

## Mini-Coaxial Connectors (SURF Range)

The STS Subsea RF (SURF) Mini-Coaxial Connector set was originally developed for a specific requirement where space and weight constraints prohibited the use of an 'Industry Standard' single-way coaxial product.

Rated to 6,000m with a 15mm overall connector diameter, this product offers significant space saving benefits. It has been designed to accommodate commercially available 50Ω and 75Ω connector inserts and can be provided with male or female contacts in either mating half.

Available as flanged or through hole mounted bulkheads, inline male and female connectors terminated to standard or customer supplied cables. A right angle moulded variant can be supplied on request.

In response to customer requests, alternative mounting arrangements have been designed to allow Mini-Coax parts to be used with existing equipment. These include, but are not limited to 9/16"-18UNF, 1/4"-28UNF and 7/16"-20UNF. These now form part of our standard product range.



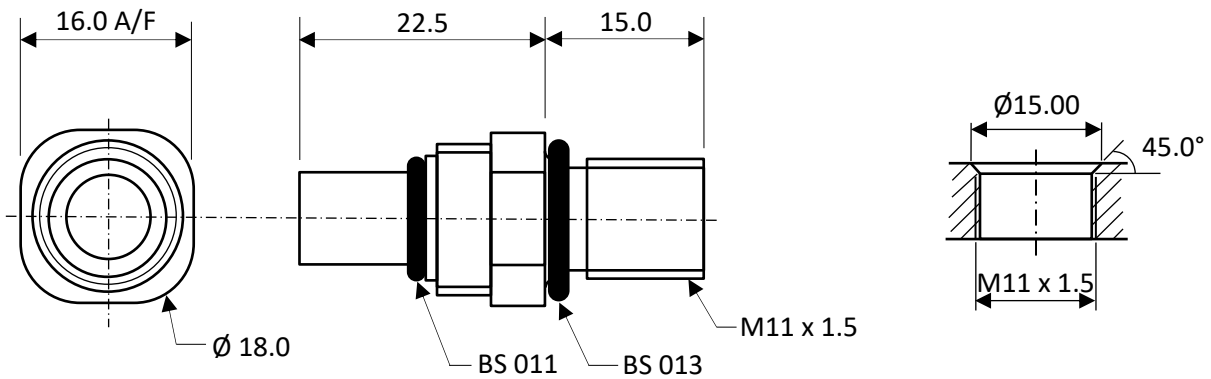
### Key Features and Benefits

- Available in 316 Stainless Steel or Brass as standard, titanium, aluminium, non-metallic or other options available on request
- Simple, robust construction ideal for subsea cameras, instruments and antenna
- 20% smaller diameter and overall length than "Industry Standard" offerings
- Rated to 6,000m depth as standard, contact STS Subsea Sales for enhanced ratings
- Bespoke options available on request, UK manufactured for fast-turnaround deliveries
- Drymate assembly, no keyway
- Supplied with a range of standard cable types to suit application i.e. RG174, 316, 178, 58 etc.. Customer supplied cables can be accommodated subject to specification review

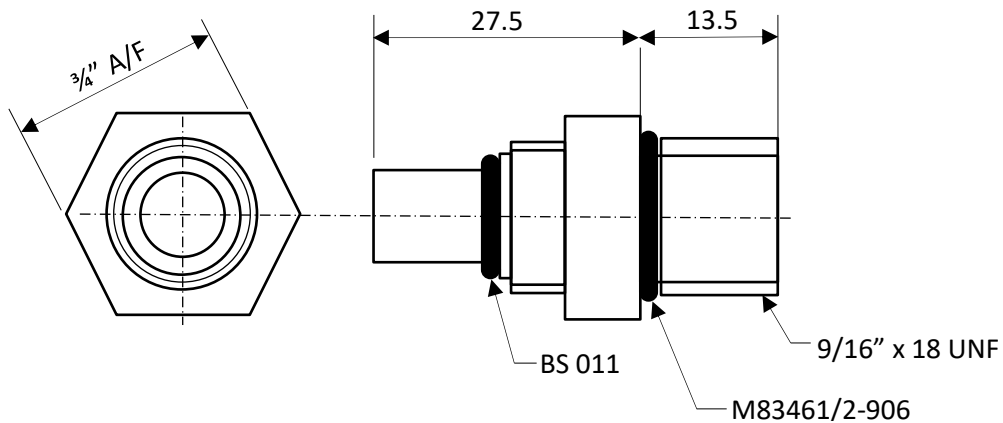
**Typical Specifications (50Ω RG178/BU) :-**

Contact Resistance :	<10mΩ	Contact Material :	Gold over Copper
Insulation Resistance :	≥10GΩ	Body :	Stainless 316L
Current Rating :	2A	Locking Nut :	Delrin (or Brass)
Working Voltage :	250V <sub>rms</sub>	Overmoulding :	Polyurethane
Test Voltage :	750V / 50Hz	O Rings :	Nitrile N170

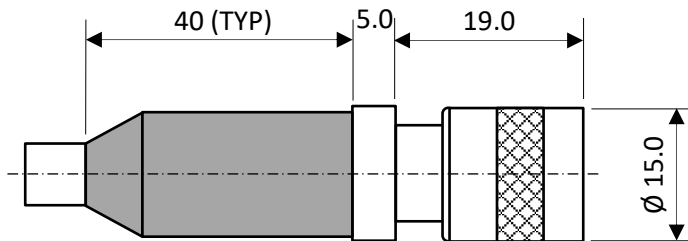
**M11 Bulkhead (BCR) Dimensions & Mounting Detail (all dimensions in mm)**



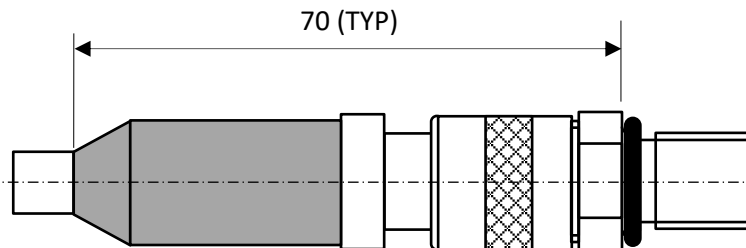
**9/16" x 18 UNF Bulkhead (BCR) Dimensions (SAE PORT J516 Mounting)**



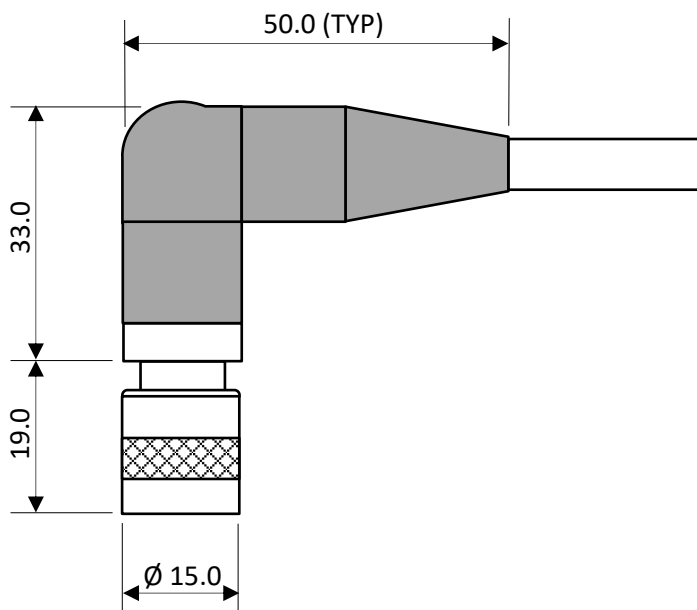
**Moulded Connector (CCP) Dimensions**



**Mated CCP & BCR Nominal Dimensions**



**Right Angle Moulded Connector (CCP) Dimensions**



### Other Common Options

Pressure resistant cap to fit CCP : SURF-SCR

Pressure resistant cap to fit Bulkheads or CCRs : SURF-SCP

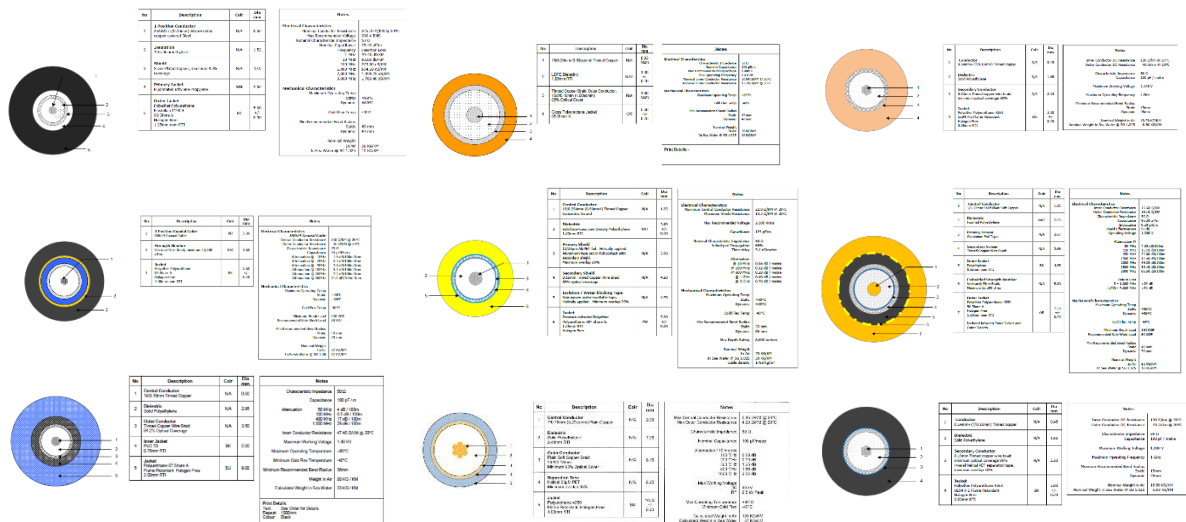
Alternative threadforms on BCR i.e. 7/16-20 UNF, 9/16-18 UNF and 1/4"-28UNF, consult STS to discuss your specific requirements.



### Cable Assemblies

STS Subsea carry stock of the following commonly used marinesed coax cables for termination to SURF Connectors and Bulkheads ; RG316, RG174, RG58, URM43, RG178 and RG59

Other cable types can also be used, alternatively STS can design and supply bespoke cables as required, we endeavour to accommodate Customer's free issue design - please consult Sales to confirm suitability.



The technical drawings are organized into a grid. Each drawing shows a cross-section of a cable assembly with numbered callouts. To the right of each drawing is a table with the following columns: Item, Description, Qty, and Unit. Below the table is a 'Notes' section containing detailed assembly instructions and material specifications. The drawings include various cable types such as RG316, RG174, RG58, URM43, RG178, and RG59, and show different termination methods for connectors and bulkheads.