





CE, RoHS, ATEX & IECEx international product marks

Ex nR IIC T\* Gc

Ex tc IIIC T\* Dc IP66

The most competitive, high-end solution for projects worldwide



# Gainsborough 3 Series Explosion Proof Floodlights & High Bays

\* Product/temperature dependant - contact office for details

CDN:SPEC129REV11





## **Technical Specifications Summary**







Performance Summary:						
Code (Series-Wattage/Size)	GAI3-80 GAI3-120 GAI3-160 GAI3-200 GAI3-240					
Nominal Power	80W	120W	160W	200W	240W	
Luminaire Efficacy @ CRI>70, 5000К ССТ	130lm/W	130lm/W	130lm/W	130lm/W	130lm/W	
Lumen Output @ CRI>70, 5000К ССТ	10,400lm	15,600lm	20,800lm	26,200lm	31,440lm	
Chip Lumen Maintenance (TM21 Reported)		L80B10	0 ≥67,029 hours @ 25°C A	mbient		
Chip Lumen Maintenance (TM21 Calculated)		L80B10	0 ≥86,468 hours @ 25°C A	mbient		
Certification	CE, RoHS, ATEX, IECEx					
Product Warranty	5 Years					
Light Source and Photometric Parameters:						
Chip Brand, Model, & Size	Luxeon 5050					
Chip Efficacy @ CRI>70, 5700K CCT	166 lm/W @ 160mA, Tj=25°C					
Light Emmission	Direct					
ССТ	5700K, (3000K, 4000K, 5000K optional)					
CRI	≥70Ra, (≥80Ra optional)					
Diffusers	Clear					
Symmetric Distribution	120°, (15°, 40°, 60°, 80° optional)					
Electrical Parameters1:						

Electrical Parameters <sup>1</sup> :							
System Operating Power	80W 120W 160W 200W 240W						
Input Voltage	100-130VAC, 220-240VAC						
Input Frequency	50-60Hz						
Power Factor	>0.98						
THD	<10% (220-240VAC)						
Insulation Class	l I						
Surge Protection/Fusing	6kV						

<b>Environmental Parameters:</b>	
IP Rating	
IK Rating <sup>2</sup>	

IP66	
IK10/IK08 or IK10/IK10	
-40°C to 55°C	

-40°C to 55°C 0% to 90% RH

Ambient Storage Tolerance
Ambient Humidity Tolerance

**Ambient Usage Tolerance** 



## Technical Specifications Summary

Product Dimensions: LxWxH (mm) 210 x 400 x 161 260 x 400 x 161 276 282 283 284 285 285 285 285 285 285 285 285 285 285								
Product Dimensions: LxWxH (mm) 210 x 400 x 161 260 x 400 x 161 276 282 283 284 285 285 285 285 285 285 285 285 285 285	Code (Series-Wattage/Size)	GAI3-80	GAI3-120	GAI3-160	GAI3-200	GAI3-240		
Age of LED Chips  42  60  76  120  120  120  Standard Electrical Connection Electrical Connection JB (Optional) Electrical Connection JB (Optional)  Wire-In-Wire-Out Installation Electrical Connection JB (M20 (M20x1.5), M25 (M25x1.5), NPT3/4"  Gland Type³-4  Brass with Nickel Plated Non-Armoured (Armoured optional)  Suitable Cable Size (ø) ⁵  M20 = 6.1-13.2mm, M25 = 9.5-15.9mm, NPT3/4" = 12.5-20.5mm  Fixture Weight⁰  7.3kg  11.0kg  11.0kg  11.0kg  18.4kg  18.4kg  18.4kg  Fixture Primary Material(s)  Fixture Finish  Epoxy Powder Coated  Lens(es) Materials  Tempered Glass  Protection Method  Options/Accessories:  Wire Grill  Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension  Wire Grill	Physical/Mechanical Parameters:							
Terminal Block 1mm² to 4mm²- 0.7m 1mm² 3-Core Cable (Note: 1mm² to 2mm² if installed as Wire-In-Wire-Out configuration)  Recommended for armoured cable glands, supplied without cable glands  Wire-In-Wire-Out Installation  Wire-In-Wire-Out Installation  Yes (JB option only)  M20 (M20x1.5), M25 (M25x1.5), NPT3/4"  Gland Type³.⁴  Brass with Nickel Plated Non-Armoured (Armoured optional)  Suitable Cable Size (ø) ⁵  M20 = 6.1-13.2mm, M25 = 9.5-15.9mm, NPT3/4" = 12.5-20.5mm  Fixture Weight⁴  7.3kg  11.0kg  11.0kg  11.0kg  18.4kg  18.4kg  Fixture Primary Material(s)  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  Wire Grill	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						
Recommended for armoured cable glands, supplied without cable glands  Wire-In-Wire-Out Installation  Yes (JB option only)  Inlet Thread  M20 (M20x1.5), M25 (M25x1.5), NPT3/4"  Gland Type³.⁴  Brass with Nickel Plated Non-Armoured (Armoured optional)  Suitable Cable Size (ø) ⁵  M20 = 6.1-13.2mm, M25 = 9.5-15.9mm, NPT3/4" = 12.5-20.5mm  Fixture Weight⁴  7.3kg  11.0kg  11.0kg  11.0kg  18.4kg  18.4kg  Fixture Primary Material(s)  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  Wire Grill	Qty of LED Chips	42	60	76	120	120		
Wire-In-Wire-Out Installation    M20 (M20x1.5), M25 (M25x1.5), NPT3/4"	Standard Electrical Connection	Terminal Block 1mm <sup>2</sup> to	4mm <sup>2</sup> - 0.7m 1mm <sup>2</sup> 3-Core	e Cable (Note: 1mm² to 2m	nm² if installed as Wire-In-	Wire-Out configuration)		
Inlet Thread  M20 (M20x1.5), M25 (M25x1.5), NPT3/4"  Gland Type <sup>3,4</sup> Brass with Nickel Plated Non-Armoured (Armoured optional)  M20 = 6.1-13.2mm, M25 = 9.5-15.9mm, NPT3/4" = 12.5-20.5mm  Fixture Weight <sup>6</sup> 7.3kg  11.0kg  11.0kg  11.0kg  18.4kg  18.4kg  Fixture Primary Material(s)  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	Electrical Connection JB (Optional)		Recommended for armo	oured cable glands, suppli	ed without cable glands			
Brass with Nickel Plated Non-Armoured (Armoured optional)  Suitable Cable Size (ø) 5  M20 = 6.1-13.2mm, M25 = 9.5-15.9mm, NPT3/4" = 12.5-20.5mm  Fixture Weight <sup>6</sup> 7.3kg  11.0kg  11.0kg  18.4kg  18.4kg  Fixture Primary Material(s)  Fixture Finish  Epoxy Powder Coated  Lens(es) Materials  Protection Method  Restricted Breathing  Options/Accessories:  Mounting Styles  Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension  Wire Grill	Wire-In-Wire-Out Installation			Yes (JB option only)				
Suitable Cable Size (ø) 5  M20 = 6.1-13.2mm, M25 = 9.5-15.9mm, NPT3/4" = 12.5-20.5mm  Fixture Weight <sup>6</sup> 7.3kg  11.0kg  11.0kg  18.4kg  18.4kg  Fixture Primary Material(s)  Fixture Finish  Epoxy Powder Coated  Lens(es) Materials  Protection Method  Restricted Breathing  Options/Accessories:  Mounting Styles  Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension  Wire Grill	Inlet Thread		M20 (M	120x1.5), M25 (M25x1.5), N	IPT3/4"			
Fixture Weight <sup>6</sup> 7.3kg 11.0kg 11.0kg 11.0kg 18.4kg 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	Gland Type <sup>3,4</sup>	Brass with Nickel Plated Non-Armoured (Armoured optional)						
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	Suitable Cable Size (ø) 5		M20 = 6.1-13.2mm	, M25 = 9.5-15.9mm, NPT3	3/4" = 12.5-20.5mm			
Fixture Finish  Lens(es) Materials  Protection Method  Options/Accessories:  Mounting Styles  Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension  Wire Grill	Fixture Weight <sup>6</sup>	7.3kg 11.0kg 11.0kg 18.4kg 18				18.4kg		
Lens(es) Materials  Protection Method  Restricted Breathing  Options/Accessories:  Mounting Styles  Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension  Miscellaneous Accessories  Wire Grill	Fixture Primary Material(s)	6063 Copper-Free Aluminium Alloy (≤0.1% Copper) and 316 Stainless Steel Fixings						
Protection Method Restricted Breathing  Options/Accessories:  Mounting Styles Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension  Miscellaneous Accessories Wire Grill	Fixture Finish	Epoxy Powder Coated						
Options/Accessories:  Mounting Styles  Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension  Wire Grill	Lens(es) Materials		Tempered Glass					
Mounting Styles Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension Wire Grill	Protection Method	Restricted Breathing						
Miscellaneous Accessories Wire Grill	Options/Accessories:							
	Mounting Styles	Universal Bracket, Slip Fit, Pipe Clamp Mount, Eye Bolt, Cable Suspension						
Available Product Colours  Orango (PAL 2011) Groy (PAL 2010)	Miscellaneous Accessories	Wire Grill						
Available Floudict Colours Oldrige (KALZOTT), Grey (KALZOTT), Grey (KALZOTT)	Available Product Colours		Orar	nge (RAL2011), Grey (RAL7	040)			

<sup>&</sup>lt;sup>1</sup> Details are for standard non-dimming driver

<sup>&</sup>lt;sup>6</sup> Excludes bracketry. Refer to the Packaging Weights & Dimensions data sheet for bracketry and accessory weights

Certifications						
Division		ATEX Zone 2 & 22				
			€x     3 G D			
Due do et Meuline			Ex nR IIC T* Gc			
Product Marking			Ex tc IIIC T* Dc IP66			
		*for furthe	er information please see temp	erate table		
Temperature Table						
		Temperature Class				
Product	Rated Power (Watts)	-40° to	40°C (Ta)	-40°C to 55°C (Ta)		
		Gas	Dust	Gas	Dust	
	80W			T5	T95°C	
	120W	Т6	T80°C			
<b>Gainsborough Series</b>	160W	10	160 C		193 C	
	200W					
	240W	T5	T95°C	T4	T130°C	
Certificate Number						
ATEX	LCIE 14 ATEX 1014 X					
IECEx	IECEx CQM 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.



<sup>&</sup>lt;sup>2</sup> (Format: "IK Rating: Housing" / "IK Rating: Front Face") – IK10 if fitted with wire guard accessory

<sup>&</sup>lt;sup>3</sup> Wire-in-wire-out compatible products supplied with one non-armoured ATEX certified gland and one ATEX certified blanking plug.

<sup>&</sup>lt;sup>4</sup> Armoured Cable gland available as a optional accessory. Please contact Kellwood for more information.

<sup>&</sup>lt;sup>5</sup> Stated cable size is applicable to standard gland. Armoured cable may vary, contact Kellwood for more information.







#### **Mounting Options**

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



#### Distribution

5 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



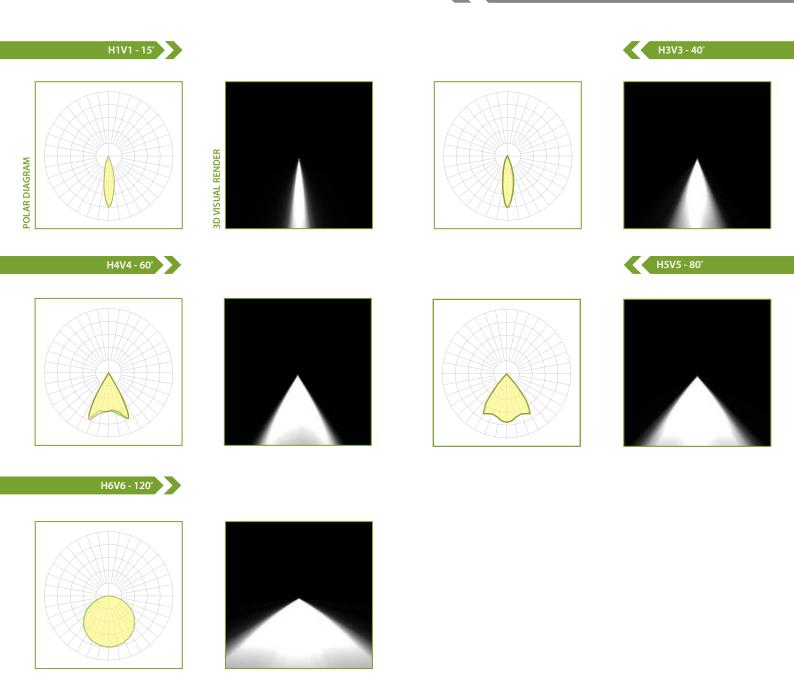
#### **Optional Fitting Colours**

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





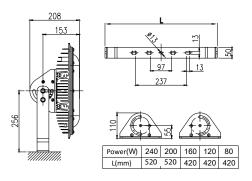
# Slip Fit Dimensional Drawings

Cable Suspension

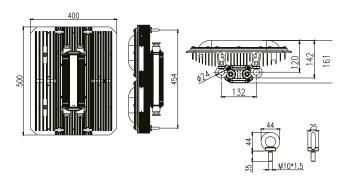
355

### 492 262 97 13 237 Power(W) 240 200 160 120 80 L(mm) 520 520 420 420 420

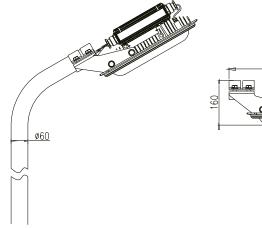
#### Universal Bracket

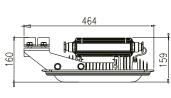


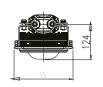
#### Eye Bolts

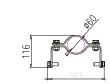


#### Pipe Clamp Mount











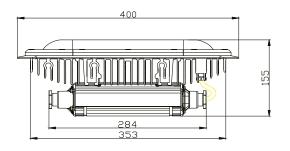
Power(W)	80	120	160
W(mm)	210	260	260
W1(mm)	203	253	253

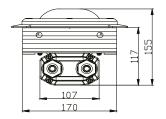
All units are in mm

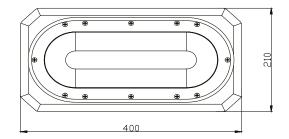


## Dimensional Drawings

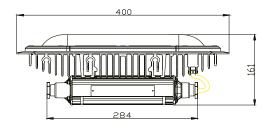
#### Nominal Power / Product Class 80W

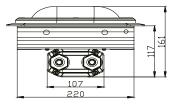


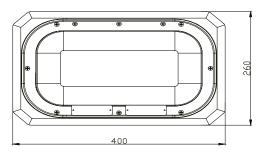




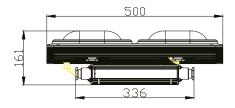
#### Nominal Power / Product Class 120W, 160W

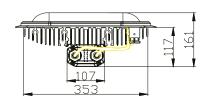


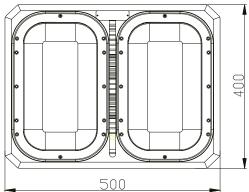




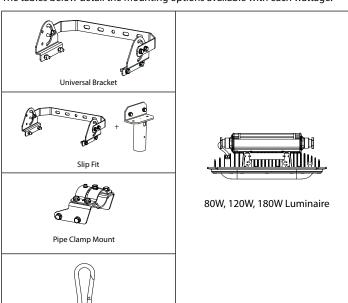
#### Nominal Power / Product Class 200W, 240W

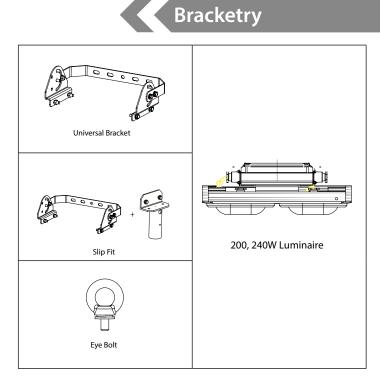






#### The tables below detail the mounting options available with each wattage:





Cable Suspension



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
GAI3	<b>80</b> 80W	<b>740</b> CRI >70, 4000K	<b>15</b> 15° CIRCULAR (H1V1)	V10 INPUT VOLTAGE 100-130 VAC	<b>UB</b> UNIVERSAL BRACKET	<b>OR</b> ORANGE	I1 M25 INLET THREAD	<b>WG</b> WIRE GRILL
	<b>120</b> 120W	<b>750</b> CRI >70, 5000K	<b>40</b> 40° CIRCULAR (H3V3)	V11 INPUT VOLTAGE 220-240 VAC	<b>SF</b> SLIP FIT	<b>GR</b> GREY	<b>I2</b> NPT3/4" INLETTHREAD	JB 90° CABLE ENTRY OPTION. RECOMMENDED FOR ARMOURED CABLE GLAND
	<b>160</b> 160W	<b>757</b> CRI >70, 5700K	<b>60</b> 60° CIRCULAR (H4V4)		<b>PC</b> PIPE CLAMP MOUNT		I4 M20 INLET THREAD	
	<b>200</b> 200W	<b>830</b> CRI >80, 3000K	<b>80</b> 80° CIRCULAR (H5V5)		<b>EB</b> EYE BOLT			
	<b>240</b> 240W		<b>120</b> 120° CIRCULAR (H6V6)		<b>CS</b> CABLE SUSPENSION			

Product Ordering Code Examples: GAI3-120-757-80-V11-UB-OR-I1 GAI3-200-750-FW-V11-PC-GR-I2

	BRACKETS & ACCESSORIES					
CODE	DESCRIPTION					
GAI3-UB1	UNIVERSAL BRACKET FOR 80W, 120W, 160W GAINSBOROUGH 3 SERIES					
GAI3-SF1	SLIP FIT FOR 80W, 120W, 160W GAINSBOROUGH 3 SERIES					
GAI3-PC1	PIPE CLAMP FOR 80W, 120W, 160W GAINSBOROUGH 3 SERIES					
GAI3-CS1	CABLE SUSPENSION FOR 80W, 120W, 160W GAINSBOROUGH 3 SERIES					
GAI3-UB2	UNIVERSAL BRACKET FOR 200W, 240W GAINSBOROUGH 3 SERIES					
GAI3-SF2	SLIP-FIT FOR 200W, 240W GAINSBOROUGH 3 SERIES					
GAI3-EB2	EYE BOLT FOR 200W, 240W GAINSBOROUGH 3 SERIES					
GAI3-WG	WIRE GRILL FOR GAINSBOROUGH 3 SERIES					

CONTACT OUR OFFICE FOR FURTHER INFORMATION ON DRIVER PARAMETERS

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

#### **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