

Fluke 225C and 215C Color ScopeMeter®

190 Series Color ScopeMeters with Industrial Bus Health Test

The Fluke 225C and 215C are the instruments of choice for maintenance specialists who deal with industrial buses and networks as well as general electronics. You can verify the electrical integrity of your bus and network physical layer, performing tests and getting answers quickly and easily.

Based on the 200 MHz or 100 MHz 190C Series Color ScopeMeters, these instruments offer all the functions found in the 190C Series, plus added measurement capabilities for industrial networks such as Profi®, Foundation™, Modbus®, CAN-bus, AS-i bus, RS-485 and more.



- Industrial Bus Health Test verifies electrical signal quality on industrial buses including Profi®, Foundation™, Modbus®, CAN-bus, AS-i bus, RS-485 and more
- Easy signal validation of all relevant signal parameters
- Complete 190C Color ScopeMeter® (200 MHz or 100 MHz model) built in
- Floating and fully isolated inputs for true differential signal measurements

Bus Health Test

Bus Health Test analyses the electrical signals on the industrial bus or network and gives a clear “Good”, “Weak” or “Bad” validation mark for each of the relevant parameters, presented next to the actual measurement value.

Measured values are compared to standard values based on the selected bus type, or you may set your personal reference values if you need different tolerances.

The Fluke 225C and 215C can make the signal quality validation as soon as electrical signals are passed along the network, without looking at the data content. They find errors like improper cable connections, bad contacts, incorrect grounding and missing or superfluous terminators.

Floating independently isolated input channels

Thanks to the independently isolated input channels and the floating inputs, the ScopeMeter can take floating differential measurements from balanced 2-wire systems such as RS-485 and CAN. One input channel can be connected to measure the voltage between the two signal wires, and the other can be connected to measure the common mode voltage over ground at the same time, independently.

Models

| Model | Bandwidth | Sample rate | |
|------------|-----------|-------------|---------------------|
| Fluke 225C | 200 MHz | 2.5 GS/s | Fluke 199C built in |
| Fluke 215C | 100 MHz | 1 GS/s | Fluke 196C built in |

For further details of the general ScopeMeter performance, refer to the ScopeMeter 190 Series brochure or visit www.fluke.com

Ordering information

| | | | |
|---------------------|---|----------------|--|
| Fluke 225C | 200 MHz Color ScopeMeter with Bus Health Test | OC4USB | Optically Isolated USB-interface cable |
| Fluke 225C/S | 200 MHz Color ScopeMeter with Bus Health Test, SCC-190 included | SW90W | FlukeView ScopeMeter software |
| Fluke 215C | 100 MHz Color ScopeMeter with Bus Health Test | C190 | Hardshell carrying case for 190 Series ScopeMeters |
| Fluke 215C/S | 100 MHz Color ScopeMeter with Bus Health Test, SCC-190 included | SCC-190 | Software, case and cable kit for 190 Series ScopeMeter |
| | | PM9080 | Optically Isolated serial interface cable (RS-232) |

Large color screen

The large color screen of the 225C and 215C shows the individual parameters with validation, the actual measured value, the minimum and maximum values recorded over time, and the reference values used for the validation. The choice of parameters differs with the bus type and may include bias voltage, signal high- and low-levels, rise- and fall-times, in-band and out-band noise levels, jitter, pulse width, baud rate, and more.

Activity indicators

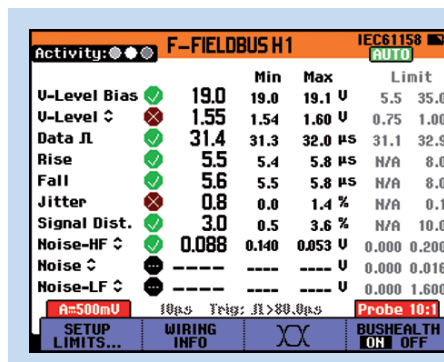
The activity indicators tell you the data flow is ongoing and they stop flashing the moment communications come to a halt.

Signal integrity analysis

In the eye-pattern mode, a waveform display is built over successive signal passes to give you a visual indication of overall signal quality, noise levels and signal jitter.

Fluke 225C and 215C compared with other ScopeMeters

All ScopeMeters allow you to perform the basic electrical tests (such as copper resistance and



isolation tests) on an electrical system or a cable.

The Fluke 125 (see full line ScopeMeter brochure) supports industrial network verification using a common reference (“ground”) connection, and includes a 40 MHz Industrial ScopeMeter. The 225C and 215C give more extensive network analysis capabilities. Thanks to the isolated channel structure, the 225C and 215C give a far better immunity to common mode noise and disturbances and can measure common mode voltages separately. The 225C and 215C come with higher measurement speeds and give you all the measurement capabilities associated with the 190C Series.

For full technical specifications of all ScopeMeter models, please refer to the technical datasheet at www.fluke.com.

Fluke. Keeping your world up and running.®

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Printed in U.S.A. 10/2008 3382876 F-EN-Rev A

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