

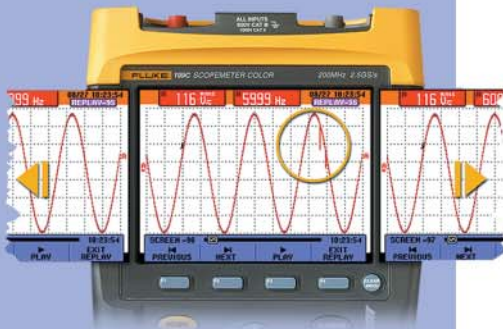
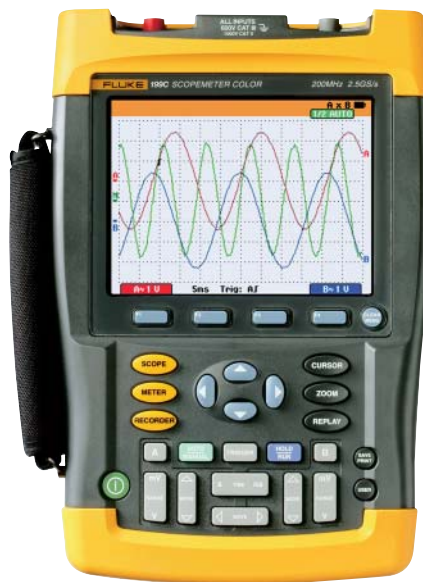
# ScopeMeter® 190 Series

Speed, performance and analysis power

## Automatic capture and replay of 100 screens

Scope users know how frustrating it is to see an one time anomaly flash by never to be seen again. Not with the ScopeMeter 190 Series! Now you can look back in time with a touch of the replay button. In normal use, the instrument continuously memorizes the last 100 screens. Each time a new screen is acquired, the oldest is discarded. At any moment you can "freeze" the last 100 screens and scroll through picture-by-picture or replay as a 'live' animation. Cursors can be used for further analysis. You can even use the advanced trigger capabilities to capture up to 100 specific events. Two sets of 100 captured screens with individual time stamps can be stored for later recall or download to a PC.

True RMS



# ScopeMeter® 190 Series

For more demanding applications, the ScopeMeter 190 Series high performance oscilloscopes offer specifications usually found on top-end bench instruments. With up to 200 MHz bandwidth, 2.5 GS/s real-time sampling and a deep memory of 27 500 points per input they're ideal for engineers who need the full capabilities of a high performance oscilloscope in a handheld, battery powered instrument.

- Dual input – 60, 100 or 200 MHz models
- Up to 2.5 GS/s real time sampling per input
- Choice between a high resolution Color or Black and White display
- Digital Persistence for analyzing complex dynamic waveforms like on an analog scope (190C Series only)
- Fast display update rate for seeing dynamic behavior instantaneously
- Connect&View™ automatic triggering, a full range of manual triggering modes plus external triggering.
- Automatic capture and replay of 100 screens
- 27 500 points per input record length using ScopeRecord mode
- Up to 1000 V independently floating isolated inputs
- Waveform reference for visual comparisons and automatic pass/fail testing of waveforms (190C Series only)
- $V_{pwm}$  function for motor drive and frequency inverter applications.

- Waveform mathematics: Add, Subtract and Multiply
- Cursors, zoom and real-time clock
- 30 automatic waveform measurements
- Four hours rechargeable Ni-MH battery pack
- Includes a 5000 count true-RMS multimeter and a TrendPlot™ paperless recorder

### ScopeMeter for medical applications

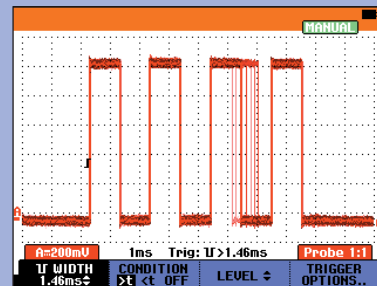
The ScopeMeter 190 Series is also available optimized for measurements on medical imaging equipment and video display systems. For more information please visit the Fluke web site.

### Safety Conformance

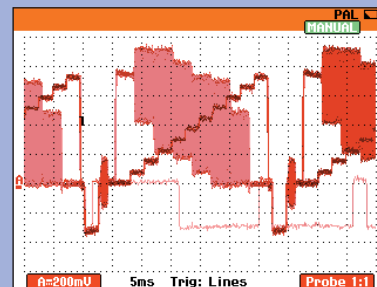
All inputs are protected to EN61010-1, CAT III 600 V and CAT II 1000 V. UL and CSA listed.

### See dynamic signal behavior instantaneously

The new Digital Persistence mode helps to find anomalies and to analyze complex dynamic signals by showing the waveforms amplitude distribution over time using multiple intensity levels and user selectable decay time – it's as if you're looking at the display of an analog, real time oscilloscope! A fast display update rate reveals signal changes instantaneously, useful for instance when making adjustments to a system under test.



Pulse width fluctuations are clearly visible using Digital Persistence



Digital Persistence mode gives analog scope like display of video signals

## Accessories and Ordering Information

### Included Accessories

BC190 Battery Charger  
 BP190 NiMH Battery Pack  
 VPS200-G + VPS200-R Voltage Probe  
 TL75 Hard Point Test Lead Set  
 user's manual (CD-Rom)

### Ordering Information

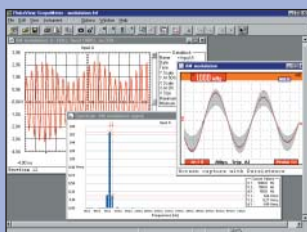
Fluke 192B ScopeMeter (60MHz, 500 MS/s)  
 Fluke 196B ScopeMeter (100 MHz, 1 GS/s)  
 Fluke 199B ScopeMeter (200 MHz, 2.5 Gs/s)

Fluke 196C	Color ScopeMeter (100 MHz, 1 GS/s)
Fluke 199C	Color ScopeMeter (200 MHz, 2.5 GS/s)
Fluke 192B/S	+ SCC 190 kit option
Fluke 196B/S	+ SCC 190 kit option
Fluke 199B/S	+ SCC 190 kit option
Fluke 196C/S	+ SCC 190 kit option
Fluke 199C/S	+ SCC 190 kit option
SCC190	FlukeView Software, cable, carrying case for Fluke 190B and 190C Series
SW90W	FlukeView Software

# ScopeMeter® Test Tools

## Oscilloscopes for field applications

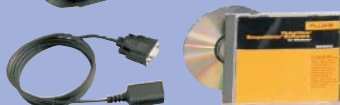
### FlukeView® Software for documenting, archiving and analysis



FlukeView® for Windows® helps you get more out of your ScopeMeter by:

- Documenting - transfer waveforms, screens and measurement data from the ScopeMeter to a PC. Print or import the data into your report
- Archiving - create a library of waveforms with your comments for easy reference and comparison
- Analysis - use cursors, perform spectrum analysis or export data to other analysis programs

ScopeMeters are connected to a PC via an optically-isolated RS-232 interface cable. Software and cable come as separate items or as part of a special value kit. This kit also includes a protective hard shell carrying case for safe and convenient storage of instrument and accessories.



### Features

	199C	196C	199B	196B	192B	124	123
<b>Oscilloscope Features</b>							
LCD Display	Color		B/W			B/W	
Persistence	Digital		●	●	●		
Waveform reference	●	●	●	●	●		
Automatic pass fail testing	●	●					
Cursors and zoom	●	●	●	●	●	Cursors	
Connect-and-View Triggering	●	●	●	●	●	●	●
Video triggering with line count	●	●	●	●	●	●	●
Selectable pulse width triggering	●	●	●	●	●		
Capture and replay of last 100 screens	●	●	●	●	●		
Dual Input TrendPlot	With cursors and zoom					●	●
Memory for screens and setups	10 screens and setups					20	10
Recorder memories, each can store 100 scope screens, a ScopeRecord or a TrendPlot	2 recorder memories						
1000V independently floating isolated inputs	●	●	●	●	●		
Meter measurements: VAC RMS, VAC+DC, VDC, Ohms, Continuity, Diode, Amps, Temp. (°C, °F)	●	●	●	●	●	●	●
Waveform mathematics: A + B, A - B, A x B, A versus B (X-Y-mode)	●	●	●	●	●		
Capacitance and frequency measurements	-/●	-/●	-/●	-/●	-/●	●/-	●/-
Rugged, Dust and drip proof case.	●	●	●	●	●	●	●
PC and Printer Interface via optically isolated RS-232 Adapter/Cable (PM9080)	1)	1)	1)	1)	1)	1)	1)
FlukeView® for Windows® Software (SW90W)	1)	1)	1)	1)	1)	1)	1)

● Standard equipped 1) Optional

### Specifications

(Check the Fluke web for detailed specifications)

	199C	196C	199B	196B	192B	124	123
<b>Oscilloscope Specifications</b>							
Bandwidth	200 MHz	100 MHz	200 MHz	100 MHz	60 MHz	40 MHz	20 MHz
Maximum real time sample rate	2.5 GS/s	1 GS/s	2.5 GS/s	1 GS/s	500 MS/s	25 MS/s	
Input sensitivity	2 mV to 100 V/div		5 mV to 100 V/div			5 mV-500 V/div	
Timebase range	5 ns/div to 2 min/div				10 ns/div to 2 min/div	10 ns/div to 1 min/div	20 ns/div to 1 min/div
Inputs and digitizers	2 plus external trigger/DMM input					2	
Independently floating isolated inputs	Up to 1000 V between inputs, references and ground						
Max. record length ... in Scope mode: ... in ScopeRecord mode:	1,200 points per input 27,500 points per input or more (5 ms/div...2 min/div)					512 min/max points per input	
Glitch capture	Up to 3 ns using Pulse Width triggering; 50 ns peak detect at 5 µs/div. to 1 min/div.					40 nsec	
Scope measurements	7 cursor+30 automatic					cursors + 26 automatic	26 automatic
True RMS multimeter	5000 counts, single input					5000 counts, dual input	
<b>General Specifications</b>							
Line Power	Adapter/Battery charger included						
Battery power	4 hours NiMH					7 hours NiMH	5 hours NiCad
Size	256 x 169 x 64 mm					232 x 115 x 50 mm	
Weight	2 kg					1.2 kg	
Safety certified (EN61010-1)	1000 V CAT II/600 V CAT III					600 V CAT III	
Warranty	3 years					3 years	