

Overview

The WGF series provide a way of bringing pre-terminated fiber optic cables into a shielded enclosure while maintaining the enclosure's radio frequency isolation integrity. All versions except the WGF-4 feature a patented design with removable center plug so that connectorized fiber optic cables can be inserted into the peripheral cable-sized slots when the plug is removed.

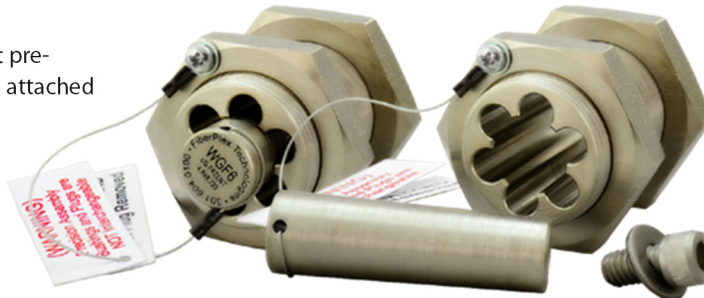
17-5676 - WGF-12

The WGF-12 has twelve bores to accept pre-terminated fiber optic cables with attached connectors.



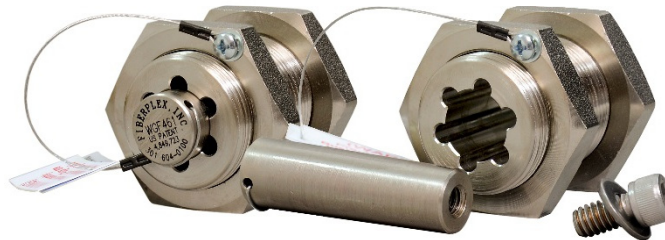
17-5672 - WGF-6

The WGF-6 has six bores to accept pre-terminated fiber optic cables with attached connectors.



17-5675 - WGF-461

The WGF-461 was designed to meet MIL-461 EMC specifications by providing 100 dB attenuation for frequencies up to 40 GHz. It has six bores to accept pre-terminated fiber optic cables with attached connectors.



17-5670 - WGF-4

The WGF-4 accepts up to four pre-terminated fiber optic cables with either LC or ST connectors through fixed bores. It accepts up to four pre-terminated fiber optic cables with attached connectors.

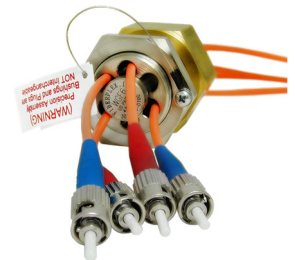


Features:

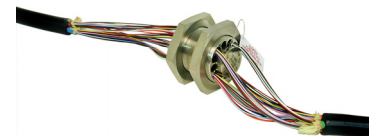
- 4, 6, or 12 Channel Waveguide Filter
- WGF-12, WGF-6 and WGF-461 exceed NSA 65-6 shielding specifications
- WGF-12, WGF-6 and WGF-461 have patented removable core to allow easy pass through of pre-terminated cable
- WGF-461 meets MIL-461 EMC specification

Applications:

- SCIF / TEMPEST Enclosures
- EMC Testing
- RF Testing
- Manufacturing
- MRI / Medical
- Anechoic Chambers



WGF-6 Shown with ST fiber installed



WGF-12 Shown with 24 strand fiber installed

WGF-12 / WGF-6 / WGF-461 / WGF-4

WAVEGUIDE FILTER



Typical Applications



**Telecommunications
Information Technology
Audio / Video
Security**

**Telecommunications
Information Technology
Audio / Video
Security**

Shielded Enclosure / SCIF



**Sensors and Controls
Information Technology
Audio Communication
Video Observation**

**Sensors and Control
Information Technology
Audio Communication
Video Observation**

Magnetic Resonance Imaging Suite



**Serial Data
Video Observation
Sensors and Controls**

**Serial Data
Video Observation
Sensors and Controls**

EMC Testing / Anechoic Chamber

Specifications

| THEORETICAL ATTENUATION (dB) | | | | | | | | | | | |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Model | 43 GHz | 40 GHz | 35 GHz | 30 GHz | 25 GHz | 20 GHz | 18 GHz | 15 GHz | 10 GHz | 4 GHz | 100 MHz |
| WGF-12 | - | - | - | - | 60.32 | 114.91 | 128.59 | 144.63 | 162.11 | 176.02 | 176.02 |
| WGF-6 | - | - | - | - | 63.32 | - | 131.59 | 147.63 | 165.77 | 179.02 | 179.02 |
| WGF-461 | 64.67 | 123.02 | 179.33 | 217.00 | - | - | - | - | - | - | - |
| WGF-4 | | | | | | | 70.33 | 106.69 | 155.63 | 178.88 | - |

| PHYSICAL SPECIFICATIONS | | | | |
|-------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------|
| | WGF-12 | WGF-6 | WGF-461 | WGF-4 |
| Cut-Off Frequency | 27 GHz | 27 GHz | 44.2 GHz | 18.5 GHz |
| Waveguide Bore Qty | 12 | 6 | 6 | 4 |
| Waveguide Bore Diameter | 0.257 x 0.159 in (6.5 x 4.0 mm) | 0.257 x 0.159 in (6.5 x 4.0 mm) | 0.157 x 0.118 in (4.0 x 3.0 mm) | 0.375 in (9.5 mm) |
| Body Thread Size | 1-5/8", 20 NEF | 1-1/8", 18 NEF | 1-1/8", 18 NEF | 1-1/8", 18 NEF |
| Clearance Hole Diameter | 1-21/32 in (42 mm) | 1-5/32 in (29.5 mm) | 1-5/32 in (29.5 mm) | 1-5/32 in (29.5 mm) |
| Effective Length | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 2.25 in (57 mm) |
| Overall Length | 2.31 in (59 mm) | 2.125 in (54 mm) | 2.125 in (54 mm) | 2.25 in (57 mm) |
| Plug Bore Diameter | 1.0 in (25.5 mm) | 0.5 in (12.7 mm) | 0.5 in (12.7 mm) | n/a |
| Material | Steel, Electroless Nickel Finish | | | |