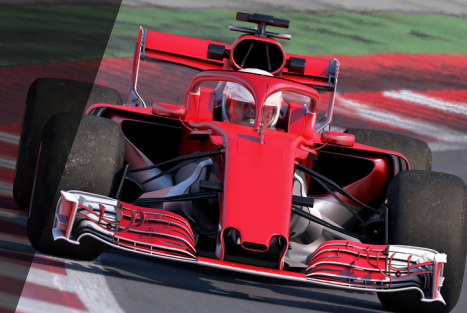
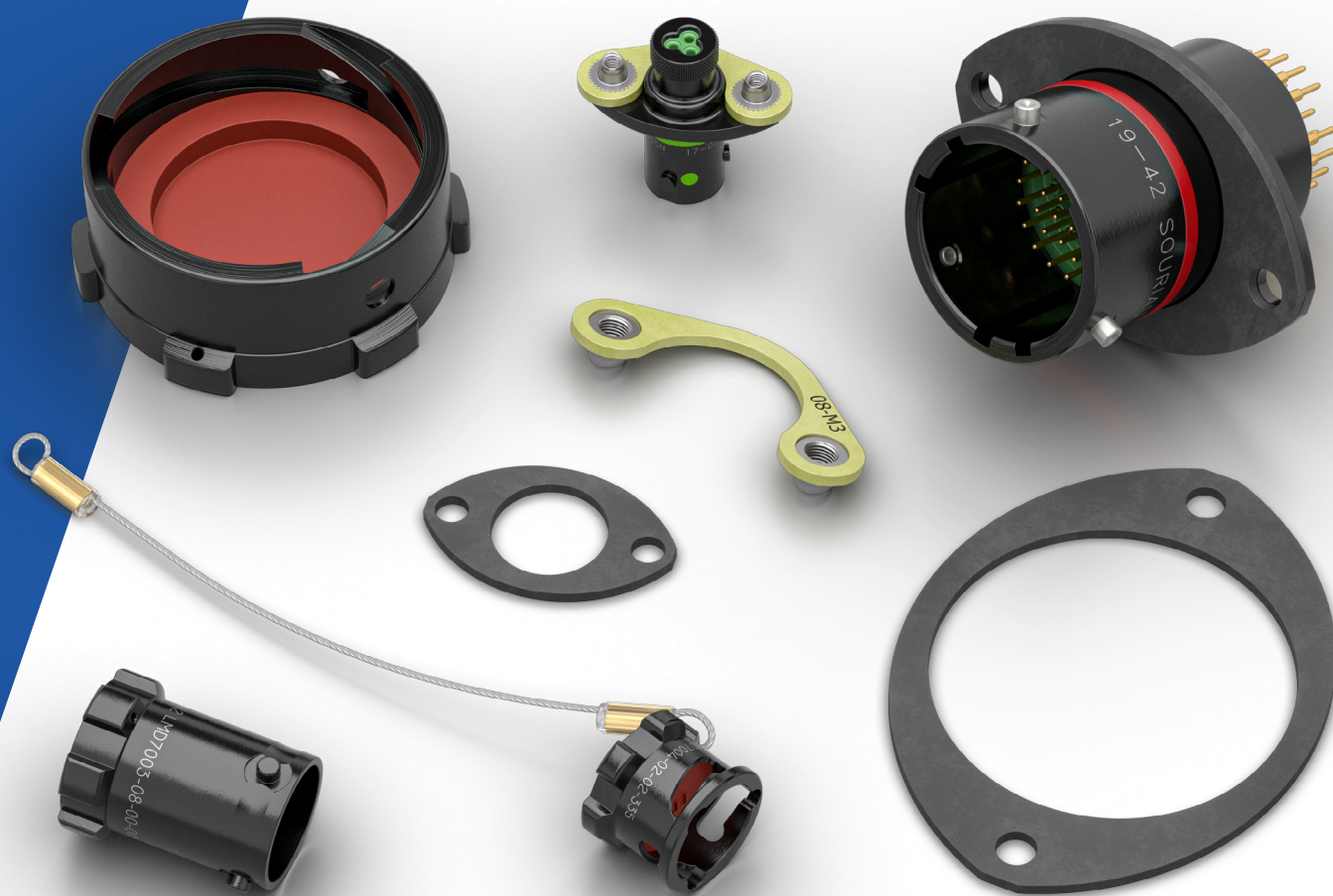


## LIGHTWEIGHT MINIATURE CONNECTOR ACCESSORIES

Protective Caps, Nut Plates and Gaskets designed to use with  
motorsport connectors derived from MIL-DTL-38999 and JN1003





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## Lodge Group

Established in 1976, Weald Electronics is part of the privately-owned Lodge Group which includes the connector distributor FC Lane Electronics and its Autosport Division, Lane Motorsport.



Lodge Group Headquarters

**Weald Electronics** is predominantly known for its comprehensive selection metal circular connectors, PCB edge card, two-part PCB and sub-miniature plastic-bodied circular connectors. More recently Weald is increasingly recognised for its high-quality metal protective caps and backshells for MIL-DTL-38999 and 26482 applications.

Lightweight miniature connectors are already the preferred solution for high-performance, high-reliability electronics in motorsports and are now being applied across other similarly dynamic applications. Weald manufactures a comprehensive range of accessories to compliment these benefits of reduced weight and size without compromising reliability and performance.

With design, manufacture and test facilities at its Slinfold Lodge HQ, Weald Electronics can tailor a connector solution to exactly meet a customer's specific requirement on surprisingly short lead times. Standard products are normally available by next day.

Products from Weald Electronics Ltd are available from FC Lane Electronics Ltd.

t: +44 (0) 1403 790 661

e: [sales@fclane.com](mailto:sales@fclane.com)

w: [fclane.com](http://fclane.com)

## LMD7003/7004 Series Protective Cap Features and Benefits

- Designed for bayonet coupling circular Autosport / Motorsport connectors, derived from MIL-DTL-38999 and JN1003 specifications
- Reduction in weight and dimension without compromise on reliability and performance (up to 40% lighter than standard design\*)
- Ease of use and assembly
- Corrosion resistant aluminium body
- Anti-vibration locking design
- Shell machined from solid material for reliable strength and performance
- Available with or without flexible stainless steel 'micro' wire rope lanyards
- 3D models in all major CAD formats available

## LMD7003/7004 Series Protective Cap Characteristics

Shell material	Machined aluminium alloy
Shell finish (standard)	Hard black anodising
Gasket material	Silicone elastomer or neoprene rubber
Rope material	Stainless steel
Fastener materials	Copper and kynar
Operating temperature	-55°C to +175°C
Sealing	Mated caps to IP67



\* - Depends on shell size and style.

## LMD7003/7004 Series Protective Cap Styles

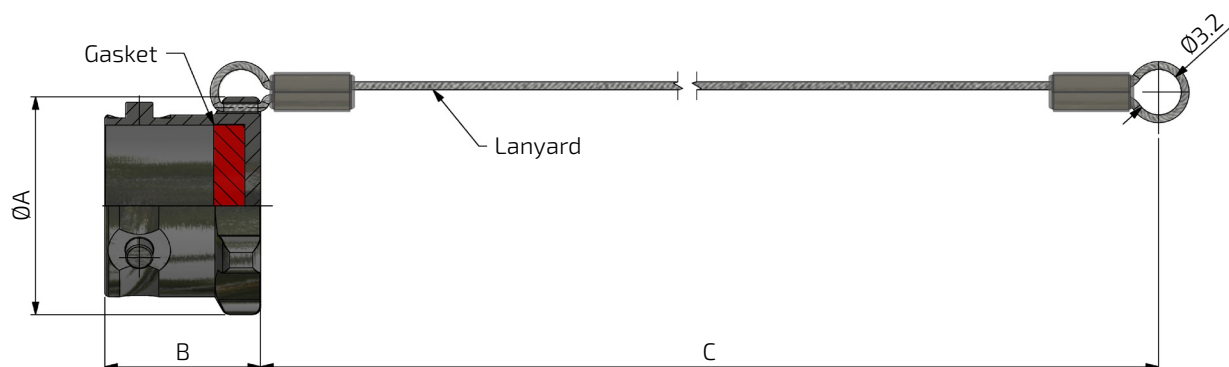
LMD7003 Series - Protective Caps for Plug Connectors		
Part number	Size 01 to 06 style	Size 08 to 24 style
LMD7003-**-00-005 Without lanyard		
LMD7003-**-0*-335 With stainless steel lanyard		
LMD7004 Series - Protective Caps for Receptacle Connectors		
Part number	Size 01 to 06 style	Size 08 to 24 style
LMD7004-**-00-005 Without lanyard		
LMD7004-**-0*-335 With stainless steel lanyard		

\* - Denotes size. For dimensions and more ordering information see pages 6 to 9.

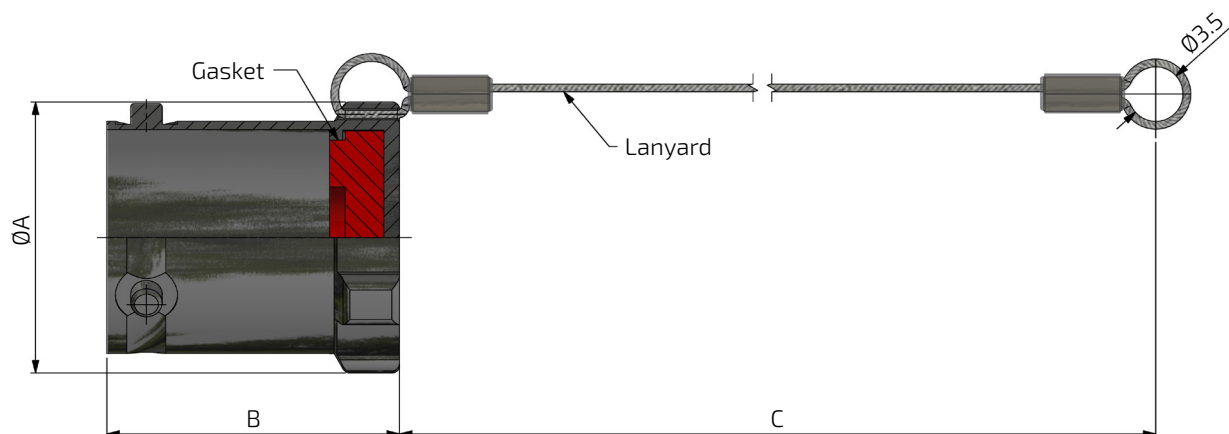
## LMD7003 Series Dimensions

### Protective Caps for Plug Connectors

Shell size 01 to 06



Shell size 08 to 24





## LMD7003 Series Ordering Information

### Protective Caps for Plug Connectors

Part no example

**LMD7003 - 06(A) - 02 - 33 5**

#### Range prefix

#### Shell size

Refer to table - Shell size

#### Lanyard length

Refer to table - Lanyard length  
For other lengths please contact local Sales Office

#### Plating

**5** – Hard black anodising  
For other variants please contact local Sales Office

#### Lanyard type

**00** – No lanyard  
**33** – Stainless steel wire rope with ferrules  
For other types please contact local Sales Office

### Shell size

Shell size	$\varnothing A \pm 0.15$	$B \pm 0.15$	Weight without lanyard [g $\pm 10\%$ ]
01	9.00	9.00	0.52
02	10.60	9.00	0.66
04	12.50	9.20	0.90
06	13.00	10.00	1.00
06A*	13.90	10.00	1.30
08	14.50	18.80	2.35
10	17.40	18.80	2.75
12	21.90	18.80	4.10
14	25.00	17.90	4.85
16	28.20	17.90	5.90
18	31.40	17.90	8.25
20	34.60	17.90	9.50
22	37.70	17.90	11.00
24	40.90	17.70	12.71

### Lanyard length

Ref. No	C $\pm 8$ (lanyard length)	Standard for shell size
00	No lanyard	N/A
02	80	01 to 06
03	125	08 and 10
04	140	12 to 18
05	150	20 to 24

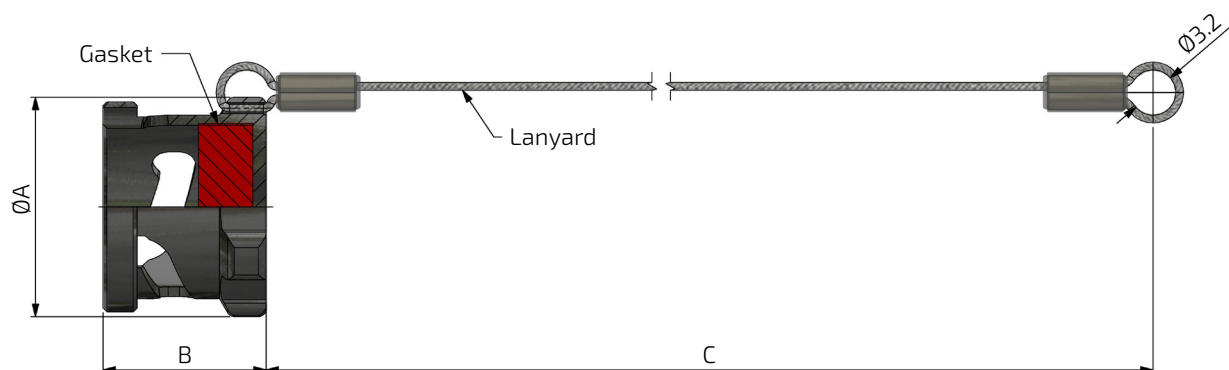
Note: All dimensions are in millimeters (mm).

\* - 06A cap mates with size 06-05 connectors.

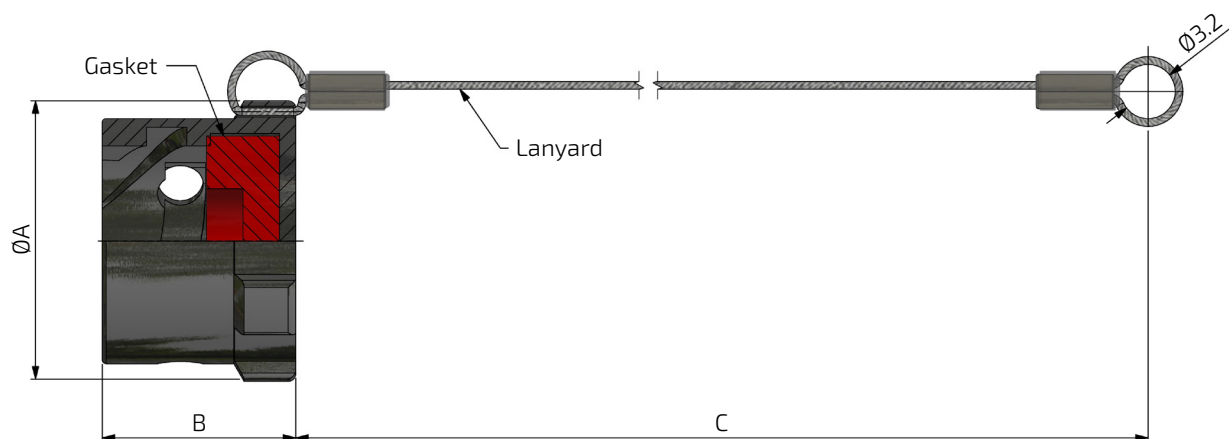
## LMD7004 Series Dimensions

Protective Caps for Receptacle Connectors

Shell size 01 to 06



Shell size 08 to 24





## LMD7004 Series Ordering Information

### Protective Caps for Receptacle Connectors

Part no example

**LMD7004 - 06(A) - 02 - 33 5**

#### Range prefix

#### Shell size

Refer to table - Shell size

#### Lanyard length

Refer to table - Lanyard length

For other lengths please contact local Sales Office

#### Plating

**5** – Hard black anodising

For other variants please contact local Sales Office

#### Lanyard type

**00** – No lanyard

**33** – Stainless steel wire rope with ferrules

For other types please contact local Sales Office

### Shell size

Shell size	ØA ± 0.15	B ± 0.15	Weight without lanyard [g ± 10%]
01	10.10	8.60	0.58
02	11.80	8.70	0.85
04	14.10	10.50	1.45
06	14.90	10.20	1.58
06A*	15.80	10.10	1.75
08	18.10	12.50	3.10
10	21.50	12.50	4.20
12	26.30	12.50	5.85
14	29.50	12.50	7.25
16	32.70	12.50	8.55
18	35.90	12.50	9.95
20	39.10	12.50	11.60
22	42.20	12.50	12.95
24	45.50	13.30	15.05

### Lanyard length

Ref. No	C ± 8 (lanyard length)	Std for shell size
00	No lanyard	N/A
02	80	01 to 06
03	125	08 and 10
04	140	12 to 18
05	150	20 to 24

Note: All dimensions are in millimeters (mm).

\* - 06A cap mates with size 06-05 connectors.

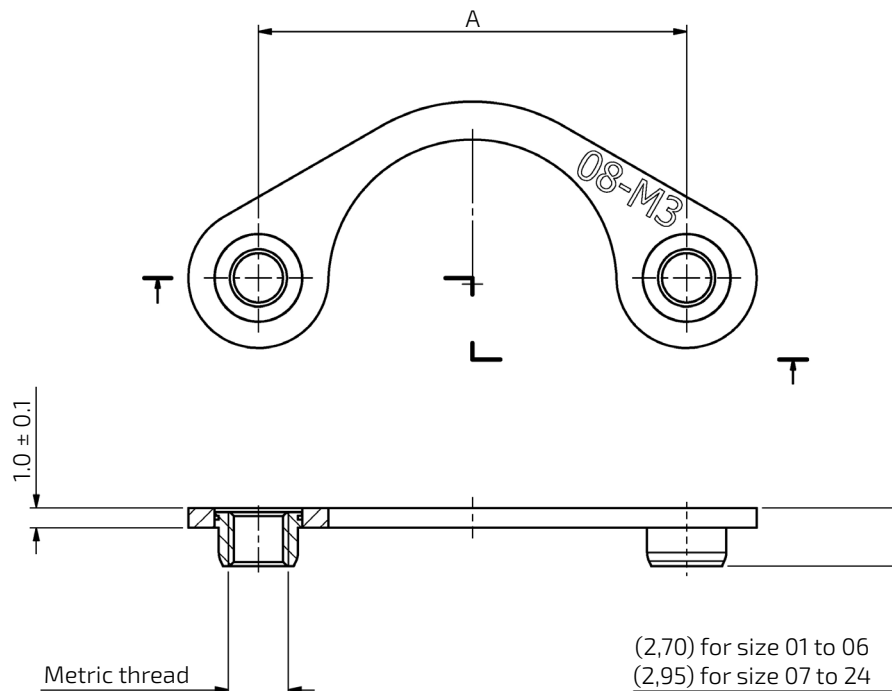
## LMA8684 Series Nut Plate Features and Benefits

- Designed for two-hole oval flange mounted receptacle Autosport / Motorsport connectors derived from MIL-DTL-38999 and JN1003 specifications
- Speed up connector installation in hard-to-reach locations
- Anti-vibration / self-locking design
- Lightweight and corrosion resistant
- Available in 16 sizes
- 3D models in all major CAD formats available

## LMA8684 Series Nut Plate Characteristics

Shell material	Aluminium alloy
Shell finish	Anodised to MIL-A-8625F Type II CL. 2
Nut material	Stainless steel 303
Nut finish	Dry-film lubricant
Operating temperature	-65°C to +175°C

## LMA8684 Series Nut Plate Dimensions



## LMA8684 Series Nut Plate Ordering Information

Shell size	Part number	Thread size	A ± 0.15	Weight [g]
01	LMA8684-01-20-00	M2	12.00	0.29
02	LMA8684-02-20-00	M2	15.30	0.30
02	LMA8684-02-25-00	M2.5	15.30	0.32
03	LMA8684-03-20-00	M2	16.20	0.35
03	LMA8684-03-25-00	M2.5	16.20	0.36
04	LMA8684-04-20-00	M2	16.20	0.37
04	LMA8684-04-25-00	M2.5	16.20	0.38
06	LMA8684-06-25-00	M2.5	18.00	0.38
07	LMA8684-07-00-00	M3	19.80	0.57
08	LMA8684-08-00-00	M3	21.40	0.60
10	LMA8684-10-00-00	M3	25.90	0.63
12	LMA8684-12-00-00	M3	29.10	0.70
14	LMA8684-14-00-00	M3	32.50	0.72
16	LMA8684-16-00-00	M3	34.80	0.74
18	LMA8684-18-00-00	M3	38.20	0.79
20	LMA8684-20-00-00	M3	41.60	0.81
22	LMA8684-22-00-00	M3	45.00	0.91
24	LMA8684-24-00-00	M3	49.50	1.01

### Recommended tightening torques\*

M2.0 – 20cNm (recommended), 30cNm (max)

M2.5 – 40cNm (recommended), 60cNm (max)

M3.0 – 60cNm (recommended), 90cNm (max)



Note: All dimensions are in millimeters (mm).

\* – For guidance only, depend on fixings and mounting method.

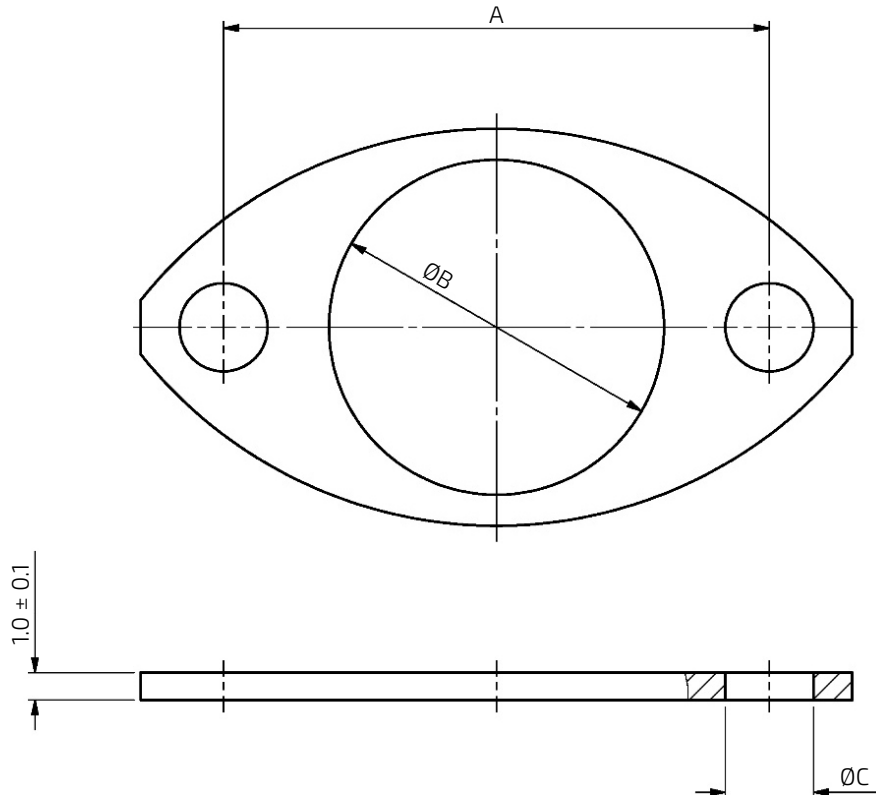
## LMA8688 Series Gasket Features and Benefits

- Designed for two-hole oval flange mounted receptacle Autosport / Motorsport connectors derived from MIL-DTL-38999 and JN1003 specifications
- Made from fluoroelastomer rubber
- Resistant to degradation through exposure to most motorsport fluids\*
- Long-term sealing performance
- Available in 14 sizes
- 3D models in all major CAD formats available

## LMA8688 Series Gasket Characteristics

Material	Fluoroelastomer rubber (Viton)
Continuous operating temperature	-20 to +200°C
Maximum operating temperature	+300°C

## LMA8688 Series Gasket Dimensions



\* - Not recommended for long term immersion in fuels containing MEOH, ETOH, MTBE, etc.



## LMA8688 Series Gasket Ordering Information

Shell size	Part number	A ± 0.25	ØB ± 0.20	ØC ± 0.25
01	LMA8688-01-00-00	12.00	7.00	2.20
02	LMA8688-02-00-00	15.30	8.80	2.70
03	LMA8688-03-00-00	16.20	9.40	2.70
04	LMA8688-04-00-00	16.20	10.50	2.70
06	LMA8688-06-00-00	18.00	12.05	2.70
07	LMA8688-07-00-00	19.80	12.35	3.20
08	LMA8688-08-00-00	21.40	12.50	3.20
10	LMA8688-10-00-00	25.90	15.50	3.20
12	LMA8688-12-00-00	29.10	19.55	3.20
14	LMA8688-14-00-00	32.50	22.72	3.20
16	LMA8688-16-00-00	34.80	25.90	3.20
18	LMA8688-18-00-00	38.20	29.07	3.20
20	LMA8688-20-00-00	41.60	32.25	3.20
22	LMA8688-22-00-00	45.00	35.40	3.20
24	LMA8688-24-00-00	49.50	38.60	3.80



Note: All dimensions are in millimeters (mm).

## Product Safety Information

**These notes are intended to be used in conjunction with the Product Catalogue and Product Specification. Products may be safely used in the applications for which they have been designed and within the specified rating and environments. If products are exposed to conditions outside the performance ratings or specified environments they may constitute a hazard. In particular it should be noted that:**

### 1. Material Content

Circular Connectors generally use metalwork parts made of brass, aluminium, phosphor-bronze or steel, which, dependant on the particular application, may be passivated and protected with cadmium or zinc plate – in conjunction with chromated or anodised surface finishes. The insulating materials can either be natural or synthetic rubber, together with plastic or glass-filled plastic moulded parts. Contact materials vary but are usually made of brass, phosphor-bronze, alumeL or chromel.

### 2. Electric Shock, Burns and Fire

Hazard can occur if the product is used outside the specified parameters or if the product is damaged, wrongly wired, poorly assembled, poorly integrated into larger equipments, or contaminated with conductive fluids. Live circuit terminations must be protected and live circuits never broken by disconnecting products.

Hot spots may be created when resistance is increased due to damage or incorrect integration particularly soldering, or loose terminations. Overheating can cause breakdown of insulation, electric shock, burns or, ultimately, fire. In the event of fire noxious and/or toxic fumes may be released and, in these circumstances, any fire involving the product should be dealt with by personnel properly equipped. Connectors with exposed terminations or contacts should not be used on the current supply side of a circuit with exposed contacts on an unmated product. Before making a circuit live, the product and wiring should be checked to ensure there is no electrically conducting debris present. Circuit resistance checks should also be conducted before making the circuit live. Always ensure that connectors are assembled and wired by properly trained personnel.

### 3. Use, Transport and Storage of Products

Care must be exercised to avoid damage to any part of the products during transporting, storage or use. Abnormal transit or storage conditions and abuse during installation can give rise to damage. Products should not be used in a damaged condition.

Improper storage (particularly of damaged products) can give rise to additional hazards particularly corrosion. Attention is specifically drawn to the need for proper storage of products containing cadmium and you are advised to see the Guidance Note from the Health and safety Executive on Cadmium – Health and Safety Precautions.

### 4. Disposal of Products

Product should not be burnt.

## Safety Rules

- Follow the guidelines given
- Always protect live circuits and never disconnect a live connector
- Never use a damaged connector
- Never burn discarded connectors

## Lodge Group

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Franchised connector distributor

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