

FIBER OPTIC CONNECTORS & COMPONENTS

ODC[®] - Outdoor connector



RADIAL 
The next connexion



Designed for the fiber to antenna (FTTA) applications, ODC[®] fiber optic connector can withstand harsh environmental conditions when being used in outdoor applications.

MAIN BENEFITS

Robust connection

- fully protected ceramic ferrules and alignment sleeves: no risk to damage the optical faces during mounting/dismounting operations.

Easy installation

- standard interface: N type connector size
- screwed locked mechanism: easy to install (U-19mm wrench / 10N/cm torque)
- fast and easy connection: blind mate coupling.

Resistant in harsh environment, adapted for outdoor use

- waterproof connection
- dust proof
- corrosion resistant / EMI immunity
- high tensile strength.

PERFORMANCE SPECIFICATION

Optical

insertion loss (IEC 61300-3-4)	multimode	typ ≤ 0.2 dB (max ≤ 0.5 dB)
	singlemode	typ ≤ 0.2 dB (max ≤ 0.7 dB)
return loss	singlemode	≥ 50 dB

Mechanical

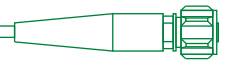
mechanical resistance	ODC plug	≤ 800 N tensile strength (with field cable)
	ODC socket	≤ 30 N tensile strength (with simplex cable)
mating endurance	IEC 61300-2-2	min 200 cycles

Environmental

operating temperature range	IEC 61300-2-22	-40°C / +85°C (depending on cable type)
salt mist	IEC 61300-2-26	passed
vibration	IEC 61300-2-1	passed
protection class	IP 67 (with cap or when coupled)	

Material

housing	brass
plating	nickel-silver (for EMP best protection)



TELECOMMUNICATION

ODC connectors are particularly designed for antenna uplink and downlink for RRH (Remote Radio Head) and RRU (Remote Radio Units) in new generation flexible Base Stations (3G, 4G, Wimax, CDMA,...).



TRANSPORTATION

Intelligent Traffic Systems (ITS), Video transmission for surveillance of intersections, ramps, tunnels, incident detection,....

BROADCAST - CATV

Broadcast TV programs, transport high speed data flow by computer through CATV network, conference TV



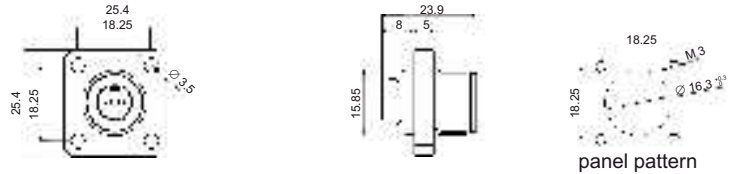
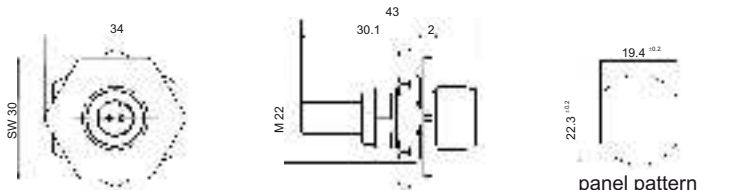
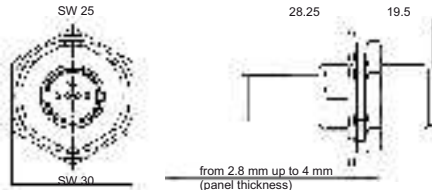
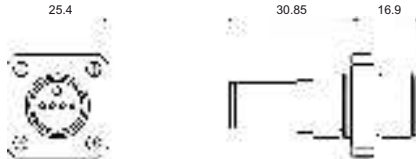
OTHER APPLICATIONS

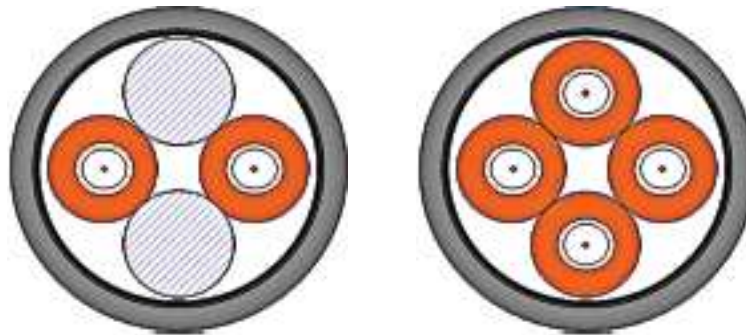
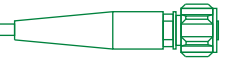


ODC[®] PLUGS

ODC2 Singlemode Multimode Standard type	 
ODC4 Multimode Standard type	 

ODC[®] SOCKETS

ODC2 Singlemode Multimode Square flange SMALL size 24.5x24.5 mm	 
ODC2 Singlemode Multimode Square flange LARGE size 32x32 mm	 
ODC2 Multimode Hexagonal flange (30 mm on flats)	 
ODC4 Multimode Hexagonal flange (30 mm on flats)	 
ODC4 Multimode Square flange SMALL size 24.5x24.5 mm	 



Cable type	Fiber type	Connector type	Operating temperature (°C)	Flame resistance	UV Resistance	LSZH
Simplex cable	single mode 9/125	ODC socket 2/4 channels	-40/ +85	Fire retardant	ASTM G154	Yes
	multimode 50/125					
	multimode 62.5/125					
Field cable 2 fibers	single mode 9/125	ODC plug 2 channels	-40/ +85	UL94-V2 min		
	multimode 50/125		-35/ +70	UL 1666		
			-40/ +85	UL94-V2 min		
			-35/ +70	UL 1666		
			multimode 62.5/125	-40/ +85		
Field cable 4 fibers	multimode 50/125	ODC plug 4 channels	-40/ +85	UL94-V2 min		
	multimode 62.5/125		-40/ +85	Fire retardant		
	multimode 50/125		-35/ +70	UL 1666		

All our cables are RoHS compliant

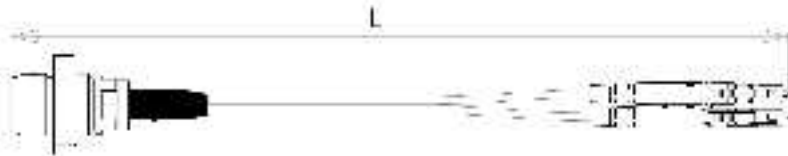
ACCESSORIES



RADIALl also propose specific solution for specific requirement. Many custom boots are now available in order to adapt to your application field

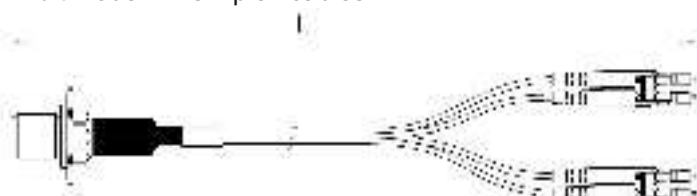
Standard ODC cable assemblies are available from stock offering quick delivery. For other requests, please consult the order instruction page and send your requirement to your nearest Radiall sales network.

ODC2 socket / Duplex LC plug, length (L) = 1m
multimode or singlemode = 2 simplex cables



	Part number
Singlemode	F792 855 220
Multimode	F792 858 220

ODC4 socket / Duplex LC plug x 2, length (L) = 1m
multimode = 4 simplex cables



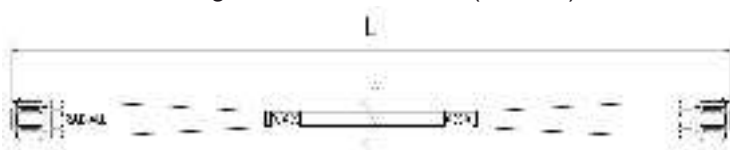
	Part number
Multimode	F792 858 240

ODC2 plug / Duplex LC plug, length (L) = 5m or 50m
multimode or singlemode = field cable (2 fibers)



	Dimension	Part number
Singlemode	Length = 5m	F792 855 620-05
	Length = 50m	F792 855 620-50
Multimode	Length = 5m	F792 858 620-05
	Length = 50m	F792 858 620-50

ODC2 plug / ODC2 plug, length (L) = 5m or 50m
multimode or singlemode = field cable (2 fibers)



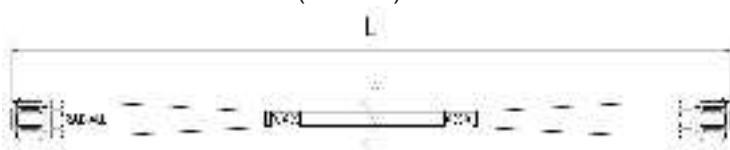
	Dimension	Part number
Singlemode	Length = 5m	F792 885 620-05
Singlemode	Length = 50m	F792 885 620-50
Multimode	Length = 5m	F792 888 620-05
Multimode	Length = 50m	F792 888 620-50

ODC4 plug / Duplex LC plug x 2, length (L) = 5m or 50m
multimode = field cable (4 fibers)

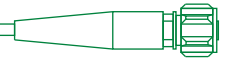


	Dimension	Part number
Multimode	Length = 5 m	F792 858 640-05
Multimode	Length = 50 m	F792 858 640-50

ODC4 plug / ODC4 plug, length (L) = 5m or 50m
multimode = field cable (4 fibers)



	Dimension	Part number
Multimode	Length = 5m	F792 888 640-05
Multimode	Length = 50m	F792 888 640-50

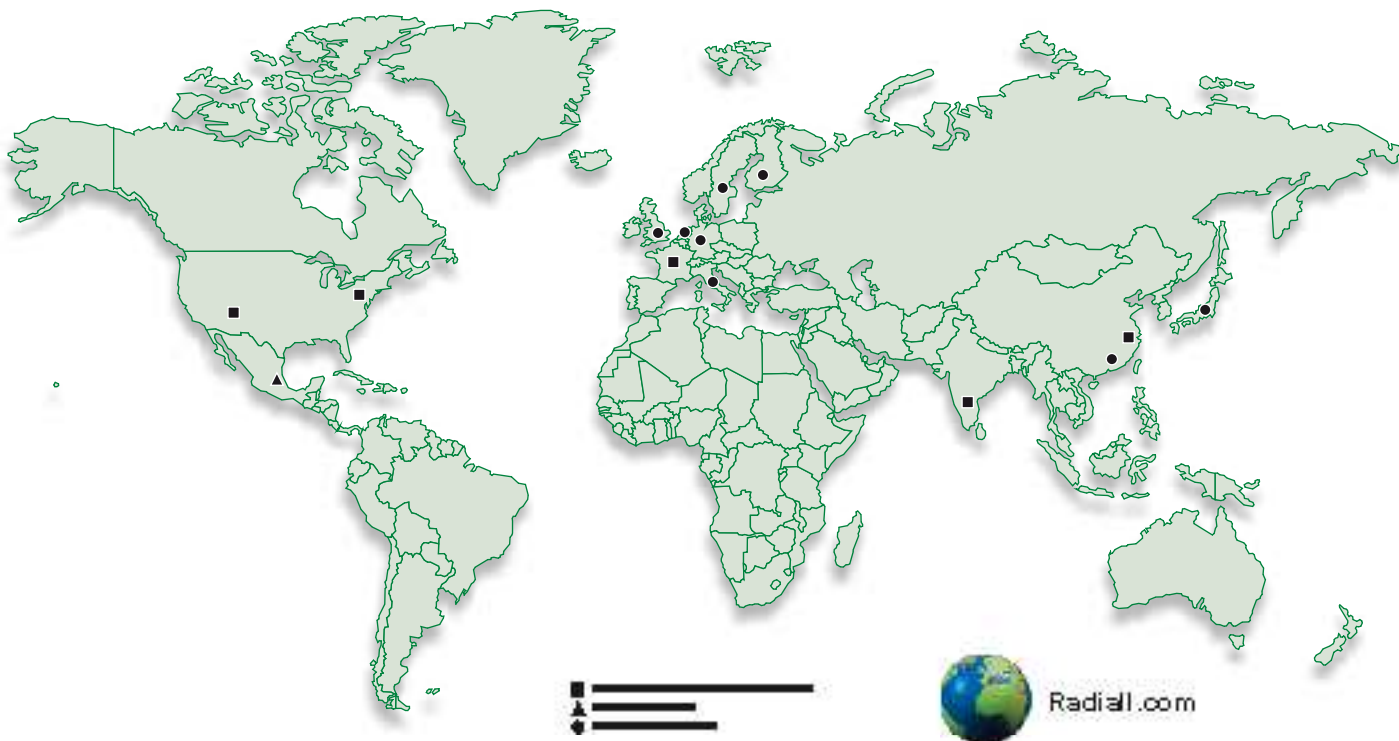


Use the matrix below to build your own part-number

	O	P2X	M	09S	P2X	V	015
1- series : _____ O = ODC® series							
2- connector 1 : _____ P2X = ODC2 plug P4X = ODC4 plug S2A = ODC2 socket / square flange small (24,5 mm) S2B = ODC2 socket / square flange large (32 mm) S2C = ODC2 socket / hexagonal flange (30 mm on flats) S4D = ODC4 socket / hexagonal flange (30 mm on flats) S4E = ODC4 socket / square flange small (24,5 mm) <i>- for other connector types : please consult us</i>							
3- connector 1 protection cap : _____ C = ODC metal dust cap with chain (IP67) M = ODC metal dust cap without chain (IP67) P = ODC plastic cap V = ODC vinyl dust cap <i>- for other cap types : please consult us</i>							
4- fiber type / cable : _____ 09S = simplex fiber / singlemode 9/125 / for socket only 50S = simplex fiber / multimode 50/125 / for socket only 62S = simplex fiber / multimode 62.5/125 / for socket only 09F = field cable 2 fibers / singlemode 9/125 / for plug only 50F = field cable 2 fibers / multimode 50/125 / for plug only 62F = field cable 2 fibers / multimode 62.5/125 / for plug only 50G = field cable 4 fibers / multimode 50/125 / for plug only 62G = field cable 4 fibers / multimode 62.5/125 / for plug only <i>- for other fiber types and cables : please consult us</i>							
5- connector 2 : _____ XXX = free end P2X = ODC2 plug P4X = ODC4 plug LC = 1 x Simplex LC (for simplex cable assembly) LC1 = 1 x Duplex LC (for 2 channels assembly) LC2 = 2 x Duplex LC (for 4 channels assembly) SC = 1 x Simplex SC (for simplex cable assembly) SC1 = 1 x Duplex SC (for 2 channels assembly) SC2 = 2 x Duplex SC (for 4 channels assembly) <i>- for other connector types : please consult us</i>							
6- connector 2 protection cap : _____ C = ODC metal dust cap with chain (IP67) M = ODC metal dust cap without chain (IP67) P = ODC plastic cap V = ODC vinyl dust cap <i>- for other cap types : please consult us</i>							
7- length : _____ XXX M = overall length in meter XXX CM = overall length in centimeter <i>- for other length : please consult us</i>							

For further description, please ask for our standard generic Technical Data Sheet.

Any variation will have to be expressed through a customer specification (length, labelling, packaging, ...)



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