

# Multihole Directional Couplers Series 131

## Features

- **High Directivity**
- **Models from 2.6 GHz to 40.1 GHz**

The Flann Series 131 Directional Couplers are suitable where high quality is to be incorporated at moderate cost.

A high directivity is offered in all waveguide sizes within the frequency range 2.6 GHz to 40.1 GHz. The standard coupling values are 3, 10 and 20 dB, other values for example 6, 30 and 40 dB can be supplied.

**IMPORTANT!** All directivities quoted include the measuring port and flange performance when connected to an ideal termination.

4 port couplers can be supplied to order, however the directivity will be less than for 3 port units.



Model 18131-10

## Specifications:

Model	Frequency Range (GHz)	Waveguide			Minimum Directivity (dB)	Coupling (3, 10 & 20 dB)		Additional Primary Arm Loss (dB)	Primary Arm VSWR *	Secondary Arm VSWR
		WG	R	WR		Sensitivity ( $\pm$ dB)	Nominal Accuracy (dB)**			
10131	2.60 - 3.95	10	32	284	40	0.5	5%	Not Applicable	1.03	1.10
11A131	3.22 - 4.90	11A	40	229	40	0.5	5%		1.03	1.10
12131	3.94 - 5.99	12	48	187	40	0.5	5%		1.03	1.10
13131	4.64 - 7.05	13	58	159	40	0.5	5%		1.03	1.10
14131	5.38 - 8.18	14	70	137	40	0.5	5%		1.03	1.10
15131	6.58 - 10.0	15	84	112	40	0.5	5%		1.03	1.10
16131	8.20 - 12.5	16	100	90	40	0.5	5%		1.03	1.10
17131	9.84 - 15.0	17	120	75	40	0.5	5%		1.03	1.10
18131	11.9 - 18.0	18	140	62	40	0.5	5%		1.03	1.10
19131	14.5 - 22.0	19	180	51	40	0.5	5%		1.03	1.10
20131	17.6 - 26.7	20	220	42	40	0.75	7%	0.3	1.03	1.20
21131	21.7 - 33.0	21	260	34	40	0.75	7%	0.4	1.03	1.20
22131	26.4 - 40.1	22	320	28	40	0.75	7%	0.5	1.03	1.20

See Series 136 for higher frequency models up to 330 GHz.

\* Primary arm VSWR specification is 1.10:1 for all 3 dB couplers

\*\* Nominal coupling accuracy for 3 dB and 6 dB couplers is  $\pm$  0.5 dB.

See overleaf for dimensions and ordering information.

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## Outline Dimensions

Model	Dimensions (mm)					Weight (kg)		
	A			B	C	3 dB	10 dB	20 dB
	3 dB	10 dB	20 dB					
10131	On request	1215	1029	85	130	On request	10.6	8.0
11A131	1432	965	817	70	100	8.4	5.7	4.6
12131	1233	853	733	60	90	6.2	4.3	3.0
13131	1108	785	676	55	75	4.7	3.3	2.6
14131	991	706	615	50	60	3.7	2.6	2.2
15131	766	534	460	35	50	2.0	1.5	1.3
16131	658	476	417	35	45	1.3	1.0	0.8
17131	538	387	338	35	40	1.0	0.8	0.6
18131	465	340	298	30	35	1.0	0.8	0.6
19131	397	300	262	30	35	0.4	0.4	0.3
20131	314	228	201	25	25	0.25	0.18	0.16
21131	284	215	194	25	25	0.25	0.18	0.16
22131	237	180	162	24	29	0.20	0.16	0.14

### ORDERING INFORMATION

Model: Coupling Value Suffix; Description

Example: Model 10131-20 Multihole Directional Coupler

Directivity >40 dB, 20 dB coupling

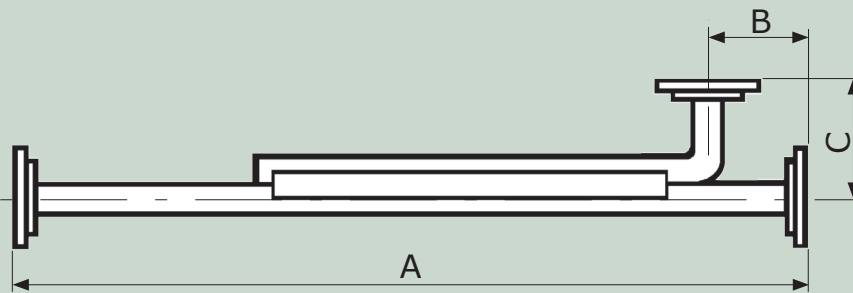
### Note:

If a 4 port coupler is required, add 4P to the ordering code:  
For example 18131-20-4P. Please note that the directivity will be reduced by approximately 8 dB for 4 port couplers.

Standard Coupling Values	Suffix
3 dB	03
10 dB	10
20 dB	20

Other Coupling Values	Suffix
6 dB	06
30 dB	30
40 dB	40

Dimensions & Weights upon request



Series 131

For standard flange types and recommendations see pages 118 onwards