

Hybrid Fiber Optic Cables

For Portable, Permanent Installation
and Direct Burial Applications

General Cable's Gepco® Brand offers a complete line of fiber optic and copper conductor SMPTE 311 hybrid fiber cables for high-definition video cameras.

In the hybrid 311 format, the HD video signal is transmitted over two single-mode optical fibers to ensure accurate and extended-distance data transmission. To increase the durability, a special nylon-based polymer with increased tensile strength is used for the fiber coatings, and a 16 AWG steel strength member is cabled at the center of the cable core. All copper elements feature heat-resistant PE insulation and a shielded copper braid. The HDC920 comes in an extra-flexible, abrasion-resistant TPE compound that is ideal for portable, studio and outdoor broadcast applications, while a flexible PVC jacket is used for HDC920R and HDC920P for riser and plenum permanent installation applications. Designed for permanent underground installation, the HDC920PEF has an extra-rugged polyethylene jacket and water-blocking tape wrapped around the cable core.



Features & Benefits

- Ultra-Low Attenuation
- SMPTE 311 Compliant (HDC920, HDC920R, HDC920PEF)
- SMPTE 311 Design (HDC920P)
- Single-Mode Optical Glass Fibers
- Proprietary Fiber Coating for Increased Tensile Strength
- Six Copper Conductors
- Heat-Resistant
- Strength Member for Additional Durability
- Copper Braid Shield

Applications

- High-Definition Camera-to-CCU Interconnect
- Permanent Install Riser (HDC920R) or Plenum (HDC920P)
- Portable Cables (HDC920)
- Direct Burial Permanent Installation (HDC920PEF)
- Studio or Remote Environments

Hybrid Fiber Optic Cables & Assemblies

Mechanical Specifications (General)

Part #	Nominal OD	Master Jacket (Type, Colors)	Overall Shield	UL Type	SMPTE Standard	Approx. Weight
HDC920	9.2 mm	Flexible TPE, Black	95% TC Braid	---	311 Compliant (Meets or Exceeds)	90 lbs/Mft (134 kg/km)
		<i>Extra-Flexible 9.2 mm Hybrid Fiber Camera Cable</i>				
HDC920R	9.2 mm	PVC, Black	95% TC Braid	CMR	311 Compliant (Meets or Exceeds)	91 lbs/Mft (140 kg/km)
		<i>Permanent Install 9.2 mm Hybrid Fiber Camera Cable: Riser</i>				
HDC920P	6.0 mm	PVC, White	80% TC Braid	CMP	311 Design	45 lbs/Mft (67 kg/km)
		<i>Permanent Install 6.0 mm Hybrid Fiber Camera Cable: Plenum</i>				
HDC920PEF	9.2 mm	PE, Black	95% TC Braid	---	311 Compliant (Meets or Exceeds)	85 lbs/Mft (127 kg/km)
		<i>Direct Burial 9.2 mm Hybrid Fiber Camera Cable</i>				

Mechanical Specifications (Components)

Component	Number	Type	Insulation (Type, OD) for Non-Plenum/Plenum	Color Code
Optical	2	Single Mode 8.3µm Mode Field, 125µm Cladding	CPE Tight Buffer, 0.9 mm/CPE Tight Buffer, 0.9 mm	One Blue, One Yellow
Signal	2	24 AWG (7x32) Stranded TC	PE, 0.045" (1.14 mm)/FEP, 0.038" (0.97 mm)	One Red, One Gray
Auxiliary	4	20 AWG (19x32) Stranded TC	PE, 0.060" (1.52 mm)/FEP, 0.054" (1.37 mm)	Two White, Two Black
Strength Member	1	16 AWG Stranded Steel	PVC, 0.084" (2.13 mm)/PVDF, 0.084" (2.13 mm)	One White

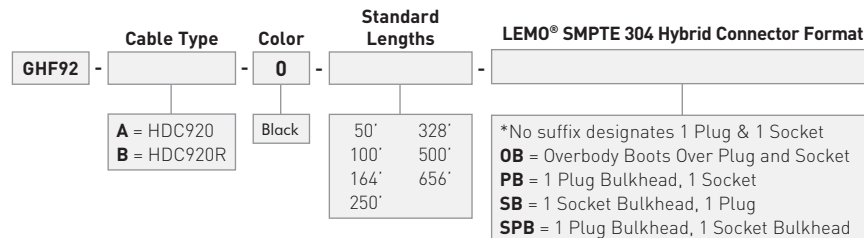
Electrical & Optical Specifications

Fiber Attenuation	Signal Conductor DCR	Power Conductor DCR	Shield DCR	Insulation Resistance (Power or Signal)	Dielectric Strength (Power or Signal)	Operating Temperature for Non-Plenum/Plenum
<0.70 dB/km @ 1310/1550nm	23.8 Ω/Mft	9.7 Ω/Mft	5.4 Ω/Mft	>10M Ω/km	3000 Volts RMS @ 20°C, 60 Hz for 1 min.	-40°C to +75°C (@ 0 to 95% humidity)/ -20°C to +75°C (@ 0 to 95% humidity)

9.2 mm Hybrid Fiber Assemblies

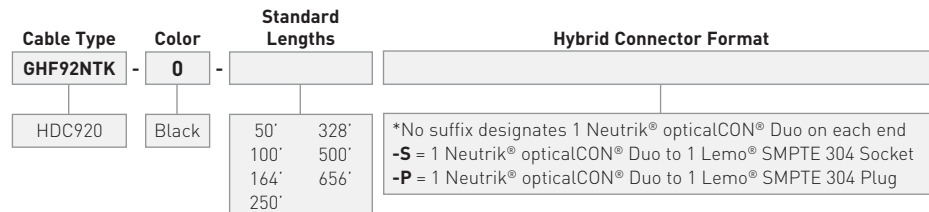
Features

Machine Polished -55 dB RL (Typical)
Meets or Exceeds SMPTE 304/311 Standards



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