

Product Specification

(LF-2SM7T)

SAQ033E
Ver.1.1

Canare Electric Co., Ltd

1. Scope This product specification covers the performance of Hybrid Electrical and Fiber-Optic Camera Cable for studio and broadcast use.

2. General Specifications

- (1)Product Name Hybrid Electrical and Fiber-Optic Camera Cable
- (2)Model Name LF-2SM7T
- (3)Construction and Appearance As shown in Fig.1,2,3 and Table 1

Fig.1 Construction and color coding

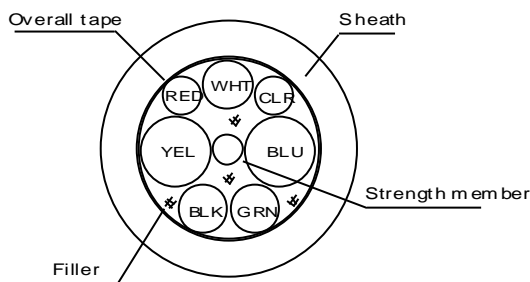


Fig.2 Optical fiber

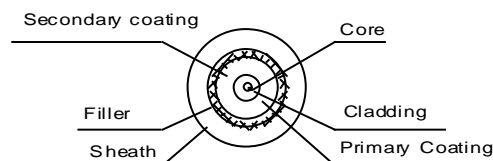


Fig.3 Power line, Control line

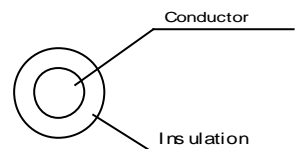


Table 1

		Item	Standard value	Remarks	
Configuration of inner units	Optical fiber	Number of units	2	Color: Blu, Yel	
		Optical Fiber	Mode field OD (μm)	8.6±0.4	Standards/
			Cladding OD (μm)	125±0.7	ITU-T G.652.D
			Concentricity error (μm)	≤ 0.5	ITU-T G.657.A2
			Cladding non-circular ratio (%)	≤ 0.7	
			Cut-off wavelength (μm)	≤ 1.26	
			Outer diameter (mm)	0.9±0.05	
		Filler	Material	Tensile strength fiber	-
	Sheath	Outer diameter (mm)	2.0	Polyurethane type resin	
	Control line	Number of units	2	Color: Red, Gr	
		Conductor	Construction (qty/mm)	A0.08 / 30	25AWG
			Nom. cross sec. area (mm ²)	0.15	Annealed copper
			Outer diameter (mm)	0.51	(JCS 1222)
		Insulation	Outer diameter (mm)	1.10	Polyethylene
Power line	Number of units	3	Color: Wht, Blk, Grn		
	Conductor	Construction (qty/mm)	A0.08 / 60	23AWG	
		Nom. cross sec. area (mm ²)	0.30	annealed copper	
		Outer diameter (mm)	0.72	(JCS 1222)	
	Insulation	Outer diameter (mm)	1.4	Polyethylene	

Table 1 (continued)

Item		Standard value	Remarks
Strength member	Outer diameter (mm)	0.63	SUS
Filler	Material	Tensile strength fiber	-
Overall tape	Thickness (mm)	0.03	-
Sheath	Thickness (mm)	1.10	Polyurethane type resin
	Color	Black	
	Marking	Product type/Model /CANARE/Year code	
Outer diameter (mm)		7.1±0.3	-

(4)Weight/ Approx. 5.5kg/100m

(5)Package 200m or less/donut roll
Over 200m/Wooden reel

3 . Characteristics

3.1 Transmission performance

(1)Optical Fiber

Item	Length (km)	Standard Value	Test method
Attenuation ($\lambda=1.31\mu\text{m}$)	$L \geq 1.0$	$\leq 0.5\text{LdB/km}$	JIS C 6823
	$0.2 \leq L < 1.0$	$\leq 0.375L + 0.125\text{dB}$	
	$0.2 > L$	$\leq 0.2\text{dB}$	

(2)Power/Ground line

Item	Standard value	Test method
Conductor resistance	$\leq 64.4\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Insulation resistance	$\geq 10000\text{M}\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Withstand voltage	AC 2000V/1min.	UL758

(3)Control line

Item	Standard value	Test method
Conductor resistance	$\leq 129.4\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Insulation resistance	$\geq 10000\text{M}\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Withstand voltage	AC 2000V/1min.	UL758

3.2 Mechanical Characteristics

Characteristics	Specification	Test method
Flex resistance	6000 cycles	TIA/EIA-455-104A
Impact resistance	50 cycles	TIA/EIA-455-25C
Crush resistance	2000 N/cm	TIA/EIA-455-41A

4 . Use conditions

- (1) Temperature Range : -40~+75°C
- (2) The permission tension : $\leq 1,000\text{N}$
- (3) Permission bend radius : O.D x1

Note: Testing must be performed under standard conditions set down in "JIS C 60068-1 General Environmental Testing Rules(Electric/Electronics)."

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35°C, a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.