

CORNING

TFOCA GenX Hybrid 2 x 2 Fiber Optic / Copper Connector



The TFOCA GenX Fiber Optic / Copper connectors provides the ultimate hybrid solution where both fiber optic and copper contacts have been incorporated into one connector. Built on the standard TFOCA GenX hermaphroditic fiber optic connector, the hybrid 2 x 2 connector features 2 fiber optic termini and 2 copper 16AWG contacts for low power transmission. The design and packaging of these connectors provide a robust connectivity solution resistant to corrosion, mechanical and thermal shock environments while providing easy field maintenance. Some of the applications currently employing Corning's TFOCA GenX Hybrid 2 x 2 include:

- Deployable military tactical communication systems
- Outdoor fiber optic networks
- Emergency restoration systems
- Mobile command and control platforms
- Tactical electro-optic sensor systems

Preserving its lineage of a hermaphroditic connector with internal circuit crossover, longer cable overhaul lengths can be addressed by concatenating multiple cable segments together¹.

Features and Benefits

Standard 4 channel hermaphroditic, or genderless, configuration

2 fiber optic termini and 2 copper 16 AWG M39029-37 socket and -36 pin contacts

Black hard anodize with Teflon impregnation or ZnNi

Both single-mode and multimode fiber are compatible in the same connector without part sub-component substitution

Electrical safety features include shrouded electrical pin and nonconductive insert

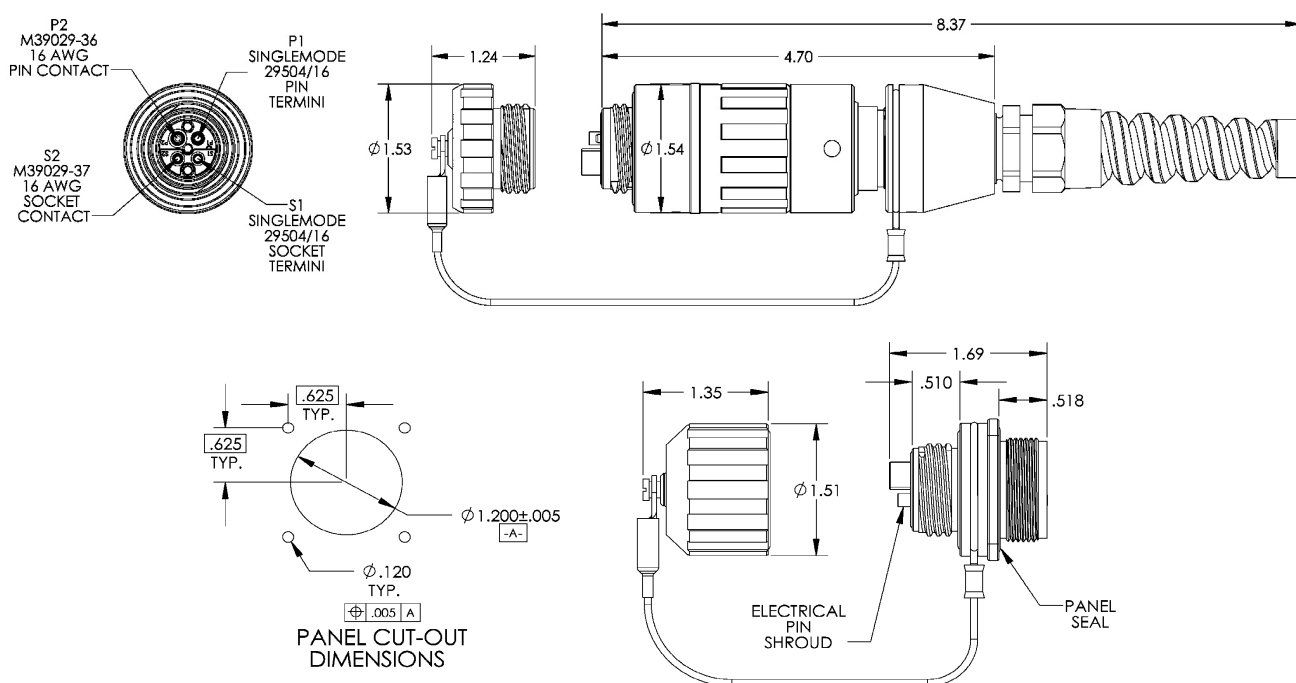
Field demountable termini for improved maintainability and PC repolish

Captured split alignment sleeves with anti-expansion capture for enhanced insertion loss performance

Jamnut mount receptacle options available

¹Enduser is responsible for determining acceptable voltage drop limits on concatenated lengths

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Technical and Performance Characteristics

Optical Insertion Loss	Single-mode 9/125: 0.75 dBmax, 0.35 dBtyp Multimode 50, 62.5/125: 0.75 dBmax, 0.14 dBtyp
Return Loss	>30 dB MMF, >40 dB SMF with PC polish
Voltage Rating	600 Volts
Contact Rating (Amps)	Compliance to MIL-STD-1560 for 16 AWG contacts
Mating Durability	2000 cycles per EIA-455-21
Vibration	10 g's per EIA-455-11
Physical Shock	Per EIA-455-14, test condition A
Thermal Shock	-62°C to +85°C per EIA-455-71, cond. B
Temperature Life	250 hours at 85°C per EIA-455-4
Corrosion Resistance	EIA-455-16 test condition C
Humidity	10 cycles per EIA-455-5
Fluid Immersion	1 meter, per EIA-455-12
Crush Resistance	450 lbs, per EIA-455-26
Cable Retention	400 lbs, per EIA-455-6
Cable Seal Flexing	Per EIA-455-1
Impact	TIA/EIA-455-2



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Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC 28216 USA
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

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TFOCA Hybrid 2x2 Specification Sheet | OEM-2X2-AEN | October 2020 | Page 2