

LMG Heavy Duty Connectors

STANDARD LMG RANGE EXTENSION



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MANUFACTURERS OF HIGH QUALITY MILITARY CIRCULAR CONNECTORS

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**LMG HEAVY DUTY RANGE
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LMG HEAVY DUTY RANGE STANDARD LMG RANGE EXTENSION

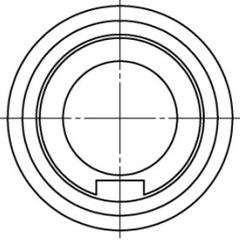
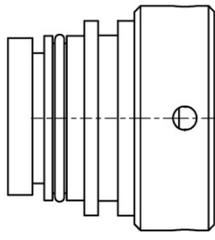
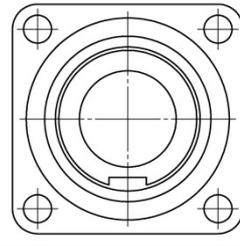
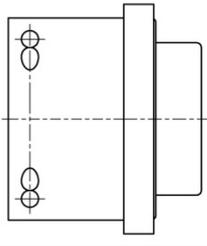
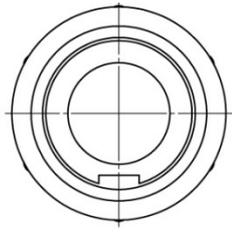
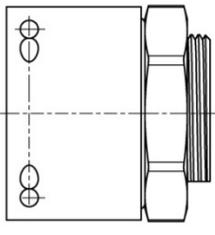
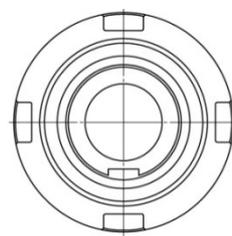
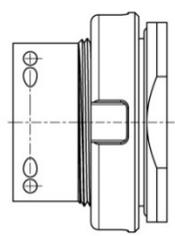
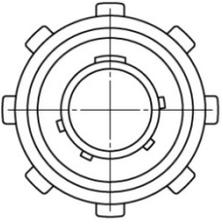
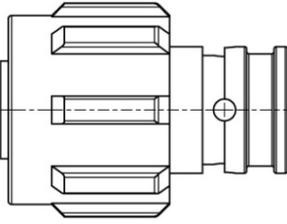
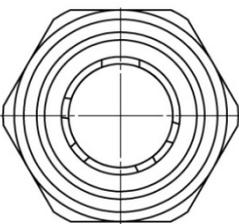
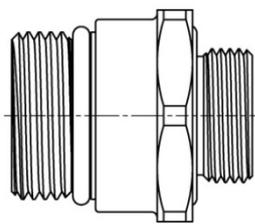
The high quality, extremely rugged LMG Heavy Duty connectors are ideal for use in a wide range of geophysical, mining, marine and petrochemical applications, where extreme strength and high reliability is essential. These include gas & oil exploration, heavy plant, tunnelling machines, concreting, steel industry, shipbuilding, power units, petrochemical, conveyors, marine and other heavy industrial applications.

FEATURES:

- High shock and vibration capabilities
- Environmentally sealed from IP67 to IP69
- 2 connector types: staple coupling and threaded coupling
 - 2 to 19 gold plated contacts (5 to 19 Amp rating)
- Shell material: clean finish brass (other plating finishes available)

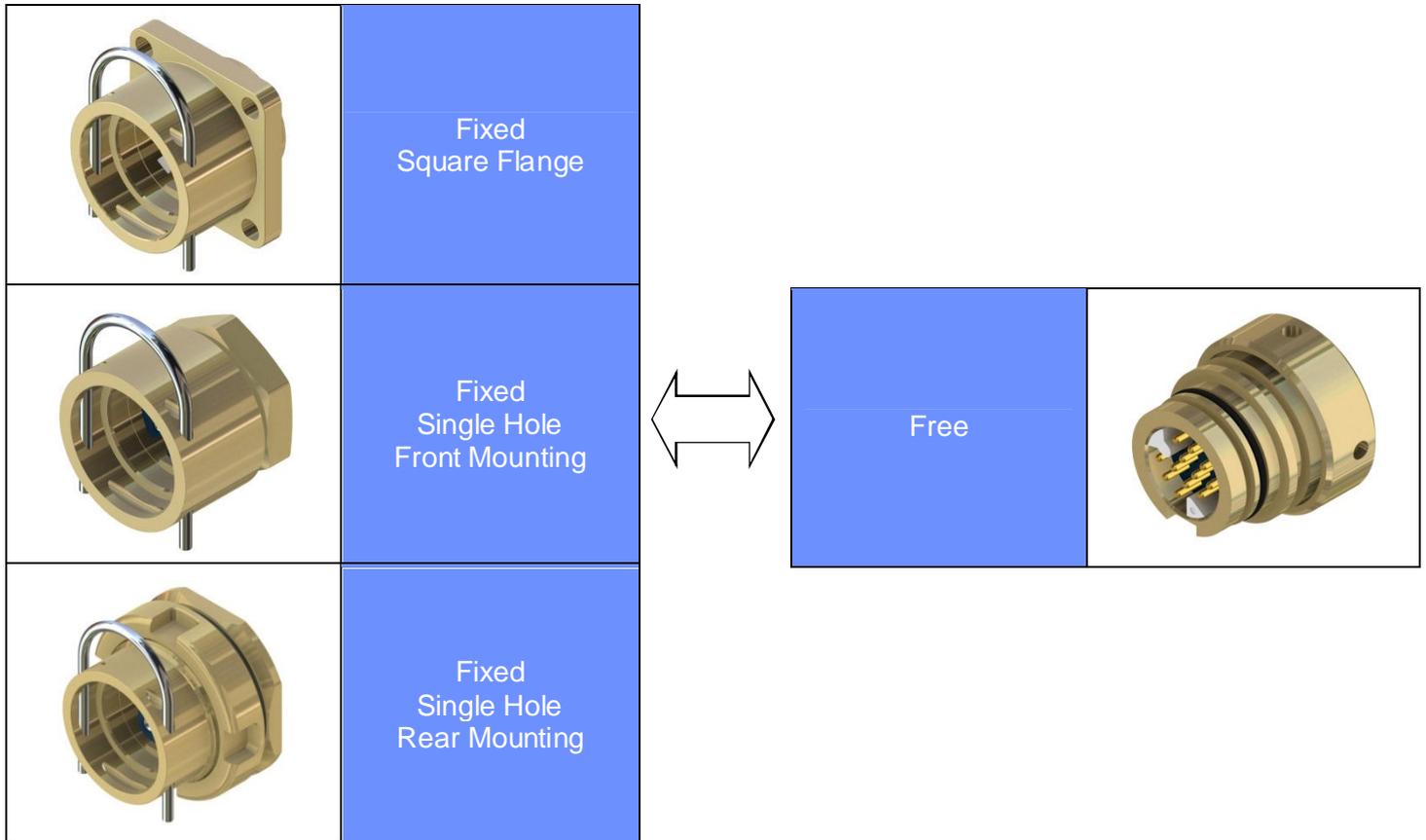


**LMG HEAVY DUTY
SHELL STYLES**

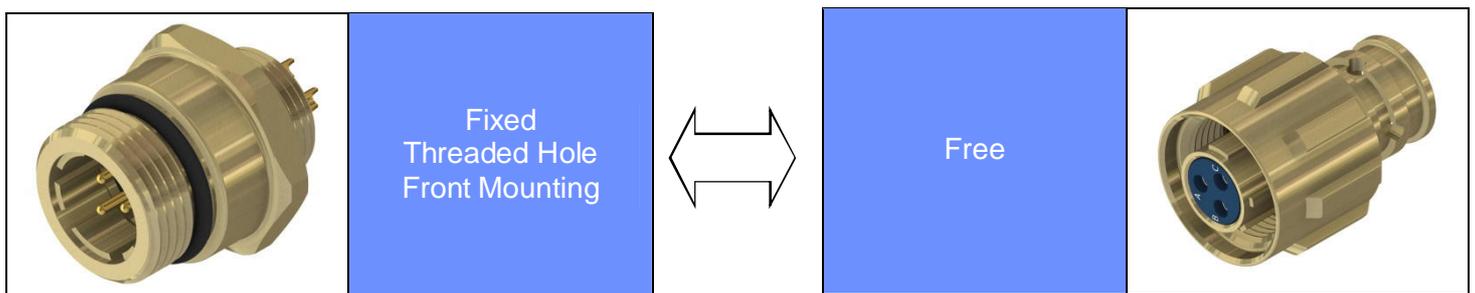
TYPE 1 - STAPLE COUPLING				
<p>FREE UNIT Plug or socket</p>				<p>Mates with: Fixed units</p>
<p>FIXED UNIT SQUARE FLANGE Plug or socket</p>				<p>Mates with: Free unit</p>
<p>FIXED UNIT SINGLE HOLE FRONT MOUNTING Plug or socket</p>				<p>Mates with: Free unit</p>
<p>FIXED UNIT SINGLE HOLE REAR MOUNTING Plug or socket</p>				<p>Mates with: Free unit</p>
TYPE 2 – THREADED COUPLING				
<p>FREE UNIT Plug or socket connector for overmoulding</p>				<p>Mates with: Fixed unit</p>
<p>FIXED UNIT M12 THREADED HOLE FRONT MOUNTING Plug or socket</p>				<p>Mates with: Free unit</p>

**LMG HEAVY DUTY
MATING COMBINATIONS**

TYPE 1 – STAPLE COUPLING



TYPE 2 – THREADED COUPLING



All LMG Heavy Duty connectors can be supplied with male and female contacts/mouldings and can be mated in combinations as shown above.

LMG HEAVY DUTY CHARACTERISTICS

TYPE 1 – STAPLE COUPLING

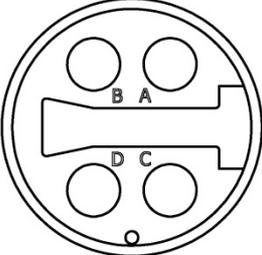
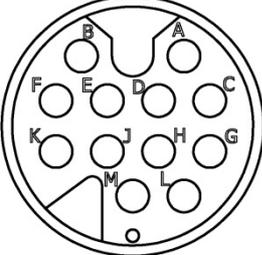
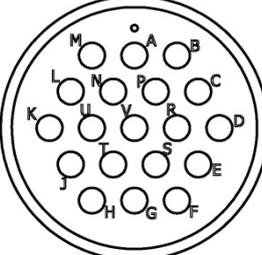
Temperature range	-55° to +100°C		
Maximum altitude	8474 metres		
Number of Contacts	4, 12, 19		
Maximum current rating per individual contact at 70°C	5-19 amp dependent on contact size		
Contact finish	Gold plated (standard)		
Contact Solder Bucket	Rating	5 amp	19 amp
	Inside dia.	1.50 mm	2.75 mm
Working Voltage: DC or AC (Peak)	500 or 700 volts at sea level (dependent on contact size)		
Polarization	None (Fixed insert, one position only)		
Dielectric material	Polychloroprene		
Dielectric construction	Monobloc		
Sealing	Environmentally resistant with barrier or barrier and panel sealed (IP67)		
Housing material	Brass (clean finish)		

TYPE 2 – THREADED COUPLING

Temperature range	-55° to +100°C		
Maximum altitude	8474 metres		
Number of Contacts	2, 3, 4		
Maximum current rating per individual contact at 70°C	7,5 amp		
Contact finish	Gold plated (standard)		
Contact Solder Bucket Inside diameter	1.40mm		
Working Voltage: DC or AC (Peak)	700 volts at sea level		
Polarization	None (Fixed insert, one position only)		
Dielectric material	Polychloroprene		
Dielectric construction	Monobloc		
Sealing	Environmentally resistant with barrier or barrier and panel sealed (equivalent to IP69K)		
Housing material	Brass (clean finish)		

**LMG HEAVY DUTY
CONTACT ARRANGEMENT AVAILABILITY / PART NUMBERS**

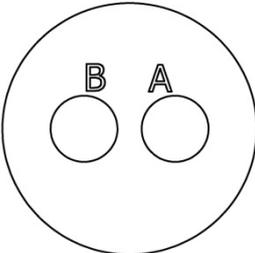
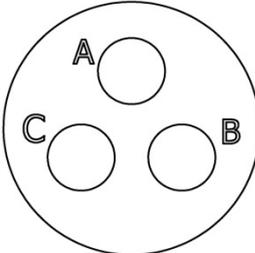
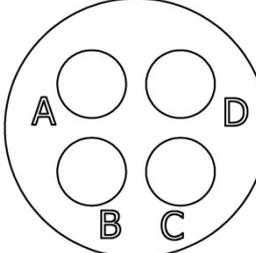
TYPE 1 - STAPLE COUPLING

AVAILABLE CONTACT ARRANGEMENTS			
CONNECTOR STYLE	 4 Way 19 Amp, 500 Volts	 12 Way 5 Amp, 500 Volts	 19 Way 5 Amp, 700 Volts
Free Plug	LMG/1/91018/715	LMG/1/91020/715	LMG/1/91022/715
Free Socket	LMG/1/91019/715	LMG/1/91021/715	LMG/1/91023/715
Fixed Plug (Square Flange)	LMG/1/91000/715	LMG/1/91002/715	LMG/1/91004/715
Fixed Socket (Square Flange)	LMG/1/91001/715	LMG/1/91003/715	LMG/1/91005/715
Fixed Plug (Single Hole Front Mounting)	LMG/1/91006/715	LMG/1/91008/715	LMG/1/91010/715
Fixed Socket (Single Hole Front Mounting)	LMG/1/91007/715	LMG/1/91009/715	LMG/1/91011/715
Fixed Plug (Single Hole Rear Mounting)	LMG/1/91012/715	LMG/1/91014/715	LMG/1/91016/715
Fixed Socket (Single Hole Rear Mounting)	LMG/1/91013/715	LMG/1/91015/715	LMG/1/91017/715

Drawings not to scale

**LMG HEAVY DUTY
CONTACT ARRANGEMENT AVAILABILITY / PART NUMBERS**

TYPE 2 - THREADED COUPLING

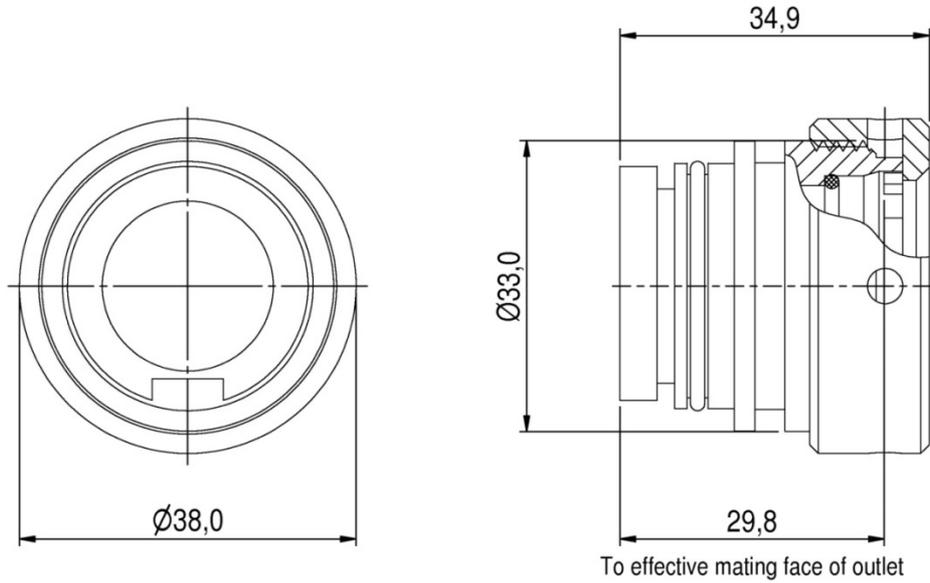
AVAILABLE CONTACT ARRANGEMENTS			
			
	2 Way 7,5 Amp, 700 Volts	3 Way 7,5 Amp, 700 Volts	4 Way 7,5 Amp, 700 Volts
CONNECTOR STYLE			
Free Plug	LMG/1/91024/715	LMG/1/91026/715	LMG/1/91028/715
Free Socket	LMG/1/91025/715	LMG/1/91027/715	LMG/1/91029/715
Fixed Plug	LMG/1/91030/715	LMG/1/91032/715	LMG/1/91034/715
Fixed Socket	LMG/1/91031/715	LMG/1/91033/715	LMG/1/91035/715

Drawings not to scale

**LMG HEAVY DUTY
DIMENSIONS**

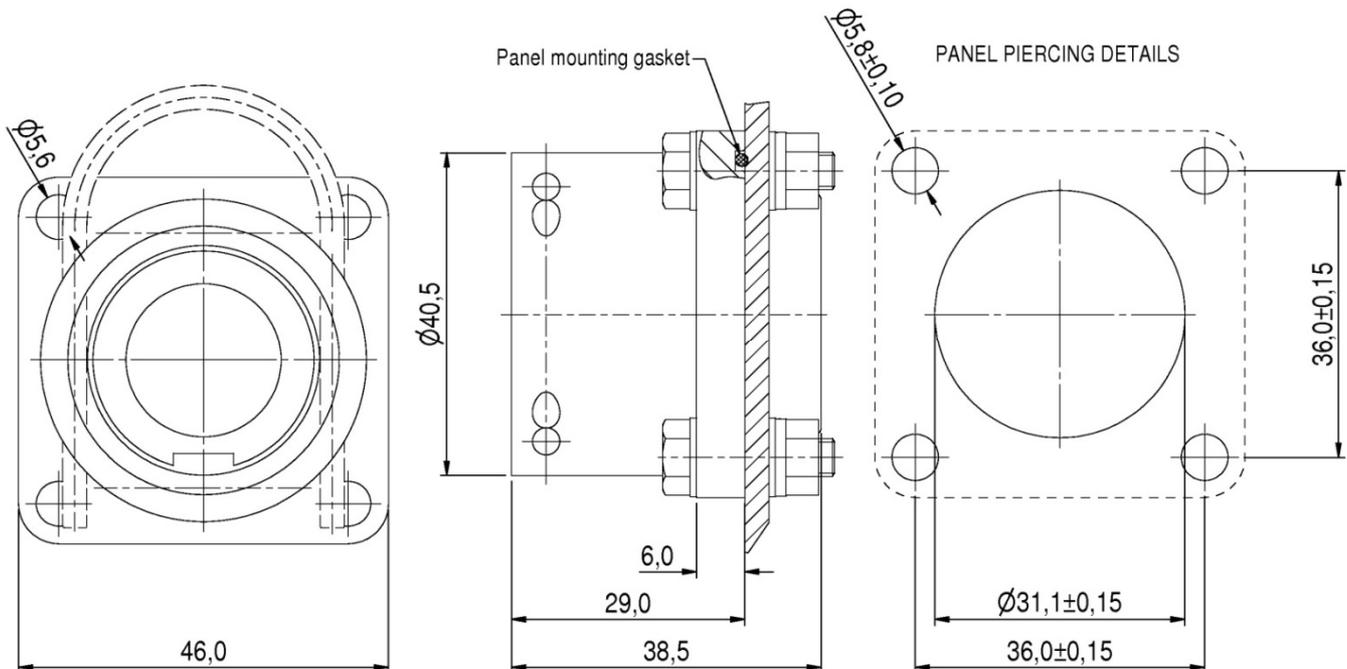
TYPE 1 – STAPLE COUPLING

FREE PLUGS AND SOCKETS



For backend accessories see page 12.

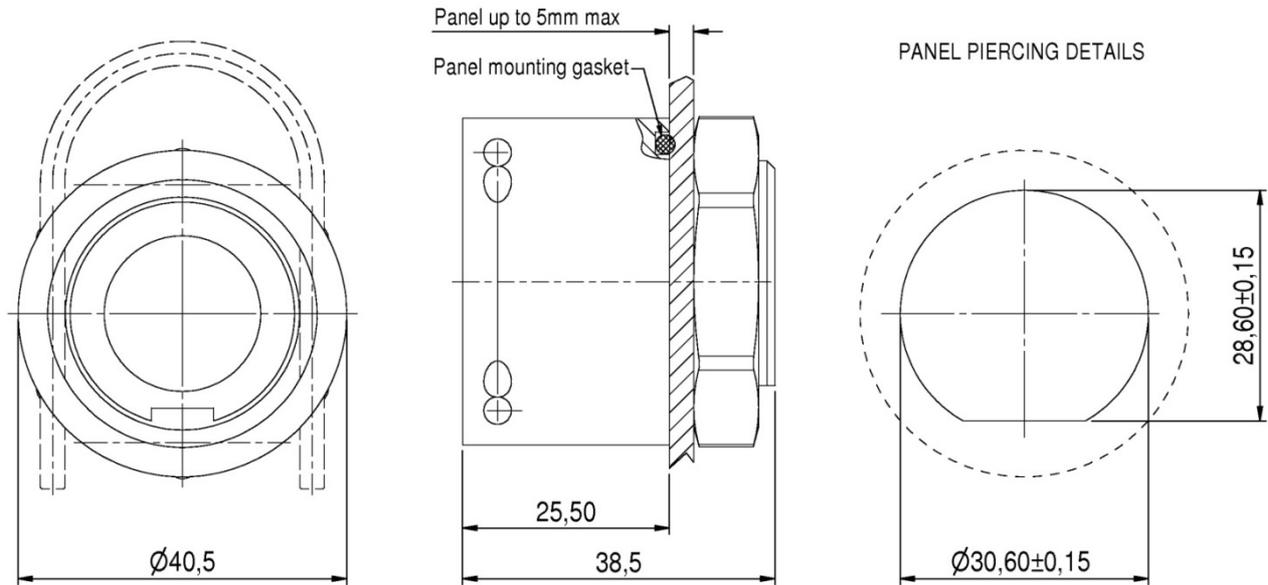
FIXED SQUARE FLANGE PLUGS AND SOCKETS



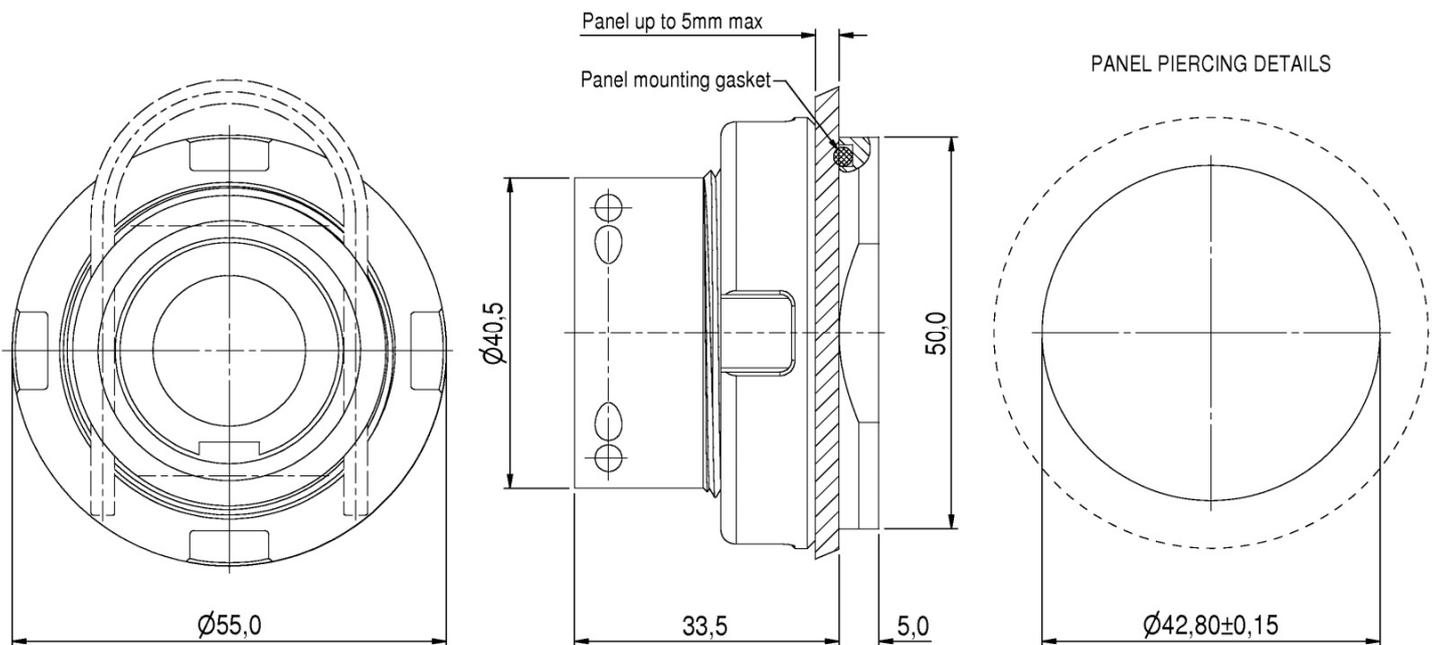
**LMG HEAVY DUTY
DIMENSIONS**

TYPE 1 – STAPLE COUPLING

SINGLE HOLE REAR MOUNTING PLUGS AND SOCKETS



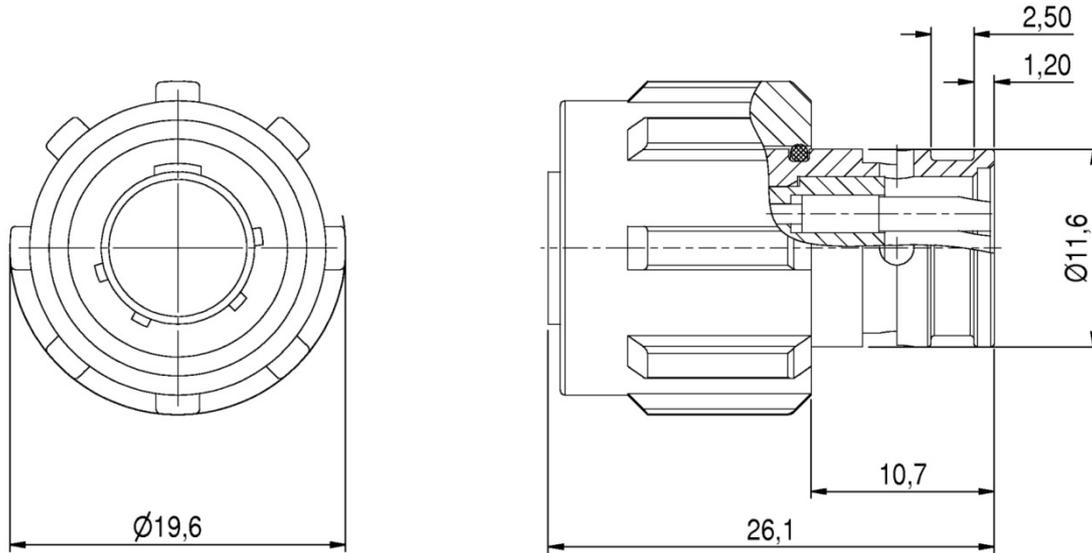
SINGLE HOLE FRONT MOUNTING PLUGS AND SOCKETS



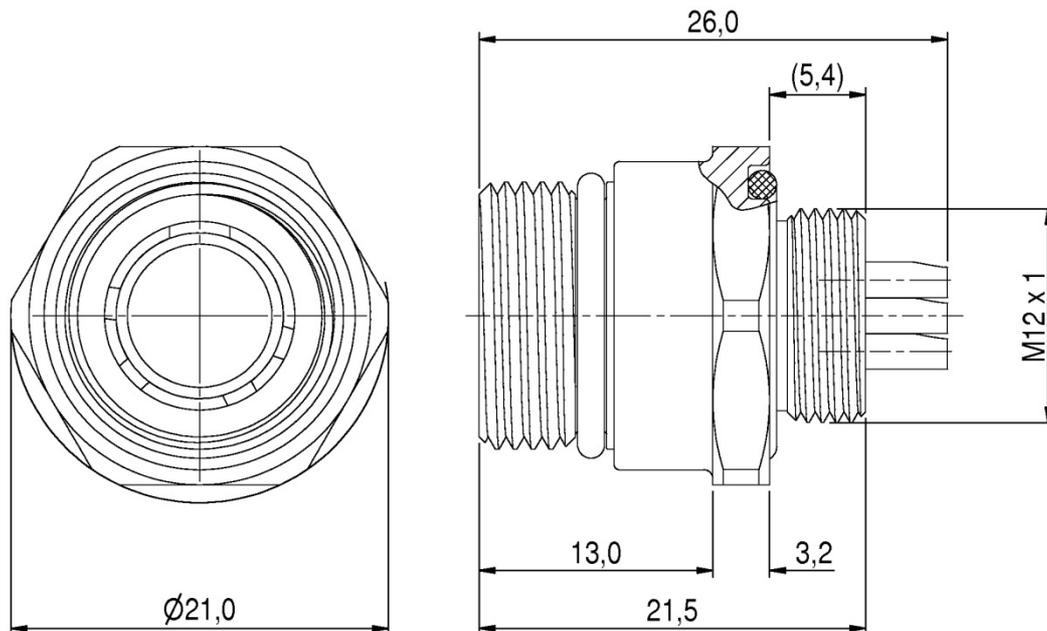
**LMG HEAVY DUTY
DIMENSIONS**

TYPE 2 – THREADED COUPLING

FREE PLUGS AND SOCKETS FOR OVERMOULDING



SINGLE HOLE REAR MOUNTING PLUGS AND SOCKETS

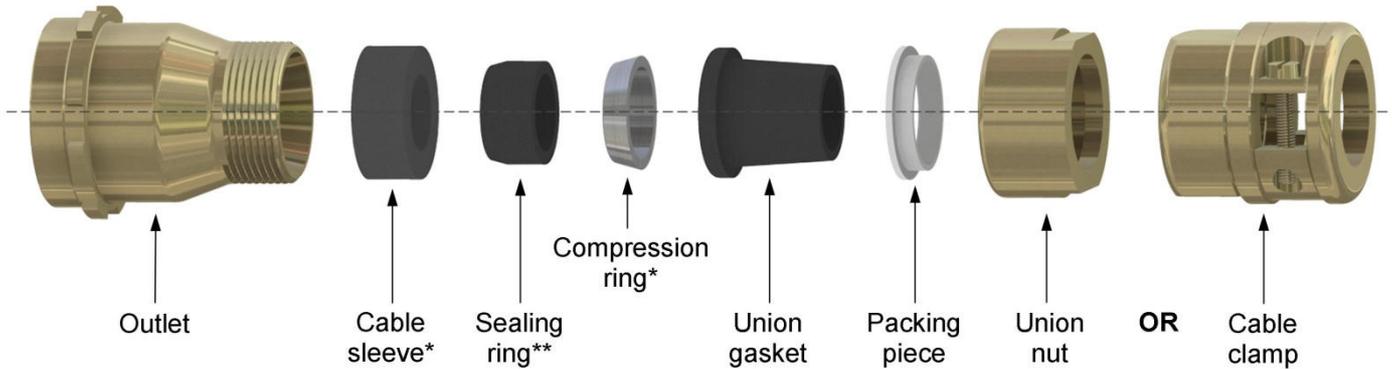


Note: Mounting hole must have M12 x 1 thread

**LMG HEAVY DUTY
ACCESSORIES**

FOR TYPE 1 (STAPLE COUPLING) CONNECTORS ONLY

**FREE CONNECTOR OUTLET ACCESSORY SET
FOR MULTICORE CABLE UNSCREENED OR WITH INNER COLLECTIVE SCREEN**



* - Parts to be used for screened cable only. For assembly instruction see page 13
 ** - Part to be used for unscreened cable only. For assembly instruction see page 14

Cable O/D		Outlet Accessory Set with Union Nut	Outlet Accessory Set with Cable Clamp
Min. mm	Max. mm		
8.8	11.2	LMA/1/81069/003	LMA/1/81070/003
11.2	13.1	LMA/1/81071/003	LMA/1/81072/003

OTHER ACCESSORIES

Staple for type 1
fixed connectors

Part no. LMA/2/81075



Spanner for type 1
single hole front mounting
connector
(locking nut)

Part no. LMT/2/81076



Spanner for type 1
free connector
(outlet nut)

Part no. LMT/2/81077



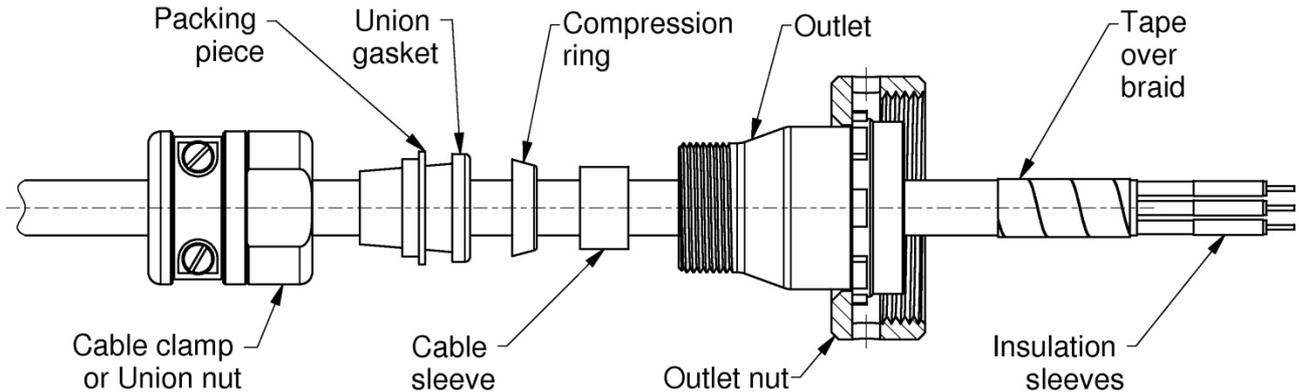
**LMF / LMG RANGE
WIRING INSTRUCTION**

MULTICORE CABLE WITH INNER COLLECTIVE SCREEN

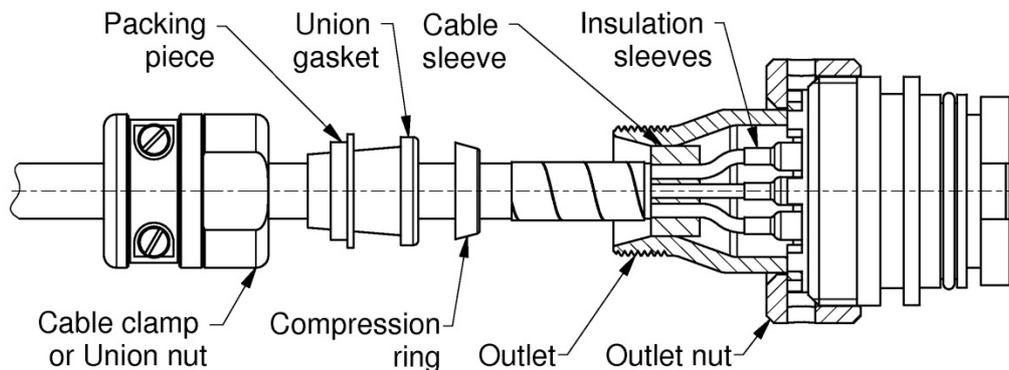
- Strip outer sheath and braid.
Thread on union nut / cable clamp, packing piece, union gasket (see note), compression ring and cable sleeve. Comb out metal braid, fold back over sheath and tape down.
Strip insulation from conductors and tin dip.
Thread on outlet nut and outlet. Fit insulating sleeves to each conductor.

NOTE:

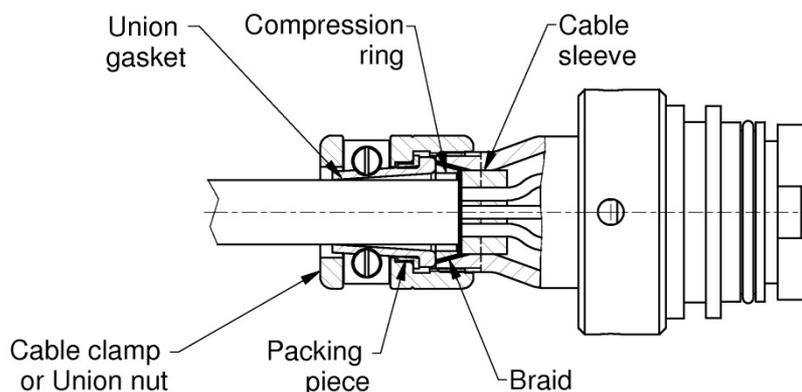
Union gasket requires to be a close fit to cable sheath. Synthetic rubber sleeve/s to be fitted to achieve a satisfactory fit.



- Solder conductors to connector contacts and slide insulating sleeves over soldered joints.
Position outlet at rear of connector and secure with outlet nut.
Slide cable sleeve into neck of outlet.



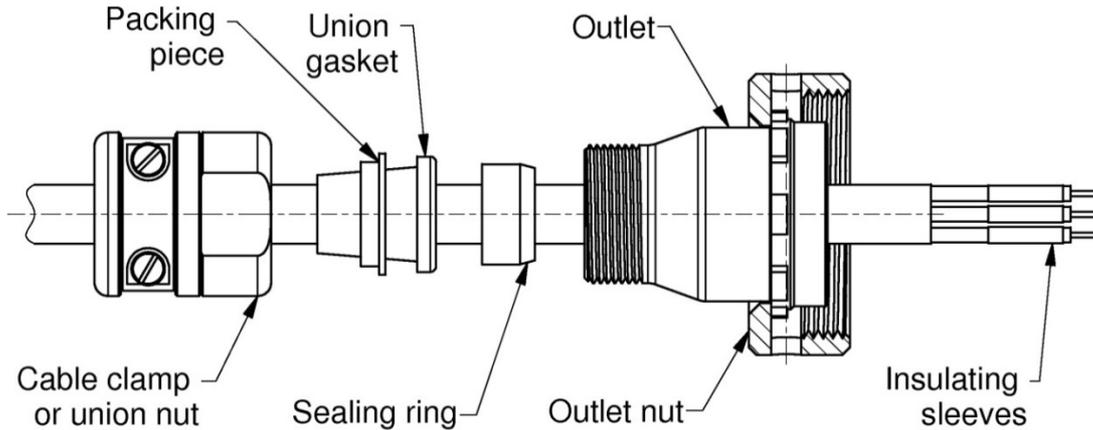
- Remove tape from metal braid and fan out 90° to cable.
Position compression ring on end of outer sheath trapping braid between outlet and compressions ring.
Slide forward union gasket and thrust ring to rear of compression ring.
Trim off braid, to rear face of compression ring and screw union nut / cable clamp onto outlet.



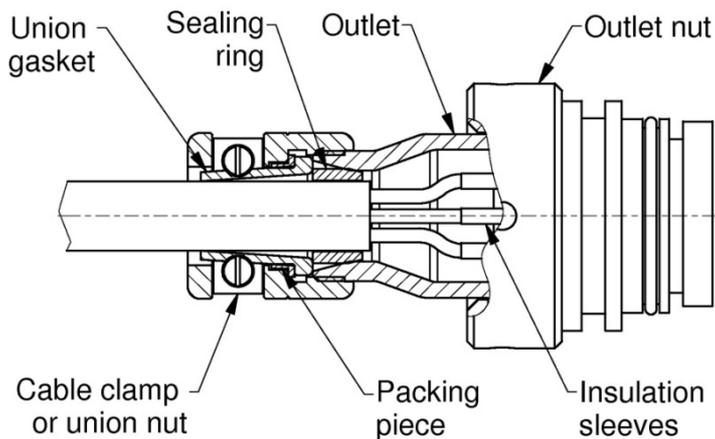
LMG HEAVY DUTY WIRING INSTRUCTION

MULTICORE CABLE UNSCREENED

- Strip back outer sheath.
Strip insulation from each conductor and tin dip.
Thread on to cable:- union nut / cable clamp, packing piece, union gasket (see note), outlet and outlet nut.
Fit insulation sleeves to conductors.
NOTE:
Union gasket requires to be a close fit to cable sheath. Synthetic rubber sleeve/s to be fitted to achieve a satisfactory fit.



- Solder conductors to connector contacts.
Slide insulation sleeves over solder joints.
Position outlet at rear of connector and secure with outlet nut.
Slide union gasket into neck of outlet. Screw clamp on to outlet.
Secure union nut / cable clamp to cable by screwing down clamp jaw.



LMG HEAVY DUTY RANGE 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

1. FOLLOW THE GUIDELINES GIVEN.
2. ALWAYS PROTECT LIVE CIRCUITS AND NEVER DISCONNECT A LIVE CONNECTOR.
3. NEVER USE A DAMAGED CONNECTOR.
4. NEVER BURN DISCARDED CONNECTORS.