

Action valid from 1st June to 30st June 2014. We reserve the right to make technical changes and developments; these prices only apply to business customers; all prices are understood to be net prices in EURO + VAT -further information is obtainable from www.mitutoyo.eu.

Delivery and prices of products offered herein are valid while supplies last. Technical changes, mistakes and printing errors excepted.

## MITUTOYO MEASUREMENT SOLUTIONS!

From 1st June to 30st June 2014



### SURFTEST SJ

#### Surftest SJ-210 / Surftest SJ-310 / Surftest SJ-410

Mobile roughness measurement

#### Your clear view to accuracy

The colour LCD provides excellent readability and also includes a backlight for improved visibility in dark environments. On the spot – with the integrated or optional printers of the SJ series.

#### Simple key layout for easy and intuitive operating

Use the keys on the front of the unit and under the sliding cover.

#### **Setting standards**

The SJ series complies with many industry standards like EN ISO, VDA, JIS, ANSI as well as customised settings.





www2.mitutoyo.de/en/mitutoyo-hn/downloads/software-tools/index.html





Article No.	Designation	List price €	Promotion price €
178-039	Granite Stand	732	580
178-560-01D	SJ-210 Surftest	2,215	1,880
178-562-01D	SJ-210R Surftest	2,575	2,080
178-570-01D	SJ-310 Surftest	4,450	3,580
178-572-01D	SJ-310R Surftest	4,800	3,880
178-574-01D	SJ-310S Surftest	6,300	4,980
178-580-01D	SJ-411 Surftest	8,430	6,980

#### A lot more facts!

Not only displays assessed profiles and graphical data, the SJ series provides also calculation results, load curves, and amplitude distribution to extend your working possibilities.

#### Advanced data storage capabilities.

Up to 10 measurement conditions and one measured profile can be stored in the internal memory. Optional memory cards providing the storage of huge amounts of measured profiles and conditions.

#### Safe. Password protection.

Access to each feature can be password-protected, which prevents unintended operations and allows you to protect your settings.

#### Of the shelf. Freedom for your work.

The display interface supports 16 languages, which can be freely switched.

#### Stylus alarm.

The alarm warns you when the cumulative measurement distance exceeds a preset limit. (Patent pending in Japan, U.S.A., EU).

#### Range. Resolution.

Rigidity. A wide measuring range in Z1 up to 800  $\mu$ m / X up to 50 mm, a high resolution up to 0.0001  $\mu$ m as well as traverse straightness of 0.3  $\mu$ m / 25 mm – your solid base for secure measuring.

#### Get connected.

A variety of interfaces supplied as standard including USB, RS-232C, SPC output and footswitch I/F.



Mobile surface roughness measurement wherever needed.



The brilliant colored LCD, partly as touchscreen, will navigate you easy through the menu of the Surftest.

## **ROCKWELL HR**

## **M**itutoyo

#### Rockwell HR-110MR / 210MR / 320MS / 430MR

Economic Rockwell hardness testing machines series with plenty of functions to suit practically every application you need.

#### Maximum clearance

The newly designed frame provides maximum clearance for positioning the work piece, all you need is a flat table for mounting these testing machines.

#### They are very simple to operate

The analogue types HR-110/HR-210 use an automatic presetting dial gauge.

#### **Environmentally friendly**

HR-110MR does not require a power source, and is considered to be environmentally friendly.

#### Easy handling

Digital models HR-430MR/MS use automatic steering wheel braking and load sequencing for easy handling.

#### Digital models can use our Digimatic Mini-processor

Digital models HR-320MS and HR-430MR/MS can use our Digimatic Mini-processor (DP-1VR) for printing results, and you can use an input tool (USB-ITN-E) to connect to a PC for data transfer, analysis and storage.

#### You can perform Brinell hardness tests by using the following optional accessories:

A Brinell indenter, a weight set and a measurement microscope.

# Art. No. 963-210-20 List price: € 4,562 € 3,680

HR-110MR (963-210-20) Rockwell hardness testing machine

Environmental friendly model without power supply. Starting from weight changing (election of full test force), all basic handling operations are performed manually.



HR-210MR (963-220D)
Rockwell hardness testing machine

Changing of weights (selection of full test force) and handling of initial test force are done manually. The sequence of full test force is motor-driven.



€ 6,980

Easy handle operation

#### HR-430MR (963-240D) Rockwell hardness testing machine

Although an economic model, a switching dial for full test force, or automatic handle brake for handle operation support and automatic start function are standard features. The load sequence for full test force is motor-driven.



HR-320MS (963-231D) Dual type (Rockwell/Rockwell superficial) hardness testing machine

Exchange of weights and handling of initial test force are done manually. Load sequence of full test force is motor-driven.

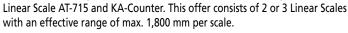
## LINEAR SCALE AND KA-COUNTER

#### **ABSOLUTE Linear Encoder AT-715 and KA-counter**

This linear scale is based on the ABSOLUTE electromagnetic induction principle, this offering you increased environmental protection to IP67 level.



Set for retrofitting machine tools with Linear Scale and digital counter:
Linear Scale AT-715 and KA-Counter This offer consists of 2 or 3 Linear Scales





#### AT-715 Linear Scale

ABSOLUTE Linear Scale IP67 is a high environmental resistance linear encoder system and the ABSOLUTE® electromagnetic induction type linear encoder technology gives the AT-715 excellent resistance to dust and water for enhanced machine tool usability.



#### **ABSOLUTE Type Linear Scale**

Detects and outputs an absolute position.

#### No setup every time

No reference point setup needed at every power on.

#### IP67 protection level

It has excellent resistance against water and dust.

Specifications		
Max. permissible	100-500 mm	5 µm
error (20°C)	600 – 1,800 mm	7 µm
	2,000 – 3,000 mm	10 µm
Max. travelling speed		50 m/min

The offered SET (above) contains Linear Scales with a range up to 1,800 mm

•	•		
No.		No.	
539-801	100	539-815	800
539-802	150	539-816	900
539-803	200	539-817	1,000
539-804	250	539-818	1,100
539-805	300	539-819	1,200
539-806	350	539-820	1,300
539-807	400	539-821	1,400
539-808	450	539-822	1,500
539-809	500	539-823	1,600
539-811	600	539-824	1,700
539-813	700	539-825	1,800
539-814	750		

Additional measuring ranges are available (not included in basic set 1 and 2)

No.	L	List price €
539-860	2000	955
539-861	2200	1,061
539-862	2400	1,167
539-863	2500	1,221
539-864	2600	1,273
539-865	2800	1,379
539-866	3000	1,485

When ordering, please indicate the individual moving distances for each axis from the available lengths, together with the respective article numbers!



#### **KA-Counter**

Easy to operate and multifunction display unit for Linear Scale

#### Cost ratio

High performance to cost ratio 2/3- axis counter.

#### As standard or lathe counter

Can be used as the "standard counter" or a "lathe counter" by modifying parameters.

#### Many useful functions:

Tool specification, addition of two axis, diameter display, preset value a.s.o

#### High resolution setting:

0,001/ 0,005 mm

No.	Axis	Dimension (W x H x D) mm	List price €	Promotion price €
174-173D	2	260 x 167 x 80	530	380
174-175D	3	260 x 167 x 80	639	480

#### Litematic

Ideal for measuring the thickness or height of a workpiece that can be easily affected by the measuring force

#### Different measuring force

Two different models with 0,15N and 1N measuring force.

#### Suitable for soft and sensitive form parts

It's constant measuring force makes it especially suitable for measuring soft materials or sensitive form parts.

#### High accuracy measurements

 $(0.5+L/100)\mu m L = measured length (mm)$ 

#### High resolution:

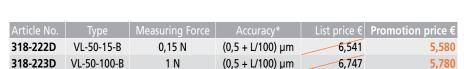
0,01 μm / 0,1 μm / 1μm (switchable)

#### Anvil

Ceramic anvil is free from corrosion

#### Safe and easy

Motor driven plunger for safe and easy operation







Electric components



Metal, plastic and electrical industry



#### Optional accessories

- P				
Article No.	Designation	List price €		
936937	Signal cable (1 m)	44		
965014	Signal cable (2 m)	58		
937179T	Foot switch	42		
02ADB440	Data plug for I/O interface (with cover)	43		

## QM-HEIGHT

#### QM-Height: ABSOLUTE digital Height Gauge

This is a high precision ABSOLUTE digital height gauge that offers you the following benefits

#### High accuracy and resolution

It has a high accuracy, high resolution ABSOLUTE linear encoder for position detection.

#### Range:

0-600 mm

#### GO / ±NG judgement

Is performed by setting the upper and lower tolerances

#### Green/red LCD backlight

The green or red backlight shows the status of the tolerance judgement

#### Easy operations

You can easily implement frequently used measurements, such as inside/outside diameter and pitch calculations, by icon-based commands that also support easy one-key operation.







GO: Back-lighted green



-NG / +NG: Back-lighted red

#### Optional accessories

Article No.	Designation	List price €
936937	Signal cable (1 m)	44
965014	Signal cable (2 m)	58
06ADV380D	USB Input Tool Direct cable (2 m)	100
06AEG302D	AC-Adapter	67





#### Measuring Microscope TM-505

TM-505 is a compact microscope well suited for measuring dimensions and angles of machined parts. It can also be used to check the shape of screws and gears by attaching an optional reticle. Its robust design makes it an instrument well suited to be used in shop floor environment.

#### Enables easy measurement of wide range of products

Versatilely range of interchangeable reticles.

#### Enhancement of functionality by simplified key operation

2D data processing unit QM-Data 200 adds new features of 2D coordinate measurement.

#### Suitable for various applications

Many of accessories available to enhance the functionality of Measuring Microscope TM-505 making it suitable for various applications (see below optional accessories).



Metal, plastic and electrical industry



Electric components

## Set price: €5,906

#### Set content:

- Contour and surface illumination
- Comfortable 30X magnification with 2X lens and 15X eyepiece
- Measuring table 50 x 50 mm
- · 2 x digital micrometer head
- Special cleaning agent

Article No.	Designation	List price €	Promotion price €
176-816D	TM-505 microscope XY table 50 x 50 mm	4,403	2,753.22
011534	MC Special cleaner	19	19
164-163	2x digital micrometer head 0-50 mm	1484	1,226.78



Vernier protractor incorporated at the eyepiece section of optical tube.

#### Optional accessories

Article No.	Designation	List price €
264-155 D	Data Processing Unit QM-Data 200	2,960
959149	Signal cable (1 m)*	38
959150	Signal cable (2 m)*	43.50
011491TM	Digital USB camera	2,040
011466	DMX-2 Digimatic to RS232C interface	341
011197	RS232C connection cable	15

<sup>\*</sup> for QM-Data 200



Optional: 2D data processing unit QM-Data 200

### QM-Data 200 (Stand-mount Type)

- High expandability by easy connection to Projectors, Measuring Microscopes and Toolmaker's Microscopes
- Data output in CSV and MUX-10 format for easy connection to MeasurLink or Excel®.
- Connectable to OPTOEYE 200 for measurements with automatic edge detection.

The Data Processing Unit QM-Data 200 has been especially designed, to process 2D point data generated by a profile projector or measuring microscope. The system offers a variety of easy to use software functions for alignment, element measurement and constructions like distance or angle. The teaching function ensures high throughput for repeat measurements.





Refer to the catalogue for further information regarding usage.











Whatever your challenges are, Mitutoyo supports you from start to finish.









**Coordinate Measuring Machines** 

Vision Measuring Systems

Form Measurement

**Optical Measuring** 

Sensor Systems

Test Equipment

Digital Scale and DRO Systems

**Small Tool Instruments** and Data Management

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