

Nautilus™ Series
Product Technical Specification –
Electrical Connector

Manual (Diver) Wet-Mateable Connector

General

The connector is designed to meet the specification shown in Table 1. Each deliverable connector is Factory Acceptance Tested (FAT) either individually, or as part of an assembly, as specified in Table 2. A Certificate of Conformance (C of C) is supplied with each connector or associated assembly. Upon request, a documentation package including as-built General Arrangement drawing, material traceability log and test results can be provided.

Table 1 – Standard Specifications

Physical Characteristics:

Type: Manual Mate - Diver Operable
 Number of Circuits: 4,7,12 – Others available on request
 Material: 316L SS - Titanium CP Gr2 available on request
 Alignment Key: Single – Multiple keys available on request

Fixed Manual-Mate Connector Half –

- Plug or Receptacle available
- Front or Rear Mount available
- Straight or 90° Termination available



Operational Characteristics:

Amperage Rating: 30 Amps per circuit
 Voltage Rating (per IEC 60502): 1.8 kVac – phase-to-ground
 3.0 kVdc – phase-to-phase
 Mate/Demate Cycles: >1,000
 Operating Depth: Pressure compensated for full ocean depth.
 Consult ODI for pressure differentials >3,000psi.
 Operational Temperature: -2°C - +50°C
 Storage Temperature: -25°C - +60°C
 Mating Force: <6 lbs. Force per circuit
 Circuit Resistance: <0.1 Ω (<30 mΩ Typical)
 Contact Resistance: <10 mΩ (Not measurable as an assembly)

Cable End Manual-Mate Connector Half –

- Plug or Receptacle available
- Straight or 90° Termination available

Design Characteristics:

Design Life: 25 Years

Table 2 – FAT Standards

Hydrostatic Test:-
 Minimum Differential Pressure 3,000 psi
 Insulation Resistance Pin-Ground >10 GΩ @ 1,000Vdc
 Post Hydrostatic Bench Tests:-
 Circuit Resistance <0.1 Ω
 Insulation Resistance Pin-Ground >10 GΩ @ 1,000Vdc
 Mateability Function 1 Cycle Minimum with latch verification

