SEACON **Jumper Assembly**

Pressure Balanced Oil Filled Cabling Solutions



FIELD RELIABILITY

- Temperature and pressure
- Tested to 450 bar
- Ozone protection

EASE OF USE

- Designed for ROV handling
- Good ROV maneuverability during connector mating
- jacketed cable

PULL TESTED

- Each assembly tension tested at 3750 N
- High visibility, orange in color
- Two layer design with tension and pressure armor in between

Rugged Durability that Runs Deep

Subsea jumper assemblies and distribution harnesses are provided by TE Connectivity (TE)'s SEACON for use with subsea connectors. Many subsea electrical and optical cable and connection systems utilize Pressure Balanced Oil Filled (PBOF) cabling solutions. These hoses and junction boxes utilize an elastomeric tube as a conduit for electric wires and fiber optic lines. The elastomeric conduit is filled with a compensating fluid, allowing the sea pressure to equalize the pressure differential within the interior oil volume.

Reliable Operation

This option for cabling helps to provide a reliable and configurable cable system suitable for many subsea applications. This technology has been widely utilized in ocean science observatories, towed arrays, drilling systems, production control systems and Remotely Operated Vehicle (ROV) systems to name a few. PBOF solutions have become a critical component in many subsea systems today and TE's SEACON is pleased to offer this solution with its subsea fiber optic and electrical connectors.

SPECIFICATIONS

- **Design Life:** > 25 years in operation subsea
- Volume compensation capacity: >12%
- Break Load by Tension: Approx. 10.000 N (break at end terminations)
- Operating Temperature: -5°C to +40°C
- Storage Temperature: -40°C to +70°C
- Compatibility: Seawater, Silicone Fluid
- Dimensions: Inner: 13mm and 20mm Outer: 25mm and 32mm

• Hose Materials: Inner Liner - SBR (Styrene-Butadiene Rubber) **Outer Jacket -** NBR (Nitrile Butadiene Rubber) PVC (Polyvinyl Chloride) Armour - Polyester Strain Element

Armour - Polyester Strain Element



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LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit www.te.com/industrial to chat with a Product Information Specialist.

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Consult TE for the latest dimensions and design specifications.

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MARINE, OIL & GAS /// Jumper Assembly



A Range of Compatible Fittings

• MKII: Straight, 45° and 90° bend, JIC-8 and JIC-2 options

- Materials (Others available upon request):
- Stainless steel, 316L
- Super duplex
- Titanium, GR.2
- Nickel-Chromium alloy 625, GR.1
- Anti-rotation crimp sleeve system
- Crimp sleeve electrically connected
- Double Barrier against water ingress
- Double o-ring sealing
- Metal to metal sealing
- Rubber fitting protector





Splitter Properties

- Applicable for multi-leg jumpers where it is desired to split wires from one up to maximum three connectors.
- Available in 13mm and 20mm MKII fitting interface. Other fitting interfaces upon request.
- Available in two configurations: 1 in 2 out & 1 in 3 out.
- Compact and flexible
- Saddle blocks optional for fixing purposes
- Materials:
- Stainless steel, 316L
- Super duplex
- Titanium, GR.2
- Nickel-Chromium alloy 625, GR.1



Jumper Assembly

Splice Cannisters

- Applicable for multi-leg jumpers where soldering of pigtails is necessary
- Available in 13mm and 20mm MKII fitting interface. Other fitting interfaces upon request
- Available in different configurations up to 4 in 4 out
- Saddle blocks optional for fixing purposes

Materials:

- STAINLESS STEEL, 316L
- SUPER DUPLEX
- TITANIUM, GR.2
- INCONEL 625, GR.1
- Double O-ring barrier. O-ring material in NBR 70 (Others available upon request)
- Silicone oil filled and pressure compensated by the connected hoses



Splice Cannister Arrangements



MARINE, OIL & GAS /// Jumper Assembly



Jumper Assembly



Inline Splice/Splitter Assembly:

General Specifications

- Available in multiple configurations: 1-1, 1-2 and up to 4-4
- Designed for use in oil filled environment with boot seal working as second barrier
- Small enough to fit into standard 20mm PBOF hose assemblies
- Part of dual sealing system

Test Data

- IR 1000 VDC/1 min, Conductor to water >20 Gohm
- Tested to 345 bar
- Tension Load Tested: 4 mm2 > 52 kg, 16 AWG >9,5 kg



CAN Bus Resistor Assembly:

General Specifications

- 120 Ω can resistor
- Designed for use in oil filled environment with boot seal working as second barrier
- Small enough to fit into standard 20mm PBOF hose assemblies
- Power: >5 Watt

Test Data

- IR 1000 VDC/1 min, Conductor to water >20 Gohm
- Tested to 450 bar
- Tension Load Tested: Assembly >9,5 kg, Single resistance > 1,5 kg
- Bend kink diameter: <5mm





20mm Splice Cannister





