

VaporConnect Optical Feedthrough Modules

As data centers face demands for increasing speed and capacity to meet the needs of AI and machine learning applications, immersion cooling helps manage thermal challenges to high-performance computing systems. VaporConnect Optical Feedthrough Modules connect optical transceivers inside the cooling tank to cabled infrastructure outside the tank via a versatile, reliable and upgradeable sealed module to support immersion cooling solutions.

ADVANTAGES AND FEATURES

Delivers flexibility and scalability for streamlining upgrades

With a range of optical connector options available to mix and match, these modules allow data centers to customize functionality and upgrade to newer or more dense connectors without changing the tank architecture.

Minimizes external patching and shuffling requirements

Using Molex FlexPlane technology, the module can integrate complex fiber-routing options, reducing the need for shuffling outside the module.

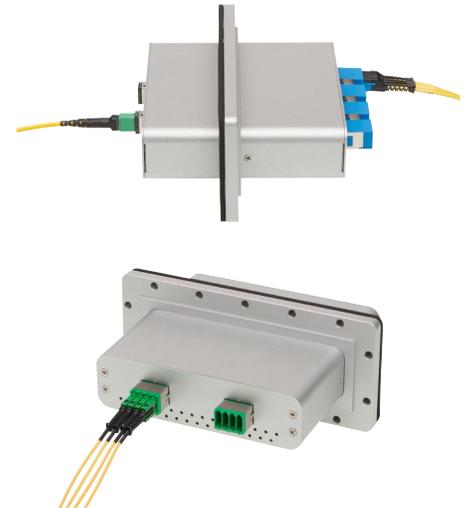
Optimizes space through the use of customizable form factors

The module footprint can be customized to specific customer and application needs, helping enable higher density and improving cost efficiencies.

Inside Connectors	MPO, LC, MMC, MDC, SN, SN-MT
Outside Connectors	MPO, LC, MMC, MDC, SN, SN-MT, EBO
Fiber Types	Single mode, multi-mode
Vibration Standard	GR-1435-CORE
Operating Temperatures	-10 to +60°C

Ensures a reliable seal for immersion cooling applications

Modules are rigorously tested using helium-leak testing to ensure a reliable and durable seal for use in the vapor zone of the immersion cooling tank, delivering secure and reliable connectivity and reducing the risk of failures.



MARKETS AND APPLICATIONS

Server and Storage

Immersion cooling tanks

Wireless Infrastructure

Optical connections in harsh environments with hermetic sealing requirements



Server and Storage Applications



Optical Connections in Harsh Environments

VaporConnect Optical Feedthrough Modules

SPECIFICATIONS

Reference Information

Packaging: Carton

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes

Vibration Standard: GR-1435-CORE—three perpendicular axes, two hours/axis, 1.50mm peak-to-peak amplitude, frequency sweeping between 10 and 55Hz at 45Hz per minute

Optical

Outside Connectors:

MPO, LC, MMC, MDC, SN, SN-MT

Inside Connectors:

MPO, LC, MMC, MDC, SN, SN-MT, EBO

Fiber Types: Single mode, multi-mode

Insertion Loss/Return Loss: Per Molex standard; inquire with Molex for connector-specific IL/RL information

Mechanical

Reference Design Dimensions

(Other Sizes Available as Custom Solutions):

Flange Included—176.00 by 76.00 by 130.00mm

Cutout Only—13.80 by 37.00 by 130.00mm

Physical

Housing Material: Aluminum

Gasket Material: Ethylene-Propylene rubber

Connector and Adapter Materials: Engineering thermoplastic

Operating Temperatures: -10 to +60°C

www.molex.com