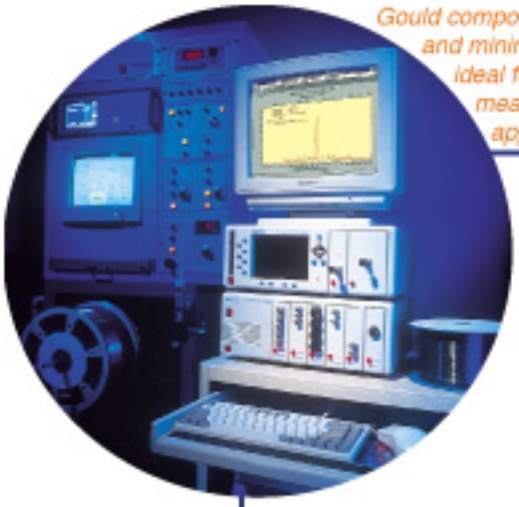
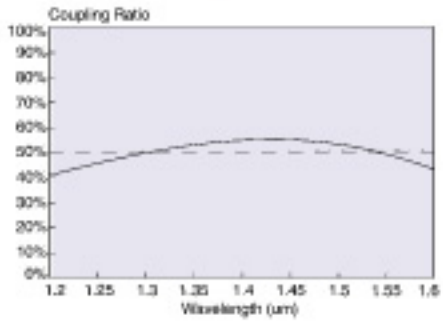
# Wavelength Independent Couplers WIC™

Gould's Wavelength Independent Coupler (WIC ) can be used to split light from one fiber to two or combine light from two fibers to one and provide high performance across a broad wavelength region (from 1270nm to 1600nm). WIC couplers are ideal for use in two color OTDRs, full duplex transmission on a single fiber, multicolor sensors, and trunk/loop branching. These small devices are insensitive to the operating wavelength and provide low optical loss with high directivity.



*Gould components have low loss and minimal back reflection, ideal for test and measurement applications.*




*Typical wavelength dependence of coupling ratio for wavelength independent couplers (WIC )*

## Specifications based on 50/50 coupling ratio

| | | SERIES 1 | SERIES 2 |
|---|---|---|---|
| Insertion Loss | | ≤ 3.6dB | ≤ 3.9dB |
| Bandpass | | | ±40nm |
| Center Wavelengths | | | 1310nm and 1550nm |
| Uniformity (50/50 couplers only) | | ≤ 0.8dB | ≤ 1.2dB |
| Typical Thermal Stability | | | ≤ ± 0.1dB |
| Typical Polarization Sensitivity | | | ≤ ± 0.1dB |
| Typical Directivity | 2x2 | | ≥ 65dB |
| | 1x2 | | ≥ 40dB |
| | 1x2 | | ≥ 60dB with LRT™ |

## Coupling Ratio/Insertion Loss Chart

| Desired Split Ratio | Insertion Loss (dB) SERIES1 | SERIES 2 |
|---|---|---|
| 50/50 | 3.6 | 3.9 |
| 40/60 | 4.7/2.7 | 5.0/2.9 |
| 30/70 | 6.0/1.9 | 6.4/2.1 |
| 20/80 | 7.9/1.2 | 8.5/1.4 |
| 10/90 | 11.3/0 .6 | 12.7/0.8 |

## Options:

**Low Reflection Termination (LRT™):** External LRT™ on the unused port (≥60dB)

**Packaging:** Wavelength independent couplers come in package style 12 and can be repackaged into 22, 25, 31 and modular boxes.

**Styles:** Packages and connectors are described on pages 20-23.

Product Number: (For Corning SMF-28™ Fiber)

50 -___ ___ ___ 3 5 - ___ ___ - ___ ___ ___ ___ 1

| Series: 1, 2 | 03 = 100 kpsi<br>32 = 200 kpsi | Coupling ratio<br>10 =10/90<br>50 = 50/50 etc. | Port configuration<br>1 = 1 X 2<br>2 = 2 X 2<br>9 = 1 X 2 withLRT™ | Package style 12, 22, 25 or 31. See pages 20-23 | Connector style<br>0 = none<br>See page 23 |
|---|---|---|---|---|---|