

## **Features and Benefits**

## 190 M Medical Scopemeter® Portable Oscilloscope

Features	Benefits
Two or four isolated floating channels	<ul> <li>Inspect multiple signals of time, amplitude or wave-shape relationships, especially in 3-phase power systems or automation and control system inputs, outputs and feedback loops</li> <li>The only scope that can safely measure from the 3-phase input all the way through to millivolt control signals. The ability to verify critical aspects of the power system</li> <li>Safely perform differential or floating measurements on multiple signals simultaneously</li> <li>View and measure waveform amplitude, shape and timing differences between signals or four test points</li> </ul>
200 MHz bandwidth Up to 2.5 GS/s high-speed sampling	<ul> <li>Capture waveform details with resolution as much as 400 pS capturing phenomena like fast transients and induced noise. Able to manage CT and MRI noise</li> <li>4 channel can operate in 2 channel mode increase your sampling rate for high resolution video</li> </ul>
Time base range	<ul> <li>"2 ns/div to 4 s/div, time base in a 1-2-4- sequence</li> <li>Slower time/division settings using ScopeRecord™ roll mode (see 'Recorder mode')"</li> <li>Higher fidelity on video wave forms</li> </ul>
Lithium ion batteries and access door	<ul> <li>High-capacity batteries for operating scope up to seven hours operating time so no time lost in the field and no need to find outlet</li> <li>Battery door allows for an easy recharge of batteries or battery swap to extend operating time</li> <li>Because battery operated, to use a box type oscilloscope</li> </ul>
Advanced functions	<ul> <li>mA*s (current-over-time, between cursors);</li> <li>V*s (voltage over time, between cursors);</li> <li>W*s (energy, between cursors)</li> </ul>
Connect-and-View <sup>™</sup>	<ul> <li>Connect-and-View: hands-free operation, trigger, capture and display complex waveforms</li> </ul>



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ScopeRecord <sup>™</sup>	<ul> <li>Sample rate 125M/sec Higher resolution for zooming in roll mode eases capture during short exposure times</li> <li>Pre define your routine measurements. Save the setting (volts, trigger, time per division) for faster set up for momentary signals</li> </ul>
Advanced power and motor drive functions	Applicable to duty cycle calculations Power Factor (PF)
TrendPlot TM	<ul> <li>Excellent for power analysis</li> <li>Multiple channel electronic paperless recorder graphically plots, displays and stores results of up to four automatic scope measurements or a digital multimeter reading over time</li> </ul>
10,000 points per trace waveform capture (scope mode)	<ul> <li>Flexible acquisition modes and deep memory allow users to capture high resolution samples over longer record lengths</li> </ul>
Smart averaging	Displays averaged curve; incidental waveforms that differ too much from the average result waveform are displayed immediately but are not taken into account for the averaging process
Waveform compare	<ul> <li>Provides storage and display of a reference waveform for visual comparison with newly acquired waveforms.</li> <li>Reference is derived from an acquired waveform and can be modified in the oscilloscopeor externally using FlukeView Software. Specifically helpful in calibration</li> </ul>
Pass/Fail Testing	<ul> <li>In waveform compare mode, the oscilloscope can be set up to store only matching ("Pass") or only non-matching ("Fail") acquired waveforms in the replay memory bank for further analysis. History with circuit save ideal view and compare to new waveform.</li> <li>Helps save time in analyzing if screen is within tolerance</li> </ul>
High-resolution, non-interlaced video	Non-interlaced video with line-select, for line frequencies in the range 14 kHz up to 65 kHz supports over 2000 lines of video
Waveform mathematics	<ul> <li>A + B, A – B, A x B, all with user-selectable scaling of resultant</li> </ul>



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	<ul> <li>A versus B (X-Y-mode); frequency spectrum using FFT analysis</li> <li>Convenient for differential signals</li> </ul>
Automatic capture and replay of 100 screens	<ul> <li>A built-in recorder to review/display intermittent random events before it is lost forever</li> <li>Great capacity to see what happened before a triggered event</li> </ul>
Isolated USB host port/device port	<ul> <li>Provides direct data storage to a USB memory device</li> <li>Provides easy data transfer to a PC;a digital multimeter cannot do this</li> </ul>
Compact and lightweight	Only 2.2 kg (4.8 lbs) makes it easy to carry anywhere
5,000 count DMM in the 2 channel model	Increased versatility: perform precise digital multimeter amplitude measurement or simply switch over to scope mode for waveform analysis