

Teledyne ODI

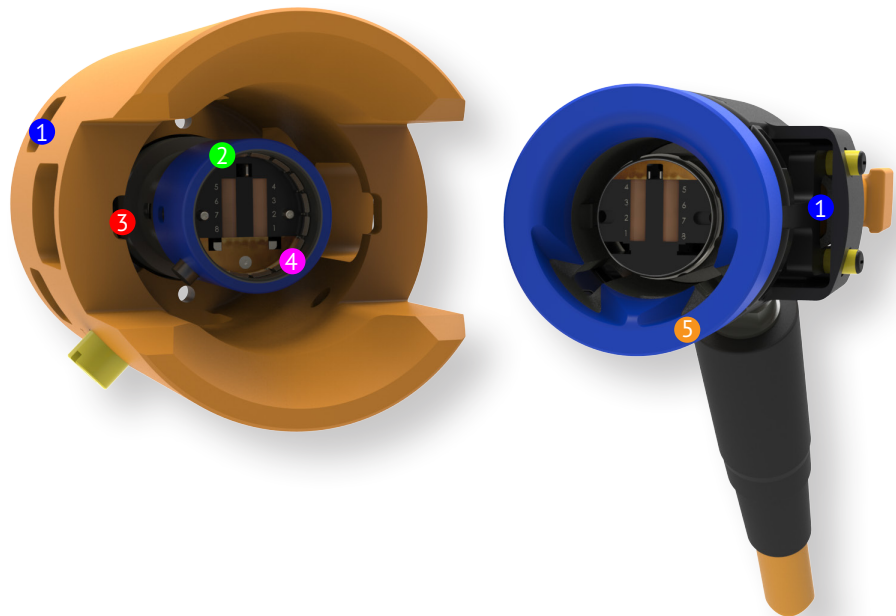
# APC Rolling Seal Hybrid

## Wet-Mate Optical Connector with Lower Optical Return Loss

Teledyne Oil & Gas now offers a wet-mate, multi-channel, optical connector, with lower return loss via Angled-Physical-Contact (APC) polished optical ferrules. The standard Rolling Seal Hybrid Connector, introduced in 1995, has been deployed over 7,200 times across the globe. The APC Rolling Seal's design reduces signal interference due to reflections at the connector face, supporting the next generation of subsea optical communication equipment.

The patented Rolling Seal design functions by excluding water and shuttling silt away from the region where the optical ferrules are brought into contact; creating a clean, oil-filled conduit for the optical ferrules to connect. The result is a reliable low-loss optical throughput.

Like the standard Rolling Seal, the APC Rolling Seal incorporates MK III design features to enhance operational efficiencies and reduce risks during ROV intervention. Any of the eight circuits can be specified for single-mode fiber or multi-mode fiber. ROV, Stab or Diver- Mate options are available, with numerous configurations offered by our Oil-Filled Hose and Modular Connectorized Distribution Units (MCDU).



### Five Performance Enhancements

- 1 GAF/ELI ensures mating efficiency and eliminates potential for shell damage while offering positive latch indication.
- 2 Bulkhead Center actuator material change offers increased margin against deformation, for overall field reliability.
- 3 Bulkhead main spring force increase assures manifold return even when mated at excessive angles.
- 4 Bulkhead bushing now reinforced and more robust for ROV handling.
- 5 Longer, contoured Cable End lead-in bushing enhances fine alignment of connector halves during the mating sequence.

### Product Features

- Wet-Mate Optical Connector
- Optical Return Loss of >45dB
- Gross Alignment Funnel and Enhanced Latch Indicator
- 8 Optical Circuits maximum
- 30 Year Design Life



# APC Rolling Seal Hybrid

Wet-Mate Optical Connector with Lower Optical Return Loss

## General Specifications

<b>Operational Temperature:</b>	23°F to +104°F (-5°C to +40°C) (seawater) -0.4°F to +122°F (-18°C to +50°C) (air)
<b>Storage Temperature:</b>	-22°F to +140°F (-30°C to +60°C)
<b>Max Operational Pressure:</b>	10,000 psi ambient 5,000 psi differential (bulkhead)
<b>Mate/Demate Cycles:</b>	100 without refurbishment
<b>Mating Force:</b>	<120 lbs
<b>Demating Force:</b>	<100 lbs
<b>Configurations:</b>	ROV
<b>Material:</b>	Titanium is the preferred shell material
<b>Design Life:</b>	30 Years

## Optical & Electrical Specifications

<b>Number of Circuits:</b>	8 max, optical
<b>Insertion Loss:</b>	≤0.5 dB @ 1310/1550/1625 nm
<b>Return Loss:</b>	≥45 dB @ 1310/1550/1625 nm

\*For reference only, see FDS - IFS D/N 263562 for Official Values

