

2-pipe temperature control

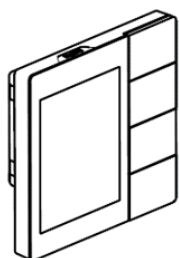
0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

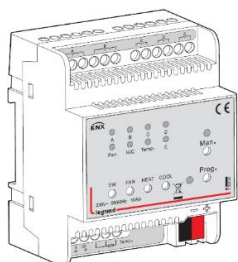
Cat.No(s): 281027BB

0 028 90

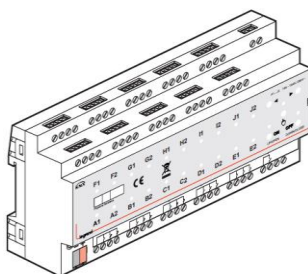
0 026 72



281027BB



0 028 90



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1. USAGE SCENARIO

Hotel/residential room



Office/meeting room



2. DESCRIPTION

The thermostat combined with an HVAC actuator is used to control a fan coil equipped with 2 pipes, 0-10V valve and 3(ON/OFF) Speed ventilation. The system will regulate the temperature of an office around the set point. An external command can be used to switch from winter to summer mode and vice versa. Set HVAC actuator the mode (comfort, eco, standby and protection).

1. Using the thermostat's touch-sensitive buttons, the user can:

- Change the temperature setpoint.
- Select the mode (comfort, eco, standby and protection).
- Adjust the fan speed.

2.Using the thermostat buttons (4, 6 or 8), the user can also send a scene command to the bus. You can connect the corresponding actuator to execute the required scene.

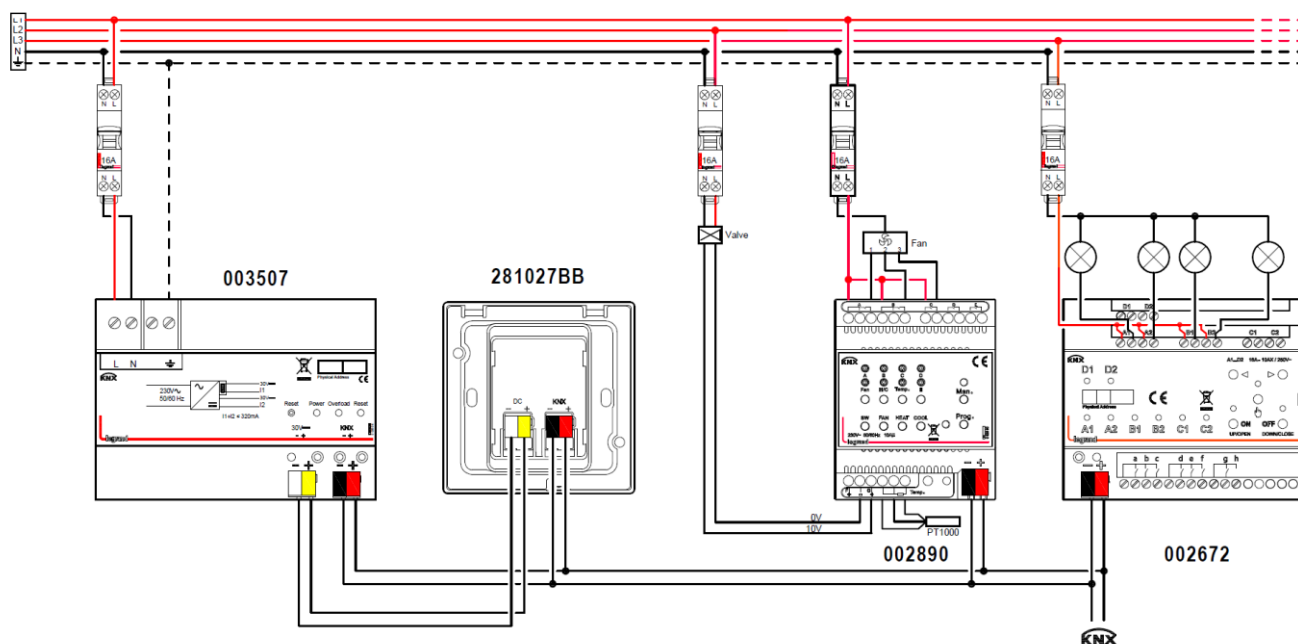
Here is a table of compatible Mallia thermostats.

LG-281027MW	KNX-Mallia Senses command 4 push with thermostat white
LG-281028MW	KNX-Mallia Senses command 6 push with thermostat white
LG-281029MW	KNX-Mallia Senses command 8 push with thermostat white
LG-281027DS	KNX-Mallia Senses command 4 push with thermostat silver
LG-281028DS	KNX-Mallia Senses command 6 push with thermostat silver
LG-281029DS	KNX-Mallia Senses command 8 push with thermostat silver
LG-281027BB	KNX-Mallia Senses command 4 push with thermostat black
LG-281028BB	KNX-Mallia Senses command 6 push with thermostat black
LG-281029BB	KNX-Mallia Senses command 8 push with thermostat black

2-pipe temperature control
0-10V valves, 2 manual hot/cold change-over pipes
3(ON/OFF) Speed ventilation

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3. WIRING DIAGRAM



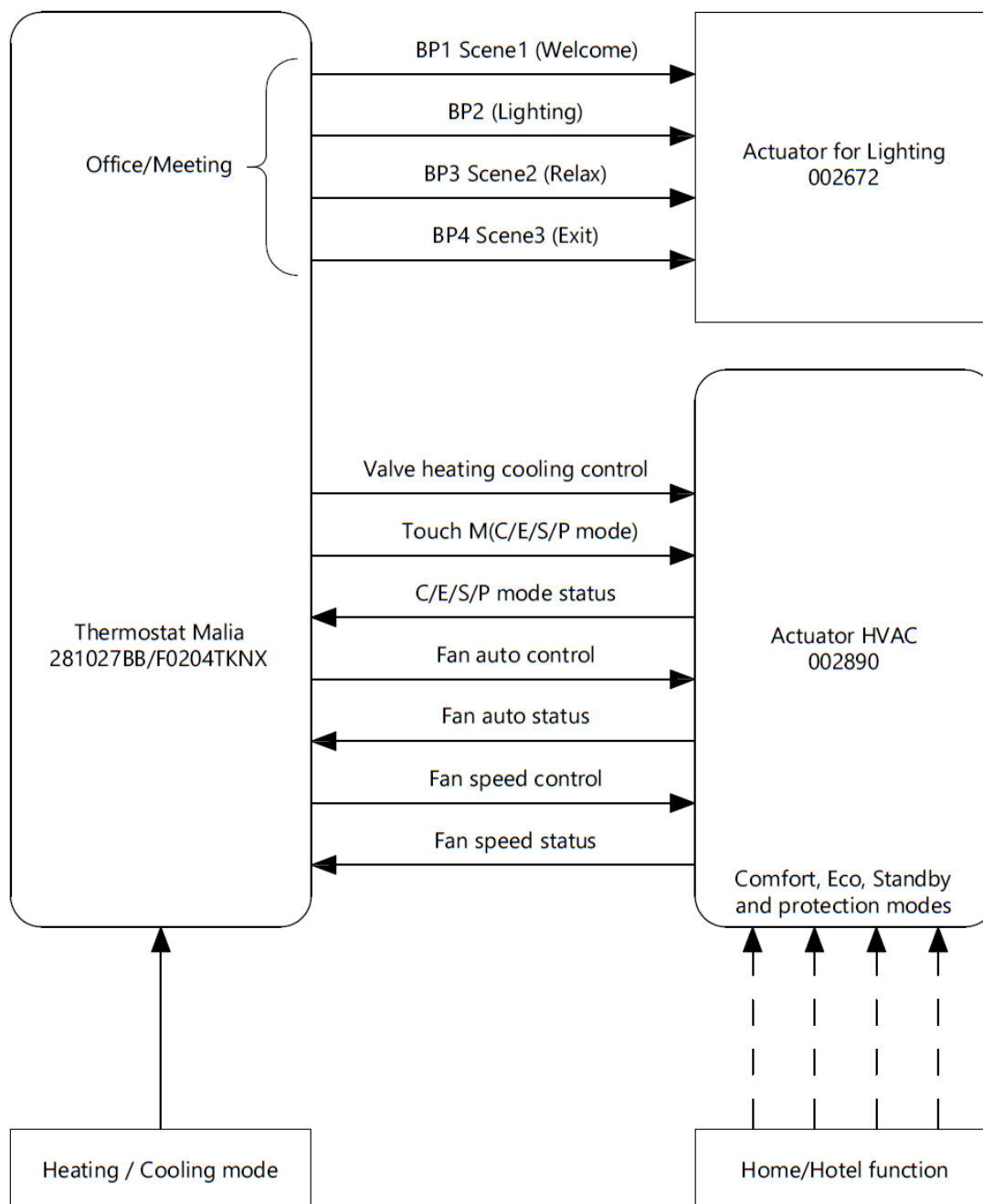
NB:

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



www.legrand.com

4. KNX DIAGRAM



5. KNX Diagram

This project **002890_Thermoregulation 2P 0-10V Valves ON-OFF Fan.knxproj** is available on www.legrand.com and can be imported into ETS5.

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

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6. DEVICE PARAMETERS WITH ETSS

6.1 Thermostat 281027BB

Devices ▾

+ Add Channels ▾

✗ Delete

⬇ Download ▾

?

Help

👉 Highlight Changes

Default Parameters

Grant Customer Access

Devices ▾

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > General > General setting

General

General setting

Proximity setting

+ Button

+ Internal sensor

+ HVAC controller

Normal day backlight [10..100]

70

%

Normal night backlight [10..100]

50

%

Normal standby backlight [0..10]

5

%

Normal to standby delay time [1..255]

30

s

Buzzer volume level [0..5, 0=inactive]

5

Touch button vibration feedback

☐

Long operation for touch after

1.0

s

Devices ▾

+ Add Channels ▾

✗ Delete

⬇ Download ▾

?

Help

👉 Highlight Changes

Default Parameters

Grant Customer Access

Devices ▾

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > General > Proximity setting

General

General setting

Proximity setting

+ Button

The Proximity function triggered via

Sensor

Object type of output value

1bit[On/Off]

Output value

☐ OFF ☒ ON

Delay time for sending [0..65535]s

0

Devices ▾

+ Add Channels ▾

✗ Delete

⬇ Download ▾

?

Help

👉 Highlight Changes

Default Parameters

Grant Customer Access

Devices ▾

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > Button > Button setting

+ General

- Button

Button setting

Button 1

Button 2

Button 3

Delay time for no operation [0..255, 0=inactive]

10

s

LED status object read request after restart

☐

Initial LED status

☒ No ☐ As status as object value "0"

Brightness setting

Brightness of cool white LED

50

%

Brightness of warm white LED

50

%

Devices ▾

+ Add Channels ▾

✗ Delete

⬇ Download ▾

?

Help

👉 Highlight Changes

Default Parameters

Grant Customer Access

Devices ▾

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > Button > Button 1

+ General

- Button

Button setting

Button 1

Button 2

Button 3

Function of button

Scene control

Distinction between short and long operation

☒ No ☐ Yes

Reaction on short operation or closing the contact

Recall scene

8 bit scene number

Scene NO.1

Reaction on long operation or opening the contact

No reaction

Disable function

☒ Disable ☐ Enable

2-pipe temperature control
0-10V valves, 2 manual hot/cold change-over pipes
3(ON/OFF) Speed ventilation

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.1 Thermostat 281027BB (continued)

Devices

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > Button > Button 2

+

General

-

Button

Button setting

Button 1

Button 2

Button 3

Function of button

Distinction between short and long operation

Reaction on short operation or closing the contact

8 bit scene number

Reaction on long operation or opening the contact

Disable function

Scene control

No

Yes

Recall scene

Scene NO.2

No reaction

Disable

Enable

Devices

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > Button > Button 3

+

General

-

Button

Button setting

Button 1

Button 2

Button 3

Function of button

Distinction between short and long operation

Reaction on short operation or closing the contact

8 bit scene number

Reaction on long operation or opening the contact

Disable function

Scene control

No

Yes

Recall scene

Scene NO.3

No reaction

Disable

Enable

Devices

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > Button > Button 4

+

General

-

Button

Button setting

Button 1

Button 2

Button 3

Button 4

Function of button

Distinction between short and long operation

Reaction on short operation or closing the contact

8 bit scene number

Reaction on long operation or opening the contact

Disable function

Scene control

No

Yes

Recall scene

Scene NO.4

No reaction

Disable

Enable

2-pipe temperature control
0-10V valves, 2 manual hot/cold change-over pipes
3(ON/OFF) Speed ventilation

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6. DEVICE PARAMETERS WITH ETS5 (continued)

6.1 Thermostat 281027BB (continued)

Devices

+ Add Channels | ✖ Delete | 📄 Download | ? Help | 🖌 Highlight Changes | Default Parameters | Grant Customer Access

Devices

- Dynamic Folders
- 1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > Button > LED function
- 1.1.2 KNX 0-10V Fan coil Actuator
- 1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > Button > LED function

- General
- Button
 - Button setting
 - Button 1
 - Button 2
 - Button 3
 - Button 4
 - LED function

Function	Control Mode
LED 1 function	<input checked="" type="radio"/> Disable <input type="radio"/> Control by external object
LED 2 function	<input checked="" type="radio"/> Disable <input type="radio"/> Control by external object
LED 3 function	<input checked="" type="radio"/> Disable <input type="radio"/> Control by external object
LED 4 function	<input checked="" type="radio"/> Disable <input type="radio"/> Control by external object

Devices

Add Channels
Delete
Download
Help
Highlight Changes
Default Parameters
Grant Customer Access

Devices

Dynamic Folders
1.1.1 KNX-Mallia Senses command 4 push with...
1.1.2 KNX 0-10V Fan coil Actuator
1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > HVAC controller > Controller setting

General
Button
Internal sensor
HVAC controller

Room temperature control function as FCU control
Ventilation function
Floor heating function

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.1 Thermostat 281027BB (continued)

Devices	
Dynamic Folders	1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > HVAC controller > FCU setting
1.1.1 KNX-Mallia Senses command 4 push with thermostat...	General
1.1.2 KNX 0-10V Fan coil Actuator	General setting
1.1.3 LG-002672 Room Control Unit, 8 Output	Proximity setting
	+ Button
	+ Internal sensor
	- HVAC controller
	Controller setting
	+ FCU setting
	Work mode <input checked="" type="radio"/> Master <input type="radio"/> Slave
	Room temperature reference from <input checked="" type="radio"/> Internal sensor <input type="radio"/> External 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"/> %
	Interface display temperature <input type="radio"/> Setpoint temperature <input checked="" type="radio"/> Actual temperature
	Setpoint temperature adjustment step <input checked="" type="radio"/> 0.5K <input type="radio"/> 1K
	Min. setpoint temperature [5..37] <input type="text" value="16"/> °C
	Max. setpoint temperature [5..37] <input type="text" value="33"/> °C
	Power on/off status after download <input checked="" type="radio"/> OFF <input 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 type="checkbox"/>
	Room temperature control mode <input type="text" value="Heating and Cooling"/>
	Heating/Cooling switchover <input checked="" type="radio"/> Only via object <input type="radio"/> Automatic changeover
	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
	Room temperature operation mode <input checked="" type="checkbox"/>
	Controller status after download <input type="text" value="Standby mode"/>
	Controller status after voltage recovery <input type="text" value="As before voltage failure"/>
	Extended comfort mode [0..255,0=inactive] <input type="text" value="0"/> min
	Window contact input function <input type="checkbox"/>
	Bus presence detector function <input type="checkbox"/>
	Fan <input checked="" type="checkbox"/>
	Timer <input type="checkbox"/>
	Scene <input type="checkbox"/>

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.1 Thermostat 281027BB (continued)

Devices ▾

+ Add Channels ▾

✗ Delete

📄 Download ▾

🔗 Help

🔍 Highlight Changes

Default Parameters

Grant Customer Access

Devices ▾

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > HVAC controller > FCU setting > Setpoint

+ General

+ Button

+ Internal sensor

- HVAC controller

Controller setting

- FCU setting

Setpoint

Heating/Cooling control

Fan

Setpoint method for operating mode

☐ Relative ☒ Absolute

Heating

Setpoint temperature in comfort mode [5..37] 21 °C

Setpoint temperature in standby mode [5..37] 19 °C

Setpoint temperature in economy mode [5..37] 17 °C

Setpoint temperature in frost protection [5..10] 7 °C

Cooling

Setpoint temperature in comfort mode [5..37] 23 °C

Setpoint temperature in standby mode [5..37] 25 °C

Setpoint temperature in economy mode [5..37] 27 °C

Setpoint temperature in heat protection [30..37] 35 °C

Note: The heating setpoint must be always less than the cooling setpoint.

Devices ▾

+ Add Channels ▾

✗ Delete

📄 Download ▾

🔗 Help

🔍 Highlight Changes

Default Parameters

Grant Customer Access

Devices ▾

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > HVAC controller > FCU setting > Heating/Cooling control

+ General

+ Button

+ Internal sensor

- HVAC controller

Controller setting

- FCU setting

Setpoint

Heating/Cooling control

Fan

Type of heating/cooling control

Switching on/off(use 2-point control)

Invert control value

☐

Heating

Lower Hysteresis [0..200] 10 *0.1K

Upper Hysteresis [0..200] 10 *0.1K

Cooling

Lower Hysteresis [0..200] 10 *0.1K

Upper Hysteresis [0..200] 10 *0.1K

Cyclically send control value[0..255] 0 min

Devices ▾

+ Add Channels ▾

✗ Delete

📄 Download ▾

🔗 Help

🔍 Highlight Changes

Default Parameters

Grant Customer Access

Devices ▾

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.1 KNX-Mallia Senses command 4 push with thermostat brushed black > HVAC controller > FCU setting > Fan

+ General

+ Button

+ Internal sensor

- HVAC controller

Controller setting

- FCU setting

Setpoint

Heating/Cooling control

Fan

Object datatype of 1byte fan speed

☐ Percentage (DPT_5.001)

☒ Fan stage (DPT_5.100)

Output value for Fan speed

Output value for Fan speed low 1

Output value for Fan speed medium 2

Output value for Fan speed high 3

Status feedback for Fan speed

Status value for Fan speed low 1

Status value for Fan speed medium 2

Status value for Fan speed high 3

Automatic operation function

External controller

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.2 Actuator HVAC 0 028 90

Devices ▾	
Devices ▾ Dynamic Folders 1.1.1 KNX-Mallia Senses command 4 push with... 1.1.2 KNX 0-10V Fan coil Actuator 1.1.3 LG-002672 Room Control Unit, 8 Output	1.1.2 KNX 0-10V Fan coil Actuator > General
General	Relay operation delay after power voltage recovery[5...250s] 5
Interface Setting	Sending cycle of "In operation" telegram (1...240s,0=inactive) 0
HVAC-General	Manual operation <input type="radio"/> Disable <input checked="" type="radio"/> Enable
Temperature	Manual to automatic by <input type="radio"/> Only long press <input checked="" type="radio"/> Both long press and automatic Delay time 10
Heating/Cooling valve (0-10V)	Delay time*1s[10...6000]
Fan	Report operation status function for HVAC <input type="radio"/> Disable <input checked="" type="radio"/> Enable
Auto.operation	Central control for switch function <input checked="" type="radio"/> Disable <input type="radio"/> Enable

Devices ▾	
Devices ▾ Dynamic Folders 1.1.1 KNX-Mallia Senses command 4 push with... 1.1.2 KNX 0-10V Fan coil Actuator 1.1.3 LG-002672 Room Control Unit, 8 Output	1.1.2 KNX 0-10V Fan coil Actuator > Interface Setting
General	Fan drive interface Relay control(CH A-C)
Interface Setting	HVAC Control mode Heating and Cooling
HVAC-General	HVAC System <input checked="" type="radio"/> 2 pipes system <input type="radio"/> 4 pipes system
-	Heating/Cooling valve drive interface 0-10V(CH G)

Devices ▾	
Devices ▾ Dynamic Folders 1.1.1 KNX-Mallia Senses command 4 push with... 1.1.2 KNX 0-10V Fan coil Actuator 1.1.3 LG-002672 Room Control Unit, 8 Output	1.1.2 KNX 0-10V Fan coil Actuator > HVAC-General
General	Controller define <input type="radio"/> Local <input checked="" type="radio"/> Bus
Interface Setting	Control value object type <input checked="" type="radio"/> 1bit <input type="radio"/> 1byte
HVAC-General	Monitoring control value <input checked="" type="radio"/> No <input type="radio"/> Yes

Devices ▾	
Devices ▾ Dynamic Folders 1.1.1 KNX-Mallia Senses command 4 push with... 1.1.2 KNX 0-10V Fan coil Actuator 1.1.3 LG-002672 Room Control Unit, 8 Output	1.1.2 KNX 0-10V Fan coil Actuator > Temperature
General	Temperature measure by External sensor
Interface Setting	Time period for requesting external sensor[0..255]*min 1
HVAC-General	
Temperature	

Devices ▾	
Devices ▾ Dynamic Folders 1.1.1 KNX-Mallia Senses command 4 push with... 1.1.2 KNX 0-10V Fan coil Actuator 1.1.3 LG-002672 Room Control Unit, 8 Output	1.1.2 KNX 0-10V Fan coil Actuator > Heating/Cooling valve (0-10V)
General	Valve control mode <input checked="" type="radio"/> 2 state-10V/0V <input type="radio"/> Continuous control
Interface Setting	Valve type <input checked="" type="radio"/> Normal (de-energised closed) <input type="radio"/> Inverted (de-energised open)
HVAC-General	The Controller use 2-point control method <--Attention
Temperature	
Heating/Cooling valve (0-10V)	Reply mode of Obj."status of valve position" 1bit function <input type="radio"/> Respond after read only <input checked="" type="radio"/> Respond after change
Fan	Valve purge function <input checked="" type="radio"/> Disable <input type="radio"/> Enable
Auto.operation	"Disable heating/cooling" object function <input checked="" type="radio"/> Disable <input type="radio"/> Enable

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.2 Actuator HVAC 0 028 90 (continued)

Devices ▾	
Devices ▾	1.1.2 KNX 0-10V Fan coil Actuator > Fan
Dynamic Folders	
1.1.1 KNX-Mallia Senses command 4 push with...	General
1.1.2 KNX 0-10V Fan coil Actuator	Interface Setting
1.1.3 LG-002672 Room Control Unit, 8 Output	HVAC-General
	Temperature
	Heating/Cooling valve (0-10V)
	Fan
	Auto.operation
	Fan status
	Scene
	Output D
	Output E
	Fan type <input type="radio"/> One level <input checked="" type="radio"/> Multi-level
	Fan speeds on 2 limit <input checked="" type="radio"/> No <input type="radio"/> Yes
	Fan operation mode <input checked="" type="radio"/> Changeover switch <input type="radio"/> Step switch
	Delay between fan speed switch*ms [50...5000] 500
	When bus failure, Fan speed is Unchange
	When bus recovery, fan speed is Unchange
	After downloading, fan speed is OFF
	Threshold value for Fan speed 1[1...255] 1
	Threshold value for Fan speed 2[1...255] 2
	Threshold value for Fan speed 3[1...255] 3
	"Forced operation" function <input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Auto. operation function (only for HVAC) <input type="radio"/> Disable <input checked="" type="radio"/> Enable
	Direct operation function <input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Delay time for function OFF *0.1s [0...65535] 0
	Starting characteristic of fan <input checked="" type="radio"/> Disable <input type="radio"/> Enable

Devices ▾	
Devices ▾	1.1.2 KNX 0-10V Fan coil Actuator > Auto.operation
Dynamic Folders	
1.1.1 KNX-Mallia Senses command 4 push with...	General
1.1.2 KNX 0-10V Fan coil Actuator	Interface Setting
1.1.3 LG-002672 Room Control Unit, 8 Output	HVAC-General
	Temperature
	Heating/Cooling valve (0-10V)
	Fan
	Auto.operation
	Fan status
	Scene
	Output D
	Auto.operation on object value <input type="radio"/> 0=Auto/1=Cancel <input checked="" type="radio"/> 1=Auto/0=Cancel
	State of Auto.operation after startup <input type="radio"/> Disable auto.operation <input checked="" type="radio"/> Enable auto.operation
	Automatically enable auto.operation <input checked="" type="radio"/> No <input type="radio"/> Yes
	Threshold value OFF<-->speed 1[1...255] (For 2 point,it's Tem.difference*0.1°C) 10
	Threshold value speed 1<-->speed 2 [1...255](For 2 point,it's Tem.difference*0.1°C) 20
	Threshold value speed 2<-->speed 3 [1...255](For 2 point,it's Tem.difference*0.1°C) 30
	Hysteresis value is threshold value in +/- [0...50](For 2 point,it is unused) 10
	Minimum time in fan speed[0...65535]*s 10
	Limitation function <input checked="" type="radio"/> Disable <input type="radio"/> Enable

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

0 028 90

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.2 Actuator HVAC 0 028 90 (continued)

Devices ▾	
Devices ▾	1.1.2 KNX 0-10V Fan coil Actuator > Fan status
Dynamic Folders	
1.1.1 KNX-Mallia Senses command 4 push with...	General
1.1.2 KNX 0-10V Fan coil Actuator	Interface Setting
1.1.3 LG-002672 Room Control Unit, 8 Output	HVAC-General
	Temperature
	Heating/Cooling valve (0-10V)
	Fan
	Auto.operation
	Fan status
	Reply mode of Obj. "status ON/OFF mode" 1bit function
	Respond after change ▾
	Reply mode of Obj. "status Auto. mode" 1bit function
	Respond after change ▾
	Reply mode of Obj. "Status fan speed x" 1bit function
	Respond after change ▾
	Reply mode of Obj. "Status fan speed" 1byte function
	Respond after change ▾
	Object value for Status Fan speed 1 [1...255]
	1 ▾
	Object value for Status Fan speed 2 [1...255]
	2 ▾
	Object value for Status Fan speed 3 [1...255]
	3 ▾

Devices ▾	
Devices ▾	1.1.2 KNX 0-10V Fan coil Actuator > Scene
Dynamic Folders	
1.1.1 KNX-Mallia Senses command 4 push with...	General
1.1.2 KNX 0-10V Fan coil Actuator	Interface Setting
1.1.3 LG-002672 Room Control Unit, 8 Output	HVAC-General
	Temperature
	Heating/Cooling valve (0-10V)
	Fan
	Auto.operation
	Fan status
	Scene
	Scene function
	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

Devices ▾	
Devices ▾	1.1.2 KNX 0-10V Fan coil Actuator > Output D
Dynamic Folders	
1.1.1 KNX-Mallia Senses command 4 push with...	General
1.1.2 KNX 0-10V Fan coil Actuator	Interface Setting
1.1.3 LG-002672 Room Control Unit, 8 Output	HVAC-General
	Temperature
	Heating/Cooling valve (0-10V)
	Fan
	Auto.operation
	Fan status
	Scene
	Output D
	Switch function
	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

2-pipe temperature control
0-10V valves, 2 manual hot/cold change-over pipes
3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB
0 028 90
0 026 72

6. DEVICE PARAMETERS WITH ETSS (continued)

6.2 Actuator HVAC 0 028 90 (continued)

Devices

Devices

Dynamic Folders

1.1.1 KNX-Mallia Senses command 4 push with...

1.1.2 KNX 0-10V Fan coil Actuator

1.1.3 LG-002672 Room Control Unit, 8 Output

1.1.2 KNX 0-10V Fan coil Actuator > Output E

General

Interface Setting

HVAC-General

Temperature

Heating/Cooling valve (0-10V)

Fan

Auto.operation

Fan status

Scene

Output D

Output E

Switch function

Disable

Enable

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.3 Actuator for Lighting 0 026 72

Devices ▾	
1.1.3 LG-002672 Room Control Unit, 8 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
A1 - General	Device alive operation active <input type="radio"/> yes <input checked="" type="radio"/> no
A1 - Function	First telegram send time in s[2...255] <input type="text" value="2"/>
A1 - Scene	Telegram limit active <input type="radio"/> yes <input checked="" type="radio"/> no
A2 - General	Activate scene <input checked="" type="radio"/> yes <input type="radio"/> no
A2 - Function	Weather alarm function <input type="radio"/> yes <input checked="" type="radio"/> no

Devices ▾	
1.1.3 LG-002672 Room Control Unit, 8 Output > Enable Output A...J	
General	Output group A and B <input type="text" value="individually"/>
Enable Output A...J	Output group A <input type="radio"/> shutter/blind AC <input checked="" type="radio"/> 2 x switch
A1 - General	Output group B <input type="radio"/> shutter/blind AC <input checked="" type="radio"/> 2 x switch
A1 - Function	Output group C and D <input type="text" value="no function"/>

Devices ▾	
1.1.3 LG-002672 Room Control Unit, 8 Output > A1 - General	
General	Contact type <input type="radio"/> normally closed <input checked="" type="radio"/> normally open
Enable Output A...J	Send switch status feedback telegram <input type="text" value="after change or request"/>
A1 - General	Create status object "Status Switch" <input checked="" type="radio"/> yes <input type="radio"/> no
A1 - Function	Send status after bus voltage return <input type="radio"/> yes <input checked="" type="radio"/> no
A1 - Scene	Behavior after ETS program or after ETS reset <input type="text" value="keep position"/>
A2 - General	Behavior bus voltage failure <input type="text" value="keep position"/>
A2 - Function	Behavior bus voltage return <input type="text" value="state as before bus voltage failure"/>

Devices ▾	
1.1.3 LG-002672 Room Control Unit, 8 Output > A1 - Function	
General	Enable staircase <input type="radio"/> yes <input checked="" type="radio"/> no
Enable Output A...J	Enable external logic <input type="radio"/> yes <input checked="" type="radio"/> no
A1 - General	Enable priority <input type="radio"/> yes <input checked="" type="radio"/> no
A1 - Function	Enable sweep <input type="radio"/> yes <input checked="" type="radio"/> no

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

0 028 90

0 026 72

6. DEVICE PARAMETERS WITH ETSS (continued)

6.3 Actuator for Lighting 0 026 72 (continued)

Devices ▾		
Devices ▾	1.1.3 LG-002672 Room Control Unit, 8 Output > A1 - Scene	
Dynamic Folders	General	Overwrite scene on download <input checked="" type="radio"/> yes <input type="radio"/> no
1.1.1 KNX-Mallia Senses command 4 push with...	Enable Output A...	
1.1.2 KNX 0-10V Fan coil Actuator	A1 - General	1...64 scene number (0 = no assignment) 1
1.1.3 LG-002672 Room Control Unit, 8 Output	A1 - Function	Value <input type="radio"/> OFF <input checked="" type="radio"/> ON
	A1 - Scene	1...64 scene number (0 = no assignment) 2
	A2 - General	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	A2 - Function	1...64 scene number (0 = no assignment) 3
	A2 - Scene	Value <input type="radio"/> OFF <input checked="" type="radio"/> ON
	B1 - General	1...64 scene number (0 = no assignment) 4
	B1 - Function	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	B1 - Scene	1...64 scene number (0 = no assignment) 0
	B2 - General	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	B2 - Function	1...64 scene number (0 = no assignment) 0
	B2 - Scene	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON

Devices ▾		
Devices ▾	1.1.3 LG-002672 Room Control Unit, 8 Output > A2 - General	
Dynamic Folders	General	Contact type <input type="radio"/> normally closed <input checked="" type="radio"/> normally open
1.1.1 KNX-Mallia Senses command 4 push with...	Enable Output A...	Send switch status feedback telegram after change or request
1.1.2 KNX 0-10V Fan coil Actuator	A1 - General	Create status object "Status Switch" <input checked="" type="radio"/> yes <input type="radio"/> no
1.1.3 LG-002672 Room Control Unit, 8 Output	A1 - Function	Send status after bus voltage return <input type="radio"/> yes <input checked="" type="radio"/> no
	A1 - Scene	Behavior after ETS program or after ETS reset keep position
	A2 - General	Behavior bus voltage failure keep position
	A2 - Function	Behavior bus voltage return state as before bus voltage failure

Devices ▾		
Devices ▾	1.1.3 LG-002672 Room Control Unit, 8 Output > A2 - Function	
Dynamic Folders	General	Enable staircase <input type="radio"/> yes <input checked="" type="radio"/> no
1.1.1 KNX-Mallia Senses command 4 push with...	Enable Output A...	Enable external logic <input type="radio"/> yes <input checked="" type="radio"/> no
1.1.2 KNX 0-10V Fan coil Actuator	A1 - General	Enable priority <input type="radio"/> yes <input checked="" type="radio"/> no
1.1.3 LG-002672 Room Control Unit, 8 Output	A1 - Function	Enable sweep <input type="radio"/> yes <input checked="" type="radio"/> no
	A1 - Scene	
	A2 - General	
	A2 - Function	

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

0 028 90

0 026 72

6. DEVICE PARAMETERS WITH ETSS (continued)

6.3 Actuator for Lighting 0 026 72 (continued)

Devices ▾		
Devices ▾	1.1.3 LG-002672 Room Control Unit, 8 Output > A2 - Scene	
Dynamic Folders	General	Overwrite scene on download <input checked="" type="radio"/> yes <input type="radio"/> no
1.1.1 KNX-Mallia Senses command 4 push with...	Enable Output A...	1...64 scene number (0 = no assignment) 1
1.1.2 KNX 0-10V Fan coil Actuator	A1 - General	Value <input type="radio"/> OFF <input checked="" type="radio"/> ON
1.1.3 LG-002672 Room Control Unit, 8 Output	A1 - Function	1...64 scene number (0 = no assignment) 2
	A1 - Scene	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	A2 - General	1...64 scene number (0 = no assignment) 3
	A2 - Function	Value <input type="radio"/> OFF <input checked="" type="radio"/> ON
	A2 - Scene	1...64 scene number (0 = no assignment) 4
		Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	B1 - General	1...64 scene number (0 = no assignment) 0
	B1 - Function	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	B1 - Scene	1...64 scene number (0 = no assignment) 0
		Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	B2 - General	1...64 scene number (0 = no assignment) 0
	B2 - Function	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON
	B2 - Scene	1...64 scene number (0 = no assignment) 0
		Value <input checked="" type="radio"/> OFF <input type="radio"/> ON

Devices ▾		
Devices ▾	1.1.3 LG-002672 Room Control Unit, 8 Output > B1 - General	
Dynamic Folders	General	Contact type <input type="radio"/> normally closed <input checked="" type="radio"/> normally open
1.1.1 KNX-Mallia Senses command 4 push with...	Enable Output A...	Send switch status feedback telegram after change or request
1.1.2 KNX 0-10V Fan coil Actuator	A1 - General	Create status object "Status Switch" <input checked="" type="radio"/> yes <input type="radio"/> no
1.1.3 LG-002672 Room Control Unit, 8 Output	A1 - Function	Send status after bus voltage return <input type="radio"/> yes <input checked="" type="radio"/> no
	A1 - Scene	Behavior after ETS program or after ETS reset keep position
	A2 - General	Behavior bus voltage failure keep position
	A2 - Function	Behavior bus voltage return state as before bus voltage failure
	A2 - Scene	
	B1 - General	

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

0 028 90

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.3 Actuator for Lighting 0 026 72 (continued)

Devices ▾	
Devices ▾	1.1.3 LG-002672 Room Control Unit, 8 Output > B1 - Function
Dynamic Folders	
1.1.1 KNX-Mallia Senses command 4 push with...	General
1.1.2 KNX 0-10V Fan coil Actuator	Enable Output A...
1.1.3 LG-002672 Room Control Unit, 8 Output	A1 - General
	A1 - Function
	A1 - Scene
	A2 - General
	A2 - Function
	A2 - Scene
	B1 - General
	B1 - Function

Enable staircase	<input type="radio"/> yes <input checked="" type="radio"/> no
Enable extenal logic	<input type="radio"/> yes <input checked="" type="radio"/> no
Enable priority	<input type="radio"/> yes <input checked="" type="radio"/> no
Enable sweep	<input type="radio"/> yes <input checked="" type="radio"/> no

Devices ▾	
Devices ▾	1.1.3 LG-002672 Room Control Unit, 8 Output > B1 - Scene
Dynamic Folders	
1.1.1 KNX-Mallia Senses command 4 push with...	General
1.1.2 KNX 0-10V Fan coil Actuator	Enable Output A...
1.1.3 LG-002672 Room Control Unit, 8 Output	A1 - General
	A1 - Function
	A1 - Scene
	A2 - General
	A2 - Function
	A2 - Scene
	B1 - General
	B1 - Function
	B1 - Scene
	B2 - General
	B2 - Function
	B2 - Scene

Overwrite scene on download	<input checked="" type="radio"/> yes <input type="radio"/> no
Assignment to scene number (no 1...64, 0 = no assignment)	1
Value	<input checked="" type="radio"/> OFF <input type="radio"/> ON
Assignment to scene number (no 1...64, 0 = no assignment)	2
Value	<input type="radio"/> OFF <input checked="" type="radio"/> ON
Assignment to scene number (no 1...64, 0 = no assignment)	3
Value	<input type="radio"/> OFF <input checked="" type="radio"/> ON
Assignment to scene number (no 1...64, 0 = no assignment)	4
Value	<input checked="" type="radio"/> OFF <input type="radio"/> ON
Assignment to scene number (no 1...64, 0 = no assignment)	0
Value	<input checked="" type="radio"/> OFF <input type="radio"/> ON
Assignment to scene number (no 1...64, 0 = no assignment)	0
Value	<input checked="" type="radio"/> OFF <input type="radio"/> ON
Assignment to scene number (no 1...64, 0 = no assignment)	0
Value	<input checked="" type="radio"/> OFF <input type="radio"/> ON
Assignment to scene number (no 1...64, 0 = no assignment)	0
Value	<input checked="" type="radio"/> OFF <input type="radio"/> ON

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.3 Actuator for Lighting 0 026 72 (continued)

Devices ▾		
<div>Devices</div> <div>Dynamic Folders</div> <div>1.1.1 KNX-Mallia Senses command 4 push with...</div> <div>1.1.2 KNX 0-10V Fan coil Actuator</div> <div>1.1.3 LG-002672 Room Control Unit, 8 Output</div>	1.1.3 LG-002672 Room Control Unit, 8 Output > B2 - General	
General	Contact type	<input type="radio"/> normally closed <input checked="" type="radio"/> normally open
Enable Output A...	Send switch status feedback telegram	after change or request ▾
A1 - General	Create status object "Status Switch"	<input checked="" type="radio"/> yes <input type="radio"/> no
A1 - Function	Send status after bus voltage return	<input type="radio"/> yes <input checked="" type="radio"/> no
A1 - Scene	Behavior after ETS program or after ETS reset	keep position ▾
A2 - General	Behavior bus voltage failure	keep position ▾
A2 - Function	Behavior bus voltage return	state as before bus voltage failure ▾
A2 - Scene		
B1 - General		
B1 - Function		
B1 - Scene		
B2 - General		

Devices ▾		
<div>Devices</div> <div>Dynamic Folders</div> <div>1.1.1 KNX-Mallia Senses command 4 push with...</div> <div>1.1.2 KNX 0-10V Fan coil Actuator</div> <div>1.1.3 LG-002672 Room Control Unit, 8 Output</div>	1.1.3 LG-002672 Room Control Unit, 8 Output > B2 - Function	
General	Enable staircase	<input type="radio"/> yes <input checked="" type="radio"/> no
Enable Output A...	Enable external logic	<input type="radio"/> yes <input checked="" type="radio"/> no
A1 - General	Enable priority	<input type="radio"/> yes <input checked="" type="radio"/> no
A1 - Function	Enable sweep	<input type="radio"/> yes <input checked="" type="radio"/> no
A1 - Scene	Enable current detection	<input type="radio"/> yes <input checked="" type="radio"/> no
A2 - General		
A2 - Function		
A2 - Scene		
B1 - General		
B1 - Function		
B1 - Scene		
B2 - General		
B2 - Function		

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB
0 028 90
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6. DEVICE PARAMETERS WITH ETSS (continued)

6.3 Actuator for Lighting 0 026 72 (continued)

Devices ▾		
<div> <div>Devices</div> <div> <div>Dynamic Folders</div> <div>1.1.1 KNX-Mallia Senses command 4 push with...</div> <div>1.1.2 KNX 0-10V Fan coil Actuator</div> <div>1.1.3 LG-002672 Room Control Unit, 8 Output</div> </div> </div>	1.1.3 LG-002672 Room Control Unit, 8 Output > B2 - Scene	
General	Overwrite scene on download <input checked="" type="radio"/> yes <input type="radio"/> no	
Enable Output A...	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="1"/>	
A1 - General	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON	
A1 - Function	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="2"/>	
A1 - Scene	Value <input type="radio"/> OFF <input checked="" type="radio"/> ON	
A2 - General	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="3"/>	
A2 - Function	Value <input type="radio"/> OFF <input checked="" type="radio"/> ON	
A2 - Scene	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="4"/>	
B1 - General	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON	
B1 - Function	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="0"/>	
B1 - Scene	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON	
B2 - General	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="0"/>	
B2 - Function	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON	
B2 - Scene	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="0"/>	
	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON	
	Assignment to scene number (no 1...64, 0 = no assignment) <input type="text" value="0"/>	
	Value <input checked="" type="radio"/> OFF <input type="radio"/> ON	

2-pipe temperature control

0-10V valves, 2 manual hot/cold change-over pipes

3(ON/OFF) Speed ventilation

Cat.No(s): 281027BB

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6. DEVICE PARAMETERS WITH ETSS (continued)

6.4 Group address ETSS

Group Addresses										
Add Main Groups Delete Download Info Reset Unload Print										
Group Addresses	Device	Object	Sending	Data Type	C	R	W	T	U	Product
Dynamic Folders										
1 HVAC function										
1/0 Control										
1/0/0 HVAC ON/OFF										
1/0/1 HVAC mode										
1/0/2 Valve Heating/Cooling										
1/0/3 Fan speed control										
1/0/4 Fan automatic control										
1/0/5 Scenes										
1/1 Status										
1/1/0 HVAC ON/OFF										
1/1/1 HVAC mode status										
1/1/2 Valve Heating/Cooling status										
1/1/3 Fan speed Status										
1/1/4 Fan automatic status										
2 Temperature management										
2/0 Current temperature										
2/0/1 Temperature										
2/0/2 Setpoint										
2/0/3 Instantaneous Setpoint										

Object	Product	Program	Length	Priority	Group Ad	Description
90: FCU - ON/OFF, Out	KNX-Mal...KNX-Mali...		1 bit	Low	1/0/0	HVAC ON/OFF
95: FCU - Operation mode, Out	KNX-Mal...KNX-Mali...		1 byte	Low	1/0/1	HVAC mode
96: FCU - Heating/cooling control value, Out	KNX-Mal...KNX-Mali...		1 bit	Low	1/0/2	Valve Heating/Cooling
34: Valve Heating/Cooling - Control value	KNX 0-1... KNX 0-10V...		1 bit	Low	1/0/2	Valve Heating/Cooling
98: FCU - Fan speed, Out	KNX-Mal...KNX-Mali...		1 byte	Low	1/0/3	Fan speed control
10: Fan - Fan speed	KNX 0-1... KNX 0-10V...		1 byte	Low	1/0/3	Fan speed control
99: FCU - Fan Automatic operation, Out	KNX-Mal...KNX-Mali...		1 bit	Low	1/0/4	Fan automatic control
20: Fan - Automatic function	KNX 0-1... KNX 0-10V...		1 bit	Low	1/0/4	Fan automatic control
10: Button 4 - Short/Close, Scene	KNX-Mal...KNX-Mali...		1 byte	Low	1/0/5	Scenes
7: Button 3 - Short/Close, Scene	KNX-Mal...KNX-Mali...		1 byte	Low	1/0/5	Scenes
4: Button 2 - Short/Close, Scene	KNX-Mal...KNX-Mali...		1 byte	Low	1/0/5	Scenes
1: Button 1 - Short/Close, Scene	KNX-Mal...KNX-Mali...		1 byte	Low	1/0/5	Scenes
1: General - Scene 8-bit	LG-0026... LG-00267...		1 byte	Low	1/0/5	Scenes
78: FCU - ON/OFF status, In	KNX-Mal...KNX-Mali...		1 bit	Low	1/1/0	HVAC ON/OFF
82: FCU - Operation mode, In	KNX-Mal...KNX-Mali...		1 byte	Low	1/1/1	HVAC mode status
37: Valve Heating/Cooling - Status of valve position	KNX 0-1... KNX 0-10V...		1 bit	Low	1/1/2	Valve Heating/Cooling status
83: FCU - Fan speed, In	KNX-Mal...KNX-Mali...		1 byte	Low	1/1/3	Fan speed Status
16: Fan - Status Fan speed	KNX 0-1... KNX 0-10V...		1 byte	Low	1/1/3	Fan speed Status
84: FCU - Fan automatic operation, In	KNX-Mal...KNX-Mali...		1 bit	Low	1/1/4	Fan automatic status
21: Fan - Status Automatic	KNX 0-1... KNX 0-10V...		1 bit	Low	1/1/4	Fan automatic status

7. NOTES

The whole HVAC system is managed by thermostat 281027BB (heating/cooling regulation, setpoint mode and automatic ventilation).

When the customer arrives in the room, can set the temperature to comfort mode, and when they leave the temperature returns to economy mode or standby mode. (touch "M" button on the thermostat 281027BB to switch each mode.)

The HVAC valve is connected to controller 002890 (G connector) and fan is connected to controller 002890 (A, B, C connector); the room controller 002890 provide ON/OFF to switch or shut valve.

The setpoint value can be altered on thermostat 281027BB 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.