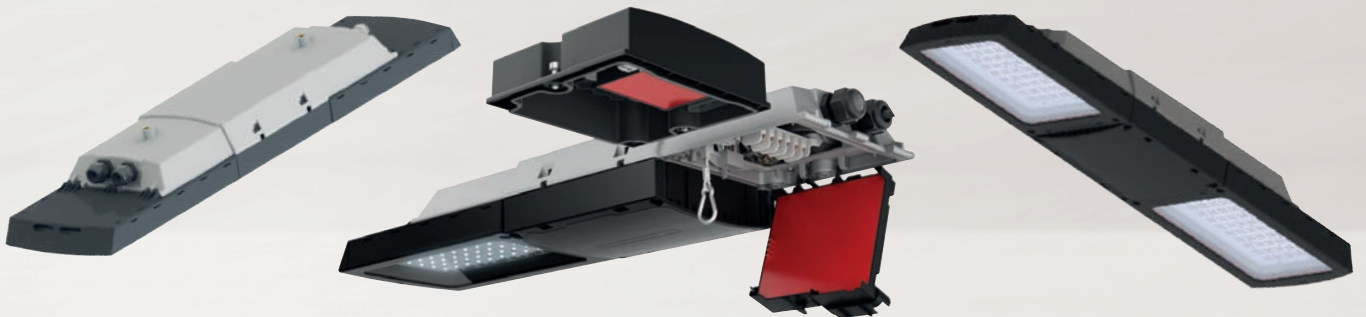


Explosion protected
linear light fixture

CROUSE-HINDS
SERIES

CEAG ExLin series

LED linear fixtures for hazardous areas



EATON

Powering Business Worldwide



Introducing CEAG ExLin / NE+

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

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



The following CEAG ExLin models will replace 2x18 W, 2x36 W and 2x58 W fluorescent fixtures, as well as low bay fixtures above 150 W HID

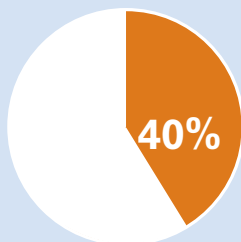
Model	Typical lumens with clear glass lens	Wattage	Lumens per watt	Equivalent fluorescent luminaire	Typical energy savings / lifetime
ExLin 3L-1	2,910	22 W	> 132	2 x 18 W	> 40%
ExLin 5L-1	5,610	44 W	> 127	2 x 36 W	> 40%
ExLin 5L-2	5,810	44 W	> 132	2 x 36 W	> 40%
ExLin 7L-2	8,600	67 W	> 127	2 x 58 W	> 40%
ExLin 10-2	11,230	89 W	> 127	> 2 x 58 W	> 40%

LED vs. fluorescent savings at a glance

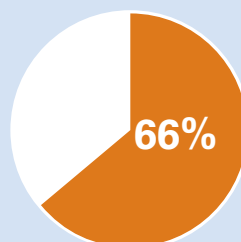
Why are so many facilities making the switch from fluorescent to LED?

The numbers say it all.

CEAG ExLin vs. x 36W Fluorescent



40% REDUCTION IN ENERGY COSTS



66% LOWER TOTAL COST OF OWNERSHIP



100% LAMP MAINTENANCE REDUCTION

Assumptions: Calculations based on overall life of the LED system. Energy cost of €0.09 per kilowatt; 24 hour per day operation; labor rate of €75 each for 2 workers; average time for fixture maintenance of 2 hours.

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 2x18 W, 2x36 W and 2x58 W fluorescent fixtures, as well as low bay fixtures over 150 W HID
- Rated life of 100,000 hours at 25 °C based on L90C5 provides long term, low-maintenance operation
- More than 132 lm/W provides up to 40 % energy efficiency compared to traditional fluorescent fixtures
- Operating temperature from -40 °C 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 2x18 W fixtures and a mounting kit available allowing for easy replacement of 2x36 W and 2x58 W without changing cables

Large connection space and innovative terminal technology for simple and quick electrical installation

- The new 5-pole push-type terminals (optional) enable easy connection of the cables and reduce the amount of work required.

Emergency lighting function with central battery system

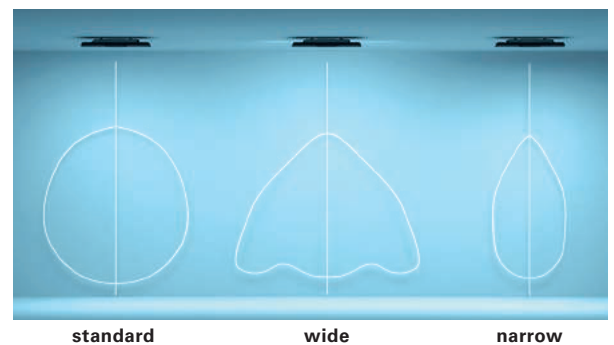
- Available with V-CG-S functionality. Safe and reliable lighting via Eaton's central battery system.
- Each fixture can be set to 25%, 50% or 100% light output in emergency lighting mode. This allows for optimization of the battery capacity to provide a long duration of emergency lighting.

Designed for reliability in the most demanding environments

- Passed dynamic vibration test acc. EN60068-2-6
- Passed windload test up to 316 km/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 T80/115°C Db

Marking accd. to IECEX

- Ex eb ib op is q IIC T4 Gb
- Ex tb op is IIIC T80/115°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



3L-1 and 5L-1 models

5L-2, 7L-2, 10L-2 models

LED system:

- Light colour / CRI: 5000K / 70 and 80 CRI and 4000K / 80 CRI
- Optics: Standard, narrow beam, wide beam.

Fixture life (IEC 62722):

LED

- L90 ~100,000 h at ta = +25 °C
- L85 ~75,000 h at ta = +55 °C

Control gear

- C5 ~100,000 h at ta = +25 °C
- C10 ~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

* Up to +50°C for 3L-1 and 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.

Electrical ratings:

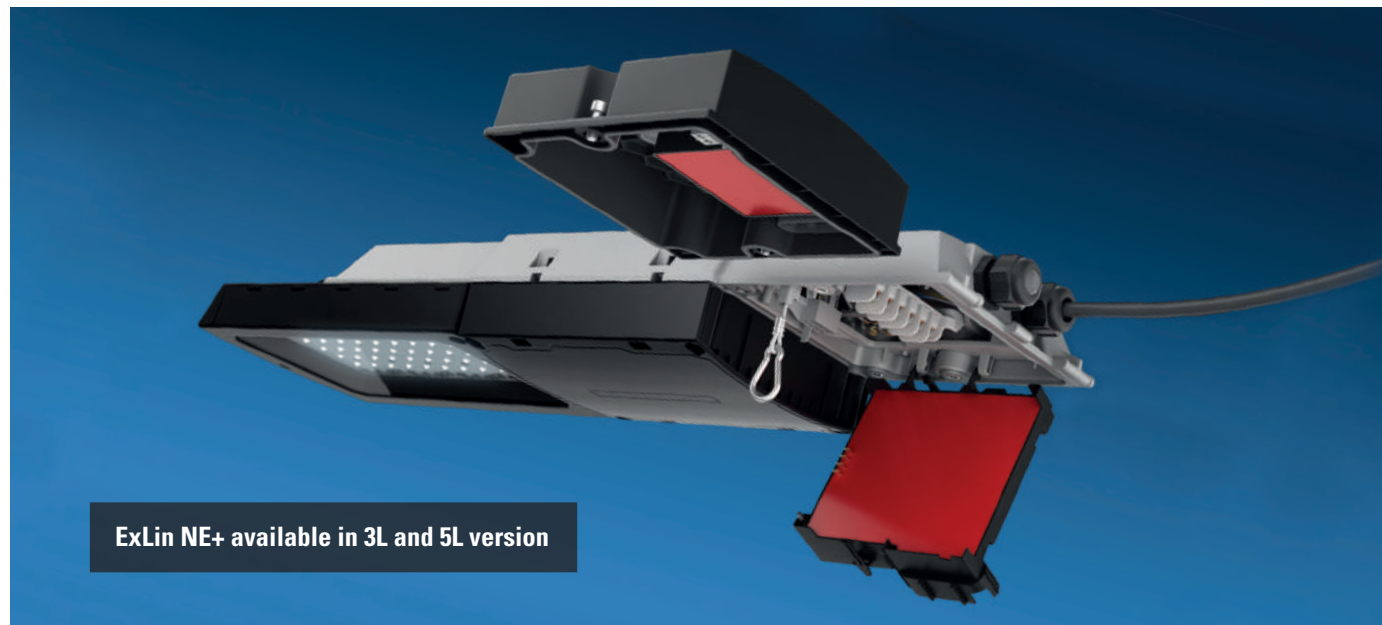
Model	ExLin 3L-1	ExLin 5L-1 / 5L-2	ExLin 7L-2	ExLin 10L-2
Voltage**	110 up to 277 V AC/DC	110 up to 277 V AC/DC	110 up to 277 V AC/DC	220-277 V AC/DC
Power consumption	22 W	44 W	67 W	88 W
Lumens (clear glass cover) †	2910 lm	5610 / 5810 lm	8600 lm	11230 lm
Lumens (frosted glass cover) †	2490 lm	4940 / 4960 lm	7370 lm	9900 lm
Frequency	0/50 - 60 Hz	0/50 - 60 Hz	0/50 - 60 Hz	0/50 - 60 Hz
Inrush current	5 A for 1 ms	5 A for 1 ms	9 A for 1 ms	9 A for 1 ms
Power factor cos φ @ 230 V	≥ 0.92	≥ 0.95	≥ 0.95	≥ 0.98
Circuit	EVG	EVG	EVG	EVG
Protection class	I	I	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	4 kV, L-N and L-PE
THD @230V	8%	5%	5%	5%

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

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

Why CEAG ExLin NE+ LED?

Safe, reliable, efficient. CEAG ExLin NE+ emergency light fittings combine environmentally friendly batteries and state-of-the-art LED technology with optimised thermal management and a time-tested enclosure to extend service life in extreme environments. Installation and maintenance efforts are significantly reduced thanks to the innovative battery design.



Emergency light fittings with a self-contained battery system

- Decentralized solution for the mandatory emergency lighting in case of power failure via highly efficient LiFePO_4 ¹⁾ ensure a safe and reliable illumination acc. EN EN 60598-2-22
- ExLinNE+ is available as 3L or 5L and delivers appr. 2000 lm / 1000 lm ²⁾ for 1.5 h / 3 h in emergency mode
- Emergency lighting cycle can be set locally for 1.5 or 3 hour

Reliable performance in harsh and hazardous environments

- Temperature range extended significantly: extremely wide operating ambient temperature range of -40 °C to +45 °C with almost homogeneous luminous efficacy
- Improved charging capabilities ensure a more stable and robust charging cycle, thus resulting in longer lifetime
- LiFePO_4 ¹⁾ battery has no memory effect and a more stable capacity for emergency lighting compared to standard NiCd ³⁾ batteries

Tests acc. DIN EN 50172 and clear visualisation

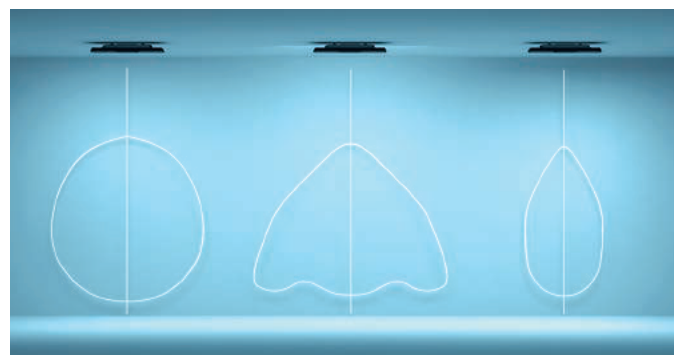
- The luminaires have integrated monitoring software that monitors the functions of the luminaire and performs the prescribed function tests and quarterly, partial duty-cycle test in accordance with DIN EN 50172 and DIN V VDE 0108-100-1 automatically
- 2 diode LED display shows charge and battery status of the luminaire

Simplified installation and maintenance in the Ex area

- Longer storage without recharging compared to NiCd ³⁾ possible
- LiFePO_4 ¹⁾ batteries do not require charging cycle for first conditioning like NiCd ³⁾, so that emergency lighting is quicker fully available
- Hot Swap technology allows an easy exchange of the battery in the Ex area without disconnecting the power supply

Reliable emergency lighting

- In order to achieve the minimum operating time required for the emergency lighting mode, the power consumption and consequently the illuminance is reduced. ExLin NE+ can vary the power consumption of the entire LED module in emergency lighting modus via their electronics. This enables homogeneous illumination of escape routes in accordance with the local conditions, even in the emergency lighting mode.
- Selection of standard, narrow and wide beam optics ensures ideal illumination according to specific environments and applications



standard

wide

narrow

¹⁾ Lithium-Iron-Phosphate
²⁾ ExLin NE+ 3L/5L, GCS 750 temporary measurement
³⁾ Nickel-Cadmium

CEAG ExLin NE+ 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 mb op is q IIC T4/T5 Gb
- Ex II 2D Ex tb op is IIIC T80/115°C Db

Marking accd. to IECEX

- Ex eb ib mb op is q IIC T4 Gb
- Ex tb op is IIIC T80/115°C Db

Permissible ambient temperature, depending on configuration

- -40 °C up to +45 °C* for ExLin NE+ 3L, 5L, specified data 0 °C up to +45 °C

Degree of protection accd. to EN 60529

- IP66/67

IK-class according to IEC/EN 62262

- IK10

* Up to +40 °C with through wiring.



Typ 3L-1 and 5L-1

LED system:

- Light colour / CRI: 5000 K / 70 and 80 CRI and 4000 K / 80 CRI
- Optics: Standard, narrow beam, wide beam.

Battery set

- LiFePO₄ with LED display and monitoring by micro processor

Fixture life (IEC 62722):

LED

- L90 ~100,000 h at ta = +25 °C
- L85 ~75,000 h at ta = +55 °C

Control gear

- C5 ~100,000 h at ta = +25 °C
- C10 ~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
- 8.3 kg

Electrical ratings:

Model	ExLin 3L-1 NE+	ExLin 5L-1 NE+
Voltage	110 up to 254 V AC	110 up to 254 V AC
Power consumption Ø	23 W	45 W
Lumens (clear glass cover) †	2910 lm	5610 lm
Lumens (frosted glass cover) †	2490 lm	4940 lm
Lumens in emergency mode †	2000 lm (1.5 h) 1000 lm (3 h)	2000 lm (1.5 h) 1000 lm (3 h)
Frequency	50 - 60 Hz	50 - 60 Hz
Inrush current	5 A for 1 ms	5 A for 1 ms
Power factor cos φ @ 230 V	≥ 0.92	≥ 0.95
Circuit	EVG	EVG
Protection class	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
THD @230V	8%	5%

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

CEAG ExLin NE+ partnumber system:

Part number example
ExLin 3L-1 NE+ 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

ExLin 3L-1 NE+ G C S 7 50 T1 1/6 M25K

Version / LED Module

3L-1	2910 lm single sided
5L-1	5610 lm double sided

Emergency light function

NE+	with selfcontained battery
-----	----------------------------

Protective cover material

G	Glass
F	Glass laminated with splitter protection foil

Protective cover type

C	Clear
F	Opaque (Frosted)

CCT

30	3000 K**
40	4000 K
50	5000 K

CRI

7	>70
8	>80

Light distribution

S	Standard
N	Narrow beam
W	Wide beam
R	With stray light protection grid

Cable gland / thread

M25K	M25 plastic glands
M20M	M20 metallic threads
M25M	M25 metallic threads

Through wiring

1/6	Single-ended
2/6	Twin-ended

Terminals

T1	Type 2410-4 max 6mm ²
T3	Push-type 5-pole max 4 mm ²
XX	On request

Additional terminal, CCT and CRI options available. Please consult factory or authorized Eaton's Crouse-Hinds Division sales representative

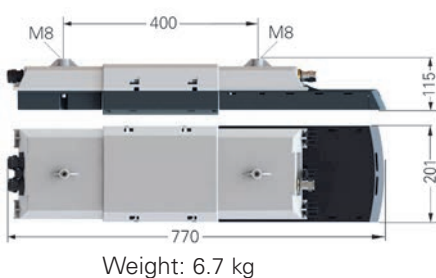
** on request

Example: ExLin NE+	3L-1 NE+ G C S 7 50 T1 1/6 M25K	Order-No.: Key	Example Order No.: 12320 1 2 0 101	Example: ExLin description
ExLin	3L-1	xxxxx x 2 x xxx	xxxxx x 2 x xxx	
ExLin	5L-1	xxxxx x 4 x xxx		5300 lm single sided
ExLin	NE+ G	12320 x x x xxx	12320 x x x xxx	Standard, glass cover
ExLin	NE+ F	12321 x x x xxx		
ExLin	C S	xxxxx x x 0 xxx	xxxxx x x 0 xxx	Clear cover, standard light beam
ExLin	C N	xxxxx x x 1 xxx		
ExLin	C W	xxxxx x x 2 xxx		
ExLin	C R	xxxxx x x 4 xxx		
ExLin	F S	xxxxx x x 5 xxx		
ExLin	F N	xxxxx x x 6 xxx		
ExLin	F W	xxxxx x x 7 xxx		
ExLin	750	xxxxx 1 x x xxx	xxxxx 1 x x xxx	CRI >70, CCT 5000 K
ExLin	740	xxxxx 2 x x xxx		
ExLin	850	xxxxx 3 x x xxx		
ExLin	840	xxxxx 4 x x xxx		
ExLin	1/6 M25K	xxxxx x x x 101	xxxxx x x x 101	Single ended wiring with M25 plastic glands
ExLin	2/6 M25K	xxxxx x x x 103		
ExLin	1/6 M20M	xxxxx x x x 109		
ExLin	2/6 M20M	xxxxx x x x 111		
ExLin	1/6 M25M	xxxxx x x x 609		
ExLin	2/6 M25M	xxxxx x x x 611		

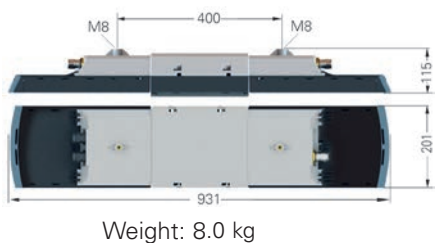
CEAG ExLin / EXLin V-CG-S / ExLin NE+

Dimensions & Weight:

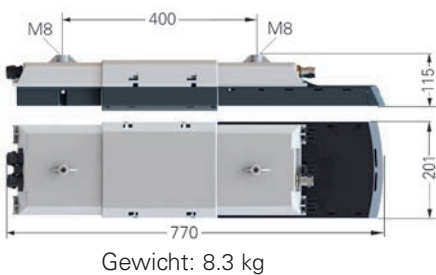
CEAG ExLin / ExLin V-CG-S 3L-1 and 5L-1:



CEAG ExLin / ExLin V-CG-S 5L-2, 7L-2 and 10L-2:

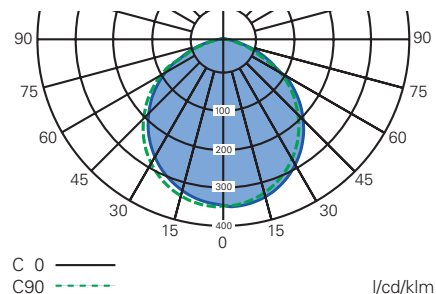


CEAG ExLin NE+ 3L-1 and 5L-1:

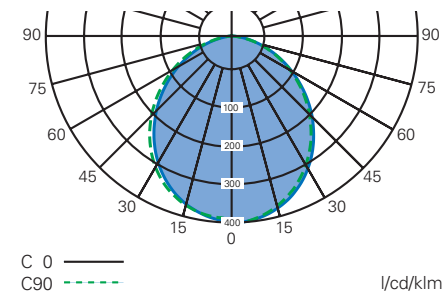


Polar Curve:

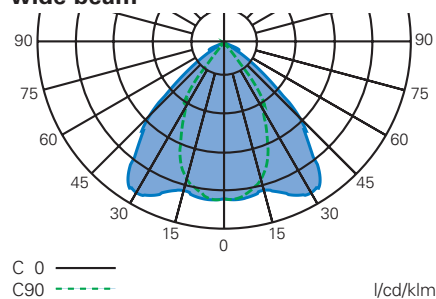
CEAG ExLin / ExLin V-CG-S / ExLin NE+ standard optic with clear cover



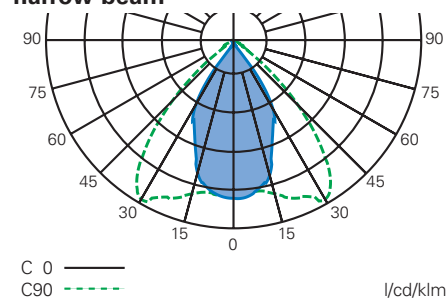
CEAG ExLin / ExLin V-CG-S / ExLin NE+ standard optic with opaque cover



CEAG ExLin / ExLin V-CG-S / ExLin NE+ wide beam



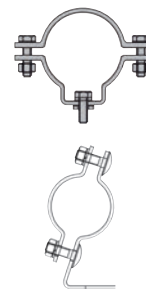
CEAG ExLin / ExLin V-CG-S / ExLin NE+ narrow beam



Mounting Accessories (Order Separately)

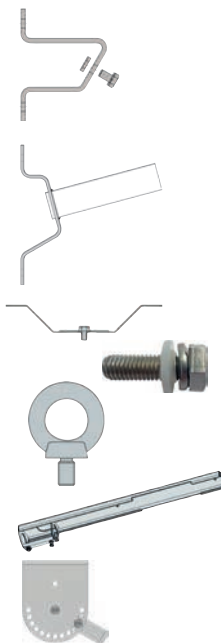
Pipe Clamps

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 galvanized
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
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
22480600001	Pole mounting adapter - 42-49mm diameter
22480600002	Pole mounting adapter - 52-62mm diameter
2 2480 550 022 *	2 pcs. wall mounting bracket with adjustable angle (15° step)



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

Metallic Cable Glands (Order Separately)

ADE-1F2

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



ADE-4F

Catalog #	Metric Thread Size	Cable Types	Cable sealing range inner sheath		Cable sealing range outer sheath		Armor	
			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	4.5	8.0	7.0	12.0	0.2	0.9
ADE4M202NPN	M20	sheathed cable (with addition of earthing washer)	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



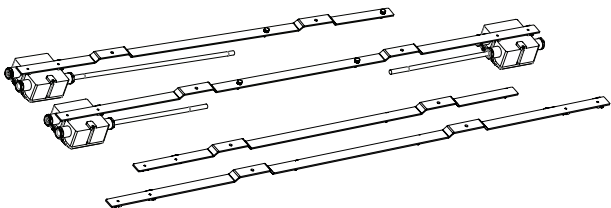
ADE-1F2 and ADE-4F catalog numbers are for nickel-plated brass; For other material options, refer to our cable glands section within www.crouse-hinds.de/en/

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 junction box and ExLin fixture.

Ordering Code	Description
2 2300 500 001	2 pcs. ExLin adapter kit for retrofitting to eLLK 2x36 W 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, two junction boxes, plastic glands and connection cable between boxes and fixture
3 2300 500 001	1 pcs. ExLin mounting metal bar for retrofitting to eLLK 2x36 W fixture - without junction box and connection cable
3 2300 500 002	1 pcs. ExLin mounting metal bar for retrofitting to eLLK 2x58W fixture - without junction box and connection cable



See for yourself how easy it is to upgrade your eLLK lighting installation to our state-of-the-art ExLin LED solution!



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

Eaton's Crouse-Hinds, B-Line and Oil & Gas Division

The safety you rely on.

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

U.S. (Global Headquarters): Eaton's Crouse-Hinds Business

1201 Wolf Street
Syracuse, NY 13208

(866) 764-5454
FAX: (315) 477-5179
FAX Orders Only:
(866) 653-0640

CrouseCustomerCTR@Eaton.com

For more information:

If further assistance is required, please contact an authorized Eaton Distributor, Sales Office, or Customer Service Department.

Australia

Phone +61-2-8787-2777
Fax +61-2-9609-2342
crousehindsanz@eaton.com

China

Phone +86-21-2899-3600
Fax +86-21-2899-4055
ECHsales@eaton.com

Great Britain

Phone +44-247-630-89 30
Fax +44-247-630-10 27
sales5@eaton.com

India

Phone +91-124-4683888
Fax +91-124-4683899
cchindia@eaton.com

Canada

Toll Free +1-800-265-0502
Fax +1-800-263-9504
Fax orders only:
+1-866-653-0645

Korea

Phone +82-2-3484-6783
Fax +82-2-3484-6778
CCHK-sales@cooperindustries.com

Mexico/Latin America/ Caribbean

Phone +52-555-804-4000
Fax +52-555-804-4020
mxmercadotecnica@cooperindustries.com

Spain

Phone +34-9-37362710
Fax +34-9-37835055
sales.CCH.es@cooperindustries.com

Middle East (Dubai)

Phone +971-4-427-2522 / 2500
Fax +971-4-429-8521
CHMEsales@Eaton.com

The Netherlands

Phone +31-10-2452145
Fax +31-10-2452121
CHRD_mail@Eaton.com

Norway

Phone +47-32-244600
Fax +47-32-244646
CHLlooffice@eaton.com

Singapore:

Phone +65-6645-9888
Fax +65-6297-4819
CHSI-Sales@Eaton.com

Turkey

Phone +90-216-464-20-20
Fax +90-216-464-20-10
infoEGTurkey@eaton.com

Russia

Phone +7-495 510-24-27
Fax +7-495 510-24-28
info@cooper.ru.com
www.cooper-russia.ru

Eaton's Crouse-Hinds Division

Neuer Weg – Nord 49
D-69412 Eberbach

Phone +49 (0) 6271/806-500
Fax +49 (0) 6271/806-476
E-mail info-ex@eaton.com
Internet www.crouse-hinds.de

Eaton

1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

© 2021 Eaton Corporation
All Rights Reserved
Printed in Germany
Publication No. BR 300 8000 2297
Oct. 2021

Changes to the products, to the information contained in this document, and to prices are reserved; so are errors and omissions. Only order confirmations and technical documentation by Eaton is binding. Photos and pictures also do not warrant a specific layout or functionality. Their use in whatever form is subject to prior approval by Eaton. The same applies to Trademarks (especially Eaton, Moeller, and Cutler-Hammer). The Terms and Conditions of Eaton apply, as referenced on Eaton Internet pages and Eaton order confirmations.

Eaton's Crouse-Hinds Division

1201 Wolf Street
Syracuse, NY 13208
(866) 764-5454
CrouseCustomerCTR@Eaton.com

Eaton is a registered trademark.

All other trademarks are property of their respective owners.



Powering Business Worldwide