INSTRUCTION

Product Name: Daylight Sensor

Model No.:   MS13

Issue Date: February 21, 2021

Attention
1. The product shall be installed by a professional electrician. Please disconnect the power before installation, wiring or changing the setting of by DIP switch 2. Please read the relevant contents of this manual carefully before using the product. 3. This product is only suitable for indoor environment. 4. Ensure that the product is installed in a relatively dry and ventilated environment. 5. Before the product is powered on, please confirm that the input voltage range meets the requirements of the manual. 6. Keep out of reach of children.

merrytek®
INTELLIGENT LIGHTING CONTROL

1. Feature

1) Optical lens and photoelectric sensor are used to collect light illuminance, high accuracy and fast response.

2) Compatible with remote control and digital encoder for daylight harvesting setting.

3) Grouped broadcast and grouped settings are supported with BCD encoder.

4) Independent surface mounting for convenient installation.

5) One sensor can control 64 DALI drives divided into maximum 15 groups.

2. Parameters

Operating Voltage Range	DC 9.5-24V (DALI bus powered）
Working Current	≤15mA
Control Method	dimming/switching instructions in DALI protocol
Daylight Harvesting Setting	digital encoder and remote control
Daylight Detection Range	5-1200 Lux (collect the illuminance value of the ground directly below the product at a height of 3m)
Installation Height	2.5-4.0m
Installation	surface-mounted
Wiring	screw terminal, diameter: 0.75-1.5mm^2
Operating Temperature	-25℃...+50℃
Storage Temperature	-25℃...+80℃

3. Function

1) Along with DALI driver and lamps, MS13 realizes the self-adjusting daylight harvesting function.

2) After the successful setting with remote control or digital encoder, when the external light illuminance becomes bright, the daylight sensor will lower the brightness of the lamp.When the external light illuminance becomes dark, accordingly the light sensor will reduce the brightness of the lamp. The brightness is adjusted to make the light illuminance value of the environment in a relatively constant state.

3) Daylight harvesting function setting method and steps with remote control: after the 5S product initialization, DALI dimming is 100%, press DH MODE button of the remote control or long press the digital encoder 3S to enter the daylight harvesting mode. The light illuminance of the mode can be adjusted to an appropriate brightness, otherwise, it will automatically learn the current brightness as constant brightness after 3S.

4) Daylight harvesting function setting method and steps with digital encoder (DH/dimming)

rotate one grid right	rotate one grid left	long press 3S(switchable)		short press(switchable)	
DIM+	DIM-	DH Mode	Override DH	Light On	Light Off

Remote control

Panel settings	Button	Function Description
	ON/OFF	Press **"ON/OFF"** button to turn on/off light. The lights remain on after power failure once press ON/OFF button. Please long press DH mode if need to enable Daylight harvesting.
	Reset	Press "Reset" button to quit Daylight Harvesting mode.
	Sensor motion	N/A
	DIM Test	N/A
	Override DH	Long press >3S to quit Daylight Harvesting mode.
	DIM + DIM - DH Mode	Dim+: short press to increase brightness by 5% each time. Dim−: short press to decrease brightness by 5% each time. Long press >3S to enter Daylight Harvesting mode and learn the current brightness, then take it as a constant light level for daylight harvesting.
	QS1 QS2 QS3	N/A
	TEST 2S	N/A
	HS LS	N/A
	☾☀	N/A
	⊙	N/A
	⊙	N/A
	50% / 10%	N/A
	.)))	N/A
	5m 10m 15m	Remote Distance Toggle button to select the remote distance between control and sensor.

All setting with power memory function in case of power failure.
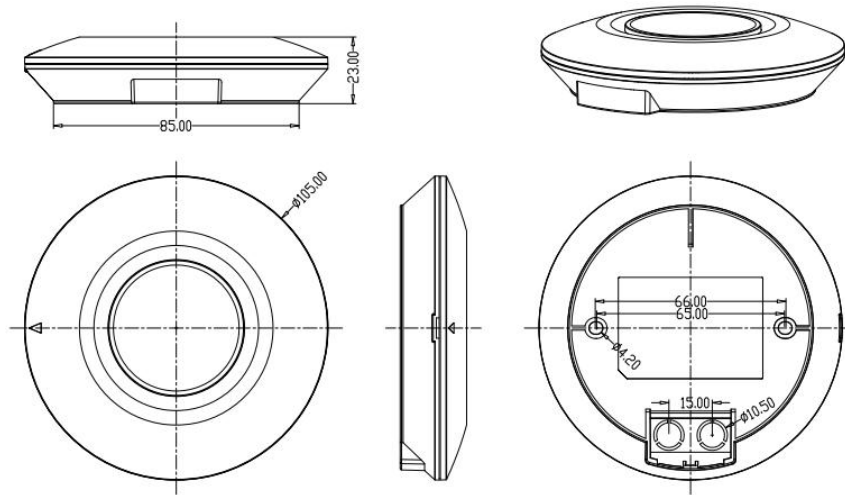
4. BCD Encoder Setting

Group selection

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Group	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

1) When select group 0, it is in broadcast mode (there can only be 1 daylight sensor on one bus in broadcast
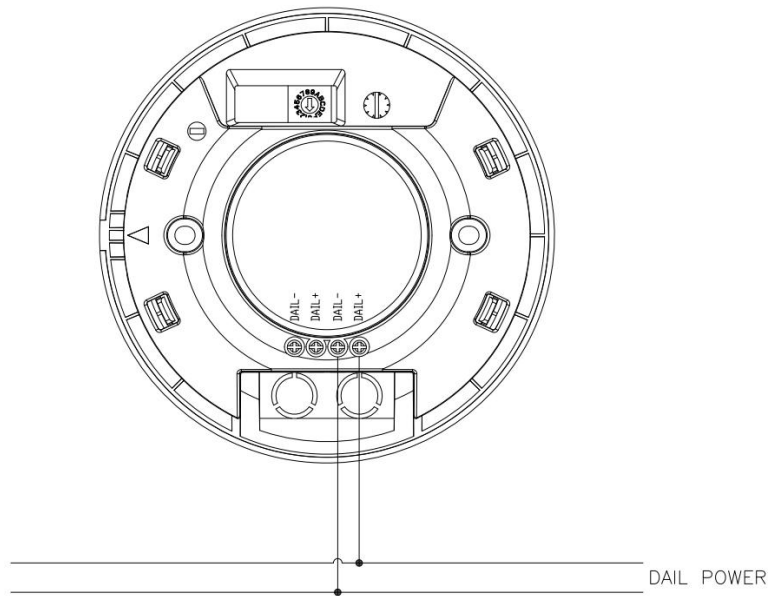
mode), all connected DALI drives are controlled synchronously. When it is divided into 1 to 15 groups, the host computer needs to set the DALI drivers into the same group. There can be divided into up to 15 groups.

2) Within the maximum number LED driver that DALI daylight sensors can control, driver can be grouped freely from 1 to 15 through the PC configuration software to match the 1-F value of the related daylight sensor.
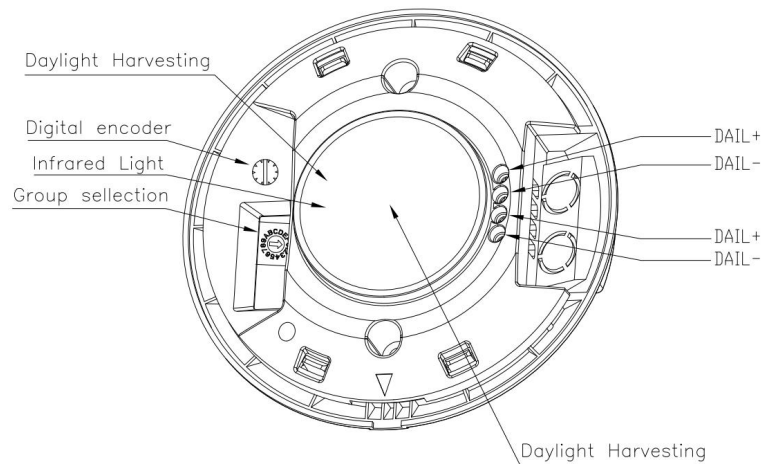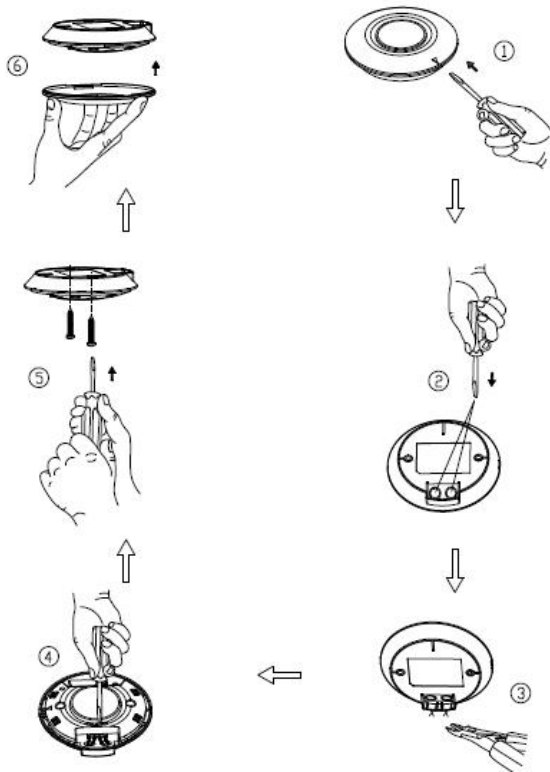
5. Dimension (mm)

6. Wiring

7. Structure

8. Installation Instruction

1. Use a slotted screwdriver in the preset position of housing to pry the cover.

2. Use a tool to pry the sheet of threading hole.

3. The thin piece on the side of housing should be cut off to make it a wire groove when exposed installing.

4. Connect wire on the terminal and set the relevant parameters.

5. Fix product on the required mounting face using matched screwdriver.

6. Make sure to fasten cover after installing(prompted with an arrow).

9. Initialization

After the 5S product initialization, DAIL dimming is 100%, press DH MODE button of the remote control or long press the digital encoder 3S to enter the daylight harvesting mode.

10. Factory Settings

Group selection：0 group, broadcast mode, 100% brightness.