



## *Dry-Mate Optical Connector*

Weatherford's dry-mate optical connector delivers reliable, low-loss optical connection with the optical permanence required for high-performance measurement systems, including optical pressure-temperature (P/T) gauges, optical in-well flowmeters, distributed-temperature-sensing (DTS) systems, and in-well seismic systems. The optical connector operates reliably in high-temperature/high-pressure (HTHP) applications, providing unique operating capabilities and performance margin for high-value wells.



### *Features, Advantages and Benefits*

- Non-electrical design is intrinsically safe and has minimal effect on completion design and installation.
- Designed to integrate with Weatherford downhole optical cables, the connector can be mated on the rig floor, minimizing rig time.
- Primary seal is metal-to-metal to eliminate leaks, enhancing system integrity and reliability.
- Low optical loss and optical back reflection enhance optical system performance and optimize management of optical budget.
- Connector consists of three pins, which support three optical fibers, and is designed to support any combination of single-mode and multimode optical fibers for added versatility.
- Connector complies with industry standards for instrumentation connectors.





## Dry-Mate Optical Connector

### Specifications

Operational Performance	
Optical channels	3
Insertion loss (single mode)	0.30dB (typical), 0.50dB (maximum)
Insertion loss (multimode)	
Back reflection (single mode)	-50dB (typical), -45dB (maximum)
Back reflection (multimode)	
Operating pressure (psi/bar)	Atmosphere to 15,000 1,034
Overpressure (psi/bar)	18,500 1,276
Operating temperature (°F/°C)	32° to 302° 0° to 150°
Maximum temperature (°F/°C)	320° 160°
Minimum storage temperature (°F/°C)	-58° -50°
Shock and Vibration Data	
Vibration	15 Grms, random 10 to 2,000 Hz (Nav Mat)
Shock	100 g, 10 ms half sine
Drop	500 g, 1 ms half sine
General Data	
Primary seal and type	Metal, C-ring
Secondary seal and type	Elastomeric, O-ring

