Thruline[®] RF Directional Wattmeters

Portable Wattmeters



MODEL 43 — Portable Wattmeter

Power Range **Frequency Range** Insertion VSWR Accuracy Connectors Finish **Nominal Size** (includes connectors) Weight

Elements

MODEL 43P — Portable Wattmeter

Power Range

Accuracy

Modulation

Battery Life Weight

Frequency Range

PEAK POWER RETROFIT KIT 4300-400 — Portable Wattmeter

Normal voice audio; or

Duty cycle: 2% (min),

48 hours typical

(Peak Mode) Rectangular Pulses

Repetition rate: 100 pps (min),

Pulse width: 200 µs (min)

Adds 1 lb. to Model 43

100 mW - 10 kW using Bird® Plug-in Elements.* 450 kHz - 2.7 GHz (depending on element) with N Connectors 1.05 max. to 1000 MHz ±5% of full scale QC Type (Female N normally supplied) Light Gray powder coat 6 7/8" H x 5 1/8" W x 3 5/8" D, (175 mm x 130 mm x 92 mm) 3 lbs. (1.4 kg) Tables 1, 2, 3, 3A, 4, 6 (pages 37-40)



100 mW - 10 kW using Bird® Plug-in Elements.*

CW Mode: ±5% full scale, Peak mode: ±8% full scale

450 kHz - 2.7 GHz (depending on element)



Power Range Frequency Range Insertion VSWR Accuracy

Battery

Finish

Weight

Elements

Accessories

AC Power

Connectors

Nominal Size

(includes connectors)

Pulse Parameters

WATTMETER 4314B — Portable Wattmeter

100 mW - 10 kW using Bird® Plug-in Elements.* 450 kHz - 2.7 GHz (depending on element) with N Connectors 1.05 max. to 1000 MHz ±5% of full scale CW, ±8% PEP (min.) Pulse width 0.4 µs (100-2300 MHz), 1.5 µs (26-99 MHz) and 15 µs (2-25 MHz); repetition rate 30 pps and duty factor 1 x 10⁴ min. Two 9-Volt alkaline transistor batteries 120 VAC, 60 Hz or 220 VAC, 60 Hz (using Bird® adapter) QC Type (Female N normally supplied) Light Gray powder coat 6 7/8" H x 5 1/8" W x 3 5/8" D, (175 mm x 130 mm x 92 mm) 3 lbs. (1.4 kg) Tables 1, 2, 3, 3A, 4, 5, 6 (pages 37-40) Case (page 43), spare batteries (page 42), extra QC connectors (page 41).



HIGH-POWER WATTMETER 4305A — Portable Wattmeter

Power Range Frequency Range Insertion VSWR
Accuracy
Connectors
Finish
Nominal Size
(includes connectors)
Weight
Elements
Accessories

50 W - 25 kW using Bird® Plug-in Elements.* 450 kHz - 2.3 GHz (depending on element) with N Connectors 1.05 max. ±5% of full scale QC Type (Female N normally supplied) Gray powder coat 6 5/16" H x 5 1/8" W x 4 1/4" D, (161 mm x 131 mm x 108 mm) 3 1/4 lbs. (1.5 kg) 4305A element table below and 1 5/8AA table (page 39) Case (page 43)



4305A	Elements	F
Power	45-2 5	:

4

4305A	Elements	Frequency (MHz)				
Power	.45-2.5	2–30	50-125	100-250	400-1000	1100-1800
50 W	_	_	_	—	—	50K7
2500 W		_	2500B7	2500C7	2500E7	—
5000 W	_	_	5000B7	—	—	—
10 kW	_	10KH7	_	—	—	—
25 kW	25KP7	_	_	_	_	_



MODEL 4304A FIXED 25-1000 MHz 5-500 WATT ELEMENT — Portable Wattmeter

5-500 MAIT LELMEN	I — I UTUDIC WALLINGLEI
Power Ranges	5, 15, 50, 150, 500 W, with no scale limitations except power limited to 150 W from 800-1000 MHz
Frequency Range	25 MHz - 1.0 GHz
Insertion VSWR	25-521 MHz, 1.05 max.
	(with UHF female conn.), 512-1000 MHz, 1.07 max.
Insertion Loss	25-512 MHz, 0.10 dB max. with UHF female conn.,
	512-1000 MHz range, 0.13 dB max.
Accuracy	25-100 MHz, ±7% of full scale, using correction charts.
·····,	100-512 MHz, ± 6 of full scale, no correction needed.
	512-1000 MHz, ±7% of full scale, no correction needed.
Connectors	QC Type (Female N normally supplied)
Finish	Light Grav powder coat
Nominal Size	6 7/8" H x 5 1/8" W x 3 5/8" D.
(includes connectors)	(175 mm x 130 mm x 92 mm)
Weight	3 lbs. (1.36 kg)
Accessories	Case (page 43)



VARIABLE RF TAP 4431 — Portable Wattmeter

Power and Frequency Range	5 kW max. 2 - 30 MHz, 1 kW max. 30 - 1000 MHz**
	using Bird [®] Plug-in Elements*
Insertion VSWR	with N Connectors 1.07 max.** to 1000 MHz
Accuracy	±5% of full scale
Insertion Loss	0.1 dB max. (2-512 MHz),
	0.2 dB max. (512-1000 MHz)*
RF Sample Output	Variable -15 to -70 dB from BNC (Female) port
Connectors	QC Type (Female N normally supplied)
Finish	Gray powder coat
Nominal Size	6 7/8" H x 5 1/8" W x 3 5/8" D,
(includes connectors)	(175 mm x 130 mm x 92 mm)
Weight	3 1/2 lbs. (1.6 kg)
Elements	Tables 1, 2, 3, 3A, 4, 6 (pages 37-38)
	(within power/frequency range limits stated above)
Accessories	Case (page 43)
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*Quoted accuracy only when used with other Bird® Products **Applies only when coupling is less than 30 dB

16