



Long Life Reliability
does not cost the earth

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Fire Resistant & Marine Connectors

LPA Connection Systems have been providing customers worldwide with high quality, UK made, electrical plugs, sockets and cable assemblies for over 100 years.

The product range is suitable for use in arduous environments including harsh and hostile conditions found in underground tunnels, railways, marine, mining and industrial applications.

The Niphan product range are available as standard and bespoke connectors and built to meet our customer requirements.

Niphan Fire Resistant Range

- Plugs & Sockets
- Trailing Sockets
- Connection Boxes



General specification:

- Maximum voltage $\leq 500V$ AC
- Current ratings 5A — 50A
- Fire resistant to $+930^{\circ}C$
- Temperature range of $-25^{\circ}C$ to $+90^{\circ}C$
- Brass housing & electroless nickel plated
- Screw connection cable termination
- BS6387 C,W,Z BS EN 50200:2008 PH120
- IP55 / IP66
- Material performance S1085, 3.8 (d)
- Max cable size 6.00mm²
- Overvoltage category CAT III
- Pollution degree 2

Fire Resistant Flanged Socket

23B/FR
65B/FR



Supplied with a fire resistant sealing gasket



voltage	amps	part number	description
<250V	15	23B/FR	flanged socket



voltage	amps	part number	description
<250V	15	65B/FR	flanged socket

The flanged Socket 65B/FR incorporates two fixing holes and has been designed to mount on a either a standard conduit BESA box, or panel mounted.

Utilising a PMC material for the internal contact carrier and fire resistant base gasket it has been tested to the latest fire standards BS EN50200:2015 and certified PH120 for fire resistance. and meeting S1085 requirements for smoke and toxicity.

Electrical ratings:

- Maximum current 15 Amps
- Maximum voltage 250 Volts AC

Contacts:

- Maximum conductor size - 23B/FR - 4.0mm²
- Maximum conductor size - 65B/FR - 2.5mm²
- Screw terminal

Environmental:

- IP66 ingress protection

Configuration:

- 4 Pole + Earth (Dali Control)

The connector has been tested to maintain its electrical integrity during harsh fire conditions and has been developed for safe and reliable use in emergency lighting applications, escape route systems, fire detection and alarm systems.

The 65B/FR socket mates with the LPA 65S plug and is suitable for use in three phase or single phase with control circuitry (e.g. Dali) applications.

Materials & finishes:

- Brass casework (housing)
- Nickel electroless finish
- Interior material - PMC
- Brass contacts with a natural finish

Standards:

- BS EN 50200:2015
- PH120 fire resistance
- S1085 smoke and toxicity

Fire Resistant Guard Ring Plug

23S/FR
65S/FR



voltage	amps	part number	description
<250V	15	23S/FR	plug



voltage	amps	part number	description
<250V	15	65S/FR	plug

The Guard Ring Plug 65S/FR is suitable for use in three phase or single phase with control circuitry (e.g. Dali) applications.

It comes supplied with a compression gland as standard however, removal of the gland nut allows for a 20mm conduit adaptor gland to be fitted and is suitable for use with flexible conduit.

Electrical ratings:

- Maximum current 15 Amps
- Maximum voltage 250 Volts AC

Contacts:

- Maximum cable diameter 11.8mm²
- Maximum conductor size - 23S/FR - 4.0mm²
- Maximum conductor size - 65S/FR - 2.5mm²
- Screw terminal

Environmental:

- IP66 ingress protection

It has been tested to BS EN 50200:2006 and certified PH120 for Fire Resistance.

Configuration:

- 4 Pole + Earth

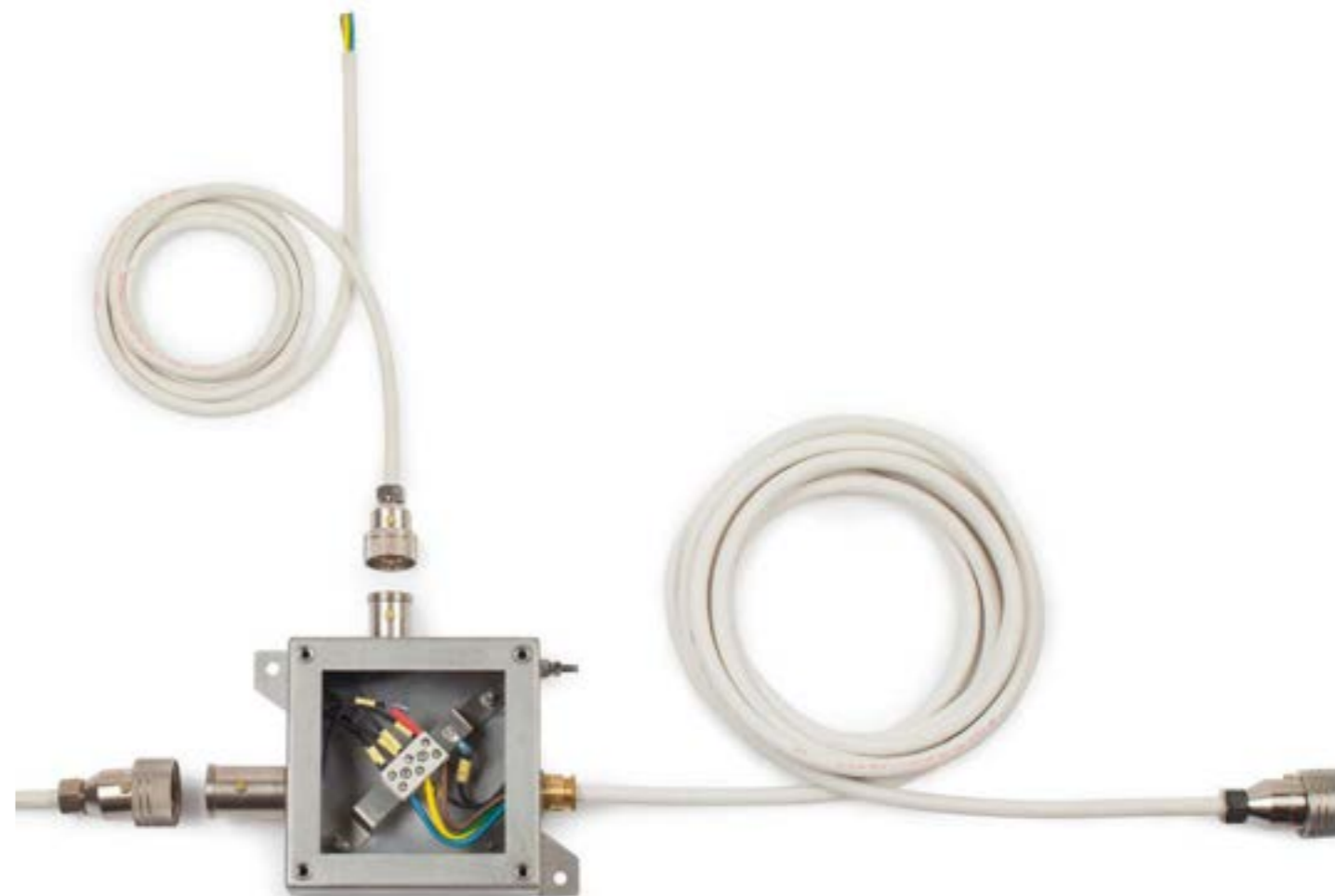
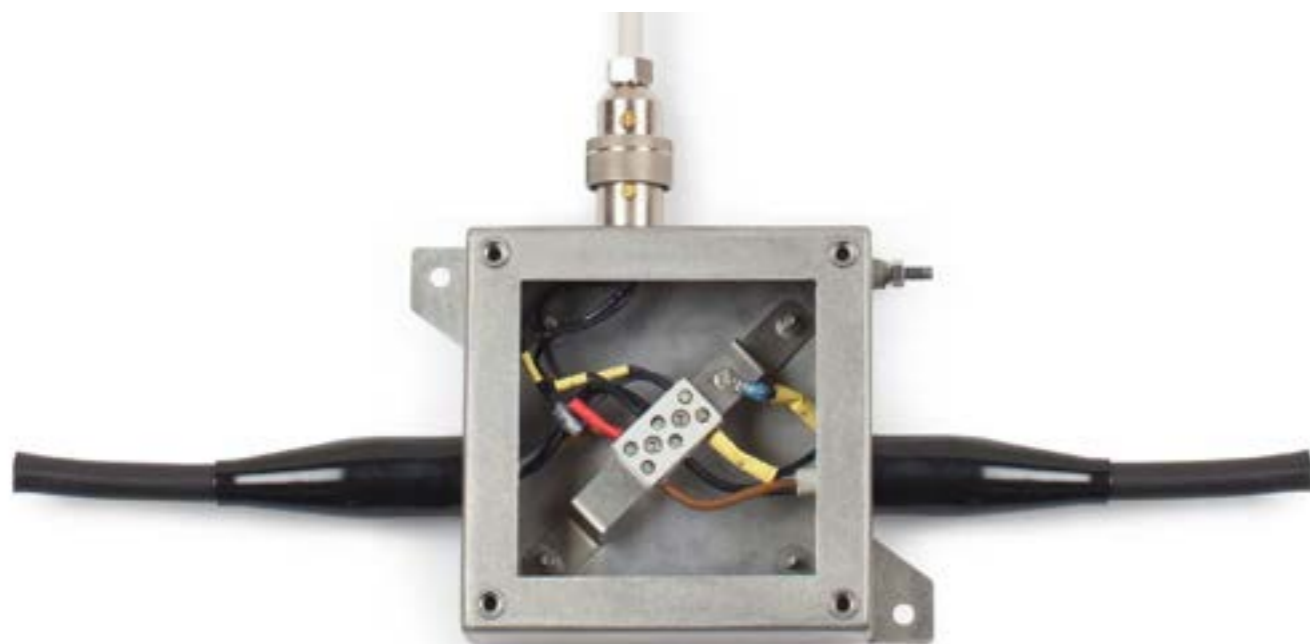
Materials & finishes:

- Brass casework (housing)
- Nickel electroless finish
- Interior material - PMC
- Brass contacts with a natural finish

Standards:

- BS EN 50200:2016
- PH120 fire resistance

Fire Resistant Connection Box



LPA Connection Systems modular connection box offers tap-off power circuits that can be easily accommodated where fire resistance is a requirement. Applications, areas include emergency lighting in tunnels and Emergency Intervention Portals.

The system is configurable to meet customer specifications including options for configuration with armoured cabling where the armour sheathing must be earthed.

Materials & finishes:

- Natural stainless steel or galvanised mild steel (housing)
- Connector & receptacles - brass with nickel plate finish
- Insulator (receptacles) - PMC
- Insulator (internal) - Ceramic: Modular or Block type
- Brass contacts with a natural finish
- Brass glands with a natural finish
- Cable - S1085 compliant fire resistant wiring, LSZH insulation

Electrical ratings:

- Maximum current 50 Amps
- Maximum voltage 500 Volts AC

The Tap-off Socket is factory pre-wired and fully tested for electrical safety.

The Fire Resistant Connection Box can be optimised to meet customer requirements.

Contacts:

- Maximum cable diameter 6.0mm
- Screw or cage clamp terminal

Environmental:

- IP55 ingress protection
- Typical operating temp range of -25°C to +90°C

Standards:

- BS 5266-1 8.2.2.b
- BS 5839-1 26.2e
- BS 6387 C, W and Z and additionally to BS EN 50200:2008 PH120 with BS 8434-2

Niphan Marine Range

- Plugs & Sockets
- Trailing Sockets
- Appliance Inlets



General specification:

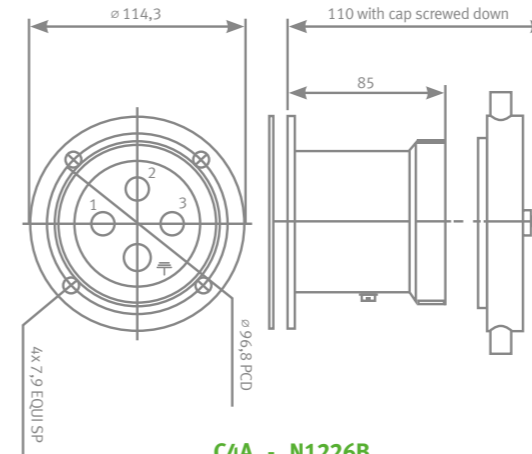
- Simple maintenance and installation
- IP66 Ingress Protection
- Corrosion resistant
- Temperature range of -40°C to +160°C
- 3 pole + earth
- Sprung contacts, >1000 insertions
- 500V
- 100Amp
- Robust product
- Electroless nickel plated



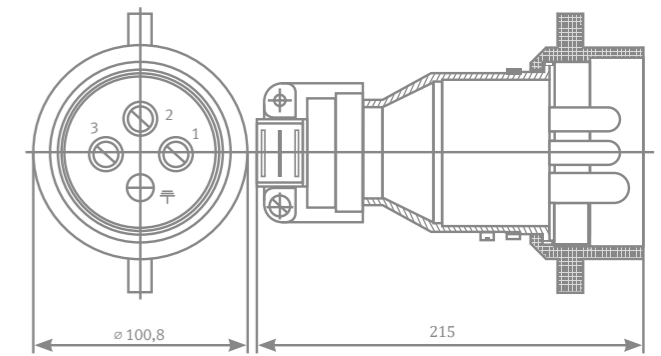
Marine Plugs & Sockets C4 range



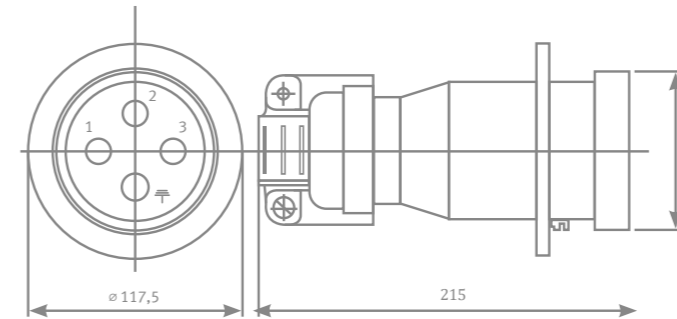
All dimensions in mm



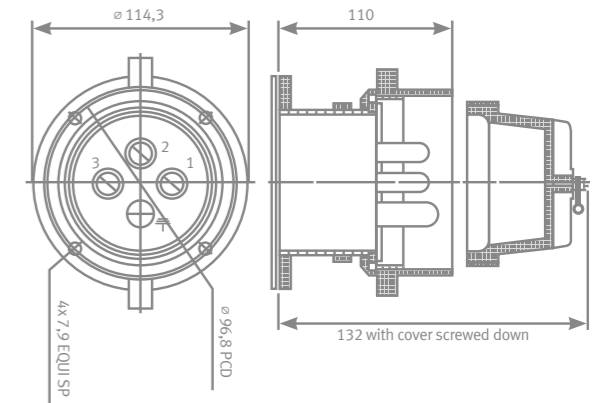
C4A - N1226B
Flanged socket



C4S - N1212B
Guard ring plug



C4J - N1277B
Trailing socket



C4R - N1300B
Application inlet

The C4 range offers a robust and reliable connection in corrosive environments.

Screw terminals require no special tools and allow rapid installation and re-wiring.

Environmental:

- BS EN 60529: IP66
- Temperature range from -40°C to +160°C
- Shock and vibration proven in harsh environments i.e. marine
- Brass casework (housing)
- Electroless nickel plated casework finish
- Contact material - brass with natural finish
- Halogen & Cadmium free

Electrical rating:

- Maximum current 100 Amps
- Maximum voltage 500 Volts AC
- Sprung contacts suitable for >1000 insertions
- Contact configuration - 3 Pole + Earth

Typical applications:

- Ship and shore mounted marine cranes/grabs
- Shore power supplies - docks and dry docks
- Heavy duty for hostile environments
- Corrosion resistant oxidation/chemical

Column Power Socket



13J - 44778
Column power socket



13J - 44778
Column power socket with cap

General specification:

- Suitable for festive lighting, CCTV and similar projects with any column size
- Pre-wire socket in the workshop – shortens on-site installation time
- Compression cable gland prevents tension on terminal screw connections
- Greater flexibility - suitable for use with rivets, screws and steel banding
- Easy to install
- Extremely robust, premium quality product with a long life expectancy
- 250V 10 Amp 2 Pin + Earth
- Accepts Niphan 13S plug which is already in use in many installations

Technical Information

Quality assurance:

LPA Connection Systems, NIPHAN range of electrical couplings are manufactured and comply with the highest industry standards. They undergo rigorous inspection and testing throughout the manufacturing process. Additionally all units are subjected to a high voltage flash test at twice the rated voltage plus 1000V, between all poles and earth prior to dispatch.

LPA Connection Systems is an BS EN ISO 9001: 2015 approved company.

LPA Connection Systems, NIPHAN range of weatherproof connectors, offer protection against the ingress of dust and liquids provided all fixing and earthing screws are correctly located and tightened.

LPA Connection Systems, NIPHAN range have been tested to IP66 in accordance with EN 60529.

Product compliance:

LPA Connection Systems, NIPHAN range, complies with the following standards and Directives:

- BS EN 61948:2009 Connectors safety requirements and tests
- BS EN 60309-1:1999 +A2:2012
- Low Voltage Directive (LVD2014/35/EU)
- RoHS Directive (2011/65/EU)

lpa connection systems

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