

FIBER OPTIC CONNECTORS & COMPONENTS

# ODC<sup>®</sup> - Outdoor connector Fiber-To-The-Antenna



**RADIALL**   
The next connexion

The ODC<sup>®</sup> (OutDoor Connector) is a fiber optic connection with two or four channels for up and down antenna links in flexible base stations.

It can withstand harsh environmental conditions and bad weather.

Into the new UMTS networks (3rd and higher generation mobile communication networks) these fiber optic transmission lines allow data to travel at the speed of light with practically no loss.

## MAIN FEATURES AND BENEFITS

- N type connectors size with fixed protection cap / 2 and 4 channels
- multimode and singlemode / compact design with 2 and 4 x 1.25 mm ceramic optical ferrules / fully protected optical face and sleeve
- socket available as small square, large square or hexagonal flange
- screw-on locking system / waterproof, dust proof and corrosion resistant / EMI immunity
- fast and easy installation : blind mate coupling

## PERFORMANCE SPECIFICATION

### Optical

insertion loss (IEC 61300-3-34)	multimode	typ ≤0.25 dB	max ≤0.70 dB
	singlemode	typ ≤0.40 dB	max ≤1.00 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

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

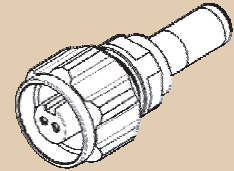
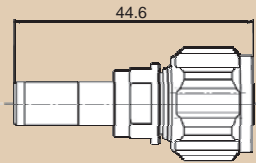
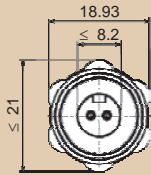


## APPLICATIONS

ODC<sup>®</sup> 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 of digital telecom networks (WIMAX, CDMA, ...).

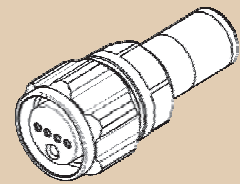
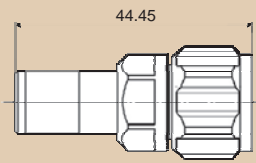
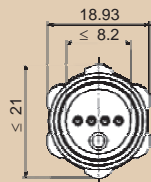
All other outdoor applications in multichannel fiber optic installations can also be realized.

ODC2 plug (P2X)



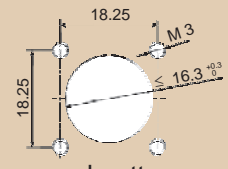
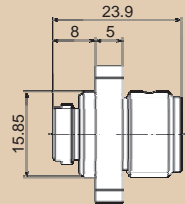
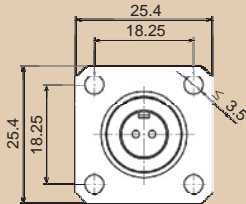
3D view

ODC4 plug (P4X)



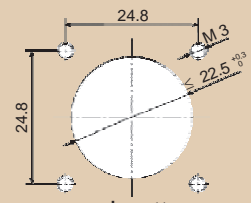
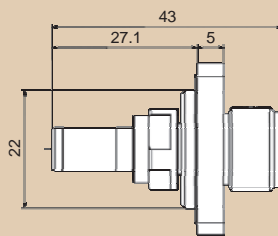
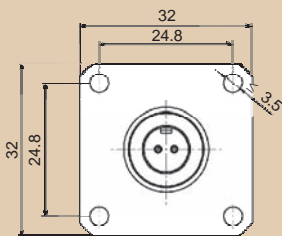
3D view

ODC2 socket square flange small (S2A)



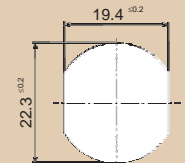
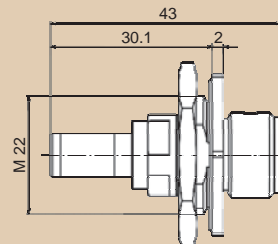
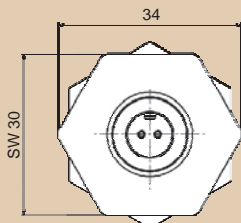
panel pattern

ODC2 socket square flange large (S2B)



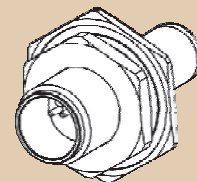
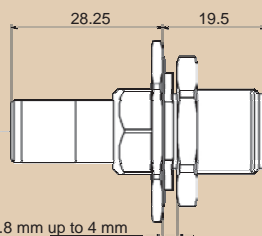
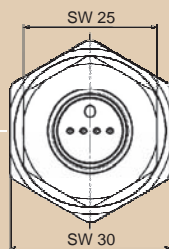
panel pattern

ODC2 socket hexagonal flange (S2C)

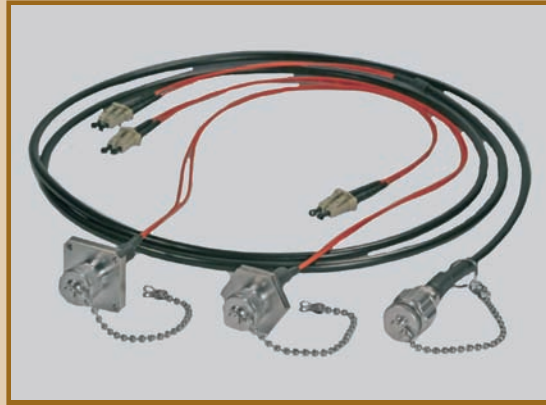


panel pattern

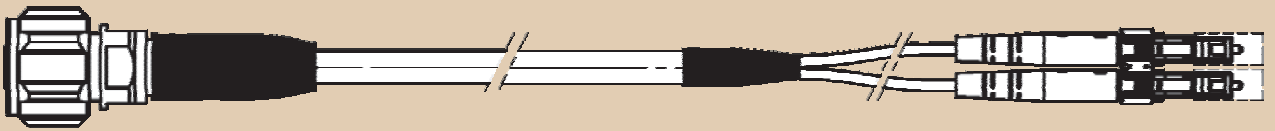
ODC4 socket hexagonal flange (S4D)



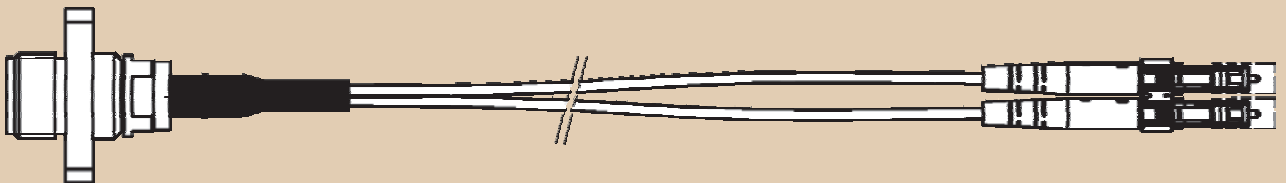
3D view



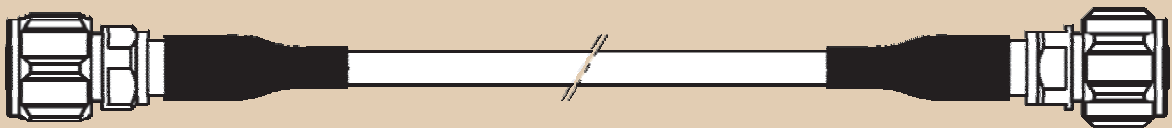
**ODC2 Plug / Duplex LC plug**  
multimode or singlemode = field cable 6 mm (2 fibers)



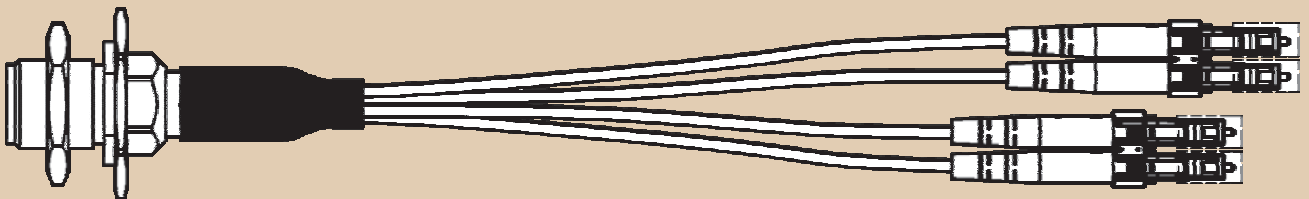
**ODC2 Socket / Duplex LC plug**  
multimode or singlemode = 2 simplex cables 1.9 mm



**ODC4 Plug / ODC4 Plug**  
multimode or singlemode = field cable 6 mm (4 fibers)



**ODC4 Socket / 2 Duplex LC plugs**  
multimode = 4 simplex cables 1.9 mm  
singlemode = please consult us



Use the matrix below to build your own part-number

<b>O</b>	<b>P2X</b>	<b>M</b>	<b>09S</b>	<b>P2X</b>	<b>V</b>	<b>015</b>
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**1- series :** \_\_\_\_\_

O = ODC<sup>®</sup> 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)  
 - for other connector types : please consult us

**3- connector 1 protection cap :** \_\_\_\_\_

C = ODC metal dust cap with chain (IP67)  
 M = ODC metal dust cap without chain (IP67)  
 V = ODC vinyl dust cap  
 - for other cap types : please consult us

**4- fiber type / cable :** \_\_\_\_\_

09S = simplex fiber / singlemode 9/125 / cable dia. 1.9 mm / for socket only  
 50S = simplex fiber / multimode 50/125 / cable dia. 1.9 mm / for socket only  
 62S = simplex fiber / multimode 62.5/125 / cable dia. 1.9 mm / for socket only  
 09F = field cable 2 fibers / singlemode 9/125 / cable dia. 6 mm / for plug only  
 50G = field cable 4 fibers / multimode 50/125 / cable dia. 6 mm / for plug only  
 - for other fiber types and cables : please consult us

**5- connector 2 :** \_\_\_\_\_

XXX = free end  
 P2X = ODC2 plug  
 P4X = ODC4 plug  
 LC1 = 1 x Duplex LC (for 2 channels assembly)  
 LC2 = 2 x Duplex LC (for 4 channels assembly)  
 - for other connector types : please consult us

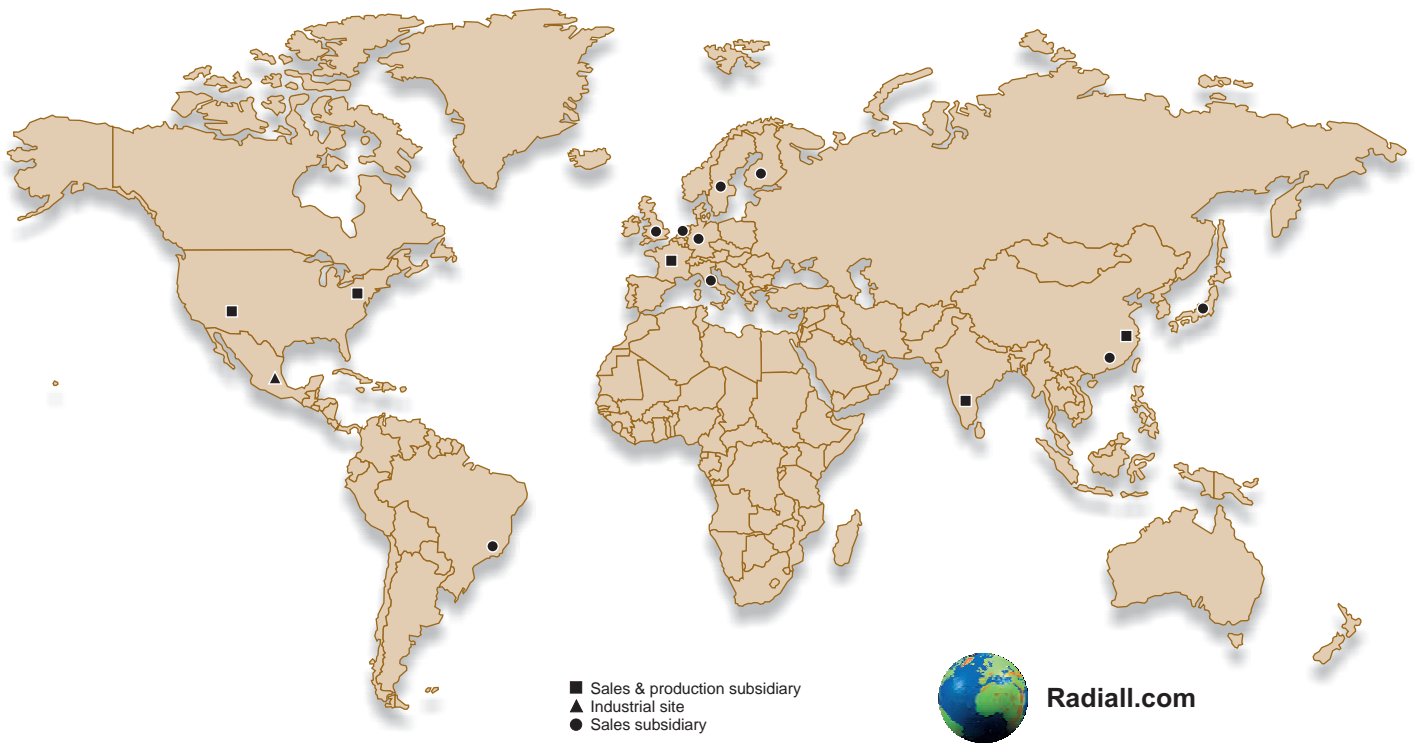
**6- connector 2 protection cap :** \_\_\_\_\_

C = ODC metal dust cap with chain (IP67)  
 M = ODC metal dust cap without chain (IP67)  
 V = ODC vinyl dust cap  
 L = LC plastic cap  
 - for other cap types : please consult us

**7- length :** \_\_\_\_\_

XXX = overall length in meter (minimum = 001 meter / maximum = 999 meters)  
 - for other length (less than 1m or more than 999m) : please consult us

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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