

# Spring promotion PR1278










2025

from 1 April to  
31 May 2025



**Mitutoyo**

# Information the to Logos

	Short description	Description
	Wireless data transmission system	U-WAVE is Mitutoyo's proprietary wireless data transmission system, far superior to Bluetooth® in terms of reliability and range. It is based on IEEE 802.15.4 signals in the 2.4 GHz band.
	Standard for wireless Data transfer	Bluetooth® is a wireless standard that allows data, music, videos or images to be transmitted over short distances of up to approximately 10 m.
	Transmitter system for U-WAVE and Bluetooth®	U-WAVE fit transmitters are available in both U-WAVE and Bluetooth® versions .
	Mitutoyo data transmission standard	The DIGIMATIC interface is a Mitutoyo original and enables the fast and reliable transmission of measurement data to external systems such as PCs, printers and Mitutoyo displays.
	Bidirectional Communication system for handheld measuring instruments	The bidirectional serial communication system from Mitutoyo enables, for example, parameterization and reception of measurement data via a PC.
	SPC-Software	MeasurLink® is a database (SQL Server) based software for managing measurement data (SPC).
	Protection class for harsh Environmental conditions	The IP65 protection class offers protection against water jets and the ingress of dust (dust-tight).
	Protection class for harsh Environmental conditions	The IP67 protection rating provides complete dust and water resistance (30 minutes, 1 m depth).
	ABSOLUTE-Linearencoder	The electronic scale allows for a direct display of the absolute linear position. This eliminates the need to adjust the reference point after each power-on.
	General term for DIGIMATIC-Handmessmittel von Mitutoyo	<p>The so-called hand-held measuring instruments are not only resistant to the ingress of dust and water (protection class IP65 or higher), but also to material wear caused by contact with cooling lubricants during normal use.</p> <p>Note: Some cooling lubricants are aggressive and can degrade the sealing material over time.</p>

# The new QuantuMike

## 4x faster measurements\*:

Efficiency on the rise thanks to an accelerated spindle feed of 2 mm per revolution \*compared to a conventional micrometer

## Intuitive and smart:

Optimization of processes through large display, warning function for approach speed and possibility of PC connection

## Robust reliability:

IP65 protection class for resistance to water, oil and dust

**Advanced precision:** industry-leading accuracy



# Digitale Bügelmessschraube QuantuMike (IP65)

- Faster measurements: 2 mm spindle feed per drum revolution, 4x faster than a conventional micrometer
- Possibility of PC connection: adjustment of parameters via bidirectional communication (DIGIMATIC S1)
- Effortless operation: compact design and ratchet drum for easy one-handed or stand operation
- Calibration plan warning function: adhere to the schedule thanks to integrated reminder functions
- Tolerance checks: GO/±NG assessment by setting the upper and lower tolerances
- Excessive speed warnings: Approach speed warning function
- Long battery life: 2 years or 4,000 hours
- Excellent accuracy: JMPE of  $\pm 1 \mu\text{m}$  according to DIN EN ISO 3611 (model 0–25, 25–50 mm)
- Robust design: IP65 protection class for resistance to water and dust in machining situations
- Key lock (display): Function settings can be locked to prevent accidental changes
- Easy reading: enlarged display for easier reading of the values

Order no.	Description	Measuring range	Numerical step value	Special feature	Plug type	Wireless connection*		List price €
						Sender	Connection unit	
293-140-40	Digital micrometer QuantuMike IP65	0–25 mm	0,001 mm	2 mm/U	SF	264-622	02AZF960	380,00 €
293-141-40	Digital micrometer QuantuMike IP65 Digital	25–50 mm	0,001 mm	2 mm/U	SF	264-622	02AZF960	468,00 €
293-142-40	micrometer QuantuMike IP65 Digital micrometer	50–75 mm	0,001 mm	2 mm/U	SF	264-622	02AZF960	556,00 €
293-143-40	QuantuMike IP65	75–100 mm	0,001 mm	2 mm/U	SF	264-622	02AZF960	628,00 €

\*Transmitter and connection unit are not included and must be purchased separately.

For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).

DIGIMATIC S1

U-WAVE fit

IP65

**MeasurLink® ENABLED**  
 Data management software from Mitutoyo

COOLANT PROOF™

## Absolute digital micrometer QuickMike

- Fast and efficient: 10 mm spindle feed per revolution for 20 times faster movement compared to conventional micrometers
- with non-rotating spindle
- Durability: IP65 protection rating for resistance to water and dust
- extended measuring range: 30 mm measuring capacity

DIGIMATIC

ABSOLUTE™

IP65

**MeasurLink® ENABLED**  
 Data management software from Mitutoyo

U-WAVE

COOLANT PROOF™

Order no.	Description	Measuring range	digit step value	Special feature	Plug type	Wireless connection*		List price €	Promotional price €
						Transmitter	connection unit		
293-666-20	Absolute digital QuickMike outside micrometer	0–30 mm	0,001 mm	10 mm/rev, non-rotating spindle	B	02AZD730G	02AZD790B	587,00 €	469,00 €

\*Transmitter and connection unit are not included and must be purchased separately.

For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).

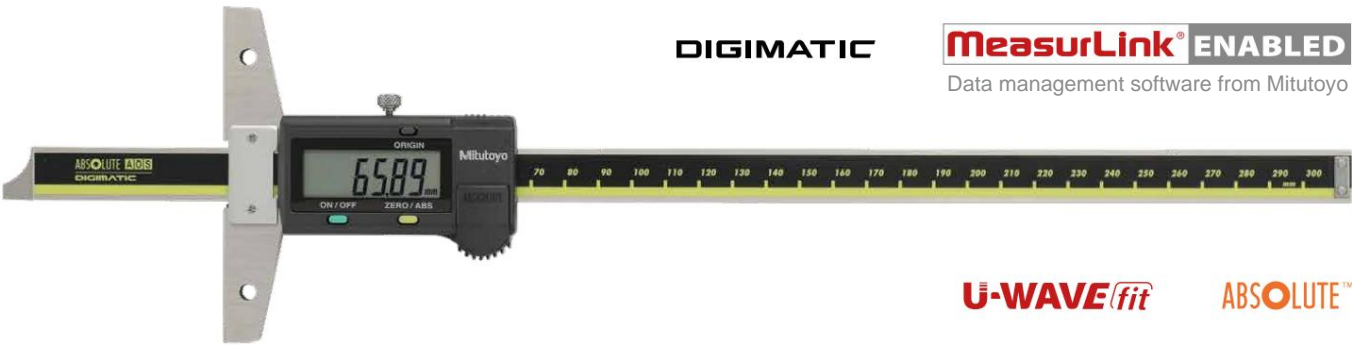




# Digital micrometer (IP65)



# Digital ABS depth caliper



- AOS encoder: advanced induction encoder for coolant-tight calipers
- ABS scale: no setting of the reference point or speed limits
- Durability: hardened, lapped surfaces • Easy readability: large digits

Order no.	Description	Measuring range	digit step value	Plug type	Wireless connection*		List price €	Promotional price €
					Sender	Connection unit		
571-203-30	Digital ABS depth caliper	0-300 mm	0,01 mm	c	264-621	02AZF300	500,00 €	399,00 €

\*Transmitter and connection unit are not included and must be purchased separately.  
For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).



- Durable construction: oil-resistant plastic parts, ideal for contact with cooling lubricants during machining
- Long battery life: up to 2.4 years • IP65 protection class: waterproof and dustproof

**MeasurLink® ENABLED**  
Data management software from Mitutoyo

**U-WAVE<sup>fit</sup>**

**IP65**

**DIGIMATIC**

**COOLANT PROOF™**

Order no.	Description	Measuring range	Numerical step value	Special feature	Plug type	Wireless connection*		List price €	Promotional price €
						Sender	Connection unit		
293-230-30	Digital outside micrometer (IP65) 0–25 mm		0,001 mm	0,5 mm/U	B	264-622	02AZF310	315,00 €	249,00 €
293-231-30	Digital outside micrometer (IP65) 25–50 mm		0,001 mm	0,5 mm/U	B	264-622	02AZF310	373,00 €	299,00 €

\*Transmitter and connection unit are not included and must be purchased separately.  
For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).

## Digital ABS caliper, beak/ Standard measuring surfaces



**DIGIMATIC**

**MeasurLink® ENABLED**  
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**U-WAVE**

**ABSOLUTE™**

- versatile: cutting-edge measuring surfaces for external, rounded measuring surfaces for internal measurements
- ABS scale: no setting of the reference point or speed limits

Order no.	Description	Measuring range	Numerical step value	Plug type	Wireless connection*		List price €	Promotional price €
					Sender	Connection unit		
551-204-10	Digital ABS caliper, beak/ Standard measuring surfaces	0–500 mm	0,01 mm	c	02AZD880G	02AZD790C	960,00 €	759,00 €

\*Transmitter and connection unit are not included and must be purchased separately.  
For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).

# Height measuring devices



570-227



192-615-10

## Digital ABS height measuring and marking device

- ABS scale: no setting of the reference point or speed limits
- Accuracy: Fine adjustment for precise positioning
- Durability: contains a carbide scriber

**MeasurLink® ENABLED**

Data management software from Mitutoyo

Order no.	Description	Measuring range	Numerical step value	Plug type	Wireless connection*		List price €	Promotional price €
					Sender	Connection unit		
570-227	Digital ABS height measuring and marking device 0–200 mm		0,01 mm	F	02AZD880G	02AZD790F	759,00 €	609,00 €

\*Transmitter and connection unit are not included and must be purchased separately.

For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).

## Digital height measuring and marking device with double column

- High accuracy: double column structure for precise measurements
- Easy to read: large digit height of 11 mm
- Durability: carbide-tipped scriber

**MeasurLink® ENABLED**

Data management software from Mitutoyo

Order no.	Description	Measuring range	Numerical step value	Plug type	Wireless connection*		List price €	Promotional price €
					Sender	Connection unit		
192-615-10	Digital height measuring and marking device with Double column	0–1000 mm	0,005 mm	F	02AZD880G	02AZD790F	2.746,00 €	2.199,00 €

\*Transmitter and connection unit are not included and must be purchased separately.

For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).



# Digital Messuhr ID-C (ABS)

## Digital dial gauge ID-C with MAX/MIN/RANGE-Hold function (ABS)

- Comprehensive measurements: acquisition cycle of 20 ms for Peak values (MAX/MIN/RANGE)
- Customizable display: analog bar display (switchable to 12 different scales) and GO/±NG rating
- Advanced calculations: integrated calculation function Ax with freely definable coefficient
- Model with flat back panel



Note: Tripod not included, must be purchased separately



flat back wall

ABSOLUTE™

U-WAVE fit

MeasurLink® ENABLED

Data management software from Mitutoyo

DIGIMATIC

Order no.	Description	Measuring range	Numerical step value	Plug type	Wireless connection*		List price €	Promotional price €
					Sender	Connection unit		
543-300B-10	Digital Messuhr ID-C, MAX-MIN	12,7 mm	0,001 mm	F	264-622	02AZD790F	511,00 €	409,00 €

\*Transmitter and connection unit are not included and must be purchased separately.  
For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).

# Digital Messuhr ID-C

## ABSOLUTE standard version

- Flexibility: bidirectional communication via DIGIMATIC S1 interface for PC parameterization
- Clear display: large digital/analog display for easy reading of the Values, models available with a numerical step of 0.5 µm or 10 µm
- Advanced functions: support calculation, peak detection (MAX/MIN/RANGE) and GO/±NG evaluation
- Protective function: Blocking in case of over-rotation of the rotating display (max. 330°) and function lock as protection against unauthorized use



\*The lifting device for measuring bolts and the tripod are not included in delivery and must be purchased separately.

DIGIMATIC S1

ABSOLUTE™

U-WAVE/fit

MeasurLink® ENABLED

Data management software from Mitutoyo

Order no.	Description	Measuring range	Numerical step	Measuring force	Plug type	Wireless connection*		List price €	Promotional price €
						Transmitter	connection unit		
543-715B	Digital Messuhr ID-C	12,7 mm	0,01 mm	0,2–0,5 N	SF	264-622	02AZF700	394,00 €	319,00 €
543-700B	Digital Messuhr ID-C	12,7 mm	0,0005 mm	ȳ 1,5 N	SF	264-622	02AZF700	446,00 €	359,00 €
543-720B	Digital Messuhr ID-C	25,4 mm	0,0005 mm	ȳ 1,8 N	SF	264-622	02AZG011	567,00 €	449,00 €
543-730B	Digital Messuhr ID-C	50,8 mm	0,0005 mm	ȳ 1,3 N	SF	264-622	02AZG011	848,00 €	679,00 €

\*Transmitter and connection unit are not included and must be purchased separately.  
For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).

# Digital Messuhr ID-S

## ABSOLUTE standard version (Type F)

- ABS scale: no setting of the reference point or Speed limits
- User-friendliness: all functions can be adjusted via large buttons
- Clear display: 9 mm large digits for easy readability
- Long battery life: up to 20,000 hours



flat back wall



\*The lifting device for measuring bolts and the tripod are not included in delivery and must be purchased separately.

**DIGIMATIC**

**ABSOLUTE™**

**U-WAVE<sup>fit</sup>**

**MeasurLink® ENABLED**

Data management software from Mitutoyo

Order no.	Description	Measuring range	digit step value	Mass power	Plug type	Wireless connection*		List price €	Promotional price €
						Transmitter connection unit			
543-781B-10	Digital Messuhr ID-S	12,7 mm	0,01 mm	γ 1,5 N	F	264-622	02AZD790F	187,00 €	149,00 €

\*Transmitter and connection unit are not included and must be purchased separately.  
For wireless connections without Bluetooth®, U-WAVE requires a receiver 02AZD810D (see pages 12–15).



# Wireless data transmission



conventional method



mit U-WAVE

The **U-WAVE** system is a solution for wireless, efficient, and accurate data transmission from measuring instruments such as calipers and micrometers to PCs. It optimizes data acquisition, reduces errors, and increases productivity in quality assurance and testing processes.

**Time saving and  
Process optimization  
by avoiding input errors**

## Wireless measurement data transmission system U-WAVE

- Large radio range: approx. 20 m (line of sight)
- Reliable transmission: 2.4 GHz radio system for secure data transmission
- Easy export: Ability to send data to Excel® or SPC software such as Mitutoyo's MeasurLink®
- Feedback to user: Confirmation of data reception via buzzer or LED (Beep only available on models equipped with a buzzer)
- Energy efficiency: 400,000 data transfers with a single battery

## Wireless measurement data transmission system U-WAVE Bluetooth®

- Long wireless range: approx. 16 m (free line of sight)/10 m (in a manufacturing environment)
- Wireless data transfer: Bluetooth® for easy transfer to PCs, smartphones and tablets
- Flexible setup: Connect up to 7 devices via U-WAVE, no Receiver required; availability of dust/waterproof models
- Clear feedback: Confirmation of data reception via buzzer or LED (beep only available on models equipped with buzzer)

## Connection cable and unit for U-WAVE

- Simple connection: special cable or connection unit for connecting the U-WAVE-T or U-WAVE fit transmitter to the digital measuring device
- Easy setup: fixed unit is attached to U-WAVE fit and inserted into the Measuring device plugged in
- Universal cable: Possibility of using the same U-WAVE cable to connect measuring devices to U-WAVE-T and U-WAVE fit transmitters





# U-WAVE

## Sender

Order no.	Description	U-WAVE-Standard	Transmitter type		Compatibility (type of measuring device)	List price €	Promotional price €
02AZD730G	U-WAVE-Sender	IEEE 802.15.4 (2,4 GHz)	U-WAVE-T	IP67	universal	187,00 €	129,00 €
02AZD880G	U-WAVE-Sender	IEEE 802.15.4 (2,4 GHz)	U-WAVE-T	Summer	universal	187,00 €	129,00 €
264-620	U-WAVE-Sender	IEEE 802.15.4 (2,4 GHz) U-WAVE fit	IP67		caliper	185,00 €	129,00 €
264-621	U-WAVE-Sender	IEEE 802.15.4 (2,4 GHz) U-WAVE fit Summer			caliper	185,00 €	129,00 €
264-622	U-WAVE-Sender	IEEE 802.15.4 (2,4 GHz) U-WAVE fit	IP67		Micrometer, dial gauge	185,00 €	129,00 €
264-623	U-WAVE-Sender	IEEE 802.15.4 (2,4 GHz) U-WAVE fit Summer			Micrometer, dial gauge	185,00 €	129,00 €
264-624	U-WAVE-Sender	Bluetooth®	U-WAVE fit	IP67	caliper	185,00 €	139,00 €
264-625	U-WAVE-Sender	Bluetooth®	U-WAVE fit Summer		caliper	185,00 €	139,00 €
264-626	U-WAVE-Sender	Bluetooth®	U-WAVE fit	IP67	Micrometer, dial gauge	185,00 €	139,00 €
264-627	U-WAVE-Sender	Bluetooth®	U-WAVE fit Summer		Micrometer, dial gauge	185,00 €	139,00 €

## Connecting cables for U-WAVE

Order no.	Description	Transmitter type	measuring device	Connector type	U-WAVE connector (type)	List price €	Promotional price €
02AZD790A	Connection cable A for U-WAVE universal		e.g. calipers with IP protection class	A	U-WAVE-T U-WAVE fit	110,00 €	72,90 €
02AZD790B	Connection cable B for U-WAVE universal		e.g. outside micrometers with IP protection class, 3-line internal micrometers	B	U-WAVE-T U-WAVE fit	110,00 €	72,90 €
02AZD790C	Connection cable C for U-WAVE universal		e.g. large standard calipers without high IP protection class	C	U-WAVE-T U-WAVE fit	105,00 €	63,90 €
02AZD790F	Connection cable F for U-WAVE universal		unidirektionale Messuhren, z. B. ID-S z. B.	F	U-WAVE-T U-WAVE fit	98,00 €	63,90 €
02AZD790D	Connection cable D for U-WAVE universal		ID-H-Messuhren, SJ-210/310/410, HV-100/HM-200, HR-530/600 z. B.	D	U-WAVE-T U-WAVE fit	98,00 €	63,90 €
02AZD790E	Connection cable E for U-WAVE universal		HR-300/400, HH-411	–	U-WAVE-T U-WAVE fit	98,00 €	63,90 €
02AZD790G	Connection cable G for U-WAVE universal		ID-N and ID-B dial gauges	G	U-WAVE-T U-WAVE fit	105,00 €	63,90 €
02AZG011	Connection cable SF for U-WAVE universal		bidirectional ID-C and ID-F dial gauges, Linear Height LH-600F/FG	SF	U-WAVE-T	131,00 €	109,00 €

## Connection units for U-WAVE fit

Order no.	Description	Transmitter type	measuring device	Connector type	U-WAVE connector (type)	List price €	Promotional price €
02AZF300	Connection unit for U-WAVE fit	U-WAVE fit	Standard caliper without high IP protection class	C	U-WAVE fit	105,00 €	74,90 €
02AZF310	Connection unit for U-WAVE fit	U-WAVE fit	IP micrometers, IP calipers bidirectional ID-C dial	B	U-WAVE fit	110,00 €	74,90 €
02AZF700	Connection unit for U-WAVE fit	U-WAVE fit	indicators, Modell 12,7 mm/0,5"	SF	U-WAVE fit	124,00 €	99,90 €
02AZF960	Connection unit for U-WAVE fit	U-WAVE fit	bidirectional QuantuMike Micrometer	SF	U-WAVE fit	107,00 €	74,90 €

## Recipient

Order no.	Description	U-WAVE-Standard	Product type	List price €	Promotional price €
02AZD810D	U-WAVE-R data receiver	IEEE 802.15.4 (2,4 GHz)	Recipient	371,00 €	249,00 €

The above prices are Mitutoyo's recommended retail prices, excluding VAT.

# U-WAVE

## user



About the following QR code takes you to the "USB Input Tool" in our Webshop; there you will find You information for connection via USB cable.



## measuring instruments



Digimatic-Bügelmessschraube



Digimatic-Messschieber



Digimatic measuring device



Digimatic-Bügelmessschraube



Digimatic-Messschieber

## Connection units



Connection unit



Connection unit



connecting line



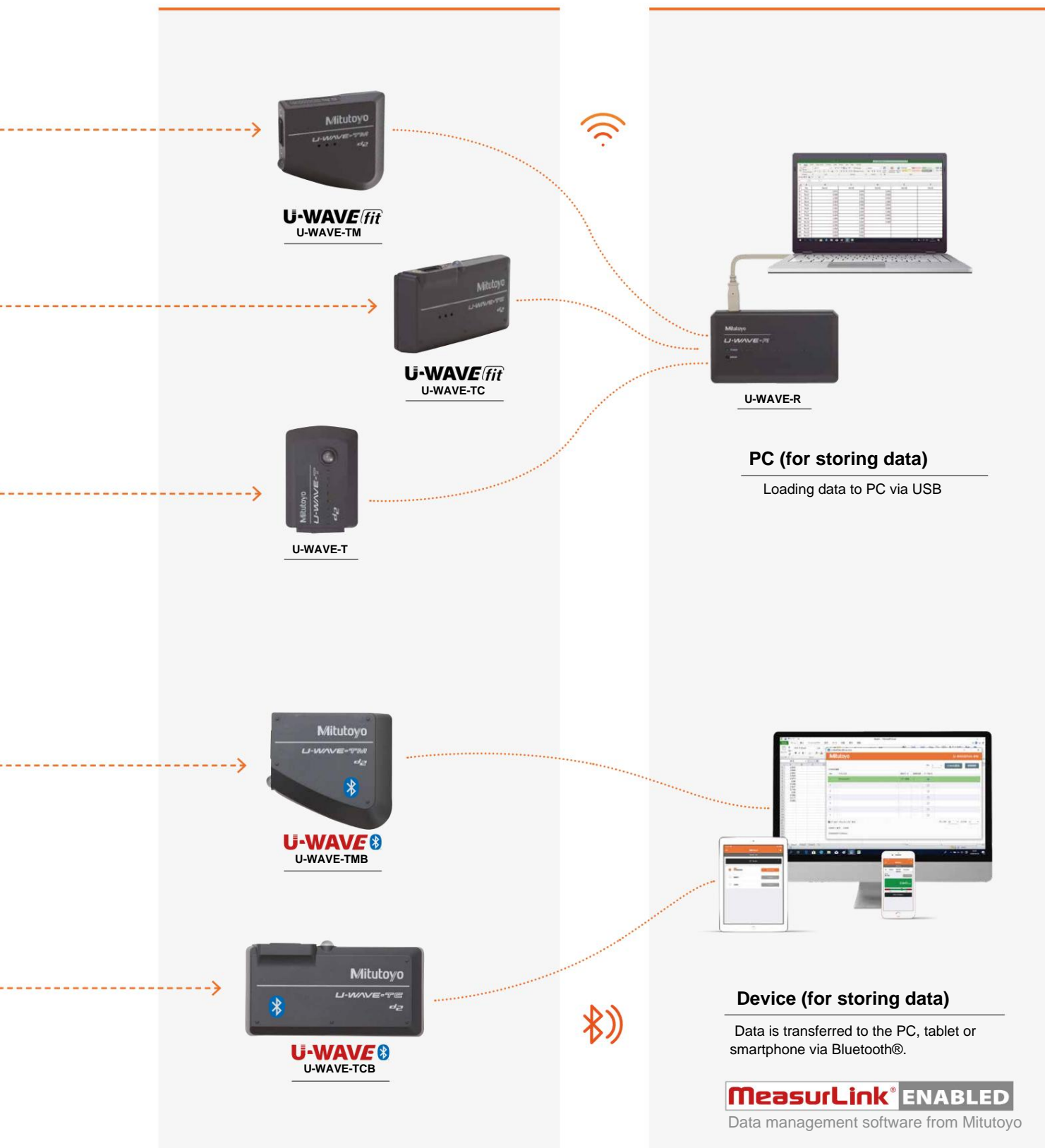
Connection unit



Connection unit

## Sender

## Recipient



# caliper



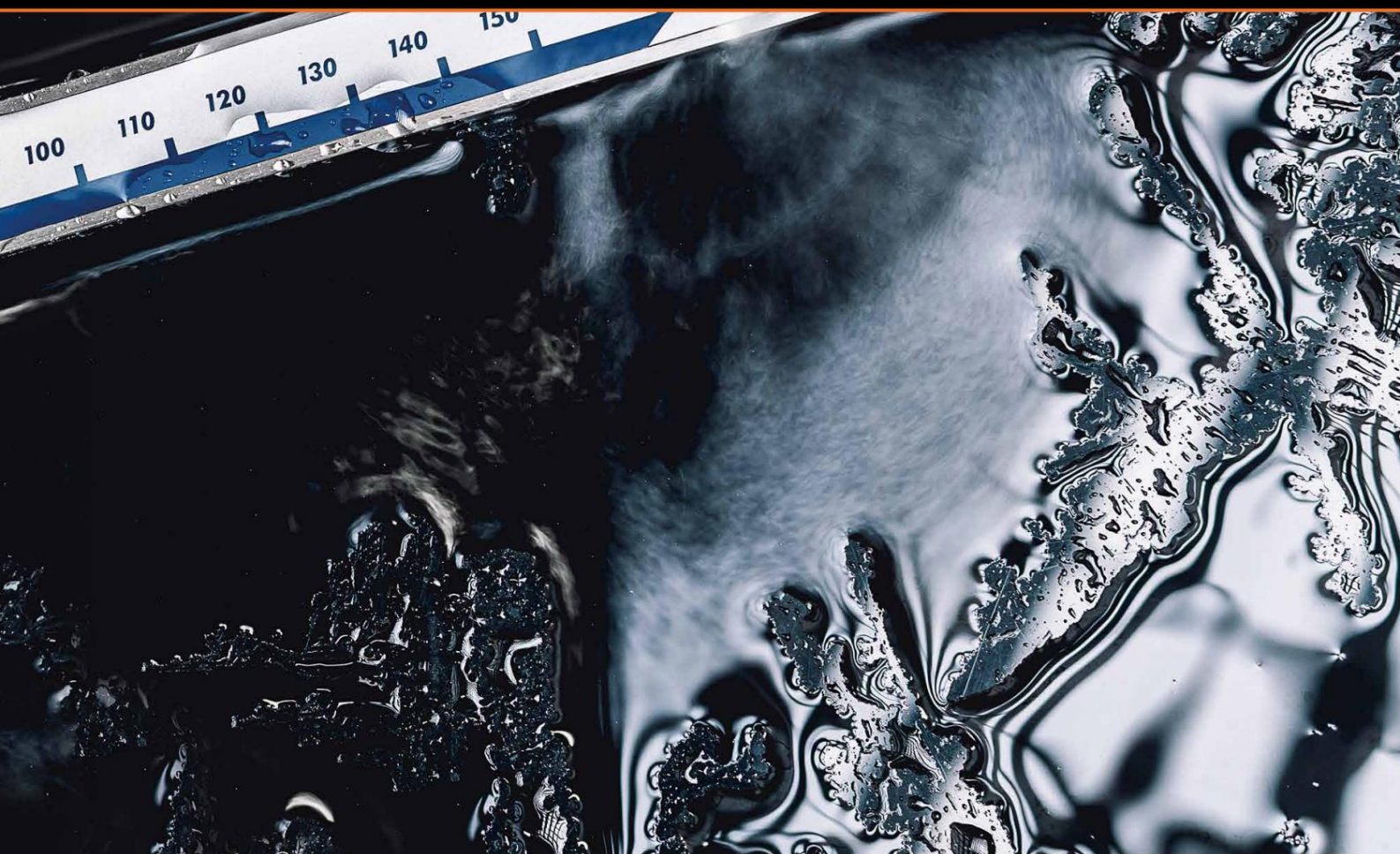
## Digital ABS caliper (CoolantProof, IP67)

ABSOLUTE™ IP67 COOLANT PROOF™

- IP67 protection class: water and dust tight for machining situations where coolant is used
- Robust design: resistance to dust according to DIN EN 60529 and to temporary complete immersion in water
- ABS scale: no setting of the reference point or speed limits

Order no.	Description	Measuring range	Digit step value	Special feature	List price €	Promotional price €
500-181-30	Digital ABS-AOS caliper	0–150 mm	0,01 mm	flat depth gauge	134,00 €	99,90 €
500-182-30	Digital ABS-AOS caliper	0–200 mm	0,01 mm	flat depth gauge	215,00 €	169,00 €
500-184-30	Digital ABS-AOS caliper	0–150 mm	0,01 mm	round depth gauge	134,00 €	99,90 €
500-196-30	Digital ABS-AOS caliper	0–6"/ 0–150 mm	0,0005"/ 0,01 mm	flat depth gauge and drive roller	148,00 €	129,00 €
500-706-20	Digital ABS caliper (CoolantProof, IP67)	0–150 mm	0,01 mm	flat depth gauge	202,00 €	149,00 €
500-707-20	Digital ABS caliper (CoolantProof, IP67)	0–200 mm	0,01 mm	flat depth gauge	279,00 €	219,00 €
500-708-20	Digital ABS caliper (CoolantProof, IP67)	0–300 mm	0,01 mm	flat depth gauge	401,00 €	319,00 €





ABSOLUTE™

## Digital ABS-AOS caliper

- AOS encoder: advanced induction encoder for coolant-tight calipers
- ABS scale: no setting of the reference point or speed limits
- High resistance to dirt: electromagnetic induction for Accuracy, even with dirt (water, oil) on the scale

# Analog micrometers



193-101

- light structure: robust, stove-enamelled  
Frame for use in workshops
- Consistent accuracy: constant  
Measuring power thanks to feel ratchet
- Fast, precise reading: satin chrome-plated  
Scales for clear, easy-to-read measurements



103-139-10

- Ease of use: ideal for hands-free  
Use of outside micrometers
- Versatility: suitable for micrometers with a  
measuring range of 0–100 mm, with  
adjustable angle



156-101-10

Order no.	Description	Measuring range	Scale division	List price €	Promotional price €
193-101	Micrometer	0–25 mm	0,01 mm	155,00 €	119,00 €
103-129	Micrometer, simple design	0–25 mm	0,001 mm	80,00 €	63,90 €
103-137	Micrometer, simple design	0–25 mm	0,01 mm	59,00 €	46,90 €
103-138	Micrometer, simple design	25–50 mm	0,01 mm	84,00 €	66,90 €
103-139-10	Outside micrometer, simple design	50–75 mm	0,01 mm	110,00 €	87,90 €
156-101-10	Holder for micrometers with adjustable angle			70,00 €	55,90 €

# Dial gauges

- Versatile options: Compact and standard versions as well as models with measuring bolts on the back available
- Flexible design: outer ring clamp and lifting lever can be attached on both sides, tool-free assembly
- Improved protection: absence of screw holes and O-ring seal to prevent the ingress of Water and oil
- Reliable performance: smooth clamping using Shaft bushing and durability thanks to oil-resistant Materials



Order no.	Description	Measuring range	Scale division	Special feature	List price €	Promotional price €
2046A	Dial gauge, back panel with eyelet, ISO version	10 mm	0,01 mm	Back panel with eyelet	49,00 €	38,90 €
2046AB	Dial gauge, flat back, ISO version	10 mm	0,01 mm	flat back wall	48,00 €	37,90 €
1044A	Dial gauge, back panel with eyelet, ISO version	5 mm	0,01 mm	Back panel with eyelet	76,00 €	60,90 €
1160A	Dial gauge, ISO version	5 mm	0,01 mm	Measuring bolt on the back	146,00 €	119,00 €
2050AB-19	Dial indicator, flat back, ISO version	20 mm	0,01 mm	flat back wall	110,00 €	88,90 €
2052AB-19	Dial indicator, flat back, ISO version	30 mm	0,01 mm	flat back wall	140,00 €	109,00 €
2929AB	Dial indicator (one turn), flat back, ISO version	0,8 mm	0,01 mm	flat back wall	114,00 €	90,90 €
513-404-10E	Indicator lever, horizontal version	0,8 mm	0,01 mm		105,00 €	84,90 €

# Watch and Vernier caliper



- Effortless handling: smooth movements with high shock protection
- Easy to read: dial with large numbers

Order no.	Description	Measuring range	Scale division	Special feature	List price €	Promotional price €
505-730	Dial caliper	0-150 mm	0,02 mm	2 mm/U	122,00 €	90,90 €
505-732	Dial caliper	0-150 mm	0,01 mm	1 mm/U	140,00 €	99,90 €
530-101	Vernier caliper	0-150 mm	0,05 mm		38,00 €	29,90 €
530-104	Vernier caliper	0-150 mm 0-6", 0,05 mm			39,00 €	30,90 €
531-122	Vernier caliper with clamping device	0-150 mm 0-6", 0,05 mm			47,00 €	37,90 €



## Indoor precision measuring devices

### Internal precision measuring instruments for very small Drilling

- Best suited for small bores: 2-point internal measuring instruments specifically designed for precise measurement of small bores
- Speed and precision: Designed for fast, reliable measurements of small hole diameters
- Durable contact points: hard chrome-plated Coating for long-lasting performance

### Indoor precision measuring devices

- self-centering internal precision measuring instruments: automatic Alignment via a centering bridge
- High accuracy: hollow-structured handle for Reduction of heat transfer from the operator by 50%
- Incremental accuracy: interchangeable washers with a thickness of 0.5 mm for fine adjustments in small steps (included)
- Durable contact points: carbide (>18 mm range) for wear resistance and high durability

### Internal precision measuring instruments for blind holes

- Precise access: inner diameters can be determined almost at the bottom of the bore
- Durable contact points: Hard metal construction for wear resistance and high durability



Order no.	Description	Measuring range	Scale division	Special feature	List price €	Promotional price €
526-127-20	2-point internal precision measuring device	10–18 mm	0,01 mm	very small holes	407,00 €	329,00 €
511-425-20	2-point internal precision measuring device	15–35 mm	0,01 mm	Blind holes	536,00 €	429,00 €
511-437-20	2-point internal precision measuring device	50–150 mm	0,001 mm	Blind holes	824,00 €	659,00 €
511-712-20	2-point internal precision measuring device	35–60 mm	0,01 mm		311,00 €	249,00 €
511-713-20	2-point internal precision measuring device	50–150 mm	0,01 mm		324,00 €	259,00 €
511-714-20	2-point internal precision measuring device	100–160 mm	0,01 mm		510,00 €	409,00 €
511-724-20	2-point internal precision measuring device	100–160 mm	0,001 mm		586,00 €	469,00 €
511-725-20	2-point internal precision measuring device	160–250 mm	0,001 mm		707,00 €	569,00 €
511-716-20	2-point internal precision measuring device	250–400 mm	0,01 mm		751,00 €	599,00 €



# 3-line internal micrometers



Order no.	Description	Measuring range	Scale division	List price €	Promotional price €
368-911	3-line internal micrometer Holtest in set	6–12 mm (3 pcs.)	0,001 mm	1.091,00 €	899,00 €
368-765	3-line internal micrometer Holtest	16–20 mm	0,005 mm	390,00 €	309,00 €
368-766	3-line internal micrometer Holtest	20–25 mm	0,005 mm	393,00 €	319,00 €
368-767	3-line internal micrometer Holtest	25–30 mm	0,005 mm	420,00 €	339,00 €
368-768	3-line internal micrometer Holtest	30–40 mm	0,005 mm	464,00 €	379,00 €
368-769	3-line internal micrometer Holtest	40–50 mm	0,005 mm	473,00 €	379,00 €



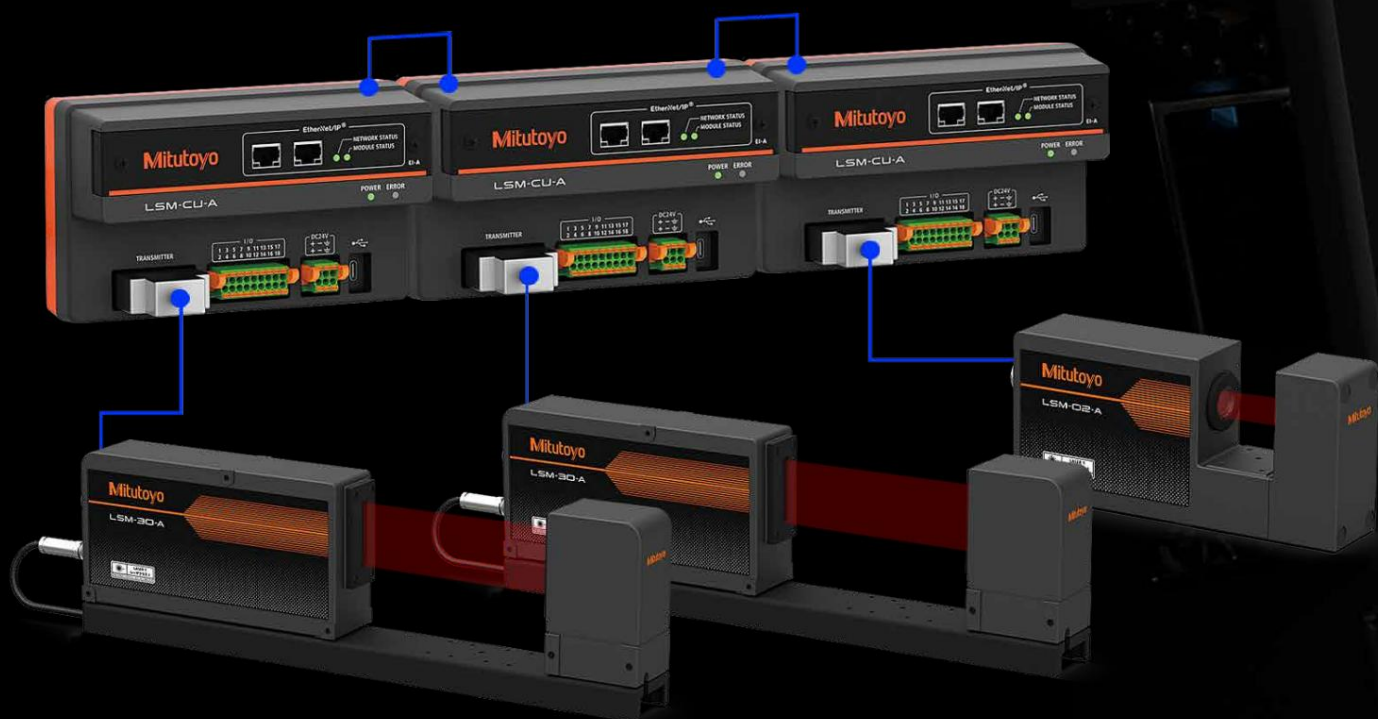
## Holtest – simple model

- inexpensive option: 3-line  
Internal micrometer in the simple version
- Durability: Anvils and cones made of hardened tool steel for reliable  
Performance
- Basic equipment: no adjustment rings or  
Extension rod included

## Holtest – analog Modell im Set

- Stable measurements: Accuracy  
thanks to automatic centering
- Resistant surface: measuring inserts made of titanium-coated tungsten carbide  
(6–12 mm)
- Complete set: 2 adjustment rings and  
1 extension rod included

# Sets – Laser-Scan-Mikrometer



**Modular and daisy-chain capable controllers with industrial interfaces**

- High-precision non-contact inline measurement for industrial applications
- Use of two LSM-30-A for diameters up to 160 mm
- Interfaces to support the most common industrial network protocols
- Protection class IP67

## Sets (metric)

Designation Order no.	LSM	Controller	Calibration set	Measuring range	Repeatability frequency (total measuring range)	resolution	Measurement (Number of Scans)	Standard interface	List price €	Promotional price €
LSM-30-mm-SET1 <b>LSMSET001</b>	30 mm- Sensor (1 Piece)	metric, I/O terminal strip, Power terminal block	storage box, Holder, standard (ø1 mm and ø30 mm)	0,3–30 mm	±0,09 µm	0,01 µm	3.200/s	USB-C	7.561,00 €	<b>6.809,00 €</b>
LSM-02-mm-SET4 <b>LSMSET004</b>	2 mm- Sensor (1 Stk.)	metric, I/O terminal strip, Power terminal block	storage box, Holder, standard (ø0.1 mm and ø2 mm)	0,005–2 mm	±0,03 µm	0,01 µm	3.200/s	USB-C	7.166,00 €	<b>6.459,00 €</b>

## Sets (metric/inch)

Designation Order no.	LSM	Controller	Calibration set	Measuring range	Repeatability frequency (total measuring range)	resolution	Measurement (Number of Scans)	Standard- interface	List price €	Promotional price €
LSM-30-mm/in-SET2 <b>LSMSET002</b>	30 mm- Sensor (1 Piece)	metric/inch, I/O terminal strip, Power terminal block	storage box, Holder, standard (ø1 mm and ø30 mm)	0,3–30 mm	±0,09 µm	0,01 µm	3.200/s	USB-C	7.561,00 €	<b>6.809,00 €</b>
LSM-02-mm/in-SET3 <b>LSMSET003</b>	2 mm- Sensor (1 Stk.)	metric/inch, I/O terminal strip, Power terminal block	storage box, Holder, standard (ø0.1 mm and ø2 mm)	0,005–2 mm	±0,03 µm	0,01 µm	3.200/s	USB-C	7.166,00 €	<b>6.459,00 €</b>



## Interface options

### Industrial interface units for LSM-A controllers

Order no.	Designation	Interface type	Interface-side Connections	List price €
02AGQ300	LSM-EI-A	EtherCAT	2 x RJ45	745,00 €
02AGQ370	LSM-EC-A	PROFINET	2 x RJ45	745,00 €
02AGQ350	LSM-PN-A	EtherNet/IP	2 x RJ45	745,00 €
02AGQ390	LSM-CC-A	CC-Link	2 x RJ45	745,00 €

### Optional power supply

Order no.	Description	List price €
63AAA679	LSM power supply 24 V/5 A (only with EU power cable)	300,00 €
21HZA209	DC plug with wire end ferrules	Price on request



CC-Link

PROFI  
NET

EtherCAT

EtherNet/IP



# Linear Gauge-Sets

## Features of all LG sets

- Flexible setup: Connection of up to 2 Linear Gauges per EJ display, 8 displays per interface
- Supported signals: differential square wave
- Easy installation: compatible with a DIN rail, USB-C cable (3 m) included



Designation Order no.	Set		Features				List price €	Promotional price €
	Display (Type)	Interface Type	Max. Resolution (mm)	Max. Resolution (in)	Ad-side Connections	Interface-side Connections		
EJ-PN-SET1 <b>EJSET001</b>	EJ indicator, metric	PROFINET	0,0001 mm		2 x Linear Gauge USB-C 2.0	2 x RJ45	1.701,00 €	1.399,00 €
EJ/in-PN-SET2 <b>EJSET002</b>	EJ indicator, metric/inch	PROFINET	0,0001 mm	0,000005"	2 x Linear Gauge USB-C 2.0	2 x RJ45	1.701,00 €	1.399,00 €
EJ-EC-SET3 <b>EJSET003</b>	EJ indicator, metric	EtherCAT	0,0001 mm		2 x Linear Gauge USB-C 2.0	2 x RJ45	1.790,00 €	1.469,00 €
EJ/in-EC-SET4 <b>EJSET004</b>	EJ indicator, metric/inch	EtherCAT	0,0001 mm	0,000005"	2 x Linear Gauge USB-C 2.0	2 x RJ45	1.790,00 €	1.469,00 €
EJ-EI-SET5 <b>EJSET005</b>	EJ indicator, metric	EtherNet/IP	0,0001 mm		2 x Linear Gauge USB-C 2.0	2 x RJ45	1.762,00 €	1.449,00 €
EJ/in-EI-SET6 <b>EJSET006</b>	EJ indicator, metric/inch	EtherNet/IP	0,0001 mm	0,000005"	2 x Linear Gauge USB-C 2.0	2 x RJ45	1.762,00 €	1.449,00 €
EJ-CC-SET7 <b>EJSET007</b>	EJ indicator, metric	CC-Link	0,0001 mm		2 x Linear Gauge USB-C 2.0	1 x PHOENIX CONTACT- Connection block 1876631	1.687,00 €	1.389,00 €
EJ/in-CC-SET8 <b>EJSET008</b>	EJ indicator, metric/inch	CC-Link	0,0001 mm	0,000005"	2 x Linear Gauge USB-C 2.0	1 x PHOENIX CONTACT- Connection block 1876631	1.687,00 €	1.389,00 €
EJ-US-SET10 <b>EJSET010</b>	EJ indicator, metric	USB	0,0001 mm		2 x Linear Gauge USB-C 2.0		1.130,00 €	929,00 €
EJ/in-US-SET9 <b>EJSET009</b>	EJ indicator, metric/inch	USB	0,0001 mm	0,000005"	2 x Linear Gauge USB-C 2.0		1.130,00 €	929,00 €

Download software:



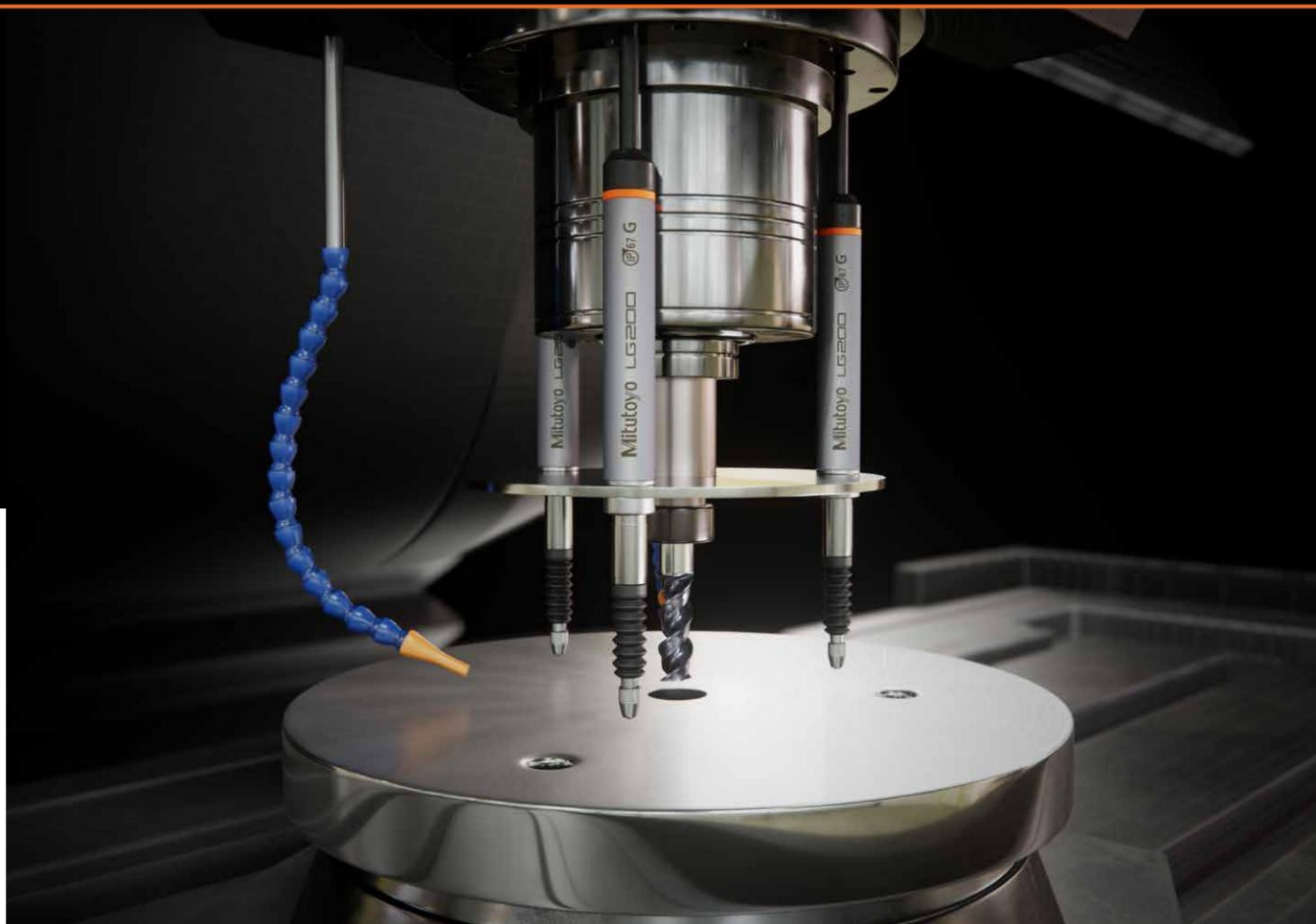
### Availability of free software

- LG QuickSetup Tool
- PLC configuration files

### Power supply

For stand-alone use, add item 357651, the 12 V/DC AC power adapter (not included in the set).





### Linear Gauge displays (optional)

Order no.	Designation	Interface type	Max. Resolution (mm)	Max. Resolution (in)	Ad-side Connections	List price €	Promotional price €
542-080	EJ display 102N	EJ indicator, metric	0,0001 mm		2 x Linear Gauge 2	630,00 €	519,00 €
542-081	EJ display 102NE	EJ indicator, metric/inch	0,0001 mm	0,000005"	x Linear Gauge	630,00 €	519,00 €

### Optional power supply

Order no.	Description	List price €
357651	AC power adapter with 12 V/DC / 4 A (desktop power supply)	87,00 €
21HZA209	DC plug with wire end ferrules (when using 357651)	Price on request
02ZAA030	AC cable set BS (UK) for 357651 – 12 V power supply	17,00 €
02ZAA020	AC cable set CEE (EU) for 357651 – 12 V power supply	17,00 €



Compatible linear gauges can be found on page 27.

# Linear Gauge-Sets

Displays with CEE power supply			Exit				Compatibility with Linear Gauges		List price €	Promotional price €
542-007D	Display unit EC display	Digimatic display (1 axis)	Digimatic output only				LGS		393,00 €	319,00 €
542-075D	Display unit EH-101P for Linear Gauge	Display (1 axis) USB interface RS-232C RS-Link			without Reference point detection		LG100 LG200		1.008,00 €	829,00 €
542-071D	Display unit EH-102P for Linear Gauge	Display (2 axes) USB interface RS-232C RS-Link			without Reference point detection		LG100 LG200		1.226,00 €	999,00 €
542-073D	Display unit EH-102Z for Linear Gauge	Display (2 axes) USB interface RS-232C RS-Link			with Reference point detection		LG100 LG200		1.401,00 €	1.149,00 €
542-072D	Display unit EH-102D for Linear Gauge	Digimatic display (2 axes)	USB interface RS-232C RS-Link				LGS		1.226,00 €	999,00 €

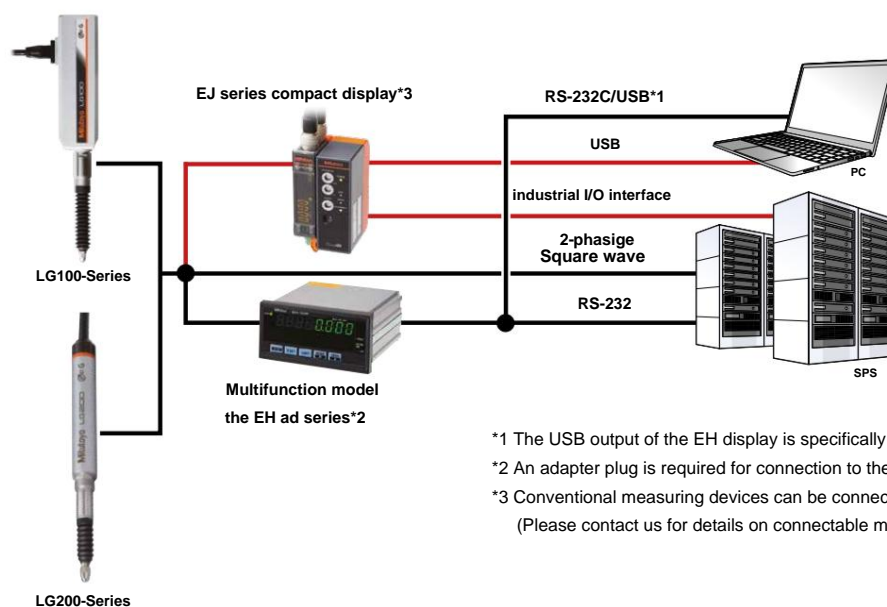
Displays with UK power supply			Exit				Compatibility with Linear Gauges		List price €	Promotional price €
542-007E	Display unit EC display	Digimatic display (1 axis)	Digimatic output only				LGS		393,00 €	319,00 €
542-075E	Display unit EH-101P for Linear Gauge	Display (1 axis) USB interface RS-232C RS-Link			without Reference point detection		LG100 LG200		1.008,00 €	829,00 €
542-071E	Display unit EH-102P for Linear Gauge	Display (2 axes) USB interface RS-232C RS-Link			without Reference point detection		LG100 LG200		1.226,00 €	999,00 €
542-073E	Display unit EH-102Z for Linear Gauge	Display (2 axes) USB interface RS-232C RS-Link			with Reference point detection		LG100 LG200		1.401,00 €	1.149,00 €
542-072E	Display unit EH-102D for Linear Gauge	Digimatic display (3 axes)	USB interface RS-232C RS-Link				LGS		1.226,00 €	999,00 €

Software			Ad compatibility			List price €	Promotional price €
02NGB072	SENSORPAK/E V3.0	Software for measurement data acquisition	EH-P	EH-D	EH-Z	892,00 €	779,00 €

Accessories			Ad compatibility			List price €
21HZA195	Adapter for EH display: 542-075D/542-071D	required when using the EH-P display LG100		LG200	EH-P	Price on request
21HZA196	Adapter for EH display: 542-073D	required when using the EH-Z display LG100		LG200	EH-Z	Price on request

Linear-Gauge (Typ)	Measuring range	digit step value	function	IP protection class	ABSOLUTE- function	Ad compatibility				List price €	Promotional price €
575-303	LGS-1012PE 12,7 mm	0,01 mm	DIGIMATIC	IP66	ABSOLUTE™				EH-D EC	225,00 €	179,00 €
575-313	LGS-1012PE 0,5"	0,01 mm	DIGIMATIC	IP66	ABSOLUTE™				EH-D EC	231,00 €	189,00 €
542-190	LG100-110 10,0 mm	1,0 µm		IP67 G		EJ-Set	EH-P	EH-Z		725,00 €	599,00 €
542-191	LG100-0510 10,0 mm	0,5 µm		IP67 G		EJ-Set	EH-P	EH-Z		725,00 €	599,00 €
542-192	LG100-0110 10,0 mm	0,1 µm		IP67 G		EJ-Set	EH-P	EH-Z		772,00 €	629,00 €
542-193	LG100-125 25,0 mm	1,0 µm		IP67 G		EJ-Set	EH-P	EH-Z		899,00 €	739,00 €
542-194	LG100-0525 25,0 mm	0,5 µm		IP67 G		EJ-Set	EH-P	EH-Z		899,00 €	739,00 €
542-195	LG100-0125 25,0 mm	0,1 µm		IP67 G		EJ-Set	EH-P	EH-Z		955,00 €	789,00 €
542-196	LG100-150 50,0 mm	1,0 µm		IP67 G		EJ-Set	EH-P	EH-Z		1.076,00 €	889,00 €
542-197	LG100-0550 50,0 mm	0,5 µm		IP67 G		EJ-Set	EH-P	EH-Z		1.076,00 €	889,00 €
542-186	LG200-110 10,0 mm	1,0 µm		IP67 G		EJ-Set	EH-P	EH-Z		837,00 €	689,00 €
542-187	LG200-0510 10,0 mm	0,5 µm		IP67 G		EJ-Set	EH-P	EH-Z		837,00 €	689,00 €
542-188	LG200-0110 10,0 mm	0,1 µm		IP67 G		EJ-Set	EH-P	EH-Z		941,00 €	769,00 €

## Systemkonfiguration



\*1 The USB output of the EH display is specifically designed for SENSORPAK.

\*2 An adapter plug is required for connection to the EH display.

\*3 Conventional measuring devices can be connected using adapter cables.  
(Please contact us for details on connectable measuring devices.)

IP67 G	Protection class for harsh environmental conditions	The IP67 rating provides complete dust and water resistance (30 minutes, 1 m depth). The "G" indicates additional oil resistance.
--------	---	--

# Linear Gauge-Sets

## environmentally friendly models

### LG100



IP67 G



Measuring range: 10 mm/25 mm/50 mm

Resolution: 1  $\mu$ m/0.5  $\mu$ m/0.1  $\mu$ m

## slim design

### LG200\*



IP67 G



Measuring range: 10 mm

Resolution: 1  $\mu$ m/0.5  $\mu$ m/0.1  $\mu$ m

\*The reference point detection function on the display is disabled.

adapter plug  
21HZA196

adapter plug  
21HZA195

## Model with Digimatic output

### LGS



IP66



Measuring range: 12.7 mm

Resolution: 10  $\mu$ m



## Model for DIN rail mounting

EJ-102N



Input with 2 axes, subtractions  
Connection of 8 units possible

## Rack installation

EH-102Z



Input with 2 axes, subtractions  
Multifunction type

EH-101P (1 axis)

EH-102P (2 axes)



Multifunction type

EH-102D



Input with 2 axes, subtractions  
Multifunction type

## compact display unit

EC-101D



Input with 1 axis

## Interface unit

CC-Link

21HZA186



PROFINET

21HZA187



EtherNet/IP

21HZA188



EtherCAT

21HZA264



USB

21HZA149



## EJ display setup tool

LG QuickSetup Tool

(free download from the Mitutoyo website)



## Software for measurement data acquisition

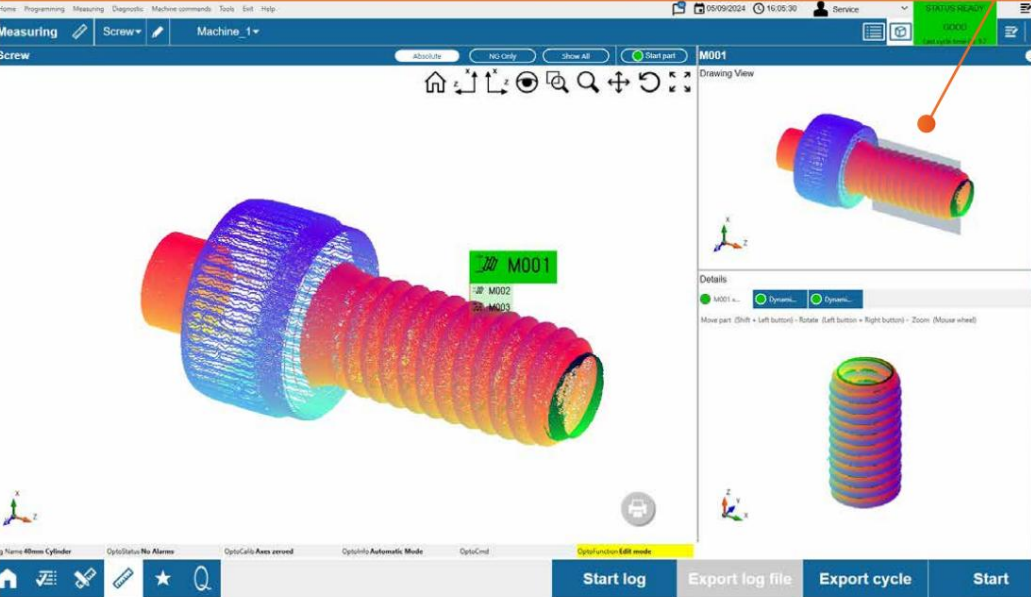
SENSORPAK



# Next-generation RoundtracerFlash



Equipped with a state-of-the-art graphical user interface



## The Roundtracer Flash is an investment in precision, reliability and future-proof technology.

- all familiar features – now even better than ever
- elegant, modern design that impresses
- Advanced features for first-class performance
- Revision for greater ease of use
- improved user experience without compromising reliability
- higher load capacity: more versatility through new engine that can handle up to 15 kg payload
- Easy maintenance: Reduction of downtime thanks to quickly accessible housing
- Optional automation: motorized upper abutment for automatic loading/unloading (sold separately)
- Familiar software: unchanged user interface, no additional training required
- Quick setup: faster installation after redesign

Discover products:



Clamp & start two-stage measurement

Measurement at the touch of a button (a single button)



# The new surf test SJ-220

## Precision in Pocket size for Surface roughness measurement

The brand-new Surftest SJ-220 is a portable surface roughness tester. The compact, battery-operated, and touchscreen-equipped SJ-220 is ideal for use in

can be used anywhere.



### E-Learning



### Deepen your knowledge: everything about the SJ-220

- Overview of Surftest SJ-220: Introduction to its functions and features
- Calibration: Step-by-step instructions for correctly calibrating the device
- Carrying out measurements: detailed instructions for carrying out accurate surface measurements
- Theory and practice of measurement technology: understanding measurement theory and standards (DIN EN ISO 21920 and DIN EN ISO 4287)
- Measurement data and tolerance: Help with the interpretation of measurement data and compliance with tolerance
- Measurements via Android smartphone and PC: convenient options for measuring using Android smartphone or PC
- Accessories: Overview of available accessories for an improved trade fair experience
- Settings: optimal performance thanks to instructions to configure the settings
- Final test: final test to evaluate and consolidate your knowledge of the SJ-220





learn more:



- Easy to use: 2.8" color LCD touchscreen with smartphone-like navigation
- Wireless connectivity: optional Bluetooth® for communication with Android devices (via a free app) and PCs (via the free Software „SJ Communication Tool“)
- Support of the DIN EN ISO 21920 standard
- Intuitive navigation: simply designed menu
- Multilingual interface: Support for 25 languages



Extended functionality in conjunction with a smartphone!



# SmartMeasure-AL

SmartMeasure-AL is an advanced system for automated measurements using coordinate measuring machines (CMMs). It includes a racking system (palletizing and positioning system), an I/O station, a storage system, system pallets, a collaborative robot, and a CMM.

learn more:

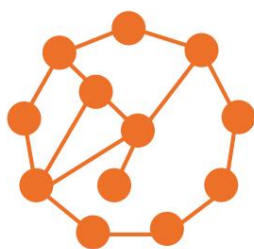


- **Easy to use** – intuitive graphical user interface with very little training required
- **Smart connectivity** – use in conjunction with a variety of devices and different software
- **Turnkey solution** – easy and quick setup
- **Easy reporting** – display of measurement results and their export to the Production software
- **Measurement of multiple workpieces** – Measurement of different workpieces thanks to clamping systems equipped with RFID chips
- **Flexible configuration** – adaptation to different requirements without great effort

## Automatic quality control system



Turnkey  
Solution



Smart  
Connectivity



Modular  
Construction



24/7-  
Operation

## The perfect solution for your industry

Additive manufacturing



medicine



Aerospace



Electromobility





## WLI unit for precise 3D measurement

# PROFILE AND ROUGHNESS IN NANOMETER- AREA

The white light interferometer (WLI) is a non-contact sensor for the rapid detection of the smallest 3D structures.

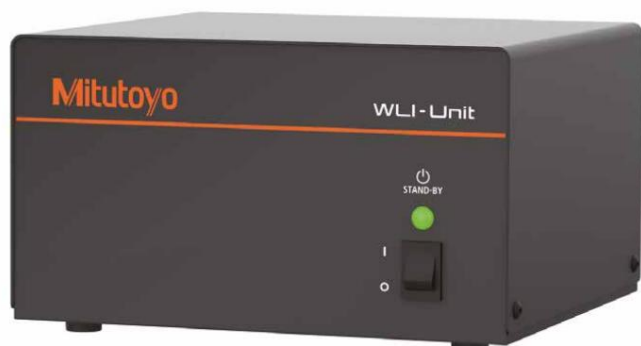
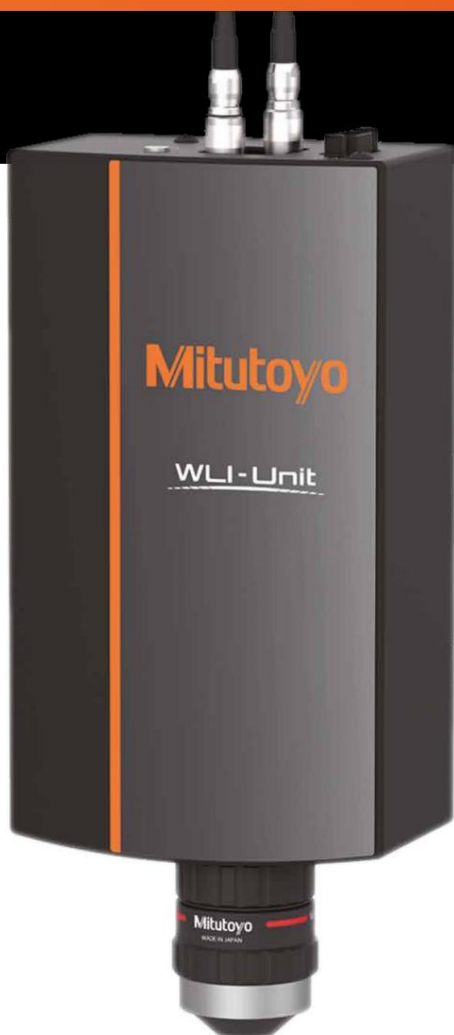
The technology enables roughness measurements and topographical images with nanometer resolution. WLI components can be used flexibly as separate OEM products or combined for integration into manufacturing environments and as a stand-alone measurement system.

Discover products:



### WLI Unit

- High accuracy: non-contact 3D roughness measurement and topographical images
- Stability: height accuracy independent of magnification
- Durability: high robustness against vibrations at compact and lightweight design



The lenses mounted on the WLI unit are optional.



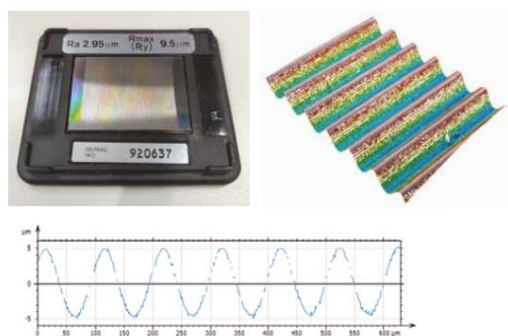
## WLI Plan Apo

- optimized design: tailored to the WLI unit
- large working distance: adjustment length of 60 mm
- high performance: high NA, high resolution and plan apochromat
- Standard equipment: beam splitter, reference mirror and mechanism for adjusting the interference formation

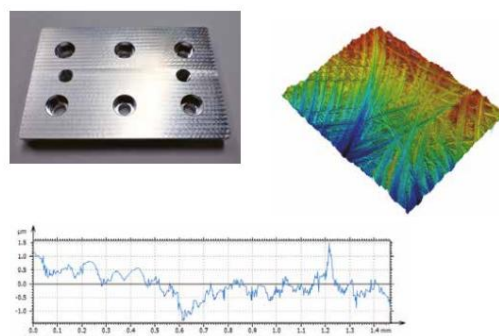


## Examples of measurements with WLI

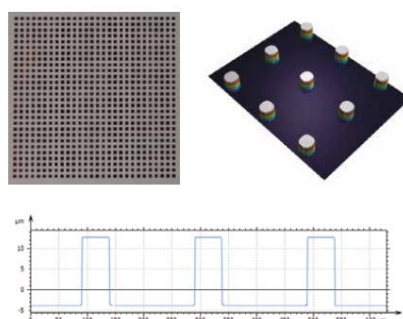
Raunormal (3  $\mu\text{m}$ )



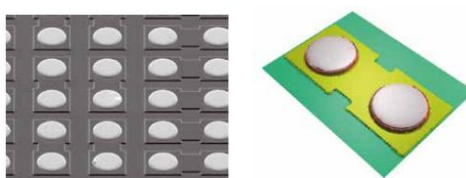
machined metal surface (aluminum)



Cu Pattern (Glass Substrate)

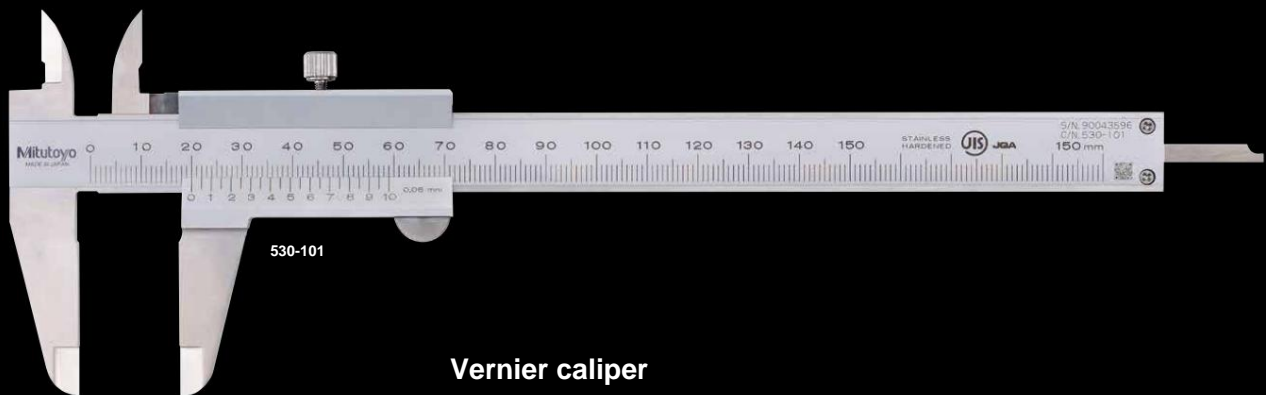


Test structure (TEG) of a semiconductor device



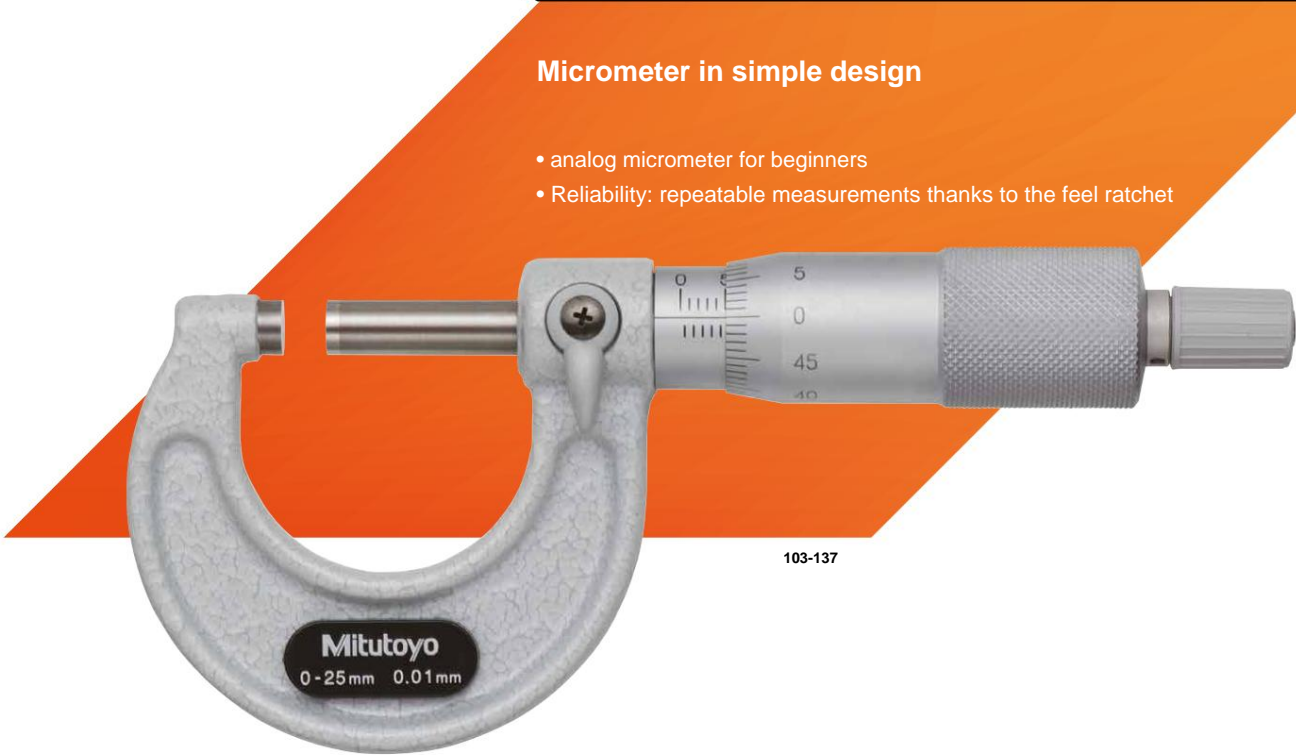
Courtesy of Walts Co., Ltd. and ASK INDEX Corporation

# Tools for the Entry into the Training



### Vernier caliper

- Versatile design: standard measuring jaws for external and internal measurements
- Durable construction: hardened stainless steel with satin chrome-plated scale for easy reading



### Micrometer in simple design

- analog micrometer for beginners
- Reliability: repeatable measurements thanks to the feel ratchet

Order no.	Description	Measuring range	Scale division	List price €	Promotional price €
530-101	Vernier caliper	0–150 mm	0,05 mm	38,00 €	29,90 €
103-137	Micrometer, simple design	0–25 mm	0,01 mm	59,00 €	46,90 €

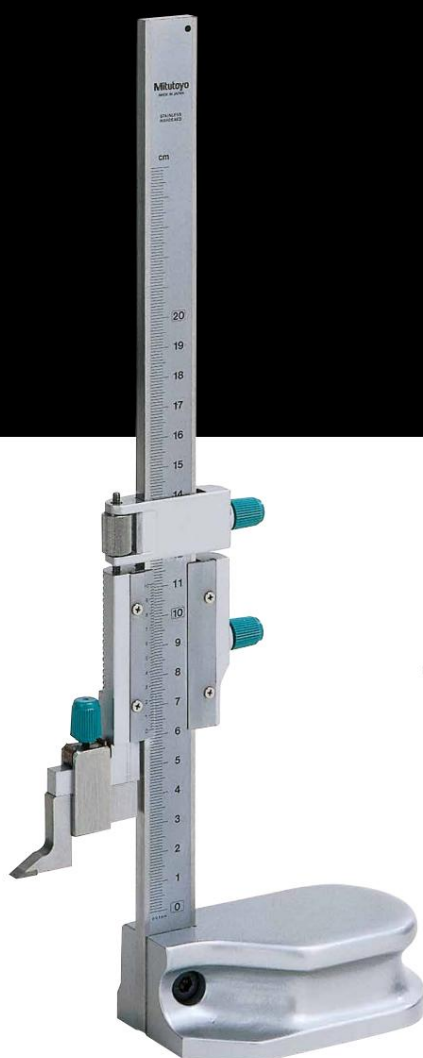


## Height measuring and marking devices with vernier scale

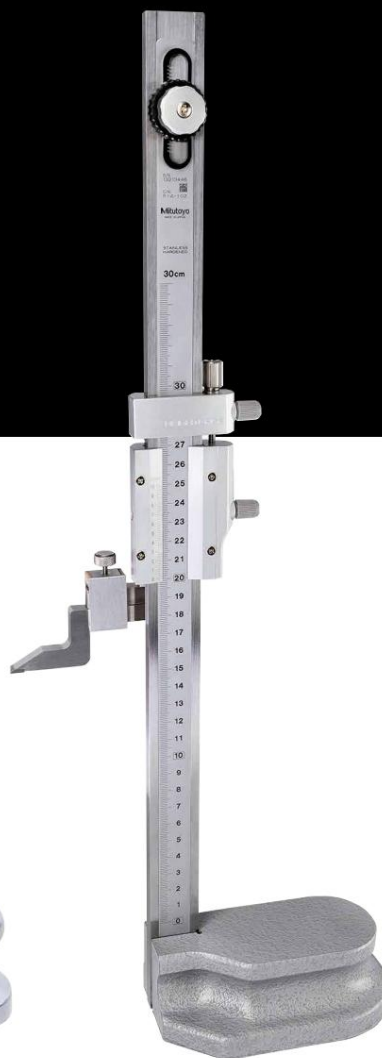
- Precise and quick reading thanks to satin chrome-plated main scale and vernier scale
- cranked and carbide-tipped scribe

## The best Entry into the industry

While you are in a  
When you're taking on a  
new life-changing role, you  
need to be able to rely  
on robust, high-quality  
instruments that won't let  
you down.



506-207



514-102



Order no.	Description	Measuring range	Scale division	List price €	Promotional price €
506-207	Height measuring and marking device with vernier scale	0–200 mm	0,02 mm	415,00 €	329,00 €
514-102	Height measuring and marking device with vernier scale	0–300 mm	0,02 mm	498,00 €	399,00 €

Promotion valid from April 1 to May 31, 2025. We reserve the right to make technical changes and developments without notice. Prices apply to business customers only.  
All prices are net in EURO plus VAT – further information is available at [www.mitutoyo.de](http://www.mitutoyo.de).  
Delivery and prices of the products offered here are available and valid while stocks last. Subject to technical changes, errors, and misprints.

Coordinate measuring machines	Image processing measuring devices	Form measuring devices	Optical measuring devices
			
Sensor systems	Hardness testers	Linear Scale	Hand measuring instruments and Data transmission systems
			

No matter what measuring task you face, Mitutoyo supports you from start to finish.

Knowledge, experience and interdisciplinary expertise: Mitutoyo is one of the world's largest suppliers of industrial length measurement technology and thus the guarantee for the effective solution of your individual measuring tasks with enormous product diversity, innovative technology and exemplary service.

Take advantage of Mitutoyo's diverse range of services for your measurable success. Draw on a broad portfolio of products and services in the field of length measurement technology. From handheld measuring instruments to customized solutions, from calibration services to contract measurement. From project planning to outstanding service. From start to precise result.

Note: The product images are non-binding. The product descriptions, especially all technical data, are only binding upon express agreement.  
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