CROUSE-HINDS SERIES

CEAG ExLin

LED linear fixtures for hazardous areas











Introducing CEAG ExLin

A linear LED engineered for use in Zone 1 and 21 hazardous areas.

CEAG ExLin delivers longer life, improved efficiency and superior performance with a competitive payback vs. fluorescent fixtures.



The following CEAG ExLin models will replace 2x18W, 2x36W and 2x58W fluorescent fixtures, as well as low bay fixtures up to 150W HID

Model	Typical lumens with clear glass lens	Wattage	Lumens per watt	Equivalent fluorescent luminaire	Typical energy savings / lifetime
ExLin 3L-1	2,750	22 W	125	2 x 18 W	> 40%
ExLin 5L-1	5,300	44 W	120	2 x 36 W	> 40%
ExLin 5L-2	5,480	44 W	125	2 x 36 W	> 40%
ExLin 7L-2	8,120	67 W	121	2 x 58 W	> 40%
ExLin 10-2	10,600	89W	120	> 2 x 58W	> 40%

Applications:

- · Designed to provide general illumination where moisture, dust, corrosion, and extreme temperature exist
- Areas requiring frequent on-and-off of lights
- Oil and gas refineries, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting, and where flammable vapors and gases are present.

Why CEAG ExLin LED?

Safe, reliable, efficient. CEAG ExLin fixtures combine state-of-the-art LED technology with optimised thermal management and a time-tested enclosure to extend service life in extreme environments.



Superior performance and efficiency

- Replaces 2x18W, 2x36W and 2x58W fluorescent fixtures, as well as low bay fixtures up to 150W HID
- Rated life of 100,000 hours at 25°C based on L90C5 provides long term, low-maintenance operation
- Up to 120 LM/W provides up to 40% energy efficiency compared to traditional fluorescent fixtures
- Operating temperature from -40°C to up to +55°C

Optimised light distribution with optics and lens options

- Standard, narrow and wide beam optics optimise light distribution, providing light where the customer needs it with the potential to reduce the number of fixtures required
- Clear or diffused (frosted) lens available in glass provides application flexibility
- Optional laminated glass lens with extended plastic foil prevents glass from falling - ideal for safe use in critical processes in food and beverage, chemical and pharmaceutical applications

Low profile and lightweight design with drop in mounting compatibility to CEAG eLLK fluorescent

- Decreases footprint in confined applications and reduces installation effort
- Same fixing point as eLLK 2x18W fixtures and a mounting kit available allowing for easy replacement of 2x36W and 2x58W without changing cables

Emergency lighting function with central battery system

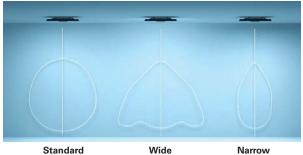
- Available with V-CG-S functionality. Safe and reliable lighting via Eaton's central battery system.
- Each fixture can be set to 25%, 50% or 100% light output in emergency lighting mode. This allows for optimization of the battery capacity to provide a long duration of emergency lighting.

Designed for reliability in the most demanding environments

- Passed dynamic vibration test acc. EN60068-2-6
- Passed windload test up to 316km/h acc. EN60598-2-3
- Fixture design optimised to avoid water condensation inside the fitting

State-of-the-art LED technology coupled with a long history of hazardous area lighting design expertise

- LED light strings operate independently. Should one string fail, all other strings will continue to work, avoiding complete loss of illumination
- Enclosure material is time-tested and field-proven for durability in harsh and hazardous applications globally
- Optimised thermal management for extending service life in extreme environments







CEAG ExLin technical specifications:

Certifications and compliances:

IECEx / ATEX Standards:

EC-Type Examination Certificate

BVS 18 ATEX E 037 X

IECEx-Certification of conformity

• IECEx BVS 18.0028X

Marking accd. to 2014/34/EU

- Ex II 2G Ex eb ib op is q IIC T4/T5 Gb
- Ex II 2D Ex tb op is IIIC T80/110°C Db

Marking accd. to IECEx

- Ex eb ib op is q IIC T4 Gb
- Ex tb op is IIIC T80/110°C Db

Permissible ambient temperature. depending on configuration

- -40°C up to +55°C* for ExLin 3L, 5L, 7L
- -40°C up to +45°C* for ExLin 10L

Degree of protection accd. to EN 60529

• IP66/67

IK-class according to IEC/EN 62262

• IK10



LED system:

- Light colour / CRI: 4000K & 5000K / 70 & 80. 3000K / CRI80 on request
- Optics: Standard, narrow beam, wide beam.

Fixture life (IEC 62722):

- L90 \sim 100,000 h at ta = +25 °C
- L85 ~75.000 h at ta = +55 °C

Control gear

- C5 \sim 100,000 h at ta = +25 °C
- C10 \sim 75,000 h at ta = +55 °C

Standard materials:

- Fixture enclosure Glassfibre reinforced polyester
- LED module cover toughened glass or plastic-laminated glass, clear or opaque

Dimensions and weights:

ExLin 3L-1 and 5L-1

- 770x201x115 mm
- 6.7 kg

ExLin 5L-2, 7L-2 and 10L-2

- 931x201x115 mm
- 8.0 kg

Electrical ratings:

Model	ExLin 3L-1	ExLin 5L-1 / 5L-2	ExLin 7L-2	ExLin 10L-2		
Voltage**	nge** 110 up to 277 V AC/DC		110 up to 277 V AC/DC	220-277 V AC/DC		
Power consumption	22W	44W	67W	88W		
Lumens (clear glass cover) †	2750	5300	8120	10600		
Lumens (frosted glass cover) †	2370	4580		9160		
Frequency	equency 0/50 - 60 Hz		0/50 - 60 Hz	0/50 - 60 Hz		
nrush current 5A for 1ms		5A for 1ms	9A for 1ms	9A for 1ms		
ower factor cos φ @ 230 V ≥ 0.92		≥ 0.95	≥ 0.95	≥ 0.98		
Circuit EVG EVG		EVG	EVG	EVG		
Protection class	1	1	I	I		
Immunity to surge voltages according to EN6100-4-5	4 kV, L-N and L-PE	4 kV, L-N and L-PE	4 kV, L-N and L-PE	4kV, L-N and L-PE		
HD @230V 8%		5%	5%	5%		

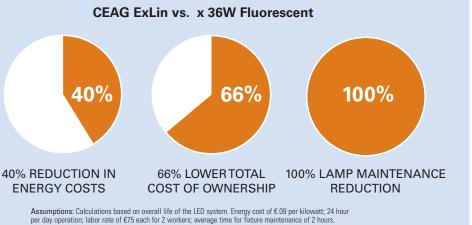
^{**} Voltage for V-CG-S models: 220-254 V AC / 195-250 V DC

† Lumen values apply to 5000K light colour, 70 CRI fixtures. Lumen output may vary slightly for different models.

LED vs. fluorescent savings at a glance

Why are so many facilities making the switch from fluorescent to LED?

The numbers say it all.



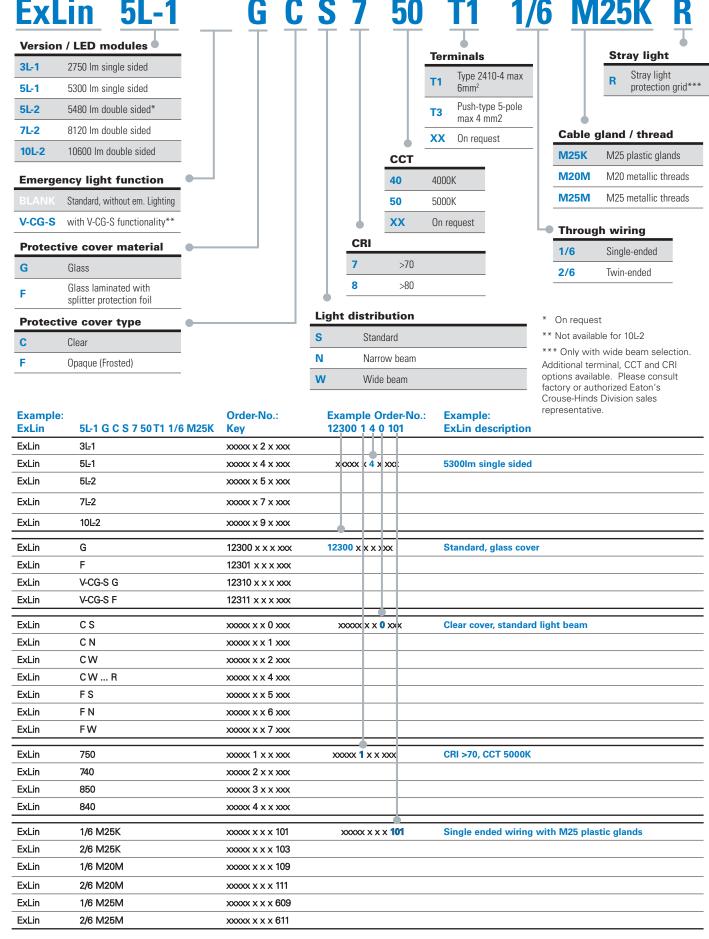
^{*} Up to +50°C for 3L-1and 5L-2 with through wiring and plastic cable glands. Up to +45°C for 5L-1 and 7L-2 with through wiring and plastic cable glands.

Catalog Numbering System:

Part number example

ExLin 5L-1 G C S 7 50 T1 1/6 M25K

CEAG ExLin linear, 5300 lumens, glass lens, clear lens, standard light beam, >70 CRI, 5000K, Type 2410-4 terminals, single-ended wiring, M25 plastic cable gland



Mounting Accessories (Order Separately)

Pipe Clamps

Ordering Code	Description	
2 2480 462 000 *	2 pcs. R12 (1 1/4"), Ø 38 - 42 mm with screws and polyamide washer, hot-dip galvanized	
2 2480 472 000 *	2 pcs. R22 (1 1/2"), Ø 47 - 51 mm with screws and polyamide washer, hot-dip galvanized	
2 2480 482 000 *	2 pcs. R32 (2"), Ø 56 - 60 mm with screws and polyamide washer, hot-dip galvanized	
NOR 000 005 009 211	1 pcs. A8 (1 1/2") D 47 - 51 mm for AB 12 with screws and polyamide washer, hot-dip galvanized	
NOR 000 005 009 229 1 pcs. A9 (2") D 56 - 60 mm for AB 12 with screws and polyamide washer, hot-dip galvanize		
2 2480 550 010	2 pcs. Two-part, for pipe mounting LB 48 - FT with screws and polyamide washer, hot-dip galvanized	





Fixing Accessories

Ordering Code	Description			
2 2480 550 013	2 pcs. luminaire mounting bracket with 30° angle, wall mounting LH 30 - FT, hot-dip galvanized			
2 2480 550 014	2 pcs. luminaire mounting bracket with 45° angle, wall mounting LH 45 - FT, hot-dip galvanized			
2 2480 000 122	2 pcs. wall mounting bracket with 30° angle, with screws and polyamide washer, hot-dip galvanized			
NOR 000 005 009 196	1 pcs. wall bracket 45° with screws and polyamide washer, hot-dip galvanized			
2 2483 027 000	1 pcs. wall bracket W 27, 15°, for pole-mounting fitting Ø 42 mm, hot-dip galvanized			
2 2480 092 000	2 pcs. ceiling mounting bracket D 92 with screws and polyamide washer, stainless steel			
NOR 000 005 009 162	1 pcs. ceiling mounting bracket A5 with screws and polyamide washer, hot-dip galvanized			
2 2480 550 011	2 pcs. C-bracket for luminaire mounting LAB-C50 - ER, stainless steel			
2 2480 054 000	2 pcs. hexagon screw M8 x 20 for luminaire mounting, with polyamide washer			
2 2480 002 000 *	2 pcs. eye bolt M8 for luminaire mounting, hot-dip galvanized			
NOR 000 005 009 261	1 pcs. eye bolt M8 - A1 for luminaire mounting, hot-dip galvanized			
22480600001	Pole mounting adapter - stainless steel - 42-49mm diameter			
22480600002	Pole mounting adapter - stainless steel - 52-62mm diameter			
2 2480 550 022 *	2 pcs. wall mounting bracket with adjustable angle (15° step)			



Metallic Cable Glands (Order Separately)

ADE-1F2

Catalog #	Metric Thread Size	Cable Types	Cable sealing range - Min	Cable seaing range - Max	
ADE1M200NPN	M20		2.8	5.5	
ADE1M201NPN	M20	Non-armoured, Marine shipboard,	4.5	8.5	
ADE1M202NPN	M20	Type P, Tray cable — (armoured)	7.0	12.0	
ADE1M203NPN	M20		10.0	16.0	



ADE-4F			Cable sealing range inner sheath		Cable sealing range outer sheath		Armor	
Catalog #	Metric Thread Size	Cable Types	Min.	Max.	Min.	Max.	Min.	Max.
ADE4M200NPN	M20	SWA, SWB, STA,	2.8	5.5	4.5	8.5	0.2	0.9
ADE4M201NPN	M20	Braided marine shipboard, Type P; Lead sheathed cable (with addition of earthing washer)	4.5	8.0	7.0	12.0	0.2	0.9
ADE4M202NPN	M20		7.0	12.0	10.0	16.0	0.2	1.3
ADE4M203NPN	M20		10.0	15.5	13.5	21.0	0.2	1.3



ADE-1F2 and ADE-4F catalog numbers are for nickel-plated brass; For other material options, refer to our cable glands section within www.crouse-hinds.de/en/

^{*} Also available in stainless steel. Consult factory for ordering code.

Adapter Kits for eLLK Retrofits (Order Separately)

CEAG ExLin LED fixtures are designed with the same fixing point as Crouse-Hinds series CEAG eLLK 2x18W fixtures, making retrofits simple and cost-effective.

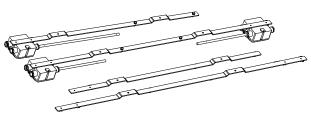
Adapter kits allow for easy replacement of 2x36W and 2x58W eLLK fixtures without changing already-installed cables or mounting brackets. Adapter kits include a metal bar, junction box and connection cables between the juntion box and ExLin fixture.

Ordering Code	Description	
2 2300 500 001	2 pcs. ExLin adapter kit for retrofitting to eLLK 2x36W fixture - includes metal bar, junction box, plastic glands and connection cable between box and fixture	
2 2300 500 002	1 pcs. ExLin adapter kit for retrofitting to eLLK 2x58W fixture - includes metal bar, tw junction boxes, plastic glands and connecticable between boxes and fixture	
3 2300 500 001	1 pcs. ExLin mounting metal bar for retrofitting to eLLK 2x36W fixture - without junction box and connection cable	
3 2300 500 002	1 pcs. ExLin mounting metal bar for retrofitt to eLLK 2x58W fixture - without junction bo and connection cable - without junction bo and connection cable	



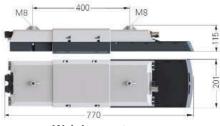
See for yourself how easy it is to upgrade your

Visit <u>eaton.com/ellk-to-exlin</u> to watch the fast and simple retrofit process using our adapter kit



Dimensions and Weights:

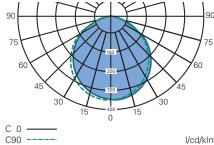
CEAG ExLin 3L-1 and 5L-1:



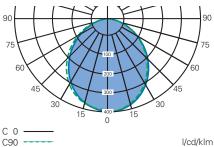
Weight: 6.7 kg

Polar Curves:

CEAG ExLin standard beam with clear cover

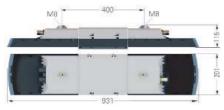


CEAG ExLin standard beam with frosted cover



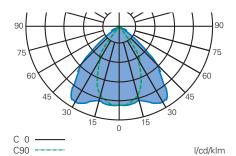
C 0 ——— I/cd/klm C90 ----- I/cd/k

CEAG ExLin 5L-2, 7L-2 and 10L-2:

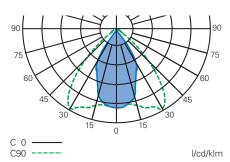


Weight: 8.0 kg

CEAG ExLin wide beam



CEAG ExLin narrow beam



The safety you rely on.

See the complete offering of hazardous and industrial products at www.crouse-hinds.de.

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