

HDL[®]

A modern office interior with a large, open-plan space. The ceiling features a series of parallel wooden slats. The floor is polished and reflects the light. On the right, a large wall displays the HDL logo in a 3D, metallic style. In the center, there is a reception desk. To the left, there is a seating area with a white sofa and a small table. The overall atmosphere is professional and contemporary.

Multifunctional Sensor HDL-MSP07M.4C

Functions



- PIR motion sensor
- LUX sensor
- Temperature sensor
- 2 Dry contacts
- 2 external condition inputs
- Constant LUX control
- Security alarm logic (works with Security module)
- 24 configurable logics

Sensor Setting

The screenshot displays the '42-2\7in1 sensor' configuration window, which is divided into several functional areas:

- LED indicators setting:** Includes checkboxes for 'PIR LED ON (Red)' and 'Working LED ON(Green)', both of which are checked.
- Sensor enable:** A list of sensors with checkboxes: 'Temperature(UV No.255)', 'Brightness(UV No.254)', 'PIR(UV No.253)', 'Dry Contact 1(UV No.251)', 'Dry Contact 2(UV No.250)', 'UV Switch 1', 'UV Switch 2', and 'Logic Status as Condition'. All are checked.
- Sensor status:** Displays real-time data: 'Updata status automatically' (unchecked), 'Current temperature: 24C', 'PIR: No-movement', 'Brightness: 315Lux', 'Dry contact 1: OFF', and 'Dry contact 2: OFF'.
- Sensor sensitivity:** Features sliders for 'Temperature compensation(C)' (set to 0C) and 'PIR sensitivity' (set to 70%).
- Constant lux function:** Includes an 'Enable' checkbox, a 'Constant lux(0-5000):' input field (set to 500), a 'Control cycle(0.1S-5S):' dropdown (set to 2.0), and fields for 'kp(scaling param): 0.01', 'Ki(integral param): 0.01', and 'Low limit: 0%'.
- Simulate sensor value:** A section for testing with checkboxes for 'Temperature sensor(C)', 'Brightness sensor(Lux)', and 'PIR sensor'. Each has a corresponding slider. The status is 'Now in normal state'. 'Test' and 'Exit test' buttons are at the bottom.

Annotations in red text highlight specific features:

- Sensor enable/disable:** Points to the 'Sensor enable' section.
- Sensitivity adjust:** Points to the 'Sensor sensitivity' section.
- Constant setting:** Points to the 'Constant lux function' section.
- Can check sensor status:** Points to the 'Sensor status' section.
- Can simulate sensor value for test:** Points to the 'Simulate sensor value' section.

At the bottom, the 'Current device:' is listed as '42-2\7in1 sensor'. Navigation buttons like 'Save & Close' are visible.

Logic setting in sensor

The screenshot displays the '42-2\7in1 sensor' configuration window. The 'Logic' tab is active, showing a table of logic settings and a 'Current logic information' section. A red circle highlights the 'Logic' tab and the 'Current logic information' section. Another red circle highlights the 'Logic input condition' section, which includes 'True delay' and 'False delay' settings. A third red circle highlights the 'True targets configuration' and 'False targets configuration' buttons. The 'Sensor status' panel on the right shows current sensor readings and simulation options.

Logic Settings Table:

Logic No.	Remark	Enable	Power off recovery
1		Invalid	No action
2		Invalid	No action
3		Invalid	No action
4	Ac OFF	Valid	No action
5		Invalid	No action
6		Invalid	No action
7		Invalid	No action
8		Invalid	No action
9		Invalid	No action
10		Invalid	No action
11		Invalid	No action
12		Invalid	No action
13		Invalid	No action
14		Invalid	No action
15		Invalid	No action
16		Invalid	No action
17		Invalid	No action
18		Invalid	No action
19		Invalid	No action
20		Invalid	No action
21		Invalid	No action
22		Invalid	No action

Current logic information:

- ☒ Temperature: 20 To 26
- ☒ Brightness: 800 To 1000
- ☐ PIR Sensor: Movement
- ☐ Dry contact 1: Disconnect
- ☐ Dry contact 2: Disconnect
- ☐ UV switch(201-248): Switch ID: 210, Remark: ON
- ☐ UV switch(201-248): Switch ID: 202, Remark: OFF, Auto off(1-3600s): 1
- ☐ Logic: Logic num: 1, Status: False

Logic input condition:

- True delay: 0 : 2 (M:S)
- False delay: 0 : 5 (M:S)

True targets configuration **False targets configuration**

Sensor status:

- ☐ Updata status automatically
- Current temperature: 24C
- PIR: No-movement
- Brightness: 322Lux
- Dry contact 1: OFF
- Dry contact 2: OFF
- UV Switch:210 OFF
- UV Switch:202 OFF
- ☐ Sensor broadcast enable
- Simulate sensor value: Now in normal state
- ☐ Temperature sensor(C): 0
- ☐ Brightness sensor(Lux): 0
- ☐ PIR sensor: No movement

Logic true/false output:

- When logic is true, can trigger true output
- When logic is false, can trigger false output

Security setup

42-27in1 sensor

Sensor setting Logic Security setup

Index	Sensor	Enable	Name	Subnet ID	Device ID	Area No.
1	Dry contact 1	<input checked="" type="checkbox"/>		42	11	1
2	Dry contact 2	<input checked="" type="checkbox"/>		42	11	1
3	IR sensor	<input checked="" type="checkbox"/>		42	11	1

If dry contact or IR sensor used for security,
Need to enable the security function, and fill
in ID/area for security module

Sensor status

☐ Updata status automatically

Current temperature: 24C

PIR: No-movement

Brightness: 322Lux

Dry contact 1: OFF

Dry contact 2: OFF

☐ Sensor broadcast enable

Simulate sensor value

Now in normal state

☐ Temperature sensor(C)

☐ Brightness sensor(Lux)

☐ PIR sensor

Test Exit test

Save & Close

Application

Requirements:

- 1. When people open the door and come into the meeting room, turn on the lights automatically
- 2. 1 minute after people come into the room, turn on the AC and set the temperature as 25°C
- 3. 1 minute after people left the room, turn off the lights and set temperature as 27 °C
- 4. 3 minutes after people left the room, turn off the AC automatically

1. When people open the door and come into the meeting room, turn on the lights automatically

42-2\7in1 sensor

Sensor setting Logic Security setup

Power on delay(0-120S): 0

Current logic information

Logic No. Remark Enable Power off recovery

Logic No.	Remark	Enable	Power off recovery
1	light on	Valid	No action
2		Invalid	No action
3		Invalid	No action
4		Invalid	No action
5		Invalid	No action
6		Invalid	No action
7		Invalid	No action
8		Invalid	No action
9		Invalid	No action
10		Invalid	No action
11		Invalid	No action
12		Invalid	No action
13		Invalid	No action
14		Invalid	No action
15		Invalid	No action
16		Invalid	No action
17		Invalid	No action
18		Invalid	No action
19		Invalid	No action
20		Invalid	No action
21		Invalid	No action

1: simulate the door connect to dry contact 1

2: use AND, because need two conditions

3: when two conditions are true, then trigger this output

4: output: turn on one light

True targets configuration

Basic information

Subnet ID: 42 Device ID: 2 Name: 7in1 sensor

Current selected logic: 1-light on

Targets

Input target number(1-20) From 1 To 1

Index	Subnet ID	Device ID	Type	Param1	Param2	Param3
1	42	3	Single Channel Lighting Control	1(Channel No.)	100(Intensity)	0:0(Run)

True delay: 0 : 0 (M:S) False delay:

True targets configuration False targets configuration

Test Exit test

Save & Close

2. 1 minute after people come into the room, turn on the AC and set the temperature as 25°C. (logic number 2)

Logic Table:

Logic No.	Remark	Enable	Power off recovery
1	light on	Valid	No action
2	ac 25c	Valid	No action
3		Invalid	No action
4		Invalid	No action
5		Invalid	No action
6		Invalid	No action
7		Invalid	No action
8		Invalid	No action
9		Invalid	No action
10		Invalid	No action
11		Invalid	No action
12		Invalid	No action
13		Invalid	No action
14		Invalid	No action
15		Invalid	No action
16		Invalid	No action
17		Invalid	No action
18		Invalid	No action
19		Invalid	No action
20		Invalid	No action
21		Invalid	No action
22		Invalid	No action

Logic Configuration:

Power on delay(0-120S): 0

Current logic information:

- ☒ Temperature 20
- ☒ Brightness 800
- ☒ PIR Sensor Movement
- ☒ Dry contact 1 Disconnect
- ☐ Dry contact 2 Disconnect
- ☐ UV switch(201-248) Switch

Logic: **And**

True delay: 1 : 0 (M:S) False delay: 0 : 0 (M:S)

True targets configuration:

Basic information: Subnet ID: 42 Device ID: 2 Name: 7in1 sensor

Current selected logic: 2-ac 25c

Targets: Input target number(1-20) From 11 To 11

Index	Subnet ID	Device ID	Type	Param1	Param2	Para
1	42	15	Universal Switch	10(Switch No.)	ON(Switch Status)	N/A

42-15\IR emitter:

IR Codes: Current detection

Hint: Can Multiselect and use DEL to delete the infrared code

☒ Enable IR emitter

Current Selected key: 1 Free space: 81.30%

Input Key Number(1-249): From 1 To 15

Key	Name	Validity
1	qunda-c-h-23	Valid
2	qunda-off	Valid
3	qunda-c-h-24	Valid
4	qunda-c-h-25	Valid
5	Qunda-c-m-20	Valid
6	Qunda-c-m-21	Valid
7	Qunda-c-m-22	Valid
8	Qunda-c-m-23	Valid
9	Qunda-c-m-24	Valid
10	Qunda-c-m-25	Valid
11	Qunda-c-m-26	Valid

Annotations:

- 1: simulate the door connect to dry contact 1
- 2: use AND, because need two conditions
- 3: delay 1 minute, and when two conditions are true, then trigger this output
- 4: send command to IR EM module, let the IR EM module send out IR codes, make AC 25c.

42-15 is IR EM module. the IR codes (AC 25C) is in Key10 so need need to send UV switch command 10 ON to IR EM module

3. 1 minute after people left the room, turn off the lights and set temperature as 27°C. (logic number 3)

1: no movement

2: delay 1 minutes, then Trigger this output

3: send command to IR EM module, let the IR EM module send out IR codes, make AC

Logic No.	Remark	Enable	Power off recovery
1	light on	Valid	No action
2	ac 25c	Valid	No action
3	ac 27c	Valid	No action
4		Invalid	No action
5		Invalid	No action
6		Invalid	No action
7		Invalid	No action
8		Invalid	No action
9		Invalid	No action
10		Invalid	No action
11		Invalid	No action
12		Invalid	No action
13		Invalid	No action
14		Invalid	No action
15		Invalid	No action
16		Invalid	No action
17		Invalid	No action
18		Invalid	No action
19		Invalid	No action
20		Invalid	No action
21		Invalid	No action
22		Invalid	No action

True delay: 1 : 0 (M:S)

True targets configuration

Index	Subnet ID	Device ID	Type	Param1	Param2	Param3
1	42	15	Universal Switch	12(Switch No.)	ON(Switch Stat...)	N/A

Key	Name
1	qunda-c-h-23
2	qunda-off
3	qunda-c-h-24
4	qunda-c-h-25
5	Qunda-c-m-20
6	Qunda-c-m-21
7	Qunda-c-m-22
8	Qunda-c-m-23
9	Qunda-c-m-24
10	Qunda-c-m-25
11	Qunda-c-m-26
12	Qunda-c-m-27

4. 3 minutes after people left the room, turn off the AC automatically

Logic Table:

Logic No.	Remark	Enable	Power off recovery
1	light on	Valid	No action
2	ac 25c	Valid	No action
3	ac 27c	Valid	No action
4	ac off	Valid	No action
5		Invalid	No action
6		Invalid	No action
7		Invalid	No action
8		Invalid	No action
9		Invalid	No action
10		Invalid	No action
11		Invalid	No action
12		Invalid	No action
13		Invalid	No action
14		Invalid	No action
15		Invalid	No action
16		Invalid	No action
17		Invalid	No action
18		Invalid	No action
19		Invalid	No action
20		Invalid	No action
21		Invalid	No action
22		Invalid	No action

True targets configuration:

Basic information: Subnet ID: 42, Device ID: 2, Name: 7in1 sensor
Current selected logic: 4-ac off

Targets:

Index	Subnet ID	Device ID	Type	Param1	Param2	Param3
1	42	15	Universal Switch	2(Switch No.)	ON(Switch Stat...	N/A

42-15\IR emitter:

IR Codes: Current detection

Hint: Can Multiselect and use DEL to delete

☒ Enable IR emitter

Current Selected key: 1 Free space

Input Key Number(1-249): From 1

Key	Name
1	qunda-c-h-23
2	qunda-off

Annotations:

- 1: no movement
- 2: delay 3 minutes, then trigger this output
- 3: send command to IR EM module, let the IR EM module send out IR codes, make AC off.

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Serious about smart buildings.