

Teledyne Impulse-PDM

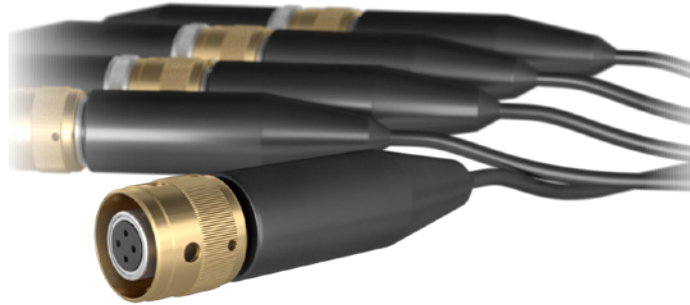
Omega Fiber Optic and Electrical Interconnect Hybrid Dry Mate Submersible

Teledyne Impulse-PDM's Omega Series offers any combination of multi-mode or single-mode optical ways and 16 AWG electrical ways from a single way through to seven ways. Electrical pins are part of the CCP and the mating sockets are part of the FCR, CCR or BCR. Connectors populated with both electrical and optical ways will be populated in a standard Teledyne Impulse-PDM format to facilitate interchangeability between batches. This information can be provided at the time of quotation.

The connectors are offered, as standard, in Stainless Steel to BSEN10088 Grade 1.4404 (316L) which is electro-polished to remove surface contamination, thus improving resistance to corrosion. Connector bodies can also be manufactured, by special arrangement, in other materials either to address specific anti-corrosion requirements or to improve the ratio of size to depth rating. The engaging nuts are normally manufactured in Naval Brass to UNS C46400.

CCP connectors can be supplied unterminated but it is usual for Teledyne Impulse-PDM to carry out the termination. As cable types containing optical fibers are both varied and complex, their termination is often unique to each type. Teledyne Impulse-PDM is able to offer, from stock, cable for either single mode or multi-mode operation. Cable can also be customer specified, but details should be furnished with the request for quotation so that Teledyne Impulse-PDM can consider any design implications.

All O-ring sealing faces must be of a surface finish of 0.8 micrometers. The user must ensure suitable compatibility between materials when using connectors in seawater to avoid bimetallic corrosion. Mounting hole sizes and tolerances are available upon request.



RELATED PRODUCTS

- Omicron Fiber Optic Submersible Connectors
- Cable Bend Restrictors
- Subsea Harness Design and Manufacture
- Polyurethane Elastomers and Primers
- Underwater Cable
- Elastomers

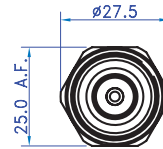
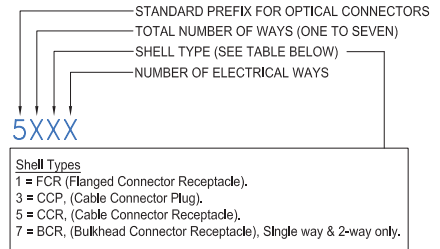
Omega Fiber Optic

Hybrid Products

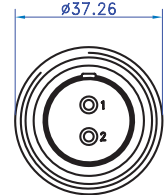
GENERAL SPECIFICATIONS

Operational Depth	5,000m Bulkhead Connectors: open-face rated to 4,000m*
Operational Current	12A (16AWG contacts)
Operational Voltage	600 VDC (16AWG contacts)
Optical Fibre	Single-mode or multi-mode
Number of Circuits	1 to 7
Insertion Loss	<0.5 dB @ 1310nm (1550nm available upon request)
Return Loss	Dependent on the Interface

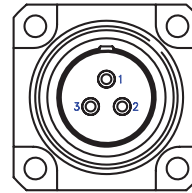
* The open-face rating on Bulkhead connectors is intended for accidental open-face immersion or CCP sealing O-ring failure. The connector sets are dry-mateable only and should not be left unmated without protective caps fitted. Teledyne Impulse-PDM recommends returning them for inspection should they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



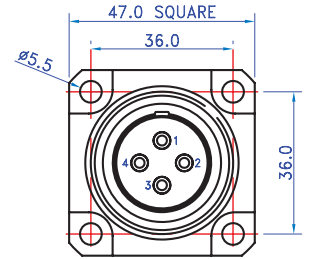
5170 (BCR)
FACE VIEW.



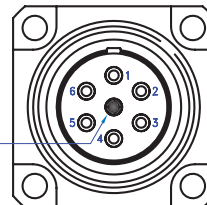
5270 (BCR)
FACE VIEW.



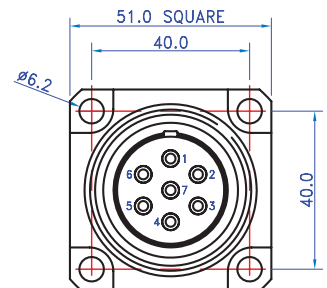
5310 (FCR)
FACE VIEW.



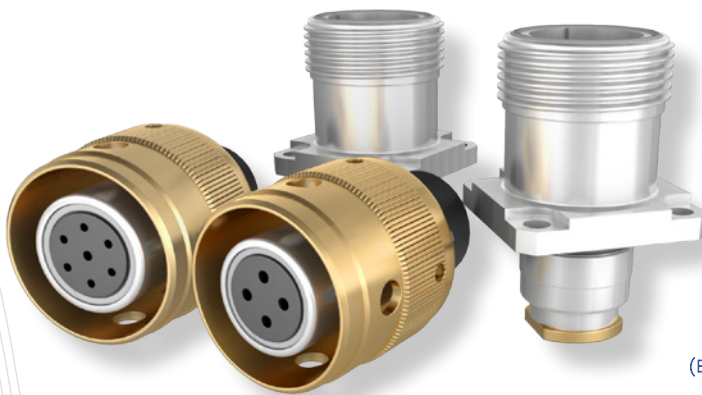
5410 (FCR)
FACE VIEW.



5610 (FCR)
FACE VIEW.



5710 (FCR)
FACE VIEW.



Impulse-PDM has supplied the underwater industry with the highest quality dry mate submersible connectors and cable assemblies since 1978 and are world leaders in the design and manufacture of electrical and optical interconnection systems for a wide range of harsh environments.