



flex7 ZoneLite - Offices

Lighting connection & control unit

Type G - Configured for use in single, multiple or open plan offices, & retail environments

flex connectors



flex7 ZoneLite Features & Benefits

A lighting connection & control solution in one, that comes preprogrammed with up to 14 distinct lighting configurations common to general office environments.

Offering a prefabricated alternative to traditional wiring, the ZoneLite Type G is designed for use in general office environments. It provides options for absence/presence/daylight linking/graduated daylight dimming lighting control, emergency test, corridor hold, last man out switch and scene setting.

Control up to 4 lighting channels

Available with 4, 16 or 20 outlets

14 preconfigured lighting layout options



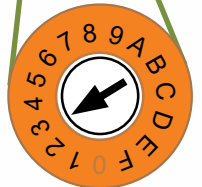
Cost Effective

System simply plugs together, saving time on site, and reducing need for skilled electricians.



No Commissioning Required

Just choose the required configuration using the rotary selector switch on your ZoneLite (detailed in following pages).



Protected Extra Low Voltage (PELV)

All sensor heads and switch drops operate at PELV. This allows us to use lightweight plug-in switch drops and sensor leads. In particular because our switch drops operate at PELV they do not require enclosing in an earthed metallic covering nor the protection of an RCD as is often the requirement for mains switch drops.

Global Switch Inputs

Each ZoneLite can also accept up to 3 global switch commands:

Emergency Test - tests emergency fittings.

Last Man Out - initiates all connected luminaires off.

All Lights On - initiates all connected luminaires on.

(Global switch inputs are typically connected to a group of ZoneLites).

Quick And Easy To Wire



Large wiring compartment. Remove cover with a single screw.

Corridor Hold

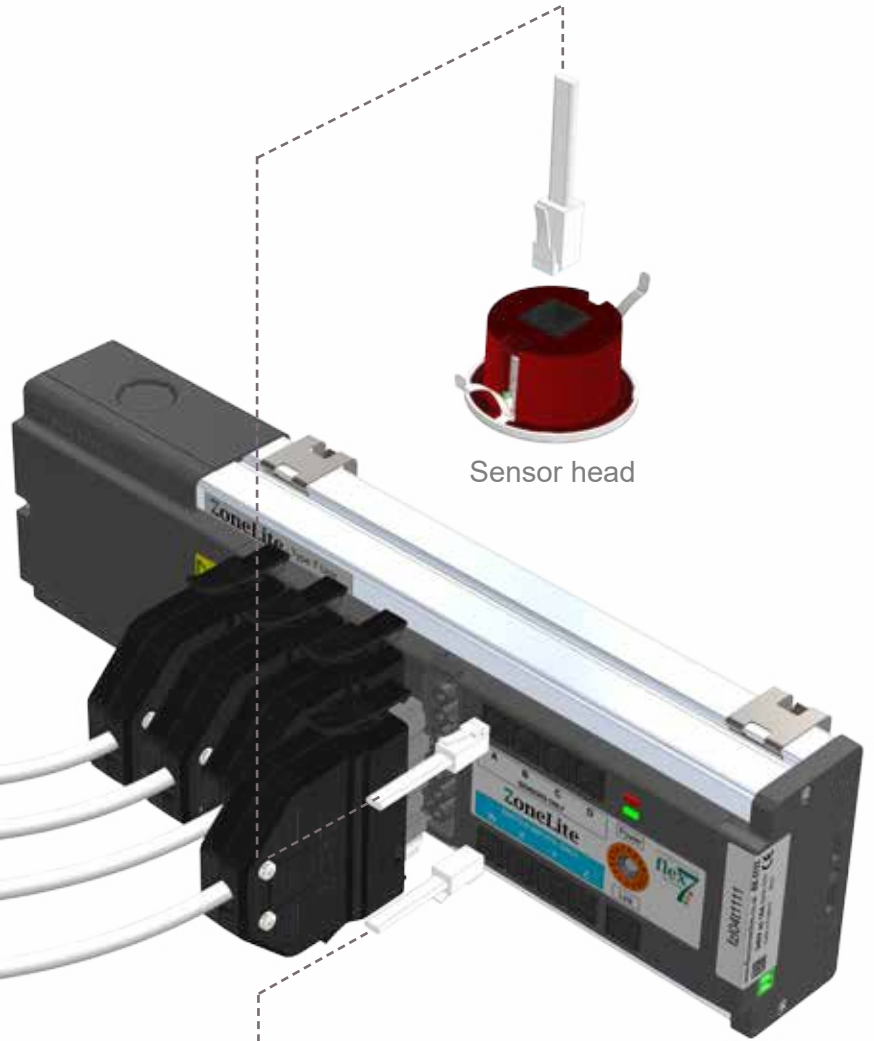
Interlinking corridor hold between a group of ZoneLites allows circulation areas and exit routes to be illuminated when outlying spaces are occupied.

Installation

Once the ZoneLite has been wired, simply:

- Select your configuration
- Plug-in pre-wired flex7 leads, and connect to luminaires
- Plug-in sensor heads
- Plug-in switch drop leads
- Use Remote Control to make any adjustments to brightness, timeout periods etc.

To channel 4 luminaires
To channel 3 luminaires
To channel 2 luminaires
To channel 1 luminaires

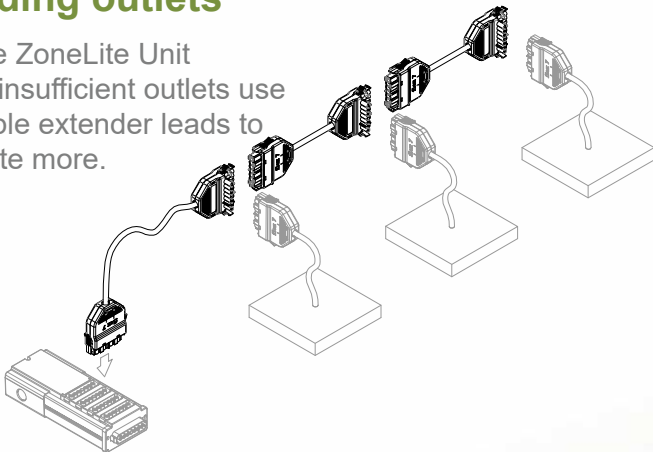


Sensor head

PELV
Switch drop

Adding outlets

If the ZoneLite Unit has insufficient outlets use double extender leads to create more.



(Switch
not included)

Various Simple Fixing Options



Solid Surface



Cable Basket



Trunking



Drop Rods

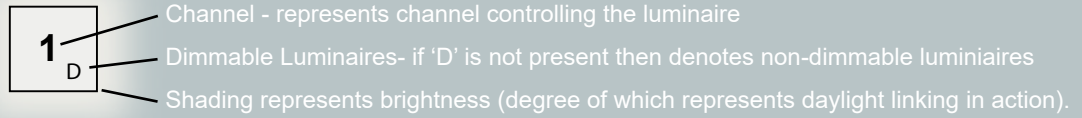


Conduit Box

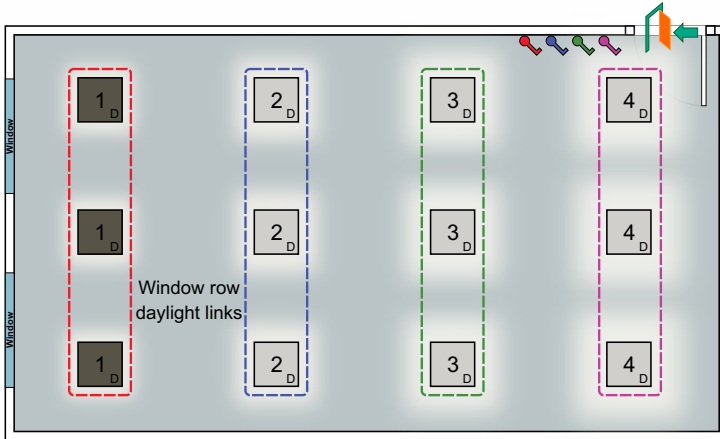
Configuration Options

Note: Many adaptations to each option are possible during setup. Please enquire if you can't find a configuration that exactly matches your specific requirements.

Key:



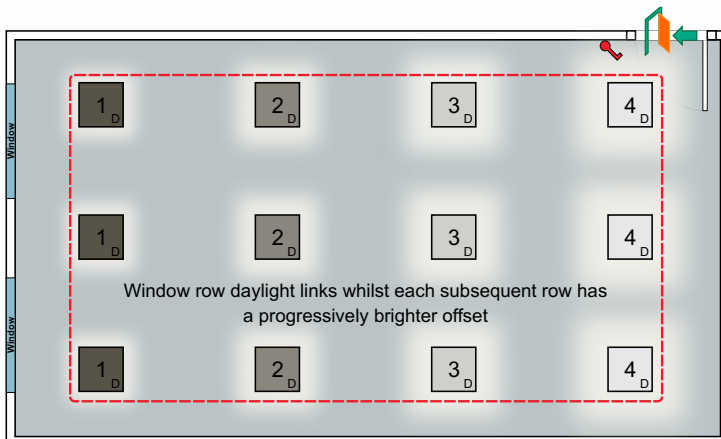
Option 1:



Operation:

- Each switch operates luminaires bound within the same colour dotted line - On, Off or Dim (up/down).
- Daylight linking - The window row will daylight link according to the natural light level detected.
- On vacation of the space any luminaires left on will switch off after an adjustable time-out period (default 20min).

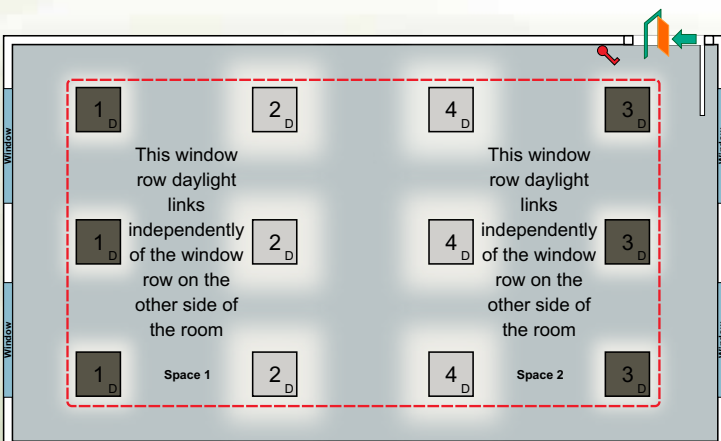
Option 2:



Operation:

- Operates all luminaires bound within red dotted line - On, Off or Dim (up/down).
- 4 stage offset daylight linking - Referencing from the window row, back rows will have a brighter offset (offset value is adjustable).
- On vacation of the space any luminaires left on will switch off after an adjustable time-out period (default 20min).

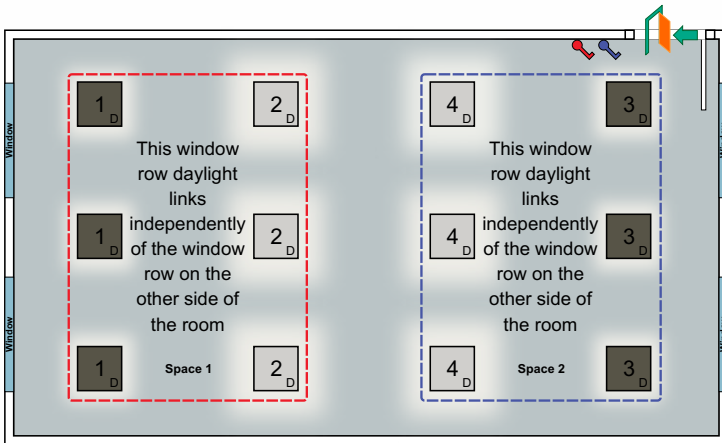
Option 3:



Operation:

- Operates all luminaires bound within red dotted line - On, Off or Dim (up/down).
- 2 stage offset daylight linking - Both window rows daylight link independently of one another whilst their respective inner rows will have brighter offsets.
- On vacation of the space any luminaires left on will switch off after an adjustable time-out period (default 20min).

Option 4:



Operation of space 1:

- Operates all luminaires bound within red dotted line - On, Off or Dim (up/down).

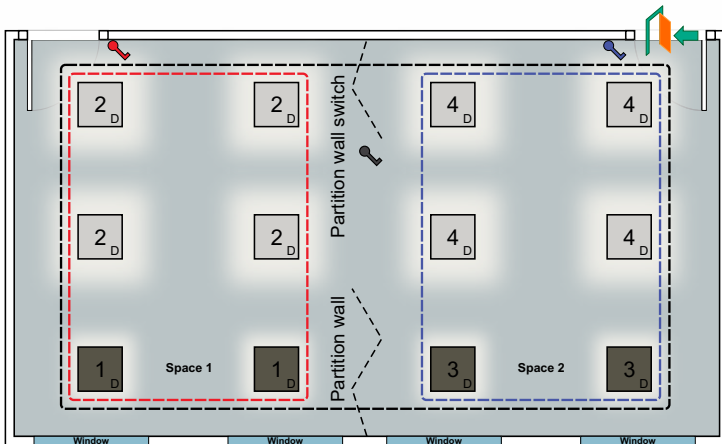
Operation of space 2:

- Operates luminaires bound within blue dotted line - On, Off or Dim (up/down).

All areas:

- On vacation of each space any luminaires left on will switch off after an adjustable time-out period (default 20min).
- 2 stage offset daylight linking - Referencing from the window row, back row will have a brighter offset (offset value is adjustable).

Option 5:



Operation of partitioned space 1:

- Operates all luminaires bound within red dotted line - On, Off or Dim (up/down).

Operation of partitioned space 2:

- Operates luminaires bound within blue dotted line - On, Off or Dim (up/down).

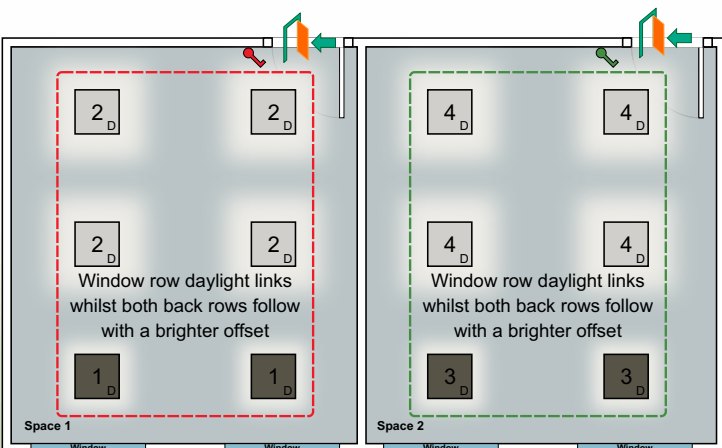
Operation of unpartitioned space 1 & 2:

- or Operates all luminaires bound within BLACK dotted line - On, Off or Dim (up/down).

All areas:

- On vacation of each space any luminaires left on will switch off after an adjustable time-out period (default 20min).
- 2 stage offset daylight linking - Referencing from the window row, back row will have a brighter offset. (offset value is adjustable).
- Switches between partitioned and non-partitioned space

Option 6:



Operation of space 1:

- Operates all luminaires bound within red dotted line - On, Off or Dim (up/down).

Operation of space 2:

- Operates all luminaires bound within green dotted line - On, Off or Dim (up/down).

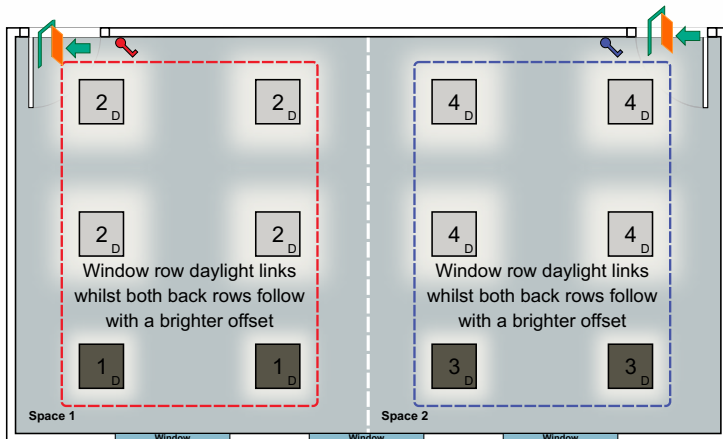
All areas:

- On vacation of each space any luminaires left on will switch off after an adjustable time-out period (default 20min).
- 2 stage offset daylight linking - Referencing from the window row, both back rows will have a brighter offset. (offset value is adjustable).

Configuration Options

Note: Many adaptations to each option are possible during setup. Please enquire if you can't find a configuration that exactly matches your specific requirements.

Option 7:



Operation of Space 1:

- Operates channel 1 and 2 luminaires in this space - Off, On or Dim (Those bound within red dotted line)
- On entry of this space channel 1 and 2 luminaires switch on to maximum.
- On entry of only the adjacent space channel 1 and 2 luminaires switch to minimum (adjustable).
- On exit of this space (after time-out) but not adjacent space, channel 1 and 2 luminaires revert to minimum (adjustable).
- On exit of this space and adjacent space (after time-outs) channel 1 and 2 luminaires switch off.

Operation of Space 2:

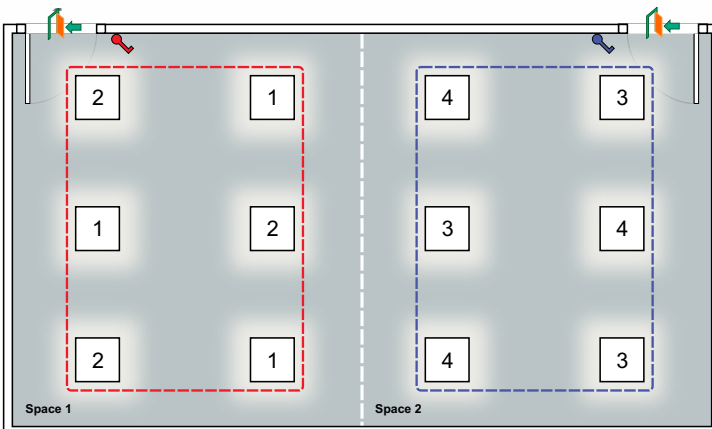
- Operates channel 3 and 4 luminaires in this space - Off, On or Dim (Those bound within blue dotted line)
- On entry of this space channel 3 and 4 luminaires switch on to maximum. On entry of only the adjacent space channel 3 and 4 luminaires switch to minimum (adjustable).
- On exit of this space (after time-out) but not adjacent space, channel 3 and 4 luminaires revert to minimum (adjustable). On exit of this space and adjacent space (after time-outs) channel 3 and 4 luminaires switch off.

All areas:



2 stage offset daylight linking - Provided this space is occupied, the window row daylight links according to the natural light level detected, whilst the back 2 rows will adopt a brighter offset (adjustable).

Option 8:



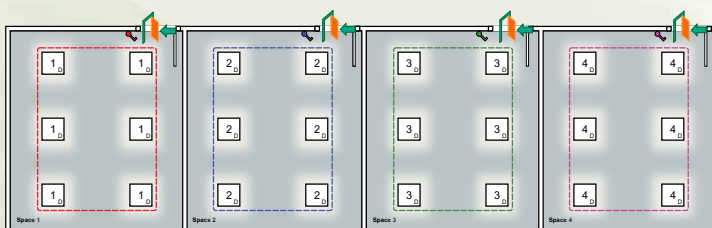
Operation of Space 1:

- Operates channel 1 and 2 luminaires in this space - Off, On (Those bound within red dotted line)
- On entry of this space channel 1 and 2 luminaires switch on. On entry of only the adjacent space channel 1 luminaires switch on.
- On exit of this space (after time-out) but not adjacent space, channel 2 luminaires switch off. On exit of this space and adjacent space (after time-outs) channel 1 and 2 luminaires switch off.

Operation of Space 2:

- Operates channel 3 and 4 luminaires in this space - Off, On (Those bound within blue dotted line)
- On entry of this space channel 3 and 4 luminaires switch on. On entry of only the adjacent space channel 3 luminaires switch on.
- On exit of this space (after time-out) but not adjacent space, channel 4 luminaires switch off. On exit of this space and adjacent space (after time-outs) channel 3 and 4 luminaires switch off.

Option 9:



Operation of Space 1:

- Operates all luminaires bound within red dotted line - On, Off or Dim (up/down).

Operation of Space 2:

- Operates all luminaires bound within blue dotted line - On, Off or Dim (up/down).

Operation of Space 3:

- Operates all luminaires bound within green dotted line - On, Off or Dim (up/down).

Operation of Space 4:

- Operates all luminaires bound within purple dotted line - On, Off or Dim (up/down).

All areas:

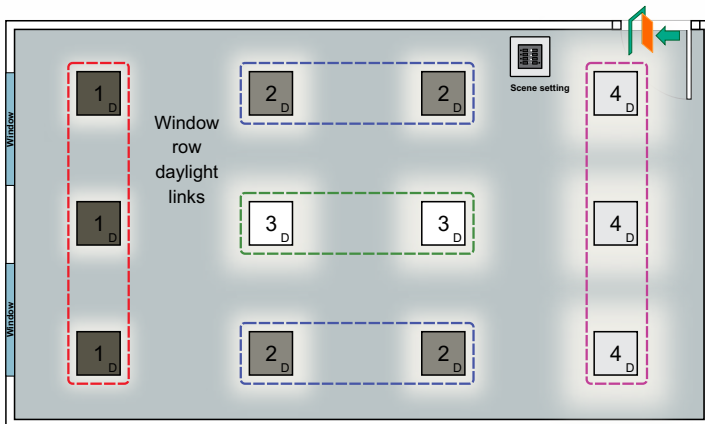


All luminaires in this space daylight link at the same rate.



On vacation of each space any luminaires left on will switch off after an adjustable time-out period (default 20min).

Option A:



Scene Setting

Using the Flex Connectors scene setting panel (not supplied) with configuration 9 provides a scene setting solution that uniquely offers the user two standard modes of operation. Simply toggle between either mode at any time.

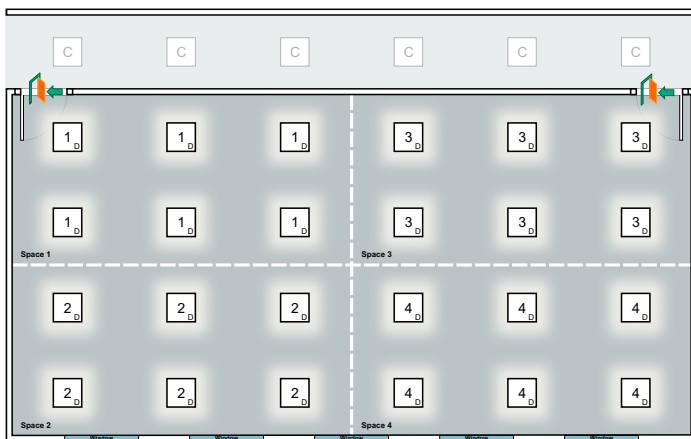


Operates all luminaires - On, Off, Dim (up/down) or recall/set up scenes 1-4 or toggle/dim channels 1-4.



On vacation of the space any luminaires left on will switch off after an adjustable time-out period (default 20min).

Option B:



Operation of Space 2:



On entry of this space all luminaires switch on to maximum.
On entry of any other space all luminaires switch on to minimum.



On exit of this space (after time-out) but not any other space all luminaires revert to minimum (adjustable).
On exit of this space and all the other spaces (after time-outs) all luminaires switch off.



Provided this space is occupied, all luminaires daylight link according to the natural light level detected.

Operation of Space 3:



On entry of this space all luminaires switch on to maximum.
On entry of any other space all luminaires switch on to minimum.



On exit of this space (after time-out) but not any other space all luminaires revert to minimum (adjustable).
On exit of this space and all the other spaces (after time-outs) all luminaires switch off.



As drawn no daylight linking is required but is an available option.

Operation of Space 1:



On entry of this space all luminaires switch on to maximum.
On entry of any other space all luminaires switch on to minimum.



On exit of this space (after time-out) but not any other space all luminaires revert to minimum (adjustable).
On exit of this space and all the other spaces (after time-outs) all luminaires switch off.



As drawn no daylight linking is required but is an available option.

Operation of Space 4:



On entry of this space all luminaires switch on to maximum.
On entry of any other space all luminaires switch on to minimum.



On exit of this space (after time-out) but not any other space all luminaires revert to minimum (adjustable).
On exit of this space and all the other spaces (after time-outs) all luminaires switch off.

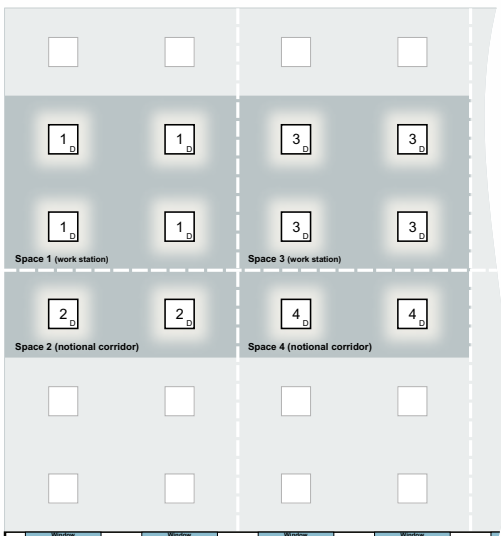


Provided this space is occupied, all luminaires daylight link according to the natural light level detected.




Configuration Options

Note: Many adaptations to each option are possible during setup. Please enquire if you can't find a configuration that exactly matches your specific requirements.



Option C:






Operation of Space 1 - Work station:

-  On entry of this space luminaires switch on to maximum.
-  On exit of this space (after time-out) luminaires switch off.
-  As drawn no daylight linking is required but is an available option.



Operation of Space 2 - Notional corridor:

-  When unoccupied, occupancy in ANY other space switches luminaires to minimum (Set-back illumination).
On specific entry of this notional corridor space the luminaires switch on to maximum.
-  On exit of this notional corridor (after time-out) luminaires revert to set-back illumination.
Only when ALL other spaces are unoccupied will the luminaires switch off (after time-outs).

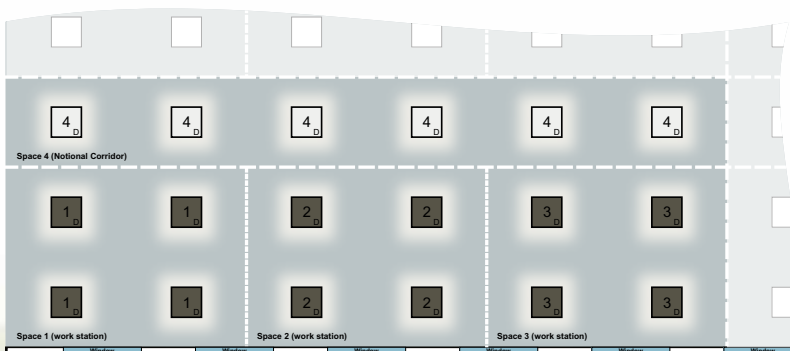
Operation of Space 3 - Work station:

-  On entry of this space luminaires switch on to maximum.
-  On exit of this space (after time-out) luminaires switch off.
-  As drawn no daylight linking is required but is an available option.




Operation of Space 4 - Notional corridor:

-  When unoccupied, occupancy in ANY other space switches luminaires to minimum (Set-back illumination).
On specific entry of this notional corridor space the luminaires switch on to maximum.
-  On exit of this notional corridor (after time-out) luminaires revert to set-back illumination.
Only when ALL other spaces are unoccupied will the luminaires switch off (after time-outs).




Option D:






Operation of Space 1 - Work station:

-  On entry of this space luminaires switch on to maximum.
-  On exit of this space (after time-out) luminaires switch off.
-  Luminaires daylight link according to the natural light level detected.




Operation of Space 2 - Notional corridor:

-  On entry of this space luminaires switch on to maximum.
-  On exit of this space (after time-out) luminaires switch off.
-  Luminaires daylight link according to the natural light level detected.

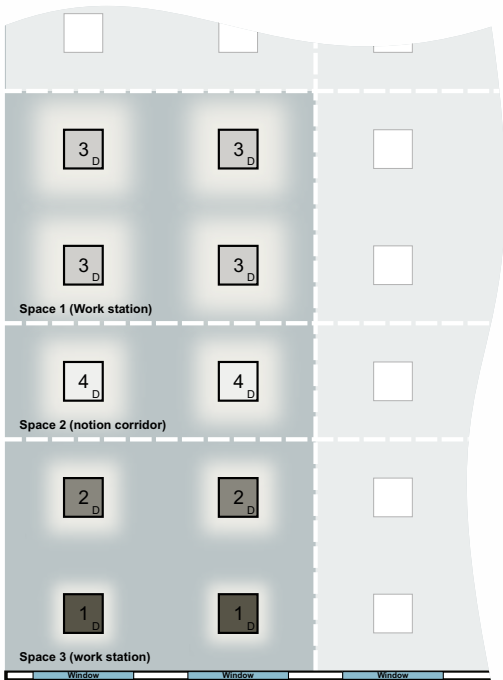
Operation of Space 3 - Work station:

-  On entry of this space luminaires switch on to maximum.
-  On exit of this space (after time-out) luminaires switch off.
-  Luminaires daylight link according to the natural light level detected.

Operation of Space 4 - Notional corridor:

-  On entry of this or ANY other space all luminaires switch on.
-  On exit of this and all other spaces (after time-outs) luminaires switch off.
-  As drawn no daylight linking is required but is an available option.

Option E:



Operation of Space 1 - work station (default):



On entry of this space luminaires switch on to maximum.



On exit of this space (after time-out) luminaires switch off.



As drawn no daylight linking is required but is an available option.

Operation of Space 2 - notion corridor (default):



On entry of this or ANY other space all luminaires switch on.



On exit of this and all other spaces (after time-outs) luminaires switch off.



As drawn no daylight linking is required but is an available option.

Operation of Space 3 - work station (default):



On entry of this space luminaires switch on to maximum.



On exit of this space (after time-out) luminaires switch off.



2 stage daylight linking - The window row daylight links whilst the back row adopts a brighter offset (adjustable).

Option F:

IMPORTANT: Configuration F is usually reserved for customised user specific configurations. On some occasions, when not required for this purpose a default configuration may be installed instead.

ZoneLite Occupancy Sensor Heads

The PIR (passive infra-red) detector senses movement of warm bodies against a cooler background. The detection pattern is broadly rectangular at 7.4m x 5.6m when fixed at a ceiling height of 2.5m (longest length of detection aligning with the spring clips).



Occupancy Sensor Head



fzh/pir (Master Head)

The standard offering for straightforward occupancy sensing. Inbuilt infra-red receiver accepts commands from the ZoneLite hand held Remote Controls whilst an LED provides indication of operation. Requires a flex7 ZoneLite and Link Lead to operate.

Occupancy Sensor Head with light level sensing



fzh/pir/lx (Master Head)

All the features of the fzh/pir but with the addition of a light cell for accurate lux readings under the head.

Slave Occupancy Sensor Head



fzh/pir/sl (Slave Head)

Up to 5 Slave Heads can plug-in in parallel with an existing Master Sensor Head (either of the above), increasing the detection range up to 6 fold. Each Slave Head comes with a 'Y' adaptor to facilitate parallel connecting.

Note: Slave Sensor Heads automatically adopt the same timeout that has been set on the existing Master Head they connect to.

Light level sensing Head



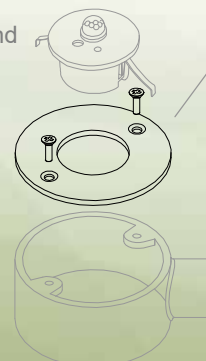
fzh/lx (Light Sensing Head)

Optional light sensing head for use alongside fzh/pir/lx to average out Lux readings over greater areas.

fzh/pir, fzh/pir/lx, fzh/pir/sl and fzh/lx (ordered separately).

Includes 2 x fixing screws

Conduit box not supplied



Adaptor Plate

Enables either of fzh/pir, fzh/pir/lx, fzh/pir/sl and fzh/lx heads to be surface mounted.



fnh/adapt

Scene Setting Panel

The flex7 scene setting panel provides an advanced level of control for your lighting layout.

- Fits all standard 50mm x 50mm euro module front plates.
- Fast, easy and simple installation with 1 RJ plug connection, plus the whole scene panel module snaps into location.
- Recalls up to 4 different scenes.
- Set up/modify existing scenes directly from the front panel.
- Protect previously set up scenes with the inbuilt pin number.
- Available in black or white to suit your décor.
- Simple intuitive user operation.



Our scene setting panel has been designed to complement the flex7 ZoneLite. The panel allows you to select 4 scenes from those available with a flex7 ZoneLite, and instantly recall them with the simple press of a button. If needed, scenes can be further adjusted by dimming up/down individual channels, to create a tailor made lighting scene.



Simple installation with one RJ plug.



Available in black and white.



Recalls up to 4 different scenes.



Interfaces with the flex7 ZoneLite.

ZoneLite Remote Controls

Two types of infra-red remote controls are available:

A Setup Remote - to setup and optimize the sensor at or after installation and

A User Remote - to offer the end user an additional level of control



ZoneLite Setup Remote Control



Sensor heads come factory set with a timeout of 20 minutes but for other timeouts, setting the light level, or setting up for other operational modes a Setup Remote control will be required.

The ZoneLite Setup Remote Control allows the following parameters to be adjusted (depending on configuration):

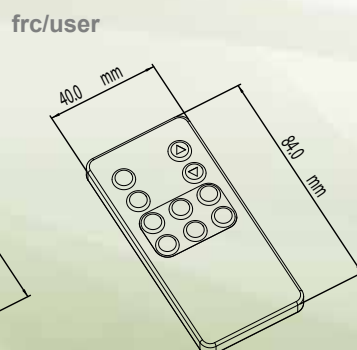
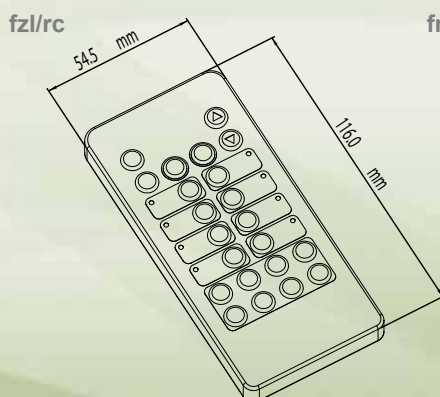
1. Dimming control (manual/daylight dimming and daylight dependency).
2. Detection type (absence/presence).
3. Sensitivity setting.
4. Timeout setting (default 20 mins).
5. Dimming load type (DSI or DALI).
6. Offset dimming illumination levels.
7. Config. setting.
8. Set back illumination levels.

User Remote Control



Providing additional control for the end user it comes complete with its own holster with self adhesive pads ready for immediate attachment to wall, desk, computer etc.

Can be used on any master sensor head to operate the lights on or off but is particularly suited to configurations controlling dimmable luminaires to provide dim up/down as well as the ability to store and recall up to 6 discreet light levels.



Ordering Details

Ordering from the flex7 ZoneLite Range

ZoneLite Lighting Control Units Type G (for general office environments)



4-Way, 4 Channel, Type G
16-Way, 4 Channel, Type G
20-Way, 4 Channel, Type G

fzl04g1111
fzl16g4354
fzl20g5465

Note: the last 4 numbers of the part number represent the number of outlets per channel. For example an fzl16g4354 has 4 outlets for ch1, 3 for ch2, 5 for ch3 & 4 for ch4 (alternative splits may be available on enquiry).

ZoneLite Sensor Heads



Master occupancy head
Master occupancy head + light sensing
Slave occupancy head
Light sensing head

fzh/pir
fzh/pir/ls
fzh/pir/sl
fzh/ls

Use slave heads to increase the range of any master occupancy head up to 6 fold (5 max. can be connected in parallel to any Master). Each slave head comes complete with a 'Y' adaptor to facilitate parallel connecting.

ZoneLite Remote Controls



Setup Remote Control
User Remote Control

fzl/rc
frc/user

Note: At least one Setup Remote Control will be required for setting up your ZoneLite/s

ZoneLite Remote Controls Scene Setting Panel Part Numbers



flex7 Scene Setting Panel, Four Scenes, Module Only, White
flex7 Scene Setting Panel, Four Scenes, Module Only, Black
flex7 Scene Setting Panel, Four Scenes, Kit, White, White Plastic Frame
flex7 Scene Setting Panel, Four Scenes, Kit, Black, Satin Steel Frame

FSS04/M/W
FSS04/M/B
FSS04/K/W/WP
FSS04/K/B/SS

Ordering flex7 Leads & Adaptors

05	5 metres
10	10 metres
15	15 metres
20	20 metres
30	30 metres
40	40 metres
50	50 metres

leave blank for pvc
or add **/lshf** for low
smoke halogen free
cable

leave blank or add **/bl** for
link leads in blue.

Note: All leads and adaptors
operate at PELV (Protected
extra low voltage)



Link lead (4-core) **fsl** (Grey cable) Use to link sensor leads to the ZoneLite or sensor to sensor (Master to Slave)

Switch drop lead (4-core) **fsw** (Blue cable) Use to connect wall switches to the ZoneLite to provide local switch control

Global switch drop lead (6-core) **fnw** (White cable) Use to connect wall switches to the ZoneLite to provide global switch control.

Network lead (6-core) **fnl** (White cable) Use to link between ZoneLites to provide common control from a Global Switch Input, or to connect a series of ZoneLites via a Corridor Hold Unit to hold escape routes illuminated.



'Y' adaptors (4-core) **fsy/a** For two connections into one - for use with 4-core Link leads or Switch drop leads only.



Network 'Y' adaptors (6-core) **fny/a** For two connections into one - for use with 6-core Network leads or Global switch drop leads only.

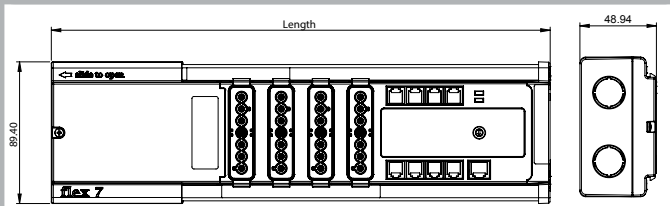
Ordering flex7 Luminaire Connections



For all Pre-wired Luminaire Leads, Plugs, Double Extender Leads and any other parts not shown here, please refer to our main flex7 catalogue.

Technical

ZoneLite Units



ZoneLite unit length

4 way outlet:	315mm
16 way outlet:	615mm
20 way outlet:	715mm

All measurements are in millimetres

Rating

Nominal 230V~ 16A, 50Hz, Class 1
 Manufactured in black PA6 UL94 V-0 rated, PC/ABS, and Anodised Aluminium.
 7 contacts per outlet each rated at 16 amps, using the flex7 outlet format.
 Total system rating: 16A.
 Operating range: -10°C to 40°C
 IP20
 Incoming terminals accept 3 x 2.50mm², 2 x 4.00mm² or 1 x 6.00mm² conductors.

Load (per channel)

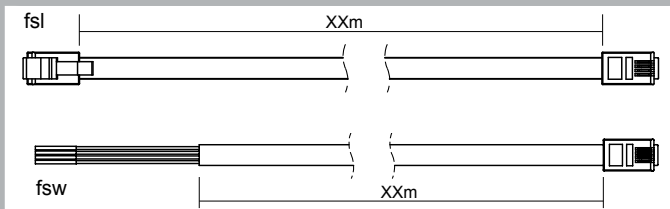
Fluorescent & incandescent lighting	: 6A
Compact fluorescent lighting	: 3A

Maximum number of ballasts (per channel):

DSI Digital control	: 25
DALI Digital control	: 25

Compliance: LVD-2006/95/EC & EMC-2004/108/EC

flex7 Sensor Link & Switch Drop Leads



Lengths

Comes in lengths up to 50 metres, refer to price list.

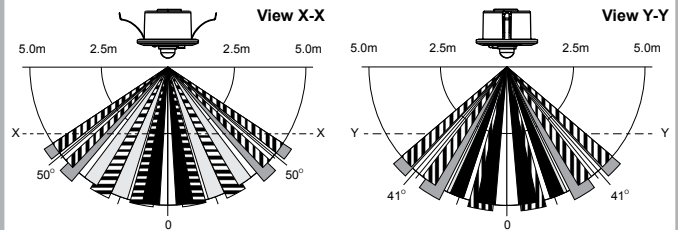
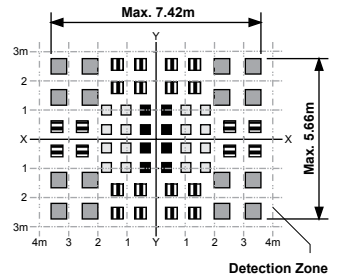
Specification

Connectors:	4P4C modular jack, RJ11 style
Conductor:	Stranded Copper (PVC variant) Stranded Tinned Copper (LSHF variant) 28 a.w.g.
Insulation:	PP (PVC variant) PE (LSHF variant)
Jacket:	PVC (PVC variant) PE (LSHF variant)
Standard	IEC 332-1 (PVC variant) UL1581 (LSHF variant)
Insulation DC Resistance @ 20°C:	> 500MΩ
Conductor DC Resistance @ 20°C:	< 17.01Ω/100M
Rated Temperature:	70°C
Rated Voltage:	500V

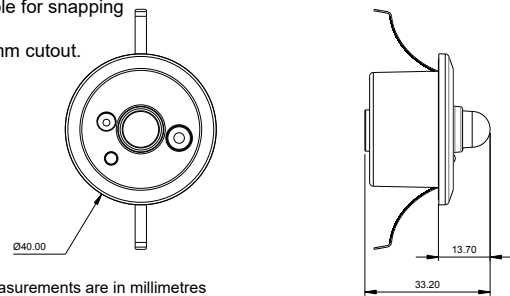
flex7 ZoneLite Occupancy Sensor Heads

Detection Zone

64 discrete detection zones are acquired by the PIR detector. An object with a higher than background temperature will be detected if it moves between any two zones.



Suitable for snapping into a Ø 32mm cutout.

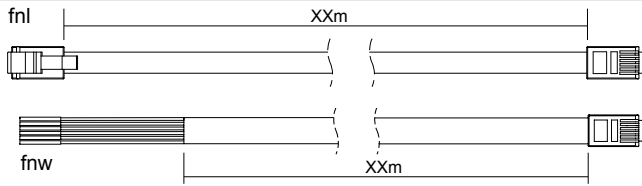


All measurements are in millimetres

Rating

Supply Voltage: 12V DC
 Manufactured in white & red PA6 UL94 V-0 rated, Non-halogen
 Compliance: LVD-2006/95/EC & EMC-2004/108/EC
 Operating range: -10°C to 40°C
 Sensor Range: 7.42m x 5.66m at 2.5m height

flex7 Networking Leads



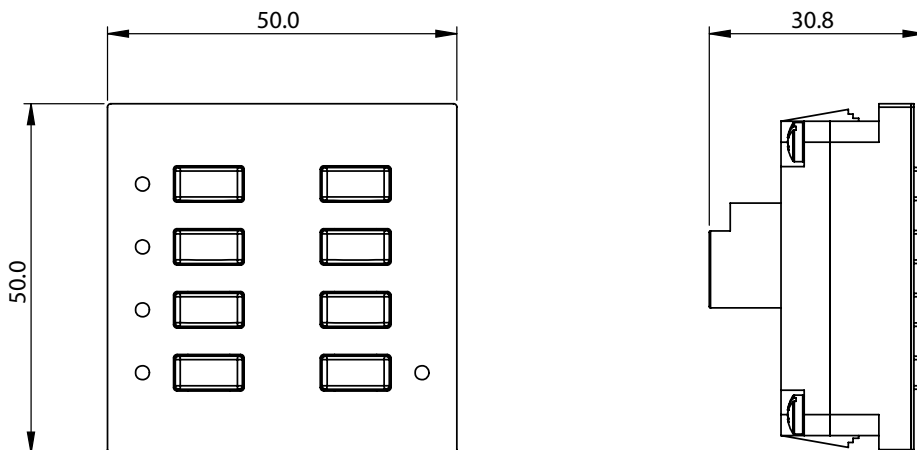
Lengths

Comes in lengths up to 50 metres, refer to price list.

Specification

Connectors:	6P4C modular jack, RJ12 style
Conductor:	Stranded Copper (PVC variant) Stranded Tinned Copper (LSHF variant) 28 a.w.g.
Insulation:	PVC (PVC variant) PE (LSHF variant)
Jacket:	PVC (PVC variant) PE (LSHF variant)
Standard:	IEC 332-1 (PVC variant) UL1581 (LSHF variant)
Insulation DC Resistance @ 20°C:	> 500MΩ
Conductor DC Resistance @ 20°C:	< 17.01Ω/100M
Rated Temperature:	70°C
Rated Voltage:	500V

Scene Setting Panel Dimensions



Scene Setting Panel Technical Specification

Input Supply: 12v DC

IP Rating: IP20

Manufactured in Black or White PVC

flex7 ZoneLite Type-T also available.

A lighting connection & control solution in one, that comes preprogrammed with up to 15 distinct lighting configurations common to teaching and educational environments.

Offering a prefabricated alternative to traditional wiring, the ZoneLite Type T is designed for use in educational environments. It provides options for absence/presence/daylight linking/graduated daylight dimming lighting control, independent switching of whiteboard or projector lights, emergency test, corridor hold, last man out switch and scene setting.

Control up to 4 lighting channels

Available with 4, 16 or 20 outlets

15 preconfigured lighting layout options



Contact us:

You can order a ZoneLite Type-T Catalogue by ringing 020 8580 1066.

If you have any questions at all then please give us a ring / send us an email / visit the website.

www.flexconnectors.co.uk
info@flexconnectors.co.uk
Tel: +44 (0)20 8580 1066

Other products in the flex7 lighting connection and control range:

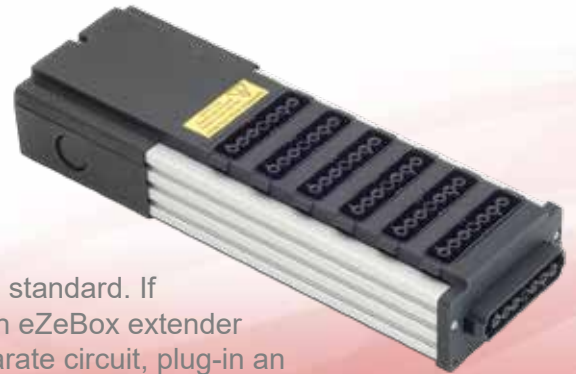


The flex7 System is fully modular, and products simply plug-together. This results in huge reductions in installation time on site, and reduced requirements for skilled labour. The product range is split into three sections - Power up, Light up, and Control.

Power up..

Provide power to your lighting circuit using flex7 eZeBoxes, Single Socket Outlets or Hub Units.

eZeBoxes come in 2, 4, 6, 8, 10 and 12-ways and are 7-pole as standard. If you need to extend your circuit to add luminaires, simply plug an eZeBox extender unit into your starter unit. Alternatively, if you want to add a separate circuit, plug-in an eZeBox Tap-off Unit.



Light up..

Connect your luminaires to the power supply using our extensive range of pre-wired luminaire leads. These can simply be plugged into any eZeBox



and Control

We have a huge range of lighting controls available - all of which can simply be plugged into any eZeBox. We offer occupancy/presence, absence, daylight linking, daylight dependency, manual dimming/switching and remote control. All controls operate at protected extra low voltage.



