

Coaxial Directional Coupler

75Ω

1 to 400 MHz

ZFDC-10-1-75

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

- excellent directivity, 44 dB typ.
- up to 4W input power
- rugged shielded case

Applications

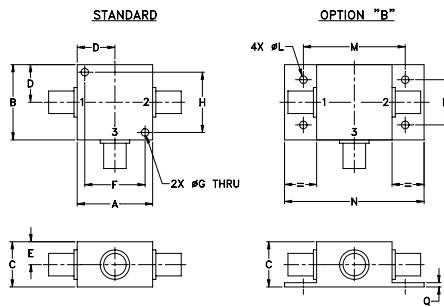
- catv
- VHF/HF
- instrumentation



CASE STYLE: K18

Connectors	Model
BNC	ZFDC-10-1-75
BRACKET (OPTION "B")	

Outline Drawing



Outline Dimensions (inch/mm)

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

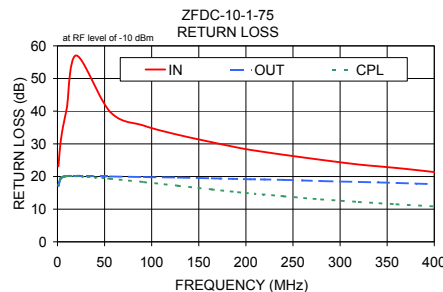
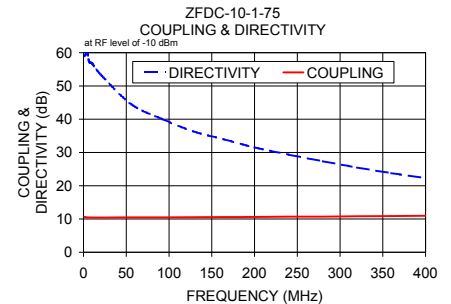
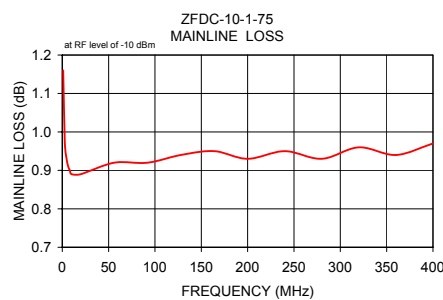
Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS ¹ (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.
1-400	10.5±0.5	±0.5	1.0	1.7	1.1	1.5	1.1	1.6	46	30	44	28	34	20	1.3	2.0	4.0

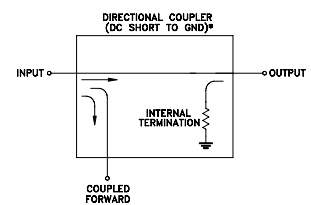
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]
1. Mainline loss includes theoretical power loss at coupled port.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		Cpl
				In	Out	
1.00	1.16	10.68	58.99	23.11	17.09	17.35
4.60	0.93	10.48	59.93	33.06	19.71	19.75
8.20	0.90	10.46	57.01	38.55	20.09	20.06
10.00	0.89	10.46	56.81	41.04	20.17	20.11
56.00	0.92	10.48	44.49	39.77	20.01	19.33
128.00	0.94	10.55	36.39	32.77	19.68	17.16
164.00	0.95	10.59	33.96	30.48	19.45	16.03
240.00	0.95	10.70	29.35	26.66	18.97	13.94
320.00	0.96	10.82	25.49	23.65	18.34	12.19
400.00	0.97	10.97	22.28	21.37	17.64	10.84



Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER WITH INTERNAL TRANSFORMER(S) THAT ROUTES DC FROM RF PORTS TO GROUND.

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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