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Test & Measurement

- > sales
- > rentals
- > calibration
- > repair
- > disposal

Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the "Click-to-Call" logo below, you can call us for FREE!

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Product Lifecycle Management System

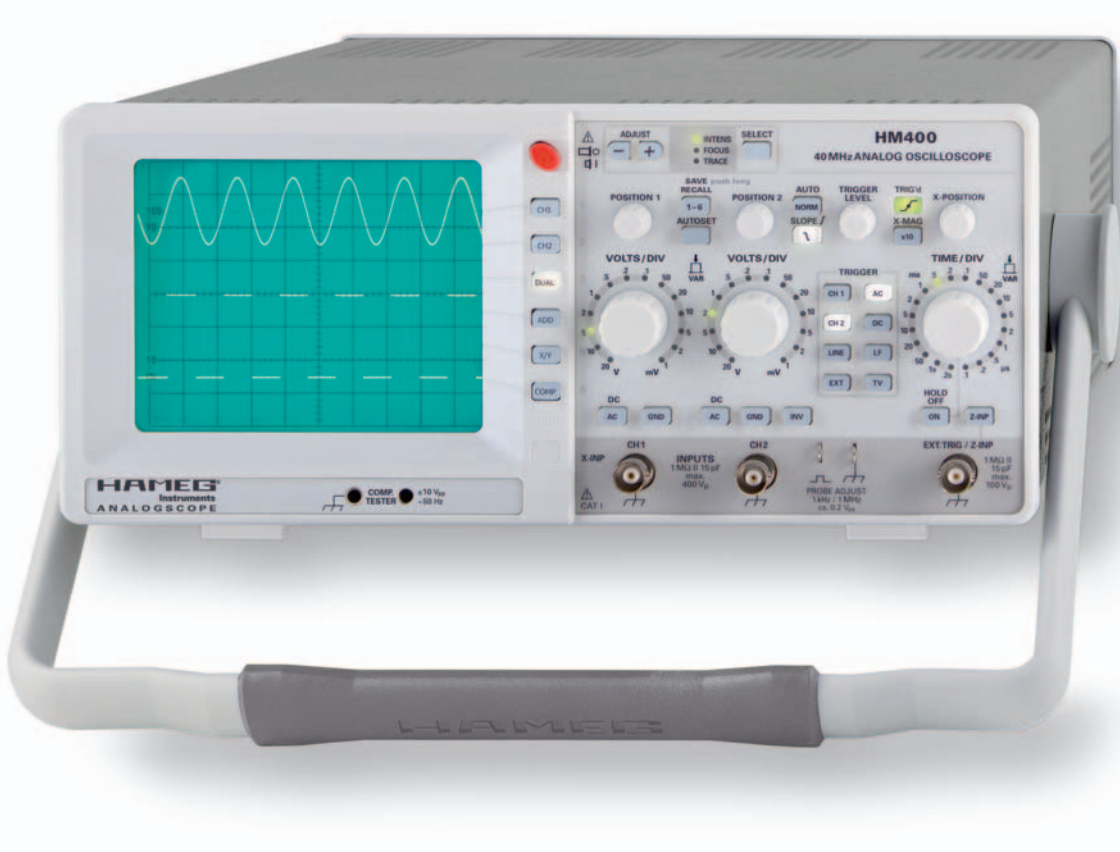
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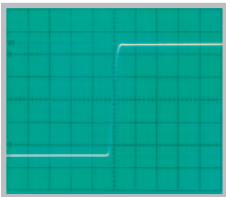


40 MHz Analog Oscilloscope HM400

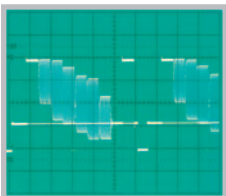
HM400



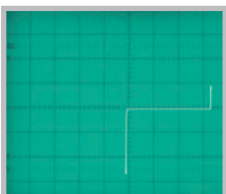
No signal distortion
resulting from overshoot



Line triggered composite
video signal



Characteristic of a Z-Diode
with component test mode



Reference-Class in sensitivity and input voltage range

2 Channels with deflection coefficients of 1 mV/DIV – 20 V/DIV,
variable to 50 V/DIV

Time Base: 0.2 s/DIV – 100 ns/DIV,
with X magnification to 10 ns/DIV

Low noise measuring amplifiers with high pulse fidelity
and minimum overshoot

Peak to peak trigger for stable triggering from 0 to 50 MHz
at 0.5 DIV signal level (to 80 MHz at 1 DIV)

Autoset, Save/Recall Memories for 6 instrument settings

Yt- and XY-Mode with Z-Input for intensity modulation

Component characterisation with component tester
(two terminal network measurement) within service etc.

Low power consumption, no fan

40 MHz Analog Oscilloscope HM400

Valid at 23 °C after a 30 minute warm-up period

Vertical Deflection

Operating Modes:	Channel 1 or 2 only Channels 1 and 2 (alternate or chopped) Sum or Difference of CH 1 and CH 2
Invert:	CH 2
XY Mode:	CH 1 (X) and CH 2 (Y)
Bandwidth (-3 dB):	
DC, 5mV/div. – 20V/div.:	0 to 40MHz
AC, 5mV/div. – 20V/div.:	2Hz to 40MHz
DC, 1mV/div. – 2mV/div.:	0 to 10MHz
AC, 1mV/div. – 2mV/div.:	2Hz to 10MHz
Rise Time (calculated):	<35 ns (1 mV/div. – 2 mV/div.) <8,75 ns (5 mV/div. – 20 V/div.)
Deflection Coefficient:	1-2-5 Sequence ± 5% (1 mV/div. – 2 mV/div.) ± 3% (5 mV/div. – 20 V/div.) Variable (uncalibrated): >2.5:1 to >50V/div.
Input Impedance:	1 MΩ 15 pF
Input Coupling:	DC, AC, GND (ground)
Max. Input Voltage:	400 V (DC + peak AC)

Triggering

Automatic (Peak to Peak):	5 Hz – 50 MHz (≥ 0.5 div.), 50 MHz – 80 MHz (≥ 1 div.)
Normal with Level Control:	0 – 50 MHz (≥ 0.5 div.), 50 MHz – 80 MHz (≥ 1 div.)
Slope:	positive or negative
Sources:	Channel 1 or 2, Line and External
Coupling:	AC (5 Hz – 80 MHz), DC (0 – 80 MHz), LF (0 – 1.5 kHz)
Trigger Indicator:	LED
External Trigger:	
Input Impedance:	1 MΩ 15 pF
External Trigger Signal:	0,3 V _{pp} ≤ 5 V, DC (0 – 50 MHz), AC (20 Hz – 50 MHz)
Max. input voltage:	100 V (DC + Peak AC)
Active TV sync. separator:	Field and Line, +/-

Horizontal Deflection

Time Base:	0.2 s/div. – 100 ns/div. (1-2-5 Sequence)
Accuracy:	± 3%
Variable (uncalibrated):	> 2.5:1 to > 1.25 s/div.
X Magnification x 10:	up to 10 ns/div. (± 5%)
Accuracy:	± 5%
Hold-Off Time:	variable to approx. 10 : 1
XY	
Bandwidth X amplifier:	0 – 2.5 MHz (-3 dB)
XY Phase shift < 3°:	< 120 kHz

Operation / Readout / Control

Manual:	via controls and buttons
Autoset:	automatic signal related parameter settings
Save and Recall:	6 instrument parameter settings

Component Tester

Test Voltage:	approx. 7 V _{rms} (open circuit)
Test Current:	max. 7 mA _{rms} (short-circuit)
Test Frequency:	approx. 50 Hz
Test Connection:	2 banana jacks 4 mm Ø One test circuit lead is grounded via protective earth (PE)

Miscellaneous

CRT:	D14-363GY, 8 x 10 cm with internal graticule
Acceleration Voltage:	approx. 2 kV
Trace Rotation:	adjustable on front panel
Z-Input (Intens. modulation):	max. + 5 V (TTL), 10 kHz
Probe ADJ Output:	1 kHz / 1 MHz Square Wave Signal ca. 0.2 V _{pp} (tr < 5 ns) for probe adjustment
Power Supply (Mains):	105 – 253 V, 50/60 Hz ± 10 %, CAT II
Power Consumption:	approx. 30 Watt at 230 V/50 Hz
Ambient temperature:	0° C...+40° C
Safety class:	Safety class I (EN61010-1)
Weight:	approx. 4.8 kg
Dimensions (W x H x D):	285 x 125 x 380 mm

Accessories supplied: Line Cord, Operators Manual, 2 Probes 1:1/10:1 (HZ154) with LF/HF adjustment

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