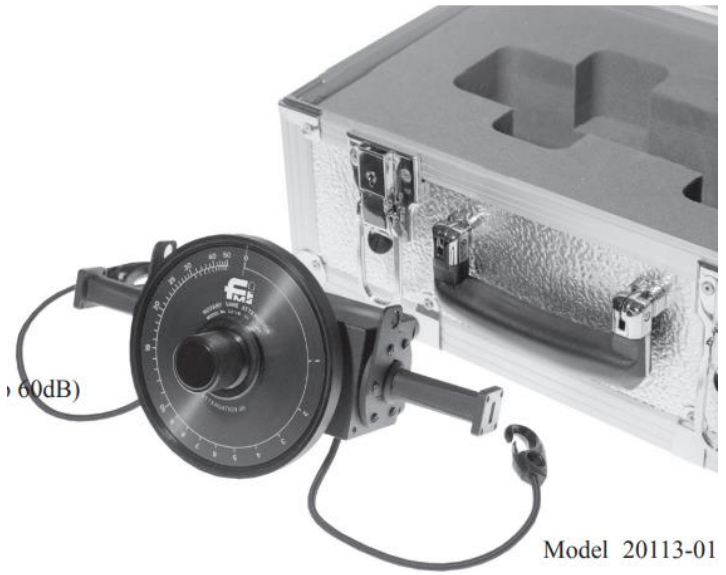




### Features

- Direct Reading
- Continuously Variable
- Splash Proof
- Ruggedised Transportation Case
- Low Cost



Model 20113-01

### Specifications

**Attenuation Range:** 0dB to 50dB (Optionally 0dB to 60dB)

**Attenuation Accuracy:** 0.5 dB

**VSWR:** 1.15 : 1

The Flann range of Field Useable Rotary Vane Attenuators, Series 113, has been developed in response to the specific requirements of major UK and European communication companies, operating national point to point Microwave Radio Networks, for Fade Margin and Bit Error Rate measurements in a field test environment.

Models in the range utilise many of the components from the highly regarded precision rotary vane attenuators produced by the company. Each instrument features a direct reading scale calibrated in 1 dB increments from 0 dB to 50 dB. The attenuation accuracy is 0.5 dB over the full waveguide frequency band. Models with an extended attenuation range up to 60 dB are available to special order.

Reliability in a field test environment is enhanced by the splash proof design. Two expandable securing straps allow hands-free attenuator operation in difficult situations. The units are optionally available housed in a fitted rugged aluminium transportation case.

Model	Waveguide			Frequency Range (GHz)	Flange to Flange Length (mm)
	WG	WR	R		
15113	15	112	84	6.58 - 10.0	340
17113	17	75	120	9.84 - 15.0	276
18113	18	62	140	11.9 - 18.0	250
20113	20	42	220	17.6 - 26.7	250
22113	22	28	320	26.4 - 40.1	174

Model	Dimensions (mm)									
	A	B	C	D	E	F	G	H	ØJ	ØK
15113	340	140	95.5	55	89	44.5	12	10	120	28
17113	276	108	79.5	39	57	28.5	12	10	120	28
18113	250	108	79.5	39	57	28.5	12	10	120	28
20113	250	108	79.5	39	57	28.5	12	10	120	28
22113	174	108	79.5	39	57	28.5	12	10	120	28

#### FLANN MICROWAVE LTD.

Dunmere Road  
Bodmin  
Cornwall  
PL31 2QL  
Tel: +44 (0)1208 77777  
Fax: +44 (0)1208 76426

sales@flann.com  
www.flann.com

#### FLANN MICROWAVE INC.

One Boston Place  
Suite 2600  
Boston  
MA 02108-4407  
Tel: +617 621 7034  
Fax: +617 577 8234



**FLANN MICROWAVE**

**Field Useable Rotary Vane Attenuators**  
Series 113

The attenuators can be supplied fitted with ancillary pieces of test equipment to suit specific applications; in some instances these may be accommodated within the transportation case. For example, ancillary components could include flexible waveguides, waveguide to coaxial adaptors or fixed attenuators for an extended attenuation range.

Models are available in other waveguide sizes and frequency ranges. Details on request.

**Custom Design**

Custom built instruments can be supplied; please contact the sales team for more information [sales@flann.com](mailto:sales@flann.com)

Option Suffix	Model
50 dB model - case and securing straps supplied	-01
50 dB model - case and securing straps not supplied	-02
60 dB model - case and securing straps supplied	-11
60 dB model - case and securing straps not supplied	-12

**ORDERING INFORMATION**  
Model: option suffix; description  
Example: Model 17113-01 special rotary vane attenuator, 50 dB option with case and securing straps

Series 113

**Related Products**

**Environmental Specifications**

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Bodmin  
Cornwall  
PL31 2QL  
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Fax: +44 (0)1208 76426

[sales@flann.com](mailto:sales@flann.com)  
[www.flann.com](http://www.flann.com)

**FLANN MICROWAVE INC.**

One Boston Place  
Suite 2600  
Boston  
MA 02108-4407  
Tel: +617 621 7034  
Fax: +617 577 8234