Lighting scenarios

Cu-Beam Duo suspended lights are compatible with DALI, PWM and Analogue (0-10V, 1-10V) interfaces. Here is some useful information about each interface, including wiring diagrams to support with installation of Cu-Beam Duo suspended lights.

dyson cu beam duo

Contents

Lighting control system glossary

Control

The ability to modify the light output of a luminaire or a group of luminaires.

Dim

Modifying the light output (brightness).

Split

Modifying the up and down light ratio.

Dim remote

Modifying the light output (brightness) via a control signal (away from the product).

Split remote

Modifying the up and down light ratio via a control signal (away from the product).

Group

The ability to control a fixed group of luminaires with control signals. In this case, each luminaire will respond identically.

Flexible group

The ability to control a group of luminaires that have been addressed individually. In this case, the luminaries can be controlled individually or as a group.

Sensor

An electronic device that can measure local conditions and control the luminaire directly or feed information in to the lighting management system. Smart building sensors are capable of measuring variables like ambient light levels, fire presence, humidity level etc.

PIR sensor

Passive-Infra-Red sensor is an electronic sensor, frequently used as a motion detector which can control luminaire light output, including switching on and off as a result of movement. This can control the luminaire directly or feed information in to the lighting management system.

RF/Wireless sensor

Radio Frequency is an electromagnetic wave used to communicate with a light management system. This removes the need to hardwire new installations and is therefore wireless.

Analogue (0-10V, 1-10V)

This is a type of lighting control that allows the user to modify the luminaire light output by altering the voltage delivered. This is frequently referred to as 0-10V or 1-10V dimming.

DALI

Digital-Addressable-Lighting-Interface is another lighting control system that treats each luminaire as a digital device, allowing for two-way communication between the luminaire and the light management system.
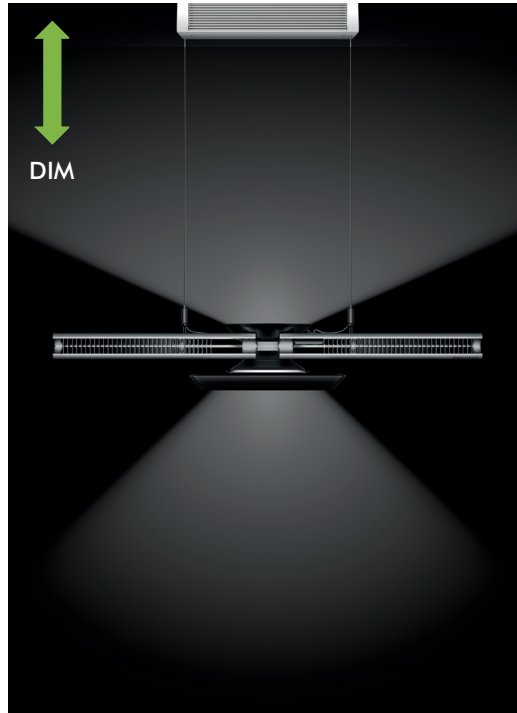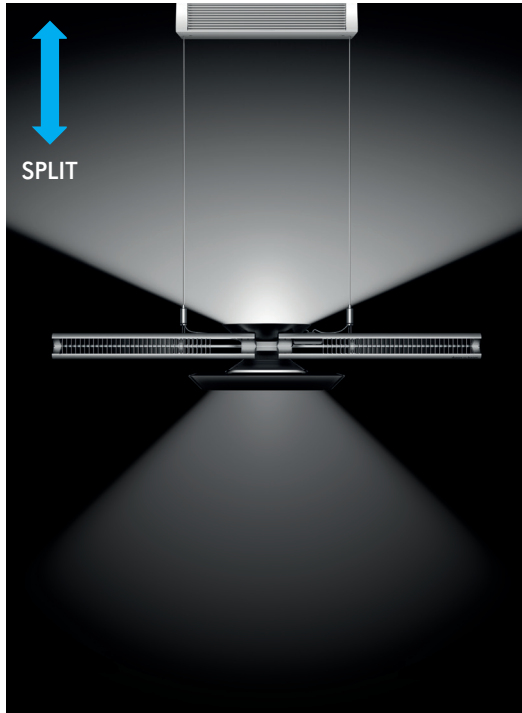
LMS

Light Management System is an electronic device that controls the luminaires connected to it.

PWM

Pulse Width Modulation is another lighting control system that allows the user to modify the luminaire light output by altering the width of pulses sent to the luminaire.

Analogue (0-10V, 1-10V)

Scenario

To be able to split and dim each Cu-Beam Duo suspended light individually. At any time, using dials on the wall.
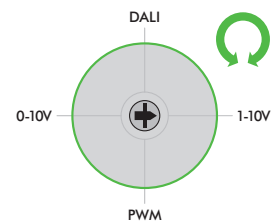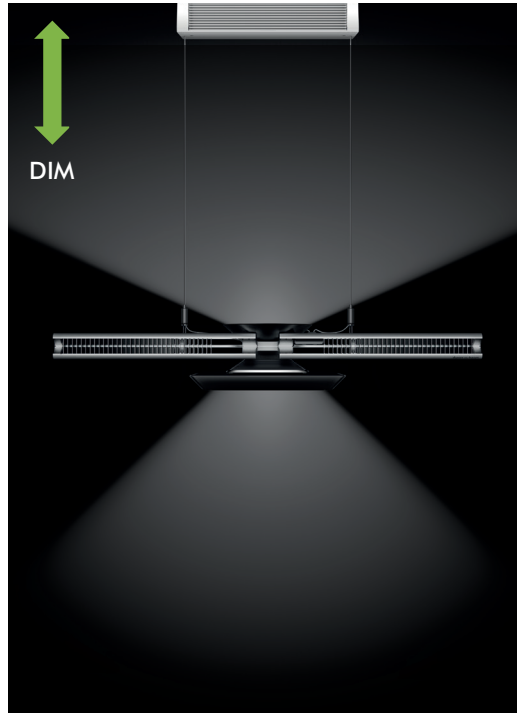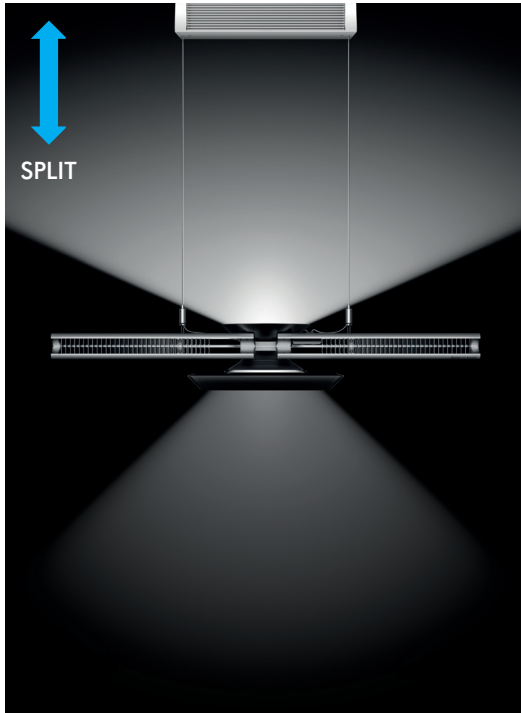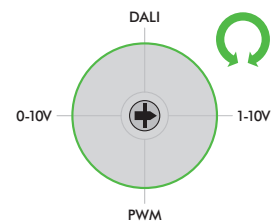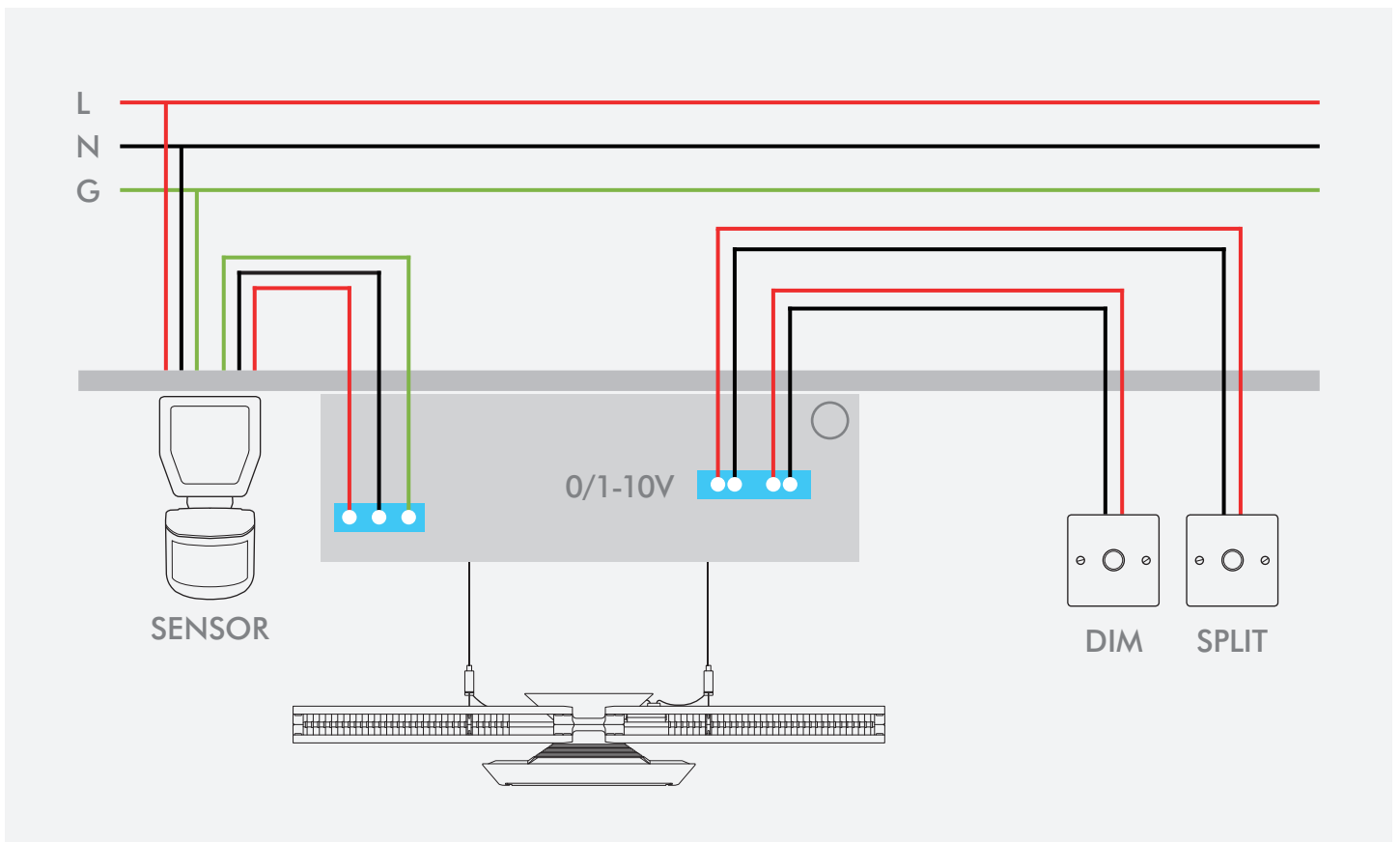

SPLIT

DIM

0-10V 1-10V

DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group	No
Add sensor	No

DALI

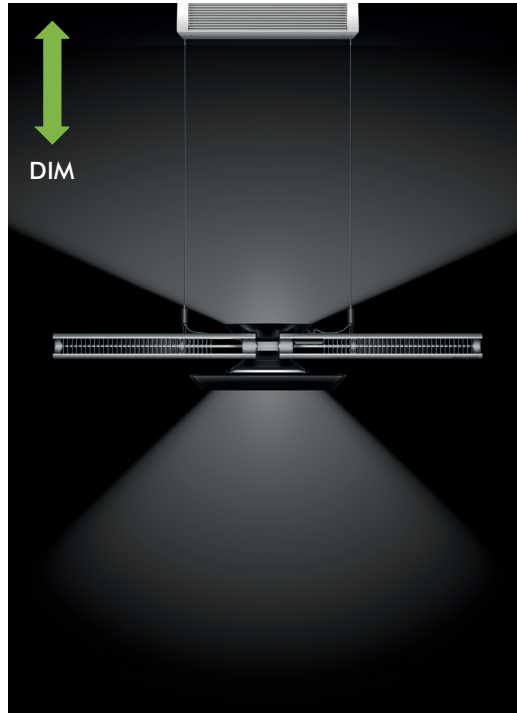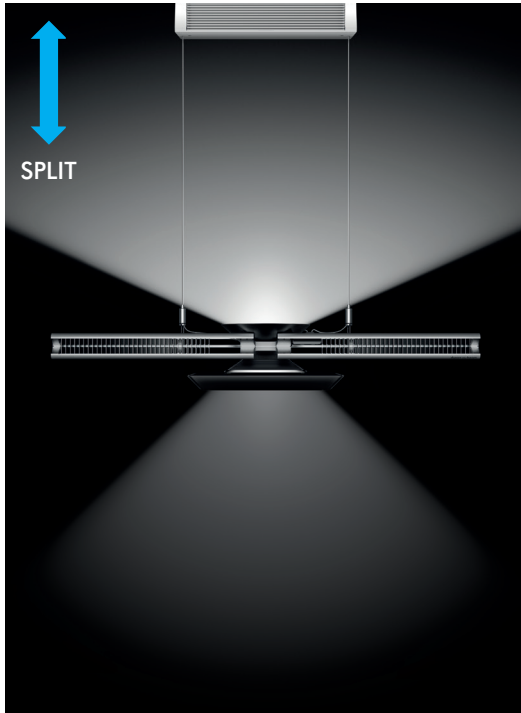0-10V   1-10V

PWM

Driver selector dial

L
N
G

0/1-10V

DIM   SPLIT
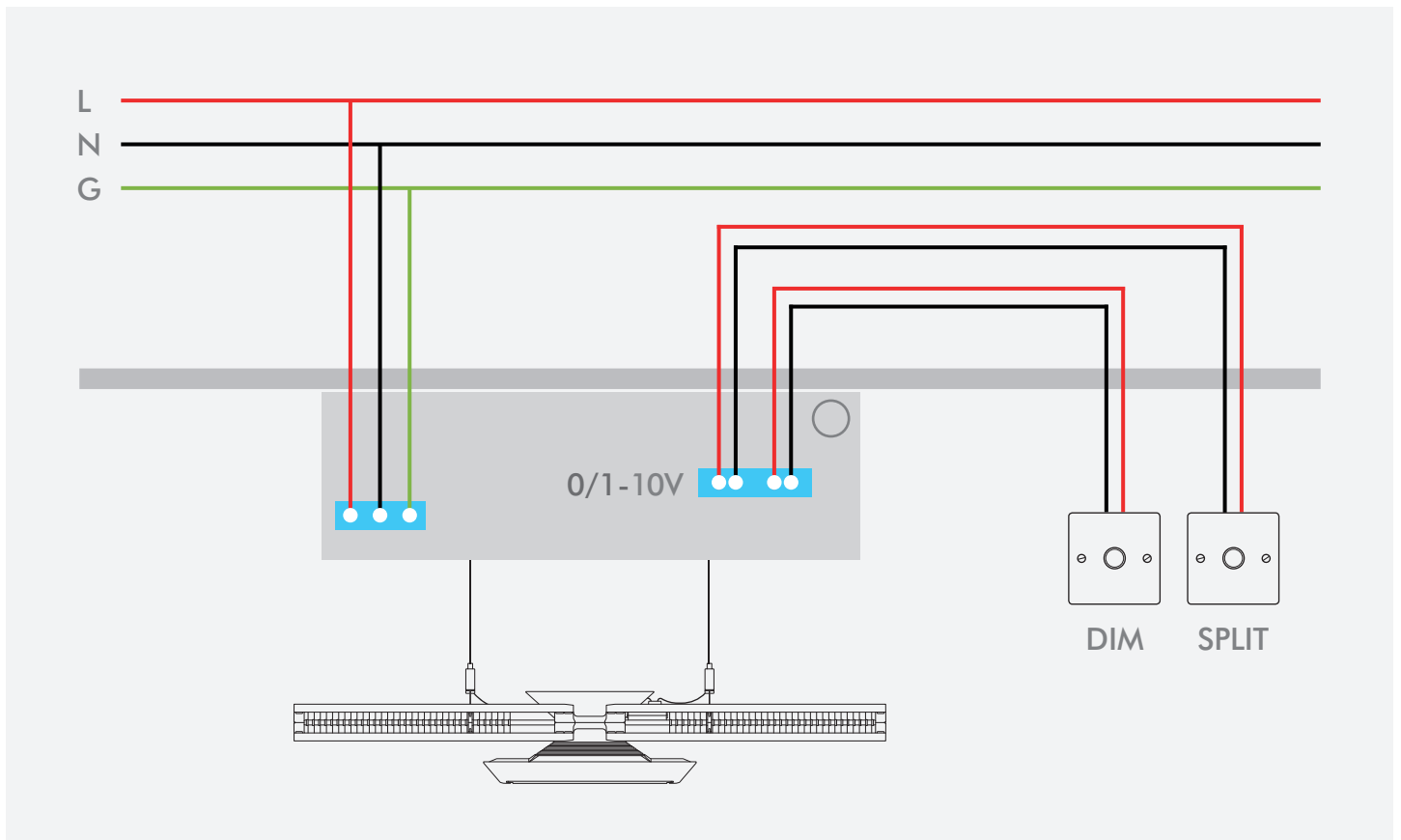
Analogue (0-10V, 1-10V)
with PIR sensor

Scenario

To be able to split and dim each Cu-Beam Duo suspended light individually. At any time, using dials on the wall and a PIR sensor to turn the luminaire on and off.

SPLIT

DIM

0-10V 1-10V

DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group	No
Add sensor	Yes

Driver selector dial

L
N
G

0/1-10V

SENSOR

DIM   SPLIT

Analogue (0-10V, 1-10V) with RF/Wireless sensor

dyson cu beam duo

Scenario

To be able to split and dim each Cu-Beam Duo suspended light individually. At any time using wireless technology. Without chasing out the wall.
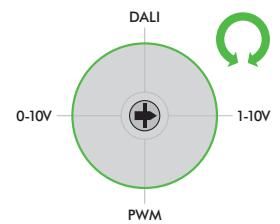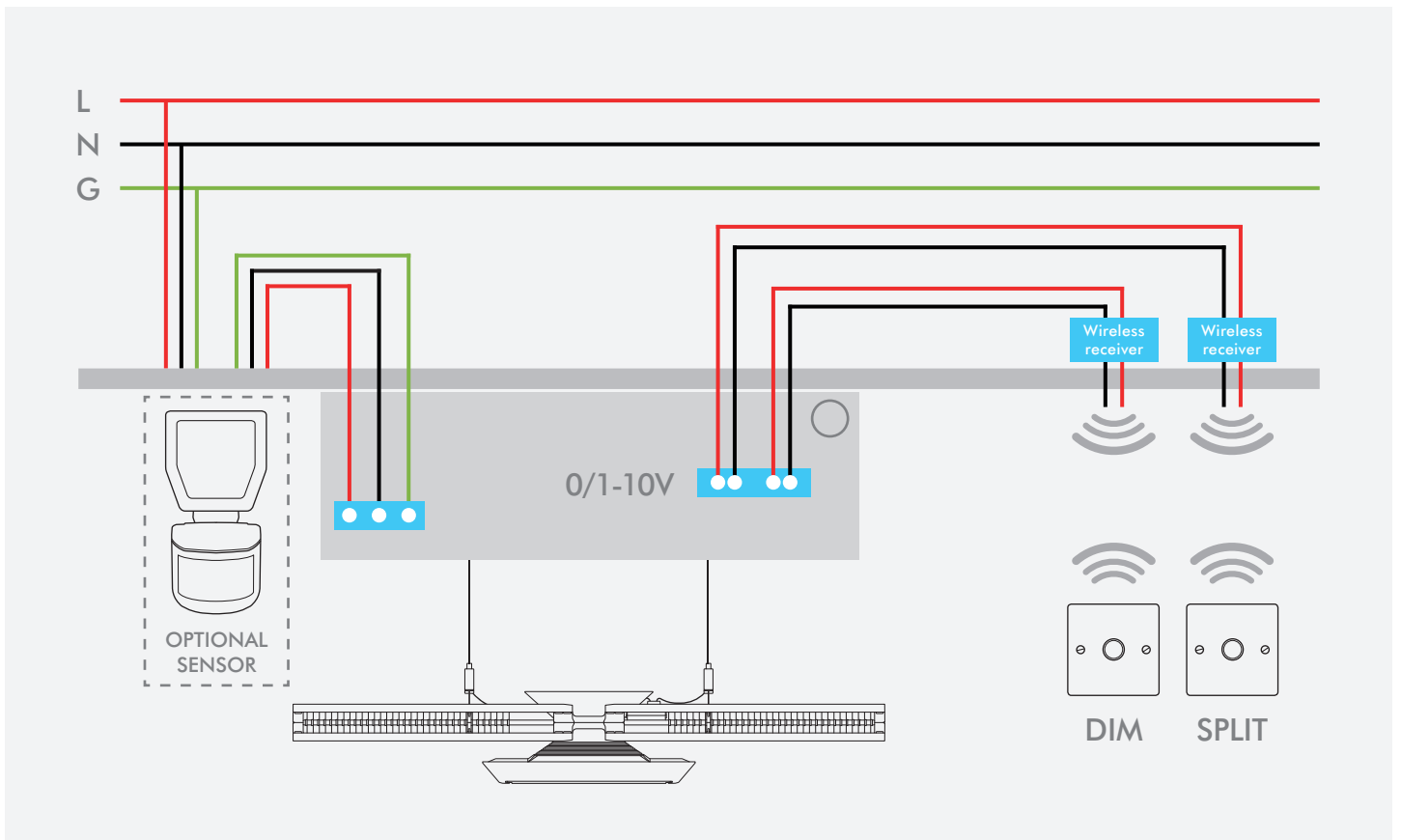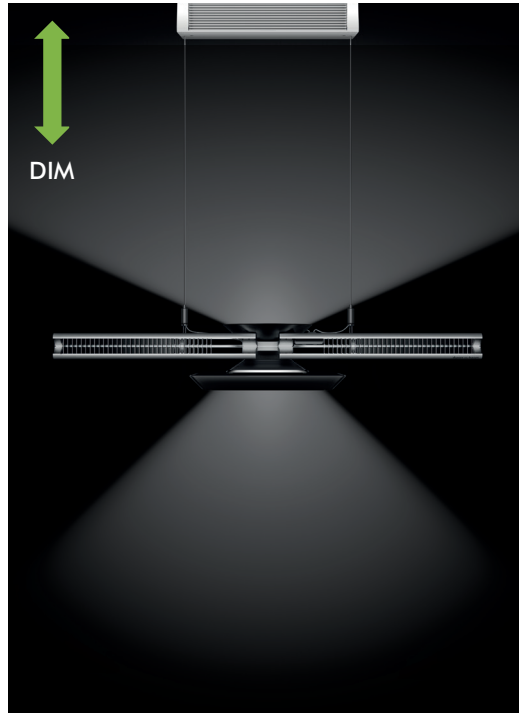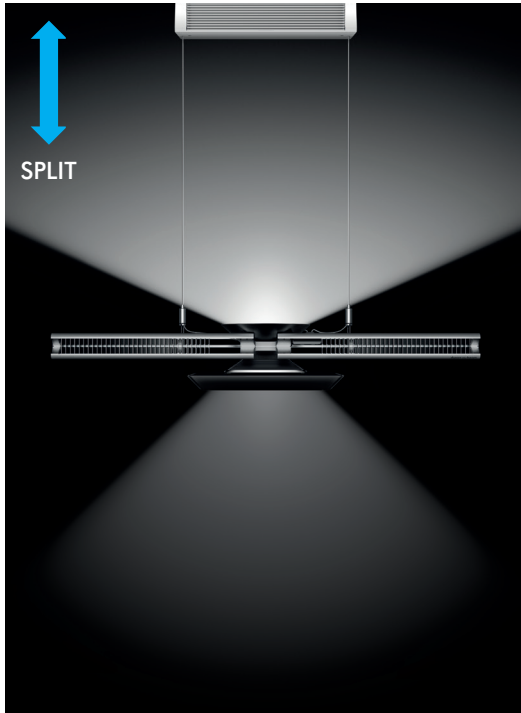

SPLIT

DIM

0-10V 1-10V

DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group	No
Add sensor	Yes

DALI

0-10V   1-10V

PWM

Driver selector dial

L
N
G

Wireless receiver   Wireless receiver
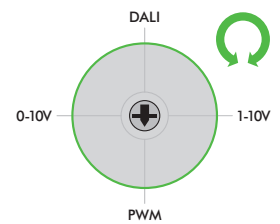
OPTIONAL SENSOR

0/1-10V

DIM   SPLIT

5

PWM

Scenario

To be able to split and dim each Cu-Beam Duo suspended light individually. At any time, using dials on the wall and a PWM interface.
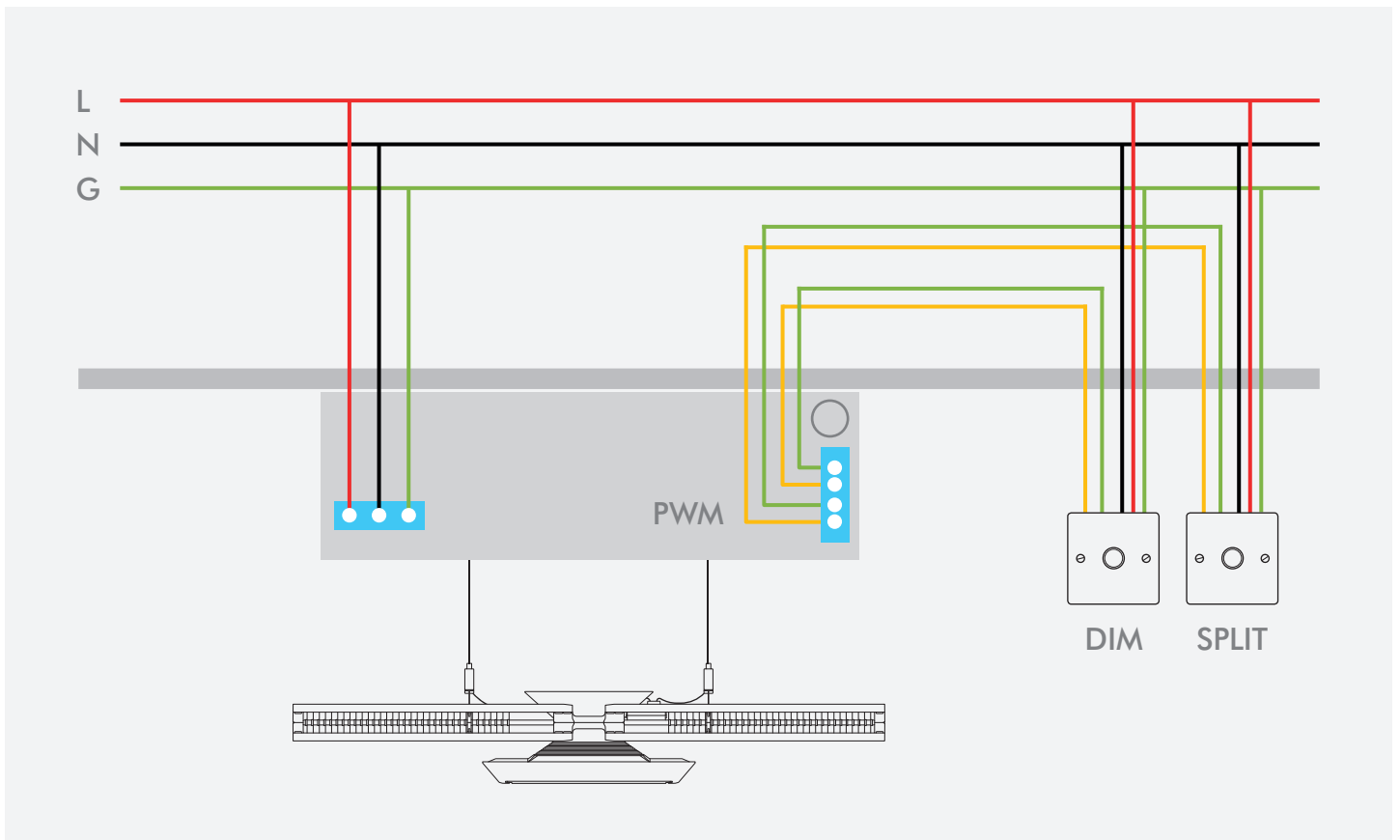

SPLIT

DIM

PWM

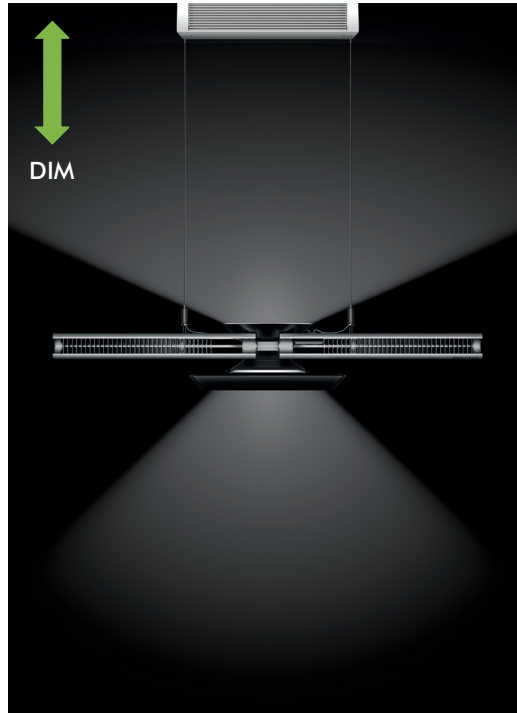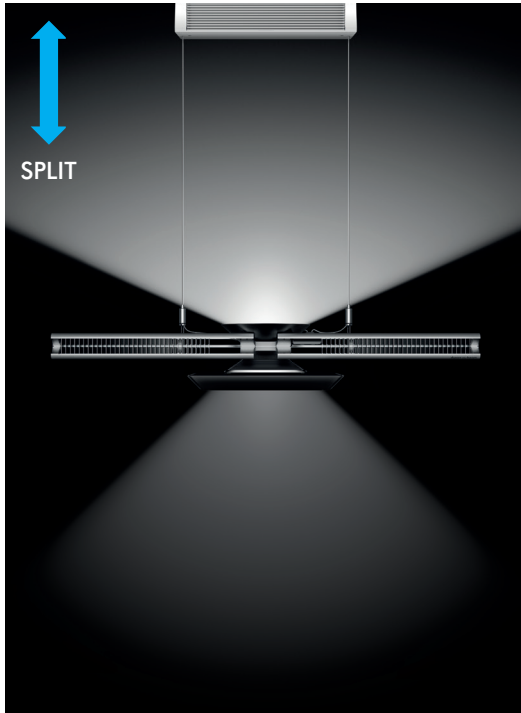|	
DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group	No
Add sensor	No

DALI

0-10V

1-10V

PWM

Driver selector dial

L
N
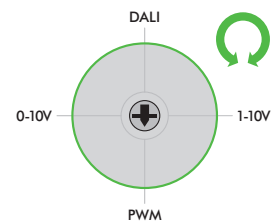G

PWM

DIM   SPLIT

PWM with PIR sensor

Scenario

To be able to split and dim each Cu-Beam Duo suspended light individually. At any time, using dials on the wall, a PIR sensor and a PWM interface.
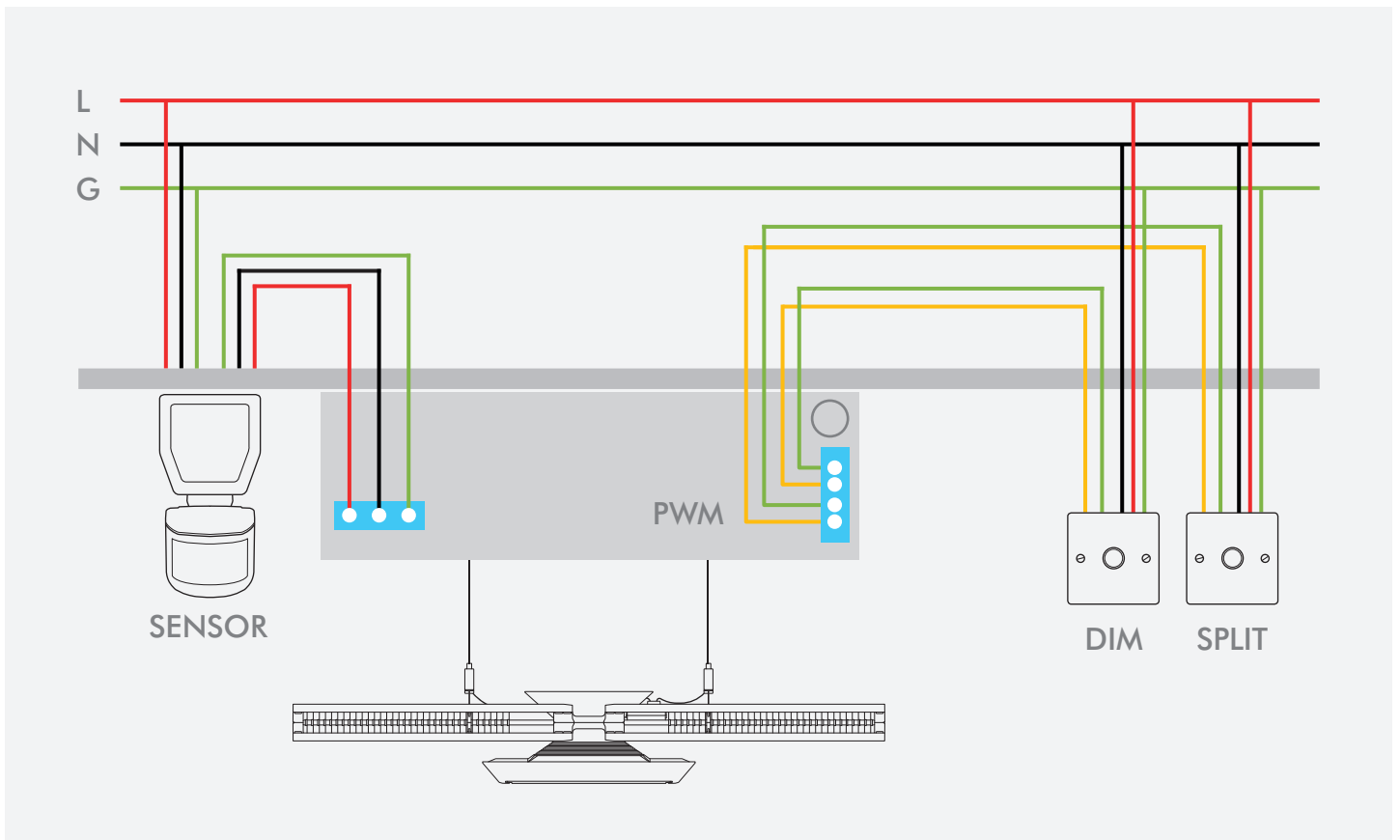
SPLIT

DIM

PWM

DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group	No
Add sensor	Yes

DALI

0-10V

1-10V

PWM

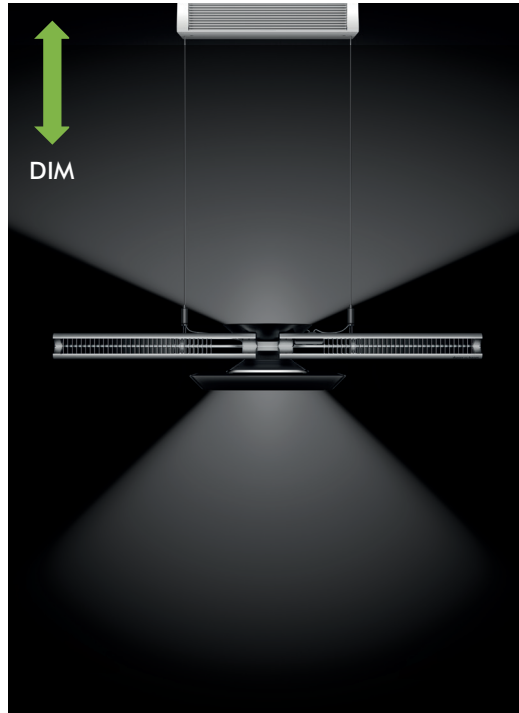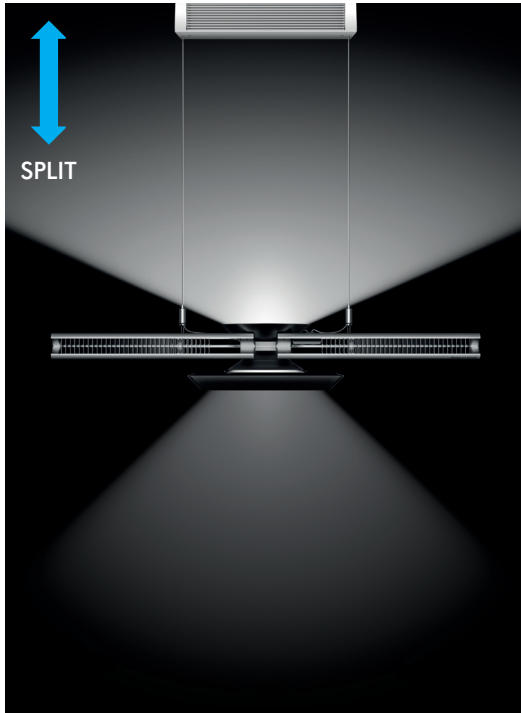Driver selector dial

SENSOR

PWM

DIM   SPLIT

PWM with RF/Wireless sensor

Scenario

To be able to split and dim each Cu-Beam Duo suspended light individually. At any time, using wireless technology and a PWM interface.
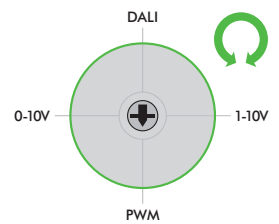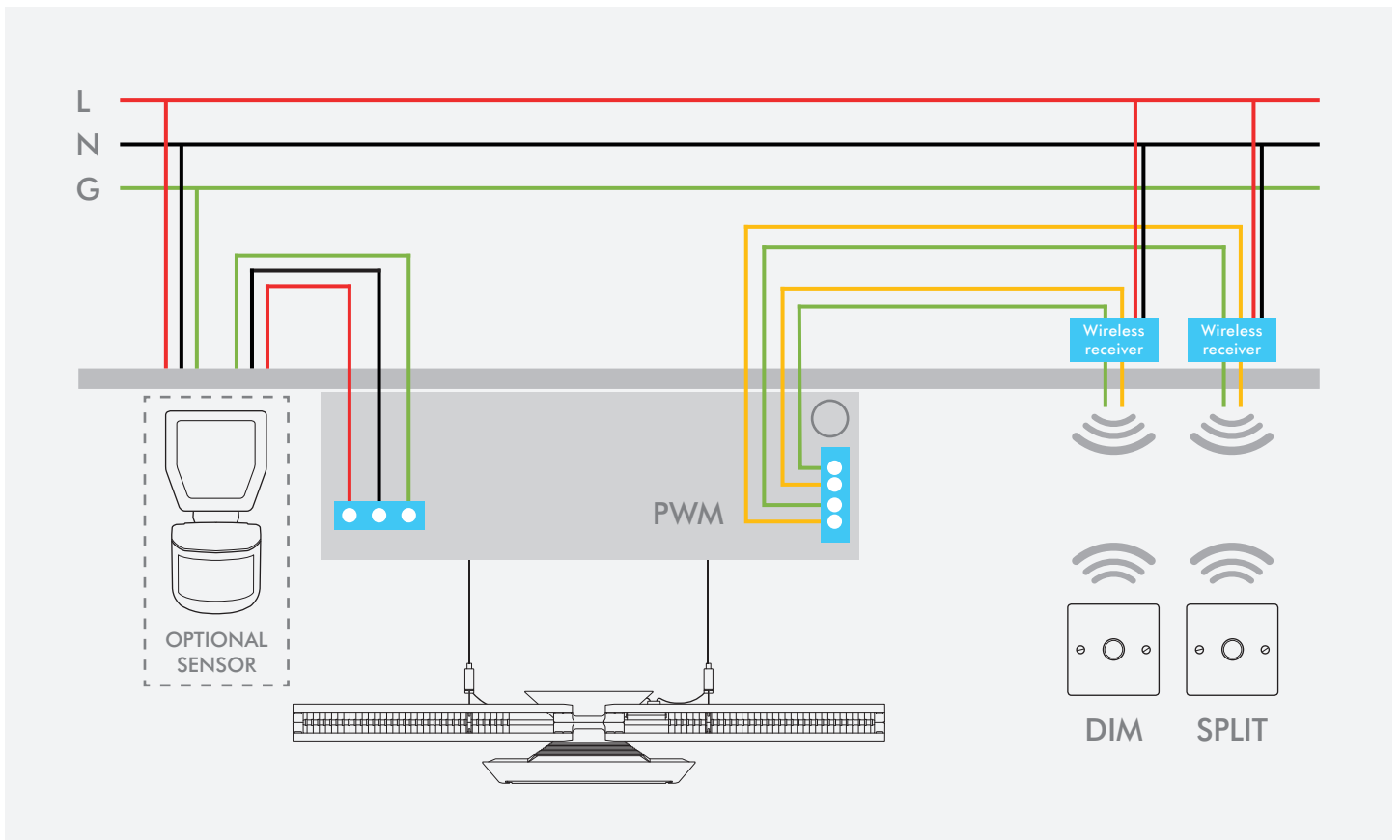

SPLIT

DIM

PWM

DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group	No
Add sensor	Yes

DALI

0-10V

1-10V

PWM

Driver selector dial

L
N
G

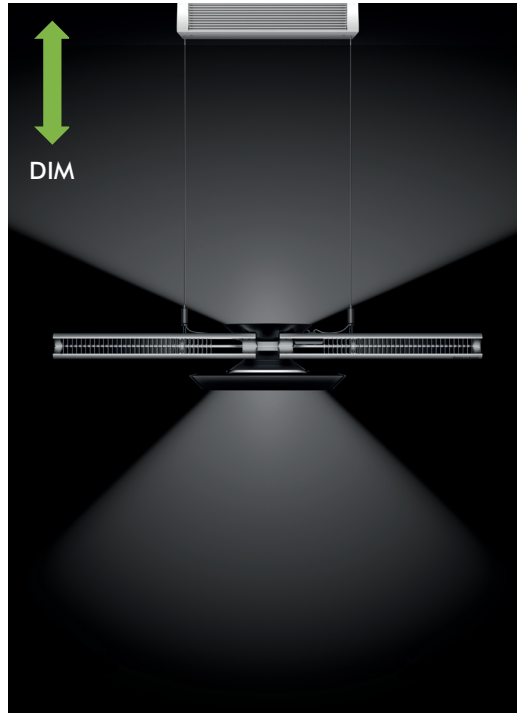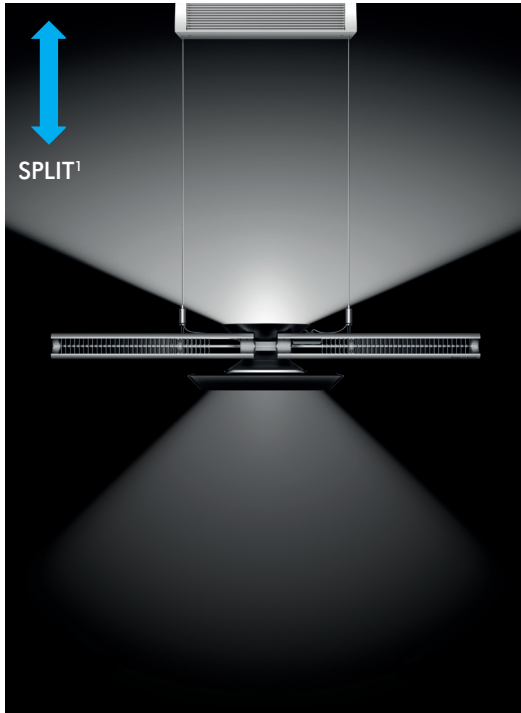Wireless receiver

Wireless receiver

OPTIONAL SENSOR

PWM
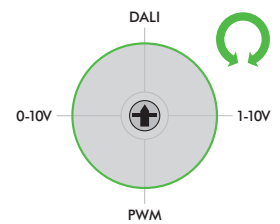
DIM

SPLIT

DALI

Scenario

Split ratio of up and down light to rarely change.
To be able to dim the Cu-Beam Duo suspended lights
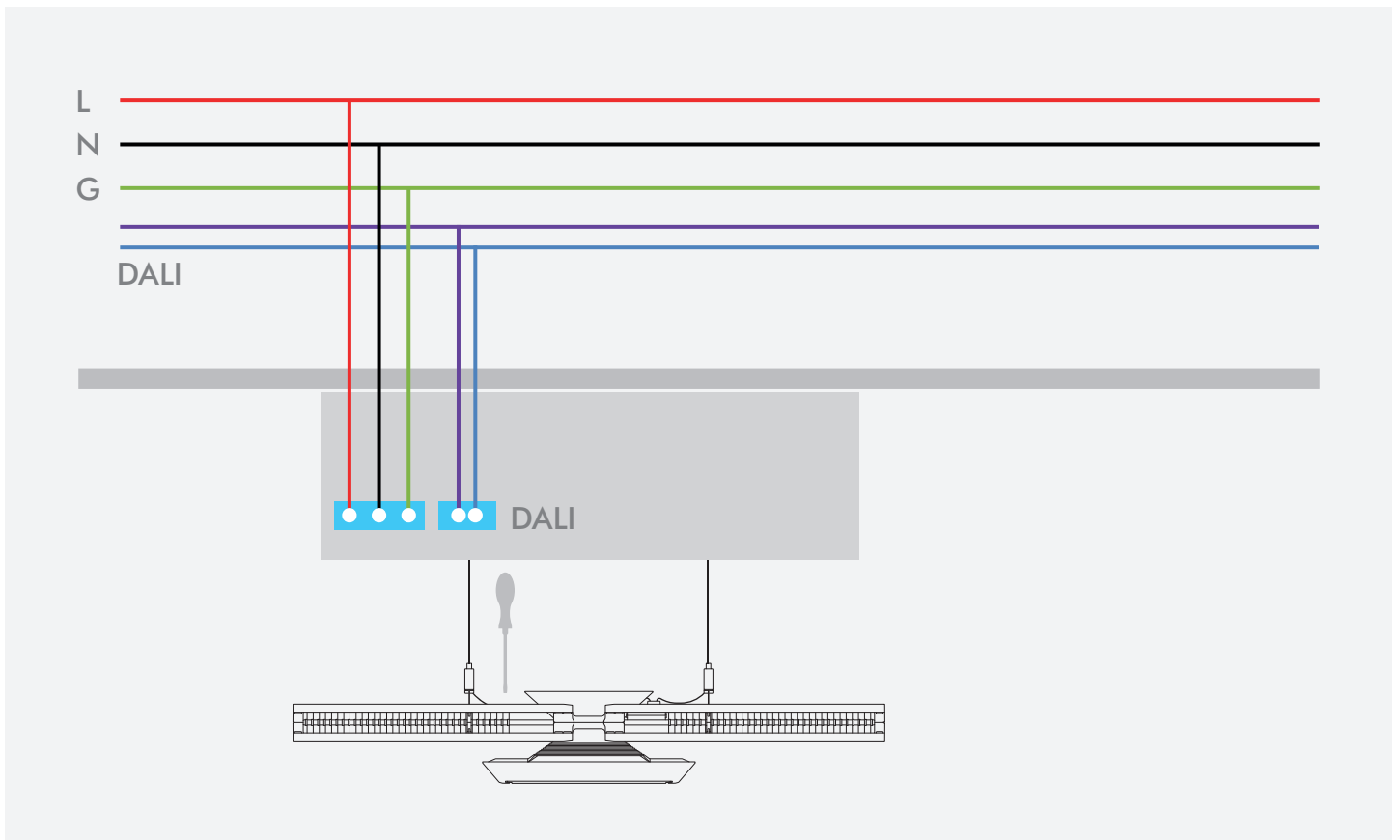and have the benefits of an intelligent control system.

SPLIT[1]

DIM

DALI

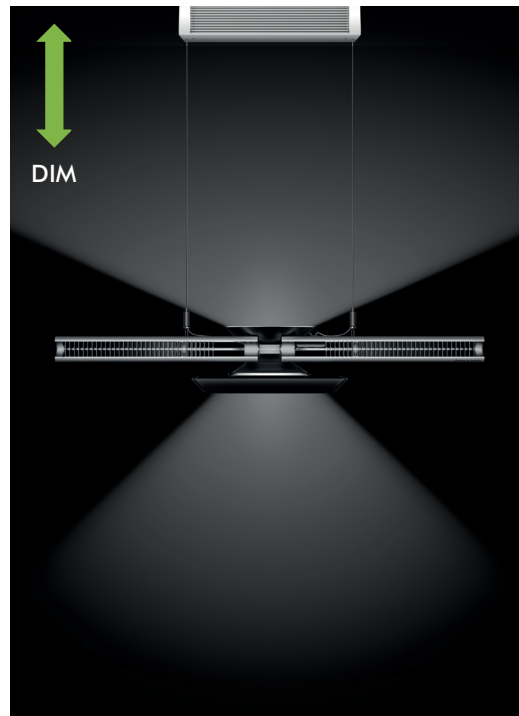| DIM remote	Yes
Split remote[1]	No
Group	Yes
Flexible group	Yes
Add sensor	Yes

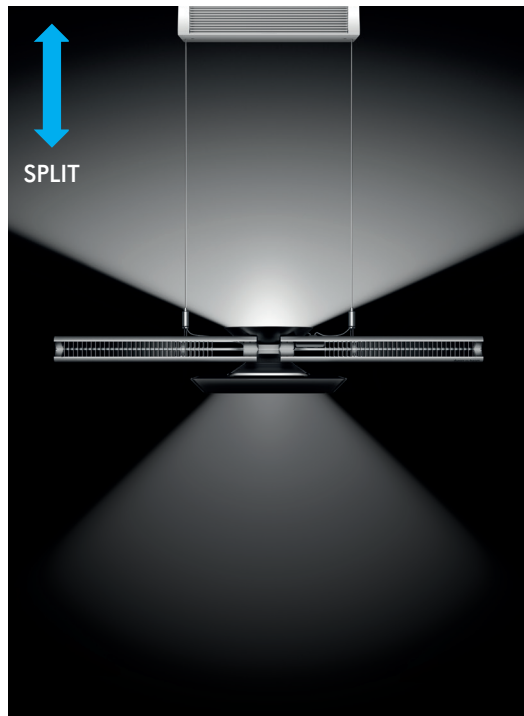

Driver selector dial

L

N

G

DALI

DALI

[1]Possible to adjust split manually on luminaire.

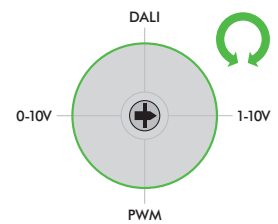# Mixed system – DALI and Analogue (0-10V, 1-10V)

Scenario

To be able to split and dim each Cu-Beam Duo suspended light at any time. With the benefits of DALI, coupled with smart sensors to provide an intelligent lighting system.
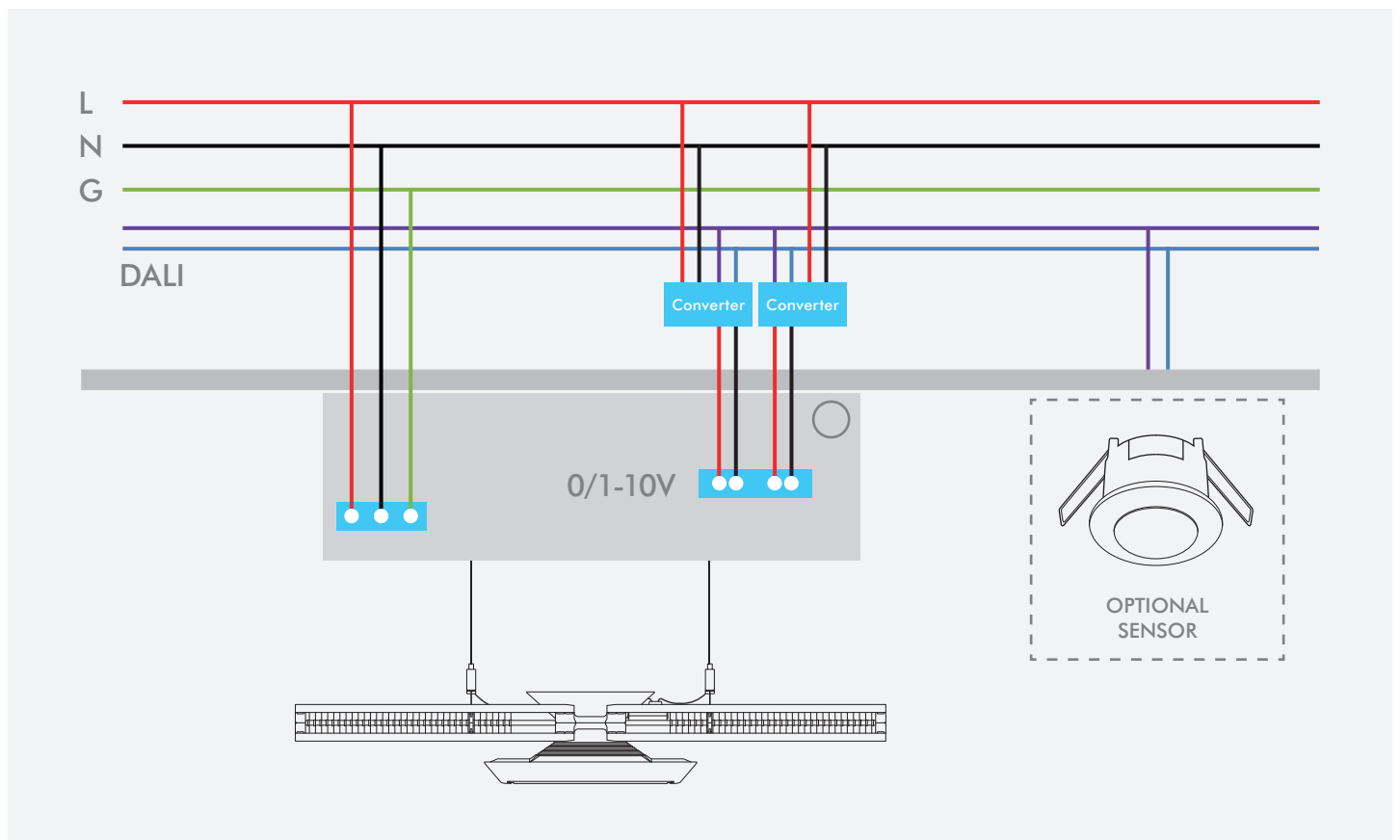

SPLIT

DIM

0-10V 1-10V

DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group[2]	Yes
Add sensor	Yes

Driver selector dial

DALI

0-10V   1-10V

PWM

L
N
G

DALI

Converter   Converter

0/1-10V

OPTIONAL SENSOR
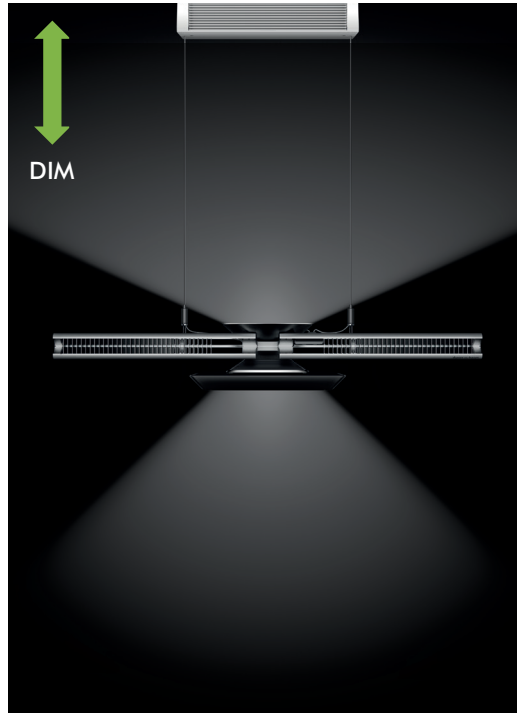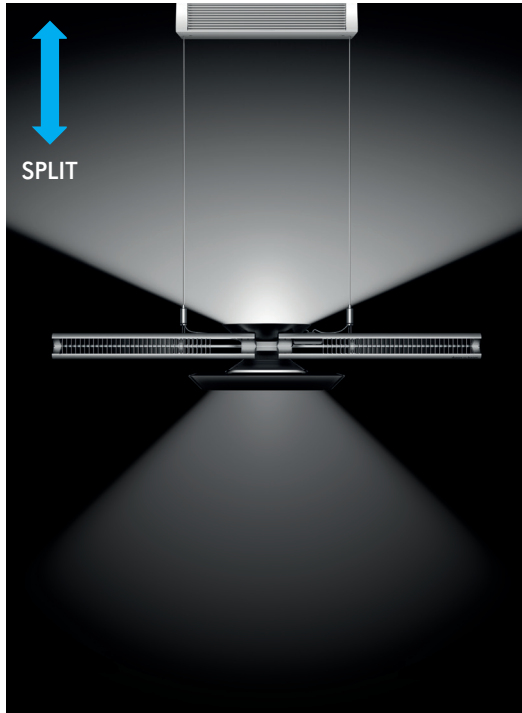
[2]To achieve a flexible group solution each unit in the installation needs its own pair of converters. The user then has the ability to group and control units in a flexible manner.
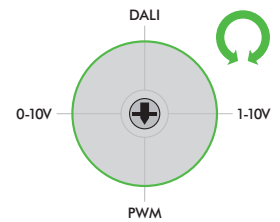
Mixed system – DALI and PWM

Scenario

To be able to split and dim each Cu-Beam Duo
suspended light at any time. With the benefits
of DALI, coupled with smart sensors to provide
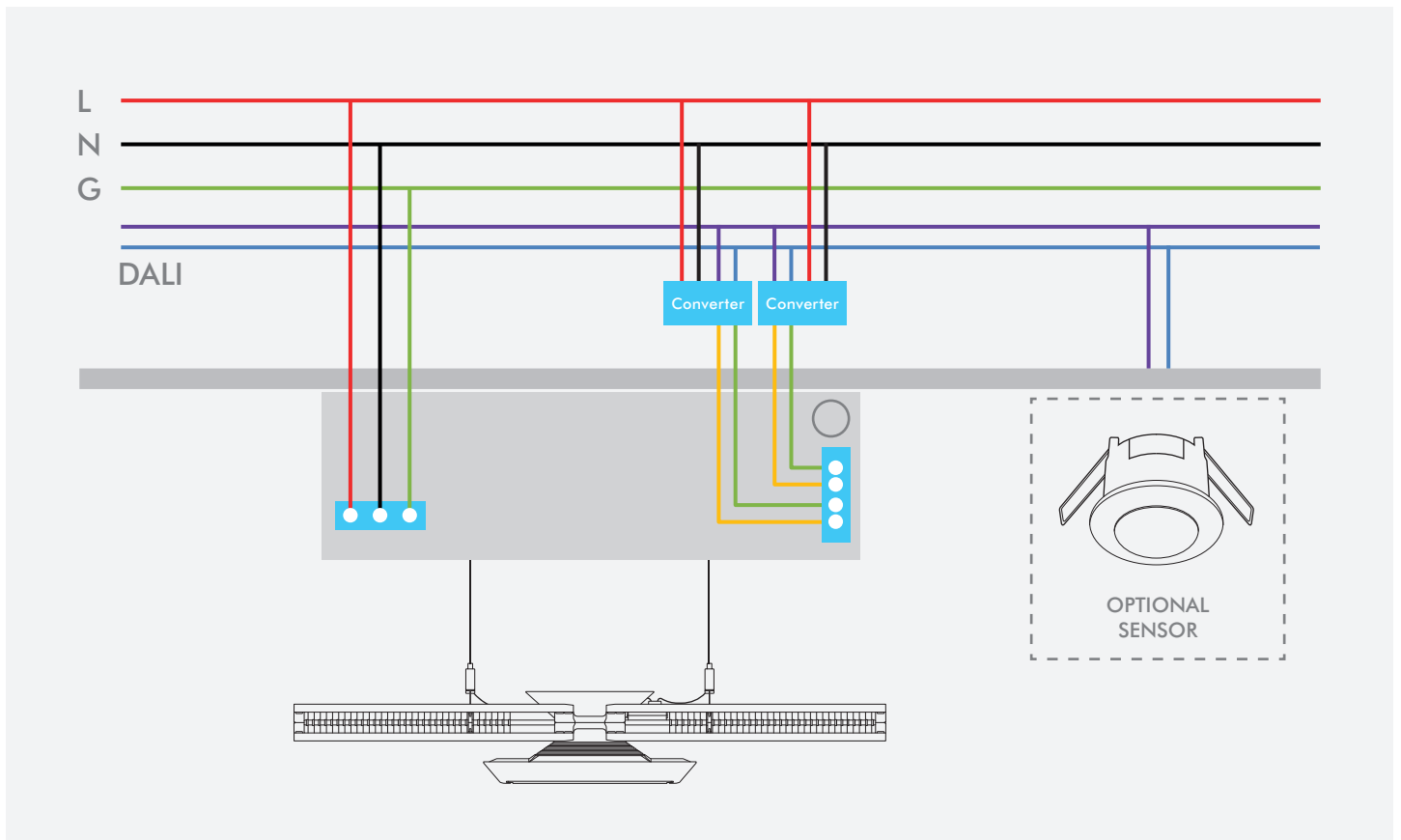an intelligent lighting system.

SPLIT

DIM

PWM

DIM remote	Yes
Split remote	Yes
Group	Yes
Flexible group[2]	Yes
Add sensor	Yes

DALI

0-10V   1-10V

PWM

Driver selector dial

L

N

G

DALI

Converter   Converter

OPTIONAL
SENSOR

[2]To achieve a flexible group solution each unit in the installation needs its own pair of converters.
The user then has the ability to group and control units in a flexible manner.

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