

EX-H SERIES

EXPLOSION-PROOF LIGHT

Class I Division 2, Class II Division 2, Zone 2, Zone 22

INTRODUCTION

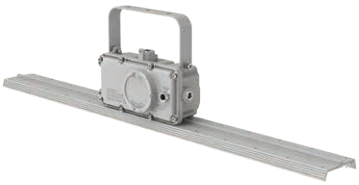
The FGE-EX-H2 / H4 Series Explosion-Proof Lighting combines modern design with robust safety features, offering reliable illumination for heavy-duty hazardous locations. Constructed with high-strength aluminum and corrosion-resistant coating, it withstands harsh environments and ensures long-term durability.

Its advanced LED module achieves up to 170 lm/W, delivering high brightness and energy savings. Certified for Class I Division 2, Class II Division 2, Zone 2, Zone 22, the H2/H4 Series is ideal for chemical storage areas, offshore platforms, and processing facilities.

With multiple optics, wattage selections, and flexible mounting methods, it provides a customizable lighting solution tailored to specific industrial needs.



H2



H4

COMPLIANCE

UL844 Hazardous Locations
Class I Division 2, Group A, B, C, D
Class II Division 2, Group F, G
Class II
UL 1598 Wet Locations
UL 1598A Marine Outside Type
UL 924 Emergency Lighting
CSA C22.2#250.0:2021 Ed.5
CSA C22.2#137:2018 Ed.2

IP66 IK08

LM-79 | LM-80 | TM-21 | ISTMT | IEC

FEATURES

140 lm/W
170 lm/W

High Efficacy & Energy Saving: Up to 140 lm/W, 170 lm/W, reducing energy consumption by over 60% compared with HID fixtures.

EMERGENCY BACKUP

90-Minute Emergency Backup Option: Ensuring safety and visibility during critical moments.

0-10V DIMMABLE

Smart Control Ready: Supports 0-10V/DALI dimming.

RELIABLE WARRANTY

Reliable Warranty: 5 Years Warranty.

3 POWER SELECTABLE

Power Selectable: Multi-wattage options in a single fixture for flexible applications and reduced inventory.

CCT SELECTABLE

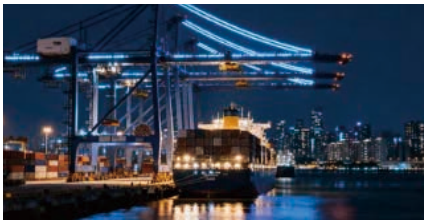
CCT Selectable: Adjustable color temperature to suit diverse environments.

- **Robust Protection:**
  IP66 waterproof & dustproof, IK08 impact resistance for harsh industrial environments.
- **Superior Thermal Management:**
  Copper-free aluminum housing, great corrosion resistance and cooling performance.
- **Versatile Mounting Options:**
  Ceiling, pole, wall, chain, and pendant mounting for flexible installation.
- **Wide Input Voltage:**
  AC120–277V / AC200-480V, suitable for global power grids.

APPLICATIONS



Paper Mills: Providing safe and stable illumination in dust-rich environments to reduce ignition risks and support continuous operation.



Loading Dock Platforms: Delivering durable explosion-proof lighting to withstand vibration and fuel vapors for safer loading and unloading operations.



Chemical Processing Facilities: Ensuring reliable lighting in areas with volatile chemicals to maintain safety and compliance under hazardous conditions.



Coal Mine: Offering explosion-proof illumination for methane- and dust-prone mining zones to protect workers during underground operations.



Power Plants: Providing robust lighting around high-risk equipment to support safe inspection and maintenance in demanding conditions.



Heavy Industrial Facilities: Delivering long-lasting explosion-proof lighting for harsh industrial sites exposed to dust, oil mist, and mechanical impact.

TECHNICAL PARAMETERS

H2 series

Product Model	EX-20W	EX-40W	EX-60W	EX-80W	EX-100W
Electrical Performance					
Wattage	20W	40W	60W	80W	100W
Input Voltage	AC120–277V/200-480V	AC120–277V/200-480V	AC120–277V/200-480V	AC120–277V/200-480V	AC120–277V/200-480V
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor (PF)	>0.95	>0.95	>0.95	>0.95	>0.95
Surge Protection	10 kV	10 kV	10 kV	10 kV	10 kV
THD	<20%	<20%	<20%	<20%	<20%
Optical Performance					
Luminous Efficacy	140 lm/W	140 lm/W	140 lm/W	140 lm/W	140 lm/W
Luminous Flux	2800lm	5600lm	8400lm	11200lm	14000lm
CCT	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K
CRI	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70
Beam Angle	30°/45°/60°/90°/120°/T2/T3/T5				
Unified Glare Rating (UGR)	20	20	20	20	20
Reliability					
Lifetime	>100,000 h	>100,000 h	>100,000 h	>100,000 h	>100,000 h
Operating Temperature	-40°C to 40°C/-40°C to 55°C/-40°C to 65°C				
Storage Temperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
Ingress Protection	IP66	IP66	IP66	IP66	IP66
Impact Resistance	IK08	IK08	IK08	IK08	IK08
Control					
Dimming	0-10V Dimming	0-10V Dimming	0-10V Dimming	0-10V Dimming	0-10V Dimming
Sensor	No	No	No	No	No
Communication Protocol	-	-	-	-	-
Emergency Kit	Optional	Optional	Optional	Optional	Optional
Mechanical					
Housing Material	Copper-free Aluminum	Copper-free Aluminum	Copper-free Aluminum	Copper-free Aluminum	Copper-free Aluminum
Lens Material	Tempered Glass	Tempered Glass	Tempered Glass	Tempered Glass	Tempered Glass
Coating	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040
Net Weight	3.6kg	3.8kg	4kg	4kg	4.4kg
Dimensions	600x119.5x222.8mm	600x119.5x222.8mm	600x119.5x222.8mm	600x119.5x222.8mm	600x119.5x222.8mm
Warranty	5 Years	5 Years	5 Years	5 Years	5 Years

H4 series

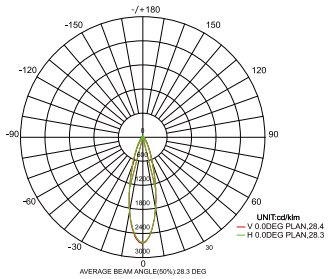
Product Model	EX-40W	EX-60W	EX-80W	EX-100W	EX-120W	EX-140W	EX-160W	EX-180W	EX-200W
Electrical Performance									
Wattage	40W	60W	80W	100W	120W	140W	160W	180W	200W
Input Voltage	AC120–277V/200-480V								
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor (PF)	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95
Surge Protection	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV
THD	<20%	<20%	<20%	<20%	<20%	<20%	<20%	<20%	<20%
Optical Performance									
Luminous Efficacy	140 lm/W	140 lm/W	140 lm/W	140 lm/W	140 lm/W	140 lm/W	140 lm/W	140 lm/W	140 lm/W
Luminous Flux	5600lm	8400lm	11200lm	14000lm	16800lm	19600lm	22400lm	25200lm	28000lm
CCT	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K	2200K-6500K
CRI	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70
Beam Angle	30°/45°/60°/90°/120°/T2/T3/T5								
Unified Glare Rating (UGR)	20	20	20	20	20	20	20	20	20
Reliability									
Lifetime	>100,000 h	>100,000 h	>100,000 h	>100,000 h	>100,000 h	>100,000 h	>100,000 h	>100,000 h	>100,000 h
Operating Temperature	-40°C to 40°C/-40°C to 55°C/-40°C to 65°C								
Storage Temperature	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
Ingress Protection	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66
Impact Resistance	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08
Control									
Dimming	0-10V Dimming								
Sensor	No	No	No	No	No	No	No	No	No
Communication Protocol	-	-	-	-	-	-	-	-	-
Emergency Kit	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Mechanical									
Housing Material	Copper-free Aluminum								
Lens Material	Tempered Glass								
Coating	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040	Grey/RAL7040
Net Weight	3.8kg	3.8kg	4.2kg	4.5kg	4.9kg	5.2kg	5.8kg	5.8kg	6.6kg
Dimensions	1200x119.5x222.8mm								
Warranty	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years

Power and CCT Selectable

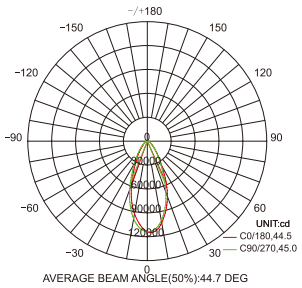
Product Model	EX-60W/40W/30W	EX-80W/60W/40W
Electrical Performance		
Wattage	60W/40W/30W	80W/60W/40W
Input Voltage	AC120–277V/200-480V	AC120–277V/200-480V
Frequency	50/60Hz	50/60Hz
Power Factor (PF)	>0.95	>0.95
Surge Protection	10 kV	10 kV
THD	<20%	<20%
Optical Performance		
Luminous Efficacy	170 lm/W	170 lm/W
Luminous Flux	10200lm/6800lm/5100lm	13600lm/10200lm/6800lm
CCT	4000K/5000K/6500K	4000K/5000K/6500K
CRI	Ra>70	Ra>70
Beam Angle	30°/45°/60°/90°/120°/T2/T3/T5	30°/45°/60°/90°/120°/T2/T3/T5
Unified Glare Rating (UGR)	20	20

Reliability		
Lifetime	>100,000 h	>100,000 h
Operating Temperature	-40°C to 40°C/-40°C to 55°C/-40°C to 65°C	-40°C to 40°C/-40°C to 55°C/-40°C to 65°C
Storage Temperature	-40°C to 70°C	-40°C to 70°C
Ingress Protection	IP66	IP66
Impact Resistance	IK08	IK08
Control		
Dimming	0-10V Dimming	0-10V Dimming
Sensor	No	No
Communication Protocol	-	-
Emergency Kit	Optional	Optional
Mechanical		
Housing Material	Copper-free Aluminum	Copper-free Aluminum
Lens Material	Tempered Glass	Tempered Glass
Coating	Grey/RAL7040	Grey/RAL7040
Net Weight	4kg	4.2kg
Dimensions	600x119.5x222.8mm	1200x119.5x222.8mm
Warranty	5 Years	5 Years

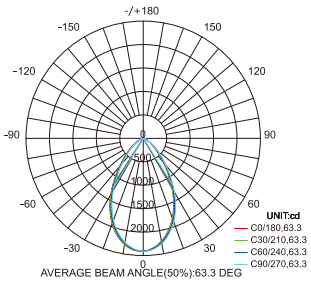
PHOTOMETRICS



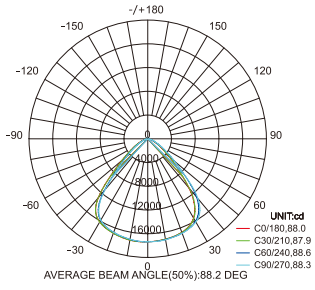
30°



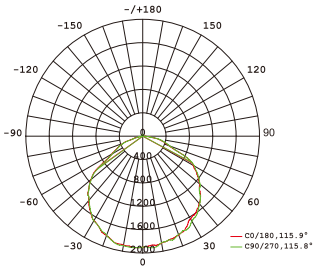
45°



60°

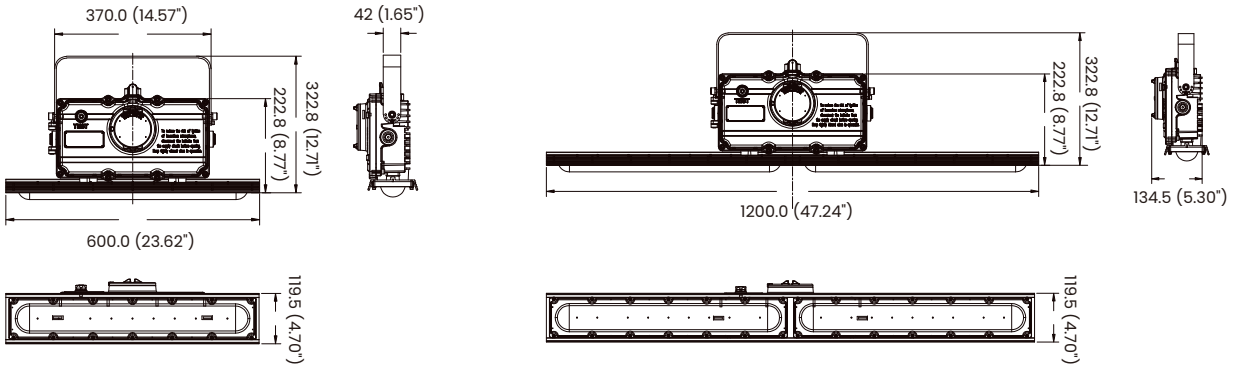


90°



120°

MECHANICAL DIMENSIONS



H2 H4

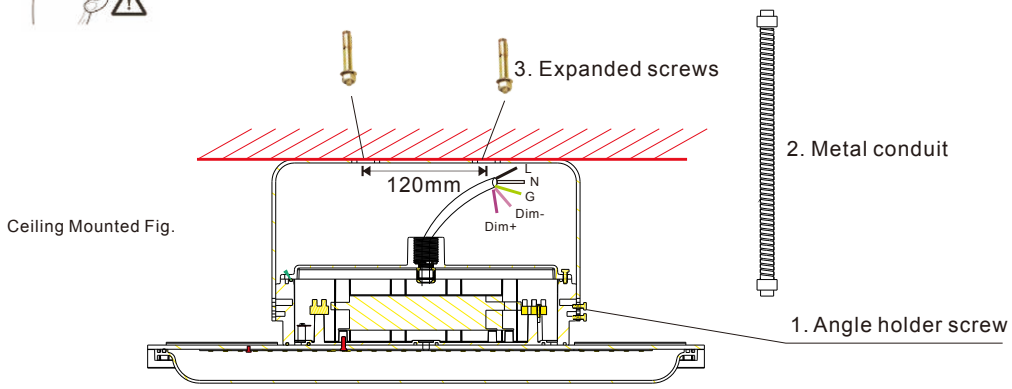
Product Model	H2	H4
Wattage	20W/40W/60W/80W/100W	40W/60W/80W/100W/120W/140W/160W/180W/200W
Outer box (L*W*H)	710x430x320mm(27.95"x16.93"x12.60")	1320x420x330mm(51.97"x16.54"x12.99")
Q'ty/Ctn	2pcs	2pcs
N.W./Ctn	4.00kg/8.82lbs	5.50kg/12.13lbs
G.W./Ctn	10.25kg/22.60lbs	14.50kg/31.97lbs
Remarks	0.7M cable	0.7M cable

INSTALLATION

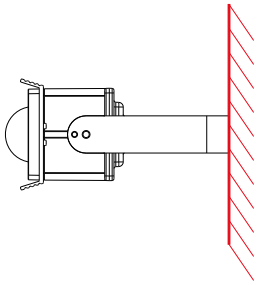
Installation Steps (For Class I Div. 2 Group A, B, C, D locations)



⚠ WARNING
Risk of fire, Electric shock or personal injury
Before installation, turn off power!



Ceiling Mounted Fig.



Wall Mounted Fig.

Description

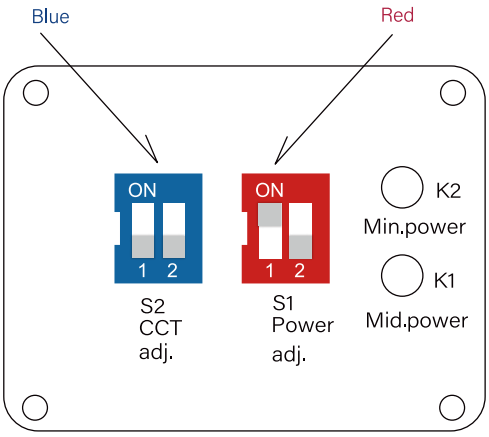
1. Take the fixture and accessory out from cartoon box, tighten 2x angle holder screws.

2. Through the cable to flexible metal conduit and tighten it with the fixture.

3. Drill 2x 10mm hole as the distance 120mm, fixing Φ10 expanded screws and bracket on ceiling.

4. Connect the AC cable, Black cable connect to Live wire, white cable connect to Null wire, green cable connect to grounding. Optional: Purple connect to Dim+, Pink connect to Dim-.

POWER & CCT SELECTABLE



Power Selectable	CCT Selectable
60W/40W/30W	4000K/5000K/6500K
80W/60W/40W	4000K/5000K/6500K

Operating Instructions

- S1 DIP switch - Red (S1 Power adj.)

The luminaire incorporates a dual-dial power configuration switch enabling three selectable output ratings. Factory default settings and power levels can be customized based on project requirements.

1. Maximum Output (100% nominal power)
Switch configuration: Dial 1 = OFF, Dial 2 = OFF;



80W

2. Medium Output (70%-90% of nominal power, depending on specification)Switch configuration: Dial 1 = ON, Dial 2 = OFF



60W

3. Minimum Output (50%-70% of nominal power, depending on specification)Switch configuration: Dial 1 = OFF, Dial 2 = ON



40W

- S2 DIP switch - Blue (S2 CCT adj.)

The luminaire incorporates a dual-dial power configuration switch enabling three preset color temperature options. The factory default setting can be customized according to order requirements.

1. Cool white, e.g. 6500K
Switch configuration: Dial 1 = OFF, Dial 2 = OFF



6500K

2. Neutral white, e.g. 5000K
Switch configuration: Dial 1 = ON, Dial 2 = OFF



5000K

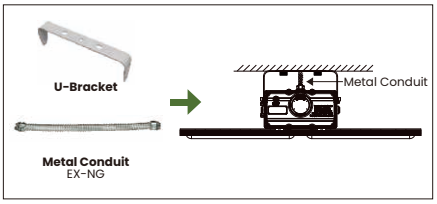
3. Warm white, e.g. 4000K
Switch configuration: Dial 1 = ON, Dial 2 = ON



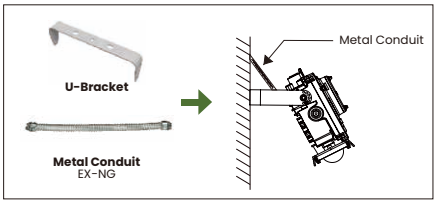
4000K

MOUNTING METHODS AND ACCESSORIES

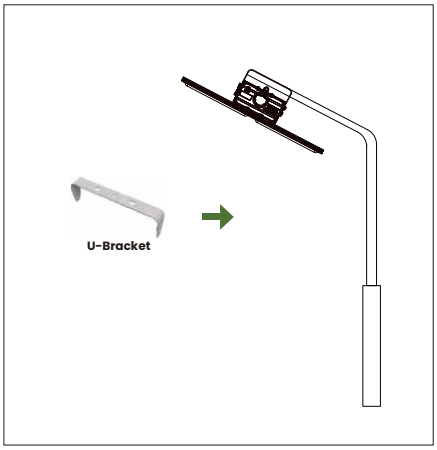
Option 1: Ceiling Mounting



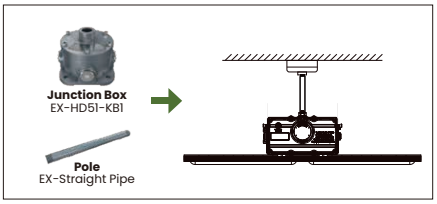
Option 2: Wall Mounting



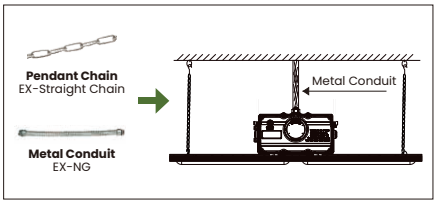
Option 3: Pole Mounting



Option 4: Pendant Mounting



Option 5: Chain Mounting



ORDER INFORMATION

EX - YY - YY - YY - YY

1 2 3 4 5 6 7 8 9

1 EX = Explosion Proof Light

2 Wattage

20W	20W
40W	40W
60W	60W
80W	80W
100W	100W
120W	120W
150W	150W
180W	180W
200W	200W

3 Shell Shape Series

H2	H2
H4	H4

4 Color Temperature

22	2200K
30	3000K
35	3500K
40	4000K
50	5000K
57	5700K
65	6500K

5 Voltage

(Blank)	120-277V
H	277-480V

6 Dimmable

D	0-10V Dimming

7 Optics

30	30°
45	45°
60	60°
90	90°
120	120°
T2	T2°
T3	T3°
T4	T4°
T5	T5°

8 Diffuser Type

CFP	Clear Flat PC
CCP	Clear Convex PC

9 Options

(Blank)	0.7M cord

WARRANTY PERIOD
5 YEARS WARRANTY

WARRANTY COVERAGE
LED LIGHT SOURCE, DRIVER

24h
AFTER-SALES SERVICE COMMITMENT
24H RESPONSE

72h
AFTER-SALES SERVICE COMMITMENT
72H RESOLUTION/REPLACEMENT