

# FIBER & POWER

IN ONE CONNECTOR SOLUTION

## Amphenol Aerospace HYBRID FIBER & POWER INTERCONNECT SOLUTION



### FEATURES

- Highly Configurable
- Rugged plug and receptacle combination with:
  - **Two Duplex LCs** (four fiber optic connections)
  - **Two Size 12 power pins**

Options for shell material:

- Composite
- Aluminum
- Stainless Steel

All standard platings:

- Nickel
- Olive Drab Cadmium
- Durmalon
- Black Zinc Nickel

Shell Style:

- Jamnut
- Wall Mount
- Box Mount Receptacle

### APPLICATIONS

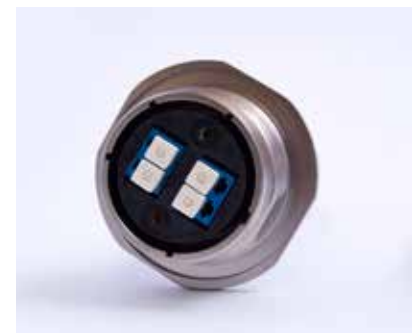
- FTTA
- Base Stations
- Factory Automation
- Alternative Energy
- Transportation
- Energy Utilities

### QUALIFICATION DATA

- Insertion Loss
- Return Loss
- Copper contact resistance/DWV
- Termini retention force
- Mating force
- Durable through 500 mating cycles
- Electrical continuity Temperature
- Sealing
- Mechanical Shock
- Vibration
- Corrosion
- Heat rise



Borne from the foundation of D38999 mil-spec harsh environment connectors, the hybrid fiber & power interconnect solution combines standard fiber optic LC components and copper contacts in a rugged package. This connector series is highly configurable to support a wide range of industrial applications where fiber and copper connectivity are required in a single connector for rapid deployment and easy maintainability.



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Aerospace

# OPTICAL/MECHANICAL/ENVIRONMENTAL PERFORMANCE

## INSERTION LOSS :

Typical of .1dB at 1310nm and 1550nm

## RETURN LOSS :

Minimum of 50dB

## TERMINI RETENTION :

Maintain optical transmittance with low attenuation (less than .5dBm) during longitudinal axis forces on the termini.

## MATING FORCE :

Maximum force necessary to completely engage or disengage the connector is less than 40 pound-inches. The minimum disengagement force is 5 pound-inches.

## DURABILITY :

No evidence of mechanical damage and the coupling mechanism is functional after 100 mating/de-mating cycles.

## INSULATION RESISTANCE, CONTACT RESISTANCE, DIELECTRIC WITHSTANDING VOLTAGE, ELECTRICAL CONTINUITY

## TEMPERATURE:

Operating and non-operating ranges from -40°C to 85°C

## SEALING:

IEC 60529, IPX8

## MECHANICAL SHOCK:

50g peak per IEC 60068-2-27

## VIBRATION:

IEC 60068-2-6

10-500 Hz frequency range

5gn or 50m/sec<sup>2</sup> acceleration amplitude

2 hour durations

## CYCLICAL CORROSION:

### SALT:

Salt Concentration: 5% +/- 1% by weight

Temperature: 35 ± 2OC

Ph: 6.5 to 7.2. (5% solution)

Fallout: 1 to 2 ml per hour

## HUMIDITY:

Lower Temperature Dwell: 25°C +5°C/-0°C

Upper Temperature Dwell: 55°C +5°C/-0°C

Relative humidity: 92% +2%, -3%

Dwell Duration: 11 hrs

Transition Time: 0.5 hrs



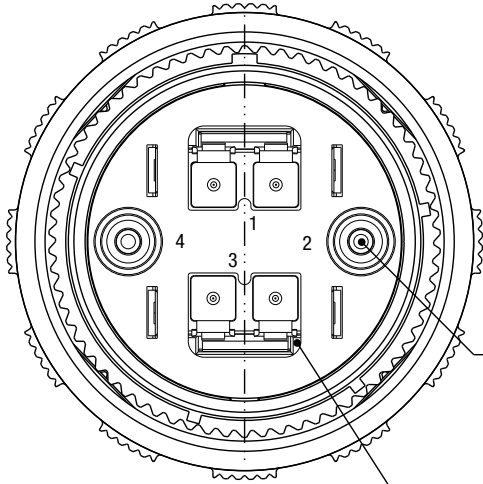
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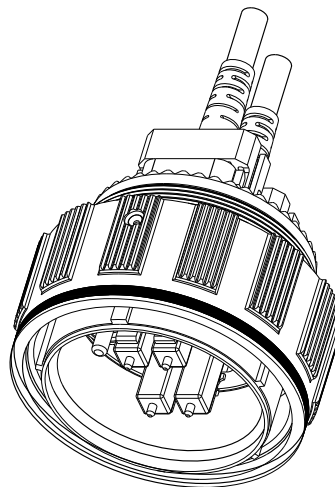
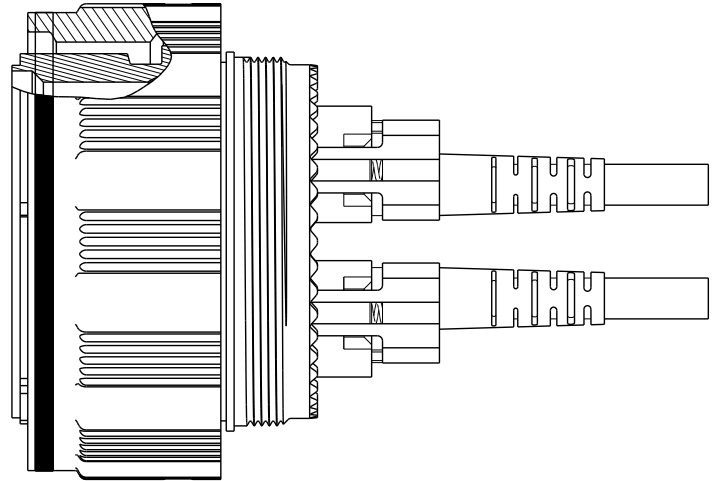
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# DRAWINGS (PLUG)



SIZE 12 PIN  
M39029 / 58 - 365 OR  
EQUIVALENT  
2 PLACES

LC DUPLEX ADAPTER  
2 PLACES



ISOMETRIC VIEW  
SCALE 2.000