

# RAIL INDUSTRY

..... A dedicated range of products for the Rail Industry



# Chalmıt





www.hubbell.com



# Introducing our range of **Rail Industry** products

Hubbell designs solutions to power the transport infrastructure. Over 100 years of experience goes into everything we build.

#### Safety, quality and reliability is at our core.

Built for harsh and unforgiving environments, the Hubbell family of brands offer unparalleled products from **Chalmit**, **GAI-Tronics and Hawke.** Specifically designed for the rail and transport industries, Hawke offers Firemate and Toughmate connectors which can be used in conjunction with GAI-Tronics' Network Rail approved telecommunication and help points.

Combined with Chalmit industrial lighting, including our Protecta X, Arran X, and Luna transportable lighting, we are proud to offer a "One Hubbell" solution across brands that are designed to operate together to provide a safe and reliable transportation operating environment.

For all enquiries contact Hubbell on **+44 (0)141 882 5555** or by email at **getintouchuk@hubbell.com** 

#### Chalmit GAI-TRONICS HAWKE

#### **GAI-Tronics** Products

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HELP POINTS

GAI-TRONICS

**Disability Friendly, Vandal and Weather Resistant** Platforms, Assistance Areas, Car Parks, Footbridges



The Help Point family of telephones are fully electronic and provide hands free loud speaking communications for any public area. The help point incorporates features to assist with special needs and is designed to help you comply with the Equality Act 2010 (EA).

- SMART Analogue, VoIP-SIP and GSM options available
- Large, vandal resistant metal buttons, palm operable
- Raised text button legends with Braille
- Induction Loop facility for hearing impaired<sup>1</sup>
- Audio-visual ring indication
- Emergency override
- Local Public Address capability
- Robust and weather resistant: up to IP65
- Single or Dual button autodial options
- Remote programming and monitoring
- Hands free operation
- CE / UKCA Compliant
- Colour: DDA yellow, PHP white. Customised options available

<sup>1</sup> On the Analogue and GSM versions, the induction loop requires additional 12Vdc power supply (included). On the VoIP version, the induction loop requires no additional power.

# HUBBCOM

IP Network Device - Platforms, Rail Stations, Depots and Maintenance

GAI-TRONICS

#### SIP Technology

- Network Device
- 7-inch Touchscreen
- Indoor & Outdoor Versions
- Dual Inputs/Outputs
- **Bespoke Software Configuration**
- Web Portal Access
- 8W Speaker Output
- 8w Speaker Output

- Integrated Camera
- WiFi and Bluetooth
- Touchless Calling
- Temperature Sensing
- 24Vdc or PoE/PoE+
- RJ45 (Ethernet CAT5/5e)
- Handset or Handsfree
- Desk, surface & flush mount versions

# ON-TRAIN COMMS

GAI-TRONICS



- IP-based Communication System
- PRM-TSI Compliant

Public Address, Driver/Guard, Call For Aid

- Integration with visual displays for synchronised information
- Self Diagnostics and Fault Reporting
- Compliant with Rail Standards including RIA12
- Ambient Noise Monitoring System & Automatic Adjustment of Output Levels

Product design and specifications are subject to change without notice. Please check the GAI-Tronics website for latest specifications. www.hubbell.com/gai-tronics/en

#### GAI-TRONICS



**GAI-Tronics Titan** range gives high acoustic performance and reliability in safety critical rail applications. Solar GSM and GSM-R versions, with integrated batteries, offer a completely stand-alone solution for remote or non-cabled areas. VoIP and GSM give real-time health status monitoring.

#### Signal Post Telephones, User Worked Crossings, Automatic Half Barrier Crossings



- Analogue, VoIP-SIP, GSM and GSM-R options available
- Telephone line-powered, mains power, Solar, and PoE options
- Vandal Resistant Handset and Cord (Stainless Steel or Curled)
- Weather Protection: IP66 with door closed (up to IP65 with door open)
- CB, autodial and full keypad telephones
- Multi purpose design for wall or post mounting, simple installation
- Large tactile buttons, easy to see and operate
- Inductive Coupler fitted as standard for hard of hearing
- Colour: Yellow or Grey
- Locking Options
- Selectable Call Timer
- Remote programming and monitoring options for VoIP, GSM and GSM-R

Titan's aluminium body is robust and designed to look good and last longer in hostile outdoor environments.

GAI-TRONICS





#### **Automatic Half Barrier Crossings**

- VoIP SIP
- PETS (Public Emergency Telephone System)
- KETS (Kestrel Emergency Telephone System)
- White back-lit legend panel
- Raised press to call button
- Integrity loop
- Multi purpose design for wall or post mounting, simple installation

- Soft sprung door with magnetic catch
- Real-time alarm reporting
- Colour: Yellow
- Selectable Call Timer
- Inductive Coupler fitted as standard for hard of hearing
- Remote programming and monitoring

Approved by Network Rail

Tough, weather resistant units built to withstand abuse and environmental extremes.

# MONITORING

**Real-Time Reporting** 

GAI-TRONICS

All GAI-Tronics telephones have been designed to meet open standards:

- Allows flexibility when planning your telecoms strategy
- Ease of integration into Asset Management Systems

Remote Programming and Remote Health Status Monitoring come as standard with GAI-Tronics VoIP & GSM telephones (using SNMP/SMS), offering self-diagnostics on a range of alarms, including: Acoustic Path Test, Off Hook, Handset Integrity Loop, Keypad Error, Configuration Error (VoIP), Power Failure, Register Fail (VoIP), Battery Level (GSM), Signal Strength (GSM).





**TIMA** *GAI-TRONICS* Telephone Management Application

In addition, GAI-Tronics' Asset Management software TMA (Telephone Management Application) can be used with GAI-Tronics SMART Analogue, VoIP & GSM telephones.

- Self-Monitoring and Reporting Technology (SMART)
- Ensure your phones are operational
- Remotely Program autodial numbers
- View at a glance status information
- Plan maintenance and repair work
- Generate automatic reports
- Audio Path Testing
- Establish comprehensive database

# ACCESSORIES

#### For Telephone Systems

GAI-TRONICS

GAI-Tronics has a wide range of Accessories to complement telephones. These are suitable for high ambient noise levels and industrial applications and include Mounting Posts, Mounting Kits, Solar Panels, Beacons, Sounders, Acoustic Hoods and Antennas.













Beacon

Top of Post Mounting Kit

Side of Post Mounting Kit

PSTN Mounting Post



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CALL

GAI-TRONICS

# **Communications** You Can Rely On

TELEPHONES • PAGING & INTERCOM • MASS NOTIFICATION • PUBLIC ADDRESS & GENERAL ALARM







# PL5 FEATURES

**Glass Reinforced Plastic** 



#### **Dropped Lid Design**

Increased hand access makes wiring and inspection of terminations easier and quicker than traditional square, rectangular or octagonal enclosures. PL511 and PL514 Enclosures only.



#### **External Mounting Feet**

Eliminates the need to remove the lid when mounting enclosure on the wall.



#### **Superior Glass Reinforced Plastic Construction**

Designed to withstand impact of up to 7Nm, the PL5 ranges' lightweight construction also offers an exceptional degree of resistance to corrosive atmospheres.



#### **Corrosion Resistant Lid Fixing Screws with Retaining Feature**

Prevents the loss of screws during assembly and maintenance, reducing delays in installation or the need to replace the screws during the products lifetime.



#### Earth Continuity Plate

Available in Zintec or Brass



#### Pips Stamped Around the ECP Clearance Hole

Negates need for a serrated washer and makes more thread available on the gland for easier installation.

#### Stainless Steel Rating Label

Highly durable and corrosion resistant.





### Exceptional strength. 50% Less Weight.

Meet the PL5 range. Moulded from Glass Reinforced Plastic rather than the traditional Glass Reinforced Polyester, the range offers incredible GRP strength at a fraction of the weight. Reduce costs and installation time with our most economical Enclosure Range yet.

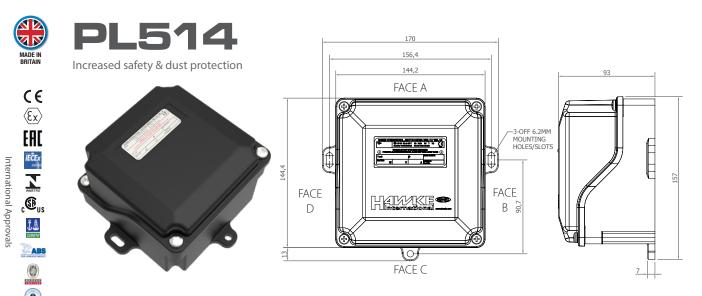
#### PL511 and PL514

- Enables finger access for easy wiring and inspection of terminations
- Eliminates the need to remove the lid when mounting the enclosure on the wall
- Provides Ingress Protection to IP66/67 Optimum performance at low and high temperature extremes
- Prevents loss of screws during assembly and maintenance
- Designed to withstand impact resistance up to 7Nm.
- Glass Reinforced Plastic construction provides a high degree of resistance to corrosive atmospheres.

#### PL513 and PL520

- Excellent operating temperature range for normal impact and low impact risk applications
  - ATEX, IECEx and CSA certified
- **Robust Glass Reinforced Plastic** Construction
- External Mounting Feet eliminates the need to remove the lid when mounting the enclosure on the wall
- **Corrosion Resistant Lid Fixing Screws** with Retaining Feature -Prevents the loss of screws during assembly and maintenance

Hawke International have been supplying Plastic Enclosures into the Hazardous Area market for over 40 years.



Offering exceptional strength, easy installation and global certification, the PL514 is the ideal alternative to traditional Glass Reinforced Polyester Enclosures.

Terminal Capacity									
	Conductor Size (mm2)		Conductor Size (mm2)		Max. Physical Terminal Content			Reduced Terminal Content at Max Amps	
Terminal Type	Min.	Max.	Max Volts	Rail Orientation	Terminal Qty	Rail Qty	Amps	Terminal Qty	Amps
WDU 2.5N	0.5	2.5	440	V	18	1	11	7	17
WDU 2.5	0.5	2.5	690	V	18		11	7	17
UT 2.5	0.1	2.5	690	V	17		11	10	15
WDU 4	0.5	4.0	690	V	14		15	7	22
UT 4	0.1	4.0	690	V	14		16	9	20
WDU 6	0.5	6.0	690	V	11		22	6	29
UT6	0.2	6.0	690	V	10		23	6	28
WDU 10	1.5	10.0	690	V	8		32	5	40
UT 10	0.5	10.0	690	V	8		33	5	39
HPB4	0.5	Max. per Pillar 2 x 10mm2 3 x 6mm2 4 x 4mm2 4 x 0.5mm2 2 x 2.5mm2 Solid 1 x 6.0mm2 Stranded	550	N/A	1	Conductor Size mm <sup>2</sup> 0.5 0.75 1 1.5 2.5 4 6 10	Max. Amps per Pillar 1 1 8 10 15 21 26 37	N/A	N/A

\* Max terminals are split across the quantity of terminal rails

## **Features**

- Unparalleled strength at 50% less weight that traditional Glass Reinforced Polyester enclosures
- Complete IP66/67 and 4X protection
- External mounting feet eliminate the need to remove the lid when mounting or removing the enclosure from a wall or other surface.
- Dropped lid design makes installation and inspection easier than ever before
- Earth Continuity Plate is available in Zintec or Brass
- Wide operating tempeature

	Technical Data
Ingress Protection	IP66 IP67 to IEC/EC 60529
Material	Glass Reinforced Plastic (GRP) Natural Black Finish
Service Temperature	-60°C to +75°C
Temperature Class and Ambient	T6 40°C as standard Optional T5 with ambients up to 65°C For additional options see technical data
ATEX/IECEx	
ATEX/IECEx Protection Class	Ex II 2 GD Ex eb IIC Gb; Ex tb IIIC Db
ATEX Certificate No	Baseefa14ATEX0268X (PL514) Baseefa14ATEX0248U (ZPL514)
IECEx Certificate Number	IECEx BAS 14.0123X (PL514) IECEx BAS 14.0120U (ZPL514)
<b>Construction &amp; Test Standards</b>	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31
Marine Approvals	ABS: 17-LD1653735-PDA Bureau Veritas: 43523/A1
Additional Certifications	EAC: RU C-GB.AA87.B.00430 Inmetro: IEx 16.0143X PESO: P457331
NEC/CEC	
NEC Protection Class	Class I, Zone 1, AEx e IIC Gb Zone 21,AEx tb IIIC T80°C Db
CEC Protection Class	Ex e IIC Gb Ex tb IIIC T80°C Db
c CSA us Certificate	70039997
Construction & Test Standards	UL 50E, UL508, UL12.12.01, UL/CSA-C22.2 60079-0,UL/CSA-C22.2 60079-7, UL/CSA-C22.2 60079-31, CSA-C22.2 No. 94-M91, CSA-C22.2 No. 14-M91

	Maximum Quantity of Entries Per Face							
Thread Size	M16	M20	M25	M32	M40	M50	M63	M75
Face B	2	2	1	-	-	-	-	-
Face C	6	6	2	2	-	-	-	-
Face D	2	2	1	-	-	-	-	-

CAUTION: Entry quantities are calculated based on standard gland diameters. Entry quantity may be affected if using accessories (locknuts, washers etc) with large diameters.







#### The Ultimate in Robust GRP Construction

Designed to withstand impact resistance up to 20Nm for the PL6 Series (7Nm for the PL7 Series), the GRP construction also provides a high degree of resistance to corrosive atmospheres for both ranges.



#### **Anti-Static Properties**

Removes the risk of ignition sources through static induced sparking resistivity. Insulation resistance less than  $1G\Omega$ .



#### **External Mounting Feet**

Eliminates the need to remove the lid when mounting the enclosure on the wall.

4

#### Earth Continuity Plate

Available in Zintec or Brass.

#### **Stainless Steel Rating Label**

Highly durable and corrosion resistant.



#### **Corrosion Resistant Lid Fixing Screws with Retaining Feature**

Prevents the loss of screws during assembly and maintenance, reducing delays in installation or the need to replace the screws during the products lifetime.

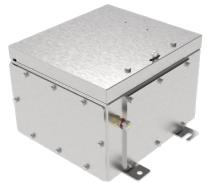
#### **One Piece Durable Captive Moulded Silicone Gasket**

Provides complete DTS01, IP66 and 4X protection from dust, oil and other non-corrosive materials – even at the most extreme temperatures.



# SS RANGE





## Tough. Durable. Reliable.

Our original Stainless Steel Enclosure range, the S Series has built a reputation for reliability and strength in some of the world's most arduous environments.

**Robust & Durable Stainless Steel Construction** Enclosure material thickness ranges between 1.2-2.0mm with 2-3mm thick gland plates for ultimate strength



#### **Rigid Slotted External Mounting Feet** For easier installation

**Stainless Steel Lid Fixing Screws with Nylon Washers** Prevents the loss of screws during assembly and maintenance, reducing delays in installation or the need to replace the screws during the products lifetime

Superior One-Piece Silicone Sponge Gasket

Provides DTS01 deluge protection and ingress protection to IP66



# **FRCG Cable Gland**

The 501/RCG Cable Gland combines the features of our market-leading Cable Gland range with the plug and play benefits of a connector.

#### Like a Gland, the RCG:

- Can be installed in long term installations
- Offers easy installation
- Suitable for Exe, Zone 1 certified equipment and rated to IP66/67



#### Unlike a Gland, however, the RCG Cable Gland:

- Can be pre-wired and used with sealed for life equipment or during modular fabrication
- Can be quickly disconnected for replacement and maintenance operations
- Provides an opportunity to reduce the amount of Ex equipment required for an installation



#### 501/RCG Increased Safety, Dust Protection Certified ATEX / IECEx / UKEx

CE International Approvals  $\langle Ex \rangle$ EAC **IEĈE**x



- Quick disconnect pin and socket arrangement inside the body of a gland
- Reversible Armour Clamp For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal Offering ultimate sealing over an extremely wide cable acceptance range

The 501/RCG is certified Exe/Ext, and can be used for quick field connection of cables to equipment where historically hard wiring methods are used. The product offers cost savings when carrying out essential inspection and maintenance activities, including the capability to quickly swap out equipment on-site.

501/RCG Selection Table									
De du Cine		Inner Sheath	Outer	Sheath	Steel Wire Arm	our/Tape/Braid	Fundament Theorem	Max Hexago	n Dimensions
Body Size	Seal/Ring Size	Max	Min	Max	Orientation 1	Orientation 2	Entry Thread	Across Flats	Across Corners
4-Pin	Os	8.1	5.5	12	0.8-1.25	0-0.8	M20	24	26.5
	0	11.4	9.5	16	0.8-1.25	0-0.8		24	26.5
	А	14.3	12.5	20.5	0.8-1.25	0-0.8		30	32.5
6-pin	0	11.4	9.5	16	0.8-1.25	0-0.8	M25	24	26.5
	А	14.3	12.5	20.5	0.8-1.25	0-0.8		30	32.5
	В	19.7	16.9	26	1.25-1.6	0-0.7		36	39.5
	B(AR)	19.7	16.9	26	0.9-1.25	0.5-0.9		36	39.5

For Alternative Ring with 6-pin B size add "AR" to end of code string

	Technical Data				
Ingress Protection	IP66, IP67				
Deluge Protection	to DTS01				
Voltage Rating	300VAC / 212VDC				
Ampage	Dependent on conductor size, see T-Rating Selection Table				
Conductor Sizes	0.75mm <sup>2</sup> - 6mm <sup>2</sup>				
Over Insulation Acceptance Diameters	Entry Side: Ø4.75mm Body Side: Ø5.50mm				
Operating Temperature	-60°C to +60°C (may be limited by T-Class)				
	ATEX/IECEx				
ATEX/IECEx Protection Class	Ex II 2 GD Ex eb IIC T6/T5 Gb, Ex tb IIIC T80°C/95°C Db Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22				
ATEX Certificate No	CML20ATEX3217X				
IECEx Certificate No	CML20.0137X				
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31				
Additional Certifications	EAC: RU C-GB.HA91.B.00207/21 Inmetro: IEx 21.0011X UKEx: CML21UKEX3073X				

Ordering Information					
Name	501/RCG	Product Type			
Number of Pins	4	4 Pins			
	6	6 Pins			
Body style	E	Entry (Supplied with Energised Cap)			
	В	Body (Supplied with Energised Cap)			
	G	Entry and Body (Supplied with Transit Caps			
Contact size	А	0.75mm2 - 1.5mm2			
Selection only required for Body Style E and G	В	2.5mm2			
	С	4/6mm2			
	Х	N/A for Bodies			
Cable OD	S	OS (4way)			
Selection only required for Body Style B and G	0	O (4/6way)			
	А	A (4/6way)			
	В	B (6way)			
	Х	N/A for Entries Only			

Crimp tool for Entry assembly recommended, order part code HTC2 Insert tool for Entry assembly required, order part code RCGT1 For Alternative threaded entries, a 476 thread adaptor may be required For additional clamping and to meet IEC EN BS 60079-14 10.3, the GMC can be used with the 501/RCG When purchasing Entry component, the required conductor size must be specified

Order Example: 501/RCG-4-G-B-A

T-Rating Selection Table					
Conductor Size	T6 +60°C	T5 +50°C			
0.75mm <sup>2</sup>	5A	5A			
1.5mm <sup>2</sup>	5A	5A			
2.5mm <sup>2</sup>	10A	16A			
4mm <sup>2</sup>	12A	18A			
6mm²	20A	30A			

Product Amp Rating is dependent on conductor size used in installation. Product comes marked with all T-ratings as standard
 Other conductor sizes between the sizes of 0.75mm<sup>2</sup> - 6mm<sup>2</sup> may be used.
 If the conductor size is not stated in the table above, the max ampage is restricted to the closest size rounded down.
 E.g. 3mm<sup>2</sup> conductor size would be limited to 10A if used in a T6 classification.
 If a mixture of conductor size is used, the ampage must be restricted to the smallest diameter used.
 This product may not be connected or disconnected under load.

# **FRCG** Coupler

The RCG coupler allows an installer to extend an existing piece of cable without the need to use a junction box, or a more permanent splice kit.

It combines two RCG cable glands and a simple termination system to make upgrading installations fast and easy while incorporating plug and play technology for future use.



# 501/RCG COUPLER

Increased Safety, Dust Protection Certified ATEX / IECEx / UKEx



- Quick disconnect pin and socket arrangement inside a connection tube
- Reversible Armour Clamp For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal Offering ultimate sealing over an extremely wide cable acceptance range
- External Earthing Tag supplied as standard

The 501/RCG Coupler is certified Exe, and is an inline quick connection product suitable for use as a cable extension device or an alternative to a junction box. Suitable for all types of cable, including unarmoured, armoured and braided.

	SUTACE Coupler Selection Table							
Body Size	C 1/D: C	Inner Sheath	Outer	Sheath	Steel Wire Arm	our/Tape/Braid	Max Hexago	n Dimensions
Body Size	Seal/Ring Size	Max	Min	Max	Orientation 1	Orientation 2	Across Flats	Across Corners
4-Pin	Os	8.1	5.5	12	0.8-1.25	0-0.8	24	26.5
	0	11.4	9.5	16	0.8-1.25	0-0.8	24	26.5
	А	14.3	12.5	20.5	0.8-1.25	0-0.8	30	32.5
6-pin	0	11.4	9.5	16	0.8-1.25	0-0.8	24	26.5
	А	14.3	12.5	20.5	0.8-1.25	0-0.8	30	32.5
	В	19.7	16.9	26	1.25-1.6	0-0.7	36	39.5
	B (AR)	19.7	16.9	26	0.9-1.25	0.5-0.9	36	39.5

#### 01/DCC Counter Colo

Product design and specifications are subject to change without notice. Please check the Hawke website for latest specifications.

www.hubbell.com/hawke

	Technical Data				
Ingress Protection	IP66, IP67				
Deluge Protection	to DTS01				
Voltage Rating	300VAC / 212VDC				
Ampage	Dependent on conductor size, see T-Rating Selection Table				
Conductor Sizes	0.75mm <sup>2</sup> - 6mm <sup>2</sup>				
Over Insulation Acceptance Diameter	Ø5.50mm				
Operating Temperature	-60°C to +60°C (may be limited by T-Class)				
	ATEX/IECEx				
ATEX/IECEx Protection Class	Ex II 2 GD Ex eb IIC T6/T5 Gb, Ex tb IIIC T80°C/95°C Db Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22				
ATEX Certificate No	CML20ATEX3217X				
IECEx Certificate No	CML20.0137X				
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31				
Additional Certifications	EAC: RU C-GB.HA91.B.00207/21 Inmetro: IEx 21.0011X UKEx: CML21UKEX3073X				

#### **Ordering Information**

Name	501/RCG	
Number of cores	4	4 pins
	6	6 pins
Body style	С	Coupler
Cable OD	S	OS (4way)
	0	O (4/6way)
	A	A (4/6way)
	В	B (6way)

Supplied Brass Nickel Plated as standard

For additional clamping and to meet IEC EN BS 60079-14 10.3, the GMC can be used with the 501/RCG A flange mount can be purchased as a separate line item, for details contact Hawke Technical

Order Example: 501/RCG-4-C-A

T-Rating Selection Table					
Conductor Size	T6 +60°C	T5 +50°C			
0.75mm <sup>2</sup>	5A	5A			
1.5mm <sup>2</sup>	5A	5A			
2.5mm <sup>2</sup>	10A	10A			
4mm <sup>2</sup>	12A	18A			
6mm²	20A	30A (4pin) 25A (6pin)			

Product Amp Rating is dependent on conductor size used in installation. Product comes marked with all T-ratings as standard
 Other conductor sizes between the sizes of 0.75mm<sup>2</sup> - 6mm<sup>2</sup> may be used.
 If the conductor size is not stated in the table above, the max ampage is restricted to the closest size rounded down.

E.g. 3mm<sup>2</sup> conductor size would be limited to 10A if used in a T6 classification.

- If a mixture of conductor sizes is used, the ampage must be restricted to the smallest diameter used.

- This product may not be connected or disconnected under load.





The **FireMate** safety critical connector has been developed to be used by Transport for London on underground and overground rail networks, commercial and public buildings where it is critical for equipment to work during an evacuation and rescue situation.

Tested to the latest fire standards **BS EN50200:2006 and BS8434-2:2003 + A2 2009** our connector will maintain its electrical and structural integrity during the harshest of fire conditions. The product is designed to be used in escape route safety equipment; emergency lighting circuits; fire alarms; voice alarms; shutdown systems; fire detection.

#### **Technical Data**

BS5839-1 2013 section 26.2 e), BS EN50200:2006,
BS8434-2:2003 + A2 2009, BS EN61984, BS5266-2016 -8.2.2
b d, GPSD (2001/95/EC)
IP66
Nickel Plated Brass
Range: -25°C to +70°C
Single compression seal
Electrical continuty using earth pin and body connection
Unarmoured fire rated cable
4 + Earth Dali ready
Up to 6mm <sup>2</sup>
16 Amps
240 V AC
AI 503
>500
2500

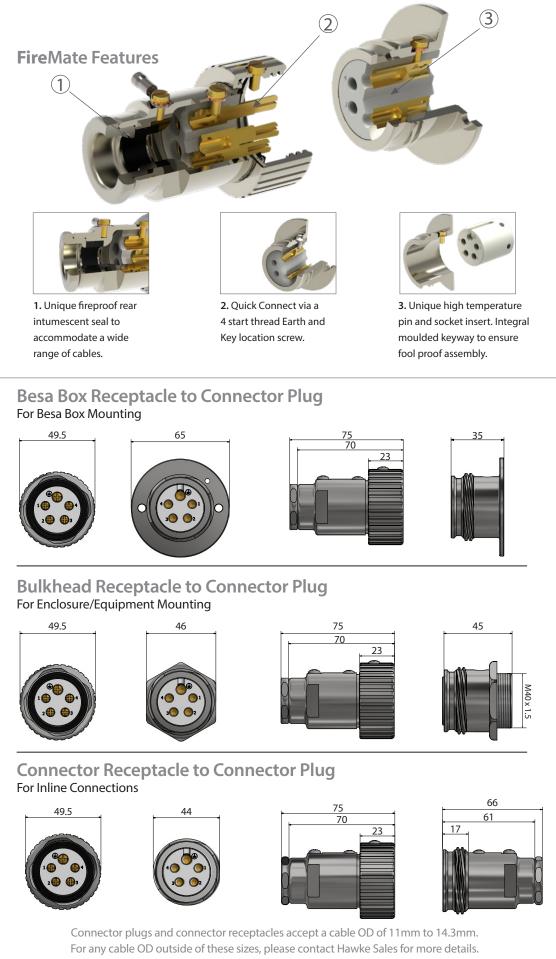
Fire	lest
In accordance with BS EN50200:2006 (Resistance to fire with mechanical shock)	<b>120mins at 830 (+40-0)°C</b> with mechanical shock and a rated voltage of 240v rms.
<b>Fire test: In accordance with BS 8434-2:2003 +A2 2009</b> (Resistance to fire with mechanical shock and water spray)	<b>120mins at 930 (+40-0)°C</b> with mechanical shock and a rated voltage of 240v rms. (60 mins fire and shock and 60 mins fire, shock and water)

Ordering Options					
Manufacture	Hawke	Н			
Туре	FireMate	FM			
Material	Nickel Plated Brass	N			
	Connector Plug	СР			
Connector Style The CP is always supplied with pin contacts	Connector Receptacle	CR			
	Bulkhead Receptacle	BR			
	Besa Box Receptacle	BB			

#### Sample Order Code

Manufacture/Type/Material et

H/FM/S/CP = Hawke, Firemate, Stainless Steel, Connector Plug.



All bulkhead receptacles are supplied with an M40 entry.





The **ToughMate** connector has been developed to be used by Transport for London on underground and overground rail networks, commercial and public buildings where equipment needs to withstand the harshest of environments.

Tested to the latest Industrial **BS EN 61984 and LVD 2014/35/ EU** our connector will maintain its electrical and structural integrity during the toughest conditions. The product is designed to be used in emergency lighting circuits; fire alarms; voice alarms; shutdown systems and fire detection.

#### **Technical Data**

Construction and Test Standards:	BS EN 61984, GPSD (2001/95/EC)
Ingress Protection:	IP66
Material:	Nickel Plated Brass or Stainless Steel 316
Operating Temperature:	Range: -25°C to +70°C
Sealing Arrangement:	Single compression seal
Earth:	Electrical continuity using earth pin and body connection
Cable Type:	Unarmoured cable
Number of Cores:	4 + Earth Dali ready
Core Size:	Up to 6mm <sup>2</sup>
Current range:	5, 10 & 15 Amps with Fuse, 16 Amps without
Voltage range:	240 V AC
Assembly Instructions:	AI 504
Max No. of make & break operations (EN61984): on and off load	≥500

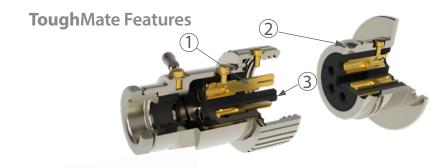
#### **Ordering Options**

5		
Manufacture	Hawke	н
Туре	ToughMate	ТМ
Material	Nickel Plated Brass	N
waterial	Stainless Steel	S
	Connector Plug	СР
Connector Style	Connector Receptacle	CR
The CP is always supplied with pin contacts	Bulkhead Receptacle	BR
	Besa Box Receptacle	BB
FUSE pin	3 Amp	F3
	5 Amp	F5
	10 Amp	F10
	15 Amp	F15
	Not Required or N/A for receptacle	X

\* For best practice please ensure that the socket side is energised only

#### Sample Order Code

Manufacture/Type/Material etc H/TM/S/CP/F5 = Hawke, ToughMate, Stainless Steel, Connector Plug, with 5Amp Fuse.



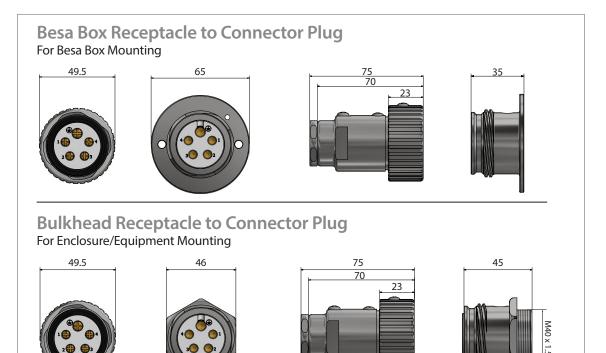


1. Unique fuse pin design available to give circuit protection without the need for enclosures.



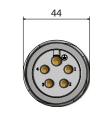


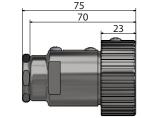
**3.** Custom peg design to ensure correct mating locations every time.



#### Connector Receptacle to Connector Plug For Inline Connections









Connector plugs and connector receptacles accept a cable OD of 10mm to 14mm. For any cable OD outside of these sizes, please contact Hawke Sales for more details. All bulkhead receptacles are supplied with an M40 entry.



# PROTECTA X

LED Linear

The next generation in LED linear luminaires, the Protecta X's revolutionary design puts LED at the centre to provide the performance of a 4ft linear in a lightweight and slimline package. Offering a robust enclosure, excellent IP and a variety of features to make installation and maintenance effortless, the Protecta X is ideal for industrial environments. Expected useful life to 70% of the initial lumens (L70) is >200,000 hours at 25°C, with an incredible 90,000 maintenance free hours at 60°C. For a luminaire with the longest life, the highest output and market-leading efficacy, choose the **Protecta X**.



#### **Mounting Options**

Ceiling. Wall. Suspended. Pole. Handrail

#### **Standard Specification**

Protecta X LED Linear				
Enclosure	Marine grade aluminium body with polycarbonate diffuser. Driver enclosure with epoxy powder finish (RAL 9005)			
Geartray	Aluminium			
Entry	4 x M20 cable entries - 2 at each end [3 cable entries on Emergency with battery stick]			
Termination	3 core 4mm <sup>2</sup> max conductor [4 core on Emergency] with looping one end and 16A rating through wiring			
Installation	2 x M8 mounting points located on the rear of the body			
Control Gear	Electronic Driver			
Optical Distribution	Wide beam			
Colour Temperature (CCT)	5000K (Cool White)			
Colour Rendering Index (Ra)	>80			
Maintenance	Front access panel with Torx screws			
LED Lifetime @ 60°C Ambient	L70 > 200,000hrs			
System Life @ Ambient	120,000hrs @ 25°C; 90,000hrs @ 60°C [excluding battery]			
Battery	Hot-Swappable Ni-MH (6V) battery stick - externally accessed [/EM version only]			
Emergency Duration	90 mins (02L = 50% output; 05L = 25% output) [ASL/ASW Asymmetric versions - 3hours only]			
Impact Protection	IK10			
Ingress Protection IP66/67 to EN 60529				
Surge Protection	4kV			
Electrical Supply	110-277V AC, 50/60Hz 127-250V DC			

## Features

- Highly Energy Efficient >135lm/W
- Front access cover with screwless mains terminals for easy termination
- Battery management and automatic self test
- Multiple beam distributions available
- >90,000 maintenance free hours at 60°C
- Externally accessible battery stick for ease of maintenance

Std. Cat No.	Delivered Output	Power Consumption	Ambient °C	Weight
PRXI/02L/LE	2696 lm	16W	-40 to +60	6.8kg
PRXI/05L/LE	5230 lm	35W	-40 to +60	8.8kg
PRXI/02L/LE/EM	2696 lm	19W	-25 to +60	7.3kg
PRXI/05L/LE/EM	5230 lm	38W	-25 to +60	9.3kg

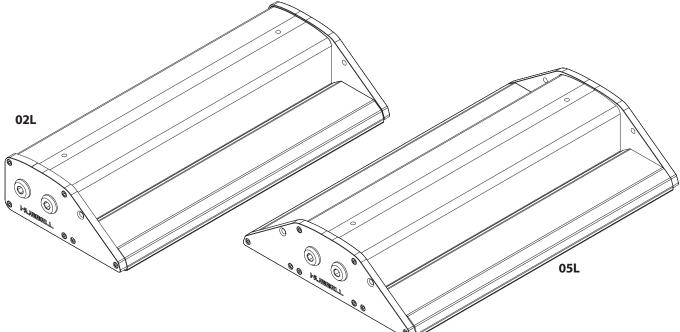
#### Options - Suffix to Catalogue No.

/M25	M25 cable entries	/3H	3 hour battery duration (02L = 25% output; 05L = 12.5% output) [Standard on ASW or ASL versions]
/LBE Looping both sides [Non Emergency only]		/4K	4000K (Neutral White) LED Strips [May be subject to minimum order quantity]
/EL	Extra live termination facility (to match emergency circuit) [Non Emergency only, Not available with /SC]	/SC	Screwed connection terminal block (up to 6mm <sup>2</sup> conductors) [Non Emergency only]
/EMI	Internal battery pack [replace /EM with /EMI]	/BNI	Batteries not included [Emergency version only]
/NST Non Self Test [Emergency version only] /DM DALI Dimmable driver		DALI Dimmable driver	
/ASL	Asymmetric along length optic	/M	Medium beam optic
/ASW	Asymmetric along width optic [05L version only]	/BP	Nickel plated brass plugs
		/OD	Opal diffuser (max. 30% reduction in output)

### Accessories order separately

	Order Code
Pole mounting bracket assembly (38-42mm diameter poles)	SPOL4-100001
Pole mounting bracket assembly (48-52mm diameter poles)	SPOL4-100002
Pole mounting bracket assembly (58-62mm diameter poles)	SPOL4-100003
Hook type ceiling bracket assembly	SPRO4-0005
Flush mounted wall bracket assembly	SPRO4-0006
Ceiling bracket assembly	SPRO4-0002
Standard wall mounting outreach bracket (use with SPOL4-100001)	NPRO4-0008
Eyebolt mounting assembly*	SPR05-0005
Protecta 4ft adaptor bracket	SPR05-0006

\*Only available for the 05L option.





The Protecta X is now available with Sealed For Life (SFL) option to further enhance the user benefits. By utilising Hawke's RCG cable gland, these two revolutionary products combine to offer features and benefits like no other lighting product.

Protecta X SFL takes OpEx benefits to a new level. This option allows field cables to be prepared in advance of luminaire installation, eliminating the need for historically difficult wiring installation on-site. Plug'n'Play design allows for a flexible approach to area lighting whilst minimising installation time.

SFL construction also restricts access to the luminaire housing removing requirements for elements of the Ex-inspection. Together with our innovative hot-swappable battery technology Protecta X SFL offers market leading cost savings for installation and maintenance teams.



#### Mounting Options

Ceiling. Wall. Suspended. Pole. Handrail

#### **Standard Specification**

#### Protecta X Ex eb LED Linear

FIOLECIA X EX ED EED EINEAI	otecta X EX ed LED Linear		
Type of Protection	Ex db eb (Flameproof, Increased Safety) Ex tb (Dust Protected Enclosure)		
ATEX Classification	Group II Category 2 GD		
Area Classification	Zone 1 and 21 areas to EN 60079-10-1 and EN 60079-10-2		
Certificate	EU Type Examination Certificate CML18ATEX3358X IECEx Certificate of Conformity IECEx CML 18.0167X UK Type Examination Certificate CML 21UKEX1506X		
Coding	Ex db eb IIC T5 Gb Ex tb IIIC T85°C Db IP6X		
Enclosure	Marine grade aluminium body with polycarbonate diffuser. Driver enclosure with epoxy powder finish (RAL 9005)		
Geartray	Aluminium		
Installation	2 x M8 mounting points located on the rear of the body		
Cable Entry & Termination	2 off M20 RCG Connectors 4 Pin type Brass Nickel Plated with End Cap, At one End & M20 Brass Nickel Plated Certified Blanking Plugs in all unused entries		
Control Gear	Electronic Driver		
<b>Optical Distribution</b>	Wide beam		
Colour Temperature (CCT)	5000K (Cool White)		
Colour Rendering Index (Ra)	>80 (Other colour temperatures may vary)		
LED Lifetime @ 60°C Ambient	L70 > 200,000hrs		
System Life @ Ambient	120,000hrs @ 25°C; 90,000hrs @ 60°C [excluding battery]		
Battery	Hot-Swappable Ni-MH (6V) battery stick - externally accessed [/EM version only]		
Emergency Duration	90 mins (02L = 50% output; 05L = 25% output, 07L = 20% output) [ASL Asymmetric versions - 3hours only]		
Impact Protection	IK10		
Ingress Protection	IP66/67 to EN 60529		
Surge Protection	4kV		
Electrical Supply	110-277V AC, 50/60Hz 127-250V DC		

### **Features**

- Highly Energy Efficient >135lm/W
- >90,000 maintenance free hours at 60°C
- Battery management and automatic self test
- Multiple beam distributions available
- Externally accessible battery stick for ease of maintenance
- Pre-terminated RCGs for plug and play installation

Std. Cat No.	Delivered Output	Power Consumption	Tclass	T°C (Dust)	Ambient °C	Weight
PRXB/02L/LE/SFLL	2696 lm	16W	T5	85	-40 to +60	7.6kg
PRXB/05L/LE/SFLL	5230 lm	35W	T5	85	-40 to +60	9.6kg
PRXB/07L/LE/SFLL	7474 lm	51W	T5	85	-40 to +55	9.8kg
PRXB/02L/LE/EM/SFLL	2696 lm	19W	T5	85	-25 to +60	8.1kg
PRXB/05L/LE/EM/SFLL	5230 lm	38W	T5	85	-25 to +60	10.1kg
PRXB/07L/LE/EM/SFLL	7474 lm	53W	T5	85	-25 to +55	10.3kg

(/SFLL = Sealed for Life - Looping one end)

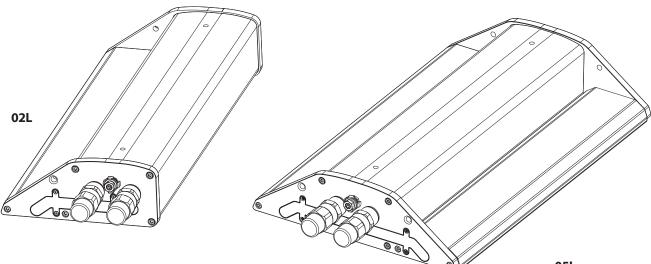
Options - Suffix to Catalogue No.

/3H	3 hour battery duration (02L = 25% output; 05L = 12.5% output) [Standard on ASL versions]		
/4K	4000K (Neutral White) LED Strips		
/BNI	Batteries not included [Emergency version only]		
/DM	DALI2 Dimmable driver. For 05L and 07L Non Emergency Only (6 Pin RCG's)		
/ASL	Asymmetric along length optic		
/SFLT	Sealed for life through wiring		

#### Accessories order separately

	Order Code
Hot Swappable Battery assembly	SPRXB-000002
Pole mounting bracket assembly (38-42mm diameter poles)	SPOL4-100001
Pole mounting bracket assembly (48-52mm diameter poles)	SPOL4-100002
Pole mounting bracket assembly (58-62mm diameter poles)	SPOL4-100003
Hook type ceiling bracket assembly	SPRO4-0005
Flush mounted wall bracket assembly	SPRO4-0006
Ceiling bracket assembly	SPRO4-0002
Standard wall mounting outreach bracket (use with SPOL4-100001)	NPRO4-0008
Eyebolt mounting assembly*	SPRO5-0005
Protecta 4ft adaptor bracket	SPR05-0006

\*Only available for the 05L and 07L option.







# **EVOLUTION X**

Ex db eb LED Floodlight

The next generation in Zone 1 LED luminaires, the **Evolution X** floodlight focuses on the need of the user by combining high powered performance with long term maintenance benefits. Providing a market leading photometric output up to 40,000 lumens, and offered with a variety of optics to efficiently illuminate any Zone 1/21 application, the **Evolution X** is a true successor to the traditional high output HID floodlights.

With no exposed flamepaths and an expected LED L70 life >200,000 hours at the maximum rated ambient of 60°C, the robust LED enclosure is effectively maintenance free. The optional benefit of a removable gearbox with excellent IP allows the maintainable components to be easily accessible, and ensures that the ground breaking **Evolution X** is suitable for global use in any harsh or hazardous environment.

#### **Mounting Options**

Floodlight. Pendant. High Bay. Pole/Column.

#### **Standard Specification**

#### Evolution X Ex db eb LED Floodlight

Evolution X EX ab eb LED Floodlight				
Type of Protection	Ex db eb (Flameproof, Increased Safety) Ex tb (Dust Protected Enclosure)			
ATEX Classification	Group II Category 2 GD			
Area Classification	Zone 1 and 21 areas to EN 60079-10-1 and EN 60079-10-2 with installation to EN 60079-14			
Certificate	EU Type Examination Certificate CML20ATEX1114X IECEx Certificate of Conformity IECEx CML 20.0073X UK Type Examination Certificate CML 21UKEX1510X			
Coding	Ex db eb IIB+H2 T* Gb Ex tb IIIC T**°C Db IP6X Refer to table for T rating and Ambient			
Enclosure	LM6 Marine grade aluminium body with UV resistant glass diffuser. LED heatsink and gearbox with epoxy powder finish (RAL 7040)			
Entry	2 x M20 cable entries			
Termination	3 core 6mm <sup>2</sup> max conductor with looping			
Installation	3 x Ø13 mounting holes stirrup			
Control Gear	Electronic Driver			
Optical Distribution	Wide beam			
Colour Temperature (CCT)	5000K (Cool White)			
Colour Rendering Index (Ra)	>80			
Maintenance	Front access to gearbox lid with 4x M6 captive screws			
LED Lifetime @ 60°C Ambient	L70 > 200,000hrs			
System Life @ Ambient	120,000hrs @ 25°C			
Impact Protection	IK10			
Ingress Protection	IP66/67 to EN 60529			
Surge Protection	6kV			
Electrical Supply	110-277V AC, 50/60Hz 127-250V DC			

## **Features**

- Highly Energy Efficient >106lm/W
- Slimline, Sealed for life LED enclosure with no exposed flamepaths
- Easy access gearbox with captive screws
- Available with asymmetric optic, minimising light pollution
  - **Remote gearbox** option with flying lead for ease of maintenance and installation
- **120,000** maintenance free hours at 25°C

Std. Cat No.	Delivered Output	Power Consumption	Tclass	T°C (Dust)	Ambient °C	Weight
EVXB/20L/LE	20,980 lm	188W	T5 T4	T100 T135	-55 to +40 -55 to +60	15.5kg
EVXB/30L/LE	29,433 lm	253W	T5 T4	T100 T135	-55 to +40 -55 to +60	17kg
EVXB/40L/LE	40,052 lm	375W	T5 T4	T100 T135	-55 to +40 -55 to +60	17kg

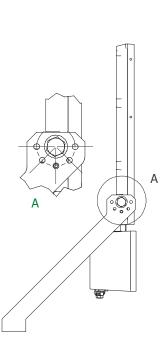
#### Options - Suffix to Catalogue No.

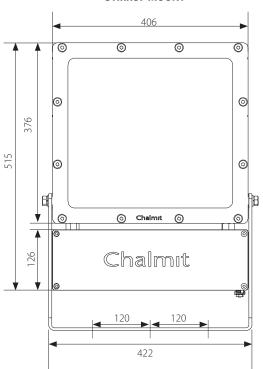
/M25	M25 Cable Entries
/N	Narrow Beam Distribution (≈5% reduction in output)
/AS	Asymmetric Distribution (≈11% reduction in output)
/DM	DALI Dimmable driver
/RG05	Remote Gearbox complete with 5m Cable to LED Enclosure (0, 10 & 15m cable lengths also available**)
/4K	4000K (Neutral White) LEDs
/3K	3000K (Warm White) LEDs

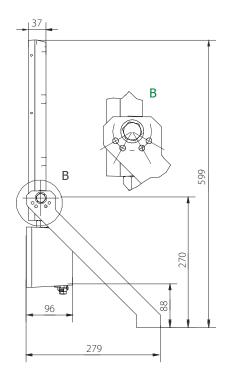
\*\*Cable construction to BS 6883. For alternative cable length, replace 05 with the required dimension, e.g. /RG10.

#### Accessories order separately

	Order Code
Pole Mounting Bracket Assembly (48-70mm Pole Diameter)	SEVO4-0001
Pendant Mounting kit	SEVX4-0003
Wire Guard	SEVX4-0002
Anti Glare Shield	SEVX4-0001
Crane Damper Bracket	SEVX4-0010







#### **STIRRUP MOUNT**



### EVOLUTION X REMOTE GEARBOX

Ex db eb LED Floodlight

Following the success of our Evolution X Floodlight we are delighted to present the **Evolution X Remote Gearbox** floodlight. Bringing all of the benefits from the existing product the Evolution X Remote Gearbox provides users with ease of installation, inspection and maintainenace expected of a next generation Zone 1 floodlight.

Utilising Rapid Connection Gland (RCG) entries between remote gearbox and LED engine allows simple field installation whilst reducing weight mounted at height. The robust LED enclosure is effectively maintenance free and mounting the Evolution X Remote Gearbox in an easily accessible location will provide reduced installation (CAPEX), maintenance and inspection (OPEX) for the lifetime of the fixture.

#### **Mounting Options**

Floodlight. Pendant. High Bay. Pole/Column.

#### **Standard Specification**

Evolution X Ex db eb LED Floodlight	
Type of Protection	Ex db eb (Flameproof, Increased Safety)
Type of Flotection	Ex tb (Dust Protected Enclosure)
ATEX Classification	Group II Category 2 GD
Area Classification	Zone 1 and 21 areas to EN 60079-10-1 and EN 60079-10-2 with installation to EN 60079-14
Certificate	EU Type Examination Certificate CML20ATEX1114X IECEx Certificate of Conformity IECEx CML 20.0073X UK Type Examination Certificate CML 21UKEX1510X
Coding Remote LED Heatsink	Ex db eb IIB+H2 T* Gb Ex tb IIIC T**°C Db IP6X Refer to table for T rating and Ambient
Coding Remote Gear Box	Ex db eb IIC T* Gb Ex tb IIIC T**°C Db IP6X Refer to table for T rating and Ambient
Enclosure	LM6 Marine grade aluminium body with UV resistant glass diffuser. LED heatsink and gearbox with epoxy powder finish (RAL 7040)
Entry	2 x M20 cable entries
Termination	3 core 6mm <sup>2</sup> max conductor with looping
Installation	3 x Ø13 mounting holes stirrup
Control Gear	Electronic Driver
Optical Distribution	Wide beam
Colour Temperature (CCT)	5000K (Cool White)
Colour Rendering Index (Ra)	>80
Maintenance	Front access to gearbox lid with 4x M6 captive screws
LED Lifetime @ 60°C Ambient	L70 > 200,000hrs
System Life @ Ambient	120,000hrs @ 25°C
1 10 1 11	IK10
Impact Protection	
Impact Protection Ingress Protection	IP66/67 to EN 60529
	IP66/67 to EN 60529 6kV

### **Features**

- Highly Energy Efficient >106lm/W
- Available with asymmetric optic, minimising light pollution
- 120,000 maintenance free hours at 25°C
- Easy access gearbox reduces CAPEX and OPEX
- Slimline, Sealed for life LED enclosure with no exposed flamepaths

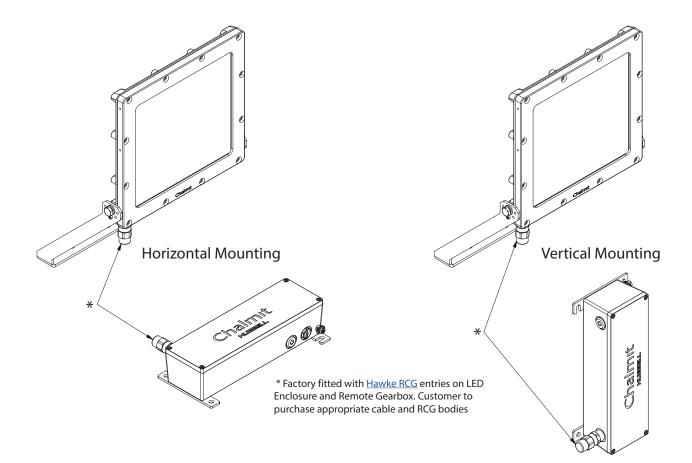
Std. Cat No.	Delivered Output	Power Consumption	Tclass	T°C (Dust)	Ambient °C	Weight
EVXB/20L/LE/**/RG00^	20,980 lm	188W	T5 T4	T100 T135	-55 to +40 -55 to +60	LED Enclosure = 10.0kg Remote Gear Box = 5.5kg
EVXB/30L/LE/**/RG00^	29,433 lm	253W	T5 T4	T100 T135	-55 to +40 -55 to +60	LED Enclosure = 10.0kg Remote Gear Box = 7.0kg
EVXB/40L/LE/**/RG00^	40,052 lm	375W	T5 T4	T100 T135	-55 to +40 -55 to +60	LED Enclosure = 10.0kg Remote Gear Box = 7.0kg

#### Options - Suffix to Catalogue No.

/M25	M25 Cable Entries
/N	Narrow Beam Distribution (~5% reduction in output)
/AS	Asymmetric Distribution (≈11% reduction in output)
/PE	Pendant Mount (further details on Evolution X Pendant data sheet)
/DM	DALI Dimmable driver
/4K	4000K (Neutral White) LEDs
/3K	3000K (Warm White) LEDs

### Accessories order separately

	Order Code
Pole Mounting Bracket Assembly (48-70mm Pole Diameter)	SEVO4-0001
Wire Guard	SEVX4-0002
Anti Glare Shield	SEVX4-0001
Crane Damper Bracket	SEVX4-0010





# **ARRAN** X

LED Floodlight

The **Arran X** is a new, revolutionary, energy efficient floodlight designed to withstand the most industrial harsh environments, without sacrificing light quality, durability, or safety. With a robust clamshell design, including a captive swing barrel latch, that offers complete and unimpeded access to the wiring chamber, which allows for a quick and easy installation. Multiple optic types are also available, so that light distribution can be tailored to application need.

Intelligent battery backup is also available as an option which includes Self-Testing feature which runs a 30 second test every 30 days and a 90 or 180 minute test every twelve months. Bi-coloured LED indicator provides a visual fault detection and charging status. With a greater range of output and optic options the Arran X offers a complete package for all Industrial floodlight applications.



#### Mounting Options

Floodlight. Pole/Column. High Bay

Standard	Specification
Standard	specification

Arran X LED Floodlight	
Enclosure	Marine grade Copper-Free Aluminium body with standard glass diffuser. Epoxy powder finish (Grey)
Entry	2 x M20 cable entries
Termination	3 core 6mm2 max. conductor with looping
Installation	Stirrup mounting bracket
Control Gear	Electronic Driver
Colour Temperature (CCT)	5000K (Cool White)
Colour Rendering Index (Ra)	>70
Maintenance	Easy Install with clamshell splice box for unimpeded wiring access. Slotted screws
Ingress Protection	IP66
Surge Protection	6kV & 4kV for 30L
Electrical Supply	120-277V AC 50/60Hz

# Features

- Easy Install with clamshell splice box for unimpeded wiring access
- Front access cover with screwless mains terminals for easy termination.
- Optics options including Asymmetric, Narrow and Extra Wide
- Intelligent battery backup with built in self-monitoring and testing
- Light weight at 11.3kg

Std. Cat No.	Delivered Output	Power Consumption	Ambient °C	Weight
ARXI/07L/LE	7407 lm	63W	-50 to +55	11.3kg
ARXI/10L/LE	10264 lm	91W	-50 to +55	11.3kg
ARXI/14L/LE	14133 lm	118W	'-50 to +55	11.3kg
ARXI/20L/LE	18954 lm	178W	'-50 to +55	11.3kg
ARXI/30L/LE	28423 lm	269W	'-50 to +55	11.3kg
ARXI/07L/LE/EM	7407 lm	63W	'-20 to +50	12.03kg
ARXI/14L/LE/EM	14133 lm	118W	'-20 to +50	12.03kg

Standard fitting supplied without optics with a wide beam distribution

ARXI/07L/LE/EM 1000 lumens 90 minute emergency duration

1000 lumens 90 minute emergency duration

Glass lens as standard

ARXI/14L/LE/EM

Intelligent Battery Backup

Self-diagnostics monitors LED luminaire status

• Self-Test feature automatically runs a 1 month and bi-yearly functional test

• LED indicator provides visible fault detection and charging status

User initiated 1, or 90-minute system test feature

• 15 minute re-transfer delay

Automatic unit transfer when there is an unintentional drop in voltage. (below 80% of nominal AC input voltage)

Options -	Suffix to	Catalogue No.	
-----------	-----------	---------------	--

/M25	M25 cable entries	/3H 3 hour battery duration (500 lumens)	
/AS	Asymmetric distribution	/3K	3000K (Warm White) LEDs
/N	Narrow Beam distribution	/ADE	Amber LED Turtle friendly*
/ <b>X</b>	Extra Wide Beam distribution	/DM	DALI Dimmable driver**

\* only available with the 14L and 30L options

\*\* Available up to the 20L option

Optics are not available on the 30L fitting

Accessories order separately	
	Order Code
Wire Guard 316 Stainless Steel (not used with KFLX-DARK)	KFLX-GUARD
Anti Glare Shield Visor that blocks upward light when mounting at angles above 45° (not used with KFLX-GUARD)	KFLX-DARK
Pole Mounting Bracket Assembly (48-70mm Pole Diameter)	S2400-0002





HDL106TN Transportable Ex e LED Floodlight

The **Luna** Floodlight is an easily portable, reliable and highly powerful luminaire that directs a crisp, targeted output (up to 5,600lm) where you need it most.

With a robust, marine grade construction, maintenance-friendly design and LED lifespan of over 10 years, the **Luna** is ideal for temporary lighting applications



#### Standard Specification

#### HDL106TN Transportable Ex e LED Floodlight

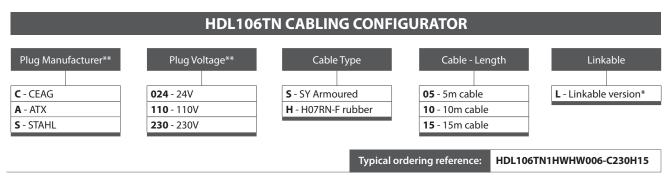
HDL1061N Iransportable EX e LED Floodlight				
Type of Protection	Ex e mb (Increased Safety, Encapsulation) Ex tb (Dust Protected Enclosure)			
ATEX Classification	Group II Category 2 GD			
Area Classification	Zone 1 and 21 areas to EN 60079-10-1 and EN 60079-10-2 with installation to EN 60079-14			
Certificate	EU Type Examination Certificate Sira 10ATEX5115X IECEx Certificate of Conformity IECEx SIR 10.0055X			
Coding	Ex e mb IIC T* Gb Ex tb IIIC T*** °C Db Refer to table for T rating and Ambient			
Enclosure	LM6 Aluminium with yellow epoxy powder finish (RAL 1018) and Polycarbonate diffuser			
Entry	2 x M20 cable entries			
Termination	3 core 4mm <sup>2</sup> max. conductor with looping			
Installation	Stirrup mounted within transportable frame			
Control Gear	Electronic Driver			
Optical Distribution	Wide beam (50°)			
Colour Temperature (CCT)	5000K (Cool White)			
Colour Rendering Index (Ra)	>70			
Maintenance	M8 Hex Head and M6 SKT Head			
LED Lifetime @ 25°C Ambient	L70 > 150,000hrs			
Impact Protection	IK10			
Ingress Protection	IP66/67 to EN 60529			
Surge Protection	4kV line to line, 6kV line to earth			
Electrical Supply	Refer to Ordering Matrix (For details on Transformers or Splitter Boxes, please contact Internal Sales)			

### **Features**

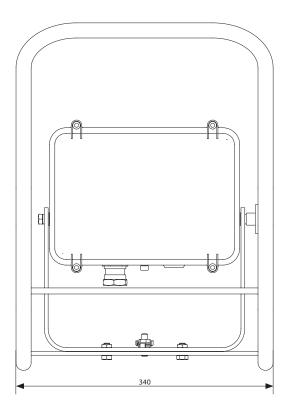
- **Ultra bright light** with market-leading efficacy
- 9kg Lightweight transportable floodlight
- ♦ >150,000 maintenance free hours at 25°C (L70) ♦ Independent LED engines for ultimate reliability
- Available with a variety of cable lengths and plugs
- Robust marine grade construction designed for tough use
  - Independent LED engines for ultimate reliability and confidence on site (48 LED option only)

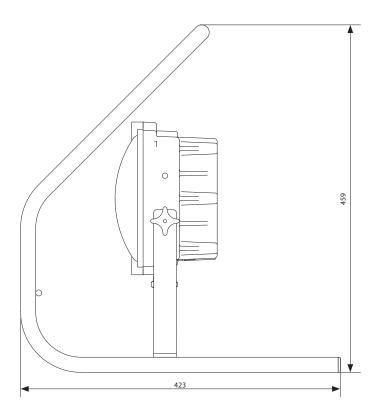
Std. Cat No.	Delivered Output	Power Consumption	Voltage	Tclass	T °C (Dust)	Ambient °C	Weight
HDL106TN0HWHW006	2812lm	27W	100-254V AC	T4 T3	103	-20 to +50 -20 to +55	9kg
HDL106TN0LWHW006	2812lm	27W	18-54V AC/DC	T4	87	-20 to +55	9kg
HDL106TN1HWHW006	5624lm	53W	100-254V AC	T4 T3	103	-20 to +50 -20 to +55	9kg
HDL106TN1LWHW006	5624lm	53W	18-54V AC/DC	T4	87	-20 to +55	9kg

Options - Su	ffix to Catalogue No.		
FG	Flat Glass and Aluminium front cover	BP	Nickel plated brass plugs (not available with Linkable version)

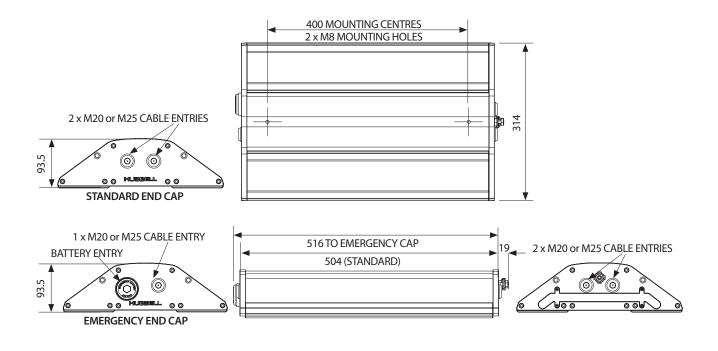


\*Ambient restrictions apply when linking multiple units with CEAG sockets. Please contact Chalmit Technical for further information. \*\*If a plug is not required, please leave Manufacturer and Voltage blank, e.g. HDL106TN1HWHW006-H15

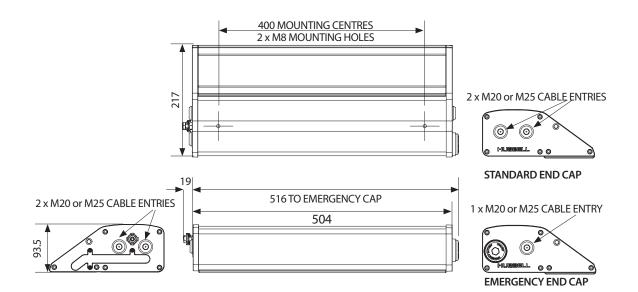




### **PROTECTA X - 05L**



**PROTECTA X - 02L** 

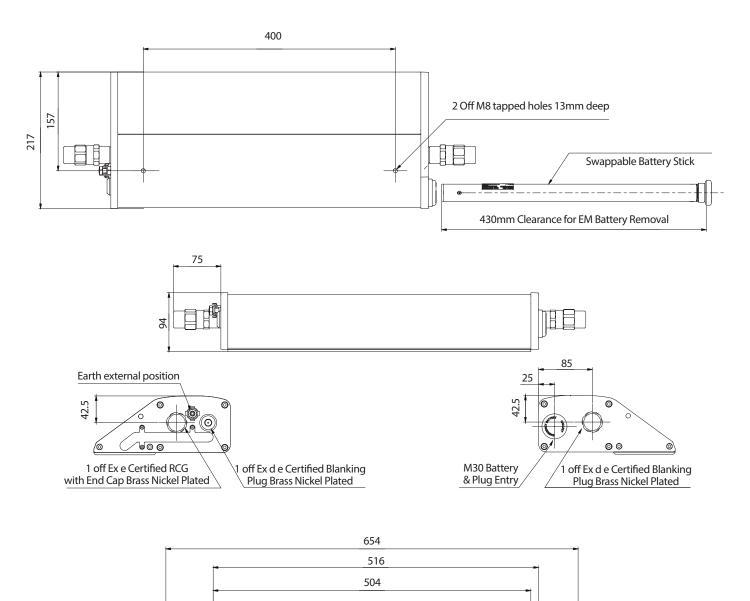


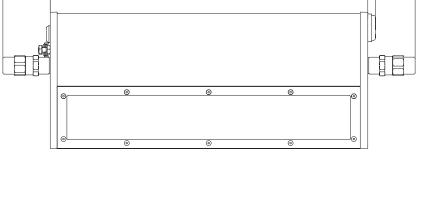
473.2 421.0 (0); 0 280.4 B E 0 Ē HUBBEI c 0 0 **≜**E Εŧ 444.5 176.3 Hood ٩æ البصية 94.6 64.6 0 Ģ 0 25.4  $\oplus\cdot\cdot\oplus$  $\oplus$ + 4 Ð 157.5 013.0 -/ (4) PLACES Ħ 249.2 - 0 28.2 20.3 -TYP T R7.1 [R.28] TYP -39.7 230.1  $\mathbb{D}$ 360.6 300.0 D flucture ₩œ‡ Imi П Н 0 0 E ο 0 50.8 -39.2 H 20.4mm holes suitable for M20 glands -69.9 --

### **ARRAN X**

### **PROTECTA X SFL**

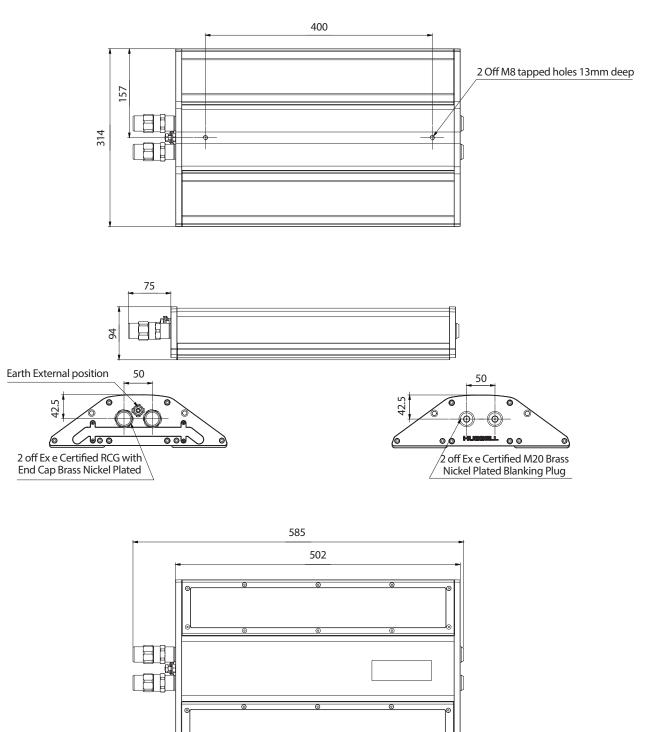
#### PRXB/02L/LE/EM/SFLT



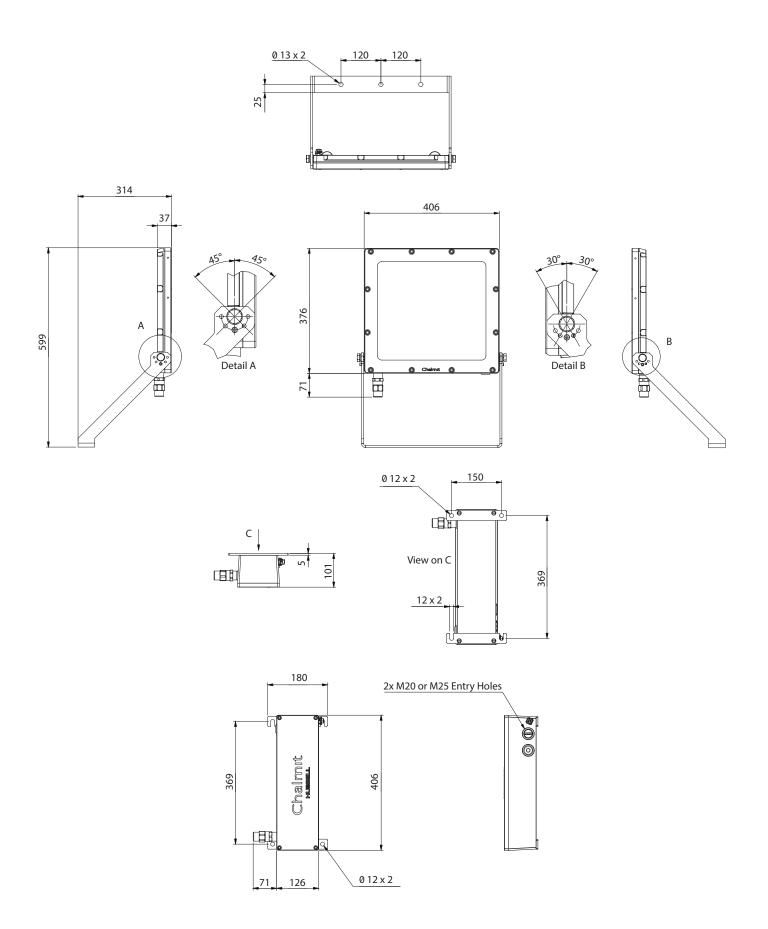


### **PROTECTA X SFL**

#### PRXB/05L/LE/SFLL & PRXB/07L/LE/SFLL



### **EVOLUTION X REMOTE BOX**



Product design and specifications are subject to change without notice. Please check the Chalmit website for latest specifications. www.hubbell.com/chalmit



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# **USB CHARGER**

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- Two Type A USB Ports
- Tamper Resistant Grade Duplex Compatible
- USB Ports Rated 10,000 Cycles

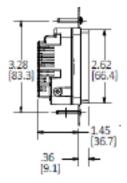
Ordering Information				
Description	Colour	UPC Number	Catalogue Number	
Tamper Resistant 15A/125V Duplex, 3.2 Amp, 5 Volts USB Ports	White	883778309878	USB15AW	

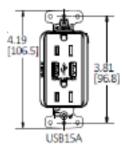
	Technical Information
Listings	
cULus Listed to UL498, UL1310	

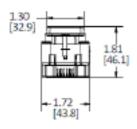
Specifications				
Mounting Strap	.040" Zinc Plated Steel			
Face	Reinforce Thermoplastic			
Base	Reinforce Thermoplastic			
USB Port	Stainless Steel			
Contacts	Plated Steel			
Clamp	Plated Steel			
Terminal Screws	Plated Steel			
Mounting Screws	Zinc Plated Steel			

Performance						
Electrical	Electrical					
Current Interupting	Certified for current interupting at full rated current					
Dieletric Voltage	Withstands 1,500 V minimum Complies with USB BC1.2 Battery Charging and 3.0 Power Delivery Specs					
Mechanical						
Product Identification	Ratings are a permanent part of the device					
Terminal Accommodation	#14#10 AWG copper stranded or solid conductor only					
Terminal Identification	Terminals identified in accordance with UL498 and CSA					
USB Ports	Stainless steel for 10,000 plug insertions and removal					
Environmental						
Flammability	UL 94V-2					
Operating Temperature	Maximum continuous 75°C, minimum -40°C (w/o impact)					











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We are continually developing products and processes that support sustainability and offer energy efficient solutions for our customers and partners.

Our focus remains addressing and managing the risks associated with climate change and we are committed to facilitating a sustainable future.

For more information visit us at www.hubbell.com/hubbell/en/sustainability

# Our ESG Goals

**10%** Reduction in GHG Emissions By 2025

**10%** Reduction in Water Consumption By 2025



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