

## Teledyne Impulse-PDM

# Optical Subsea Single Way 12,000m Rated Connector

## Submersible Fiber Optics

A dry mate underwater optical connector for ultra-deep water applications

Teledyne Impulse-PDM's 5135/5175 optical connectors utilize proven standard ferrule technology and are available for multi-mode or single-mode operation.

The connectors are manufactured in Titanium Ti 6Al-4V, which is electro-polished to remove surface contamination, thus improving resistance to corrosion. The engaging nuts are also manufactured in the same grade of Titanium and the threads are coated with a Nickel/PTFE composite coating to prevent galling. The connectors have been qualified to 12,000 meter operating depth.

CCP connectors are supplied as standard on a double-ended assembly, or with robust molded ST connectors on the second end. Teledyne Impulse-PDM offers a standard cable PDM 140 from stock, which can be used for either single mode or multi-mode applications. This cable has been qualified to the same operating depth as the connector.

The o-ring sealing face for the BCR connector must be 25mm diameter minimum, with a surface finish of 0.8 micrometer and lightly smeared with silicone grease. The connector uses a single face seal. The mounting thread required is 5/8" - 18 UNF-2B, the axis of which must be perpendicular to the sealing face. The user must ensure suitable compatibility between materials when using connectors in seawater to avoid bimetallic corrosion. The BCR connector is supplied as standard with either a MU/ST/FC type connector. Any installation of the BCR connector must allow the jacketed fiber on the dry-side up to 0.8mm of axial movement during mating and un-mating.



*Cable End (CCP) Connector*



*Bulkhead (BCR) Connector*

### PRODUCT FEATURES

- Reliable operation in a compact package
- Resists corrosion and galling for a long operational lifespan
- Cost effective
- Available with single mode or multi-mode fiber
- Can be packaged with optional stock cable qualified to 12,000 meters



# 12,000M Optical Connector

Dry Mate Submersible

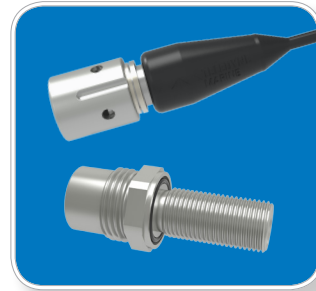
## GENERAL SPECIFICATIONS

**Maximum Operational Depth** 12,000 m (17,500 psi)

Bulkhead Connectors: Open-face rated to 4000m\*

**Optical Fiber** Single-mode or multi-mode

**Insertion Loss** <0.5 dB @ 1300 nm (1550 nm available upon request)



## PRODUCT DATA

\* The open-face rating on Bulkhead connectors is intended for accidental open-face immersion or CCP sealing O-ring failure. The connector sets are dry-mate only and should not be left unmated without protective caps fitted. Teledyne Impulse-PDM recommends returning them for inspection should they be submerged open-face.

## ADDITIONAL CAPABILITIES FROM TELEDYNE IMPULSE-PDM

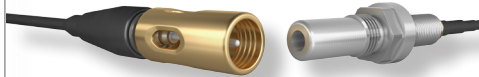
### Omega Hybrid Dry Mate Connector

Offers any combination of one through seven circuits of multi-mode or single-mode optical connections, or 16 AWG electrical connections.



### Omicron Fiber Optic Connector

Small form-factor submersible interconnect available for multi-mode or single-mode operation. Rated for operation at 5,000 meter depths.



### NetG Ethernet Connector

A 1 Gbit/second compact connector for subsea Ethernet applications where high performance and high reliability are essential.

