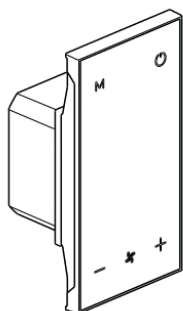
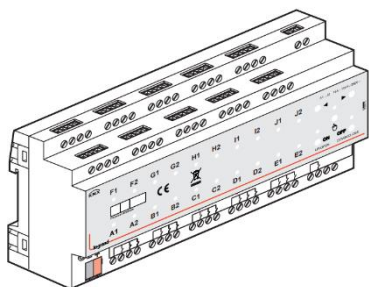


2-pipes temperature control
1-ON/OFF valve with manual change over
3-ON/OFF speed ventilation

Cat. No(s): KG4691KNX
 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

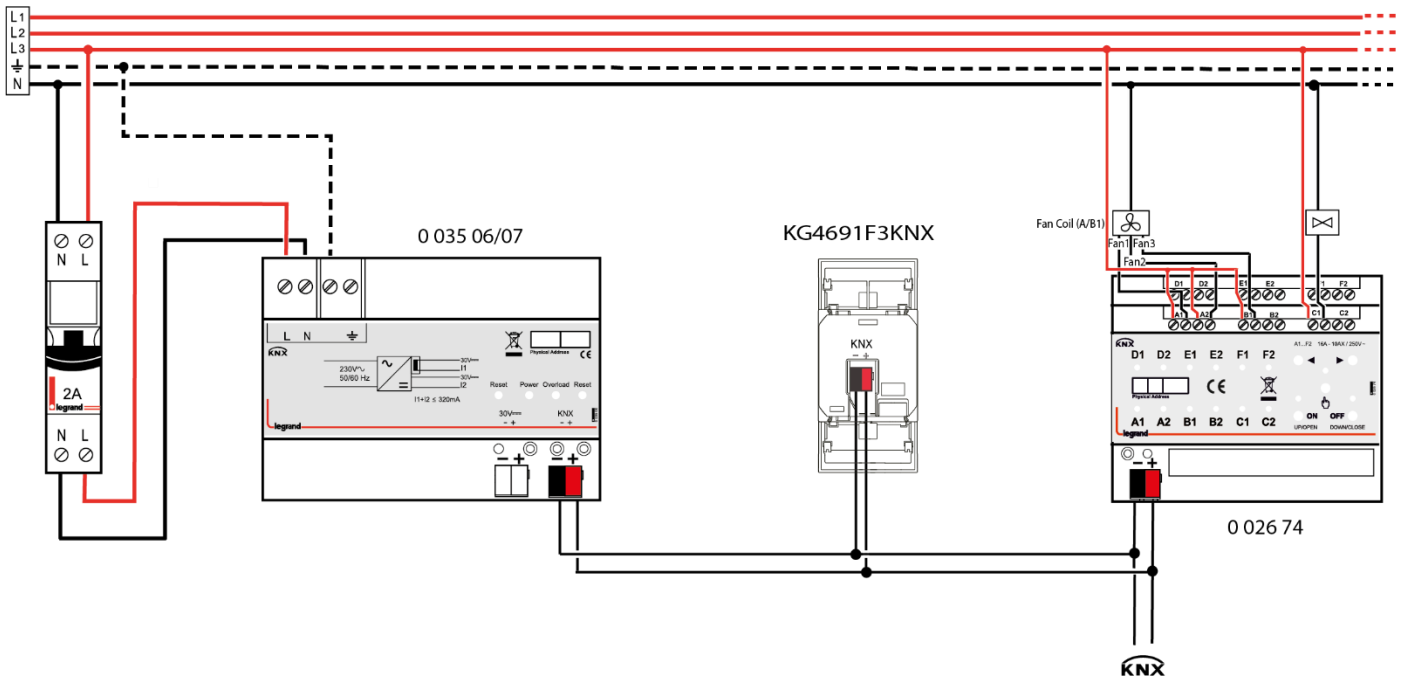
The thermostat combined with an RCU actuator is used to control a fan coil equipped with 2 pipes, 2 points ON/OFF valve and 3 - ON/OFF fan. Manual change over to switch between Heating/Cooling mode

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



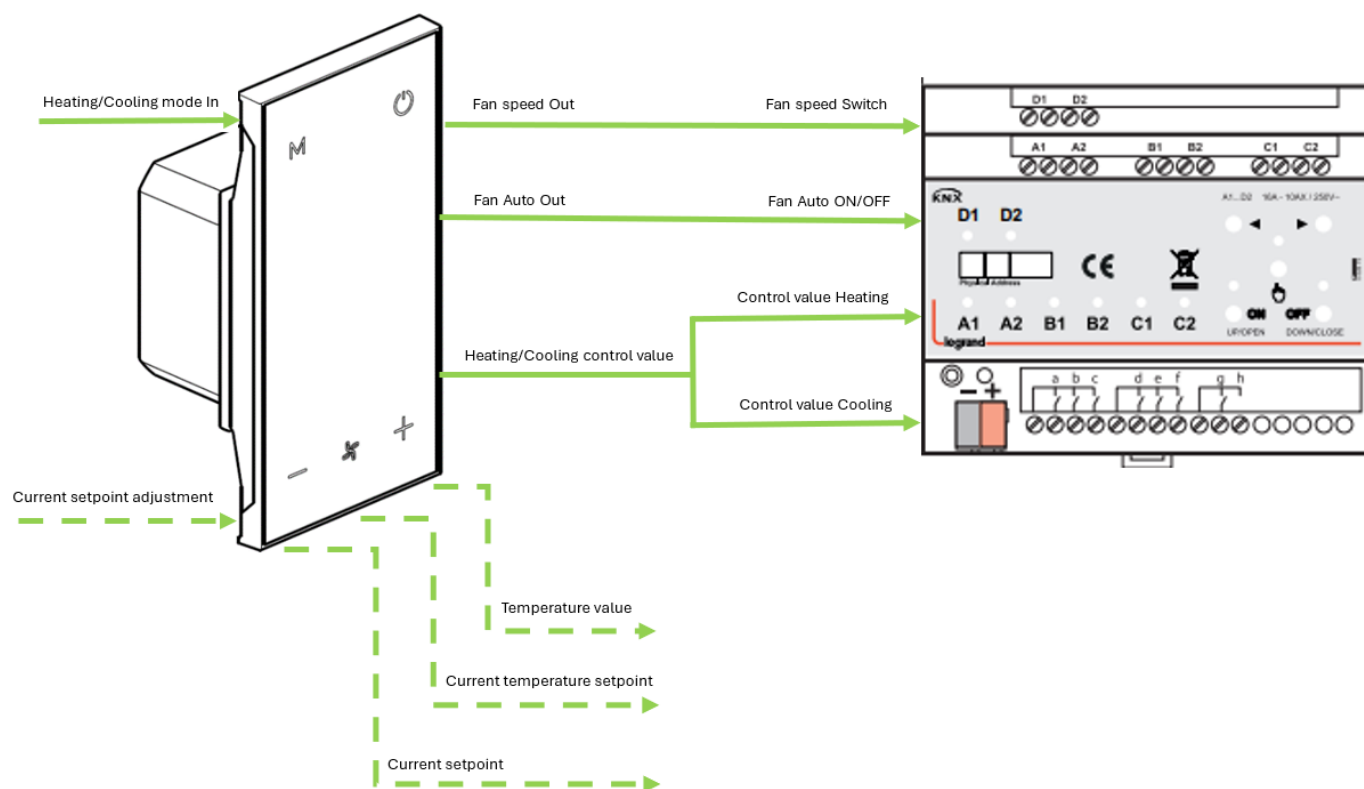
NOTE:

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** 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

- 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	s
+ 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 sett...	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)	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]	5 °C
Heating/Cooling control	Max. setpoint temperature [5..37]	37 °C
Fan	Power on/off status after download	<input type="radio"/> OFF <input checked="" type="radio"/> ON
	Power on/off status after voltage recovery	As before voltage failure
	Low temperature protection when power off <input checked="" type="checkbox"/>	
	Temperature	10 °C
	Room temperature control mode	Heating and Cooling
	Heating/Cooling switchover	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	As before voltage failure
	Room temperature control system	<input checked="" type="radio"/> 2 pipes system <input type="radio"/> 4 pipes system
	Initial setpoint temperature	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	Continuous control(use PI control)
General setting	Invert control value	<input type="checkbox"/>
Internal sensor	Heating speed	Hot water heating(5K/150min)
HVAC controller	Cooling speed	Cooling ceiling(5K/240min)
Controller setting	Send control value on change by [0..100,0=inactive]	4 %
FCU setting	Cyclically send control value[0..255]	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 manual operation	<input type="radio"/> disable <input checked="" type="radio"/> enable
Enable Output A...J	Reset manual operation to KNX operation	<input checked="" type="radio"/> via push button <input type="radio"/> automatically and via push button
A/B1 - Fan	Device alive operation active	<input type="radio"/> yes <input checked="" type="radio"/> no
A/B1 - Status Message	First telegram send time in s[2...255]	<input type="text" value="2"/>
A/B1 - Automatic Operation	Telegram limit active	<input type="radio"/> yes <input checked="" type="radio"/> no
A/B1 - Direct Mode	Activate scene	<input checked="" type="radio"/> yes <input type="radio"/> no
C/D - Control Input	Weather alarm function	<input type="radio"/> yes <input checked="" type="radio"/> no

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

General	Output group A and B	fan coil
Enable Output A...J	Output group C and D	valve control
A/B1 - Fan	Output group E and F	no function

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

General	Output group A and B	fan coil
Enable Output A...J	Output group C and D	valve control
A/B1 - Fan	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 > 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
	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 - Status Message

General	Enable communication object "Status fan speed" Å 1 bit	<input type="radio"/> yes <input checked="" type="radio"/> no
Enable Output A...J	Enable communication object "Status fan speed" Å 1 byte	<input checked="" type="radio"/> yes <input type="radio"/> no
A/B1 - Fan	Meaning	<input type="radio"/> current fan speed <input checked="" type="radio"/> required fan speed
A/B1 - Status Message	Send object type	after change or request
A/B1 - Automatic Operation	Enable communication object "Status fan ON/OFF" Å 1 bit	<input type="radio"/> yes <input checked="" type="radio"/> no
A/B1 - Direct Mode	Enable communication object "Status automatic" Å 1 bit	<input checked="" type="radio"/> yes <input type="radio"/> no
C/D - Control Input	Send object type	after change or request

6. DEVICE PARAMETERS WITH ETSS (continued)

6.2 Actuator 0 026 74

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

General	Object value "automatic ON/OFF" switch on to automatic	<input type="radio"/> 0 <input checked="" type="radio"/> 1
Enable Output A...	Threshold value OFF <--> speed 1 in % [0...100]	10
A/B1 - Fan	Threshold value speed 1 <--> speed 2 in % [0...100]	30
A/B1 - Status Message	Threshold value speed 2 <--> speed 3 in % [0...100]	70
A/B1 - Automatic Operation	Hysteresis threshold value in % +/- [0...20]	5

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...	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		

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...	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 checked="" type="radio"/> two point on/off <input type="radio"/> three point open/close
Enable Output A...	Valve contact type	<input type="radio"/> normally closed <input checked="" type="radio"/> normally open
A/B1 - Fan	Valve position after bus voltage return	<input checked="" type="radio"/> unchanged <input type="radio"/> selected
A/B1 - Status Message	Valve limitation	<input type="radio"/> yes <input checked="" type="radio"/> no
A/B1 - Automatic Operation		
A/B1 - Direct Mode		
C/D - Control Input		
C - Valve General		

**2-pipes temperature control
1-ON/OFF valve with manual change over
3-ON/OFF speed ventilation**

**Cat. No(s): KG4691KNX
0 026 72/74/76/78**

7. GROUP ADDRESSES

Group Addresses		Object	Device	Sendin	Data Type	C	R	W	T	U
Dynamic Folders										
1 HVAC function										
1/0 Control										
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 Current temperature										
2/0/1 Temperature										
2/0/2 Setpoint										
2/0/3 Instantaneous Setpoint										
		1/0/1 Heating/Cooling mode control								
		81: FCU - Heating/Cooling mode, In	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	cooling/he...	C	-	W	-	U
		1/0/2 Heating/Cooling control								
		96: FCU - Heating/cooling control value, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentag...	C	R	-	T	-
		127: Valve C/D - Control value, heating	1.1.2 LG-002674 Room Control Unit, 12 Output	S	percentag...	C	-	W	-	-
		128: Valve C/D - Control value, cooling	1.1.2 LG-002674 Room Control Unit, 12 Output	S	percentag...	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 pu...	C	-	W	-	-
		98: FCU - Fan speed, Out	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	percentag...	C	R	-	T	-
		1/0/4 Fan Automatic control								
		99: 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								
		83: 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								
		38: Internal sensor - Temperature value	1.1.1 Living Now 3 in 1 flat thermostat 2M	S	temperatu...	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	temperatu...	C	-	W	-	U
		2/0/3 Instantaneous Setpoint								
		93: 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 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.