RF Directional Thruline Power Sensor

4020 Series

The **RF** Experts

- Cost-effective solution for maintaining critical RF systems.
- Only 5 models are required to cover the frequency range of 1.8 MHz to 3 GHz and power range from 300 mW - 10 kW.
- Full-Scale Accuracy ±3% for applications requiring accurate forward and reflected power measurement.
- Direct plug-in operation with industry-standard Bird® 4421Multifunction Power Meter.
- Low insertion loss.

SPECIFICATION

Frequency Range	4021	1.8-32 MHz
	4022	25 MHz-1 GHz
	4023A3G	800-3000 MHz
	4024	1.5-32 MHz
	4025	100 kHz-2.5 MHz
Power Input	4021	300 mW to 1 kW (1.2 kW max.)
	4022	300 mW to 1 kW (1.2 kW max.)
	4023A3G	300 mW to 200 W
	4024	3 W to 10 kW (12 kW max.)
	4025	3 W to 10 kW (12 kW max.)
Impedance		50 Ohms
Accuracy, Fwd		± 3% of reading from rated Max to rated Min.
VSWR Measurement Range		1.00 to 2.00 (40.0 to 9.5 dB Return Loss)
Directivity, Min.	4021	30 dB
	4022	30 dB
	4023A3G	28 dB
	4024	28 dB, 1.5-2.5 and 25-32 MHz, 30 dB, 2.5-25 MHz
	4025	28 dB, 100-125 kHz 30 dB,125-2500 kHz
Insertion Loss Max. (with female"N" connectors)	4021	0.05 dB
	4022	0.05 dB, 25-512 MHz, 0.13 dB, 512 MHz-1 GHz
	4023A3G	0.15 dB
	4024	0.05 dB
	4025	0.05 dB
VSWR, Max.	4021	1.05:1
	4022	1.05:1, 25-512 MHz, 1.10:1, 512 MHz-1 GHz
	4023A3G	1.10:1
	4024	1.05:1
	4025	1.05:1
Sampling Rate		Nominal 2 readings per second

POWER REQUIREMENTS

External DC	12 VDC, supplied from Bird 4421 Power Meter

PHYSICAL SPECIFICATIONS

Dimensions	5.2" L x 2.5"W x 3.25"H (137 x 64 x 83 mm)
Weight	1lb., 11oz. (0.8 kg)
Connectors	N (F) standard, other customer specified from QC list appropriate for frequency and power.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0 to 50°C (32 to 122 °F)
Storage Temperature	-20 to 70°C (–4 to +158 °F)
Humidity	95% maximum (non-condensing)
Altitude	Up to 10,000 feet (3,048 m)
Emissions	EN-55011, 1991, Class B
General EMC	Designed to carry CE mark
Immunity	EN-50082-1, 1995
Safety	EN-61010, 1993 in accordance with Council Directives 73/23/EEC and 93/68/EEC
Calibration Cycle	Nominal 1 year