

0 026 72/74/76/78

KG4691F3

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1. USAGE SCENARIO

Meeting room, hotel, home



2. Description

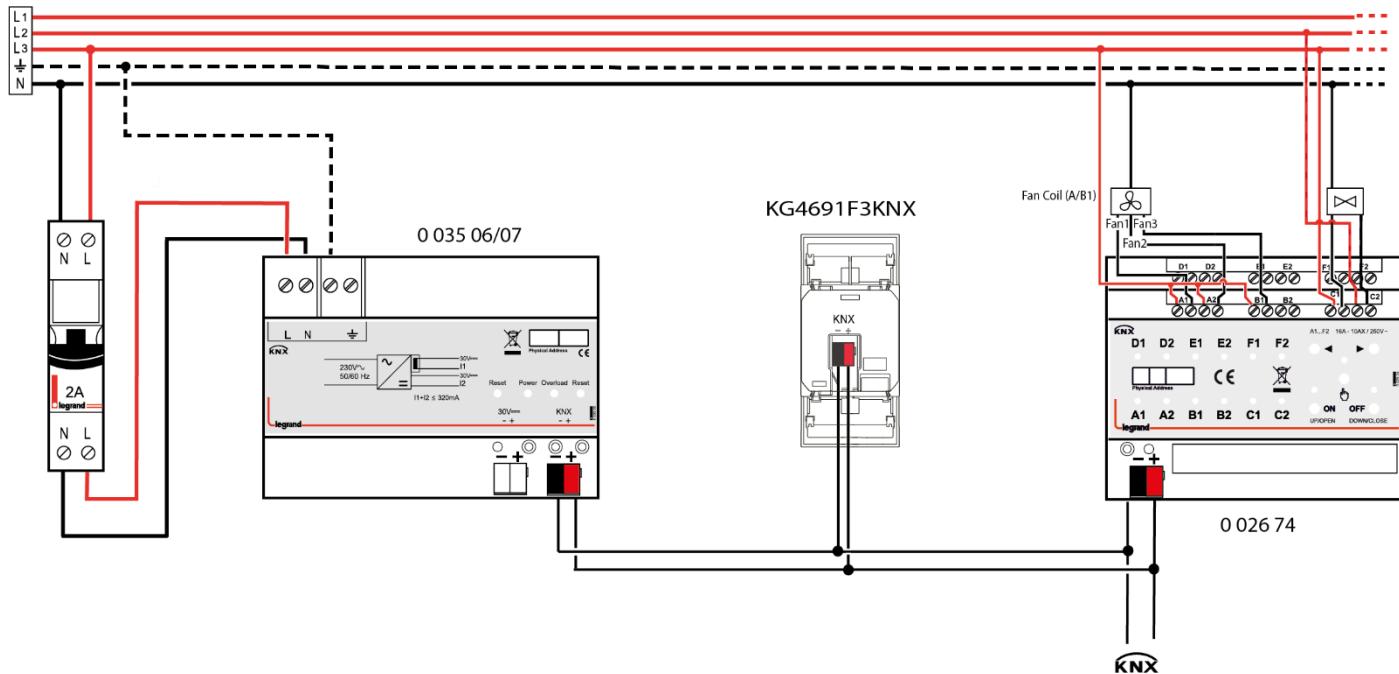
The thermostat combined with an RCU actuator is used to control a fan coil equipped with 2 pipes, 3 points ON/OFF valve and 3 - ON/OFF fan. T Change over to switch between Heating/Cooling mode

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.

3. WIRING DIAGRAM



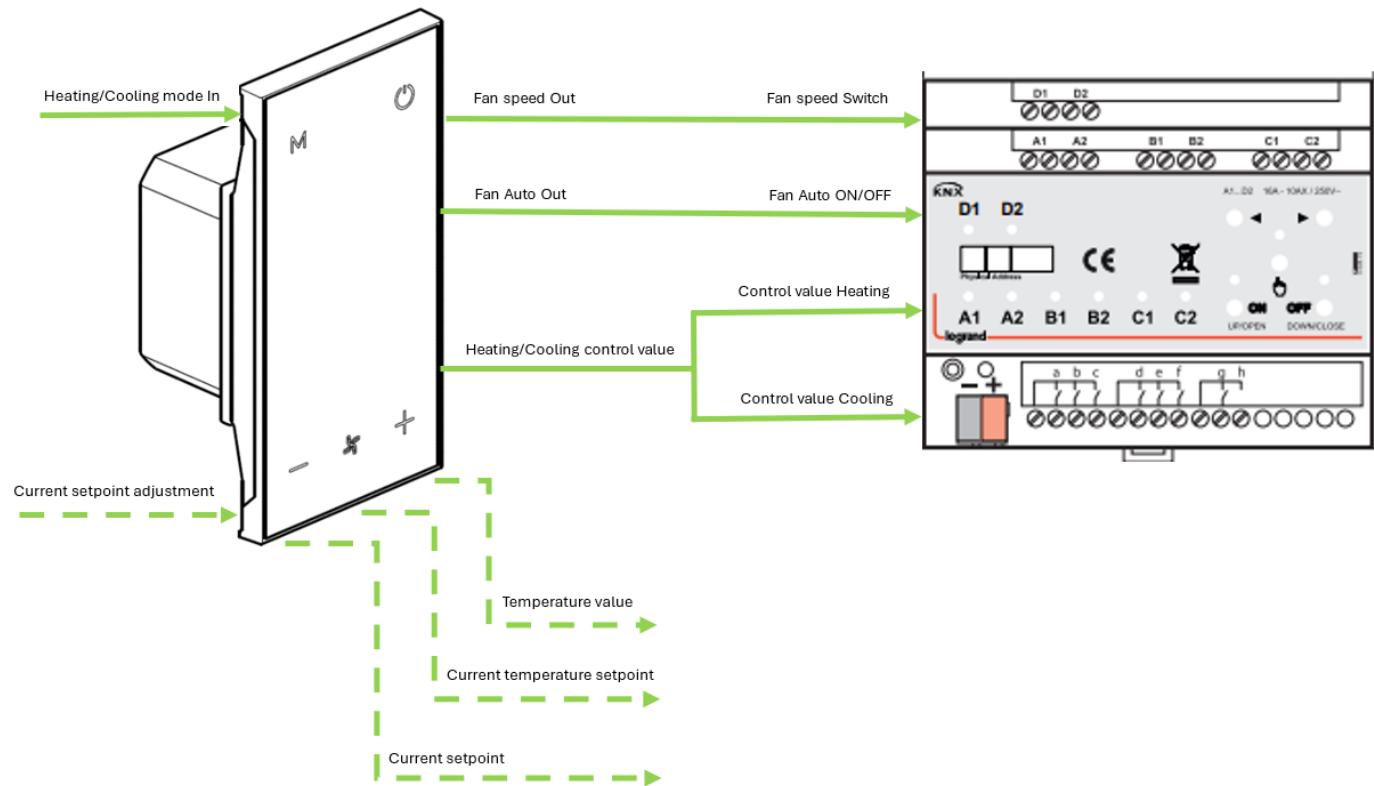
NB:

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



www.legrand.com

4. KNX DIAGRAM



5. KNX PROJECT

This project **002674-LNow_Thermoregulation 2P ON-OFF 3 points** is available on www.legrand.com and can be imported into ETS5.

6. DEVICE PARAMETERS WITH ETSS

6.1 Thermostat KG4691KNX

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

- General	Normal day backlight [10..100]	100
General setting	Normal standby backlight [0..30]	10
+ Internal sensor	Normal to standby delay time [1..60]	60
+ HVAC controller	Buzzer volume level [0..5, 0=inactive]	2

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

- General	Temperature sensor setting	
General setting	Temperature calibration	0.0 °C
- Internal sensor	Send temperature when the result change by [0..10]	1.0 °C
Measurement se...	Cyclically send temperature [0..255,0=inactive]	10 min

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

- General	Room temperature control function as	FCU control
General setting	Ventilation function	<input type="checkbox"/>
- Internal sensor	Floor heating function	<input type="checkbox"/>
Measurement sett...		
- 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	Work mode	<input checked="" type="radio"/> Master <input type="radio"/> Slave
General setting	Room temperature reference from	<input checked="" type="radio"/> Internal sensor <input type="radio"/> External sensor
+ Internal sensor	Control value after temp. error [0..100] (if 2-point control, set value '0'=0, set value ' >0 '=1)	<input type="text" value="0"/> %
- HVAC controller	Interface display temperature	<input type="radio"/> Setpoint temperature <input checked="" type="radio"/> Actual temperature
Controller setting	Setpoint temperature adjustment step	<input checked="" type="radio"/> 0.5K <input type="radio"/> 1K
+ FCU setting	Min. setpoint temperature [5..37]	<input type="text" value="5"/> °C
	Max. setpoint temperature [5..37]	<input type="text" value="37"/> °C
	Power on/off status after download	<input type="radio"/> OFF <input checked="" type="radio"/> ON
	Power on/off status after voltage recovery	<input type="text" value="As before voltage failure"/>
	Low temperature protection when power off	<input checked="" type="checkbox"/>
	Temperature	<input type="text" value="10"/> °C
	Room temperature control mode	<input type="text" value="Heating and Cooling"/>
	Heating/Cooling switchover	<input type="text" value="Via both button and object"/>
	Heating/Cooling status after download	<input type="radio"/> Heating <input checked="" type="radio"/> Cooling
	Heating/Cooling status after voltage recovery	<input type="text" value="As before voltage failure"/>
	Room temperature control system	<input checked="" type="radio"/> 2 pipes system <input type="radio"/> 4 pipes system
	Initial setpoint temperature	<input type="text" value="20.0"/> °C
	Fan	<input checked="" type="checkbox"/>
	Scene	<input type="checkbox"/>

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

- General	Type of heating/cooling control	<input type="text" value="Continuous control(use PI control)"/>
General setting	Invert control value	<input type="checkbox"/>
+ Internal sensor	Heating speed	<input type="text" value="Hot water heating(5K/150min)"/>
- HVAC controller	Cooling speed	<input type="text" value="Cooling ceiling(5K/240min)"/>
Controller setting	Send control value on change by [0..100,0=inactive]	<input type="text" value="4"/> %
- FCU setting	Cyclically send control value[0..255]	<input type="text" value="0"/> min
Heating/Cooling control		
Fan		

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 <input type="radio"/> disable <input checked="" type="radio"/> enable Reset manual operation to KNX operation <input checked="" type="radio"/> via push button <input type="radio"/> automatically and via push button Device alive operation active <input type="radio"/> yes <input checked="" type="radio"/> no First telegram send time in s[2...255] <input type="text" value="2"/> Telegram limit active <input type="radio"/> yes <input checked="" type="radio"/> no Activate scene <input checked="" type="radio"/> yes <input type="radio"/> no Weather alarm function <input type="radio"/> yes <input checked="" type="radio"/> no
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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 <input type="text" value="fan coil"/> Output group C and D <input type="text" value="valve control"/> Output group E and F <input type="text" value="no function"/>
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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 <input type="text" value="fan coil"/> Output group C and D <input type="text" value="valve control"/> Output group E and F <input type="text" value="individually"/> Output group E <input type="radio"/> shutter/blind AC <input checked="" type="radio"/> 2 x switch Output group F <input type="radio"/> shutter/blind AC <input checked="" type="radio"/> 2 x switch
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6. DEVICE PARAMETERS WITH ETS5 (continued)

■ 6.2 Actuator 0 026 74

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

General	Select valve with working	valve C/D
Enable Output A...J	Number of fan levels	3
A/B1 - Fan	Controlling the fan levels	<input type="radio"/> only one fan output <input checked="" type="radio"/> fan hierarchically
A/B1 - Status Message	Fan operation mode	<input checked="" type="radio"/> changeover switch <input type="radio"/> step switch
A/B1 - Automatic Operation	Delay between fan speed switching in ms[50...5000]	500
A/B1 - Direct Mode	Fan speed on bus voltage failure	fan off
C/D - Control Input	Fan speed on bus voltage recovery	fan off
C - Valve General	Enable forced operation	<input checked="" type="radio"/> yes <input type="radio"/> no
C - Function	Forced operation on object value	<input checked="" type="radio"/> 0 <input type="radio"/> 1
D - Valve General	Limitation on forced operation	3, 2, 1, OFF
D - Function	Enable automatic operation	<input checked="" type="radio"/> yes <input type="radio"/> no
E1 - General	Enable direct operation	<input checked="" type="radio"/> yes <input type="radio"/> no
	Starting characteristic of fan	<input type="radio"/> yes <input checked="" type="radio"/> no

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

General	Enable communication object "Switch speed" Å 1 bit	<input type="radio"/> yes <input checked="" type="radio"/> no
Enable Output A...J	Enable communication object "Fan speed UP/DOWN" Å 1 bit	<input type="radio"/> yes <input checked="" type="radio"/> no
A/B1 - Fan	Enable communication object "Fan speed switch" Å 1 byte	<input checked="" type="radio"/> yes <input type="radio"/> no
A/B1 - Status Message		
A/B1 - Automatic Operation		
A/B1 - Direct Mode		

6. DEVICE PARAMETERS WITH ETS5 (continued)

6.2 Actuator 0 026 74

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

General	HVAC system	two control two pipe with switch
Enable Output A...J	Operation HEATING/COOLING after bus voltage recovery	unchanged bus return
A/B1 - Fan	Object value for HEATING the object "Toggle HEATING/COOLING"	<input type="radio"/> 0 <input checked="" type="radio"/> 1
A/B1 - Status Message	Monitoring control valves	<input type="radio"/> yes <input checked="" type="radio"/> no
A/B1 - Automatic Operation		
A/B1 - Direct Mode		
C/D - Control Input		

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

General	Valve control	<input type="radio"/> two point on/off <input checked="" type="radio"/> three point open/close
Enable Output A...J	Observe reversing time	no
A/B1 - Fan	Valve position after bus voltage return	<input checked="" type="radio"/> unchanged <input type="radio"/> selected
A/B1 - Status Message	Value control duration from 0...100% in s [10...6000]	180
A/B1 - Automatic Operation	Automatically adjust valve position	<input type="radio"/> yes <input checked="" type="radio"/> no
A/B1 - Direct Mode	Valve limitation	<input type="radio"/> yes <input checked="" type="radio"/> no
C/D - Control Input		

C - Valve General

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

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

7. GROUP ADDRESSES

Group Addresses		Object ^	Device	Sendin	Data Type	C	R	W	T	U
+ Add Group Addresses Delete Download Info Reset Unload Print		(+) 1/0/1 Heating/Cooling mode control	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	cooling/he...	-	W	-	U	
↳ Dynamic Folders		(+) 81: FCU - Heating/Cooling mode, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentag...	C	R	-	T	-
↳ 1 HVAC function		(+) 127: Valve C/D - Control value, heating	1.1.2 LG-002674 Room Control Unit, 12 Output	S	percentag...	C	R	-	W	-
↳ 1/0 Control		(+) 128: Valve C/D - Control value, cooling	1.1.2 LG-002674 Room Control Unit, 12 Output	S	percentag...	C	-	W	-	-
(+) 1/0/1 Heating/Cooling mode control		(+) 1/0/2 Heating/Cooling control								
(+) 1/0/3 Fan speed control		(+) 1/0/4 Fan Automatic control								
(+) 1/1 Status		(+) 1/1/1 Mode Heating/Cooling Status								
(+) 1/1/2 Fan speed Status		(+) 1/1/3 Fan automatic status								
(+) 2 Temperature management		(+) 2/0/1 Temperature								
(+) 2/0 Current temperature		(+) 2/0/2 Setpoint								
(+) 2/0/3 Instantaneous Setpoint		(+) 2/0/3 Instantaneous Setpoint								
		(+) 1/0/1 Fan Automatic control								
		(+) 109: FCU - Fan Automatic operation, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	enable	C	R	-	T	-
		(+) 106: Fan A/B1 - Automatic ON/OFF	1.1.2 LG-002674 Room Control Unit, 12 Output	S	enable	C	-	W	-	-
		(+) 1/1/2 Fan speed Status								
		(+) 103: FCU - Fan speed, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentag...	C	-	W	T	U
		(+) 101: Fan A/B1 - Status fan speed	1.1.2 LG-002674 Room Control Unit, 12 Output	S	counter pu...	C	R	-	T	-
		(+) 1/1/3 Fan automatic status								
		(+) 84: FCU - Fan automatic operation, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	enable	C	-	W	T	U
		(+) 107: Fan A/B1 - Status automatic	1.1.2 LG-002674 Room Control Unit, 12 Output	S	enable	C	R	-	T	-
		(+) 2/0/1 Temperature								
		(+) 138: Internal sensor - Temperature value	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	temperatu...	C	R	-	T	-
		(+) 2/0/2 Setpoint								
		(+) 180: FCU - Current temperature setpoint, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	temperatu...	C	-	W	-	U
		(+) 2/0/3 Instantaneous Setpoint								
		(+) 193: FCU - Current setpoint adjustment, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	temperatu...	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, C and D connectors).

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.