ODC™ Plug & Socket Cable Assemblies

The ODC connectors, together with the support optical cable, are becoming the standard interface specified in 3G, 4G and WiMax Base Station remote radios and Fiber-to-the-Antenna applications. The ODC cable assembly is based on the N Type RF Coax connector. The product, however, is not limited to the above applications. The ODC cable assemblies have passed tests like salt mist, vibration and shock and meet protection class IP68. They are well suited for Industrial and Aerospace and Defense applications.

Tyco Electronics

Our commitment. Your advantage.

ODC™ Plug & Socket Cable Assemblies

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KEY FEATURES

- 2 and 4 Channel

- Multimode - 2 & 4 Ch; Singlemode - 2 Ch

- Compact design with 2 x or 4 x 1.25mm ferrules

- Built-in socket available with square or hexagonal flange

- Water proof, dust proof and corrosion resistant

- Screw lock mechanism

- Scoop proof

- One hand, blind-mating possible

- Attached protection cap

- EMI shielded

- Low-Smoke, Zero-Halogen (LSZH)

APPLICATIONS

| Base Stations |
| Industrial |
| Aerospace & Defense |

TECHNICAL DOCUMENTS

Protection Class : IP 68

Salt mist : IEC 61300-2-26 : passed

Vibration : IEC 61300-2-1 : passed

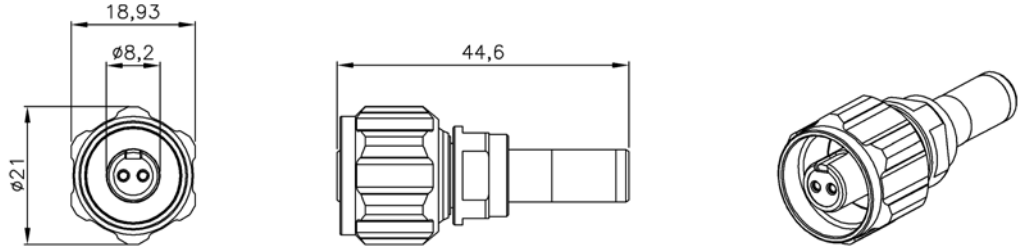**Shock** : IEC 61300-2-9 : passed

OPTICAL

Insertion loss according to IEC 61300-3-34

Multimode type : ≤0.25dB max. ≤0.70dB

Singlemode type : ≤0.30dB max. ≤1.00dB
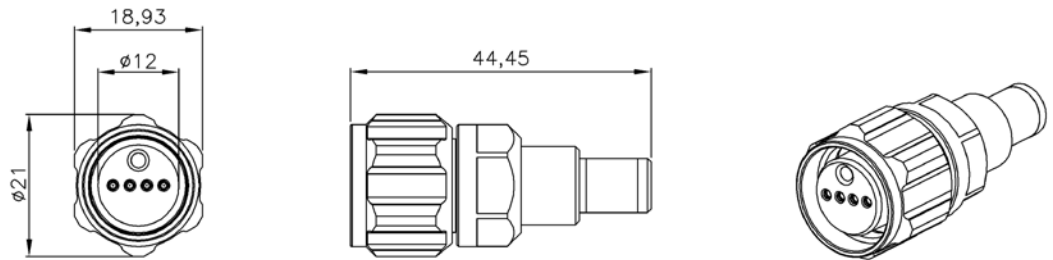
Return Loss : Singlemode ≥45dB

MECHANICAL

Technology : full ceramic ferrule and sleeve

Mechanically robust :

- ODC plug ≤ 800 N tensile load

- ODC socket ≤ 30 N tensile load

Installation torque force : - min. 1Nm - max. 2 Nm.

Operating temperature : -40ºC up to +85ºC

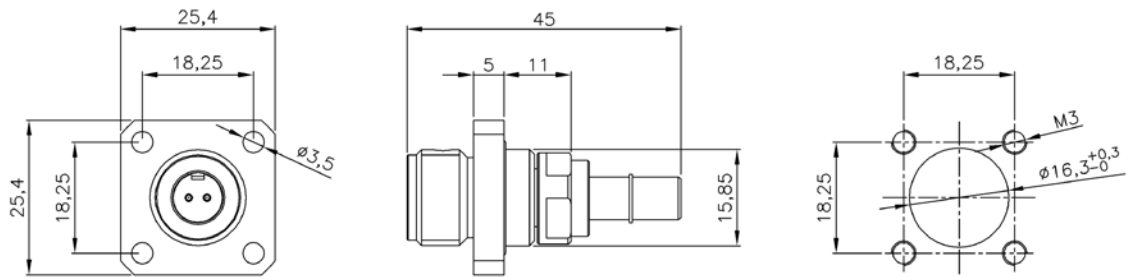**Mating durability** : min. 100 cycles
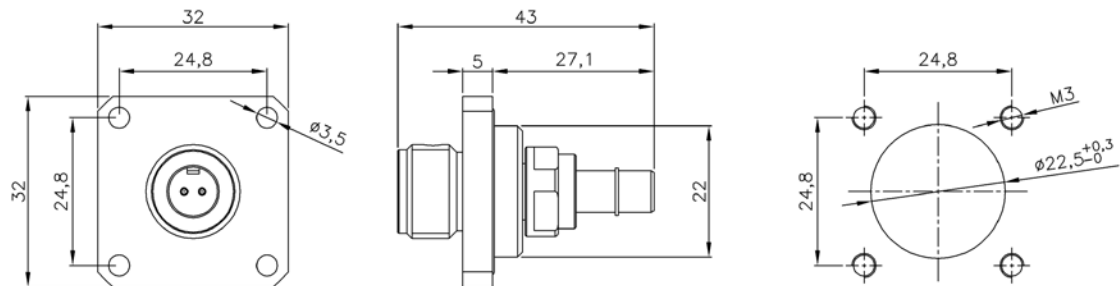
INTERFACE DIMENSIONS

2 Fiber ODC Plug

18,93
Ø8,2
Ø21
44,6

4 Fiber ODC Plug

18,93
Ø12
Ø21
44,45

2 Fiber Small Square ODC Socket

25,4
18,25
25,4
18,25
Ø3,5
45
5   11
15,85
18,25
18,25
M3
Ø16,3 $^{+0,3}_{-0}$

2 Fiber Large Square ODC Socket

32
24,8
32
24,8
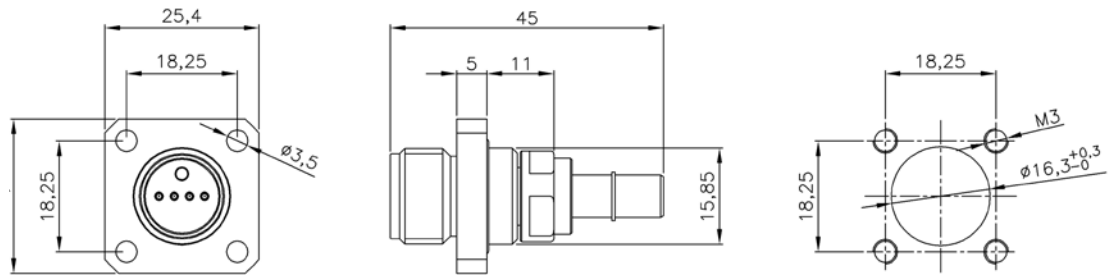Ø3,5
43
5   27,1
22
24,8
24,8
M3
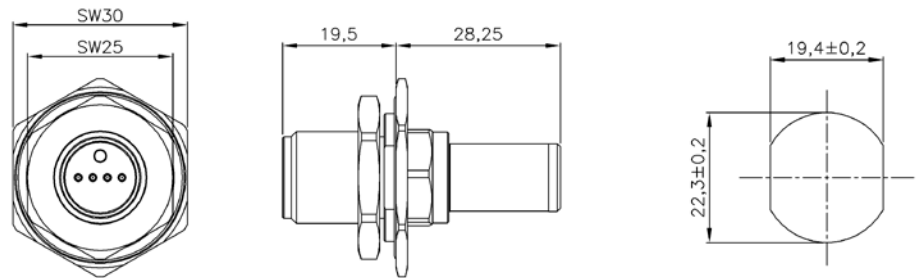Ø22,5 $^{+0,3}_{-0}$

INTERFACE DIMENSIONS (cont.)

2 Fiber hexagonal ODC Socket
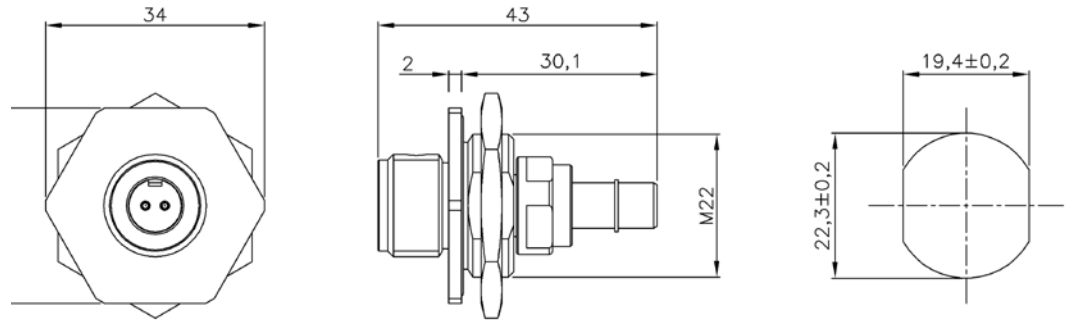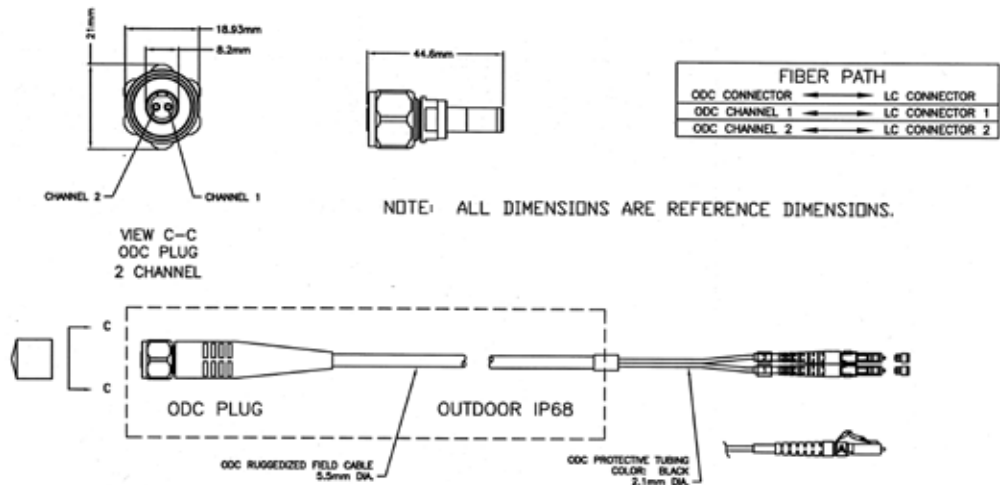

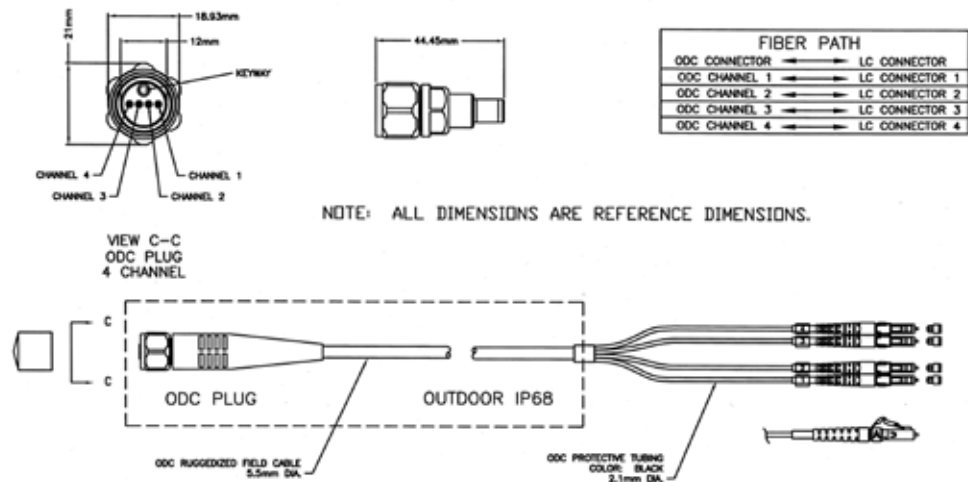## 4 Fiber Small Square Socket

4 Fiber Hexigonal Socket

PRODUCT DIMENSIONS

2 Fiber Plug to LC Duplex Assembly

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4 Fiber Plug to LC Duplex Assembly

CABLE ASSEMBLY PART NUMBERS

Base Part Number[1]	Description	Fiber Size	Available Sizes
1985834	2 Fiber Plug to LC Duplex Assembly	Singlemode	
1985835	2 Fiber Plug to LC Duplex Assembly	Multimode (50/125)	
1985836	2 Fiber Plug to LC Duplex Assembly	Multimode (62.5/125)	1 to 99 meters[2]
1985837	4 Fiber Plug to LC Duplex Assembly	Multimode (50/125)	
1985838	4 Fiber Plug to LC Duplex Assembly	Multimode (62.5/125)	
1985844	2 Fiber Plug to LC Duplex Assembly	Singlemode	
1985845	2 Fiber Plug to LC Duplex Assembly	Multimode (50/125)	
1985846	2 Fiber Plug to LC Duplex Assembly	Multimode (62.5/125)	100 to 999 meters[3]
1985847	4 Fiber Plug to LC Duplex Assembly	Multimode (50/125)	
1985848	4 Fiber Plug to LC Duplex Assembly	Multimode (65.5/125)	

[1]For complete part numbers, obtain proper customer drawing.
[2]The length is defined by the dash number (example : 8-1985834-2 is 82 meters long, 1-1985834-5 is 15 meters long)
[3]The length is defined by the dash number (example : 8-1985844-2 is 820 meters long, 1-1985844-5 is 150 meters long)
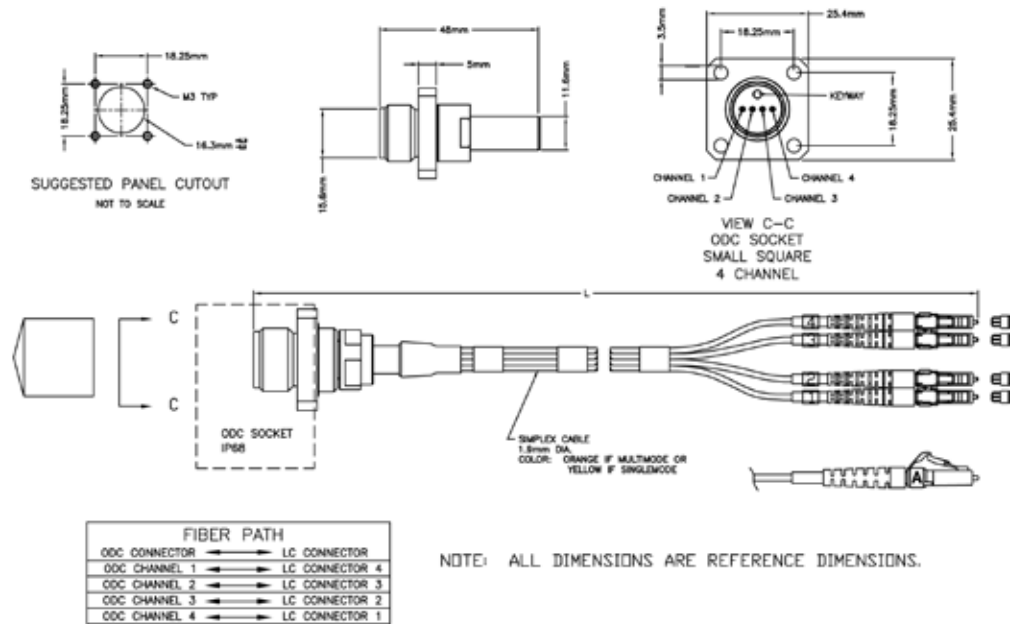**Note:** Other dust caps (screw type) and connector types, in combination with ODC Plug (or socket), are available upon request.

PRODUCT DIMENSIONS (cont.)

2 Fiber Socket to LC Duplex Assembly
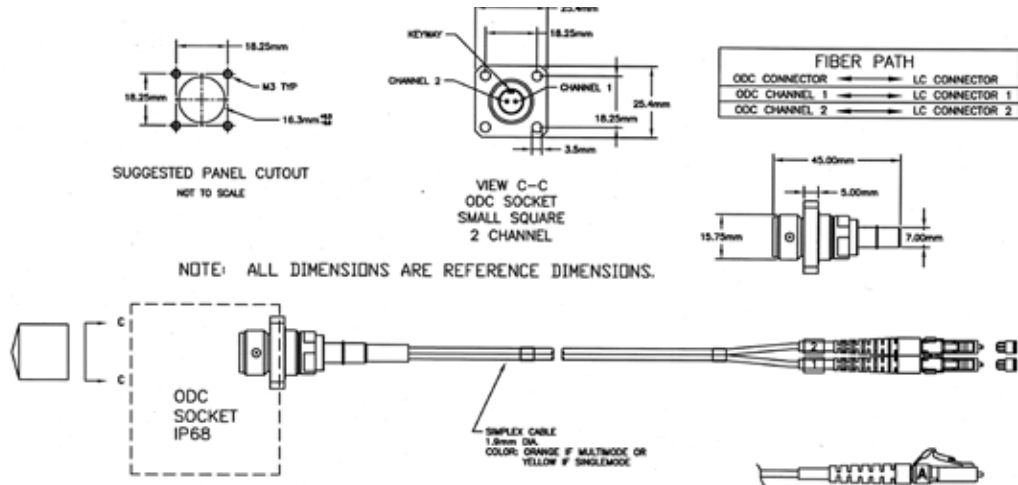
4 Fiber Socket to LC Duplex Assembly

CABLE ASSEMBLY PART NUMBERS

Base Part Number[1]	Description	Fiber Size	Available Sizes
1985839	2 Fiber Socket to LC Duplex Assembly	Singlemode	
1985840	2 Fiber Socket to LC Duplex Assembly	Multimode (50/125)	
1985841	2 Fiber Socket to LC Duplex Assembly	Multimode (62.5/125)	0.3 to 99 meters[2]
1985842	4 Fiber Socket to LC Duplex Assembly	Multimode (50/125)	
1985843	4 Fiber Socket to LC Duplex Assembly	Multimode (62.5/125)	

[1]For complete part numbers, obtain proper customer drawing.
[2]The length is defined by the dash number (example : 3-1985839-5 is 3.5 meters long, 1-1985839-6 is 1.6 meters long)
Note: Other dust caps (screw type) and connector types, in combination with ODC Plug (or socket), are available upon request.

FOR MORE INFORMATION

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Part numbers in this brochure are RoHS Compliant*, unless marked otherwise.
*as defined www.tycoelectronics.com/leadfree

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