

Models 1930F and 2930F

Single and Dual-Channel Fiber Optic Power Meters



- High-Sensitivity
- Extensive (100 dB) Power Range
- Integrated Si and InGaAs Detectors
- USB, GPIB and RS-232 Interfaces
- Rack Mountable in Single or Dual Set Configurations

The **1930F Single-Channel and 2930F Dual-Channel Fiber Optic Power Meters** deliver affordable high performance for telecom/datacom laser power measurement applications with a direct, standard fiber input.

The 1930F/2930F series features amplified detector analog output to an oscilloscope or voltmeter for up to 100kHz. Low-noise detectors and seven gain ranges enable continuous power measurements in the range of tens-of *femto*-W to 2.5 *milli*-W. The 1930F/2930F series power meters include integrated Silicon (SI) or Indium Gallium Arsenide (InGaAs) detectors to support spectral coverage from 400nm to 1650nm.

Front panel fiber connections on the 1930F and 2930F save workspace, while a high-contrast display with an intuitive user interface on the front panel or through USB/GPIB/RS-232 interfaces improve productivity.

Each instrument is individually calibrated to NIST-traceable standards using Newport's in-house calibration facility. Calibration data is taken in 10 nm increments, and electronically stored inside the power meter - resulting in accurate power measurements over the entire wavelength band.

Certificates of calibration as well as the actual calibration curves recorded are shipped with each instrument. Newport recommends annual re-calibration to assure continued measurement accuracy.

Newport's experience with calibration, together with N.I.S.T. calibration traceability and high precision optical power meters provide users with accurate measurements and exceptional inter-instrument correlation. In R&D, QA/QC, and manufacturing environments, the 1930F/2930F series power meters enable users to benefit from a high correlation between multiple locations at a price-to-performance ratio second to none.



Instrument Specifications

Display	Graphical High-Contrast 240 X 128 LCD
Sampling Resolution	250,000 counts, 4 kHz
Gain Ranges	Up to 7 decades (dependent on detector type)
Current Sensitivity (full-scale)	2.5 nA–2.5 mA
Resolution	10 fA
Sampling Rate	2 kHz
Bandwidth (-3 dB)	DC to 100 kHz
Fiber Optic Connector	FC or SC (Call for others)
Analog Output	0–5V into 1 M Ω , 0–2.5V into 50 Ω
DC Accuracy	< \pm 0.4% (typical)
Power Requirements	90–132/198–250 VAC, 50/60 Hz
Weight [lb (kg)]	8 (2.99)
Dimensions [in. (mm)] (L x W x H)	13.6 (345) x 8.8 (224) x 5.3 (135)
Operating Temperature	10°C to +45°C; <85% RH noncondensing
Storage Temperature	-20°C to +60°C; <90% RH noncondensing

System Specifications

Detector Model	1930F/2930F -SL-FC	1930F/2930F -IG-FC
Detector Material	Si	InGaAs
Active Diameter (μ m)	1000	
Wavelength (nm)	400–1100	800–1650
Power Input Range [W (dBm)]	200 fW to 2 mW (-97 to +3.0)	
Accuracy (%) ¹⁾	\pm 5	
Linearity (%)	\pm 0.5	
NEP @ 5 Hz and 1 A/W (fW/ \sqrt Hz)	30	20

1) At calibration temperature maintained to \pm 0.2°C, -20 dBm level having 99% encircled energy on detector with no optical attenuator

Ordering Information

Model	Description
1930F-IG-FC	Single-Channel Fiber Optic Power Meter
1930F-IG-SC	Single-Channel Fiber Optic Power Meter
1930F-SL-FC	Single-Channel Fiber Optic Power Meter
1930F-SL-SC	Single-Channel Fiber Optic Power Meter
2930F-IG-FC	Dual-Channel Fiber Optic Power Meter
2930F-IG-SC	Dual-Channel Fiber Optic Power Meter
2930F-SL-FC	Dual-Channel Fiber Optic Power Meter
2930F-SL-SC	Dual-Channel Fiber Optic Power Meter
PM1-RACK	Rack Mount Kit, Single
PM2-RACK	Rack Mount Kit, Dual

Call Newport's Application Sales Engineers to help you select the power meter that best meets your application requirements.