

Technical Sheet E-07

Product Specification – Electrical

Nautilus™ Series

1.1.6 ROV Wet-Mateable Ethernet Connector System

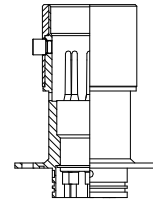
Table 1 – Standard Specifications

Physical Characteristics:

Type:	ROV Operable
Number of Circuits:	12
Material:	Titanium CP Gr2
ROV Handle Type:	Flexible Paddle Type or T-bar Type
Key Way:	Major - Single

Fixed Mount ROV Connector Half –

- Plug or Receptacle Available
- Front or Rear Mount Available
- Straight or Right-Angled Rear Termination Available



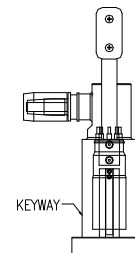
Operational Characteristics:

Amperage Rating:	30 Amps @ 1 kVDC
Voltage Rating:	1 kVDC (Power Conductors) 12 VDC (Ethernet Conductors)
Minimum Breakdown Voltage:	10 kVDC
Mate/Demate Cycles:	>1,000
Operating Depth:	Pressure compensated for full ocean depth. Consult ODI for pressure differentials >3,000 psi.

Operational Temperature:	-2°C - +50°C
Storage Temperature:	-25°C - +60°C
Mating Force:	<5 lbs. Force Per Circuit
Demate Force:	40-50 lbs. Force
Contact Resistance:	<0.1Ω per circuit
Jumper Axial Load:	
Maximum ROV Handle Load:	300 lbs.
Maximum Load (-12 hose):	600 lbs.
Minimum Failure:	900 lbs.
Max. Axial Stretch:	2% @ 600 lbs.

Cable End ROV Connector Half –

- Plug or Receptacle Available
- Right-Angled Termination Standard
- Paddle-Type or T-bar Type Handle Available



Pinout at RJ-45:	Per TIA-568B
Total Cable Length:	77 Meters
Maximum Total Subsea Jumper Length:	74 Meters
Maximum Outboard Pigtail Length with 74 Meter Jumper:	3 Meters

Design Characteristics:

Design Life:	25 Years
--------------	----------



Units Under Test

Table 2 – FAT Standards:

Hydrostatic Test:	
Minimum Differential Pressure:	3,000 psi
Insulation Resistance:	> 5 Gohm @ 50 VDC (Ethernet Conductors)
Post Hydrostatic Bench Tests:	
Continuity Resistance:	<0.2Ω per circuit
Insulation Resistance:	Pin-Ground >10GΩ @ 1 kVDC
Mateability Function:	1 Cycle Minimum

Reference Documents:

- D/N 70538** (COS-001-01) 12-Way Flying ROV Plug to 12-Way Penetrator
D/N 10368 (ODN-004-23) Nautilus Operation and Installation Manual