"At Baggerbedrijf de Boer - Dutch Dredging, we know that working with mother nature requires environmental concern and safety and we try to live up to the latest standards in this field. As part of this effort, we use SubConn® connectors to provide connectivity and optimal reliability for our dredging equipment operating in harsh marine environments."

Mr. Casper Schilder, Technical Purchase Manager
Baggerbedrijf de Boer - Dutch Dredging

SubConn® Power series

The SubConn® Power series is designed to offer a high performance, dependable connector solution to accommodate the ever growing power requirements of underwater system operators and industries. The series comprises five standard connectors, supported by a number of custom made solutions.

All based on the proven SubConn® connector and contact design, the SubConn® Power series includes a single contact welding connector, three battery charging connectors (2, 3 and 4 contacts) and a 4 contact high power connector. The single contact welding connector is designed for use with a selection of cable sizes and can be operated at up to 3 kV and 250 A. The battery charging connectors are suitable for carrying up to 25 A per pin. The 4 contact high power connector is suitable for 600 V at 50 A per pin and is supplied in standard SubConn® in-line and bulkhead configurations.

For easy integration with systems and equipment, SubConn® Power series connectors are available with dedicated cables, POM or stainless steel locking sleeves and pressure proof dummy connectors. All standard SubConn® cables for the SubConn® Power series are of the flexible and water resistant chloroprene rubber or polyurethane type.

Applications include

- Power supply for offshore oil and gas, renewable energy and subsea systems
- Power supply for remotely operated vehicles (ROV) and subsea trenching machines
- Marine battery pack charging
- Power supply for underwater pump units
- Hazardous environment power supply

Options include

- Customised harness cables and direct moulding to compatible polyurethane cables
- Customer specified connector body material and cable lengths
- Field installable versions for all SubConn® Power series connectors
- Certified pressure testing to specific ocean depths

SubConn® Power

1 pin

Connector specifications

Voltage rating inline and bulkhead (1 KV version)	1 KV AC rms
Current rating inline, overmould and bulkhead (1 KV version)	250 A
Voltage rating overmould and bulkhead (3 KV version)	3 KV AC rms
Current rating bulkhead (3 KV version)*	90 A
Insulation resistance	> 200 Mohm
Contact resistance	< 0.01 ohm
Wet matings	> 500
Temperature rating (water)	- 4 to 60˚C, 25 to 140˚F
Temperature rating (air)	- 40 to 60˚C, - 40 to 140˚F
Storage temperature rating	- 40 to 60˚C, - 40 to 140˚F
Depth rating	700 bar, 10,000 psi

* Only if the bulkhead is mounted in non conducting oil

Material specifications

Connector body	Chloroprene rubber
Bulkhead body	Brass, stainless steel, titanium (other materials available upon request)
Contacts	Brass UNS - C36000
Adapter	Brass UNS - C36000
O-rings	Nitrile
Locking sleeves	POM
Snap rings	Stainless steel AISI 302
Inline cable (60 cm, 2 ft)	1/0 AWG 50 mm² chloroprene rubber

Inline cable colour code

1 Black

Nominal cable outside diameter (OD)

1 conductor cable 0.6” to 0.85”, 15.0 mm to 22.0 mm

Additional information

Nuts and washers can be supplied in stainless steel AISI 316 or brass UNS - C36000

For mounting and torque information - see “general technical information” (page 96)

For SubConn® handling instructions - see "general technical information" (page 98)

Drawing information

Dimensions in mm (1 mm = 0.03937 inch)
Threads in inches (1 inch = 25.4 mm)

SubConn® Power Battery

2, 3 and 4 pins

Connector specifications

Voltage rating	600 V AC rms
Current rating	25 A per pin (max 50 A per connector)
Insulation resistance	> 200 Mohm
Contact resistance	< 0,01 ohm
Wet matings	> 500
Temperature rating (water)	- 4 to 60˚C, 25 to 140˚F
Temperature rating (air)	- 40 to 60˚C, - 40 to 140˚F
Storage temperature rating	- 40 to 60˚C, - 40 to 140˚F
Depth rating	1,400 bar, 20,000 psi

Material specifications

Connector body	Chloroprene rubber
Bulkhead body	Brass, stainless steel, titanium, anodised aluminium
Contacts	Gold plated brass UNS - C36000
Location pin	Stainless steel AISI 303
O-rings	Nitrile
Locking sleeves	POM
Snap rings	Stainless steel AISI 302
Inline cable (60 cm, 2 ft)	10 AWG 5.00 mm² chloroprene rubber
Bulkhead leads 2 and 3 pin (30 cm, 1 ft)	10 AWG 5.00 mm² tagged PTFE
Bulkhead leads 4 pin (30 cm, 1 ft)	12 AWG 3.3 mm² tagged PTFE

Face view (male)

Inline cable colour code

1 Black
2 White
3 Red
4 Green
(3 pin inline cable colour code: 1 black, 2 white, 3 green)

Nominal cable outside diameter (OD)

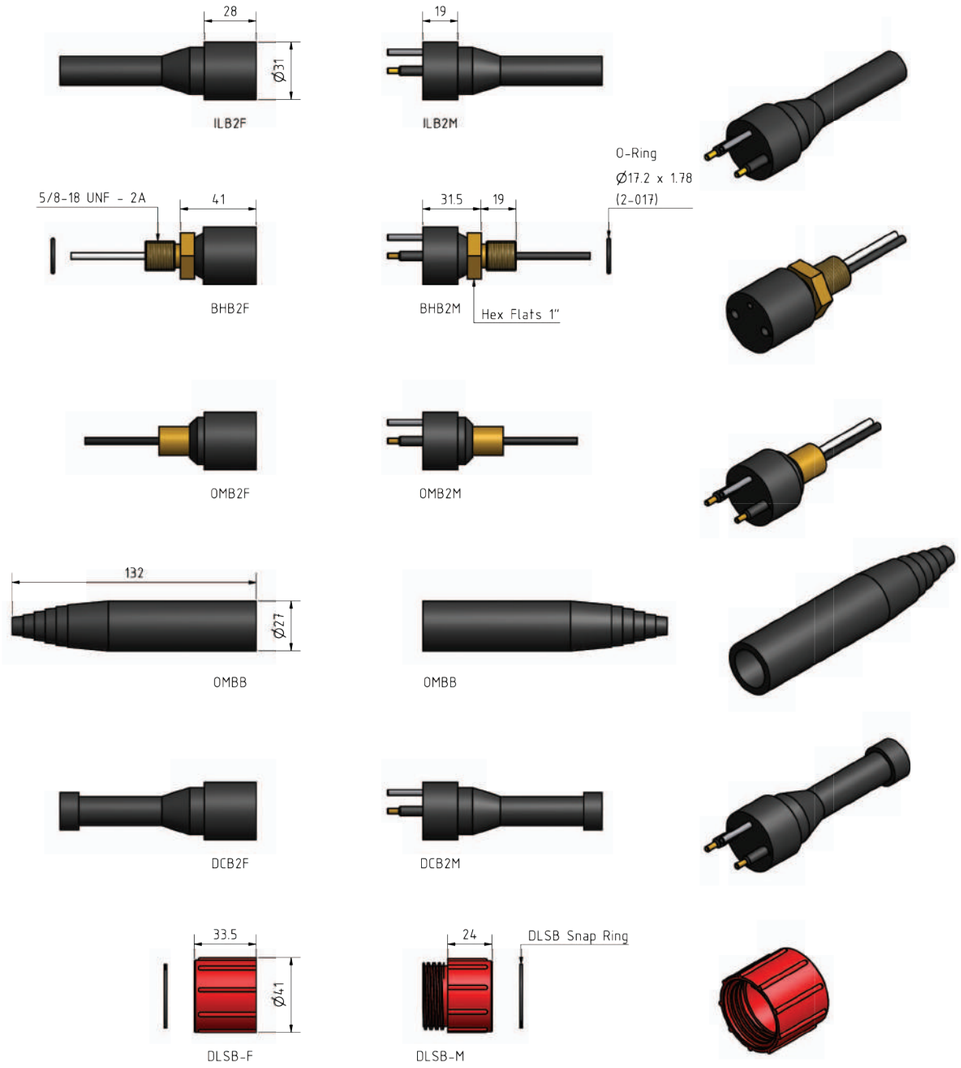
2 conductor cable 0.640”, 16.3 mm
3 conductor cable 0.671”, 17.0 mm
4 conductor cable 0.730”, 18.5 mm

Additional information

Nuts and washers can be supplied in stainless steel AISI 316 or brass UNS - C36000

For mounting and torque information - see “general technical information” (page 96)

For SubConn® handling instructions - see "general technical information" (page 98)



Drawing information

Dimensions in mm (1 mm = 0.03937 inch)
Threads in inches (1 inch = 25.4 mm)

SubConn® High Power

4 pins

Connector specifications

Voltage rating	600 V AC rms
Current rating (water)	50 A per pin (max 200 A per connector)
Current rating (air)	28 A per pin (max 112 A per connector)
Insulation resistance	> 200 Mohm
Contact resistance	< 0.01 ohm
Wet matings	> 500
Temperature rating (water)	- 4 to 60˚C, 25 to 140˚F
Temperature rating (air)	- 40 to 60˚C, - 40 to 140˚F
Storage temperature rating	- 40 to 60˚C, - 40 to 140˚F
Depth rating	1,400 bar, 20,000 psi
Depth rating PEEK	300 bar, 4,350 psi

Material specifications

Connector body	Chloroprene rubber
Bulkhead body	Brass, stainless steel, titanium or anodised aluminium
Contacts	Brass UNS - C36000
Location pin	Stainless steel AISI 303
O-rings	Nitrile
Locking sleeves	POM
Snap rings	Stainless steel AISI 302
Inline cable (60 cm, 2 ft)	8 AWG 8.0 mm² chloroprene rubber
Bulkhead leads (30 cm, 1 ft)	10 AWG 5.0 mm² tagged PTFE

Face view (male)

Inline cable colour code

1 Black
2 White
3 Red
4 Green

Nominal cable outside diameter (OD)

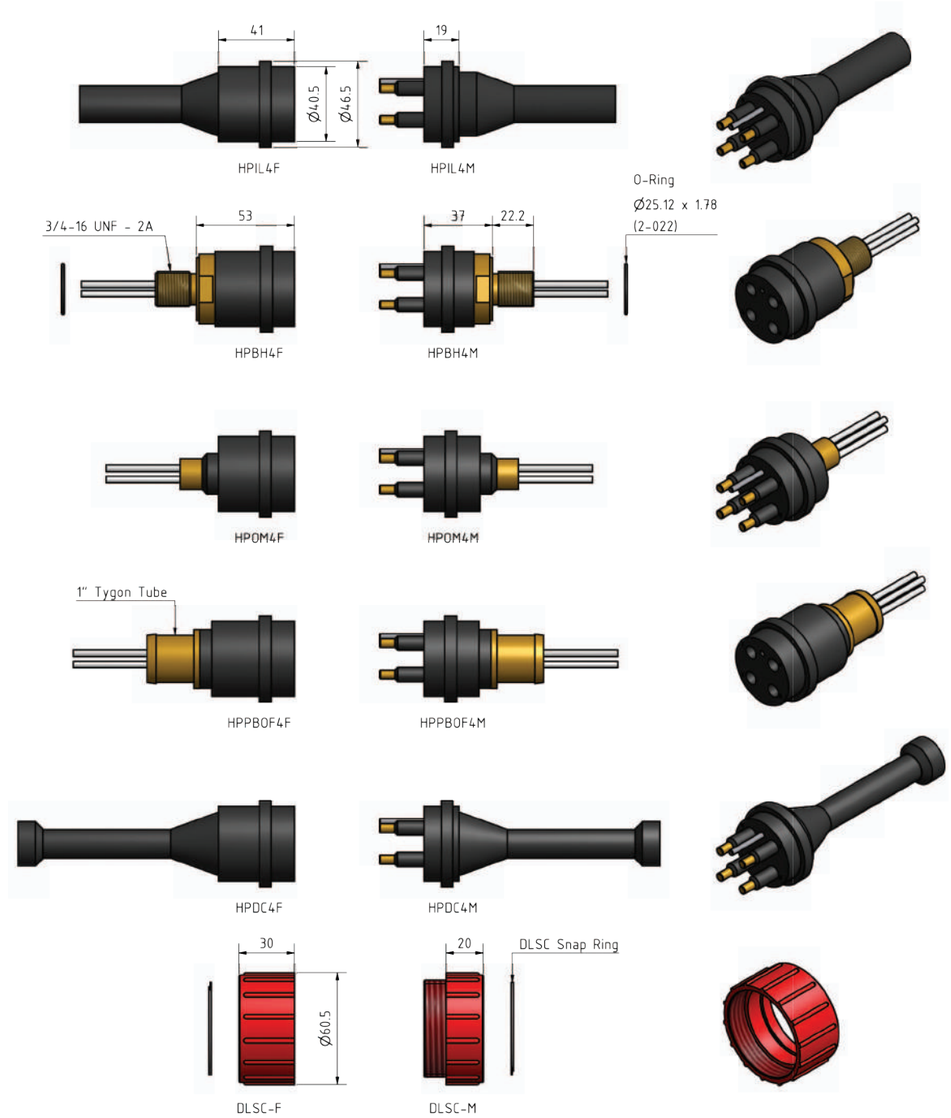
4 conductor cable 0.715", 18.2 mm

Additional information

Nuts and washers can be supplied in stainless steel AISI 316 or brass UNS - C36000

For mounting and torque information - see "general technical information" (page 96)

For SubConn® handling instructions - see "general technical information" (page 98)



Drawing information

Dimensions in mm (1 mm = 0.03937 inch)
Threads in inches (1 inch = 25.4 mm)