

# Coaxial Directional Coupler

## ZFDC-10-1-75

75Ω

1 to 400 MHz



### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

### 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

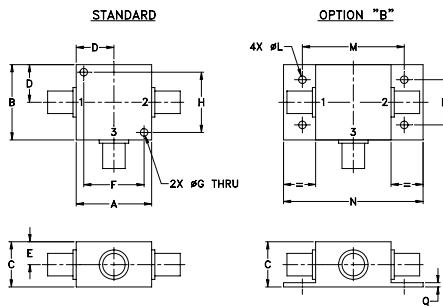
Connectors	Model	Price	Qty.
BNC	ZFDC-10-1-75	\$45.95 ea.	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

### Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup> (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
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.

### Outline Drawing



### Outline Dimensions (inch/mm)

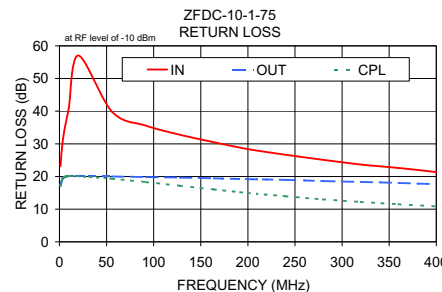
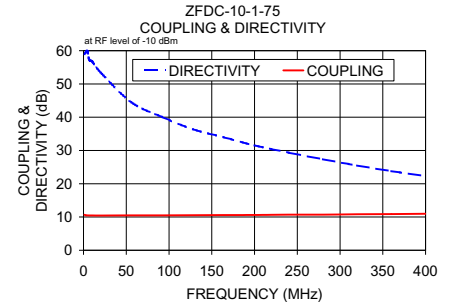
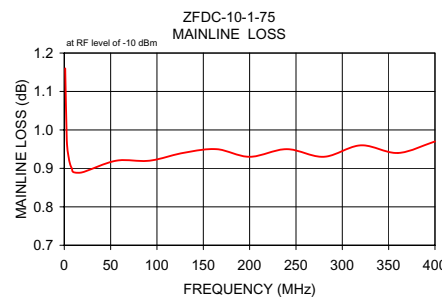
A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

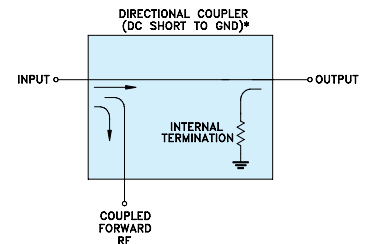
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

### 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.

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