Krautkramer MIC 10R

Universal Hardness Testing with UCI for Laboratory and Production.
A modular system for a extensive range of applications.

GE imagination at work

With the MIC 10R you control your production line.

From our field-proven MICRODUR series.

The MIC 10R is an universal UCI-Hardness-Tester with an extensive range of application possibilities. It is especially suitable for fully automatic testing within the production process or in the laboratory; at the same time, in manual operation, it offers all the advantages which you already know from our Hardness Testers from the MICRODUR series.

This system adapts to your test situation.

Due to its modular design you can match the test system to your needs:

As a basic unit, the MIC 10R can be integrated into a 19" cabinet. You are then able to individually combine it with other MIC 10R modules and any probes thus achieving a multichannel system or a motor controlled hardness testing station in the laboratory. In addition to this, we also offer the instrument as a stand-alone version with housing and integrated power unit (MIC 10R-S), it is fully operational with all inputs and outputs for fully automatic testing.

All probes, extensive application range.

The MIC 10R operates with all probes belonging to the MICRODUR series. This applies to handheld probes (loads from 10 N/1 kgf to 98 N/10 kgf) as well as motor probes (loads of 1 N/0.1 kgf to 8.6 N/0.8 kgf). Therefore the extensive application range of our UCI test method is open.

With the MIC 10R you control your production line.

The MIC 10R system can be remote controlled and used for fully automatic

production control with direct Accept/Reject evaluation and sorting via adjustable tolerance thresholds. For this you can use each individual measurement or the result from the calculated average value.

All signals which occur are processed via an optocoupler and fed to the inputs and outputs for further processing and control of the production line.

Contact us for more information about the extensive possibilities of automatic hardness testing.

Specifications:

Method of measurement:

UCI method with Vickers diamond

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

Measurement range:

20 - 1740 HV

Conversions:

HV, HB, HRB, HRC N/mm² (only with 98 N handheld probe)

Display:

4 digit LCD with backlight

Weight:

MIC 10R: 820 g
MIC 10R-S: 6200 g

Dimensions (MIC 10R):

106.5 x 128.5 x 172 mm³ (W x H x L)

Power supply (only MIC 10R-S):

85 to 264 V, 50/60 Hz

Interfaces:

RS 232 C bidirectional 96 pin DIN terminal with 8 digital inputs and 8 digital outputs, protected via an optocoupler, and 1 analog output.

Outputs

for over and under thresholds, detection of probe contact, end of measurement, alarm with a system flaw as well as for the analog signal hardness value.

Inputs

for the end of averaging and threshold comparison as well as the measurement start for motor probes, error acknowledgement.

Data storage:

Data logger only in the manual mode; up to 1500 measurements; memory card up to 590 measurements. Dependent on the number of measurements per measurement set. In the automatic mode there is a ring buffer for the last 999 measurement values. The instruments comply with all relative European specifications. Information about our extensive accessories program will be given on request.

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