



FRNC

UHD 4K8K

Dca

**SMPTE 311M - hybrid camera cable  
FRNC**

- SMPTE 311 compliant
- suitable for extended distances (up to 4000 m)
- 2 x single-mode optical fibre conductors E9/125 µm, bend-resistant
- 6 x copper lines (4 x power + 2 x remote control)
- central stranded steel strength member, 19 x 0.36 mm (Ø 1.8 mm)
- flame retardant and non corrosive (FRNC)
- CPR class Dca - s2, d2, a1 acc. to EN50575

This rugged, extremely durable composite cable complies with the SMPTE 311 standard and was designed for use with professional HD cameras. It features two bend-resistant single-mode optical fibre cables built in compliance with ITU-T G.657A2/B2, which conduct the HD signal across extremely long distances of up to 4000 metres. The cable also has four integrated power lines and two control signal conductors. A central insulated steel core ensures the maximum tensile strength. For fixed installations, FRNC is the material of choice for the outer jacket. The CAM311 is available as both bulk cable and in premade models such as a cable with LEMO-SMPTE connectors. We recommend ordering premade cables from us, as we are among the few manufacturers with the requisite certification and sophisticated measurement and production technology necessary for production.

**hybrid**

**twisting** 2 fibers + 4 power cond. + 2 signal cond. + fillers twisted around a central steel strength member, isolated with PE (Ø 2.5 mm)

**overall shield** tinned copper braid, DC resistance < 20 Ω/km

**outer jacket** FRNC

**overall diameter** 9.2 mm

**mechanical & thermal characteristics acc. to IEC 60794-1-2**

**tensile strength** 750 N acc. to test E1

**crush resistance** 2000 N/10 cm acc. to test E3

**min. bending radius** 10x overall diameter

**flame retardancy** acc. to EN 60332-1-2

**halogen-free** acc. to EN 60754-2

**low smoke emission** acc. to EN 61034-2

**control core**

**conductor** stranded tinned copper, 7 x 0.20 mm

**cond. cross section** 0.22 mm<sup>2</sup>

**core colors** red and grey

**insulation** PE, Ø 1.2 mm

**conductor resistance** < 90 Ω/km

**min. insulation resistance** 10 GΩ x km

**test voltage** 1750 V

**operating voltage** < 300 V AC rms

**fiber optic**

**fiber type** Single-Mode 9/125 µm, ITU G.657.A2/B2

**mode field diameter** 8.6 ± 0.4 µm

**cladding diameter** 125 µm

**primary coating** acrylate, Ø 245 µm

**secondary coating** tight buffered fibre, Ø 0.9 mm

**core colors** blue and yellow

**max. ttenuation @ 1310 nm** < 0.5 dB/km

**power core**

**conductor** stranded tinned copper, 19 x 0.20 mm

**cond. cross section** 0.60 mm<sup>2</sup>

**insulation** PE, Ø 1.6 mm

**core colors** 2x white and 2x black

**conductor resistance** < 35 Ω/km

**min. insulation resistance** 10 GΩ x km

**test voltage** 1750 V

**operating voltage** < 300 V AC rms

order code	outer jacket	working temperature	cable color	weight kg/m
CAM311H-D	FRNC	-20°C / +70°C	black	0.13

technical specifications are subject to change