LARSON DAVIS
A PCB DIVISION

MODEL **831C-LOWN**

LOW NOISE LEVEL MEASUREMENT SYSTEM

- No external power supply required
- 10 Hz to 16 kHz frequency range
- Highly portable
- Low power (4 mA ICP®)
- Single channel

TYPICAL APPLICATIONS

- Product testing
- Environmental noise
- R&D
- Anechoic chamber testing

6 dB A-WEIGHTED NOISE FLOOR

Easily measure very quiet sounds using the SoundAdvisor™ Sound Level Meter Model 831C paired with the Model 378A04 Low Noise Microphone and Preamplifier. Due to the innovative design of the 378A04, which uses a prepolarized microphone and ICP® (constant current) interface, the combination produces a highly portable system that is battery-powered and intuitive to use.

The Model 831C-LOWN configuration is ideal for measurements where noise levels are extremely low, such as very quiet soundscapes and quiet machines.

Because the 831C-LOWN consists of the popular SoundAdvisor™ Model 831C paired with the 378A04 low-noise microphone, it can be used with the wide range of 831C accessories. For example, use with the DVX012 Ethernet dongle to provide network connectivity or the SoundAdvisor Portable Noise Monitoring System Model NMS044 to create a low-noise portable monitoring solution.

CE

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831C-LOWN SPECIFICATIONS

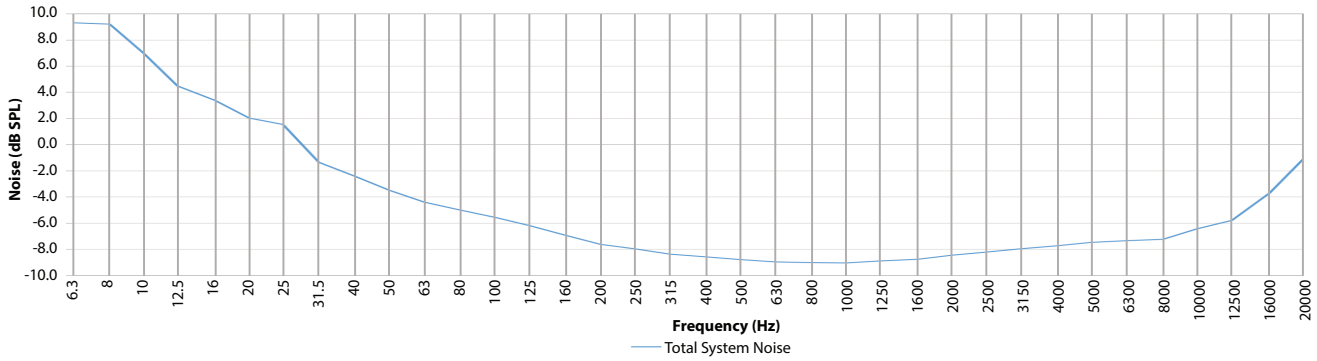
Calibration	Requires 94 dB re 20 µPa calibrator such as CAL200
Self-generated Noise (typical)	
Weighting	**0 dB Gain**
A	5.5 dB
C	10 dB
Z	18 dB
Alkaline Battery Life	Decreased approx 15% when using 378A04

831C-LOWN Included Items	
831C	Model 831C Sound Level Meter
831C-ACC	Accessory kit for Model 831C
ADP074	Adapter for ICP® input (BNC)
378A04	Low noise ICP® microphone and preamplifier
012A10	BNC cable, 10 ft (3 m)
BNC M-M	BNC male to male connector
ADP032	Adapter to mount ½ inch preamplifier to tripod (1/4-20 thread)
Ordering Information	
831C-LOWN	Low noise system including Model 831C, 378A04 low noise microphone & preamplifier and accessories
Optional Accessories	
CAL200	Class 1 acoustic calibrator, 94 or 114 dB at 1 kHz (The 378A04 must be calibrated at 94dB)
PRM831-FF	PRM831 preamplifier with free field microphone (377B02)
PRM831-RI	PRM831 preamplifier with random microphone (377B20)
TRP001	Tripod with ADP032 for mounting ½ inch preamplifier
Software	
SWW-DNA	Software and USB dongle for evaluation and reporting
SWW-DNA-831	Instrument driver for SWW-DNA to provide control, live display, and data translation from Model 831

378A04 SPECIFICATIONS

Acoustic		
Sensitivity	450 mV/Pa -7 (±2 dB) re 1 V/Pa	
Frequency Range	10 to 16,000 Hz	
Inherent Noise	< 6.5 (5.5 typical) dB re 20 µPa	
3% Distortion Limit	Level (dB re 20 µPa)	Frequency
	100 dB	< 5 kHz
	80 dB	> 5 kHz
Environmental		
Operating Temperature	14 °F to 176 °F (- 10 °C to 80 °C)	
Operating Humidity	0 to 99% relative humidity, non-condensing	
Electrical		
Polarization	0 V	
Output Voltage	± 2 V peak maximum	
ICP constant current	4 to 20 mA (4 mA supplied by Model 831C)	
Physical		
Diameter with Grid	0.52 in (13.2 mm)	
Height with Grid	4.02 in (102.1 mm)	
Equalization Vent	Rear	
Weight	1.8 oz (51.3 grams)	
Maximum Sound Pressure	130 dB re 20 µPa peak	
Mechanical	Grid cap and microphone not removable	

Typical Noise of Model 831C Sound Level Meter with 378A04 Preamp/Microphone Normal Range, 0dB Gain



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