

MA48 Multi-Angle Spectrophotometer



MA48 Multi-Angle Spectrophotometer

- Five measurement angles (15°, 25°, 45°, 75°, 110°)
- Single screen displays all angles
- Nine color value formats: L*a*b*,
ΔE_{L*}ΔE_{a*}ΔE_{b*}, L*C*h°,
ΔE_{L*}ΔE_{C*}ΔE_{H*}, Flop Index,
ΔE_{Flop} Index, ΔE_{EL}*a*b*, ΔE_{Ecmc},
and DIN 6175
- Seven languages
- Intuitive, menu-driven operation
- Industrial membrane switches – easy to see, use and clean

The X-Rite® MA48 is an affordable portable multi-angle spectrophotometer, designed to give fast, precise and accurate color measurement information on metallic, pearlescent and special effect finishes. It delivers a full range of angular viewing, from 15° to 110°. The MA48 allows remote measurement operation. Measurements are stored in the instrument and later uploaded to a PC running X-RiteColor® Master quality control and formulation software.

Dynamic Rotational Sampling (DRS)

The MA48 employs Dynamic Rotational Sampling, a patented X-Rite technology that uses a simple, rugged optical system to measure all angles simultaneously.

Ergonomic Design

The MA48 fits comfortably in the user's hands and is easy to position for accurate measurement. Its optional barcode-reading wand allows users to read and store data instantly. All controls are large and easy to operate.

Docking Station

The docking station enables easy data transfer to a PC. The docking station provides open-port black calibration and has a place to store the calibration plaque. It charges/refreshes the battery and provides a convenient way to keep the instrument safe and secure when not in use.

Multiple Languages

The MA48 supports English, German, French, Spanish, Italian, Portuguese and Chinese (simplified).

One-Year Warranty

X-Rite offers a one-year limited warranty on this instrument.

Service and Support

X-Rite leads the market in service, providing phone/web/e-mail support, instrument recertification and flat-rate service contracts, as well as hands-on training classes worldwide.

Specifications:**Measuring Geometrics**

- 45° illumination
- 15°, 25°, 45°, 75°, 110°
aspecular viewing
- Angular accuracy ±0.15°
- Fiber optic pick-up, coupled
with DRS technology

Measuring Area

0.5 in. diameter (12mm)

Light Source

Gas-filled tungsten lamp, color
corrected to approx. 4000°K

Illuminant Types
C, D65, D50, A, F2, F7, F11 & F12

Standard Observers
2° & 10°

Receiver
Blue-enhanced silicon photodiodes

Spectral Range
400nm - 700nm

Spectral Interval
28 band spectral measurement:
• 10nm interval from
400nm to 640nm
• 20nm interval from
640nm to 700nm
• 15nm bandwidths

Spectral Data Output
Spectral reflectance values are
available for output from the
RS-232 or USB port via the docking
station for 5 angles at 10nm intervals
from 400nm to 700nm

Measurement Range
0 to 400% reflectance

Measuring Time
Approx. 2.0 seconds

Inter-Instrument Agreement
• 0.30 ΔE^* avg. on reference
BCRA tile set
• 0.40 ΔE^* max. on any
chromatic tile
• 0.15 ΔE^* max. on any grey tile
Short-Term Repeatability
0.10 ΔE^* ab on white ceramic

Lamp Life
Approx. 500,000 measurements

Power Supply
Built-in, rechargeable Ni-metal
hydride battery pack; 7.2 VDC rated
@ 1400 mAh

AC Adapter Requirements
• MA48: 90-130VAC, 50-60Hz,

15W max

- MA48X: 90-260VAC, 50-60Hz,
15W max

Charge Time

In Instrument: 4 hrs

Measurements Per Charge

1,000 5-angle measurements
(continuous measurements @ 10 sec.
intervals)

Data Storage (five angles)

200 Standards

850 Samples

Data Interface

Patented bi-directional RS-232 and USB,
9,600-19,200 baud

Display

128 x 256 pixel graphical LCD

Operating Temperature Range

50° to 104°F (10° to 40°C)

85% Relative humidity max
(non-condensing)

Storage Temperature Range

-4° to 122°F (-20° to 50°C)

Weight

2 lbs. 7 oz. (1.1 kg)

Dimensions

5.27"H 5.40"W 8.05"L

(13.4cm 13.7cm 20.4cm)

Accessories Provided

Calibration standards, docking station,
AC adapter, operation manual, and
wrist strap.

BRAKENSIEK®
SYSTEMHAUS



Please only contact us via our registration form and only if you are a business person yourself. Every offer is subject to prior sale and includes your acceptance to our terms & conditions [Terms and conditions \(AGB\)](#). All logos and trademarks on this site are the property of their respective owners.

You will always receive an invoice including tax, which can be paid via wire transfer, in advance or cash. If you register on paypal, you may also pay by charging your paypal account with your credit card. If you are an EU member and you have a validated tax number which can be validated here: [VIES VAT number validation / MwSt.-Informationsaustauschsystem MIAS\) Validierung der MWSt.-Nummer](#) then you pay tax-free. If you are from outside the EU, you can only pay tax-free, if the export is done with the transport company, called 'Schenker'. If you are not using 'Schenker', we cannot guarantee that we will get the export confirmation in time. In that case, you have to pay tax and you get it.



**Brakensiek Systemhaus
GmbH & Co. KG**
Klönnestraße 94
D-44143 Dortmund

BRAKENSIEK®
SYSTEMHAUS



www.brakensiek.com

Tim Brakensiek



 **+49(0)231.985-00 10**



 **+49(0)231.985-2000**