

# GRS Series

## 3-Piece Trunk and Distribution Connectors Product Information

**CORNING**  
Discovering Beyond Imagination

Broadband  
Products

### Connector Specifications

**Bandwidth:**  
5 MHz to 1 GHz

**Operating Range:**  
-40°F to +140°F

**Nominal Impedance:**  
75 ohms

**Shielding Effectiveness:**  
> 130 dB

**Return Loss:**  
>30 dB @ 1 GHz

**Insertion Loss:**  
< 0.15 dB (pin types)

**Cable Retention:** Exceeds  
cable manufacturers'  
maximum pulling  
tension specifications

The industry leading GRS 3-piece trunk and distribution connector series is designed for optimal performance in high bandwidth, two-way and digital communication systems.

The GRS Series provides independent seizing of the cable's center and outer conductors during the installation process, guaranteeing proper cable retention. Uniquely, the GRS design compensates for potential tolerance mismatches between the cable and connector. The connector configuration allows a full view of the center conductor entering the center conductor seizing mechanism, eliminating the "blind entry" associated with traditional 2 piece connector installation.

Cable "pullback" is minimized, preventing cable deformation. GRS extension connectors, used extensively in system upgrades, incorporate a one-piece continuous pin, providing excellent long-term performance.



**Materials and Construction of Connector Components:**

ASTM 6262 aluminum alloy with gold chromate conversion coating for excellent corrosion resistance and a dry film lubricant to prevent thread galling.

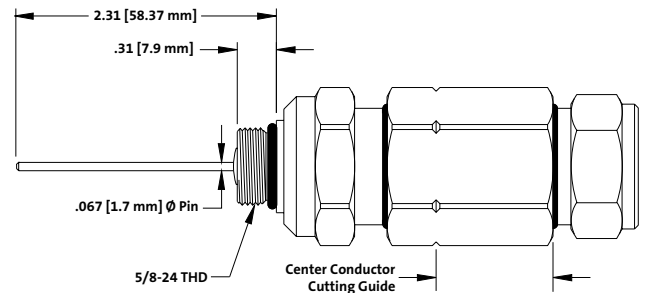
Contact pins and support sleeves are brass with bright acid tin plating providing excellent RF conductivity.

O-rings are ultraviolet and ozone resistant EPDM for maximum durability.

**Product Features**

- Support sleeve located in main nut assembly minimizes pull back required to insert cable into connector
- Independent seizure of center and outer conductors of provides assurance of proper retention to cable
- Visible entry of center conductor into seizing mechanism (no blind entry)
- Unique collet closing mechanism preserves reusability
- Domed insulator prevents possibility of moisture collecting
- Brass pins with bright acid tin plating for excellent RF conductivity
- GRS design compensates for potential tolerance mismatches between the cable and connector
- GRS extension connectors incorporate a one-piece continuous pin, providing excellent electrical continuity

**Ordering Information**



**Connector Types**

- CH** Pin Connector
- SP** Splice Connector
- EXT** 3" Extension Connector
- EXT-6** 6" Extension Connector
- BAFF** "F" Female Connector
- AFM** "F" Male Connector
- TR** Cable Terminator

Pin length is standard 2.31"  
 Example Part Number  
**GRS-500-CH-DU-03-T**  
 Pin Connector with a 2.31" pin for .500 P3/T10 cable

**CommScope P-3**

Times Fiber T-10	Part Number
.412	GRS-412-TYPE <sup>2</sup> -DU-01-T
.500	GRS-500-TYPE <sup>2</sup> -DU-03-T
.625	GRS-625-TYPE <sup>2</sup> -DU-02-T
.750	GRS-750-TYPE <sup>2</sup> -DU-01-T
.875	GRS-875-TYPE <sup>2</sup> -DU-02-T
1.000	GRS-1000-TYPE <sup>2</sup> -DU-01-T

**CommScope QR**

.320 (7C)	GRS-500-TYPE <sup>2</sup> -DU-03-T
.540	GRS-540-TYPE <sup>2</sup> -DU-03-T
.715	GRS-715-TYPE <sup>2</sup> -DU-03-T
.860	GRS-860-TYPE <sup>2</sup> -DU-03-T
1.125	GRS-1125-TYPE <sup>2</sup> -DU-01-T

**Times Fiber TX**

.480	GRS-480-TYPE <sup>2</sup> -TX-T
.565	GRS-565-TYPE <sup>2</sup> -TX-T
.700	GRS-700-TYPE <sup>2</sup> -TX-T
.840	GRS-840-TYPE <sup>2</sup> -TX-T
1.160	GRS-1160-TYPE <sup>2</sup> -TX-T

**Trilogy MC<sup>2</sup>**

.440	GRS-440-TYPE <sup>2</sup> -MC <sup>2</sup> -T
.500	GRS-500-TYPE <sup>2</sup> -MC <sup>2</sup> -T
.650	GRS-650-TYPE <sup>2</sup> -MC <sup>2</sup> -T
.750	GRS-750-TYPE <sup>2</sup> -MC <sup>2</sup> -T
1.000	GRS-1000-TYPE <sup>2</sup> -MC <sup>2</sup> -T

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