

## Emergency lighting

Increased affordance technology for self-contained luminaires



Faster and safer evacuations with  
better recognition of escape routes

**EATON**

*Powering Business Worldwide*



## WorkSafe Protect people and property

Risk management for commercial buildings is evolving rapidly. Facing a growing diversity of threats in an urbanised and complex environment, the owners and managers of buildings are re-evaluating the way they protect people, property and business continuity. It is not only a legal obligation but a moral, financial and reputational imperative. In emergencies involving fire, terrorism and civil unrest, it is essential that hazards can be detected, occupants alerted and evacuations expedited. The safe and timely completion of this process is dependent on planning, equipment, training and infrastructure. Special consideration must be given to situations in which occupants are unfamiliar with layout and procedures, and particularly if they are in large, densely populated, high-risk or complex premises such as railway stations, shopping centres, airports, stadia, government buildings or leisure facilities.

Building upon decades of expertise in the delivery of life safety systems, and particularly emergency lighting technologies, Eaton's solutions enable faster, safer and more agile evacuations.



## Increased affordance

The evacuation of commercial buildings can be inhibited by people's failure to recognise standard emergency exit signs.

To improve the visibility of signs, Eaton has introduced an Increased Affordance capability to its emergency lighting range, which enables exit signs to flash or pulse when activated manually or through automated connection to other evacuation triggers.

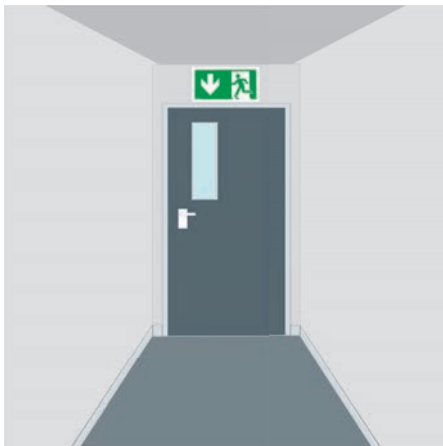


## Unmissable exit signs...



## ... thanks to Increased affordance

Increased Affordance function (IA) available on CGLine+ versions, makes exit signs more recognizable when evacuation is needed, even in a very brightly lit environment.



In mains operation, **uniform illumination** of the pictograms facilitates the identification of emergency exits.



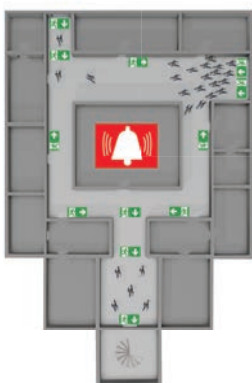
An evacuation order (fire, danger or climatic risk) triggers the **Increased Affordance** function which enables better recognition of the escape route through blinking or pulsing.



In case of power failure, the pictograms are perfectly legible **without risk of glare** for users.

## ... for safer evacuation

### Without IA

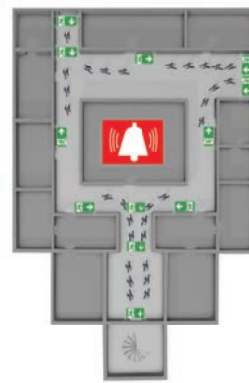


Risk of congestion at entry points of the building.



Difficult for those with impaired hearing who may not hear any accompanying vocal instructions.

### With IA



The animation of the safety pictograms (blinking) facilitates the identification of ALL available escape routes and exits.

# Increased affordance portfolio

The Increased Affordance functionality has been added to selected emergency luminaires within Eaton's lighting range, including CrystalWay, FlexiTech, Nexitech and the adaptive evacuation (AE) Matrix CGLine+ luminaire.

This fully programmable function can be activated manually or automated to respond to a preset trigger such as a fire alarm, panic button or other system. Eaton's Increased Affordance solution has been developed and tested by an engineering team with decades of expertise in emergency lighting.



CrystalWay IA



Matrix CGLine+



NexiTech IA



FlexiTech ED



CGLine+ Web-Controller



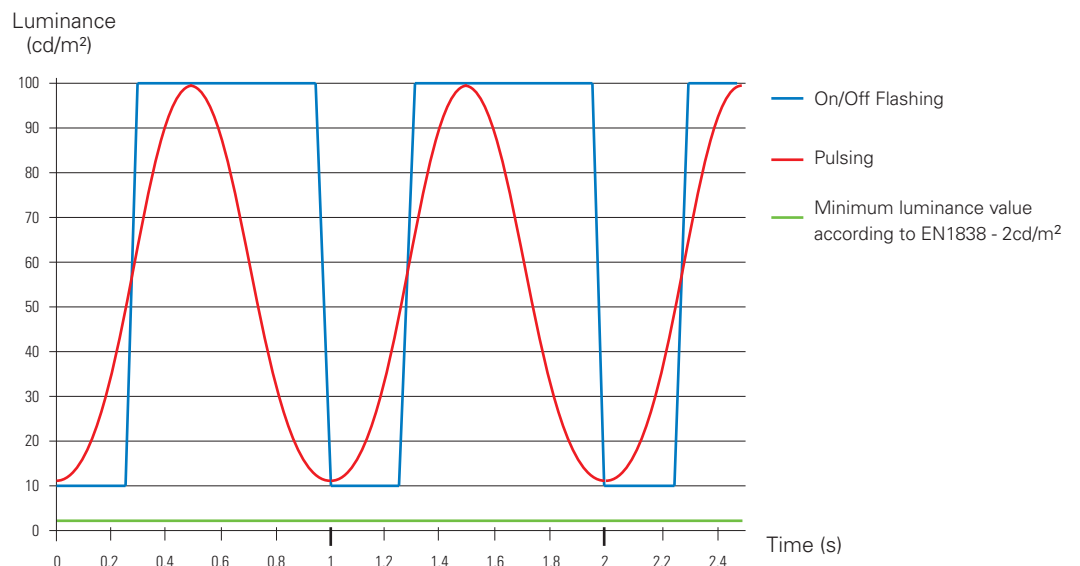
CGLine+ Touchscreen Web-Controller



TL CGLine+

When connected to Eaton's monitoring and control system for emergency lighting, CGLine+, the exit sign luminaires are able to provide either soft pulsing or on-and-off flashing. In their normal mode, the luminaires offer excellent visibility thanks to a high level of contrast that exceeds the minimum requirement in most countries. When activated, Increased Affordance enables even better recognition by flashing or pulsing but never dipping below the minimum level of luminescence that is established in industry standards, thus achieving full compliance. The IA function can be started either in normal maintained mode or in emergency lighting mode because an evacuation is not necessarily linked to a mains failure. The IA function will remain activated for 30 minutes (typical evacuation times are lower) before the luminaire switches back to normal operation.

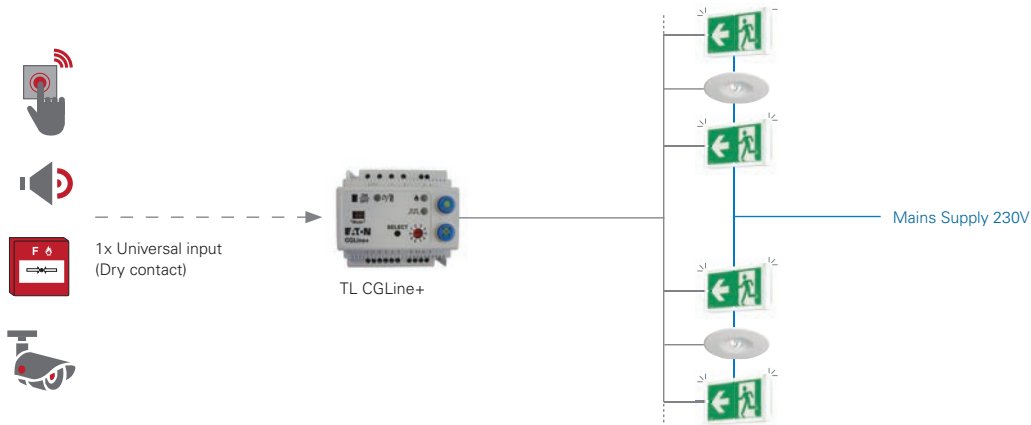
## Luminance in the green zone of an IA luminaire (flashing or pulsing) compared with the minimum luminance in battery mode defined by EN1838:



# Increased affordance system configurations

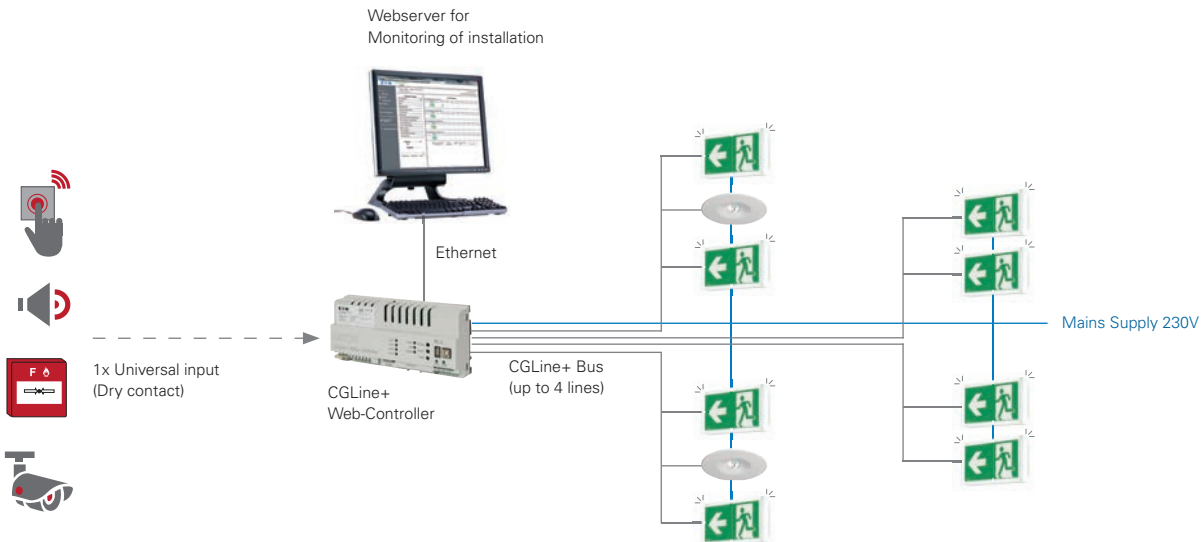
## Basic configuration with TL CGLine+

- One input signal will activate blinking of all luminaires connected to a line



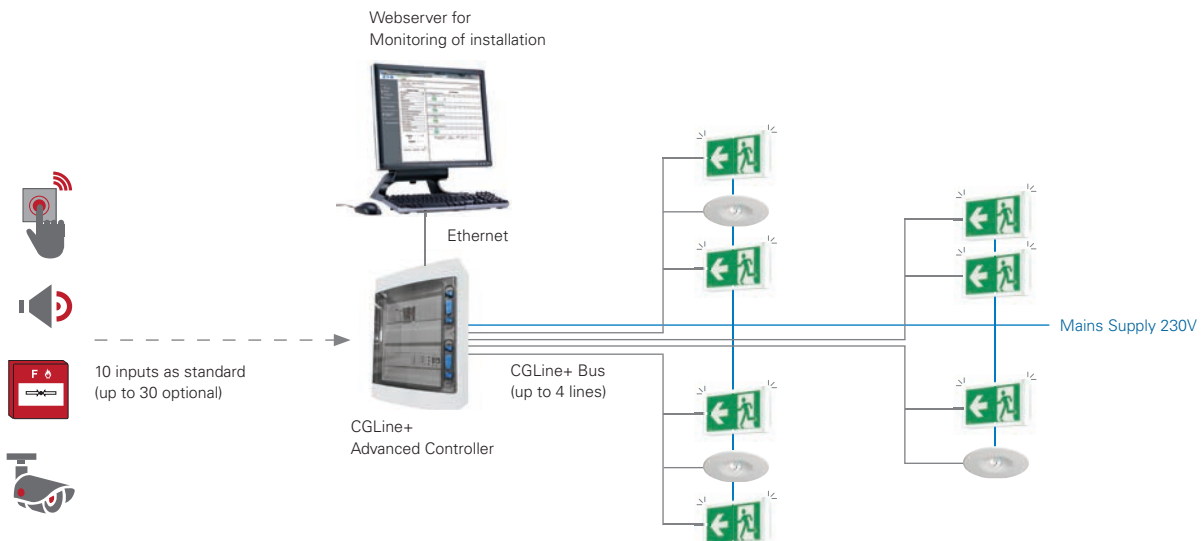
## Basic configuration with Controller

- One input signal will activate blinking of all luminaires connected to a line
- Select activation of all lines or single lines
- One controller for both: Standard CGLine+ and IA luminaires can be controlled via the same controller



## Advanced configuration

- Scenarios will be activated via inputs (switch contacts)
- The programming will be via the PC Software
- Every single luminaire can be assigned to IA scenarios
- One controller for both: Standard CGLine+ and IA luminaires can be controlled via the same controller



# Increased affordance luminaires



## CrystalWay CGLine+

- All in one solution for wall and ceiling mounting with 4 pictograms supplied
- Best in class exit sign luminaire with frameless design
- High uniformity pictogram integrated in acrylic glass and third party ENEC certification
- Wall, ceiling and suspension application
- Unobtrusiveness , thin & slim electronic base (Height: only 22mm)
- 20m and 30m viewing distance, selectable duration in emergency mode 1h, 3h, 5h, 8h
- Brightness selectable in mains operation (eg. standard: 500 Cd/m<sup>2</sup> or theater: 50 Cd/m<sup>2</sup>)
- Compatible with the advanced emergency lighting monitoring system CGLine+ WebController

## Ordering details

Order N°	Product
LUM17122	CrystalWay 20m CGLine+
LUM17124	CrystalWay 30m CGLine+

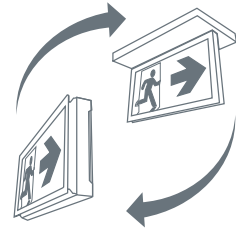
## Accessories

Order N°	CrystalWay 20m	CrystalWay 30m	Product
40071352379		40071352379	Magnet for manual test and configuration
LUM10560		LUM10560	Wire suspension kit
LUM10561		LUM10562	Recessed base
LUM10563		LUM10564	Recessed base with cover
LUM10563S		LUM10564S	Recessed base with cover for suspension kit
LUM10565		LUM10566	Recessed box for concrete
LUM10567			Base for optional cable access
40071708300		40071708287	Stainless steel metal cover

# Increased affordance luminaires

## FlexiTech ED CGLine+

- All in one solution for wall and ceiling mounting and 4 pictograms supplied
- Smart exit sign luminaire with fast conversion from wall to ceiling in few and simple steps
- High uniformity signalization and third party ENEC certification
- Latest LiFePO4 battery technology with 10 years lifespan
- 34mm slim housing with bi-material molded transparent base
- 20m viewing distance, selectable duration in emergency mode 1h, 2h, 3h, 8h
- Brightness selectable in mains operation (eg. standard: 500 Cd/m<sup>2</sup> or theater: 50 Cd/m<sup>2</sup>)
- Compatible with the advanced emergency lighting monitoring system CGLine+ WebController



## Ordering details

Order N°	Product
FT2ED4ICGL18	FlexiTech Exit Dual CGL+

## Accessories

Order N°	Product
FT2-RKC	Recess Kit for Ceiling
FT2-WG	Wire Guard, compatible with FlexiTech SE and FlexiTech ED
40071352379	Magnet for manual test and configuration
FT2ED-4I	Set of 4 pictos for FlexiTech ED, 20m (D, L, R, U), ISO format



# Increased affordance luminaires



## NexiTech IA CGLine+

- Exit sign luminaire for wall application available with IP40 and IP65 housing
- Simple and robust construction with fast servicing design
- High uniformity signalization and third party ENEC certification
- Glue-free and bubble-free pictograms for an easy positioning
- Multiple 20mm tube entries for light industrial application
- 20m viewing distance, available with 1h or 3h duration
- Brightness selectable in mains operation (eg. standard: 500 Cd/m<sup>2</sup> or theater: 50 Cd/m<sup>2</sup>)
- Compatible with the advanced emergency lighting monitoring system CGLine+ WebController

## Ordering details

Order N°	Product
NEXI1HIA-CGL	NexiTech LED 1h IA CGLine+ IP40
NEXI3HIA-CGL	NexiTech LED 3h IA CGLine+ IP40
NEXI1HIACGLIP	NexiTech LED 1h IA CGLine+ IP65
NEXI3HIACGLIP	NexiTech LED 3h IA CGLine+ IP65

*Pictograms not included*

## Ordering details - Accessories

Order N°	Product
NEXI-PICTO-D	Pictogram Down ISO7010 single-side 20m
NEXI-PICTO-L	Pictogram Left ISO7010 single-side 20m
NEXI-PICTO-R	Pictogram Right ISO7010 single-side 20m
NEXI-PICTO-U	Pictogram Up ISO7010 single-side 20m
NEXI-RB	Bricks wall recessed base (cut-out 277x100mm)
NEXI-FC	False ceiling adapter (cut-out 272x95mm)
NEXI-FR	Finishing frame NexiTech LED



# Increased affordance luminaires

## Matrix 20m CGLine+

- Exit sign luminaire with Matrix technology for changeable signalization
- 4 user selectable arrow direction plus red cross to block unsecure exit path
- High uniformity signalization, fully comply with EN1838 and ISO7010, third party ENEC certification
- Possibility to set steady, moving or blinking arrows
- Robust design available IP43 and IP65, single side wall application
- 20m viewing distance, 1h and 3h selectable duration in emergency mode
- Depending on an event, the luminaire can redirect people to a safe exit route or keep them in a safe area.
- Designed to operate as stand-alone luminaire with external potential free contacts or within the Adaptive Evacuation system AE-CGLine+

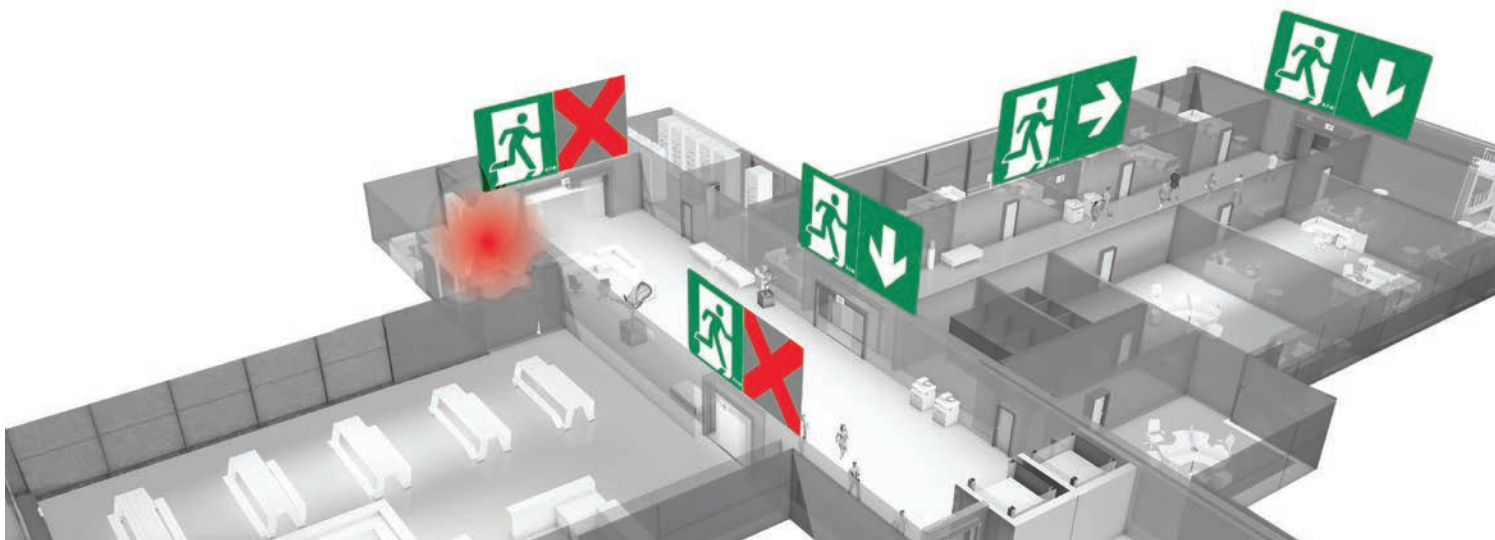


## Ordering details






Order N°	Product
40071777002	Matrix 1-3h CGLine+ IP42
40071777003	Matrix 1-3h CGLine+ IP65

## Accessories

Order N°	Product
40071777024	Single side ceiling adapter for Matrix
40071777025	Double side ceiling adapter with canopy for Matrix



# Increased affordance activation devices

		Local interface	Connected interface	Number of luminaires (max)	Number of lines (max)	Automatic functional and duration test	Blocking function
	Order code	Interface		Luminaires management			
<p><b>TL CGLine+</b> Electronic control box for 400 CGLine+ self-contained luminaires</p> 	LUM10319	LED Status		400			●
<p><b>CGLine+ Web Controller</b> with integrated webserver , for DIN rail mounting</p> 	40071361055	LED Status	Web server	800	4	●	●
<p><b>CGLine+ Web Compact Controller</b> Wall mounted controller with LCD screen and keypad</p> 	CTR160CGL2KS	Keypad / LCD Display	Web server	160	2	●	●
<p><b>CGLine+ Web Touchscreen Controller</b> Web-based visualisation via integrated web-browser of any no. of networked CGL+ Web Touchscreen Controller or CGLine+ Web Controller. A networked CGVision PC allows a full configuration and monitoring of up to 32 CGLine+ Controllers.</p> 	40071361056	10.1" Touchscreen Display	Web server	800	4	●	●
<p><b>Advanced AE/IA CGLine+ System, 10 inputs (without power back-up)</b> Input module for 10 trigger inputs, wall mount housing (plastic), for AE systems with an existing secured mains supply on site and for advanced IA system</p> 	40071777994	LED Status	Web server	800	4	●	●

Cybersecurity tested and approved	Ethernet connection	Integrated Web server	Email notification service	IA - Increased Affordance	USB Port for logbook download	
General features						Best use
				●		<p>The TL CGLine+ is connected to all luminaires via 2 simple wires. It allows to start manual test, activate/release Increased Affordance function and activate/release rest-mode on the whole installation.</p>
●	●	●	●	●	●	<p>Suitable for all type of projects, must be installed inside electrical cabinet/enclosures with DIN rail.</p> <p>CGLine+ PC Software required for configuration.</p> <p>Web browser required for system interation.</p> <p>Internet connection required for remote visualization and email notification service.</p>
●	●	●	●	●	●	<p>Small / Medium projects with less than 160 luminaires.</p> <p>No TCP/IP connection required for stand alone application.</p> <p>Internet connection required for remote visualization and email notification service.</p> <p>Easy keypad/display user interface.</p>
●	●	●	●	●	●	<p>Suitable for all type of projects as stand alone or remote visualization, wall mounted installation.</p> <p>No TCP/IP connection required for stand alone application.</p> <p>Internet connection required for remote visualization and email notification service.</p>
●	●	●	●	●	●	<p>The Advanced AE/IA CGLine+ is designed for big and complex installations, it can monitor up to 800 luminaries with automatic test, activate Increased Affordance function and Adaptive exit sign like Matrix CGLine+.</p> <p>Up to 10 input triggers can be connected to 10 different scenarios to enable safe and fast building evacuations</p>

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