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SENDING ALL THE RIGHT SIGNALS®

New Product Bulletin

7804S

Belden Digital Camera Cables for Studios and OB Vans

Full collection of SMPTE311 compliant digital camera cables offer different choices to meet the customer needs in different application environment

7804S – Belden's answer to high performance and cost effective SMPTE 311 digital camera cable

In 1998 the Society of Motion Picture and Television Engineers (SMPTE) developed the industry standard SMPTE 311 for High-Definition Television Camera cables to assure clear, reliable transmission of audio, video and camera control signal.

Belden's composite cable incorporates two tight-buffer, single-mode 10µm optical fibers for video, four 20 AWG or two 16 AWG auxiliary conductors (depending on the design) and two 24 AWG signal conductors. The fibers, color-coded blue and yellow, permit long-haul transmission of critical audio and video signals with extraordinary reliability and clarity. The new standard provides a cable smaller in diameter and lighter in weight than traditional camera cables resulting in easier handling during installation or in field applications.

Belden's SMPTE 311 cables are 7804S, 7804R, 7804P, 7804C and 7804WB.

- 7804R is the riser version of the composite cable made with tight buffer fiber designs and (4) 20 AWG auxiliary (power) conductors per traditional design parameters
- 7804P is the plenum version of 7804R
- 7804S is the low cost version of 7804R, with same design and similar transmission performance, the only difference is the flame retardant performance of the cable is only FT-4 compliant but not UL1666 certified, suitable to cost sensitive and don't have strong requirement on flame retardant performance on cable
- 7804C has been designed with breakout fibers to enhance ruggedness and with (2) 16 AWG auxiliary (power) conductors to simplify termination and reduce installation time. In addition, a central stainless steel strength member is used for additional durability during installation. The overall jacket is black Belflex® providing exceptional flexibility
- 7804WB is the water-blocking version of the SMPTE311 compliant composite camera cable when the cable needs to be used in wet environment

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Audio and Video Composite Camera Cable

SMPTE 311M HDTV Cables

Single-mode Fiber with Copper Conductors

Description	P/N	UL NEC / C(UL) CEC Type	Standard Lengths		Conductor (stranding) Nom. DCR	Nom. Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Optical Attenuation (@1310mm)	
			Ft.	M		Inch	mm		Inch	mm	dB/1kft	dB/km
4 Power Conductors SM Fiber w/24 and 20 AWG · Stranded (7×32 and 19×32) Tinned Copper· Overall 95% TC Braid Shield												
PVC Insulation · Black PVC Jacket												
75°C	7804S	CEC/CSA: FT4	1000	305	2 Fibers: SM/125µm/900µm (core/clad/buffer)	0.091	2.30	TC Braid 77% Shield Coverage	0.36	9.20	0.14	0.45
			1640	500								
			3280	1000								
					2 Cond.: 24AWG (7×32) 0.024" TC 76.4Ω/KM	0.051	1.30					
					4 Cond.: 20AWG (19×32) 0.024" TC 28.9Ω/KM	0.063	1.60					
PVC Insulation · Belflex PVC Jacket												
75°C	7804R	NEC: CMR	328	100	2 Fibers: SM/125µm/900µm (core/clad/buffer)	0.079	2.00	36 AWG TC Braid 95% Shield Coverage	0.36	9.20	0.14	0.45
		CSA/CEC: CMG FT4	500	152								
		UL1666	1000	305								
		IEEE: 1202	1640	500	2 Cond.: 24AWG (7×32) 0.024" TC 76.4Ω/KM	0.050	1.27					
			3280	1000								
					4 Cond.: 20AWG (19×32) 0.024" TC 28.9Ω/KM	0.063	1.60					
FEP Insulation · Flamarrest PVC Jacket												
60°C	7804P	NEC: CMP	328	100	2 Fibers: SM/125µm/900µm (core/clad/buffer)	0.079	2.00	36 AWG TC Braid 95% Shield Coverage	0.36	9.20	0.14	0.45
		CSA: FT6	500	152								
		UL910	1000	305								
			1640	500	2 Cond.: 24AWG (7×32) 0.024" TC 76.4Ω/KM	0.050	1.27					
			3280	1000								
					4 Cond.: 20AWG (19×32) 0.024" TC 28.9Ω/KM	0.063	1.60					

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Description	P/N	UL NEC / C(UL) CEC Type	Standard Lengths		Conductor (stranding) Nom. DCR	Nom. Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Optical Attenuation (@1310mm)	
			Ft.	M		Inch	mm		Inch	mm	dB/1kft	dB/km
4 Power Conductors SM Fiber w/24 and 20 AWG · Stranded (7×32 and 19×32) Tinned Copper· Overall 95% TC Braid Shield												
PVC Insulation · PE Jacket												
60°C	7804WB		1000	305	2 Fibers: SM/125µm/900µm (core/clad/buffer)	0.079	2.00	36 AWG TC Braid 95% Shield Coverage	0.36	9.20	0.14	0.45
					2 Cond.: 24AWG (7×32) 0.024" TC 76.4Ω/KM	0.050	1.27					
					4 Cond.: 20AWG (19×32) 0.024" TC 28.9Ω/KM	0.093	2.36					
2 Power Conductors SM Fiber w/24 and 16 AWG · Stranded (7×32 and 19×32) Tinned Copper· Overall 95% TC Braid Shield												
PVC Insulation · Belflex PVC Jacket												
60°C	7804C	NEC: CMR CSA/CEC: FT4 UL1666 IEEE: 1202	328 500 1000 1640 3280	100 152 305 500 1000	2 Breakout: Fibers: SM/125µm/900µm (core/clad/buffer)	0.079	2.00	36 AWG TC Braid 95% Shield Coverage	0.36	9.20	0.14	0.45
					2 Cond.: 24AWG (7×32) 0.024" TC 76.4Ω/KM	0.050	1.27					
					4 Cond.: 20AWG (19×32) 0.024" TC 28.9Ω/KM	0.093	2.36					

Be certain.
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