



- Group II, Zone 2, hazardous area floodlights, mast lights, & high bays
- Product marking summary
Ex II 3 G D
Ex nR IIC T* Gc
Ex tc IIIC T* Dc IP66
- CE, RoHS, ATEX & IECEx international product marks
- The most competitive, high-end solution for projects worldwide

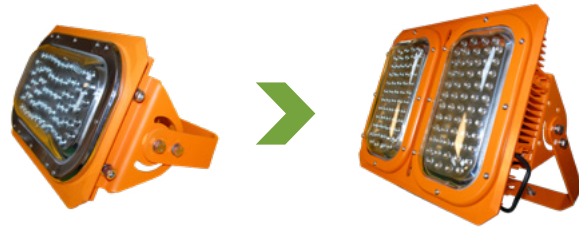


Gainsborough Series **Explosion Proof Floodlights & High Bays**

* Product/temperature dependant - contact office for details

CDN:SPEC41REV20

◀ Technical Specifications Summary



Performance Summary:

| | | | | | |
|--|-------------------------------------|---------|----------|----------|----------|
| Code (Series-Wattage/Size) | GAI-80 | GAI-120 | GAI-160 | GAI-200 | GAI-240 |
| Nominal Power | 80W | 120W | 160W | 200W | 240W |
| Luminaire Efficacy @ CRI>70, 5000K CCT | 84lm/W | 82lm/W | 81lm/W | 84lm/W | 84lm/W |
| Lumen Output @ CRI>70, 5000K CCT | 6,720lm | 9,840lm | 11,745lm | 15,120lm | 20,160lm |
| Chip Lumen Maintenance (TM21 Reported) | L80B10 ≥42,000 hours @ 25°C Ambient | | | | |
| Chip Lumen Maintenance (TM21 Calculated) | L80B10 ≥70,000 hours @ 25°C Ambient | | | | |
| Certification | CE, RoHS, ATEX, IECEx | | | | |
| Product Warranty | 5 Years, (10 Years optional) | | | | |

Light Source and Photometric Parameters:

| | |
|---|---------------------------------------|
| Chip Brand, Model, & Size | Osram Oslon SSL 3030 |
| Chip Efficacy @ CRI>70, 5700K CCT | 130lm/W @ 600mA |
| Light Emission | Direct |
| CCT | 5000K, (3000K, 4000K, 5700K optional) |
| CRI | ≥70Ra, (≥80Ra optional) |
| Diffusers | Clear |
| Asymmetric Light Distribution | FW (120°x100°), SL (90°x150°) |

Electrical Parameters¹:

| | | | | | |
|--|------------------------|------|------|------|------|
| System Operating Power | 80W | 120W | 160W | 200W | 240W |
| Input Voltage | 100-130VAC, 220-240VAC | | | | |
| Input Frequency (D1) | 50-60Hz | | | | |
| Inrush Current @100-130 or 220-240VAC | 60A | 65A | 65A | 75A | 75A |
| Power Factor | >0.98 | | | | |
| THD | <10% (220-240VAC) | | | | |
| Insulation Class | I | | | | |
| Surge Protection/Fusing | 6kV | | | | |

Environmental Parameters:

| | |
|-----------------------------------|------------------------|
| IP Rating | IP66 |
| IK Rating² | IK10/IK08 or IK10/IK10 |
| Ambient Usage Tolerance | -40°C to 55°C |
| Ambient Storage Tolerance | -40°C to 55°C |
| Ambient Humidity Tolerance | 0% to 90% RH |

Technical Specifications Summary

| Code (Series-Wattage/Size) | GAI-80 | GAI-120 | GAI-160 | GAI-200 | GAI-240 |
|--|--|-----------------|-----------------|-----------------|-----------------|
| Physical/Mechanical Parameters: | | | | | |
| Product Dimensions: LxWxH (mm) | 210 x 400 x 161 | 260 x 400 x 161 | 260 x 400 x 161 | 500 x 400 x 161 | 500 x 400 x 161 |
| Qty of LED Chips | 42 | 56 | 76 | 120 | 120 |
| Standard Electrical Connection | Terminal Block 1mm ² to 4mm ² - 0.7m 1mm ² 3-Core Cable (Note: 1mm ² to 2mm ² if installed as Wire-In-Wire-Out configuration) | | | | |
| Electrical Connection JB (Optional) | Recommended for armoured cable glands, supplied without cable glands | | | | |
| Wire-In-Wire-Out Installation | Yes | | | | |
| Inlet Thread | M20 (M20x1.5), M25 (M25x1.5), NPT3/4" | | | | |
| Gland Type ^{3,4} | Brass with Nickel Plated Non-Armoured (Armoured optional) | | | | |
| Suitable Cable Size (ø) ⁵ | M20 = 6.1-13.2mm, M25 = 12.5-20.5mm, NPT3/4" = 12.5-20.5mm | | | | |
| Fixture Weight ⁶ | 7.3kg | 11.0kg | 11.0kg | 18.4kg | 18.4kg |
| Fixture Primary Material(s) | 6063 Copper-Free Aluminium Alloy (≤0.1% Copper) and 316 Stainless Steel Fixings | | | | |
| Fixture Finish | Epoxy Powder Coated | | | | |
| Lens(es) Materials | Tempered Glass | | | | |
| Protection Method | Restricted Breathing | | | | |
| Options/Accessories: | | | | | |
| Mounting Styles | Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension | | | | |
| Miscellaneous Accessories | Wire Grill | | | | |
| Available Product Colours | Orange (RAL2011), Grey (RAL7040) | | | | |

¹ Details are for standard non-dimming driver

² (Format: "IK Rating: Housing" / "IK Rating: Front Face") – IK10 if fitted with wire guard accessory

³ Wire-in-wire-out compatible products supplied with one non-armoured ATEX certified gland and one ATEX certified blanking plug.

⁴ Armoured Cable gland available as an optional accessory. Please contact Kellwood for more information.

⁵ Stated cable size is applicable to standard gland. Armoured cable may vary, contact Kellwood for more information.

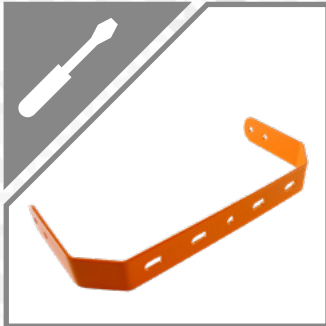
⁶ Excludes bracketry. Refer to the Packaging Weights & Dimensions data sheet for bracketry and accessory weights

| Certifications | | | | | |
|---------------------|--|-------------------|-------|--------------------|--------|
| Division | ATEX Zone 2 & 22 | | | | |
| Product Marking | Ⓔ II 3 G D Ex nR IICT* Gc Ex tc IICT* Dc IP66 *for further information please see temperate table | | | | |
| Temperature Table | | | | | |
| Product | Rated Power (Watts) | Temperature Class | | | |
| | | -40° to 40°C (Ta) | | -40°C to 55°C (Ta) | |
| | | Gas | Dust | Gas | Dust |
| Gainsborough Series | 80W | T6 | T80°C | T5 | T95°C |
| | 120W | | | | |
| | 160W | | | | |
| | 200W | | | | |
| | 240W | T5 | T95°C | T4 | T130°C |
| Certificate Number | | | | | |
| ATEX | LCIE 14 ATEX 1014 X | | | | |
| IECEx | IECEx QM 13.0044X | | | | |

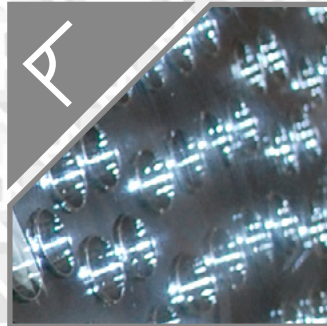
All stated values should be considered indicative only. Technical data is provided from sample luminaires and construction components as assessed by OEM(s) under industry-standard, laboratory conditions. In practice, stated values can vary. Kellwood Lighting operates a policy of continual product improvement. Our luminaires' capabilities are regularly enhanced to outperform in-class market alternatives. Please contact our technical team directly for clarifications prior to purchase. All images depicted should be considered indicative only. Stated product warranty periods do not include associated labour costs. Stated product warranty periods are for UK projects only. For international projects, please contact our offices directly. Optional upgrades can often affect or supersede unit technical parameters, capabilities, and warranties. It is the responsibility of the purchasing authority to ensure selected hardware is suitable for application. For further documentation, including Returns Policy and Conditions of Unit Failure, please contact our offices. Hazardous area documentation (eg. ATEX) are issued to OEM codes. WEEE compliance reference code: WEE/MP3838PR/SCH. Please do not look directly at LED lighting products during operation.

This datasheet & corresponding certification should be reviewed by a competent person to ensure project suitability.

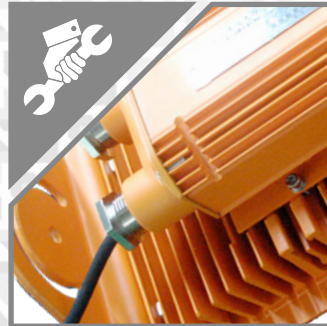
©2020 Kellwood Engineering Ltd. All rights reserved.


Mounting Options

Pipe clamp mount, universal bracket, slip fit, eye bolt, cable suspension, & custom


Distribution

7 no. optic variants are available for general & task-specific applications


User-Friendly

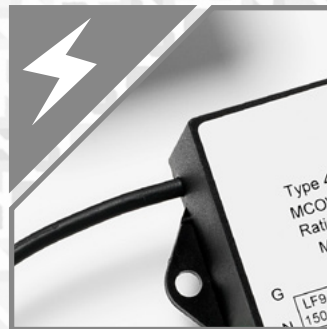
Terminal block enclosure covers are secured to the luminaire for easier installation & faster maintenance


Environmental Protection

IP66, copper-free aluminium body c/w corrosion resistant paint finish - Salt spray testing reports available


Impact Protection

IK10 body, IK08 tempered glass front-face - Wire guard accessory increases front-face impact protection from IK08 to IK10


Electrical Protection

Custom-built PSU incorporates 4 or 6kV surge protection - Output voltage overload protection 54-63VDC


Optional Fitting Colours

Orange, grey, custom - Available subject to MOQ

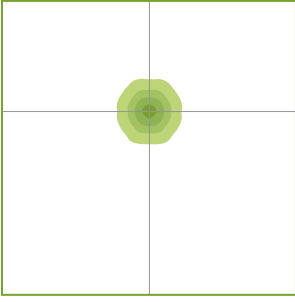


Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

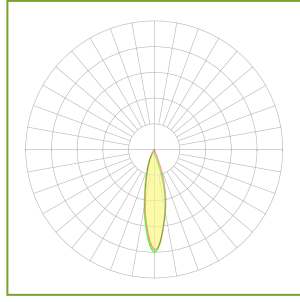
Indicative Product Photometry

H1V1 - 15°

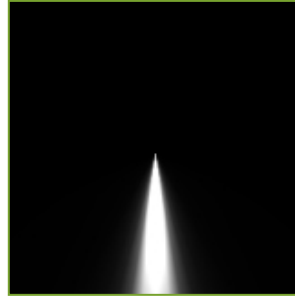
ISOLUX DIAGRAM



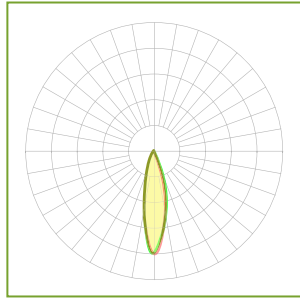
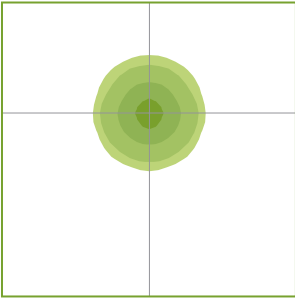
POLAR DIAGRAM



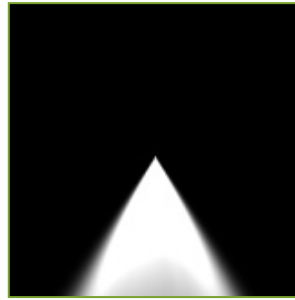
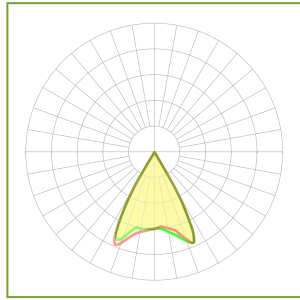
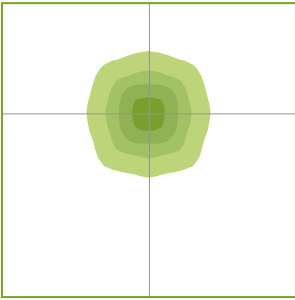
3D VISUAL RENDER



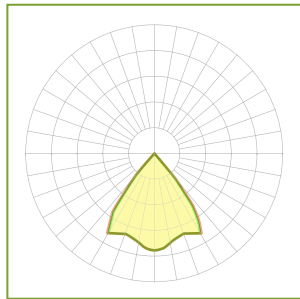
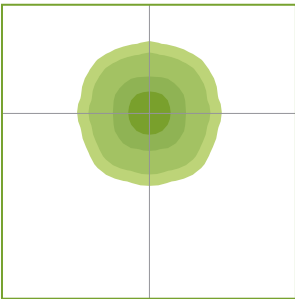
H3V3 - 40°



H4V4 - 60°



H5V5 - 80°



Colourations on isolux diagrams are qualitative, i.e. the same colour on any two isolux diagrams will not necessarily have the same lux value.

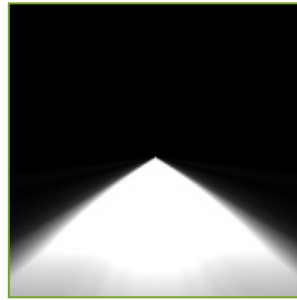
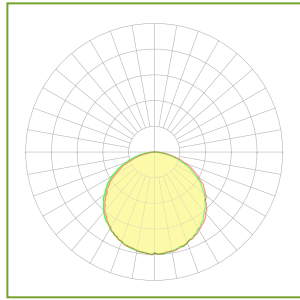
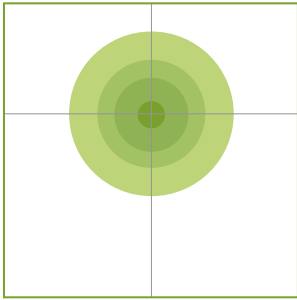




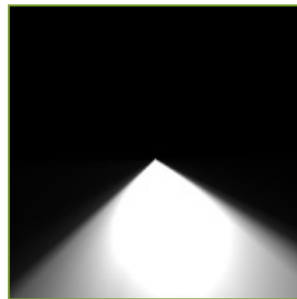
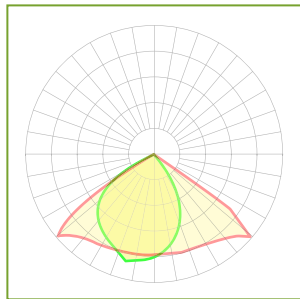
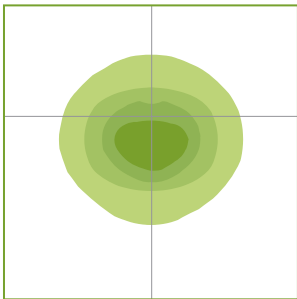
Please note - images shown are intended to be illustrative only. For exact data, please refer to specific product photometry, available for download from our website.

Indicative Product Photometry

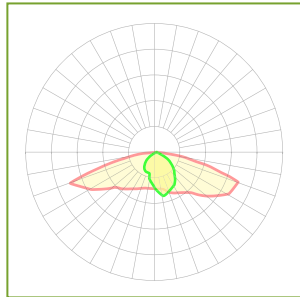
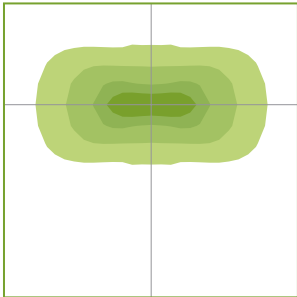
H6V6 - 120°



FW - 120° x 100°



SL - 90° x 150°

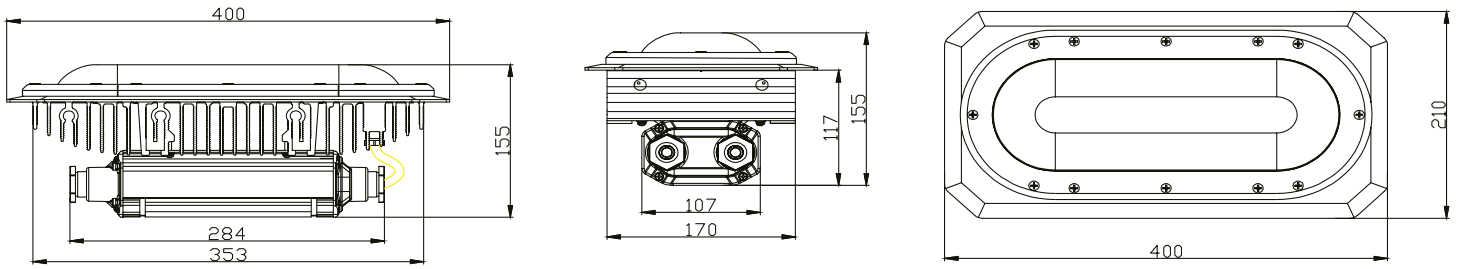


Colourations on isolux diagrams are qualitative, i.e. the same colour on any two isolux diagrams will not necessarily have the same lux value.

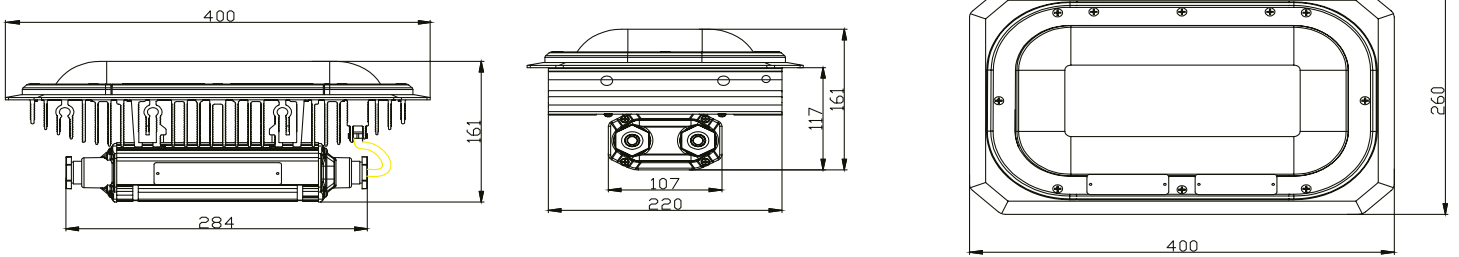


Dimensional Drawings

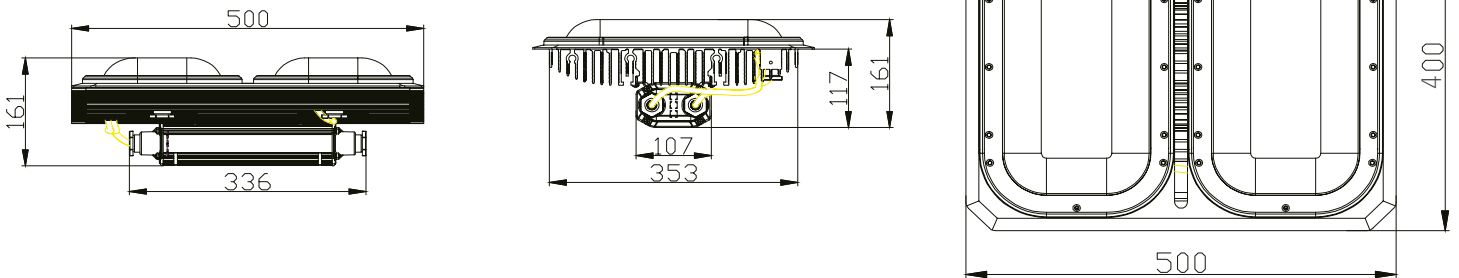
Nominal Power / Product Class 80W



Nominal Power / Product Class 120W, 160W



Nominal Power / Product Class 200W, 240W



Bracketry

The tables below detail the mounting options available with each wattage:

| | | | |
|--------------------------|----------------------------------|--------------------------|----------------------------|
| <p>Universal Bracket</p> | | <p>Universal Bracket</p> | |
| <p>Slip Fit</p> | | <p>Slip Fit</p> | |
| <p>Pipe Clamp Mount</p> | <p>80W, 120W, 180W Luminaire</p> | <p>Eye Bolt</p> | <p>200, 240W Luminaire</p> |
| <p>Cable Suspension</p> | | | |



Standard product code fields are presented as:
Further customisation may be available - please contact us if required



Product Ordering Codes

| PRODUCT | POWER | CRI & CCT | OPTIC | DRIVER | MOUNTING* | COLOUR | THREAD | CONFIGURABLE OPTION |
|------------|--------------------|------------------------------|---|---|--------------------------------|---------------------|-----------------------------------|---|
| GAI | 80 80W | 740 CRI >70, 4000K | 15 15° CIRCULAR (H1V1) | V10 INPUT VOLTAGE 100-130 VAC | UB UNIVERSAL BRACKET | OR ORANGE | I1 M25 INLET THREAD | WG WIRE GRILL |
| | 120 120W | 750 CRI >70, 5000K | 40 40° CIRCULAR (H3V3) | V11 INPUT VOLTAGE 220-240 VAC | SF SLIP FIT | GR GREY | I2 NPT3/4" INLET THREAD | JB 90° CABLE ENTRY OPTION, RECOMMENDED FOR ARMoured CABLE GLAND |
| | 160 160W | 757 CRI >70, 5700K | 60 60° CIRCULAR (H4V4) | | PC PIPE CLAMP MOUNT | | I4 M20 INLET THREAD | |
| | 200 200W | 830 CRI >80, 3000K | 80 80° CIRCULAR (H5V5) | | EB EYE BOLT | | | |
| | 240 240W | | 120 120° CIRCULAR (H6V6) | | CS CABLE SUSPENSION | | | |
| | | | FW 120° x 100° WITH FORWARD THROW | | | | | |
| | | | SL 90° x 150° STREET LIGHT | | | | | |

Product Ordering Code Examples:
GAI-120-757-80-V11-UB-OR-I1
GAI-200-750-FW-V11-PC-GR-I2

*NOT ALL BRACKETRY IS AVAILABLE WITH ALL WATTAGES - PLEASE REFER TO BRACKETRY TABLES FOR FURTHER DETAILS

| BRACKETS & ACCESSORIES | |
|------------------------|---|
| CODE | DESCRIPTION |
| GAI-UB1 | UNIVERSAL BRACKET FOR 80W, 120W, 160W GAINSBOROUGH SERIES |
| GAI-SF1 | SLIP FIT FOR 80W, 120W, 160W GAINSBOROUGH SERIES |
| GAI-PC1 | PIPE CLAMP FOR 80W, 120W, 160W GAINSBOROUGH SERIES |
| GAI-CS1 | CABLE SUSPENSION FOR 80W, 120W, 160W GAINSBOROUGH SERIES |
| GAI-UB2 | UNIVERSAL BRACKET FOR 200W, 240W GAINSBOROUGH SERIES |
| GAI-SF2 | SLIP-FIT FOR 200W, 240W GAINSBOROUGH SERIES |
| GAI-EB2 | EYE BOLT FOR 200W, 240W GAINSBOROUGH SERIES |
| GAI-WG | WIRE GRILL FOR GAINSBOROUGH SERIES |

GENERAL NOTES:

1. IF MORE THAN ONE MODIFICATION IS REQUIRED, SEPARATE EACH MODIFICATION WITH A HYPHEN AT THE END OF THE PRODUCT CODE
2. PLEASE ENSURE SELECTION OF COMPATIBLE DRIVER FOR OCCUPANCY SENSORS WITH DIMMING FUNCTIONALITY
3. PLEASE NOTE THAT MODIFICATIONS WHICH AFFECT LIGHT OUTPUT HAVE SEPARATE PHOTOMETRIC FILES IDENTIFIED WITH "...+(MODIFICATION)"
4. ALTERNATIVE DRIVERS MAY BE AVAILABLE - PLEASE CONTACT OUR OFFICE FOR FURTHER DETAILS
5. IF PRODUCT IS CUSTOMISED, CODES WILL BE ALTERED AS NECESSARY - HAZARDOUS AREA CERTIFIED PRODUCT MODIFICATIONS ARE TYPICALLY LIMITED TO BRACKETRY (TO ENSURE COMPLIANCE WITH CERTIFICATION)
6. HAZARDOUS AREA CERTIFIED PRODUCTS ARE LISTED USING KELLWOOD'S STANDARD ORDERING CODE TEMPLATE FOR MARKETING PURPOSES. PRODUCTS WILL BE SUPPLIED WITH OEM NAMEPLATES, CODES & DOCUMENTATION CORRESPONDING TO PRODUCT CERTIFICATION

CONTACT OUR OFFICE FOR FURTHER INFORMATION ON DRIVER PARAMETERS

