

Specifications, 4421 Power Meter

Specifications, Power Sensors

Bird 4421 RF Power Meter

Frequency Range	Sensor dependent
Power Range	Sensor dependent
VSWR Display	1.0 – 199.9 max
Return Loss Display	0 to 40 dB max
Display Accuracy	± 1 on least significant digit
AC Power	115/230 Vac @ 50/60 Hz; 60 W
Batteries	8 Nickel Metal Hydride 1.2 v cells, rechargeable
Battery Life	Approximately 8 hours continuous usage
Battery Charger	Built-in battery charger. Drained batteries require approximately 28 hours to recharge.
Display	LCD, 4½ digit display. Indicates mode, measurement units, battery condition, remote status, and signal increase/decrease. Self contained backlight.
Optional Interfaces	IEEE-488 GPIB RS-232
Fuse Rating	IEC (5 x 20 mm) Time Lag Type T
115 Vac 230 Vac	T630 mA T315 mA
CE	CE Compliant. Refer to Declaration of Conformity for specific standards.
Humidity	95% max. (noncondensing)
Altitude	Up to 10,000 feet (3,000 m)
Temperature Range	
Operating Storage	0 to 50 °C (32 to 122 °F) –20 to +50 °C (–4 to +122 °F)
Dimensions	15.5"L x 12.25"W x 4.25"H (393 x 311 x 108 mm)
Weight, Nominal	9.5 lbs. (4.3 kg)



CAUTION

Changing the sensor's connectors will invalidate calibration data, and may reduce the maximum power rating of the unit.

Specifications Common to all Sensors

Impedance, Nominal	50 ohms
Max. Allowable Terminating VSWR	2.00:1
Calibration Technique	Frequency-specific calibration factors stored in nonvolatile memory in each sensor. Sensor output corrected for frequency and temperature within specified ranges.
Calibration Cycle, Nominal	4027A and 4027F, 6 months All other models, 1 year
Accuracy, Reflected	Calculated from FWD accuracy and FWD power $\text{RFL Accuracy} = \text{FWD Accuracy} + \frac{\text{FWD Power}}{10 \text{ Directivity}/10}$
Accuracy, VSWR	Calculated from FWD and RFL power $\text{VSWR} = \left(1 + \sqrt{\frac{P_R}{P_F}} \right) / \left(1 - \sqrt{\frac{P_R}{P_F}} \right)$
Sampling Rate, Nominal	2 readings/second
Operating Power	Supplied by power meter via sensor cable
Connectors 4028B10M 4028C10M 4028A Series All other models	1-5/8" EIA Flanged 3-1/8" EIA Flanged 7-16 DIN, LC, HN, or 7/8" Customer specified from QC list, appropriate for frequency and power.
CE	CE Compliant. Refer to Declaration of Conformity for specific standards.
Humidity, Max.	95% (noncondensing)
Altitude, Max.	10,000 feet (3,000 m)
Temperature Range Operating Storage	0 to 50 °C (32 to 122 °F) -20 to +70 °C (-4 to +158 °F)
Dimensions 4028B3M, 4028B10M 4028A Series All other models	6.75"L x 3.5"W x 4.75"H (175 x 89 x 121 mm) 4.7"L x 3.2"W x 3.8"H (120 x 82 x 97mm) 5.2"L x 2.5"W x 3.25"H (137 x 64 x 83 mm)
Weight, Nominal 4028B3M, 4028B10M, 4028C10M 4028A2M, 3M, 4M, 10M, and 25M All other models	5 lb. 2 oz. (2.33 kg) 3 lb. 5 oz. (1.5 kg) 1 lb. 13 oz. (0.8 kg)