Coaxial

Directional Coupler

ZFDC-20-3+

50Ω 0.2 to 250 MHz

BNC version shown

CASE STYLE: K18

Connectors	Model
BNC	ZFDC-20-3+
SMA	ZFDC-20-3-S+
N-TYPE	ZFDC-20-3-N+
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

- excellent directivity, 33 dB typ.
- excellent mainline loss, 0.25 dB typ.
- rugged shielded case

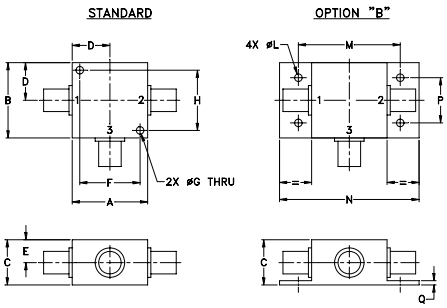
Applications

- VHF
- instrumentation
- amateur radio

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS[1] (dB)						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)	
			L		M		U		L		M		U			L	MU
f_L-f_U	Nom.	Flatness	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Max.
0.2-250	19.5±0.5	±0.25	0.35	0.6	0.25	0.5	0.35	0.6	36	25	33	25	25	20	1.2	1.5	4.0

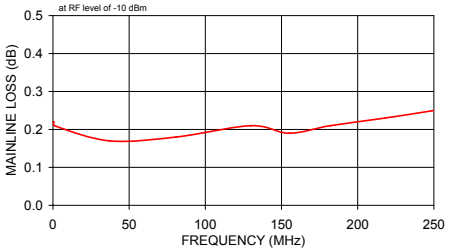
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

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

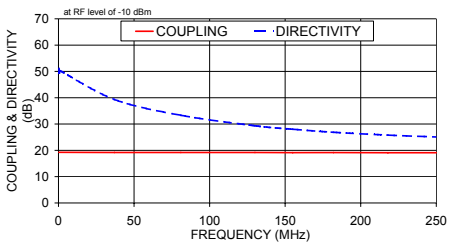
Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB) In	Return Loss (dB) Out	Return Loss (dB) Cpl
0.20	0.22	19.25	51.15	28.24	27.54	28.44
0.60	0.22	19.26	49.36	35.75	32.69	32.47
1.00	0.21	19.24	50.27	38.37	34.30	33.77
37.00	0.17	19.20	39.35	42.77	38.65	36.63
81.00	0.18	19.19	33.35	35.73	34.10	33.94
130.00	0.21	19.18	29.34	31.27	30.06	30.67
155.00	0.19	19.13	28.05	29.52	28.45	29.25
182.00	0.21	19.16	26.89	27.96	27.00	27.95
218.00	0.23	19.09	25.81	26.19	25.31	26.32
250.00	0.25	19.11	25.10	24.80	23.98	25.04

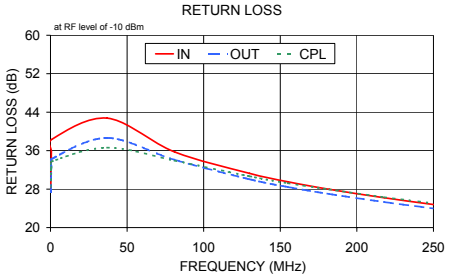
ZFDC-20-3+
MAINLINE LOSS



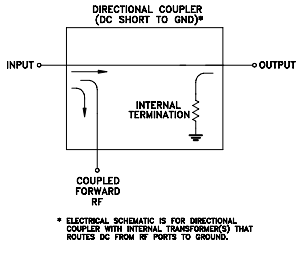
ZFDC-20-3+
COUPLING & DIRECTIVITY



ZFDC-20-3+
RETURN LOSS



Electrical Schematic



Notes

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