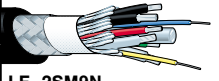


Fiber-Optic Systems

HFO Camera Cables

Hybrid Fiber-optic Camera Cables (SMPTE ST 311)

Type	Model	Sales Units (m)	Nom. O.D. (mm)	Weight kg/100m	Outer Jacket	Overall Shield	Tension Tolerance (N)	Strength Member O.D. (mm)	Min. Bend Radius	Temp. Range (deg C)	Channel Unit		
											Fiber	Aux. (Power)	Signal (Control)
 LF-2SM9N Jacket color: BLK	LF-2SM9N	Call	9.2	12.0	Abrasion-resistance PVC	9/24/0.10TA 91%	700	2.6	6 × Nom. O.D.	-40 to +75	2 × SM 9/125 (low-water-peak) Unit O.D. 0.9 mm	4 × 20 AWG 21 / 0.18TA Unit O.D. 1.7 mm	2 × 25 AWG 7 / 0.18TA Unit O.D. 1.2 mm
	LF-2SM16		16	29.0	Double PVC								

LF-2SM9N

- For general use.
- Abrasion-resistance Jacket enhance the adaptability to all studio and outside broadcast applications.
- Cost effective

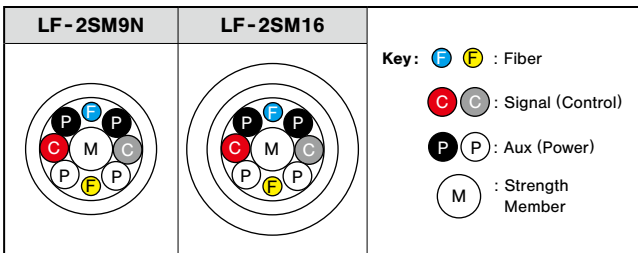
LF-2SM16

- For studio use.
- O.D. 16mm Double Jacket prevents the cable from being jammed under a camera pedestal dolly.

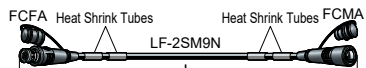

Website



Cross Section



Camera to CCU

Type	Model	Length (m)
 Jacket color: BLK	FCC10N	10
	FCC20N	20
	FCC25N	25
	FCC30N	30
	FCC50N	50
	FCC100N	100
 Jacket color: BLK	FCC150N	150
	FCC200N	200
	FCC30A-WJ	30
	FCC50A-WJ	50

- Standard and widely-used models.
- Heat shrink tubes help in labeling.
- FCC**A-WJ prevents the cable from being jammed under a camera pedestal dolly by its O.D. 16mm double jacket.
- 7-color connector rings included.
- * Canare OC series (Hybrid-OPS profile) is also available. (see page 11)

Website



FCC**N

Website



FCC**A-WJ



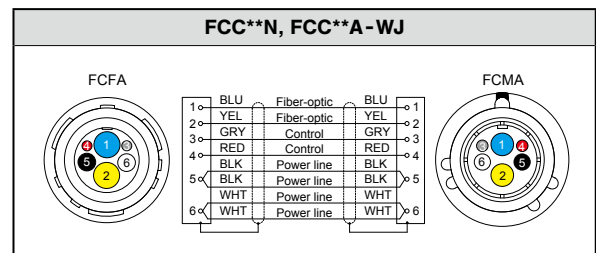
FCFA



FCMA



Color Rings



Wiring Diagram

HFO Protective Covers

Any-time-fit-on protector for SMPTE connector - the new traditional

Model	Shape	Component	Color
FC-CV-F-SET-**	Female	1 × Boot	RD: Red GR: Green
FC-CV-M-SET-**	Male	1 × Holder	YL: Yellow BK: Black

Please specify the color such as FC-CV-F-SET-**RD**

Cover: PVC, Holder: PE

- Canare exclusive retrofittable construction (patent pending)
- Fit for Canare FC series and other SMPTE 304 plugs
- Heavy-duty and harsh environment applications
- Quality verified over shock resistance tests

- * Not available for Canare OC series
- * The male and female are for FCMA and FCFA or equivalent respectively.

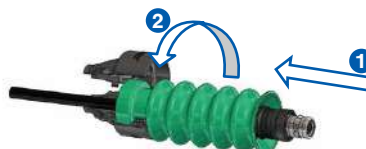
Website



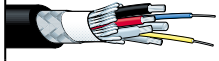
FC-CV-F-SET-GR



FC-CV-M-SET-RD



Slim Hybrid Fiber-optic Camera Cable

Type	Model	Sales Units (m)	Nom. O.D. (mm)	Weight kg/100m	Outer Jacket	Overall Shield	Tension Tolerance (N)	Strength Member O.D. (mm)	Min. Bend Radius	Temp. Range (deg C)	Channel Unit		
											Fiber	Aux. (Power)	Signal (Control)
	LF-2SM7N	Call	7.1	7.3	Abrasion-resistance PVC	8/24/0.10TA 91%	300	1.4	6 × Nom. O.D.	-40 to +75	2 × SM 9/125 (low-water-peak) Unit O.D. 0.9 mm	2 × 20 AWG 21 / 0.18TA Unit O.D. 1.7 mm	2 × 25 AWG 7 / 0.18A Unit O.D. 1.2 mm

Jacket color: **BLK**

LF-2SM7N

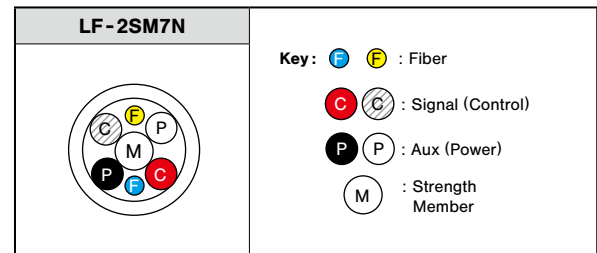
- O.D. 7 mm of slim profile and approx. 40% lighter than LF-2SM9N.
- Best fit for mobile applications.
- The power transmission distance is approx. twice as long as the previous model LF-2SM7R.

Note: The power transmission distance is shorter than typical HFO camera cables (approx. 50% of LF-2SM9N). Please contact us for more information.

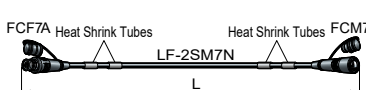
Website



Cross Section



Camera to CCU

Type	Model	Length (m)
	FCC10-7N	10
	FCC20-7N	20
	FCC25-7N	25
	FCC30-7N	30
	FCC50-7N	50
	FCC100-7N	100

Jacket color: **BLK**

- Equipped with slim and lightweight cable.
- FCC100-7N is approx. 5 kg lighter than typical 100m HFO camera cable as FCC100N.
- Heat shrink tubes help in labeling.
- 7-color connector rings included.

Website



FCF7A



FCM7A

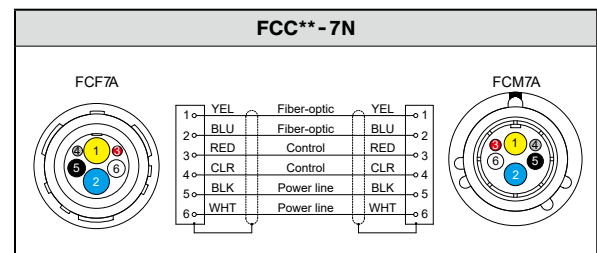


Color Rings

Note: The power transmission distance of FCC**-7N is approx. half of that of the FCC**N.
* Canare OC series (Hybrid-OPS profile) is also available. (see page 11)



FCC**-7N



Wiring Diagram

END OF SALE

Hybrid Fiber-Optic Camera Cable Checker

The following products have reached their end of sale status. Nevertheless, Canare will promise our users that our dedicated support services will persist uninterrupted.

Kit Model	Individual Model	
	Measuring Unit	Loop-back Unit
FCT-FCKIT RED	FCT-FC RED	FCT-FCLB RED
FCT-OCKIT RED	FCT-OC RED	FCT-OCLEB RED


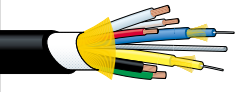


Fiber - Optic Systems

HFO Camera Cables

Tough & Flexible HFO Camera Cables

Thermoplastic polyurethane type jacket offers amazing flexibility and superior mechanical properties; Crush Resistance, Impact Resistance and Cyclic Flexing exceed that of MIL.

Type	Model	Sales Units (m)	Nom. O.D. (mm)	Weight kg/100m	Outer Jacket	Overall Shield	Tension Tolerance (N)	Strength Member O.D.	Min. Bend Radius	Temp. Range (deg C)	Channel Unit		
											Fiber	Aux. (Power)	Signal (Control)
 Jacket color: BLK DEEP RED DEEP GRN	LF-2SM9T	Call	9.2	9.8	TPU + PVC	N/A	1500	1.8 mm + Tensile strength fiber	Equal to Nom. O.D.	-40 to +75	2 x SM 9/125 (low-water-peak) Unit O.D. 0.9 mm	4 x 20 AWG 102 / 0.08A Unit O.D. 1.75 mm	2 x 25 AWG 24 / 0.08A Unit O.D. 1.2mm
 Jacket color: BLK	LF-2SM7T	Call	7.1	5.5	TPU + PVC	N/A	1000	0.63 mm + Tensile strength fiber	Equal to Nom. O.D.	-40 to +75	2 x SM 9/125 (low-water-peak) Unit O.D. 1.7 mm	2 x 23 AWG 60 / 0.08A Unit O.D. 1.4 mm	2 x 26 AWG 30 / 0.08A Unit O.D. 1.1 mm

LF-2SM9T

- Heavy-duty yet Flexible.
- Ideal for remote broadcast applications.
- Minimum bend radius: 9.2 mm.

Website

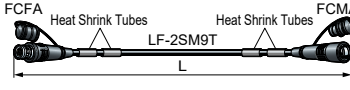



LF-2SM7T

- Flexible, Slim, Lightweight, and moreover, Heavy-duty.
- Ideal for short-distance remote broadcast applications of up to 200 meters.
- O.D. 7.1 mm and weighing only 5.5 kg/100 m, it's so easy to carry around.
- Minimum bend radius: 7.1 mm.
- Fiber units include tensile strength fiber.

Note: The power supply distance of LF-2SM7T is shorter than other HFO camera cables. (approx. 30% of LF-2SM9N)
LF-2SM7T requires a special technique during a connector assembly, so you can buy the cable assemblies shown below.

■ Camera to CCU

Type	Model	Length (m)
 Jacket color: BLK DEEP RED DEEP GRN	FCC10 - 9T	10
	FCC20 - 9T	20
	FCC25 - 9T	25
	FCC30 - 9T	30
	FCC50 - 9T	50
	FCC100 - 9T	100
	FCC150 - 9T	150
 Jacket color: BLK	FCC200 - 9T	200
	FCC10 - 7T	10
	FCC20 - 7T	20
	FCC25 - 7T	25
	FCC30 - 7T	30
	FCC50 - 7T	50
	FCC100 - 7T	100

- Tough & Flexible cable
- Fit for mobile applications in harsh environments.
- Heat shrink tubes help in labeling.
- 7-color connector rings included.

Website



FCC** - 9T

Website



FCC** - 7T

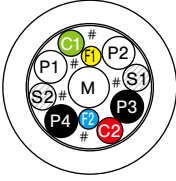
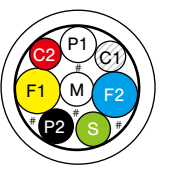
Note: The power transmission distance of FCC** - 7T is quite shorter than typical HFO camera cables.

* Canare OC seires (Hybrid-OPS profile) is also available. Please contact us for more details.



FCC** - 7T

Cross Section

LF-2SM9T	LF-2SM7T
	
Key: F1 F2 : Fiber C1 C2 : Signal (Control) P1 P2 : Aux (Power) P3 P4 : Aux (Power) S1 S2 : Ground M : Strength Member # : Tensile Strength Fiber	Key: F1 F2 : Fiber + Tensile Strength Fiber C1 C2 : Signal (Control) P1 P2 : Aux (Power) S : Ground M : Strength Member # : Tensile Strength Fiber





FCFA, FCF7A



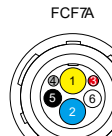
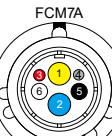
FCMA, FCM7A



Color Rings

FCC** - 9T		
	1 YEL Fiber-optic YEL 2 BLU Fiber-optic BLU 3 RED Control RED 4 GRN Control GRN 5 BLK Power line BLK 6 BLK Power line BLK 7 WHT Power line WHT 8 WHT Power line WHT 9 CLR Ground CLR 10 CLR Ground CLR	

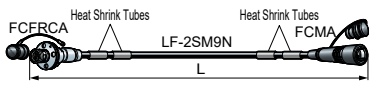

Wiring Diagram

FCC** - 7T		
	1 YEL Fiber-optic YEL 2 BLU Fiber-optic BLU 3 RED Control RED 4 CLR Control CLR 5 BLK Power line BLK 6 WHT Power line WHT 7 GRN Ground GRN	

Wiring Diagram

HFO Camera Cable Assemblies (Flanged Type)

Panel to CCU

Type	Model	Length (m)
	FCC05N-FRCM	5
	FCC10N-FRCM	10
	FCC05N-FMRC	5
	FCC10N-FMRC	10

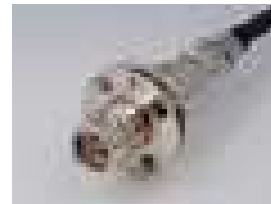
Jacket color: **BLK** IU-FCF-SET included

Jacket color: **BLK** IU-FCM-SET included

* Canare OC series (Hybrid-OPS profile) is also available. (see page 11)

- HFO camera cable with the flange for panel mounting.
- SMPTE ST 304, ST 311, and ARIB BTA S-1005B compliant.
- Return loss: 45dB or greater ($\lambda=1.3\mu\text{m}$).
- Insertion loss: 0.5dB or less ($\lambda=1.3\mu\text{m}$).
- Connector body material is stainless steel.
- Color rings and insulation plates included.
- See below for the panel hole dimensions.

Website



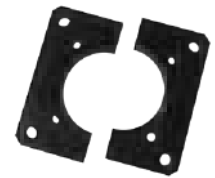
FCRCA



FCMRCA



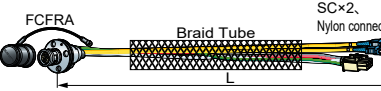
Color Rings



IU-FC*-SET

HFO Camera Receptacle Cables

Pigtails

Type	Model	Length (m)
	FCS015A-FR	1.5
	FCS015A-MR	1.5

Jacket color: **BLK** IU-FCF-SET included

Jacket color: **BLK** IU-FCM-SET included

* Canare OC series (Hybrid-OPS profile) is also available. (see page 11)

- Ideal for connecting wall terminal panels to splice enclosures, etc.
- Return loss: 45dB or greater ($\lambda=1.3\mu\text{m}$).
- Insertion loss: 0.5dB or less ($\lambda=1.3\mu\text{m}$).
- Connector body material is stainless steel.
- Insulation plates included.
- See below for the panel hole dimensions.

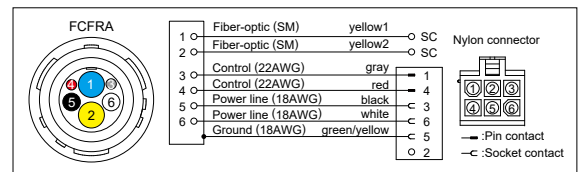
Website



FCFA



FCMRA



Insulation Plate

Ideal for perfect insulation between individual connector and panel.

Model	Suitable Connector
IU-FCM-SET	FCMRA, FCMRCA
IU-FCF-SET	FCFRA, FCFRCA

- Material: Bakelite (phenolic resin)
- Mounting screws included.

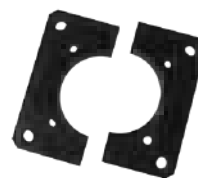
Extraction Tool

Extraction tool helps easy to clean Canare HFO connectors.

Model	Suitable Connector
ASPT-1	FCFA, FCF7A, FCFRA, FCFRCA

- Tool to be used to release the alignment sleeve unit when cleaning HFO connectors.

* Use the CLETOP 2.5/2.0 (100) cleaning stick to clean fiber-optic camera connectors.

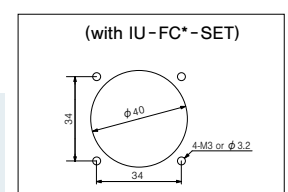


IU-FC*-SET

Website



Hole Dimensions



ASPT-1

Website



Quick-release
US Patent No.7241055B2

Fiber - Optic Systems

HFO Camera Cables

HFO Camera Cable Assemblies (Japanese Style)

Canare OC hybrid camera connectors are commonly used in Japan and Asian countries. It includes the same combination of SMPTE 304 but different pinouts. Improved reliabilities and advanced maintenance features.



OC connectors

Symmetric pinout
Finger detachable insulator
Better grip, proper connections
SMPTE 311 cable ready
Camera MFGs accepted
Hybrid - OPS profile



FC connectors

SMPTE and ARIB standard
Detachables insulator with tool
Widely used in the market
Hybrid - 3K profile

Camera to CCU

O C C 1 0 0 - N

Series name

Cable mount plugs
Male and female

Lengths

01 = 1 meters
100 = 100 meters
Call for stocked lengths.

Cable type

N : LF-2SM9N O.D. 9 mm PVC Jacket (most common)
7N : LF-2SM7N O.D. 7 mm PVC Jacket
9T : LF-2SM9T O.D. 9 mm TPU Jacket w/o Shield
7T : LF-2SM7T O.D. 7 mm TPU Jacket w/o Shield
TPU = Thermoplastic Polyurethane

Website



OCFA



OCMA

Panel to CCU

O C C 0 5 N - F R C M

Series name

PNL mount M to
cable mount F
and vice versa

Lengths

05 = 5 meters
10 = 10 meters
Call for custom lengths.

Connector type

FRCM : OCFCRB-OCMA
FMRC : OCMRCA-OCFA

Website



OCFCRB



OCMRCA

Cable type: LF-2SM9N

Pigtails

O C S 0 1 5 - F R

Series name

OC breakout

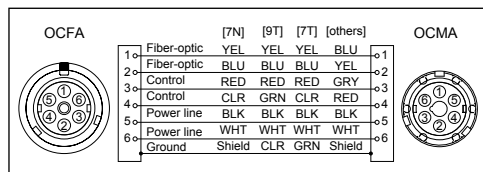
Lengths

015 = 1.5 meters
Call for custom lengths.

Connector type

FR : OCFRA to 2 × SC, 1 × Nylon
MR : OCMRA to 2 × SC, 1 × Nylon

Website



Wiring Diagram for OCC



OCS015-FR

SMPTE Conversion

F C M 0 2 N - O C F

Connector A

FCM : FCMA
FCF : FCFA

Lengths

02 = 2meters
Call for custom lengths.

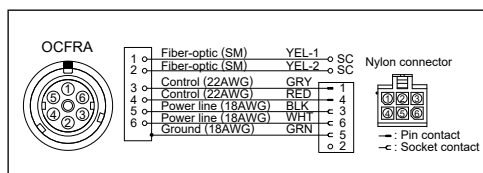
Connector B

OCF : OCFA
OCM : OCMA

Website



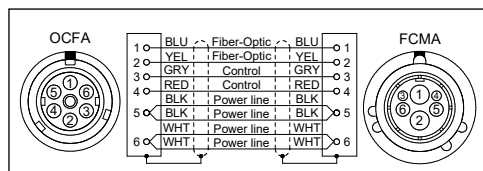
Cable type: LF-2SM9N
Call for custom models.



Wiring Diagram for OCS



FCF02N-OCM



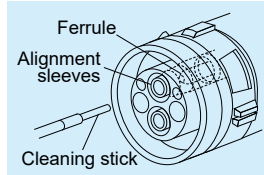
Wiring Diagram for Conversion

Technical Note

Maintaining Hybrid Fiber-Optic Camera Connectors

The connector sections to be cleaned are the key parts, including the tips and sides of ferrules, the interior walls of alignment sleeves and the interior and exterior of connector shells. Note that scratches and particles of foreign matter on the tip of the ferrule can have a disabling effect on fiber-optic transmission. The following procedures should be used when cleaning hybrid fiber-optic camera connectors.

- For Plugs, the interior surfaces of alignment sleeves and the tips of ferrules are to be cleaned with the non-alcohol treated cleaning stick using a gentle stroking action. Canare FCFA and FCFRA enhance easy cleaning procedure for its innovative alignment sleeve and insulator detachable design. US Patent: No.7241055B2



- For Jacks, it is important to clean both the tips and sides of the completely protruding ferrules with the cleaning stick.
- Both the male and female connector shells tend to attract dust and metal particles, so it is important to clean both the insides and outsides using cotton gauze or similar material.



Before cleaning



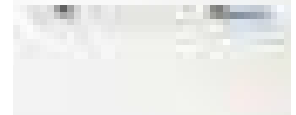
After cleaning

Cleaning Stick

Model: CLETOP 2.5/2.0

- Compact and disposable
- Allows cleaning both the tips and sides of ferrules
- Manufactured by NTT-AT

Cleaning stick
CLETOP 2.5/2.0



IBC Brand Cleaner M-20

Model: 14347 CLEANER

- Easy "one-push" cleaner
- Allows cleaning the tips of ferrules without removing alignment sleeve
- Manufactured by US Conec

IBC Brand Cleaner M-20
14347 CLEANER

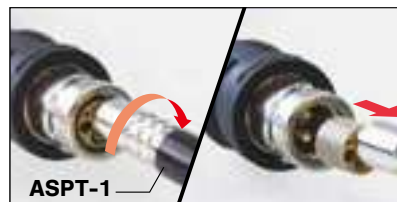


Cleaning guide for female connectors

1 Extract an insulator unit

For FC series, use a removal tool: ASPT-1. OC series does not require special tool. Minus driver or coin should be fine.

■ FC Series FCFA / FCF7A / FCFRA / FCFRCA

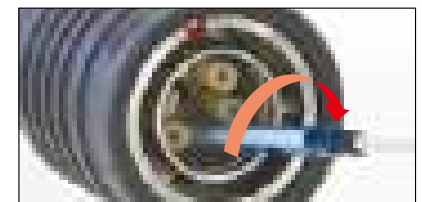
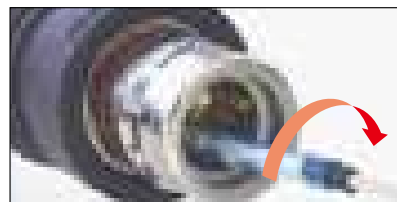


■ OC Series & OM6 Series OCFA / OCF7A / OCFRA / OCFRCB / OM6PA / OM6PRA



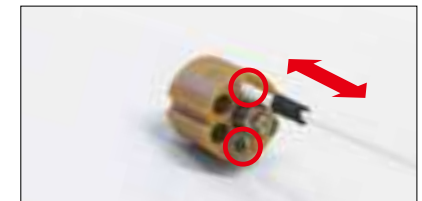
2 Clean up ferrules

Canare suggests using CLETOP (photo shown). This stick features ferrule guide for efficient cleaning. For monitoring, a fiber scope will be handy as it displays real time ferrule surface.



3 Dust away on alignment sleeves

Dust also remains on inner part of alignment sleeve. Another end of CLETOP is ideal for wiping inside of alignment sleeve.



4 Put back the unit in place

The right position marked on dots. Insert the unit to the end-click sound. Press again with your finger to make sure properly placed. Insufficient locking may cause an issue-unit remaining on male connector.



HFO Camera Connector Panels

Hybrid Fiber-optic Camera Connector Panels

Pre-terminated HFO camera connector panel with built-in splice enclosure box provides easy and quick installation between HD camera system and terminal panel or rack. By combining the unit and frame, HFO camera connector panel enables a variety of layouts depending on the system design.

Website

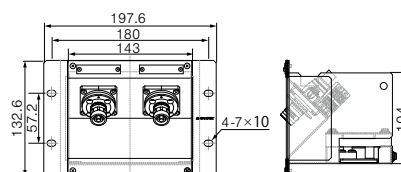


■ COPS Series (SMPTE)

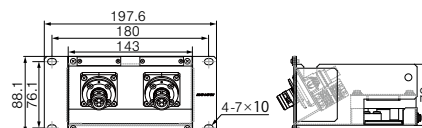
Model	Panel Size	HFO Connectors* (Assembly)
COPS-FF3A	Wall Mount Type 3RU Height, W:197.6mm	2 × FCFRA (FCS003A-FR)
COPS-FM3A		2 × FCMRA (FCS003A-MR)
COPS-FF2A	Wall Mount Type 2RU Height, W:197.6mm	2 × FCFRA (FCS003A-FR)
COPS-FM2A		2 × FCMRA (FCS003A-MR)
COPS3-FF3A	Rack Mount Type 3RU	6 × FCFRA (FCS003A-FR)
COPS3-FM3A		6 × FCMRA (FCS003A-MR)
COPS3-FF2A	Rack Mount Type 2RU	6 × FCFRA (FCS003A-FR)
COPS3-FM2A		6 × FCMRA (FCS003A-MR)

*HFO connectors are pre-terminated. (length: 0.3 m)

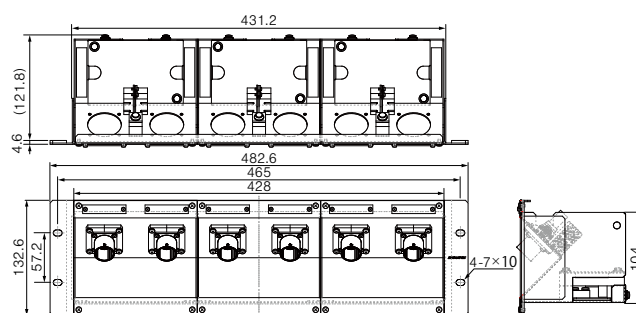
*Canare OC series (Hybrid-OPS profile) is also available. Please contact us for more details.



COPS-FF3A



COPS - FF2A

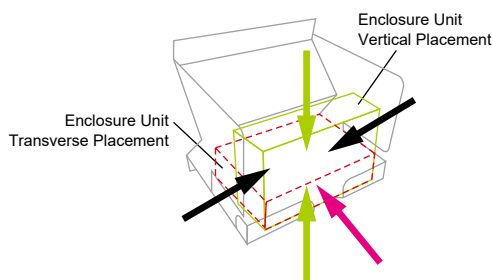


COPS3-FM3A


Accessories:

Accessories:
Fiber-optic cable w/SC connector (2m), grounding cable, nylon connector,
pin contact, socket contact, tie-band, fusion splice protection sleeve, splice holder,
color-coded tube, mounting screw, laser warning label.

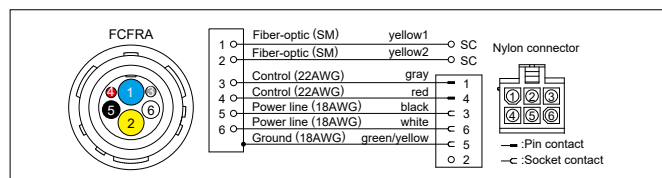
Note: Assembly tools for the nylon connectors are NOT include.
(AMP 91529-1: 26 to 22 AWG and AMP 91536-1: 20×2 to 16 AWG)



5 directions of cabling
as indicated by colored arrows

 Vertical/Transverse placement
 Transverse placement
 Vertical placement

5 - directional Wiring
JP Patent No.4388540



Wiring Diagram

Individual Frame and Unit

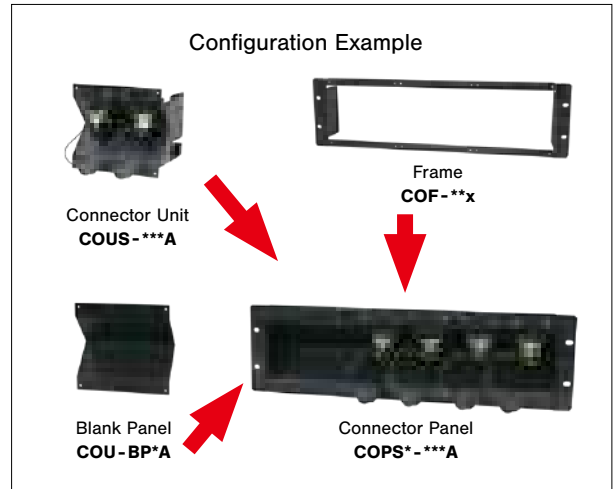
Model	Height	Description
COUS-FF3A	3RU	Connector Unit of COPS(3)-FF3A
COUS-FM3A		Connector Unit of COPS(3)-FM3A
COF-13C		Frame of COPS (for 1 unit)
COF-33B		Frame of COPS3 (for 3 units)
COUS-FF2A	2RU	Connector Unit of COPS(3)-FF2A
COUS-FM2A		Connector Unit of COPS(3)-FM2A
COF-12B		Frame of COPS (for 1 unit)
COF-32A		Frame of COPS3 (for 3 units)

*HFO connectors are pre-terminated. (length: 0.3 m)

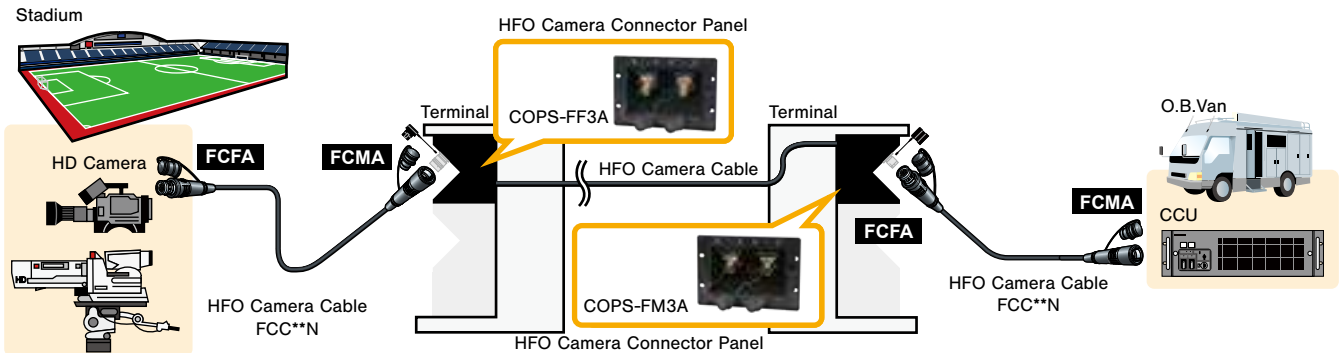
*Canare OC series (Hybrid-OPS profile) is also available. Please contact us for more details.

Optional Parts

Model	Type	Suitable Frame/Unit
COU-BP3A	Blank Panel	COF-13A, COF-33B (3RU frames)
COU-BP2A		COF-12A, COF-32A (2RU frames)
COU-CV3	Top Cover	COUS-FF3A, COUS-FM3A (3RU units)
COU-CV2		COUS-FF2A, COUS-FM2A (2RU units)



<Example of Use>



Hybrid Fiber-optic Splice Enclosures

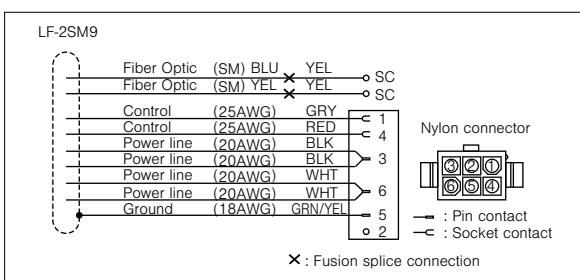
The optimized fiber-optic splice enclosures for use with HFO camera cables.

Model	No. of cables (capacity)	No. of splice trays	No. of Adapters	
			SC	Nylon
FCE-2	2	1	4	2
FCE-4	4	2	8	4
FCE-6	6	3	12	6

- Used to protect fusion splice connection parts
- Designed for use with LF-2SM9N
- Easy cable installation
- Can be placed vertically or horizontally
- Detachable brackets and a connector protection cover
- Insulated tension member clamp

Note :

The following tools are required for installing the nylon connector.
AMP 91529-1 (26 to 22 AWG) and AMP 91536-1 (20 × 2 to 16 AWG)



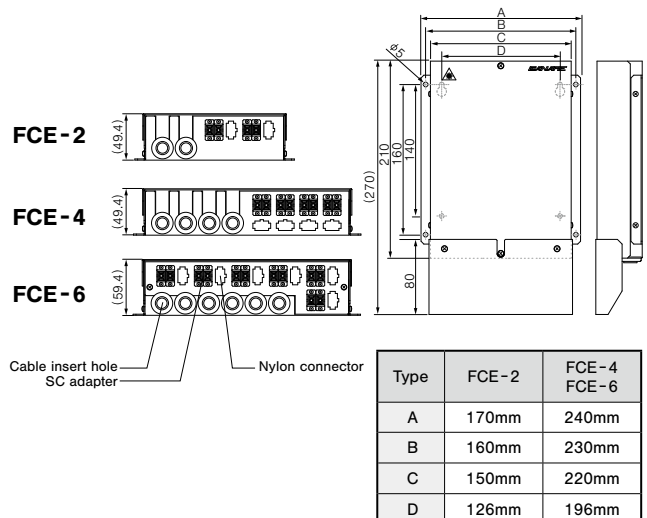
Wiring Diagram



FCE-2

Accessories:

Fiber-optic cable w/SC connector (2m), splice holder, fusion splice protection sleeve, nylon connector, pin contact, socket contact, tie band, grounding cable, color-coded tube.



Fiber - Optic Systems

Multi-Channel Snake

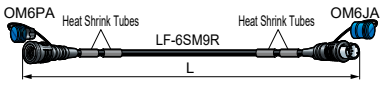
Multi-Channel Fiber Optic Cables

Canare fiber-optic snake products are developed by extending ideas of SMPTE HFO camera solution. Individual multiple ferrules and robust metal chassis are engineered for heavy duty applications such as sports events or live productions connecting OBVAN to FOH stage box or venues.

- Canare exclusive design
- Heavy-duty alternative to MTP/MPO connectors
- Abrasion-resistance cable jacket
- Single-mode, ITU-T G.657.A2 low bending loss and low water-peak fiber
- Tensile strength : 500 N or less
- RL: 45 dB or greater ($\lambda = 1.3 \mu\text{m}$)
- Open to any SM optical signal
- 2mm SMPTE Ferrules

OM6 Series

Trunk Cable : Plug - Jack

Type	Model	Length (m)
	OM6C10	10
	OM6C20	20
	OM6C25	25
	OM6C35	35
	OM6C50	50
	OM6C100	100
	OM6C150	150
	OM6C200	200

Jacket color: **BLK**



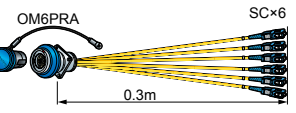
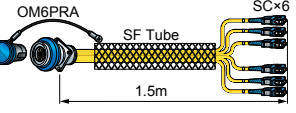
OM6PA



OM6JA

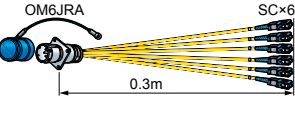
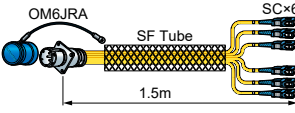


Fantail : P Receptacle to SC

Type	Model	Length (m)
	OM6S003-PR	0.3
	OM6S015-PR	1.5

Jacket color: **YEL** IU-FCM-SET included

Fantail : J Receptacle to SC

Type	Model	Length (m)
	OM6S003-JR	0.3
	OM6S015-JR	1.5

Jacket color: **YEL** IU-FCM-SET included



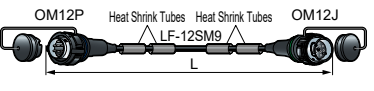
OM6PRA



OM6JRA

OM12 Series

Trunk Cable : Plug - Jack

Type	Model	Length (m)
	OM12C10 New	10
	OM12C20 New	20
	OM12C30 New	30
	OM12C40 New	40
	OM12C50 New	50
	OM12C100 New	100

Jacket color: **BLK**



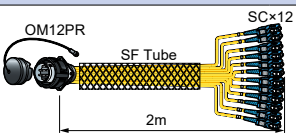
OM12P



OM12J

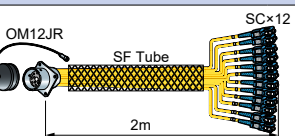


Fantail : P Receptacle to SC

Type	Model	Length (m)
	New OM12S02-PR	2

Jacket color: **YEL**

Fantail : J Receptacle to SC

Type	Model	Length (m)
	New OM12S02-JR	2

Jacket color: **YEL**

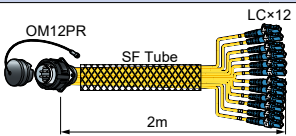


OM12PR



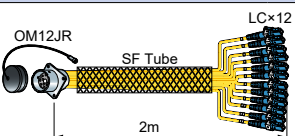
OM12JR

Fantail : P Receptacle to LC

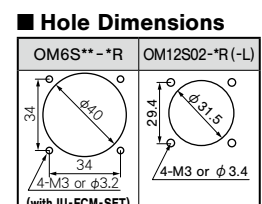
Type	Model	Length (m)
	New OM12S02-PR-L	2

Jacket color: **YEL**

Fantail : J Receptacle to LC

Type	Model	Length (m)
	New OM12S02-JR-L	2

Jacket color: **YEL**



Tactical Fiber-optic Cable

Particularly rugged multichannel fiber-optic cable designed for mobile applications.



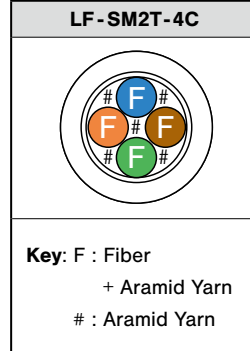
Type	Model	No. of Ch.	Sales Units (m)	Nom. O.D. (mm)	Weight kg/100m	Tension Tolerance (N)	Strength Member	Min. Bend Radius	Temp. Range (deg C)	Fiber-optic Unit		
										Fiber	Attenuation	Unit O.D.
	LF-SM2T-4C	4	100 200 500	7.8	4.9	1400	Aramid yarn	Equal to Nom. O.D.	-55 to +85	SM 9/125 (low-water-peak)	0.6 dB/km @1310 nm	2.0 mm including aramid yarn

Jacket color: **BLK**



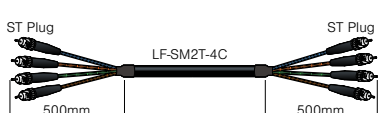
LF-SM2T-4C

- Heavy-duty and high flexibility
- Crush resistance: 2,000 N/cm
- Impact resistance: 300 impacts
- Cycle flexing: 20,000 cycles
- Single-mode
- Color-coded breakout type unit
- Thermoplastic polyurethane jacket
- Aramid yarn strength member
- 4-channel cable best suited for Quad-link 3G-SDI signals.

Cross Section



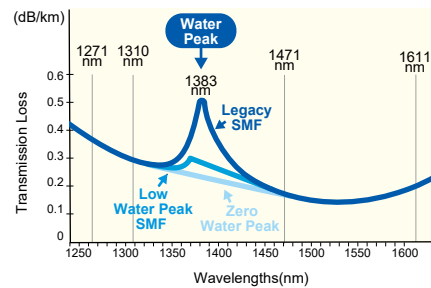
Cable Assemblies

Type	Model	Length (m)
 SC Plug LF-SM2T-4C SC Plug 500mm Jacket color: BLK	4FS50T-SS	50
	4FS100T-SS	100
	4FS150T-SS	150
	4FS200T-SS	200
 LC Plug LF-SM2T-4C LC Plug 500mm Jacket color: BLK	4FS50T-LS	50
	4FS100T-LS	100
	4FS150T-LS	150
	4FS200T-LS	200
 ST Plug LF-SM2T-4C ST Plug 500mm Jacket color: BLK	4FS50T-ST	50
	4FS100T-ST	100
	4FS150T-ST	150
	4FS200T-ST	200

Technical Note

Canare's Single-mode Fiber-optic Cables

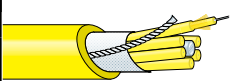
Canare's single mode fiber (SMF) cables are compliant with ITU-T G.652.D as well as ITU-T G.657.A2. Our SMF cables feature less water peak and excellent wavelength multiplexing capabilities in minimum 7.5mm bending radius per a unit, which gives you cabling even easier.



ITU-T	Category	Bend Radius (mm)	Number of Turns (times)	Bending Loss (Max. at)	
				$\lambda=1550\text{nm}$ (dB)	$\lambda=1625\text{nm}$ (dB)
G.657	A1	15	10	0.25	1.0
		10	1	0.75	1.5
		15	10	0.03	0.1
		10	1	0.1	0.2
	A2	7.5	1	0.5	1.0
		15	10	0.03	0.1
		10	1	0.1	0.2
		7.5	1	0.5	1.0
	B2	10	1	0.03	0.1
		7.5	1	0.08	0.25
	B3	10	1	0.03	0.1
		7.5	1	0.08	0.25
		5	1	0.15	0.45



Single-mode Fiber-optic Cables (Multichannel)

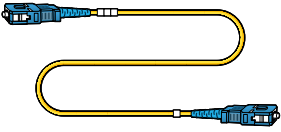
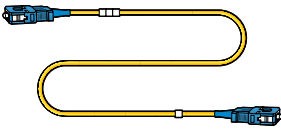
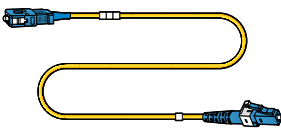
Type	Model	No. of Ch.	Sales Units (m)	Nom. O.D. (mm)	Weight kg/100m	Outer Jacket	Tension Tolerance (N)	Min. Bend Radius	Temp. Range (deg C)	Fiber-optic Unit		
										Fiber	Attenuation	Unit O.D.
 LF-SM2-6C Jacket color: YEL	LF-SM2-2C	2	Call	7.4	5.4	PVC	290	10 x Nom. O.D.	-40 to +75	SM 9/125 + Aramid yarn + PVC jacket	0.5 dB/km @1310nm	2.0 mm including aramid yarn
	LF-SM2-4C	4		7.4	5.5		290					
	LF-SM2-6C	6		9.0	7.3		300					
	LF-SM2-8C	8		10.0	10.4		780					
	LF-SM2-12C	12		12.8	14.2		780					
	LF-SM2-16C	16		14.7	16.3		780					
	LF-SM2-24C	24		15.0	18.3		780					

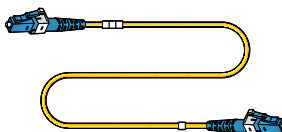
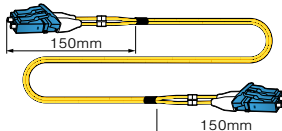
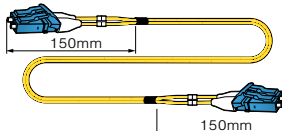
- Smooth PVC Jacket
- Including a central strength member and a rip cord.

Fiber - Optic Systems

Fiber - optic Cables

Single-mode Fiber Optic Patch Cables

Type	Model	Length (m)
SC - SC 	FS3C002A-S	0.2
	FS3C003A-S	0.3
	FS3C005A-S	0.5
	FS3C007A-S	0.7
	FS3C01A-S	1
	FS3C02A-S	2
	FS3C03A-S	3
	FS3C04A-S	4
	FS3C05A-S	5
Jacket color: YEL Cable O.D.: 3 mm		
SC - SC 	FS2C002A-SS	0.2
	FS2C003A-SS	0.3
	FS2C005A-SS	0.5
	FS2C007A-SS	0.7
	FS2C01A-SS	1
	FS2C02A-SS	2
	FS2C03A-SS	3
	FS2C04A-SS	4
	FS2C05A-SS	5
Jacket color: YEL Cable O.D.: 2 mm		
SC - LC 	FS2C002A-SS/LS	0.2
	FS2C003A-SS/LS	0.3
	FS2C005A-SS/LS	0.5
	FS2C007A-SS/LS	0.7
	FS2C01A-SS/LS	1
	FS2C02A-SS/LS	2
	FS2C03A-SS/LS	3
	FS2C04A-SS/LS	4
	FS2C05A-SS/LS	5
Jacket color: YEL Cable O.D.: 2 mm		

Type	Model	Length (m)
LC - LC 	FS2C002A-LS	0.2
	FS2C003A-LS	0.3
	FS2C005A-LS	0.5
	FS2C007A-LS	0.7
	FS2C01A-LS	1
	FS2C02A-LS	2
LC - LC Duplex 	FS2C03A-LS	3
	FS2C04A-LS	4
	FS2C05A-LS	5
	2FSZ2S005A-DLS	0.5
	2FSZ2S007A-DLS	0.7
	2FSZ2S01A-DLS	1
LC - LC Duplex 	2FSZ2S02A-DLS	2
	2FSZ2S03A-DLS	3
	2FSZ2S04A-DLS	4
	2FSZ2S05A-DLS	5
Jacket color: YEL Cable O.D.: 2 mm		

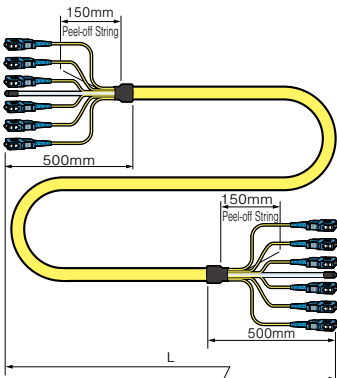
- ITU-T G.652.D/G.657.A2
- Low - water - peak
- Minimum bend radius: 10 mm

- Insertion loss: 0.5 dB max.
- Return loss: 50 dB max. (UPC)
- UL type OFNR

Website



Single-mode Fiber Optic Fantails

Type	Channel	Model	Length (m)	Fiber Optic Cable		
				Part Number	Unit O.D. (mm)	Nom. O.D. (mm)
SC - SC 	2	2FS10-S	10	LF-SM2-2C	2	7.4
		2FS20-S	20			
		2FS50-S	50			
	4	4FS10-S	10	LF-SM2-4C		7.4
		4FS20-S	20			
		4FS50-S	50			
	6	6FS10-S	10	LF-SM2-6C		9.0
		6FS20-S	20			
		6FS50-S	50			
	8	8FS10-S	10	LF-SM2-8C		10.0
		8FS20-S	20			
		8FS50-S	50			
	12	12FS10-S	10	LF-SM2-12C		12.8
		12FS20-S	20			
		12FS50-S	50			
	16	16FS10-S	10	LF-SM2-16C		14.7
		16FS20-S	20			
		16FS50-S	50			
	24	24FS10-S	10	LF-SM2-24C		15.3
		24FS20-S	20			
		24FS50-S	50			

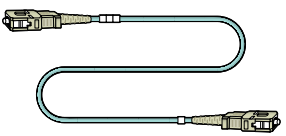
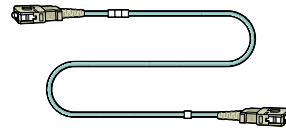
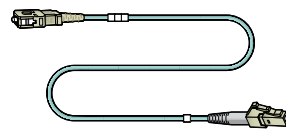
Jacket color: **YEL**

- Flexible cable with reliable bellcore boots
- Adjustable fantail length with peel-off string
- UPC polishing; Return loss ≥ 50 dB for single mode
- Transmission loss 0.5dB at $\lambda=1.31\mu\text{m}$ and 0.4dB at $\lambda=1.55\mu\text{m}$

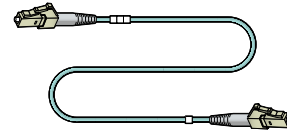
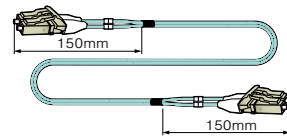
Website



OM3 Multi-mode Fiber Optic Patch Cables

Type	Model	Length (m)
SC - SC  Jacket color: AQUA Cable O.D.: 3 mm	FM33C005-S	0.5
	FM33C01-S	1
	FM33C03-S	3
	FM33C05-S	5
SC - SC  Jacket color: AQUA Cable O.D.: 2 mm	FM32C005-SS	0.5
	FM32C01-SS	1
	FM32C03-SS	3
	FM32C05-SS	5
SC - LC  Jacket color: AQUA Cable O.D.: 2 mm	FM32C005-SS/LS	0.5
	FM32C01-SS/LS	1
	FM32C03-SS/LS	3
	FM32C05-SS/LS	5

- Fiber type: Multi-mode 50/125 OM3
- Typically used in 10 Gigabit Ethernet
- Minimum bend radius: 10 mm

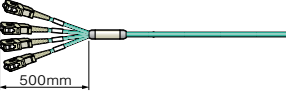
Type	Model	Length (m)
LC - LC  Jacket color: AQUA Cable O.D.: 2 mm	FM32C005-LS	0.5
	FM32C01-LS	1
	FM32C03-LS	3
	FM32C05-LS	5
LC - LC Duplex  Jacket color: AQUA Cable O.D.: 2 mm	2FM3Z2S005-DLS	0.5
	2FM3Z2S01-DLS	1
	2FM3Z2S03-DLS	3
	2FM3Z2S05-DLS	5

- Insertion loss: 0.3 dB max.
- Return loss: 30 dB max. (PC)
- UL type OFNR

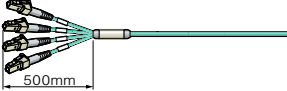
Website



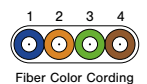
OM3 Multi-mode Fiber Optic Fan-out Cables

Type	Model	Length (m)
SC - Open  Jacket color: AQUA	4FO-M3-015-SS	1.5
	4FO-M3-03-SS	3
	4FO-M3-05-SS	5

- 4-core Multimode 50/125 OM3 Ribbon Fiber
- Typically used in 10 Gigabit Ethernet
- Insertion loss: 0.3 dB max.
- Return loss: 30 dB max. (PC)

Type	Model	Length (m)
LC - Open  Jacket color: AQUA	4FO-M3-015-LS	1.5
	4FO-M3-03-LS	3
	4FO-M3-05-LS	5

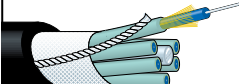
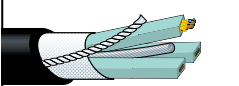
- Ribbon fiber cable: 2.1 × 3.5 mm outer dimensions
- Fan-out unit: 2 mm outer diameter, 500 mm length
- Fan-out tubing: 8 mm outer diameter
- UL type OFNR



Website



Multi-core OM3 Multi-mode Fiber Optic Cables

Type	Model	No. of Ch.	Sales Units (m)	Nom. O.D. (mm)	Weight kg/100m	Tension Tolerance (N)	Min. Bend Radius	Temp. Range (deg C)	Fiber-optic Unit		
									Fiber	Attenuation	Dim. (mm)
 Jacket color: BLK Unit color: AQUA	LF-M32-4C-EM	4	Call	7.4	5.6	290	6 × Nom. O.D.	-20 to +60	MM 50/125	3 dB/km @850nm 1 dB/km @1300nm	2.0 (round)
	LF-M32-6C-EM	6		9.0	7.5	300					
	LF-M32-8C-EM	8		10.1	10.8	780					
 Jacket color: BLK Unit color: AQUA	LF-M3R4-12C-EM	12 (3×4 core)		7.4	5.6	300					1.5 × 2.5 (ribbon)

Jacket material: Flame retardant PE

- OM3 fiber; typically used in 10 Gigabit Ethernet.
- Including a central strength member and a rip cord.
- Each unit has aramid strength member.