

Rolling Seal 4

Standard Wet-Mate Optical Connector with Up to 4 Circuits – ROV, Stab and Manual-Mate Configurations

The evolutionary RS4 design features focus on enhancing operational efficiencies and reducing risks during ROV intervention where and when circumstances provide for less than optimal mating/demating conditions. Introduced in 1995, over 11,000 Rolling Seal connectors are in service across the globe. With a Mean-Time Between Failure (MTBF) of 5.48x10⁷ hours, the 25-year reliability for the RS8 is over 99.6%, which is the basis for the RS4 design.

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

The RS4 was developed due to market demands to align operational requirements with product capabilities. The RS4 compliments the RS8 product, ensuring the availability of a connector system that meets customer infrastructure needs, while supporting ongoing efforts to keep capital costs to a minimum.



4-Way Rolling Seal Connectors (RS4)

Key Product Features

- 1 GAF/ELI enhances mating efficiency and eliminates potential for shell damage while offering positive latch indication.
- 2 Longer, contoured cable end lead-in bushing enhances fine alignment of connector halves during the mating sequence.
- 3 Reduced channel count to align with more efficient field architectures

PRODUCT FEATURES

- Suited for connectivity on subsea control modules, data transmission system, umbilical terminations, and junction boxes
- Industry-standard fully wet-mateable, multi-channel optical connector
- 30-year design life



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Everywhere you look™

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Standard Wet-Mate Optical Connector with Up to 4 Circuits



TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATIONS	Operational Temperature	32°F to +104°F (0°C to +40°C) (seawater) -4°F to +122°F (-18°C to +50°C) (air)
	Storage Temperature	-22°F to +140°F (-30°C to +60°C)
	Max Operational Pressure	10,000 psi pressure balanced
	Mate/De-mate Cycles	100 without refurbishment
	Mating Force	<120 lbs
	De-mating Force	<100 lbs
	Configurations	ROV, Stab, & Manual Mate
	Material	Titanium connector shells
	Design Life	30 Years
OPTICAL SPECIFICATIONS	Number of Circuits	4 maximum
	Insertion Loss	≤0.5 dB @ 1310/1550/1625 nm (single-mode) ≤1.0 dB @ 850/1300 nm (multi-mode)
	Return Loss	≥30 dB per channel @ 1310/1550/1625 nm

