



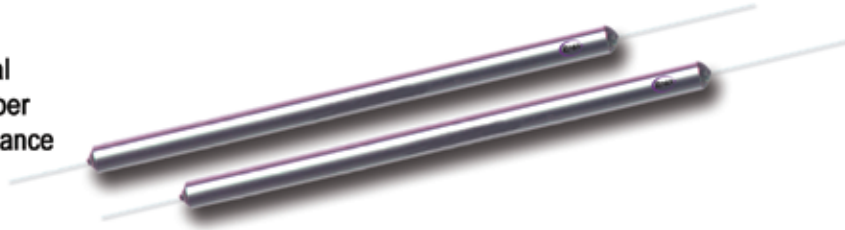
single mode couplers

Description

Renka® SmartCONNECT™ Single Wavelength Couplers are low loss branching components, used to combine and split light with low loss and high performance. This class of couplers provides optimal performance at central wavelength. Fabricated using proven fused biconical taper (FBT) technology, these couplers offer excellent performance to meet the most stringent application requirements.

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

Wavelength Independent Coupler



Applications

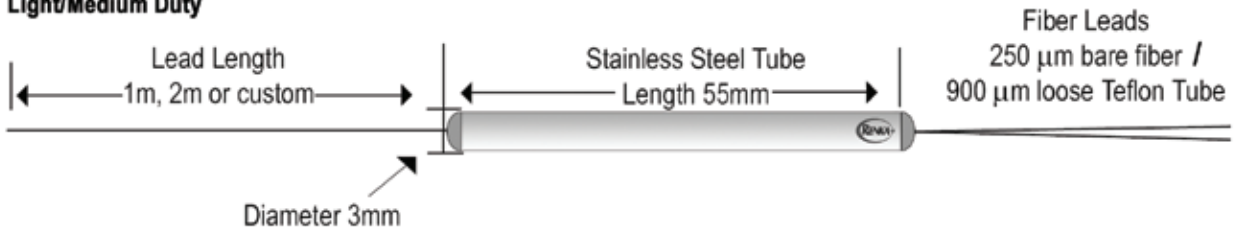
- Fiber Communication Systems
- CATV
- Passive Optical Networks
- Test and Measurement Systems
- Local Area Networks
- Dual Wavelength Monitoring
- Dual Wavelength Source Stabilization

Benefits

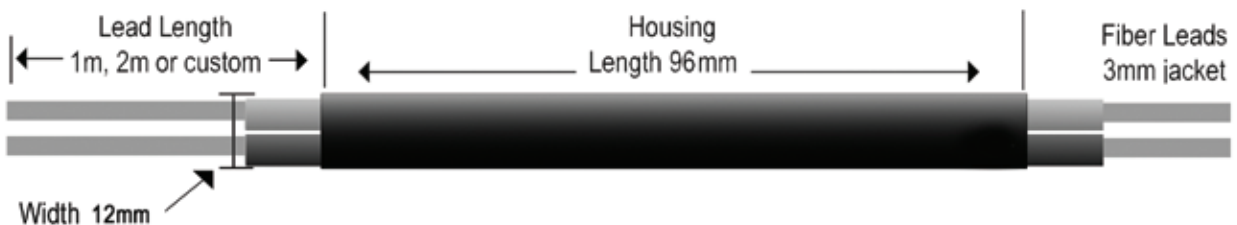
- Low Insertion Loss
- Excellent Uniformity
- Wide Bandpass
- Superior Reliability
- Environmentally Stable
- Compact Packaging
- Low PDL
- High Directivity

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 and 1550	
Bandpass	nm	±40	
Port Configuration		1x2 or 2x2	
Packaging	Light/Medium Duty	mm	
	Heavy Duty	mm	
		Stainless Steel Tube = 55L x 3Ø / 65L x 3Ø Plastic Housing = 96L x 12W	
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	2.7/4.7	2.9/5.0		
70/30	1.9/5.8	2.1/6.2	0.2	0.25
80/20	1.2/7.8	1.4/8.2		
90/10	0.7/11.3	0.8/12.5		
95/5	0.4/14.4	0.6/18.0	0.3	0.35

Ordering Information

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