

Coaxial Directional Coupler

75Ω

10 to 750 MHz

ZFDC-10-21-75



CASE STYLE: K18

Connectors Model
BNC ZFDC-10-21-75
BRACKET (OPTION "B")

Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

INPUT	1
OUTPUT	2
COUPLED	3

Features

- wideband, 10 to 750 MHz
- excellent directivity, 30 dB typ.
- rugged shielded case

Applications

- catv
- VHF/UHF
- instrumentation
- communications receivers & transmitters

Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS¹ (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L		M		U		L		M		U				
	f _L -f _U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.
10-750	11±0.5	±0.75	1.5	1.8	1.5	1.9	1.7	2.1	36	30	30	20	26	20	1.4	1.0	2.0

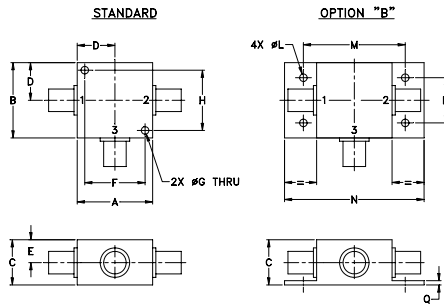
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
10.00	1.39	10.96	60.33	24.87	16.51	16.50
46.00	1.48	11.02	58.37	23.71	16.08	16.15
82.00	1.57	11.10	58.27	22.47	15.67	15.63
140.00	1.63	11.17	54.38	21.77	15.51	15.24
220.00	1.66	11.23	48.45	21.57	15.68	14.99
315.00	1.67	11.30	43.20	21.19	15.98	14.64
390.00	1.67	11.36	39.99	20.82	16.33	14.25
480.00	1.67	11.43	37.62	20.32	16.73	13.67
630.00	1.69	11.59	35.29	19.10	16.94	12.33
750.00	1.71	11.72	33.16	18.39	16.89	11.26

Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

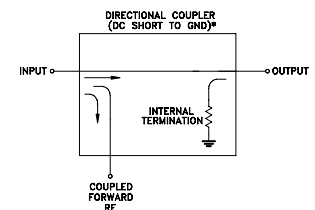
Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMERS THAT ROUTES DC FROM RF PORTS TO GROUND.

REV. B
M151107
ZFDC-10-21-75
WZ/TD/CP/AM
151007