

# 123 Industrial ScopeMeter®

Three-in-one simplicity



The compact ScopeMeter 123 is the rugged solution for industrial troubleshooting and installation applications. It's a truly integrated test tool, with oscilloscope, multimeter and "paperless" recorder in one affordable, easy-to-use instrument. Find fast answers to problems in machinery, instrumentation, control and power systems.

- A dual-input 20 MHz digital oscilloscope
- Two 5000 counts true-rms digital multimeters
- A dual-input TrendPlot™ recorder
- Connect-and-View™ trigger simplicity for hands-off operation
- Shielded test leads for oscilloscope, resistance and continuity measurements
- Up to five hours battery operation
- Optically isolated RS-232 interface
- Rugged compact case

## Safety Conformance

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

True-rms



## Accessories and Ordering Information

### Included Accessories

Comes complete with PM 8907 line adapter/charger, STL120 shielded test leads set, AC120 Alligator Clips, HC120 Hook Clips, BB120 shielded BNC adapter, user's manual and BP120 rechargeable battery pack.

### Optional Accessories

Accessory cases, batteries, test leads and probes, interface cables and FlukeView software available.

### Ordering Information

FLUKE 123 Industrial ScopeMeter®

FLUKE 123/S Fluke 123 Industrial ScopeMeter® including SCC120 kit option

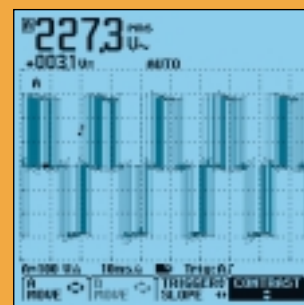
SCC120 Software, Cable, Carrying Case Kit for Fluke 123

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Rev. 02

**Connect-and-View™**  
triggering for an instant,  
stable display

**Connect  
and  
View**

Scope users know how difficult triggering can be. Wrong settings show unstable and sometimes wrong results. Fluke's unique Connect-and-View recognizes signal patterns, and automatically sets up correct triggering. It provides a stable, reliable and



Connect-and-View captures even the most complex motor drive signals

repeatable display of virtually any signal - including motordrive and control signals - without touching a button. Signal changes are instantly recognized and settings adjusted for - once again - a stable display. Benefit from the speed and convenience when measuring a number of testpoints in quick succession, unlike ordinary AutoSet/ AutoRanging scopes.



Quickly check the control signal from the digital board without even touching a button. Triggering, amplitude and timing are automatically set to provide a stable display of even a complex digital control signal.

# ScopeMeter® 190 Series

**Speed, performance and analysis power**



**True-rms**



For the 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.

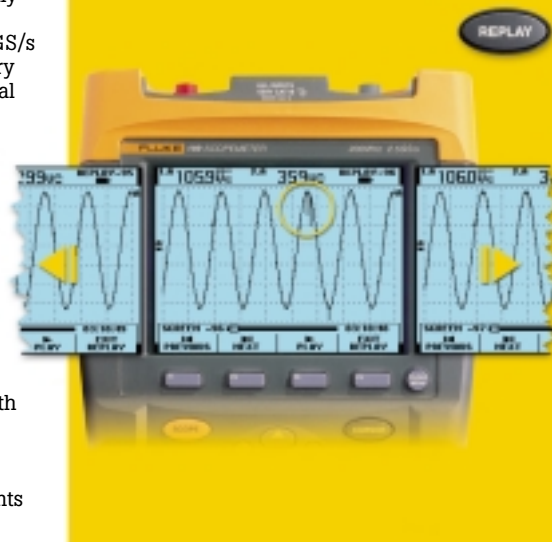
- Dual-input - 60, 100 or 200 MHz bandwidth
- Up to 2.5 GS/s real-time sampling per input
- Connect-and-View™ automatic triggering, a full range of manual trigger modes plus external triggering
- 27 500 points per input record length using ScopeRecord mode
- Automatic capture and replay of 100 screens
- 24 automatic waveform measurements
- Cursors, zoom and real-time clock
- Four hours rechargeable NiMH battery pack
- Up to 1000V independently floating isolated inputs
- Includes a 5000-count true-rms multimeter and a TrendPlot™ paperless recorder

## Safety Conformance

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

## 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.



## Accessories and Ordering Information

### Included Accessories

199, 196 + 192:

BC190 Battery Charger/Line Voltage adapter,

Voltage Probe sets, Hook Clips for Probe Tip, Ground Leads with Hook Clip,

Ground Leads with Mini Alligator Clip, Test Leads, User's Manual and BP190

Rechargeable Battery Pack (installed)

199 + 196:

Industrial Alligators for Probe Tip, 2-mm

Test Probes for Probe Tip, 2-mm

Test Probes for Banana Jack, Industrial

Alligators for Banana Jack, Ground

Leads with 4-mm Banana Jack

**Optional Accessories**

Accessory cases, batteries, probes, probe

accessory sets, probe replacement

sets, test leads, interface cables and

FlukeView software available.

### Ordering Information

FLUKE 199 200MHz, 2.5GS/s ScopeMeter

FLUKE 196 100MHz, 1GS/s ScopeMeter

FLUKE 192 60MHz, 500MS/s ScopeMeter

FLUKE 199S + SCC190 kit option

FLUKE 196S + SCC190 kit option

FLUKE 192S + SCC190 kit option

SCC190 Software, Cable, Carrying Kit

for 190 series

## ScopeMeter 190 Series for Medical

The MS190 software and MA190 accessory set extends the capabilities of the 190 Series for use on medical imaging equipment and video display systems.

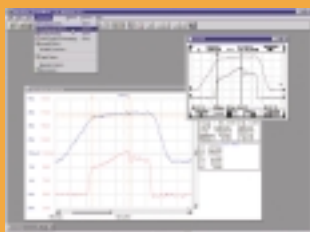
The MA190 adds mAs measurements, smart averaging, extended offset, selectable persistence and extended video triggering.

The MA190 contains a 1Ω current shunt, a 50Ω BNC feedthrough terminator, a 50Ω BNC terminator with 10:1 signal attenuation and a 1.5m BNC cable.

# 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

Oscilloscope Features	199	196	192	123
Cursors and zoom	●	●	●	
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			2 screens, 10 setups
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)	●	●	●	●
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)
FlukeView® for Windows® Software (SW90W)	1)	1)	1)	1)

● Standard equipped 1) Optional

## Specifications

Oscilloscope Specifications				
	199	196	192	123
Bandwidth	200 MHz	100 MHz	60 MHz	20 MHz
Maximum real time sample rate	2.5 GS/s	1 GS/s	500 MS/s	25 MS/s
Inputs and digitizers	2 plus external trigger/DMM input			2
Independently floating isolated inputs	Up to 1000 V between inputs, references and ground			
Timebase range	5 ns/div to 2 min/div		10 ns/div to 2 min/div	20 ns/div-1 min/div
Input sensitivity	5mV to 100V/div			5mV-500V/div
Maximum record length	27 500 points per input ScopeRecord mode 1,000 points per input in Scope mode			512 min/max points per input
Glitch capture	50 ns (5 µs/div - 1 min/div)			40 nsec
Scope measurements	7 cursor+24 automatic			26 automatic
True RMS MultiMeter	5000 counts, single input			5000 count, dual input
General Specifications				
Line Power	Adapter/Battery charger included			
Battery power	4 hours NiMH			5 hours NiCad
Size (HxWxD)	256 x 169 x 64mm			232 x 115 x 50 mm
Weight	1.95 kg			1.2 kg
Safety certified (EN61010-1)	1,000V CAT II/600V CAT III			600V CAT III
Warranty	3 years			