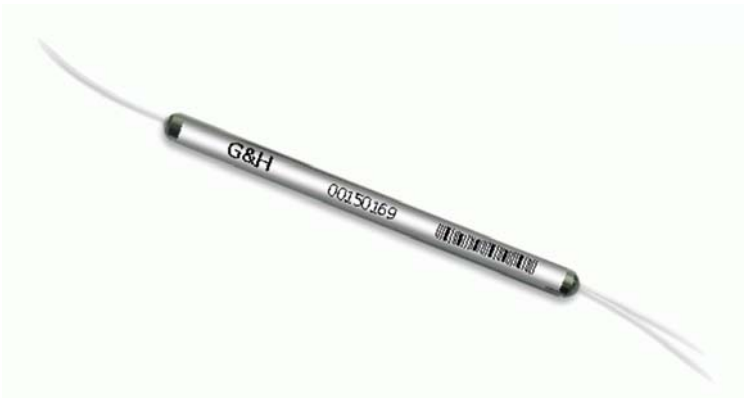
Gooch & Housego



Near Infrared Coupler

The Near Infrared Coupler splits light at any selected wavelength from 700nm to 1199nm.

Designed for applications in fibre laser, sensor and avionics applications, the coupler utilises G&H's low loss fused fibre technology.

No light leaves the fibre and therefore no alignment is required; and there are no unwanted reflections. Furthermore the output fibre pigtails may be directly integrated into beam delivery systems.

For components and modules which combine different wavelengths within the near infrared region please refer to the datasheet 'Near Infrared WDM'.

Key Features:

- 700 to 1199nm operation
- Any coupling ratio available
- All fibre – no alignment required
- No unwanted reflections
- Low light loss
- High power handling

Applications:

- Fibre lasers
- Sensors
- Avionics
- Biomedical equipment
- Research

Contact: sales@goochandhousego.com www.goochandhousego.com

Optical Specifications

Coupling Ratio (%) [3]	Grade	Available Wavelength(s)	Signal Path Insertion Loss (dB) [1,2]	Tap Path Insertion Loss (dB) [1,2]
1	A	700 to 1199nm	0.15	24.9
	B		0.20	25.3
5	A	700 to 1199nm	0.40	15.9
	B		0.50	16.2
10	A	700 to 1199nm	0.9	12.2
	B		1.1	12.4
20	A	700 to 1199nm	1.5	8.4
	B		1.7	8.6
30	A	700 to 1199nm	2.2	6.4
	B		2.4	6.5
40	A	700 to 1199nm	3.0	4.9
	B		3.2	5.1
50	A	700 to 1199nm	3.8	3.8
	B		4.0	4.0

1. In 2x2 couplers insertion loss is not specified for launch through second input port P4 (coloured blue)
2. Maximum insertion loss at operating wavelength. Not including TDL, PDL or connector losses.
3. Any coupling ratio available. Please contact us for specifications of coupling ratios not listed.

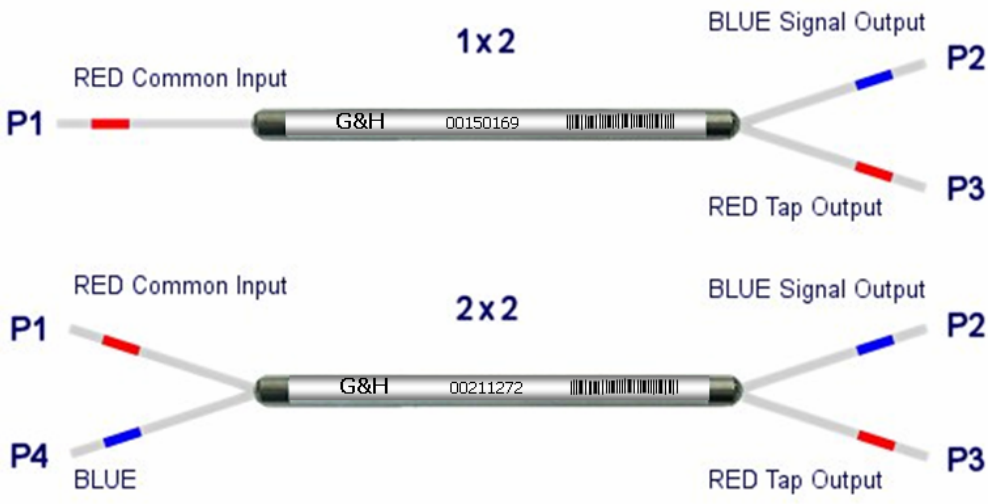
Parameter	Specification	Unit
Operating Wavelength	Specified wavelength within the range 700-1199nm	nm
Operating / Storage Temperature Range [1]	-40 to +75 / -40 to + 85	^{o}C
Optical Power Handling [2, 3]	4	W
Pigtail Tensile Load	5	N
Fibre Type	Speciality singlemode fibre	

1. For connectorised component, operating temperature range is –5 to +75^{o}C.
2. For operation at powers of greater than 4W the component housing and fibre must be adequately heat-sunk (for additional information contact G&H Sales). Components intended for high power operation are only available in the 2x2 configuration. Component performance and reliability under high power must be determined within the customer system.
3. The performance and reliability of optical connectors is not guaranteed for optical powers of greater than 1W.

Housing Options

Housing Code	Description	1x2, 2x2 Dimensions (mm)	Pigtail
3	Regular	3.0 (Ø) x 50 (L)	Primary-coated fibre
4	Semi-ruggedised Slim	3.0 (Ø) x 60 (L)	Ø 0.9mm loose-tube
5	Semi-ruggedised	5.0 (Ø) x 75 (L)	Ø 0.9 mm loose-tube
6	Fully-ruggedised	10 (W) x 8 (H) x 80 (L)	Ø 3.0 mm fan-out sleeving
7	High Power Housing	5 (W) x 5 (H) x 85 max (L)	Primary-coated fibre
C	Regular High Power	3.0 (Ø) x 50 (L)	Primary-coated fibre

Configuration



Ordering Code Information

FFS-780K31A10 (Fused Fibre Speciality Coupler, 780nm, 50/50 coupling ratio, regular housing, 1x2, A grade, 1m pigtails, no connectors)

FFS-060K31A10 (Fused Fibre Speciality Coupler, 1060nm, 50/50 coupling ratio, regular housing, 1x2, A grade, 1m pigtails, no connectors)

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Code	Wavelength
First digit of wavelength	
7	7xx nm
8	8xx nm
9	9xx nm
0	10xx nm
1	11xx nm

Code	Wavelength
2nd and 3rd digits of wavelength	
2 digits	Examples:
33	x33 nm
32	x32 nm
57	x57 nm

Code	Coupling Ratio 3
1	1%
5	5%
A	10%
C	20%
E	30%
H	40%
K	50%

Code	Housing 2, 4 & 5
3	Regular
4	Semi-ruggedised Slim
5	Semi-ruggedised
6	Fully-ruggedised
7	High Power
C	Regular High Power

Code	Port Configuration 5
1	1x2
2	2x2

Code	Grade
A	Grade A
B	Grade B

Code	Pigtail Length 1
0	0.5m
1	1m

Code	Connector 2
0	None
1	FC/PC
3	FC/APC
5	SC/APC
9	FC/UPC
A	SC/UPC
B	LC 4

1. Minimum pigtail length. Further pigtail lengths available on request. Where connectorised, pigtail length is to connector end face.
2. Connectors may be fitted to housing types 4, 5 and 6. For connectorisation of other housing types contact G&H Sales. Note that insertion loss stated does not include connector losses.
3. Any coupling ratio available. Please contact G&H Sales for codes of coupling ratios not listed.
4. LC connector not available for housing code 6, fully ruggedised housing.
5. 7 & C not available as 1x2 Configuration.