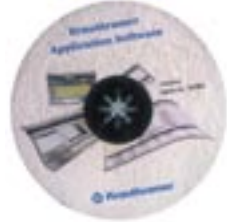## Accessories and specifications:

Flat probe shoe attachment MIC 270
Prism shoe attachment MIC 271

Carrying case
for MIC 10 and accessories

Instrument carrier and prop-up stand
MIC 1040

Application Software
UltraHARD

Serial data cable
for printer and PC

Memory cards
for the storage of measurement and
calibration data as well as report formats

Method of measurement:

Vickers penetration with indentation evaluation
by the UCI method under load
(diamond angle 136°)

UCI probes:

To be selected according to application:
Handheld probes:

10 N (1 kgf)	standard	MIC 201-A
	short	MIC 201-AS
	extended	MIC 201-AL
50 N (5 kgf)	standard	MIC 205-A
	short	MIC 205-AS
	extended	MIC 205-AL
98 N (10 kgf)	standard	MIC 2010-A

Motor probes:

8.6 N (0.9 kgf)	MIC 211
3 N (0.3 kgf)	MIC 2103-A
1 N (0.1 kgf)	MIC 2101-A

Range:

20 - 1740 HV

Conversion:

HV, HB, HRC, HRB
N/mm² (only with the 10 kgf handheld probe)
according to DIN 50150, ASTM E 140

Display:

4 digit LCD with switchable backlight

Weight:

approx. 300g

Dimensions:

160 x 70 x 45 mm,
6.3 x 2.8 x 1.8 inches (W x H x D)

Permissible ambient temperature:

In operation: -15°C to 55°C(5°F to 131°F)
In storage: -20°C to 60°C (-4°F to 140°F)

Power:

2 x 1.5V AA batteries

Operational duration:

approx. 15 hours without backlight

Interface (for version MIC 10 DL):

RS232C bidirectional

Data Logger (for version MIC 10 DL):

Internal memory for up to 1800 measurments,
memory card for up to 590 measurements. De-
pendent on the number of measurements per
set. Warning given with memory overflow.

Statistics:

Display of the average value.
For version MIC 10 DL: printout with maximum,
minimum, average value, absolute and relative
range, absolute and relative standard deviation.

Probe accessories:

Handheld probe or motorized probe (is selected
according to application),
Guiding devices and test supports,
TGDL/PC-data cable (version MIC 10 DL)
Application software
Further information about our extensive probe and
accessory program will be given on request.

Krautkramer MIC 10

**Quick hardness testing made easy.
Versatile in application and data storage.**

GE imagination at work

AGFA ✦ NDT ｜ HOCKING ｜ Krautkramer ｜ SEIFERT

Quick hardness testing wherever you wish.

As with all other hardness testers from our MICRODUR line, the MIC 10 operates according to the UCI method (Ultrasonic Contact Impedance). This method enables quick and easy measurement: position probe and read off the value. This operational ease is achieved because the Vickers diamond indent in the material's surface is electronically measured and instantly displayed as a hardness value without using the

cumbersome optical evaluation of a microscope normally associated with Vickers hardness testing.

The small, handy MIC 10 makes life easy for you: a hardness tester that you can take anywhere - on scaffolds for testing large containers and pipes, or for testing components at any location. The small narrow probes even enable you to make measurements on positions difficult to access, such as tooth flanks or roots of gears.

You can measure in any direction, e.g. in the horizontal or overhead positions. The instrument carrier and prop-up stand permits two hand operation, for correct probe positioning and guidance.

Easy operation, high performance and unique data processing.

What this small instrument can do.
By pressing a key, you can display your reading as a single value or as the active arithmetical average value of a hardness measurement set. Editing of erroneous single values, without having to interrupt the measurement set, is just as simple. Adjustable alarm thresholds show you critical measurement values both visually and with audible alarms. The calibration parameters for measurements on low and non-alloyed steel are preprogrammed into the MIC10; however, the instrument can be easily and quickly recalibrated to other materials.

Instrument operation can be customized for specific testing requirements: unnecessary functions can be inhibited, e.g. various hardness scales or the recalibration capability. This reduces key presses and simplifies operation.

Saving data - unlimited possibilities.
We have given a lot of thoughts to the subject of saving data and have come up with the MIC 10 DL in order to give you special support with repetitive testing and documentation.

Memory cards are available in addition to the internal memory of the instrument, these not only store measurement data but also material dependent instrument settings and report formats. You are able to calibrate the instrument automatically for specific material using the information stored on the memory card. Reports can be created in an individual format and printed via the RS 232C interface of the MIC 10. Once again, the operation is simple: switch on data logger or insert a memory card and measure.

Display sector "Status":
Probe contact
Data Logger
Altered calibration
Measurement readiness
Battery

Display sector "Set":
Average and single value display
Calibration
Measurement time
Alarm threshold
Display backlight

Display sector "Hardness Scales"

Memory card* for storage and recall of measurement and calibration values as well as report formats

Termination of a measurement set, adjustment sequence or a sequence for data processing

Switch on Function select

Average or single value mode Function adjustment

Hardness scale selection Function adjustment

Active measurement check Memory with data transfer to a printer or PC*

Clear data/ function reset

Probe connector

RS232 C data output port*

*Only for Data Logger version MIC 10 DL

After measurement, the complete measurement set is automatically stored at the next available location and can be recalled at any time, displayed and printed.

Additionally, the user programs of the UltraHARD series offer you a range of possibilities for data transfer to a PC and further data processing like evaluation, statistics and documentation.