



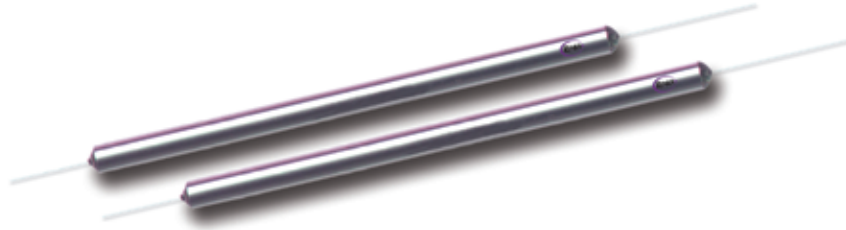
# single mode couplers

## Description

Renka® SmartCONNECT™ Wavelength Flattened Couplers are low loss branching components, used to combine and split light over a wide wavelength range. Fabricated using proven fused biconical taper (FBT) technology, these couplers offer excellent wavelength flattened response at 1310 or 1550nm.

Renka couplers are designed and tested to Bellcore GR-1209/GR-1221 performance and reliability industry standards.

## Wavelength Flattened Coupler



## Applications

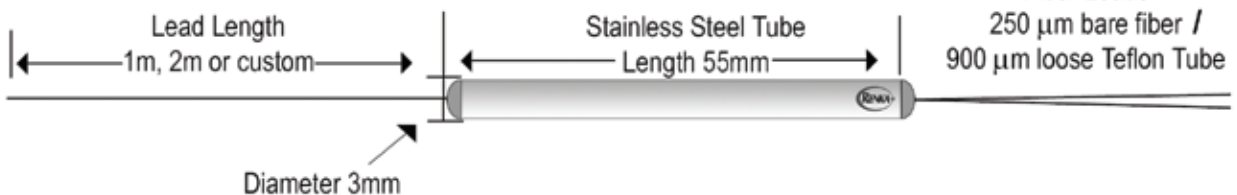
- EDFAs
- Fiber Communication Systems
- Test and Measurement Systems
- CATV
- Local Area Networks
- Optical Fiber Sensor
- Source Distribution

## Benefits

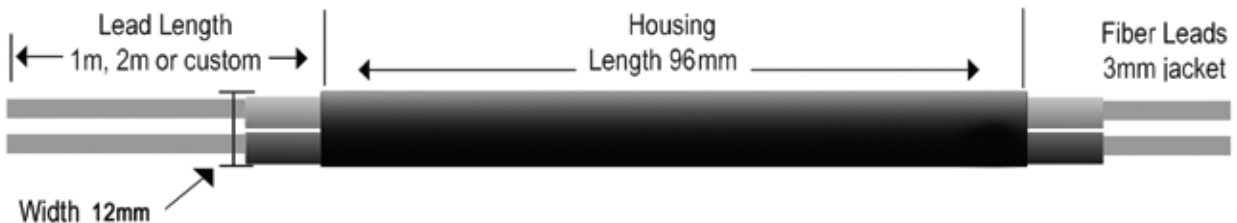
- Low Insertion Loss
- Low PDL
- Superior Reliability
- Environmentally Stable
- Compact Packaging
- Wide Bandpass
- High Directivity
- Excellent Uniformity

## Package Dimensions

### Light/Medium Duty



### Heavy Duty



### Coupler Specifications (based on 50/50 split ratio)

	UNIT	Premium	Standard
Insertion Loss (max)	dB	3.4	3.6
Uniformity	dB	0.7	1.0
Polarization Dependent Loss (PDL - Max)	dB	0.1	0.15
Typical Excess Loss	dB	0.1	0.3
Return Loss/Directivity	dB	>=55	
Operating Wavelength	nm	1310 or 1550	
Bandpass	nm	±40	
Port Configuration		1x2 or 2x2	
Packaging	Light/Medium Duty	mm	
	Heavy Duty	mm	
Lead Type		250µm bare fiber, 900µm loose Teflon tube, or 3mm jacket	
Standard Lead Length (input and output)	m	1, 2 or custom	
Maximum Pull Strength	N	5	
Maximum Power Handling	mW	200	
Thermal Stability	dB/°C	±0.002	
Operating Temperature	°C	-40 to +75	
Storage Temperature	°C	-40 to +85	

### Split Ratio and Insertion Loss/PDL Chart

Split Ratio	Insertion Loss (Primary/Secondary)		PDL (Secondary)	
	Premium	Standard	Premium	Standard
50/50	3.4/3.4	3.6/3.6	0.1	0.15
60/40	2.5/4.4	2.7/4.7		
70/30	1.8/5.6	2.0/6.0	0.2	0.25
80/20	1.1/7.4	1.3/7.8		
90/10	0.6/10.8	0.8/11.8		
95/5	0.4/14.4	0.5/17.8	0.3	0.35

### Ordering Information

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<b>Grade</b> P: Premium S: Standard	<b>Split Ratio</b> 05: 95/5 10: 90/10 20: 80/20 30: 70/30 40: 60/40 50: 50/50	<b>Wavelength</b> 3: 1310 5: 1550	<b>Port</b> A: 1x2 B: 2x2	<b>Package Type</b> L: Light Duty M: Medium Duty H: Heavy Duty	<b>Lead Length</b> 1: 1 meter 2: 2 meters C: Custom	<b>Connector Type</b> 0: None
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