 Actuator 0 026 74

1.1.2 LG-002674 Room Control Unit, 12 Output > E1 - Scene

General	Overwrite scene on download	yes / no
Enable Output A...J		
A/B1 - Fan	1...64 scene number (0 = no assignment)	1
A/B1 - Status Message	Value	OFF / ON
A/B1 - Automatic Operation	1...64 scene number (0 = no assignment)	2
A/B1 - Direct Mode	Value	OFF / ON
C/D - Control Input	1...64 scene number (0 = no assignment)	3
	Value	OFF / ON
	1...64 scene number (0 = no assignment)	4

7. GROUP ADDRESSES



Object	Device	Sendin	Data Type	C	R	W	T	U
1/0/1 Heating control value								
96: FCU - Heating control value, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentage (0..100%)	C	R	-	T	-
127: Valve C/D - Control value, heating	1.1.2 LG-002674 Room Control Unit, 12 Output	S	percentage (0..100%)	C	-	W	-	-
1/0/2 Cooling control value								
97: FCU - Cooling control value, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentage (0..100%)	C	R	-	T	-
128: Valve C/D - Control value, cooling	1.1.2 LG-002674 Room Control Unit, 12 Output	S	percentage (0..100%)	C	-	W	-	-
1/0/3 Fan speed control								
95: Fan A/B1 - Fan speed switch	1.1.2 LG-002674 Room Control Unit, 12 Output	S	counter pulses (0..255)	C	-	W	-	-
98: FCU - Fan speed, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentage (0..100%)	C	R	-	T	-
1/0/4 Fan Automatic control								
106: Fan A/B1 - Automatic ON/OFF	1.1.2 LG-002674 Room Control Unit, 12 Output	S	enable	C	-	W	-	-
99: FCU - Fan Automatic operation, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	enable	C	R	-	T	-
1/0/5 Scenes								
1: General - Scene 8-bit	1.1.2 LG-002674 Room Control Unit, 12 Output	S	scene control	C	-	W	-	-
1/1/2 Fan speed Status								
101: Fan A/B1 - Status fan speed	1.1.2 LG-002674 Room Control Unit, 12 Output	S	counter pulses (0..255)	C	R	-	T	-
83: FCU - Fan speed, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentage (0..100%)	C	-	W	T	U
1/1/3 Fan automatic status								
107: Fan A/B1 - Status automatic	1.1.2 LG-002674 Room Control Unit, 12 Output	S	enable	C	R	-	T	-
84: FCU - Fan automatic operation, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	enable	C	-	W	T	U
2/0/1 Temperature								
38: Internal sensor - Temperature value	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	temperature (°C)	C	R	-	T	-
2/0/2 Setpoint								
80: FCU - Current temperature setpoint, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	temperature (°C)	C	-	W	-	U
2/0/3 Instanteneous Setpoint								
93: FCU - Current setpoint adjustment, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	temperature (°C)	C	R	-	T	-

8. NOTES

The whole HVAC system is managed by thermostat Living Now (heating/cooling regulation, setpoint, manual & automatic ventilation).

The HVAC and FAN valve is connected to controller 0 026 74 (A, B1 and C connector), The room controller 0 026 74 provide ON/OFF to switch or shut valve.

The setpoint value can be altered on thermostat KG4691F3 by touching the buttons “+” and “-”.

The fan speed can be altered by touching the button on the bottom of the thermostat. There are 3 manual fan speed levels and an automatic mode run by the thermostat.

Unused actuator outputs can be configured for lighting or roller shutter control.