

FLUKE.

ScopeMeter® 190C/190 Series and ScopeMeter® 123

Technical Data

ScopeMeter 190C and 190 Series: Speed, performance and analysis power

For demanding applications, the ScopeMeter 190C and 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 scope in a handheld, battery powered instrument.



**Connect
and
View**

- Dual input - 200, 100 or 60 MHz bandwidth
- Up to 2.5 GS/s real-time sampling per input
- Large, high-resolution color screen (190C Series)
- Connect-and-View™ automatic triggering, a full range of manual trigger modes plus external triggering
- Digital Persistence mode and fast screen update (190C Series)
- 27,500 points per input record length using ScopeRecord™ mode
- Automatic capture and replay of 100 screens
- 30 automatic waveform measurements (28 in 190 Series)
- Cursors, zoom and real-time clock
- Four hours rechargeable NiMH battery pack
- 1,000 V CAT II and 600 V CAT III safety certified
- Up to 1,000 V independently floating isolated inputs
- Includes a 5,000 counts True-rms multimeter and a TrendPlot™ "paperless" recorder



ScopeMeter 123: 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 5,000 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, continuity and capacitance measurements
- Up to five hours battery operation
- 600 V CAT III safety certified
- Optically isolated RS-232 interface
- Rugged, compact case

Technical Specifications 190C and 190 Series

Oscilloscope Mode

Vertical Deflection

	Fluke 199C Fluke 199	Fluke 196C Fluke 196	Fluke 192
Bandwidth	200 MHz	100 MHz	60 MHz
Rise time	1.7 ns	3.5 ns	5.8 ns

Bandwidth limiter: User selectable: 10 kHz, 20 MHz or off

Number of inputs: 2 plus external trigger. All inputs isolated from each other and ground.

Input coupling: AC or DC, with ground level indicator

Input sensitivity: 5 mV/div. to

100 V/div., VAR GAIN on input channel A

Input voltage: 1000 V CAT II, 600 V CAT III rated - See "general specifications" for further details.

Vertical resolution: 8 bit

Accuracy: $\pm (1.5\% \text{ of reading} + 0.04 \times \text{range/div.})$

Input impedance: 1 M Ω \pm 1% // 15 pF \pm 2 pF

Horizontal

	Fluke 199C Fluke 199	Fluke 196C Fluke 196	Fluke 192
Maximum real-time sample rate	2.5 GS/s	1 GS/s	500 MS/s
Number of digitizers	2	2	2
Time base range	5 ns/div. to 5 s/div.	5 ns/div. to 5 s/div.	10 ns/div. to 5 s/div.

	Fluke 199C, Fluke 196C	Fluke 199, Fluke 196, Fluke 192
Maximum record length	1,200 points per input in Scope mode; 27,500 points per input in ScopeRecord roll mode (5 ms/div. to 2 min/div.)	1,000 points per input in Scope mode; 27,500 points per input in ScopeRecord roll mode (10 ms/div. to 2 min/div.)
Accuracy	$\pm (0.01\% \text{ of reading} + 1 \text{ pixel})$	
Glitch capture	50 nsec (5 μ sec/div. to 1 min/div.) Up to 3 ns using Pulse Width triggering	

Display and Acquisition

	Fluke 199C, Fluke 196C	Fluke 199, Fluke 196, Fluke 192
Display	144 mm full color LCD	130 mm monochrome LCD
Display modes	Input A, input B, dual, average, invert, replay, Digital Persistence mode (short/medium/long/infinite)	Input A, input B, dual, average, invert, replay, persistence (on/off)
Waveform Mathematics	A+B, A-B, A*B, all with user selectable scaling of resultant; A versus B (X-Y-mode)	
Acquisition modes	Normal, auto, single shot, ScopeRecord, roll, glitch capture	

Trigger and Delay

Source: Input A, input B, external trigger input.

All input references isolated from each other and from ground.

Modes: Automatic Connect-and-View, free run, single shot, edge, delay, video, video line, selectable pulsewidth.

Connect-and-View: Advanced automatic triggering that recognizes signal patterns, automatically sets up and continuously adjusts triggering, time base and amplitude. Automatically displays stable waveforms of complex and dynamic signals like motor drive and control signals.

Video triggering: NTSC, PAL, PAL+, SECAM. Includes field 1, field 2 and line select.

Pulse width triggering: Pulse width qualified by time. Allows for triggering $<t$, $>t$, $=t$, $\neq t$, where t is selectable in minimal steps of 0.01 div. or 50 nsec.

Time delay: 1 full screen of pre-trigger view or up to 100 screens of post-trigger delay.

Automatic Capture of 100 Screens

The instrument ALWAYS memorizes last 100 screens (no user interaction or setup required). When an anomaly occurs on screen, the HOLD button can be pressed to review the full screen sequence over and over.

Instrument can be set up for triggering on glitches or intermittent anomalies and will operate in "baby-sit" mode and will capture 100 events.

Replay: Manual or continuous replay. Displays the captured 100 screens as a "live" animation. Each screen is labelled with date and timestamp. The contents can also be viewed by manually scrolling backwards and forwards "screen by screen."

Replay storage: Up to 2 sets of 100 screens each can be saved for later recall and analysis.

Automatic Scope Measurements

Vdc, Vac rms, Vac+dc, Vpeak max, Vpeak min, Vpeak to peak, Aac, Adc, Aac+dc, frequency (Hz), risetime, falltime, power factor, watts, VA, VA reactive, phase, pulsewidth (pos./neg.), dutycycle (pos./neg.), temperature $^{\circ}$ C, temperature $^{\circ}$ F, dBV, dBm into 50 Ω and 600 Ω

Fluke 199C and 196C only: Vpwm ac, Vpwm ac+dc for measurement on pulsewidth modulated motor-drives and frequency inverters

Cursor Measurements

Source: Input A, input B or the Mathematical Result trace

Dual horizontal lines: Voltage at cursor 1 and 2, voltage between cursors

Dual vertical lines: Time between cursors, 1/T between cursors (in Hz), voltage between markers, risetime with markers, falltime with markers

Single vertical line: Min-Max and Average voltage at cursor position

ZOOM: Up to 8x horizontal zoom

Meter Mode

Via 4 mm banana inputs. Fully isolated from scope inputs and scope ground. The specified accuracy is valid over the temperature range 18 °C to 28 °C (65 °F to 82 °F). Add 10% of specified accuracy for each degree C below 18 °C or above 28 °C.

Maximum Resolution: 5,000 counts

Voltmeter Ranges: 500 mV, 5 V, 50 V, 500 V, 1,000 V

Accuracy:

Vdc \pm (0.5 % + 5 counts)

Vac true rms

15 Hz...60 Hz: \pm (1 % + 10 counts)

60 Hz...1 kHz: \pm (2.5 % + 15 counts)

Vac+dc true rms

dc...60 Hz: \pm (1 % + 10 counts)

60 Hz...1 kHz: \pm (2.5 % + 15 counts)

Ohms:

Ranges: 500 Ω , 5 k Ω , 50 k Ω , 500 k Ω , 5 M Ω , 30 M Ω

Accuracy: \pm (0.6 % + 5 counts)

Other Meter Functions

Continuity: Beeper on < 50 Ω (\pm 30 Ω)

Diode test: Up to 2.8 V

Amps: Adc, Aac, Aac+dc using an optional current clamp or shunt.

Scaling factors: 0.1 mV/A ... 100 V/A

Temperature (°C, °F): With optional accessories. Scale factors 1 mV/°C or 1 mV/°F

Input impedance: 1 M Ω \pm 1% // 10 pF \pm 2 pF

Advanced meter functions: Auto/manual ranging, relative measurements (Zero reference), TrendPlot recording

Recorder Mode

ScopeRecord-Roll Mode

Dual input waveform storage mode.

Source and display: Input A, Input B, Dual

Memory depth: 27,500 points per input. Each point consist of Min-Max pair.

Min-Max values: Min-Max values are measured at high sample rates ensuring capture and display of glitches.

Horizontal scale: Time from start, time of day

	Fluke 199C & 196C	Fluke 199, 196, 192	
Time base range	5 ms/div. to 2 min/div.	10 ms/div. to 1 min/div.	2 min/div.
Recorded timespan	6 sec to 48 hr	11 sec to 15 hr	36 hr
Glitch capture	50 ns	50 ns	250 ns
Sample rate	20 MS/s	20 MS/s	4 MS/s
Resolution	200 μ sec to 4 sec	400 μ sec to 2 sec	4 sec

	Fluke 199C, 196C	Fluke 199, 196, 192
Recording modes	Single sweep, continuous roll,	Single sweep, continuous roll,
Trigger modes (through external),	Start on Trigger Stop on Trigger	Start on Trigger

Stop-on-Trigger (through External Trigger Input): ScopeRecord mode can be stopped by an individual trigger event, or by an interruption of a repetitive trigger signal.

Zoom: Up to 100x

Memory: Up to 2 dual input ScopeRecordings can be saved for later recall and analysis.

	Fluke 199C, 196C	Fluke 199, 196, 192
Trendplot Recording	Dual input electronic paperless chart recorder. Plots, displays and stores meter and scope measurements.	
Source and display	Input A, Input B or DMM input	
Memory depth	13,500 points record per input. Per record point a minimum, a maximum and an average value, plus a date and timestamp are stored.	
Ranges:	5 s/div. to 30 min/div. in normal view 5 min/div. to 48 hr/div. in view-all mode	10 s/div. to 20 min/div. in normal view 10 min/div. to 24 hr/div. in view-all mode
Recorded timespan	Up to 22 days with a resolution of 1 minute	Up to 8 days with a resolution of 1 minute
Recording mode	Continuous roll for the duration of the full recordable timespan	
Measurement speed	5 measurements per second or more	2.5 measurements per second or more

Horizontal scale: Time from start, time of day

Zoom: Up to 64x zoom

Memory: Up to 2 TrendPlot recordings can be saved for later recall and analysis.

Cursor Measurements - All Recorder Modes

Source: Input A, B or DMM input

Dual vertical lines: Min-Max or Average voltage. Time between cursors

Single vertical line: Min-Max or Average voltage. Absolute date and time or time from start

General Specifications

Case

Design: Rugged, shock proof with integrated protective holster

Drip and dust proof: IP51 according to IEC529

Shock and Vibration: Shock 30 g, Vibration (sinusoidal) 3 g according to MIL-PRF-28800F Class 2.

	Fluke 199C, 196C	Fluke 199, 196, 192
Display	Bright full-color LCD with CCFL backlight, 80 (30) Cd/m ² with (without) power adapter	Bright LCD with CCFL 60 (35) Cd/m ² backlight, (without) power adapter
Display Size	115.2 x 86.4 mm (4.54 x 3.4 inches)	105 x 79 mm (4.1 x 3.1 inches)
Resolution	320 x 240 pixels	240 x 240 pixels
Contrast and brightness	User adjustable, temperature compensated	

Memory Save and Recall

Scope memories: 10 memory locations that each can contain two waveforms plus corresponding setup.

Recorder memories: 2 memory locations that each can contain 100 captured dual input scope screens, or a dual input ScopeRecord (27,500 Min-Max pairs per input), or a dual input Trendplot (13,500 min-max pairs per input).

Real-Time Clock

Time and date stamp for ScopeRecord, 100 captured screens and TrendPlots.

Power

Line power: Country specific line voltage adapter/battery charger included.

Battery power: Rechargeable NiMH (installed)

Battery operating time: 4 hours

Battery charging time: 4 hours

Battery power saving functions: Auto power down with adjustable power down time. On screen battery power indicator

Mechanical Data

Size: 256 x 169 x 64 mm (10.1 x 6.6 x 2.5 inches)

Weight: 2 kg (4.4 lbs)

Safety

Compliance:

EN61010-1 (1993)

Pollution degree 2 UL 3111-1 (1994)

CAN/CSA C22.2 No.1010.1 (1992)

ANSI/ISA S82.01 (1994)

Input Voltage Ratings

Maximum probe voltage: 1,000 V CAT II, 600 V CAT III

(Maximum voltage between 10:1 probe tip (VPS200) and reference lead)

Floating voltage: 1,000 V CAT II, 600 V CAT III
(Maximum voltage between earth ground and any terminal (signal input or shielding))

Independently isolated inputs: 1,000 V CAT II, 600 V CAT III

(Maximum voltage between any terminal of one input or probe (VPS200) and any other terminal of another input or probe (VPS200))

Maximum voltage on BNC input directly (input A or B): 300 V CAT III

Maximum voltage on meter input: 1,000 V CAT II, 600 V CAT III

Environmental

Operating temperature: 0 °C to +50 °C

Storage temperature: -20 °C to +60 °C

Humidity:

10 °C to 30 °C: 95% RH non condensing

30 °C to 40 °C: 75% RH non condensing

40 °C to 50 °C: 45% RH non condensing

Maximum operating altitude: 3,000 m (10,000 feet)

Maximum storage altitude: 12 km (40,000 feet)

Electro-Magnetic-Compatibility (EMC): EN 61326-1 for emission and immunity

Optically Isolated PC / Printer Interface

To printer: Supports HP Laserjet®, DeskJet®, Epson FX/LQ and postscript printers via optional PAC 91

To PC: Transfer instrument settings, screen images and waveform data, compatible with FlukeView® software for Windows® via optional PM9080.

Warranty

3 years

Technical Specifications ScopeMeter 123

Oscilloscope Mode

Vertical deflection

Bandwidth: 20 MHz at inputs; 20 MHz with BB120 and optional PM 8918/VP190 10:1 probes; 12.5 MHz with STL120 1:1 test leads

Rise time: 17.5 ns

Number of inputs: 2

Input coupling: AC, DC with ground level indicator
Input sensitivity: 5 mV to 500 V/div. (with included STL120 shielded test leads measure up to 600 Vrms)

Vertical resolution: 8 bit

Accuracy: $\pm (2\% \text{ of reading} + 0.05 \times \text{range/div.})$

Input impedance: 1 M Ω \pm 1% // 225 pF with STL120 shielded test leads;

1 M Ω \pm 1% // 20 pF \pm 3 pF with BB120

Horizontal

Maximum sample rate: 1.25 GS/s for repetitive signals; 25 MS/s for single shot

Number of digitizers: 2

Time base range: 20 ns/div. to 1 min/div.

Maximum record length: 512 Min-Max points per input

Accuracy: $\pm (0.1\% \text{ of reading} + 1 \text{ pixel})$

Glitch detect: 40 ns

Display and acquisition

Display modes: Input A, input A and B, envelope, smooth

Acquisition modes: Normal, single shot, roll, glitch capture (always on)

Trigger and delay

Source: Input A, input B, external via optional ITP120

Modes: Automatic Connect-and-View, Free Run, Edge, Single Shot, Video, Video Line

Connect-and-View: Advanced automatic triggering that recognizes signal patterns and automatically sets up and continuously adjusts triggering, time base and amplitude. Automatically displays stable pictures of complex and dynamic signals like motor drive and control signals.

Video triggering: NTSC, PAL, PAL+, SECAM. Includes line select

Time delay: Up to 10 divisions pre-trigger view

Measurements

Vdc, Vac, Vac+dc, Vpeak max, Vpeak min, Vpeak to peak, frequency (Hz), positive pulse width, negative pulse width, positive duty cycle, negative duty cycle, Amp ac, Amp dc, Amp ac+dc, Phase, Temperature $^{\circ}\text{C}$, Temperature $^{\circ}\text{F}$, dBV, dBm into 50 Ω and 600 Ω . (Amps, $^{\circ}\text{C}$ or $^{\circ}\text{F}$ with optional probes)

Dual Input Mode

The specified accuracy is valid over the temperature range 18 $^{\circ}\text{C}$ to 28 $^{\circ}\text{C}$ (15 $^{\circ}\text{F}$ to 33 $^{\circ}\text{F}$). Add 10 % of specified accuracy for each degree $^{\circ}\text{C}$ below 18 $^{\circ}\text{C}$ or above 28 $^{\circ}\text{C}$ (15 $^{\circ}\text{F}$ to 33 $^{\circ}\text{F}$).

Max. meter bandwidth: 20 MHz

VDC

Ranges: 500 mV, 5 V, 50 V, 500 V, 1,250 V

Max. resolution: 5,000 counts

Accuracy: $\pm (0.5\% + 5 \text{ counts})$

VAC rms

Ranges: 500 mV, 5 V, 50 V, 500 V, 1,250 V

Max. resolution: 5,000 counts

Accuracy:

1 Hz to 60 Hz: $\pm (1\% + 10 \text{ counts})$

60 Hz to 1 kHz: $\pm (2.5\% + 15 \text{ counts})$

20 kHz to 1 MHz (5% + 20 counts)

VAC+DC True-rms

Ranges: 500 mV, 5 V, 50 V, 500 V, 1,250 V

Max. resolution: 5,000 counts

Accuracy:

DC to 60 Hz: $\pm (1\% + 10 \text{ counts})$

60 Hz to 1 kHz: $\pm (2.5\% + 15 \text{ counts})$

20 kHz to 1 MHz (5% + 20 counts)

Ohms

Ranges: 500 Ω , 5 k Ω , 50 k Ω , 500 k Ω , 5 M Ω , 30 M Ω

Max. resolution: 5,000 counts

Accuracy: $\pm (0.6\% \text{ of reading} + 5 \text{ counts})$

Capacitance

Ranges: 50 nF to 500 μF

Max. resolution: 5,000 counts

Accuracy: $\pm (2\% \text{ of reading} + 10 \text{ counts})$

Other meter functions

Frequency: Up to 40 MHz

Continuity: Beeper on < 30 Ω

Diode test: Up to 2.8 V

Amps: Amp DC, Amp AC, Amp AC+DC using an optional current clamp or shunt.

Scaling factors: 0.1 mV/Amp to 100 V/Amp

Temperature ($^{\circ}\text{C}$, $^{\circ}\text{F}$): With optional accessories. Scale factors 1 mV/ $^{\circ}\text{C}$ or 1 mV/ $^{\circ}\text{F}$.

Number of inputs: 2

Input impedance: 1 M Ω \pm 1% // 10 pF \pm 2 pF

Advanced meter functions: Auto/manual ranging, TouchHold®, Relative measurements (zero reference), TrendPlot recording

Recorder Mode

Trendplot recording

Dual input electronic paperless chart recorder. Plots and displays the actual, minimum, maximum and average of any measurement.

Source and display: Input A, Input A and B

Range: 15 s/div. till 2 days per division (automatic)

Recorded timespan: Up to 16 days with a resolution of 1.5 hours

Recording mode: Continuous with automatic vertical scaling and horizontal time compression

Measurement speed: 2.5 measurements per second maximum

Horizontal scale: Time from start

General Specifications

Case

Design: Rugged, shock proof with integrated protective holster

Drip and dust proof: IP51 according to IEC529

Shock and vibration: Shock 30 g, Vibration 3 g according to MIL-T28800E, Type III, Class 3, Style B

Display

Bright LCD with CCFL backlight, 35/60 cd/m² without/with adapter

Size: 72 x 72 mm (2.8 x 2.8 inch)

Resolution: 240 x 240 pixels

Contrast and brightness: User adjustable, temperature compensated

Memory Save and Recall

2 screens, 10 user setups

Real-time clock

Time and date stamp TrendPlot recording

Power

Line power: Country specific line voltage adapter/battery charger included

Battery power: Rechargeable NiCd (installed)

Battery operating time: Up to 5 hours

Battery charging time: 4 hours

Battery refresh cycle: 8 to 14 hours depending on remaining capacity at start of refresh cycle

Battery power saving functions: Auto power down with adjustable power down time. On screen battery power indicator.

Mechanical data

Size: 50 x 115 x 232 mm (2 x 4.5 x 9.1 inches)

Weight: 1.2 kg (2.5 lb.)

Safety

Compliance: EN61010.1 (1993) Pollution degree 2, UL3111-1 (1994), CAN/CSA-C22.2 No. 1010.1 (1992), ANSI/ISA S82.01 (1994)

Input voltage ratings

Maximum input voltage: 600 V CAT III

(Maximum voltage between input and reference lead)

Floating voltage: 600 V CAT III

Maximum voltage between earth ground and any terminal (signal input or reference lead)

Maximum voltage between reference leads:

Instrument has common grounds connected via self recovering fault protection. For different ground potential measurements between inputs use DP120 differential voltage probe.

Environmental

Operating temperature: 0 °C to +50 °C

Storage temperature: -20 °C to +60 °C

Humidity:

10 °C to 30 °C, 95% RH non condensing;

30 °C to 40 °C, 75% RH non condensing;

40 °C to 50 °C, 45% RH non condensing

Maximum operating altitude: 2,000 m (6,500 feet); 3,000 m (10,000 feet) voltages ≤ 400 V

Maximum storage altitude: 12 km (40,000 feet)

Electro-Magnetic Compatibility:

Emission EN50081-1 (EN55022 and EN60555-2)

Immunity EN50082-2 (IEC1000-4-2, -3, -4, -5)

Optically isolated PC/Printer interface

To printer: Supports HP Laserjet,[®] Deskjet,[®] Epson FX/LQ and postscript printers via optional PAC91

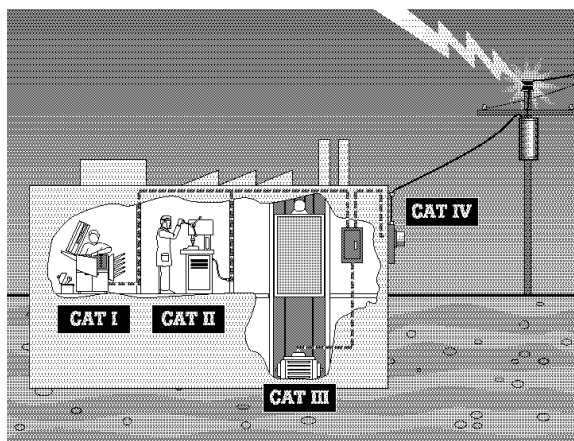
To PC: Transfer instrument settings, screen images and data, compatible with FlukeView[®] software for Windows[®] via optional PM9080

Warranty

3 years

International Safety Standards

Overvoltage Category	Summary description
CAT IV	Three phase at utility connection, any outdoors conductors (under 1,000 V) <ul style="list-style-type: none"> • Outside and service entrance • Service drop from pole to building • Run between meter and panel • Overhead line to detached building • Underground line to well pump
CAT III	Three-phase distribution (under 1,000 V), including single phase commercial lighting and distribution panels <ul style="list-style-type: none"> • Feeders and short branch circuits • Distribution panel devices • Heavy appliance outlets with "short" connections to service entrance
CAT II	Single-phase receptable connected loads <ul style="list-style-type: none"> • Outlets and long branch circuits • All outlets at more than 10 m (30 ft.) from Category III source • All outlets at more than 20 m (60 ft.) from Category IV source
CAT I	Electronic <ul style="list-style-type: none"> • Electronic equipment • Low energy equipment with transient limiting protection



To protect your instrument and – more importantly – yourself, choose a test tool that can withstand the electrical hazards present in the environment in which you plan to use it.

EN61010 establishes international safety requirements for electrical measurement equipment. It separates the various electrical environments into installation categories based on the danger from high voltage-energy transients. To choose the right tool, the voltage rating alone does not determine the safety.

It is the combination of voltage rating and installation category that determines maximum transient withstand capability of the tool. CAT III rated instruments are recommended for measurement on industrial power distribution systems.

Accessories

Standard Accessories	Fluke 199C, 196C	Fluke 199, 196	Fluke 192	Fluke 123
Rechargeable battery pack (installed)	BP190			BP120
Line voltage adapter/Battery charger	BC190			PM8907
Voltage probes (1 red, 1 grey)	VPS200 10:1 probes			STL120 Shielded Test lead set
Voltage probe accessories	Hook clips, 4 mm add-on probe tips, 2 mm add-on tips, probe add-on alligator clips, ground leads with hook clips, ground leads with mini alligator clip, ground leads to 4 mm banana, ground spring for probe tip		Hook clips, 4 mm add-on probe tips, ground leads with hook clips, ground lead with mini alligator clips, ground spring for probe tip	HC120 hook clips, ground leads with mini alligator clips, AC120 alligator clips BB120 BNC-to-Shielded-banana adapter
Multimeter test leads	TLS200 (TL24) with test pins and safety designed 4 mm alligator clips (1 set red, 1 set black)		TL75 Hard Point test lead set (1 red, 1 black)	TL75 Hard Point test lead (1 black)
User manual	9 language versions on CD-ROM and "Getting Started" booklet included	9 language versions available		13 language versions available

FlukeView® ScopeMeter® Software for Windows®

FlukeView software adds PC power to your Fluke 190 ScopeMeter TestTool.

FlukeView ScopeMeter software helps you get more out of your ScopeMeter:

- Store instrument's screen copies on the PC, in color (with Fluke 190C Series only) or in black and white
- Copy color screen images into your reports and documentation (color screen images with Fluke 190C Series only)
- Capture and store waveform data from your ScopeMeter on your PC
- Includes waveform analysis, e.g., FFT spectrum analysis
- Copy waveform data into your spreadsheet for detailed analysis
- Use cursors for parameter measurement
- Extended recording of up to four user-selected measurements help you monitor and analyze slow moving signals and related events
- Capture complete Replay sequence into the PC for further analysis and documentation
- English, French and German versions included on a single CD-ROM

System requirements

- Pentium 90 or better
- CD-ROM drive
- Windows® 95 / 98 / Me / NT 4.0 / 2000
- One free RS 232 port
- PM9080 Optically isolated RS232 adapter/cable, available separately or included in SCC190 kit and in ScopeMeter 'S' versions

Supported Instruments

Full support for Fluke 199C, 199, 196C, 196, 192, 123, 105B, 99B, 99, 97 and 96B;
Hard-copy-only with Fluke 96, 92B, 92 and 91.
Starting from FlukeView ScopeMeter release V4.0 onwards, color screens of the Fluke 190C Series are fully supported.

SCC190 - Software, Case, Cable kit

The Fluke ScopeMeter test tools are connected to a PC using an optically isolated RS-232 interface cable PM9080. Software and cable can be ordered separately, or as part of a special value kit: the SCC190 kit. The kit includes a protective hard-shell carrying case for safe and convenient storage of instrument and accessories, the FlukeView ScopeMeter Software for Windows and the PM9080 interface cable

Ordering Information

FLK-123	Fluke Industrial ScopeMeter
FLK-123/S	Fluke Industrial Scopemeter with SCC120 kit
FLK-192	Fluke 192 ScopeMeter (60 MHz)
FLK-192/S	Fluke 192 ScopeMeter (60 MHz) with SCC190 kit
FLUKE-196C	Fluke 196C Color ScopeMeter (100 MHz)
FLUKE-196C/S	Fluke 196C Color ScopeMeter (100 MHz) with SCC190 kit
FLK-196	Fluke 196 ScopeMeter (100 MHz)
FLK-196/S	Fluke 196 ScopeMeter (100 MHz) with SCC190 kit
FLUKE-199C	Fluke 199C Color ScopeMeter (200 MHz)
FLUKE-199C/S	Fluke 199C Color ScopeMeter (200 MHz) with SCC190 kit
FLUKE-199	Fluke 199 ScopeMeter (200 MHz)
FLUKE-199/S	Fluke 199 ScopeMeter (200 MHz) with SCC190 kit
SW90W	FlukeView ScopeMeter Software for Windows
PM9080	Optically isolated RS232 adapter/cable
SCC120	Software - Cable - Case kit for Fluke 123
SCC190	Software - Cable - Case kit for Fluke 190 Series

- Fluke ScopeMeter test tools come standard with a complete accessory package including line voltage adapter and battery pack (installed). ScopeMeter 123 includes the shielded test leads. ScopeMeter 190 Series comes with probes, probe accessories and multimeter test leads.
- SCC kits include: Hard-shell carrying case, optically isolated RS-232 interface cable and FlukeView® for Windows® software.

Fluke. Keeping your world
up and running.

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From other countries (425) 446-5500 or
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