# Measuring Kits



### Limit Measuring Sets

With over 90 years experience of supplying measuring tools Limit has built up an enormous amount of knowledge which it has used to put together a range of measuring kits to suit different end user needs. Measuring kits that allow the tools to be organised and kept clean, tidy and secure in handy carrying cases or in TC trays and PS trays that can be used in conjunction with the Teng Tools tool control system in tool boxes and roller cabinets.

All of the tools included in the sets are also available individually so kits to suit more specific requirements can be made up choosing from more than 600 individual measuring tools included in the Limit range of measuring equipment.



23 piece set. For mechanical workshops, assembling repair services etc. A base assortment for measuring length, thickness, depth, holes, angles, roundness and distance. Supplied in a handy carrying case with recessed handle, click lock mechanism and rubber feet.

Steel rule	mm	300
Vernier caliper	mm	300
Digital caliper	mm	150
Base for depth gauge (suitable for digital caliper)	mm	75
Micrometer	mm	0-25
Dial indicator	mm	10/0.01
Test indicator	mm	0.8/0.01
Magnetic stand with central locking		
Telescoping gauges	mm	8-12.7
Telescoping gauges	mm	12.7-19
Telescoping gauges	mm	19-32
Telescoping gauges	mm	32-54
Telescoping gauges	mm	54-90
Telescoping gauges	mm	90-150
Square DIN 875/2	mm	100x70
Square with base	mm	300x175
Protractor diameter	mm	120
Holegauges 20 pins	mm	0.45-1.5
Hole gauges 16 pins	mm	1.5-3.0
Screw pitch gauge 55 blades MM and UNF		
Feeler gauge 20 blades	mm	0.1-2.0
Scriber	mm	3456810
Divider	mm	200
Case size	mm	450x288x60



Stock No	PRICE
122670102	€475.00





14 piece measuring set including digital caliper, micrometer, telescopic gauges, precision square, protractor, screw pitch gauge, steel rule, feeler gauge and a scribe. Supplied in a handy carrying case with recessed handle, click lock mechanism and rubber feet.

Digital caliper	mm	150
Micrometer	mm	0-25
Telescoping gauges (6 pieces)	mm	8-150
Square DIN 875/2	mm	150
Protractor diameter	mm	80
Protractor diameter	mm	120
Screw pitch gauge M/UNC	no of blades	55
Feeler gauge 13 blades	mm	0.05-1.0
Steel rule	mm	300
Scriber	mm	150
Divider	mm	200
Case size	mm -	450x288x60

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Stock No	PRICE
128620101	€199.00

# Measuring Kits

12 piece measuring set including, multimeter, IR thermometer, digital calipers, micrometer, dial indicator, magnetic stand with central locking, thread pitch gauge, steel rule, feeler gauge and tyre gauges. Fits in the Teng Tools tool storage system. Supplied in a PS tray for use with Teng Tools tool storage system.



Multimeter: DC Voltage	DCV	1000 V
Multimeter: AC Voltage	ACV	750 V
Multimeter: DC Current	DCA	2000 μΑ - 10 Α
Multimeter: resistance	Ω	200 $\Omega$ - 20 M $\Omega$
Multimeter: temperature	°C	-40 - +250
IR Thermometer	°C	-20 - +500
Digital Caliper	mm	150
Digital Brake disc caliper	mm	75
Tyre pressure gauge	kg/cm <sup>2</sup>	7 (100 PSI)
Tyre tread gauge	mm	0-25
Feeler gauge 13 blades	mm	0.05-1.0
Steel rule	mm	300
Thread pitch gauge 60°		Metric/UNC
Micrometer	mm	0-25
Dial gauge	mm	10
Magnetic stand, max. height	mm	280
Case size	mm	560x265x40

Limit

Stock No PRICE
139580104 €595.00

9 piece set for the automotive user, with digital calipers, thermometers, tyre gauges, steel rule, feeler gauge and multimeter. Supplied in a handy carrying case with recessed handle, click lock mechanism and rubber feet.

Multimeter: DC Voltage	DCV	200 mV - 500 V
Multimeter: AC Voltage	ACV	200 V - 500 V
Multimeter: DC Current	DCA	2000 μA - 10 A
Multimeter: resistance	Ω	200 $\Omega$ - 20 M $\Omega$
Multimeter: temperature	°C	-40 - +250
IR Thermometer	°C	-20 - +500
Digital Caliper	mm	150
Digital Brake disc caliper	mm	75
Tyre pressure gauge	kg/cm <sup>2</sup>	7 (100 PSI)
Tyre tread gauge	mm	0-25
Feeler gauge 13 blades	mm	0.05-1.0
Steel rule	mm	300
Thread pitch gauge 608		Metric/UNC
Case Size	mm	450x228x60

 Stock No
 PRICE

 139570105
 €499.00



9 piece measuring set including digital caliper, micrometer, multimeter, precision square, protractor, screw pitch gauge, steel rule and a scribe. Supplied in a handy carrying case with recessed handle, click lock mechanism and rubber feet.



Multimeter: DC Voltage	DCV	200 mV - 500 V	
Multimeter: AC Voltage	ACV	200 V - 500 V	
Multimeter: DC Current	DCA	2000 μA - 10 A	
Multimeter: resistance	Ω	200 $\Omega$ - 20 M $\Omega$	
Multimeter: temperature	°C	-40 - +250	
Digital Caliper	mm	150	
Micrometer	mm	0-25	
Precision Square DIN875/2	mm	150	
Protractor	mm	80	
Screw pitch gauge M/UNC	no.of blades	55	
Feeler gauge 13 blades	mm	0.05-1.0	
Steel rule	mm	300	
Sciber TC-tipped	mm	150	
Case Size	mm	450x228x60	

Stock No	PRICE
128630100	€230.00

# Measuring Kits



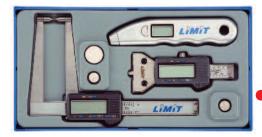
20 piece measuring set including digital caliper, base for depth gauge, micrometer, telescopic gauges, precision square, protractor, dial indicator, magnetic stand with central locking, hole gauges, screw pitch gauge, steel rule, feeler gauge, divider and a scribe. Supplied in a PS tray for use with Teng Tools tool storage system.

Digital Caliper	mm	150
Base for depth gauge	mm	75
Micrometer	mm	0-25
Telescopic gauges (6 pieces)	mm	8-150
Precision square DIN875/2	mm	150
Protractor	mm	120
Dial Indicator	mm	10/0.01
Magnetic stand with central locking max.height	mm	280
Hole gauges	mm	0.45-1.51, 5-3.0
Screw pitch gauges M/UNC	blades	s 55
Feeler gauge 13 blades	mm	0.05-1.0
Steel rule	mm	300
Scriber TC-tipped	mm	150
Divider with locking	mm	200
Case size	mm	560x265x40



Stock No	PRICE
128610102	€299.00





3 piece set for measuring and control of brake discs and tyres. Supplied in the Teng Tools TC tray with removable lid.

Digital brake disc caliper	mm	0-75
Tyre Pressure gauge	kg/cm <sup>2</sup>	7 (100 PSI)
Tyre tread depth gauge	mm	0-25
Case size	mm	265x142x50

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Stock No	PRICE
139560106	€199.90

5 piece general measuring set with the most popular precision

measuring tools supplied in the Teng Tools style

TC tray with removable lid.

Stock no.		118610104	118610203
Digital caliper	mm/inch	150	6
Micrometer	mm/inch	0-25	0-1
Precision square	mm/inch	150 x 100	6" x 4
Steel rule	mm/inch	150	6
Scriber TC tipped	length	150	6

Stock No	PRICE	
118610104 118610203	€135.50 €141.50	



5 piece general measuring set with the most popular manual precision measuring tools supplied in a Teng Tools style TC tray with remarkle life. Originally developed for the total present the style of the total present the style of the styl

with removable lid. Originally developed for students and apprentices.

Vernier caliper	mm	150
Micrometer	mm	0-25
Precision square	mm	150 x 100
Steel rule	mm	150
Scriber TC tipped	length	150
Case size	mm	265x142x50



Stock No	PRICE
128640109	€104.00





### **Limit Calipers**

Calipers are an all round instrument with a relatively high measuring accuracy. Calipers are recommended for measuring where an accuracy of 0.1 mm is required. Limit offer a variety of calipers in different lengths and formats including vernier, dial and digital. Measuring with vernier calipers means that the values below 1 mm are read by a vernier scale. The zero mark of the vernier scale indicates the measured value in integer mm on the base scale. Dial calipers are very easy to read and are especially useful when comparing check measurements. The indicator gives a clear visual picture of how big the difference is between measured values. Digital calipers are the easiest to use with a digital display showing the measurement clearly and simply. The Limit range includes waterproof models and even a caliper that measures in mm, inches expressed in decimals and also in fractions, for example 19mm, 0.75" or ¾". Calipers are frequently used as they are so versatile as they can be used to measure both outer and inner and depth dimensions. 4 function calipers can also be used to measure steps or height. This section of the catalogue also includes a wide selection of depth gauges and height gauges which use the same principles as calipers for measuring depth or height. The relevant DIN standard is DIN862 which most Limit calipers are designed and manufactured to conform with or exceed.

A 4 function 150mm caliper with frosted chrome plate scale and vernier. Made of stainless and hardened steel with lapped measuring surfaces. Friction lock. The reading scale on the vernier is 0.05mm. Tolerance according to DIN 862. Supplied in a colour display carton with a plastic wallet.



A 4 function 150mm digital caliper with zero set in any position. It is adjustable between mm and inches. Made of stainless steel. Screwlock. The reading scale on the vernier is 0.01mm. Supplied in a colour display carton with a plastic case. The 29280146, has an absolute function where the caliper can be shifted between a zero value and the absolute measurement value.



A 4 function triple reading 150mm digital caliper with zero set in any postition. It is adjustable between mm, inches and fractions. Made of stainless steel. Automatic swith off. DIN 863. Supplied in a storage case.



A 4 function 150mm digital caliper with zero set in any postition. It is adjustable between mm and inches. Made of stainless steel Screwlock. The reading scale on the vernier is 0.01mm. Swith off button. DIN 862

Supplied in a colour display carton with a plastic wallet.

1 /			
Stock no		132330101	
Length of measurement	mm	150	
Jaw length	mm	40	
Height of figures	mm	11	
Resolution	mm	0.01	
Spare Battery (SR44 Type)	29281003		

PMOT

Stock No	PRICE
132330101	€68.90
29281003	€4.20

### IP65 Waterproof Digital Caliper

150mm waterproof digital caliper, made of stainless steel, with a zero set in any position. Adjustable between mm and inches, 4 function, with a screwlock and fine adjustment wheel. Reading of 0.01mm. Swith off button



### IP67 Waterproof Digital caliper

29281003

€185.00

€4.20

150mm waterproof digital caliper, made of stainless steel, with a zero set in any position.

Adjustable between mm and inches, 4 function, with a screwlock and fine adjustment wheel.

Reading of 0.01mm. Swith off button and automatic switch off DIN 863.



100mm caliper with a frosted chrome scale and vernier. Made with stainless steel with lapped measurement surfaces. The reading on the vernier scale is 0.05mm DIN 862.

A small practical leather case makes it ideal for storing in the pocket.

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	Jaw length	mm	27
	Length of measurement	mm	100
	Stock no.		60060100
_	an ior 0 000 irranco ir iac	701110110101	go poetter.

Stock No PRICE
60060100 €55.00



### With dial indicator

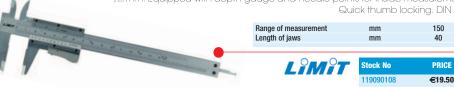
150 caliper with a dial indicator. The scale is chrome frosted and has a lapped measurement surface Screwlock, made of stainless hardened steel. 4 function. Tolerance accoring to DIN 862.



150mm caliper with a scribe that can be easily re sharpened, it can also be used as an ordinary vernier caliper with a frosted chrome plated scale and vernier. The reading scale is 0.05mm and is made of

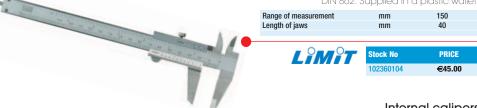


Made of hardened tool steel. Graduated in millimetres and imperial measures, Vernier scale for 1/128" and 1/20 mm. Equipped with depth gauge and needle points for inside measurements. Quick thumb locking. DIN 862



#### For left handed users

150mm caliper for left handed users with a frost plated scale and vernier, and lapped measuring surfaces The reading on the vernier scale is 0.05mm, made of stainless hardened steel. Screwlock DIN 862. Supplied in a plastic wallet



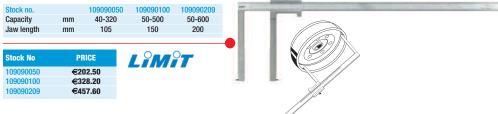
### Internal calipers Calipers for inside measuring of arooves etc. with a frosted chrome plated scale and vernier. Made of hardened

carbon steel, screwlock and has fine adjustment. The reading scale on the vernier is 0.05mm. DIN 862



### For brake drums

Precision vernier calipers for brake drums. Hardened, stainless steel, with 2 metric scales for internal and external measurements  $^{1}/_{10}$  and  $^{1}/_{20}$  mm with 50 mm points. With screwlock. Frosted chrome plated scale and vernier. Supplied in a wooden box.



### For brake discs

75mm digital caliper for brake discs. The hold function for hold measured value when the caliper is removed after measuring. Reading is 0.01mm and is adjustable between mm and inches. Switch off button, screwlock and zero set in any position. DIN 862.



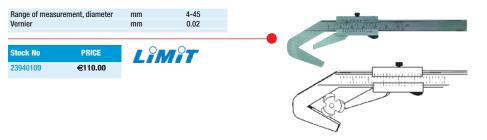
### For brake discs

Precision vernier calipers for brake discs. Hardened, stainless steel with frosted chrome plated scale and vernier 1/10 mm with screwlock and fine adjustment facilities. Supplied in a handy storage box.



#### Three point vernier calipers

For measuring the diameter of round objects or milling tools. Can also be used on 3 bit milling tools. Made of stainless steel. Reading scale of 0.02mm. Screwlock. Supplied in a plastic wallet.





### Workshop vernier calipers

Made of hardened carbon steel. Jaws for internal measuring. With fine adjustment, frosted chrome plated scale and vernier with lapped measuring surfaces. Screwlock. DIN 862



### Workshop vernier calipers

Lightweight calipers with a non glare scale graduated in mm and inches. Stainless steel jaws. Screwlock. Tolerance according to DIN 862.



			-	
Stock no.		05750104	05750203	05750302
Range of measurement	mm	500	500	800
Length of jaws	mm	150	250	150
Weight	kg	1.1	1.1	1.5
Stock no.		05750401	05750500	05750559
Range of measurement	mm	800	1000	1000
Length of jaws	mm	400	150	500
Weight	kg	1.6	1.8	1.9
Stock no.		05750609	05750708	05750807
Range of measurement	mm	1500	2000	3000
Length of jaws	mm	150	150	150
Weight	kg	2.1	2.6	3.4

# LIMIT

Stock No	PRICE
05750104	€830.00
05750203	€995.00
05750302	€1,250.00
05750401	€1,850.00
05750500	€1,650.00
05750559	€2,500.00
05750609	€1,900.00
05750708	€2,750.00
05750807	€3,995.00

### Workshop vernier calipers with fine tuning

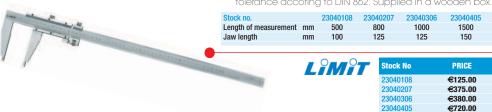
Steps on jaws for internal measurement, with measuring tips for measurement in grooves in tight spaces. Made of stainless hardened steel, with a frosted chrome plated scale and vernier and lapped measuring surfaces. The reading vernier scale is 0.05mm. Fine adjustment, screwlock, tolerance according to DIN862. Supplied in a wooden box.

Stock No 152380101	PRICE €203.20	LIM	T
Part		Locking screw	Brass insert
Stock no.		68751007	68751106
Length of upper jaw	rs mm	56	
Length of jaws	mm	125	
Range of measurem	nent mm	300	
Stock no.		152380101	

€1.60

# Workshop vernier calipers with fine tuning

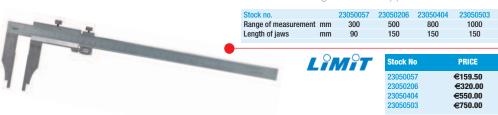
Steps on jaws for internal measurement, with fine adjustment, Vernier scale reading of 0.05mm, Screwlock, tolerance accoring to DIN 862, Supplied in a wooden box.



68751106

### Workshop vernier calipers with fine tuning

Steps on jaws for internal measurement, with fine adjustment. Vernier scale reading of 0.05mm. Screwlock, tolerance according to DIN 862. Supplied in a wooden box.



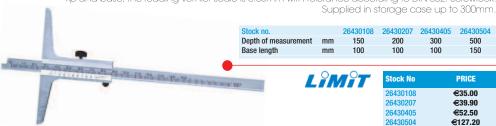
### Electronic vernier calipers

Digital calipers adjustable between mm and inches, adjustable absolute value, fine tuning screw and screwlock. Max/min value function as well as a hold function. DIN 862. Supplied in a wooden box.

as a hold fu	unction.	DIIV 80	oz. Supplied		paen box.
Stock no. Length of meas	urement	mm	22890107 500	22890156 600	22890206 1000
Length of jaw		mm	100 8	300 8	150 8
Height of figure Reading	5	mm mm	0.01	0.01	0.01
Spare Battery	(SR44 type	e)	29281003		
Stock No	PRI	CE	LPN	) T	W.
22890107	€275				- THE
22890156 22890206	€780 €850				
29281003	€4.	20			7.1
					11
Depth go	20011				
Depth gaug			st vernier c	alipers.	
Stop length Groove width	mm mm	75 6			
Stock No	PRI	CE	LIN	PT	
73120107	€15	.80		-	

### Depth gauges

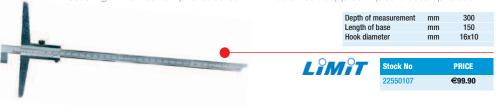
Depth gauges made of stainless steel with frost chrome plated vernier and gloss scale. Lapped measurement tip and base, the reading vernier scale is 0.05mm with tolerance according to DIN 862. Screwlock.





### Depth gauges

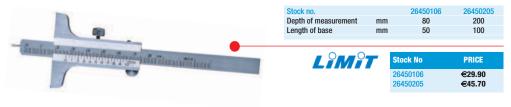
Depth gauges made of stainless steel with frost chrome plated vernier and gloss scale. Lapped measurement tip and base, the reading vernier scale is 0.05mm with tolerance according to DIN 862. Reversible scale for measuring with a hook or tip. Graduated in mm. Screwlock. Supplied in plastic case up to 300mm.



#### Depth gauges Depth gauge with double hooks for measuring upper or lower edge of slot A turnable scale for measuring with hook or tip Made of stainless steel, it has a frost chromed plated scale with a reading vernier scale of 0.05mm. Screwlock. DIN 862 Depth of measuring 200 Length of base 100 Hook dimension 7x3.5 mm Limit Stock No PRICE 122570104 €104.00

### Depth gauges

Reversible scale. Both sides of the pin can be used for measuring with an exchangeable measurement pin. Made of stainless steel with a frosted chrome plated vernier and gloss scale. Lapped measurement surfces and base, the reading vernier scale is 0.05mm. Tolerance according DIN 862. Screwlock. Supplied in a storage case.



#### Electronic depth gauge

Electronic depth gauge, adjustable between mm and inches with a reading of 0.01 mm. Switch off button with hold function. DIN 862. Supplied in a storage case.

3581 annual a	Limit	

Stock no.		21460605
Depth of measurement	mm	200
Resolution	mm	0.01
Accuracy	+/- mm	0.03
Length of (max)	mm	110
<b>Spare Battery SR44 Ty</b>	21460605	



Stock No	PRICE
21460605	€90.50
29281003	€4.20



### Vernier height gauges

Vernier height gauge, precision made with fine tuning screw, the vernier reading is 0.05mm. Graduated in mm with a frost chrome plated scale. Supplied in a wooden case.

Stock no.		22490056	22490106	22490205
Scribing height	mm	300	500	1000
Base dimensions	mm	110 x 60	150 x 90	220 x 150
Weight	kg	2.6	4.7	10
Spare scribing poir	nt	22490304	22490403	22490403

Stock No	PRICE
22490056	€92.90
22490106	€155.00
22490205	€545.00
22490304	€16.00
22490403	€16.00



### Vernier height gauges

Vernier height gauge, the measurement value is read in mm and 0.01 mm on the dial gauge. Double counters, one adding and one subtracting which can be individually reset to required position. Fast height adjustment with knob on the rear side. Hard metal measuring tip.

Stock no.		102350105
Range of measurement	mm	500
Base plate dimensions	mm	150 x 100
Extra scribing point		102350204

Stock No	PRICE
102350105	€430.00
102350204	€21.90



# Electronic vernier height gauge

Electronic height gauge with adjustable measurement direction, absolute value, hold function and shut off button. Adjustable between mm and inches and reading in 0.01 mm. Made of stainless steel.

Stock no.		21461108	21461306
Scribing height	mm	300	500
Resolution	mm	0.01	0.01
Accuracy	+/- mm	0.04	0.04
Height, total	mm	455	640
Distance measuring tip - stand	mm	50	50
Spare scribing point		21461207	
Spare Battery (type SR44)		29281003	

Stock No	PRICE
21461108	€310.00
21461306	€450.00
21461207	€26.80
29281003	€4.20





#### **Limit Micrometers**

When an accuracy of 0.01mm is required the micrometer is the most commonly used measuring instrument. The external measuring screw usually has an increment of 0.5mm/revolution. The base scale is on the sleeve and is graduated in intervals of 0.5mm. On the thimble there are 50 graduation marks which indicate 1/100th value (0.01mm). Micrometers also have a friction facility which allows a constant measuring facility which is important when measuring 1/100 and 1/1000mm measurements. There are many different micrometers for different applications e.g. outer, depth, bore hole measurements and Limit includes models with different types of tip or feeler pin for special applications. Limit also include a 1mm/revolution model and a selection of digital micrometers in the range as well as accessories such as stands, setting rings and telescopic gauges. The relevant standard for micrometers is DIN863 which all Limit micrometers, where appropriate, conform to.

Forged frame and matt chromium plated scale. Hardened with fine polished measuring surfaces of hard metal.

Friction sleeve and lock nut. DIN 863. Supplied in a storage case.





# **Micrometers**



Micrometer which has displays on both sides, therefore it can be used by left and right handed users with added ability to read the display upside down. With a reading accuracy to 0.001 mm the item can be exposed to coolant water, dust or oil (IP 54). The reading is adjustable between mm and inch with an automatic shut off after 5 min. Comes complete with hardened measuring surface, friction thimble and locking device. DIN 863.



€280.00

€4.20

120600101

109600304



This micrometer has a reading accuracy to 0.01 mm and comes complete with enamelled steel clamp, frosted chrome plated scale, hardened spindle 6.5 mm, fine lapped hard metal measuring surfaces, friction socket and locking pin. Tolerance according to DIN 863. Supplied in a wooden box.

Stock no.		95420105	95420204	95420303	95420402
Range of measurement	mm	100-125	125-150	150-175	175-200
Accuracy	+/-mm	0.006	0.006	0.007	0.007

Stock No	PRICE
95420105	€44.50
95420204	€51.50
95420303	€59.50
95420402	€69.90



This micrometer has a large graduated drum where 1 turn equates to 1mm of spindle movement, the instrument provides a reading accuracy of 0.01 mm. Comes complete with forged clamp, frosted chrome plated scale, hardened spindle, fine lapped hard metal measuring surfaces, friction socket and locking pin. Tolerance according to DIN 863. Supplied in a storage case.

Range of measurement mm 0-25 Accuracy +/-mm 0.04

Stock No	PRICE
102370103	€69.90



This micrometer has a counter for clear and easy reading 1/100mm, the instrument provides a reading accuracy of 0.001 mm. Comes complete with hardened spindle diameter 6.5mm, fine lapped hard metal measuring surfaces, friction thimble and locking pin. Tolerance according to DIN 863. Supplied in a storage case.

Stock no.		119100105	119100204
Range of measurement	mm	0-25	25-50
Accuracy	+/-mm	4	4

Stock No	PRICE
119100105	€56.90
119100204	€63.30





LIMIT

This micrometer has a reading accuracy of 0.01 mm. Comes complete with forged clamp, enameled steel clamp, frosted chrome plated scale, exchangeable insert bolts 8.0 mm, fine lapped hard metal measuring surfaces, friction socket and locking pin.

Tolerance according to DIN 863. Supplied in a wooden box.



		95440103 95440202		€200.00 €255.00	
	LîMîT	Stock No		PRICE	
•					
	Accuracy	+/-mm	0.006	0.009	
	Range of measurement	mm	0-150	150-300	
	Stock no.		90440103	90440202	

This micrometer has a reading accuracy of 0.001 mm has an adjustable absolute value for absolute / incremental measuring. This item is adjustable between mm and inch and has a manual shut off button or an automatic shut off after 5 minutes function. Comes complete with exchangeable bolts, forged clamp, hardened measuring surfaces, friction socket and locking pin. Tolerance according to DIN 863.

Supplied in a wooden box.



	Stock no. Range of r	neasurement	mm +/-mm	96760103 0-150 0.006	
	Accuracy +/-mm  Spare Battery SR44 Type		29281003		
LiM	PT	Stock No		PRICE	

 Stock No
 PRICE

 96760103
 €310.00

 29281003
 €4.20

This micrometer has a reading accuracy of 0.01 mm. Comes complete with enameled low weight clamp and frosted chrome plated scale, adjustable measurement spindle 8.0 mm and fixed bolts, friction socket and locking pin. Tolerance according to DIN 863. Supplied in a wooden box.

Stock no.		95450102	95450201	95450300	95450409	
Range of measurement	mm	300-400	400-500	500-600	600-700	
Reading	mm	0.01	0.01	0.01	0.01	
Accuracy	+/-mm	0.011	0.013	0.015	0.016	

LIMIT



Stock No	PRICE
95450102	€265.00
95450201	€299.00
95450300	€350.00
95450409	€430.00

# Micrometers

LIMIT

LiMiT



#### Tube micrometers

Micrometer with an accuracy rating of 0.01 mm complete with, forged clamp and frosted chrome plated scale, hardened spindle 6.5 mm, anvil diameter 4.8 mm, friction socket and locking pin. Tolerance according to DIN 863. Supplied in a storage case,

Range of measurement mm 0-25 Accuracy +/-mm 0.006

 Stock No
 PRICE

 95480109
 €81.10



### Digital tube micrometer

Micrometer with an accuracy rating of 0.01 mm can be exposed to coolant water, dust or oil (IP54). The item is adjustable between mm and inches and has an automatic shut off function after 5 minutes. Comes complete with double sphere measuring faces, friction thimble and locking device. Tolerance according to DIN 863. Battery type SR 44.

mm 0-25
/-mm 0.004
29281003

Stock No	PRICE
132680109	€281.50
29281003	€4.20



# Conical measuring tips

Micrometer with an accuracy rating of 0.01 mm. Complete with forged clamp and frosted chrome plated scale, hardened spindle 6.5 mm with hard metal measuring tips, friction socket and locking pin.

Tolerance according to DIN 863. Supplied in a storage case.

Range of measurement	mm	0-25
Accuracy	+/-mm	0.004

Stock No	PRICE
95640108	€83.50



# With blade measuring tips

Micrometer with an accuracy rating of 0.01 mm. Complete with forged clamp and frosted chrome plated scale, hardened spindle 8.0 mm, friction socket and locking pin. Tolerance according to DIN 863. Supplied in a storage case.

Range of measurement	mm	0-25
Accuracy	+/-mm	0.004
Blade thickness	mm	0.75
Blade length x width	mm	6.5 x 6

Stock No	PRICE
96090105	€165.60





# Micrometers



### Thread micrometer

Micrometer with an accuracy rating of 0.01 mm, for measuring the outside thread diameter. The V shaped and cone shaped anvils are interchangable and comes complete with a friction thimble and locking device.

(Anvils not included) Tolerance according to DIN 863.



### For precision work

mm 5 x 2

Micrometer for measuring small details, in small holes, small grooves and other similar hard to reach places. The micrometer is enamel moulded and has an accuracy rating of 0.01 mm.

Comes complete with easy to read frosted chrome plated socket, graduated drum, hardened pivot pin and measurement tip, friction knob and locking screw.

Tolerance according to DIN 863. Supplied in a storage case.



_		
PT	Stock No	PRICE
	73220105	€34.90



### Micrometer head

For installation in measuring devices, control devices or machines it has an accuracy rating of 0.001 mm. Comes complete with hardened spindle diameter 6 mm, fine lapped measurement surface of hard metal, frosted chrome plated socket and graduated drum. Friction device. Tolerance according to DIN 863.

Range of measurement mm 0-25
Fitting holes diameter x length mm 12 x 17

 Stock No
 PRICE

 73240103
 €52.00



### Universal micrometer with exchangeable measuring tips

Micrometer with an accuracy rating of 0.01 mm with forged clamp and frosted chrome plated scale. Comes complete with 7 different measuring tips. Flat 6.5 mm. Flat 12 mm. Flat 2 x 4 mm. Spherical 6.5 mm. Conical 60°. Sharp 60°. Blade 6.5 x 8, 0 x 3.5 mm, friction socket and locking tips. Tolerance according to DIN 863. Supplied in a wooden box.



Turnable holder. Black enameled

Clamping range	mm	0-14
Height	mm	100
Diameter	mm	105
Weight	kg	1.7

Stock No	PRICE
60070208	€31.50





### Control gauges

For control and calibration of micrometers and other measuring tools. Made of hardened high alloy steel.

Stock no.		26243006	26243105	26243204	26243303
Length	mm	25	50	75	100
Accuracy	±μm	0.5	1	1	1.5
Stock no.		26243402	26243501	26243600	26243709
Length	mm	125	150	175	200
Accuracy	±μm	1.5	2	2	2.5



tock No	PRICE
6243006	€5.70
6243105	€6.40
6243204	€7.20
6243303	€8.90
6243402	€10.60
6243501	€11.60
6243600	€13.30
6243709	€14.00

#### Internal micrometers

Micrometer with an accuracy rating of 0.01 mm with hardened measuring surfaces, frosted chrome plated scale, friction socket and locking screw. Tolerance according to DIN 863. Supplied in a storage case.

Stock no.		96150107	96150206	96150305	96150404
Range of measurement	mm	5-30	25-50	50-75	75-100
Accuracy	+/-mm	0.007	0.007	0.008	0.008



Stock No	PRICE
96150107	€82.70
96150206	€85.10
96150305	€105.00
96150404	€134.00



internal micrometers
Micrometer has an accuracy rating of 0.01 mm set
includes micrometer head and extension sleeves.
Complete with frosted chrome plated graduated drum
and socket, hard metal spherical hardened measuring
surfaces, supplied with adjustment clamp. Tolerance
according to DIN 863. Supplied in a wooden box.

Stock no.		96230107	96230206	96230305
Range of measurement	mm	50-200	50-600	150-1400
Contents	pieces	5	7	9



Stock No	PRICE
96230107	€129.50
96230206	€185.00
96230305	€1,150.00

### Micrometer depth gauges

Micrometer with an accuracy rating of 0.01mm complete with interchangeable rods in steps of 25 mm. Features easy to read frosted chrome plated socket, graduated drum, lapped measurement surface and base surface, friction knob. Tolerance according to DIN 863. Supplied in a storage case.

Measuring depth	mm	0-100
Length of base	mm	63
Interchangeable rod diameter	mm	4.5



Stock No	PRICE
73250102	€89.80



# Micrometers



### Cylinder gauges

For measurement of hole diameters and groove widths. Set supplied with measurement tips in steps of 1 mm.

Features measurement tips in hard metal and comes complete with dial guage.

Stock no.		61931002	61931101	61931200	61931309	61931408
Range of measurement	mm	10-18	18-35	35-50	50-160	160-250
Depth of measurement	mm	100	125	150	150	400
No. of measurement tips		9	9	4	12	5
Sat of avtra measuring points washed	r and nut	61031200	61032100	61032208	61032307	61032/06

Stock No	PRICE
61931002	€140.00
61931101	€125.00
61931200	€125.00
61931309	€125.00
61931408	€145.00
61932000	€19.90
61932109	€13.90
61932208	€14.50
61932307	€24.90
61932406	€24.50



### **Hole Measurement**

Self centering 3 point accurate measurement of internal diameters with a presetting for production line batch measuring. Measurement can be taken in the bottom of blind holes and for deep holes with an extension. Features carbide tipped contact points, setting ring for zero adjustment, exchangeable measuring heads. Dial gauges are not included.

Recommend electronic dial gauges 151300100 or similar.

Stock no.		120610100	120610209	120610308	120610407
Range of measurement	mm	6-12	12-20	20-50	50-100
Accuracy	+/-mm	0.004	0.004	0.005	0.005
No. of measuring heads	qty	3	2	4	4
Extension rod	mm	100	150	150	150
Spare Battery		29281003			

Stock No	PRICE
120610100	€995.00
120610209	€720.00
120610308	€1,690.00
120610407	€1,995.00
29281003	€4.20



### **Hole Measurement**

Sets of 3 point micrometers with an accuracy rating 0.005mm. Measurement can be taken 0.5 mm from bottom of blind holes. Comes complete with extension rod for deep holes, carbide tipped contact points and setting rings.

Stock no.		127820108	127820207
Range of measurement	mm	20-50	50-100
Extension Bar	mm	150	150
Number of micrometers		4	4

Stock No	PRICE
127820108	€1,375.00
127820207	€1,890.00







### Hole Measurement

Sets of 3 point micrometers with an accuracy rating 0.005mm. Measurement can be taken 0.5 mm from bottom of blind holes. Comes complete with carbide tipped contact points and setting rings.

Stock no.		127810109	127810208	127810307	127810406	127810505	
Range of measurement	mm	12-16	16-20	20-25	25-30	30-40	
Reading	mm	0.005	0.005	0.005	0.005	0.005	
Accuracy	mm	0.004	0.004	0.004	0.004	0.004	
Stock no.		127810604	127810703	127810802	127810901	127811008	
Range of measurement	mm	40-50	50-63	62-75	75-88	87-100	
Reading	mm	0.005	0.005	0.005	0.005	0.005	
Accuracy	mm	0.005	0.005	0.005	0.005	0.005	





Stock No	PRICE
127810109	€295.00
127810208	€295.00
127810307	€399.00
127810406	€399.00
127810505	€440.00
127810604	€510.00
127810703	€535.00
127810802	€540.00
127810901	€570.00
127811008	€590.00

### **Hole Measurement**

For inspection and setting internal micrometers.

		LIMIT
	Stock No	PRICE
	127830107	€67.70
20'0	127830206	€67.70
	127830305	€67.70
	127830404	€96.50
	127830503	€107.10
	127830602	€118.00
	127830701	€204.70

Stock no.		127830107	127830206	127830305
Diameter	mm	10	16	25
Tolerance	±μm	±1.5	±1.5	±1.5
Cylindricity	±μm	1	1	1
Stock no.		127830404	127830503	127830602
Diameter	mm	30	40	62
Tolerance	±μm	±1.5	±1.5	±1.5
Cylindricity	±μm	1	1	1
Stock no.		127830701		
Diameter	mm	87		
Tolerance	±μm	±1.5		
Cylindricity	±μm	1		



### Telescopic gauges

Spring loaded telescopic gauges with hardened measurement tips. Locking screw in the shaft upper part.
Readings are taken with a micrometer or a vernier caliper.
Set of 6 telescoping gauges. Range of measurement 8-150mm.

LIMIT	Stock No
	52910106

Stock No	PRICE
52910106	€28.50

### Telescopic gauges

Individual spring loaded gauges for set 52910106.

Stock no.		52910205	52910304	52910403	52910502	52910601	52910700
Range of measurement	mm	8-12.7	12.7-19	19-32	32-54	54-90	90-150



Stock No	PRICE
52910205	€6.50
52910304	€6.50
52910403	€6.50
52910502	€6.50
52910601	€7.20
52910700	€12.90

# Dial Gauges



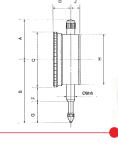
### **Limit Dial Gauges**

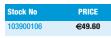
Dial gauges and dial test indicators are used as comparison instruments i.e. when the read value does not indicate the absolute measured value but a relative or incremental measured value. The deviation from a master or a gauge block combination is read. With a digital dial indicator this absolute measured value can be preset which simplifies the reading. A dial indicator can also be used together with a bore gauge for bore hole measuring or can be used with a measuring fixing device or stand. Dial test indicators are used in places where access is difficult. By moving the feeler pin of the dial indicator along a surface, roughness and irregularities can be read. The feeler pin of a dial test indicator makes a circular movement whereas the dial gauge feeler pin movement is linear. The relevant standard for dial indicators is DIN878 which all Limit models, where appropriate, conform to. This section of the catalogue also includes flip flop indicators, dial gauge stands, hexagon/diameter gauges, thickness gauges and snap gauges.



Mini dial gauges with rotatable scale. Tolerance according to DIN 878. Supplied in a storage case.

Range of measurement	mm	5
Scale division	mm	0.01
Scale graduation	mm	0-50, 50-0
Range per turn of pointer =	mm	0.5
Diameter of dial	mm	42
Diameter of spigot	mm	8
Measurement A	mm	38
Measurement B	mm	48
Measurement C	mm	14
Measurement D	mm	14
Measurement F	mm	13
Measurement G	mm	38





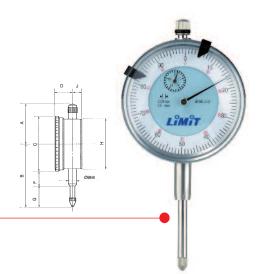


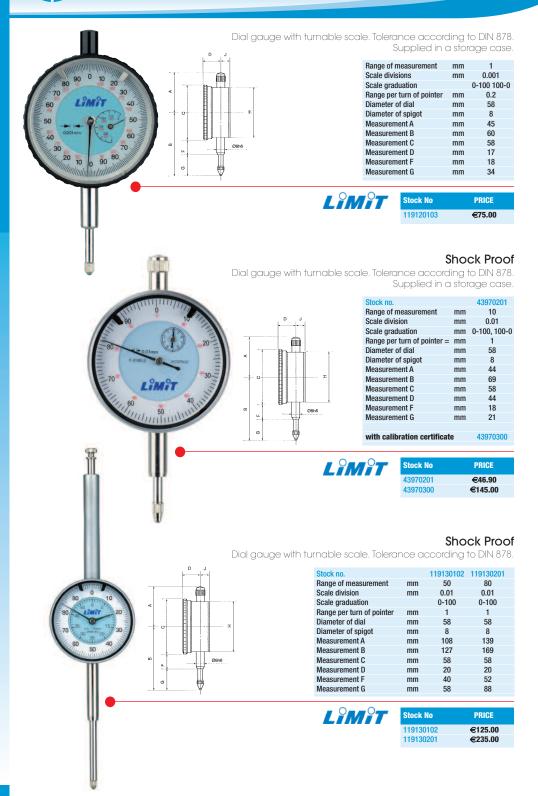
With turnable scale and two adjustable tolerance indexes.
Extra pointer that indicates whole millimetres. Body made of aluminium.
Replaceable measuring tip. Without mounting lug.
Tolerance according to DIN 878. Accessories, see 5318.

Tolerance accor	all ig ic		
Stock no.		119110104	119110203
Measurement range	mm	10	25
Scale division	mm	0.01	0.01
Scale graduation		0-100, 100-0	0-100, 100-0
One pointer turn =	mm	1	1
Dial diameter	mm	58	58
Fixing pin diameter	mm	8	8
Measurement A	mm	44	38
Measurement B	mm	69	81
Measurement C	mm	58	58
Measurement D	mm	17	17
Measurement F	mm	18	18
Measurement G	mm	21	34
Stock no.		119111003	
Measurement range	inch	0.5	
Scale division	inch	0.0005	
Scale graduation	inch	0-50, 50-0	
One pointer turn =	inch	0.05	
Dial diameter	mm	58	
Fixing pin diameter	mm	8	

pointer turn =	inch	0.05	
diameter	mm	58	
ng pin diameter	mm	8	
		- 0	0-
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110104	€29.90	LINI	//
		LINI	′
110104	€29.90	LIMI	′

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# Dial Gauges



### **Electronic Dial gauges**

Digital dial gauge with adjustable absolute value, Max./min value function, hold function. Clearly visible reading with enhanced contrast. Adjustable between mm and inch and automatic switch off.

Stock no.		151300100	151300209
Range of measurement	mm	0-12.5	0-25
Reading	mm	0.01	0.01
Accuracy	mm	±0.02	±0.02
Height of figures	mm	12	12
Diameter of dial	mm	57	57
Thickness	mm	26	26
Diameter of spigot	mm	8	8

Stock No	PRICE
151300100	€92.00
151300209	€160.00





 $\overline{151290103}\,\text{Holder}$  for dial gauges. The hole diameter is 8mm and 6mm. It has a dovetail fitting.

151290202 Holder for flip flop indicator with a ball joint head. It has a dovetail fitting.

-		
Stock No	151290103	151290202
Hole diameter for dial gauge/flip flop indicator mm	8 and 6	8
Bar size mm	6x12	8
Length mm	100	65

Stock No	PRICE
151290103	€14.50
151290202	€14.50



# Dial gauges

Magnetic mount with Knuckle joint and mounting hole diameter 8 mm.

Stock No	PRICE
53180303	€175.00



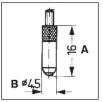


### Spare measuring tips for dial gauges.

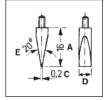
	_		_	-	
Stock no.		53181004	53181103	53181202	53181301
Original number		<b>57</b> <sup>3</sup> / <sub>16</sub>	573/15	573/20	<b>57</b> <sup>3</sup> / <sub>11</sub>
Tip		Half round	Conical	Flat	Flat
Dimension A	mm	16	16	16	5
Dimension B (diameter)	mm	4.5	3.5	-	10
Dimension C	mm	-	0.5	0.2	2
Dimension D	mm	-	-	5	-
Dimension E		-	-	20°	-
Package	pieces	1	1	1	1
Price		€8.00	€13.50	€17.90	€11.60

Extra measuring rods		
Measuring bar 10 mm	26510131	
Price	€11.40	
Measuring bar 30 mm	26510206	
Price	€11.40	
Measuring bar 60 mm	26510305	
Price	€11.40	
Measuring bar 90 mm	26510404	
Price	€11.40	

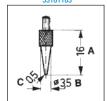






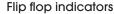


E210110









Flip flop indicators with reversible direction on the measuring pin.

It has a rotatable scale and is supplied in a storage case.

Supplied with two fixing pins, diameter 8mm and 6mm.

Stock no.		22590103
Range of measurement	mm	0.8
Scale division	mm	0.01
Scale graduation		0-40-0
Diameter of dial	mm	30
Length of flip flop pin	mm	15
Extra Flip measuring po	oint	22590202
Extra holding pin 8mm		22590301



Stock No	PRICE
22590103	€67.70
22590202	€6.00
22590301	€6.00



Magnetic stands

Combined set of one indicator stand (119080208) and one dial indicator (119110104).



tock No	PRICE
19081008	€89.90



### Magnetic Stand

A magnetic stand where the magnetic force can be switched on and off. It has a V shaped base plate and a mounting hole diameter of 6 and 8mm.

Maximum height Base plate dimension	mm mm	230 30x35x36
Mounting hole diameter	mm	8 and 6
Magnetic force	kg	40
Net weight	kg	0.39
_		



Stock No	PRICE
151280104	€35.50

# Dial Gauges



### Magnetic stands

Indicator frame with an on and off switch at the magnetic base. It has a V shaped base plate and is supplied in a colour display box.

Stock no.		60191004
Max. height adjustment	mm	250
Base plate dimensions	mm	45 x 55 x 65
Mounting hole diameter	mm	8
Magnetic force	kg	75
Net weight	kg	1.5
Upper and lower holder		60190402
Magnetic base		60190600

Stock No	PRICE
60191004	€25.90
60190402	€10.20
60190600	€34.00





Arm length	mm	330
Base dimensions	mm	50x55x58
Mounting hole diameters	mm	6 and 8
magentic force	kg	80
Net weight	kg	1.6

Stock No	PRICE
60200201	€72.00



## Magentic stand

Magnetic stand with central locking with one knob for lower, middle and upper joint. The flexible upright gives a greater working range. It has a fine adjustment, the magnetic base can be switched on and off with a magnetic force of 60kg.

Max height adjustment	mm	330
Base dimensions	mm	50 x 55 x 58
Mounting hole diameter	mm	8
Magnetic force	kg	80
Weight	kg	8.0

Stock No	PRICE
119080208	€60.50







### **Dial Gauges**

Hardened, ground and lapped table surface with a table area of 50  $\,$  x 50 mm. Has a mounting hole diameter of  $\,$  8 mm.

Table area	mm	65 x 70
Max. height table/measurement tip	mm	145
Overhang, measurement tip/pillar	mm	80
Mounting hole diameter	mm	8
Weight	kg	3.5

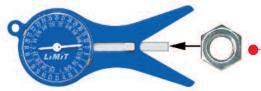


Stock No	PRICE
53220208	€160.00

### Hexagon/Diameter gauge

Measures hexagon for nut and bolt sizes to identify the correct spanner or socket.

Also measures diameters for drills etc.



Range of measurement	mm	6-32
Range of measurement	inch	1/4 - 11/4
Total length	mm	80



Stock No	PRICE
122830102	€13.00



### Thickness gauges

Suitable for both hard and soft materials. Supplied in a storage case.

Range of measurement	mm	10
Reading	mm	0.01
Measuring surface diameter	mm	8
Throat depth	mm	12



Stock No	PRICE
119150100	€65.90



### Thickness gauges

Suitable for both hard and soft materials and supplied in a storage case.

Range of measurement	mm	10
Reading	mm	0.01
Measuring surface diameter	mm	10
Throat depth	mm	30



Stock No	PRICE
119160109	€91.90



### Thickness gauges

Suitable for both hard and soft materials.

Range of measurement	mm	10
Reading	mm	0.01
Measuring surface diameter	mm	10
Throat depth	mm	120

Stock No	PRICE
119170108	€149.90





### Thickness gauges

With digital reading and is adjustable between mm and inch. Automatic shut off. Battery type SR44.

Stock no.		22940100
Range of measurement	mm	0-15
Resolution	mm	0.01
Tolerance	+/-mm	0.02
Measuring surface diameter	mm	8.9
Throat depth	mm	13
Spare Battery		29281003

Stock No	PRICE
22940100	€145.00
29281003	€4.20





### Ultrasound thickness gauge

Digital thickness gauge. Suitable materials for ultrasound technology are most metals, glass and plastics. Conditions for accuracy measurement are that the material is homogeneous, surface is smooth and both sides are parallel. Automatic shut off after 2 minutes.

Range	mm	1.2-200
Reading	mm	0.1
Probe diameter	mm	10
Accuracy 1-10mm	mm	±0.4
Accuracy 10-100mm	mm	±0.4+1%
Accuracy 100-250mm	mm	±3%
Operation temperature	°C	0-50
Humidity	% RH	0-80
Battery	4 pieces	1.5V LR03 AAA
Weight	g	165





## Coating Thickness gauges

Digital coating thickness gauge for measuring thickness of coating, e.g. paint, plastic, porcelain, enamel, copper, zinc, aluminium etc. Calibration can be made using included foils, with automatic shut off after 2 minutes.

Range	um	0-1000
	-	
Reading 0-100	μm	0,1
Readin 100-1000	μm	1
Accuracy		±2.5µm or 1.3%
Battery	4 pieces	1.5V LR03 AAA

Stock No	PRICE
144830106	€650.00







### Rubber hardness tester

Digital hardness tester is designed to determine the hardness of soft material such as rubber, silicon, vinyl, etc. A spring loaded probe is held against the specimen and the Shore A value shows on the tester. The specimen surface should be flat and the instrument foot parallel to the specimen. The measurement area must have at least 12mm diameter and distance to any edge at least 12mm. Calibration can be made against the included test block. The average value can be given from 2-9mm measurements. Automatic shut off after 1 minute.

The instrument meets DIN 53505, ISO 868 and AST D 2240 standards.

Range	Shore A	0-100
Mininum specimen thickness	mm	6
Accuracy	%	±1
Operation temperature	°C	0-50
Humidity	%	0-80
Battery	4 pieces	1.5V LR03 AAA
Weight	g	170



Stock No	PRICE
144850104	€540.00

### Snap gauges

Snap gauges for external measuring with hardened measuring tips and a turnable scale. Supplied in a storage case.

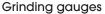


### Snap gauges

For internal measuring with hardened round measuring tips and rotatable scale. Supplied in a storage case.







Used when grinding twist drills. Graded up to 25 mm.

For drills up to	mm	50
Cutting angle		118°

Stock No	PRICE
25650102	€4.30



### Welding gauges

With 12 blades for height measurement of plane welding joints.

Stock no.	74031006	
Range of measurement n	nm 3-12	

Stock No	PRICE
74031006	€23.80





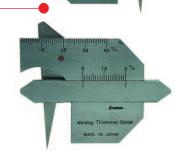
# Welding gauges

For measurement of welding joints in corners, height of even joints, height gauge/material thickness, angle measuring, and distance between plates. Made of stainless steel and supplied in a wallet.

Welding joint	mm	0-20
Height measurement	mm	0-40
Angles	degrees	0°-60°
Distance	mm	0-4

Stock No	PRICE
97540108	€189.90





### Welding gauges

For measurement of plain welding joint heights and in corners. Made of steel, graded in mm and equipped with  $^{1}/_{10}$  mm vernier. Points angled at 60°-70°-80°-90°. Supplied in a wallet.

Stock no.		25690108
Measurement range	mm	20

Stock No	PRICE
25690108	€25.50





### Thread gauges

Combined thread and lathe angle gauge. Hardened.

Thread Angle	Thread System	Price
55°	WW	€4.50
60°	MM + UM	€4.50
	Angle 55°	Angle System 55° WW

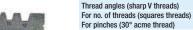






### Thread gauges

Universal thread gauge for various special thread types.



per inch 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 7, 8 mm 2, 3, 4, 5, 6, 7, 8, 9, 10, 12



Stock No	PRICE	
25771007	€14.50	

# Screw pitch gauges

For control of threads.





Stock No.	Thread System	Thread Angle	No. of Blades	For no of threads per inch	For pinches mm	Price
25801002	WW	55°	28	4-62	-	€7.90
25801101	MM	60°	24	-	0.25-6	€6.50
25801200	MM/UNF	60°	55	4-42	0.25-6	€11.40
25801309	UNC-UNF	60°	30	4-42	-	€8.50
25801408	G - pipe (R)	55°	6	8-28	-	€4.00



# Radius gauges

For control of convex and concave surfaces.

Stock No.	For Radius mm	No. of blade	es Intervals mm	Price
25841008	1-7	17+17	(1-3)=0.25 (3-17)=0.5	€13.30
25841107	7.5-15	16+16	0.5	€15.00
25841206	15.5-25	15+15 (1	15.5-20)=0.5 (20-25)=1	€15.00

# Angle gauges

Angle guage with 18 blades. For angles (degrees)1,2,3,4,5,7,8,9,10,12,14,16,18,20,25,30,40,45.



18

1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 14, 16, 18, 20, 25, 30, 40, 45



Stock No	PRICE	
25861006	€33.60	



### Hole size gauges

For measuring and checking orifices and smaller holes.

Limit

No.	mm		
26390104	0.45-1.5	20	€11.40
26390203	1.5-3	16	€11.40

### Hole size gauges

For measurement of hole diameters and groove widths. Made of stainless steel with frosted chrome plated scale.



Stock No.			Scale Length mm		Price
14411003	1-15	0.1	120	1.2	€23.50

### Hole size gauges

Hardened and ground steel, conicity of measurement pin 1:10, Direct reading 0.1 mm, vernier reading 0.01 mm and supplied with protective sleeve for the measurement pin.

For diameter	mm 0-5		
Stock No	PRICE	LIMIT	9
26410209	€180.00		

### Drill & Wire gauge

Drill and wire gauge with 100 holes in intervals of 0.1mm. Diameter of holes 0.1-10mm

### Profile patterns

For creating the required profile where circular or irregular lines are needed. Ideal for carpet and floor laying, manufacture of shelves and benches, turning, etc. Round pins made of stainless steel.

Stock No.	Length mm	Max. profile depth mm	Price
97390108	150	48	€24.20
97390207	300	105	€95.00





# Feeler gauges

Made of brass

Stock No.	No. of Blades	Range mm	Blade Length mm	Price
67921007	8	0.05-0.50	100	€11.20
67921106	13	0.05-1.00	100	€17.50
67921205	20	0.05-1.00	100	€26.50





### Feeler gauges

Made of hardened, rolled steel.

Stock No.	No. of blades	Range mm	Blade Length mm	Price
25953001	8	0.03-0.10	100	€3.90
25953100	8	0.05-0.50	100	€3.80
25953209	21	0.10-0.50	100	€8.10
25953308	13	0.05-1.00	100	€4.00
25953506	13	0.05-1.00	200	€11.50
25953407	20	0.05-1.00	100	€7.00
25953605	20	0.05-1.00	200	€17.80
25950601	20	0.10-2.00	100	€25.00
25951104	20	0.10-2.00	200	€39.90





### Feeler gauges

Calibrated. Tolerance according to DIN 2275. Certificate included. Calibrated on two measuring points per blade. Blade in millimeter dimensions. For measurement of slots, bearing clearances, etc.

Nickel plated, lockable holder included.



Stock No.	No. of blades	Range mm	Blade length mm	Price
25952003	8	0.03-0.10	100	€47.90
25952102	2 13	0.05-1.00	100	€78.90
2595220	20	0.05-1.00	100	€110.00

### Feeler gauges

Made of hardened, rolled steel.

Orig. no.		133
No. of blades		13
Range of measurement	mm	0.05-1.00
Blade width	mm	12.7
Blade length	mm	300



Stock No	PRICE
25971003	€16.90



# Feeler strip

Cold rolled, harened and white polished steel band with the dimension marked every 150mm. Length 3m. Width 13mm

Stock no.		25991605	25991704	25991902
Blade thickness	mm	0.25	0.3	0.35
Tolerance	mm	±0.008	±0.009	±0.009
Price per pack (3	m)	€10.10	€10.10	€14.20
Stock no.		25992009	25992108	25992207
Blade thickness	mm	0.4	0.45	0.5
Tolerance	mm	±0.011	±0.011	±0.013
Price per pack (3	m)	€14.20	€15.10	€17.20
Stock no.		25992405	25992504	25992702
Blade thickness	mm	0.6	0.7	0.8
Tolerance	mm	±0.015	±0.015	±0.017
Price per pack (3	m)	€17.20	€20.50	€22.80
Stock no.		25992801	25992900	
Blade thickness	mm	0.9	1	
Tolerance	mm	±0.017	±0.017	
Price per pack (3	m)	€27.60	€27.60	
	,			

Stock no.		25990052	25990102	25990201
Blade thickness	mm	0.01	0.02	0.03
Tolerance	mm	±0.004	±0.004	±0.004
Price per pack (3	m)	€120.00	€22.10	€15.80
Stock no.		25990300	25990409	25990508
Blade thickness	mm	0.04	0.05	0.06
Tolerance	mm	±0.004	±0.004	±0.004
Price per pack (3	m)	€15.80	€12.60	€11.00
Stock no.		25990607	25990706	25990805
Blade thickness	mm	0.07	0.08	0.09
Tolerance	mm	±0.004	±0.004	±0.004
Price per pack (3	m)	€11.00	€10.10	€10.10
Stock no.		25990904	25991308	25991506
Blade thickness	mm	0.1	0.15	0.2
Tolerance	mm	±0.005	±0.005	±0.007
Price per pack (3	m)	€10.10	€10.10	€10.10

### Feeler strip holder

For feeler strips as above.



Length	mm	135
Width	mm	13



Stock No	PRICE
26000109	€8.50

### Surface gauges

For visual comparative determination of surface roughness or for scraping with finger tip. 6 different processing methods, each with 6 Ra values.

Lapping Reaming Surface grindingRa1.6 0.8 0.4 0.2 0.1 0.005Horizontal end milling longitudinal turningRa12.5 6.3 3.2 1.6 0.8 0.4

Stock No	PRICE	Z
53700100	€265.00	



# Rules & Angles

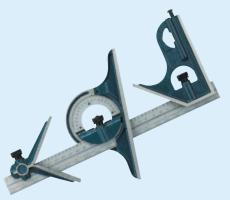


### Limit Rules and Angles

The Limit range includes a wide variety of steel rules and sharp edges where DIN866 specifies the measuring tolerance and DIN874 specifies the levelness or flatness tolerance of the rules edge with a suffix determining different degrees of precision. For example, DIN874/00 has a much smaller tolerance than DIN874/2.

This section also includes several types of workshop squares where the DIN standard is DIN875, similar to sharp edges there are suffixes to the DIN code with 00 being the most accurate.

A range of protractors and combined squares is also included for measuring angles together with gauge blocks, V blocks, parallel blocks, machine levels and surface plates. As with sharp edges and workshop squares the DIN standards for surface plates (DIN876) and gauge blocks (DIN861) have a suffix system with 00 being the most accurate.



### Measuring tapes

Measuring tapes with ABS case, tape lock and belt clip. Power return tape features metric and imperial graduations as well as aligning hook for internal/external measurement. Class II.

Stock no.	Measuring m	Measuring length ft	Price
MT03	3	10	€6.10
MT05	5	16	€9.60
MT08	8	26	€18.90





### Measuring tapes

Metric only measuring tapes with ABS case, tape lock and belt clip. Power return tape features metric graduations as well as aligning hook for internal/external measurement. Class II.

Stock no.	Measuring m	Price
MT03MM	3	€6.50
MT05MM	5	€9.80
MM80TM	8	€18.90

**TENGTOOLS** 



### Steel Rules

Extra thin steel rules made of stainless steel, graduated in mm with a hanging hole.



Stock No.	Length mm	Width x thickness mm	Price
27020106	100	13 x 0.5	€5.70
27020205	150	13 x 0.5	€5.70
27020304	200	13 x 0.5	€5.90
27020403	300	13 x 0.5	€6.50
27020502	500	13 x 0.5	€11.90
27020601	1000	18 x 0.5	€30.90

### Steel Rules

Made of stainless and hardened steel with easy to read frosted chrome plated non glare rule. Graduated in mm and in inches with a hanging hole.

# LIMIT

Stock	Length	Width x thickness	Price
No.	mm	mm	
27030055	100	35 x 1.1	€6.90
27030105	150	15 x 0.8	€11.70
27030204	300	25 x 0.9	€24.50
27030303	500	30 x 1.0	€49.90

#### Steel Rules

Made of stainless and hardened steel with easy to read frosted chrome plated non glare rule. Graduated in mm with the lower edge in half mm with hanging hole.



Stock No.	Length mm	Width x thickness mm	Accuracy mm	Price
84270107	150	15 x 0.5	±0.12	€6.30
84270206	300	25 x 1.0	±0.13	€10.90
84270305	600	30 x 1.2	±0.16	€23.70
84270404	1000	35 x 1.2	±0.20	€57.80
84270503	2000	40 x 2.0	±0.30	€275.00
84270602	3000	40 x 3.0	±0.40	€595.00

### **Engineers rules**

Bevelled edge made of ground steel. Graduated in mm.



Stock	Length	Width x thickness	Price
No.	mm	mm	
27050202	500	40 x 5	€75.00
27050509	1000	40 x 5	€144.50
27050608	1500	40 x5	€250.00
27050707	2000	40x 5	€395.00



### **Engineers rules**

Rectangular profile with a measuring tolerance according to DIN 866/2. Form B. Made of ground steel and graduated in mm.

Stock No.	Length mm	Width x thickness mm	Graduation	Price
27060102	500	30 x 6	Top Edge	€89.90
27060201	1000	30 x 6	Top Edge	€165.00
27060250*	1000	30 x 6	Top Edge	€330.00
27060300	1500	30 x 6	Top Edge	€255.00
27060409	2000	40 x 8	Top Edge	€360.00
27060458*	2000	40 x 8	Top Edge	€540.00
27060508	3000	40 x 8	Top Edge	€590.00
27061001	500	25 x 5	Lower Edge	€87.40
27061100	1000	30 x 6	Lower Edge	€163.00
27061209	1500	30 x 6	Lower Edge	€240.00
27061308	2000	40 x 8	Lower Edge	€365.00



### Straight edges

Rectangular profile made of ground steel. Tolerance DIN 874/1 or 874/2. Calibration certificate available (details and prices on request).

Stock No.	Length mm	Width x thickness mm	Weight kg	DIN	Price
25070103	500	30 x 6	1.3	874/2	€120.00
25070202	1000	40 x 8	2.5	874/2	€210.00
25070301	1500	50 x 10	5.8	874/2	€390.00
25070400	2000	60 x 12	11.4	874/2	€520.00
25070509	2500	70 x 15	14.3	874/2	€790.00
25070608	3000	80 x 15	17.1	874/2	€1,050.00
25070707	4000	100 x 16	22.8	874/2	€2,150.00
25071507	500	40 x 8	1.3	874/1	€165.00
25071606	1000	50 x 10	4.0	874/1	€299.00
25071705	1500	60 x 12	8.4	874/1	€499.00
25071804	2000	70 x 15	12.0	874/1	€1,050.00
25071903	2500	80 x 15	17.0		€1,300.00
25072000	3000	100 x 16	28.0	874/1	€1,850.00
25072109	4000	120 x 20	35.0	874/1	€2,995.00



### Straight edges

With bevelled edges and made of ground steel.

Stock No.	Length mm	Width x thickness mm	Price
25050204	500	40 x 5	€36.50
25050501	1000	40 x 5	€75.00
25050600	1500	40 x 5	€150.00
25050709	2000	40 x 5	€220.00



### Sharp edge rules

Sharp edges rule with black edge for better contrast, special steel with honed edge and a corner angle of  $30^\circ$ . Tolerance DIN 874/00

Stock		Width x Thickness		Price
No.	mm	mm	9	
52090107	75	22 x 6	40	€20.50
52090206	100	22 x 6	60	€25.00
52090305	200	22 x 6	120	€36.90
52090404	300	30 x 7	750	€69.90



### Workshop squares

Toolmakers adjustable square, with a graduated steel rule. tolerance DIN  $875/2\,$ 

Stock No.	Graduated steel rule length mm	Locking steel length mm	Price
151250	107 100	70	€20.50
151250	206 150	100	€22.90





LIMIT

<sup>\*</sup> with calibration certificate



Made of ground steel



Stock No.	Leg length mm	Leg cross length mm	Price
25441007	200	25 x 5	€18.50
25441106	300	25 x 5	€31.90
25441205	400	30 x 5	€33.90
25441304	500	30 x 5	€40.00









### Base squares

Made of zinc plated special steel with tolerance according to Level 3 accuracy.

Stock No.	Long leg length mm	Short leg length mm	Accuracy of squareness ±µm	Price
1204801	08 150	100	55	€16.00
1204802	207 200	130	60	€21.90
1204803	300	175	70	€32.10
1204804	400	230	80	€40.00
1204806	600	300	100	€60.70





### Base squares

Made of tool steel, all sides are ground. Tolerance DIN 875/2.

Stock No.	Long leg length mm	Short leg length mm	Width x Thickness mm	Base width mm	Price
2534200	7 100	70	20 x 5	20	€26.10
2534210	200	130	30 X 7	30	€44.90
2534155	3* 200	130	30 X 7	30	€245.00
2534220	300	200	40 X 8	40	€75.00
2534165	52* 300	200	40 X 8	40	€370.00
2534230	400	265	40 X 10	45	€137.90

<sup>\*</sup> with calibration certificate



### Engineers square

Made of tool steel, all sides are ground. Tolerance DIN 875/1.

Stock No.	Long leg length mm	Long leg dim mm	Short leg length mm	Short leg dim mm	Price
25301003	75	14 x 3	50	14 x 10	€22.00
25301102	100	16 x 3	70	16 x 10	€30.00
25300252	100	16 X 3	70	16 X 10	€123.40
25301201	150	22 x 3	100	20 x 12	€35.60
253003513	150	22 X 3	100	20 X 12	€182.20
25301300	200	24 x 3	130	24 x 14	€52.50
25301508	250	28 x 3	165	28 x 16	€64.90
25301607	300	30 x 3	200	30 x 18	€92.50
25301706	400	34 x 3	265	34 x 20	€150.00

<sup>\*</sup> with calibration certificate



### Sharp edge squares

Made of hardened steel with fine ground sides and honed edges. Legs of equal thickness with tolerance according to DIN 875/00.

Stock	Long leg	Short leg	Width x thickness	Price
No.	mm	mm	mm	
52171006	50	40	13.5 x 4	€32.00
52171105	75	50	15 x 4	€35.00
52171204	100	70	20 x 5	€42.00
52171303	150	100	25 x 6	€57.50
52171402	200	130	30 x 7	€69.90





# Rules & Angles



For use as marking out centre on end plate of round work piece, as an angled stop or as a T square. Made of steel and graded in mm.



Stock	Blade length	Stock length	Price
No.	mm	mm	
254202	09 200	150	€72.90

### **Protractors**

Digital reading protractor, adjustable between 0-360°, 0-180° or 0-90°. Includes a setting square 90°. Made of stainless steel, zero set in any position, hold function with 2 seperate steel rules.

Length of steel rules	mm	150 & 300
Reading	mm	0.01



Stock No.	Price
151270105	€450.00



### **Protractors**

Made of sheet steel with frosted chrome plated scale. Supplied with locknut.

Limit	
	5

		Protractor disc Diameter mm		Price
2549010	3 Circular	85	150	€16.90

### Protractors

Made of steel with frosted chrome plated scale. Supplied in a colour display box with a storage wallet.



Stock No.	Protractor Diameter mm	Leg Length mm	Price
25480104	80	120	€24.40
25480203	120	150	€26.90
25480302	150	200	€33.90
25480401	200	300	<i>€</i> 40 90

### **Protractors**

Adjustable protractor made of steel with frosted chrome plated scale and sliding leg. Comes complete With locknut, 150 and 200mm protractors supplied in a storage case.

300mm protractor supplied in a storage wallet.



Stock	Protactor	Leg Length	Price
No.	Diameter mm	mm	
25500109	150	300	€48.90
25500208	200	400	€59.90
25500406	300	600	€115.00







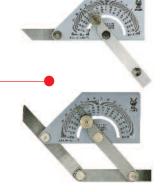


Made of steel with frosted chrome plated for non glare reading. Can be used for internal and external angles.

Protractor diameter	mm	90
Leg length	mm	80

Stock No.	Price
73770109	€64.90





### Precision protractors

Made of stainless steel complete with knob for fine adjustment with frosted vernier scale for reading  $^{1}/_{12}$ °= 5 minutes with magnifier. The instrument is adjustable for measuring 360° and comes with 2 separate steel rules.



### Precision protractor

Made of steel with frosted chrome plated scale. Comes complete with dial scale for reading 1/12° and is adjustable to all required angles. Supplied in a storage case.

Length of blade	mm	300
Scale division		1/ <sub>12</sub> °
Range per turn of pointer		10°

Stock No.	Price
119190106	€110.00





### Combined square and angle gauges

Precision combination square made of stainless steel, with the protractor head, angle head, and centre head which slides on the steel rule. The angle head has 90°, 45°, centre square and spirit level. All the surfaces are ground and the steel rule is graduated in mm and inches on both sides.

Protractor, reading		360°
Stell rule, reading	mm	300
90° square, length	mm	100
Protractor head, length	mm	180

Stock No.	Price
151260106	€185.00





### Combined square and angle gauges

Supplied with protractor, angle ledge and centre head sliding on the rule. Protractor with double sided ledge, spirit level on angle ledge and protractor. The rule is graduated in mm and inch and is supplied in a storage case.



Stock no.		119180107	
Protractor, reading	mm	0-180	
Steel rule, length	mm	300	
Angle edge, length	mm	110	
Centre head, length	mm	63	
Extra steel rule 600 i	mm	119180206	
Spare part set including nuts & screws 119180			119180305



Stock No.	Price
119180107	€90.70
119180206	€23.00
119180305	€8.40

### V blocks

Sets of 2 pieces that are ground in pairs with uniformity of parallelism  $\pm$  0,03 mm.





Stock No.	Width mm	Height mm		V Groove Width mm		Price per pair
25020108	76	60	32	45	22.5	€46.50
25020207	102	67	41	55	27.5	€59.20
25020405	152	89	63	80	40.0	€125.00
25020603	203	140	102	114	57.0	€290.00

### V blocks

Precision design for clamping when measuring, grinding, milling or drilling. Manufactured in pairs of hardened and smooth ground steel. Supplied in sets with 2 blocks and 2 clamps.

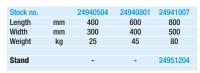




	Maximum diameter of clamps mm	Length x Width x Height	Price per set
525202	02 25	40 x 32 x 32	€49.20
525203	01 37	50 x 37 x 37	€52.00
525204	00 40	75 x 55 x 55	€140.00

### Engineers surface plate

Made of cast iron with tolerance DIN 876/3.







Stock No.	Price
24940504	€520.00
24940801	€895.00
24941007	€1,550.00
24951204	€1,450.00



### Engineers surface plate

Made of close grained and aged cast iron, plane ground to tolerance DIN 876/1. The Engineers surface plate measures 800x500 mm complete with stand with adjustment screws and vibration absorber.

Stock no.		24950404	24950602	2490909	24951006
Length	mm	300	400	600	800
Width	mm	200	300	400	500
Weight	kg	10	25	45	80
_					
Stand			-	-	24951204

Stock No.	Price
24950404	€340.00
24950602	€625.00
24950909	€1,350.00
24951006	€1,900.00
24951204	€1,450.00





### Preset guage

Preset gauge for set up tools in milling machines, etc. Dial gauge shows movement of top surface. By "0" is distance 50mm.

Magnetic base makes it easy to put in a vertical or a horizontal position. The gauge has a calibration mechanism.

mm	50
mm	3
mm	0.01
mm	50 x 50
	mm mm

Stock No.	Price
153200100	€250.00



### Gauge blocks

Made of hardened special steel which is ground and hand lapped. Tolerance DIN 861/1 resp. 861/2.

Total number of blocks		47	87
Range of measurement	mm	1.005	1.001-1.009
No. of blocks (range)	pieces	1 (0.005 mm)	9 (0.001 mm)
Range of measurement	mm	1.01-1.20	1.01-1.49
No. of blocks (range)	pieces	20 (0.01 mm)	49 (0.01 mm)
Range of measurement	mm	1.30-1.90	0.50-9.50
No. of blocks (range)	pieces	7 (0.10 mm)	19 (0.50 mm)
Range of measurement	mm	1.00-9.00	-
No. of blocks (range)	pieces	9 (1.00 mm)	-
Range of measurement	mm	10.00-100.00	10.00-100.00
No. of blocks (range)	pieces	10 (10.00 mm)	10 (10.00 mm)
DIN 861/2			
Stock no		52720109	52720208
Price per set		€595.00	€740.00
DIN 861/1			
Stock no		52720307	52720406
Price per set		€750.00	€1150.00





### Angle plates

Set of 12 angle plates for measuring, inspection and setting up machines, cutting tools or protractors. Made of quality steel, precision ground and hardened. Plates are lightly magnetised for easier setting up in combinations. Accuracy of angle  $\pm$  0.01mm per 100mm. Supplied in a storage case.

Angles Length	degrees ¼°, ½°	°, 1°, 2°, 3°, 4°, 5°, 10°, 20°, 25° 76	, 30°
Stock No.	Price	LîMîT	•
153230107	€104.9	90	



### Parallel blocks

Perpendicular parallel blocks, ground in pairs. Hardened steel HRC 55-62. Parallelism tolerance 0.005mm.



Stock no		151530102	151530201	151530300
No. of pairs	per set	7	7	7
Length	mm	95	120	200
Height x width	mm	10x3, 12x3, 14x4,	10x8, 15x8, 20x8,	15x8, 20x8, 25x8,
		18x5, 24x5, 30x8,	25x8, 30x8, 35x8,	30x8, 35x8, 40x8,
		38x8	40x8	45x8

## LIMIT

Stock No.	Price
151530102	€82.30
151530201	€105.00
151530300	€189.90

### Machine levels

Digital level and protractor, the reading is 4x90°, alternative reading 0-100%. Zero setting in any position, hold function, backlight display, automatic off after 3 minutes.

Reading		4x90°
Alternative rea	ding	0-100%
Scale value	mm	0.1°
Accuracy		±0.3°
Battery type	mm	3 x 3V CR2032
Dimensions		150x50x33

Mini Digital Protractor





### Machine levels

Digital level and protractor with magnet, the reading is 4x90°, alternative reading 0-100%. Zero setting in any position, hold function, magnet on one side for fitting on steel rules, etc. automatic off after 3 minutes.

Reading		4x90°
Alternative read	ling	0-100%
Scale value	mm	0.1°
Accuracy		±0.3°
Battery type	mm	3 x 3V CR2032
Dimensions		50x50x25

Stock No.	Price
151230109	€75.60



Stock No.	Price
151230109	€75.60

### Master levels

Made of steel casting, precision ground with V shaped base and adjustable clinometer with longitudinal and transverse vials bi-directional measuring. Accuracy to DIN 877.



Stock	Length	Scale Value	Width x Heigh	t Price
No.	mm	mm	mm	
07490055	100	0.05	40 x40	€170.00
07490154	100	0.05	40 x 40	€170.00
07490204	200	0.10	40 x40	€185.00
07490402	200	0.02	40 x 40	€185.00



### Frame level

Made of cast steel and precision ground with V shaped set surface. Adjustable clinometer. Accuracy to DIN 877.



Stock	Length	Height	Scale Value	Price
No.	mm	mm	mm	
07570039	100	100	0.05	€240.00
07570054	150	150	0.05	€240.00
07570104	200	200	0.10	€240.00
07570203	200	200	0.02	€255.00



### Scribes

Double ended scribe with steel point. Length 240mm. Diameter 4mm

Stock no.		52530102	52530201
Туре		Steel point	Hard metal point
Length	mm	240	240
Diameter	mm	4	4

Price
€4.90
€13.50



Hard metal point. K 30 quality.

	Length Diameter	mm mm	130 7		
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Stock No.	Price
24750101	€5.90



Hard metal point. K 20 quality.

Length	mm	150	
Diameter	mm	6	

Stock No.	Price
24741001	€2.20



Hard metal point. K 30 quality. Automatic pencil with locking device.

Stock no.		24821001		
Length	mm	150		
Replacement hard metal points,		24820201		
Length x diamete	r mm	20 x 2		

Stock No.	Price
24821001	€7.60
24820201	€4.60



For scribing and punching. When the scriber point is pressed into the pen a stroke spring is released for punch marking. It comes complete with a rubber grip and chrome vanadium steel tip.

Scribe		102300100
Length	mm	140
Extra point		102300209
Length x diame	termm	40 x 3

Stock No.	Price
102300100	€28.40
102300209	€8.10



135mm automatic slim centre punch with pocket clip.

Length	mm	135	
Diameter	mm	1.0	

Stock Vo.	Price	
SCP01	€13.40	



Hard metal point. Reversible blade with point at each end.

Stock no.		24850109	
Total blade length	mm	100	
Diameter mm		7	
Spare hard metal	point,	24850208	

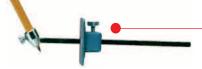
24850109 <b>€21.40</b> 24850208 <b>€14.40</b>	Stock No.	Price
214140	24850109 24850208	€21.40 €14.40





### Marking gauge

Made of steel. Scale graduated in mm. Enamelled. Supplied complete with pencil.



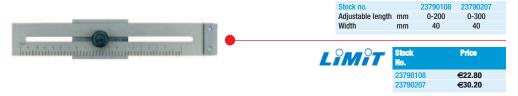


Stock No.	Price
23960107	€12.80

Length of graduation

### Marking gauge

For scribing with scribe against edge. Graduated scale. Hardened scribing edge.



### Marking gauges

Marking gauges with knuckle jointed roll as stop. It has frosted chrome plated scale and vernier.

A hardened scribe point, screw locking, made of stainless steel.

		i measurement int diameter	mm mm	97170104 200 2x21
ं व कि क्रिक्त केंद्र केंद्र केंद्र केंद्र के के के कि	Extra sc	ribe point		97170203
	Lîmît	Stock No.		Price
		97170104 97170203	_	38.00 €4.00



### Marking gauges

Made of steel. Hardened point diameter 5 mm. Fine adjustment. Graduated in mm and vernier for 0.1 mm.



Stock No.	Price
24130106	€195.00
24130205	€220.00
24130304	€19.70



### Combined dividers and sliding calipers

Hardened and ground points, graduated in mm with the vernier reading 0.01 mm. Made of steel,



### Bar calipers

Rectangular bar that is graduated in mm. Vernier 0.1 mm

Stock no.		24200107	24200206	24200305	24200404
Length	mm	500	1000	1500	2000
For max. diameter	mm	1000	2000	3000	4000
Stock No.	Pric	<b>3</b> 8	Lin	1iT	
24200107	€39	0.00			
24200206	€49	5.00			
24200305	€58	0.00			
2//200//0/	£751	0.00			

### Compasses

Compasses for pencils. Made of steel. Pencil not included.

Stock no.		24280109	24281107
Length	mm	175	300
Max. capacity	mm	190	380

імах. Сарасіту	11111 190	360	
Stock No.	Price	LIMIT	
24280109	€19.50		
24280208	€28.60		43.

### Compasses

Dividers. Made of steel. Hardened points.

Stock no.		24320400	24320707
Length	mm	200	300
Max. capacity	mm	380	580

No.	PTICE
24320400	€14.80
24320707	€22.50





# LIMIT

### Compasses

Wing dividers, made of steel. Hardened points.

Stock no.		24290207	24290405	24290702	24290801	24291007
Length	mm	150	200	300	400	600
Max. capacity	mm	170	235	390	545	800
Price		€13.80	€18.00	€24.00	€38.20	€51.20



### **Calipers** Lîmît External calipers

Stock no		24390502	24390700	24391005	24391104	
Length	mm	200	300	500	800	
Max capacity	mm	300	500	850	1250	
Price		€7.20	€9.00	€29.50	€58.00	





### Calipers

Internal calipers.

Stock no		24400509	24400707	24401002
_ength	mm	200	300	500
Max capacity	mm	370	570	950
Price		€7.20	€9.00	€31.50



### Spring dividers & calipers

External calipers. Hardened points and fast action adjustment nut



Stock no		24430407	24430506	24430704
Length	mm	150	200	300
Max capacity	mm	125	170	250
Price		€9.90	€12.90	€18.10



### Spring dividers & calipers

Dividers. Hardened points and fast action adjustment nut.

Stock no 24440406 24440505 24440703 150 300 Length mm 200 Max capacity 150 190 275 €9.90 €12.90 £18.10



# Spring dividers & calipers

Internal calipers. Hardened points and fast action adjustment nut

<i>NîT</i>	Stock no		24450405	24450504	24450702
	Length	mm	150	200	300
	Max capacity	mm	150	180	260
	Price		€9.90	€12.90	€18.10



### Number punches

STANDARD. Includes 9 punches 0 - 9. Engraving side hardened according to 58-60 HRC

Stock No.	Height of numbers mm	Shank Square mm	Price
1733010	1 2.0	6.0	€17.50
1733020	0 3.0	6.0	€17.50
1733030	9 4.0	7.0	€17.50
1733040	5.0	8.0	€23.00
1733050	7 6.0	9.0	€23.20
1733060	6.8	11.0	€36.60
1733070	5 10.0	12.0	€69.90
1733080	4 12.0	14.0	€69.90
1733090	3 15.0	16.0	€125.00





### Number punches

SPECIAL. Includes 9 punches 0 - 9. Engraving side hardened according to 58-60 HRC and 38-46 HRC on the other side.

Stock No.	Height of numbers mm	Shank Square mm	Price
5175010	7 2.0	7.0	€68.90
5175020	6 3.0	8.0	€70.90
5175030	5 4.0	9.0	€74.90
5175040	4 5.0	10.0	€80.60
5175050	3 6.0	12.0	€102.50
5175060	2 8.0	14.0	€119.90
5175070	1 10.0	16.0	€160.00





### Alphabetical punches

STANDARD. Includes 27 punches, A - Z and &. Engraving side hardened according to 58-60 HRC.

Stock	Height of letters	Shank square	Price
No.	mm	mm	
1735010	9 2.0	6.0	€46.50
1735020	8 3.0	6.0	€46.50
1735030	7 4.0	7.0	€46.50
1735040	6 5.0	8.0	€66.40
1735050	5 6.0	9.0	€66.40
1735060	4 8.0	11.0	€104.20
1735070	3 10.0	12.0	€140.00
1735080	2 12.0	14.0	€225.00
1735090	1 15.0	16.0	€360.00





### Alphabetical punches

SPECIAL. Includes  $\dot{2}7$  punches, A - Z and &. Engraving side hardened according to 58-60 HRC and 38-46 HRC on the punching side.

Stock No.	Height of letters mm	Shank square mm	Price
51760106	2.0	7.0	€200.00
51760205	3.0	8.0	€210.00
51760304	4.0	9.0	€225.00
51760403	5.0	10.0	€245.00
51760502	6.0	12.0	€275.00
51760601	8.0	14.0	€375.00
51760700	10.0	16.0	€475.00





### Stamp sets

Complete sets with holder and 100 types. 58 letters, 35 figures and 7 special marks for punctuation, etc.

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			-

Stock No.	Height of type mm	No. of types	Capacity of holder	Length of text mm	Price
58890104	3	100	10	40	€750.00
58890203	4	100	8	40	€795.00
58890302	5	100	6	40	€850.00



LIMIT

### **Stencils**

With lock seam for assembling.

## Soapstone chalk

For marking of steel and other metals. Can be used on glowing metals. Will not be erased by fire or water. Can be stored outside



Price €12.90



Stock No.	Height of stencils mm	Ammount of numbers	Price
1732010	25	15	€37.20
1732130	8 25	36	€110.00
1732040	9 38	15	€47.90
1732160	5 38	36	€129.50
1732060	7 50	15	€57.80
1732180	3 50	36	€155.00
1732080	5 62	15	€69.50
1732200	9 62	36	€175.00
1732120	9 75	15	€91.50
1732240	5 75	36	€225.00
1732125	8 100	15	€135.00
1732245	100	36	€255.00

### Soapstone chalk holder

Lenath

Pressed construction with clip. Nickel plated. Suitable for soapstone chalk 24680100.





3	
Stock No.	Price
85300101	€3.20

### Marking chalk

145

Industrial chalk. Dust free, made of magnesium. For marking on metals, etc. Does not melt when heated. Rectangular. PAR CO Colour White

 PM	<u> </u>
••••	

Stock No.	Price
24690109	€1.00

Dimensions mm 90 x 12 x 12

### Marking pens

"Artline" For marking and lettering on difficult surfaces such as metal, plastic, glass, rubber, etc. Suitable for outdoor use. Fast drying.

Stock No.	Colour	Price
27100106	Black	€7.50
27100155	Red	€7.50
27100171	Green	€7.50
27100205	White	€7.50
27100254	Blue	€7.50
27100304	Yellow	€7.50







### Marking pens

"Artline" For marking on porous and hard surfaces. Adheres even to smooth surfaces. Fine point felt tip - 0.4 mm. Waterproof. Fast drying, Extra air seal in cap. With clip. Contains no xylene.

Stock No.	Colour	Price
23630106	Black	€4.30
23630205	Red	€4.30
23630304	Blue	€4.30





### Marking & scraper paint

Ideal for grinding in and scraping of machine prism and similar operations. Non drying, an advantage when working on prolonged operations.

VAVIN	Colour Tube content	Blue ds g 30
Li	Stock No.	Price
	30930101	€56.00

### **Multimeters & Instruments**

### **Limit Multimeters and Instruments**

The Limit range of test instruments has been created in conjunction with key end users from the automotive and industrial sectors. Their ideas and requirements have then been combined with the latest technological developments to produce digital test instruments that will consistently and accurately give a wide variety of readings to suit different needs. The 2009 range includes many new models and now covers not only multimeters and clamp meters but also voltage testers and detectors, tachometers, tyre pressure testers, Infrared and digital thermometers, rubber hardness testers, coating thickness gauges, ultrasound thickness gauges and sound level or decibel meters.

### Multimeters

Digital multimeter with autorange and large display with backlight. Measures AC/DC, DC current, resistance, capacity, frequency and tempeature. It also has a diode test, continuity test with buzzer, datahold, and low battery capacity warning. Supplied complete with test leads, temperature probe and manual plus a protective case and bench holder. Maximum display 3999. Safety isolation CAT III 1000V/CAT IV 600V, IEC 61010. Fused to max 10A

Stock No		128570108	
DC Voltage	DCV	400 mV-4-40-400-1000 V	
DC Voltage: resolution	mV	0.1	
DC Voltage: accuracy		±0.8% + 1	
AC Voltage	ACV	4-40-400-750 V	
AC Voltage: resolution	mV	1	
AC Voltage: accuracy		±1% + 5	
DC Current	DCA	400-4000 μA-40-400 mA-4-10 A	
DC Current: resolution	μΑ	0.1	
DC Current: accuracy		±1% + 2	
AC Current	ACA	400-4000 μA-40-400 mA-4-10 A	
AC Current: resolution	μΑ	0.1	
AC Current: accuracy		±1.5% + 5	
Resistance	Ω	400 $\Omega$ -4-40 K $\Omega$ 4-40 M $\Omega$	
Resistance: resolution	Ω	0.1	
Resistance: accuracy		±1% + 2	
Capacity	F	40-400 nF-4-40-100μF	
Capacity: resolution	F	10 pF	
Capacity: accuracy		±3% + 5	
Frequency		10 Hz-10 MHz	
Frequency: resolution	Hz	1	
Frequency: accuracy		±0.1% + 3	
Temperature	°C	-40 -+1000	
Temperature: resolution	°C	1	
Temperature: accuracy		±1% + 3	
Automatic off after	min	30	
Battery		1piece 9 V (6F22)	
Dimensions	mm	177x85x40	
Price		£125.00	
Extra test leads		128600202	
Extra temperature prob	e	128600301	



### Multimeters

Digital multimeter for automotive and mechanical engineers, with a large display it shows not only the measured value but also the correct input for test leads and selected function. Measures AC/DC, DC current, resistance and capacity as well as engine tach. It also has a diode test, continuity tester with buzzer, datahold, and low battery capacity warning. Supplied complete with test leads and belt clip, battery and manual plus a protective case and bench holder. Maximum display 1999. Safety isolation CAT II 1000V/CAT III 600V, IEC 61010. Fused to max 10A

Stock No		128580107
DC Voltage	DCV	200 mV-2-20-200-1000V
DC Voltage: resolution	mV	0.1
DC Voltage: accuracy		±0.5% + 5
AC Voltage	ACV	2-20-200-750 V
AC Voltage: resolution	m۷	1
AC Voltage: accuracy		±0.8%% + 5
DC Current	DCA	200 mA-10 A
DC Current: resolution	μΑ	0.01
DC Current: accuracy		±0.8% + 5
Resistance	Ω	200 Ω-2-20- ΚΩ-2-20 ΜΩ
Resistance: resolution	Ω	0.1
Resistance: accuracy		$\pm 0.8\% + 5$
Dwell: resolution		0.1°
Dwell: accuracy		±3% + 5
Engine Tach: resolution	r/min	10
Engine Tach: accuracy		±3% + 5
Battery		1 piece 9V (6F22)
Dimensions	mm	179x88x39
Extra test leads		128600202

		AT III 600V, IEC 61010. Fused to max 10A
Stock No. 128580107 128600202	Price €99.90 €10.50	500 AUTO
	Lîmît	

Digital multimeter with a large display it shows not only the measured value but also the correct input for test leads and selected function. Measures AC/DC, DC current, resistance, capacity, frequency and temperature. It also has a diode test, transistor tester and continuity with buzzer, datahold, and low battery capacity warning.

Supplied complete with test leads multi purpose socket, temperature probe type K and manual plus a protective case and bench holder. Maximum display 1999. Safety isolation CAT II 1000V/CAT III 600V, IEC 61010.

Fused to max 200mA



Stock No.	Price
128590106	€99.90
128600202	€10.50
128600301	€13.00
128590205	€12.00

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Stock no		128590106
DC Voltage	DCV	200 mV-2-200-200-1000 V
DC Voltage: resolution	mV	0.1
DC Voltage: accuracy		±0.5% + 1
AC Voltage	ACV	2-20-200-1000 V
AC Voltage: resolution	mV	1
AC Voltage: accuracy		$\pm 0.8\% + 3$
DC Current	DCA	2-200 mA-10 A
DC Current: resolution	μA	0.01
DC Current: accuracy		±0.8% + 1
AC Current	ACA	2-200 mA-10 A
AC Current: resolution	μΑ	1
AC Current: accuracy		±1% + 3
Resistance	$\Omega/\text{K}\Omega/\text{M}\Omega$	200 $\Omega$ 2-20K $\Omega$ 2-20 M $\Omega$
Resistance: resolution	Ω	0.1
Resistans: accuracy		±0.8% + 1
Capacity	F	2-200 nF-100μA
Capacity: resolution		1 pF
Capacity: accuracy		$\pm 4\% + 3$
Frequency	KHz	2-20
Frequency: resolution	Hz	1
Frequency: acccuracy		±1.5% + 5
Temperature	°C	-40 -+1000
Temperature: resolution	ı °C	1
Temperature: accuracy		±1% + 3
Automatic off after	min	30
Battery		1 piece 9 V (6F22)
Dimensions	mm	179x88x39
Extra test leads		128600202
Extra temperature pro	obe	128600301
Extra multi socket		128590205



### Multimeters

Digital multimeter with auto range. Large display with back light. Analogue bar graph for quick and unstable signals. True RMS for voltage and current measurements of non linear signals. Reading of maximum and minimum values. Connectable to a PC for transferring data. Measures DC/AC voltage, DC/AC current, resistance, capacitance, frequency. Also features diode test, continuity test with buzzer, data hold and low battery warning. Supplied with test leads, PC cable and software, battery and manual. Maximum display 6000. Safety isolation CAT III 1,000 volts, CAT IV 600 volts, IEC61010. Fused to maximum 10 amps.

Stock No.		153220108
DC voltage	DCV	60-600mV 6-60-600-1000V
DC voltage: resolution	mV	0.01
DC voltage: accuracy		±1% + 3 digits
AC voltage	DCV	60-600mV 6-60-600-75- V
AC voltage: resolution	mV	0.01
AC voltage: accuracy		±1.2% + 5 digits
DC current	μA/mA/A	600-6000μA 60-600 mA 6-10A
DC current: resolution	μA	0.01
DC current: accuracy		±1% + 3 digits
AC current	μA/mA/A	600-6000μA 60-600 mA 6-10A
AC current: resolution	μA	0.01
AC current: accuracy		±1.2% + 5 digits
Resistance	$\Omega/K\Omega/M\Omega$	600Ω $6-60-600$ $KΩ$ $6-60$ $MΩ$
Resistance: resolution	Ω	0.01
Resistance: accuracy		±1.2% + 2 digits
Capacity	nF/μF	40-400nF 4-40-400-4000μF
Capacity: resolution	nF	0.01
Capacity: accuracy		±3% + 5 digits
Frequency	Hz/MHz	10Hz-10MHz
Frequency: resolution	Hz	0.001
Frequency: accuracy		±0.1% + 4 digits
Operating temperature	°C	0-40
Storage temperature	°C	-10-50
Battery		1 piece 9 volt (6F22)
Dimensions	mm	177 x 85 x 40

Stock No.	Price
153220108	€169.90
	LIMIT



### Measuring kits

9 piece set for the automotive user, with digital calipers, thermometers, tyre gauges, steel rule, feeler gauge and multimeter. Supplied in a handy carrying case with recessed handle, click lock mechanism and rubber feet.

Stock no		139570105
Multimeter: DC Voltage	DCV	200 mV - 500 V
Multimeter: AC Voltage	ACV	200 V - 500 V
Multimeter: DC Current	DCA	2000 μA - 10 A
Multimeter: resistance	Ω	200 $\Omega$ - 20 M $\Omega$
Multimeter: temperature	°C	-40 - +250
IR Thermometer	°C	-20 - +500
Digital Caliper	mm	150
Digital Brake disc caliper	mm	75
Tyre pressure gauge	kg/cm <sup>2</sup>	7 (100 PSI)
Tyre tread gauge	mm	0-25
Feeler gauge 13 blades	mm	0.05-1.0
Steel rule	mm	300
Thread pitch gauge 60°		Metric/UNC
Dimensions	mm	450x228x60

Stock No.	Price
139570105	€499.00





### Measuring kits

9 piece measuring set including digital caliper, micrometer, multimeter, precision square, protractor, screw pitch gauge, steel rule, and a scribe. Supplied in a handy carrying case with recessed handle, click lock mechanism and rubber feet.



Stock no		128630100
Multimeter: DC Voltage	DCV	200 mV - 500 V
Multimeter: AC Voltage	ACV	200 V - 500 V
Multimeter: DC Current	DCA	2000 μA - 10 A
Multimeter: resistance	Ω	200 $\Omega$ - 20 M $\Omega$
Multimeter: temperature	°C	-40 - +250
Digital Caliper	mm	150
Micrometer	mm	0-25
Precision Square DIN875/2	mm	150
Protractor	mm	80
Screw pitch gauge M/UNC	no.of blades	55
Feeler gauge 13 blades	mm	0.05-1.0
Steel rule	mm	300
Sciber TC-tipped	mm	150
Dimensions	mm	450x228x60

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Stock No.	Price
128630100	€230.00

### Multimeters

Palm size Digital multimeter with display and backlight. Measures AC/DC, DC current, resistance and temperature. It also has a diode test, continuity test with buzzer, datahold, and low battery capacity. Supplied complete with test lead, temperature probe, protective holster and bench stand, battery and manual. Maximum display 1999.

Safety isolation CAT I 600V/CAT II 300V, IEC 61010. Fused to max 200mA



Stock no		120000102
Ottook no	D.01/	128600103
DC Voltage	DCV	200-2000 mV- 20-200-500 V
DC Voltage: resolution	μV	100
DC Voltage: accuracy		±1.2% + 2
AC Voltage	ACV	200-500 V
ACVoltage: resolution	μV	100
AC Voltage: accuracy		±1.2% + 10
DC Current	ACA	2000 μA-20-200mA-10A
DC Current: resolution	μV	0.1
DC Current: accuracy		±1% + 2 siffror
Resistance	Ω	200 $\Omega$ -20 $\Omega$ -200 $\Omega$ -20 M $\Omega$
Resistance: resolution	Ω	0.1
Resistance: accuracy		±0.8% + 2
Temperature	°C	-40 -+1000
Temperature: resolution	°C	1
Temperature: accuracy	°C	±1% + 3
Battery		1 piece 9 V (6F22)
Dimensions	mm	130x74x35
Extra test leads		128600202
Extra temperature prob	е	128600301

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Stock No.	Price
128600103	€39.00
128600202	€10.50
128600301	€13.00



### Multimeters

Digital pocket multimeter with auto range. It measures DC/AC voltage, resistance, frequency and capacity. Also includes a diode tester, continuity with buzzer, datahold, relative mode, low battery capacity warning and auto off after 15 minutes.

Supplied complete with test leads, battery, cover and manual. Maximum display 3999. Safety isolation CAT II 300V, IEC 61010.

Stock no		144880101
DC Voltage	DCV	400 mV-4-40-300V
DC Voltage: resolution	μV	0,1 mV
DC Voltage: accuracy		±0.8% + 1
AC Voltage	ACV	40-300V
ACVoltage: resolution	μV	1 mV
AC Voltage: accuracy		±1.2% + 3
Resistance	Ω	400 $\Omega$ -4-40-400 K $\Omega$ -4-40 M $\Omega$
Resistance: resolution	Ω	0.1 Ω
Resistance: accuracy		±1.2% + 2
Capacity	F	4-40-400 nF-4-40-200 μF
Capacity: resolution	F	0.001 nF
Capacity: accuracy		4% + 3 digits
Frequency	KHz	10Hz-100KHz
Frequency: resolution	Hz	0.01Hz
Frequency: accuracy		±0.5% + 3
Duty cycle		0.1-99.9%
Battery		1 x 3V (CR2032)
Dimensions	mm	108x58x12



Stock No.	Price
144880101	€39.00

### €35.00

LIMIT

### Voltage detector

Voltage tester that distinguishes between phase and zero. It is non contact, just place the tip near an AC voltage conductor. The LED flashes and buzzes once the conductor is live, the buzzer can be turned off. Both automatic and manual off. The instrument is continually checking, and the battery status is updated with flashing of the LEDs. Supplied with battery and manual. Safety isolation CAT IV 1000V.

Stock no		145010104	
Voltage	AC	90-1000	
Dimensions	mm	18x150	
Battery	V	2 x 1.5V AAA	

Stock No.	Price	LîMîT
145010104	€23.50	

### Voltage tester

Voltage and continuity tester with 3 phase rotation detector. It can distinguish between phase and zero. Show DCV polarity +/-, continuity tester buzzer, circuit breaker, automatic on/off, and single hand test on 19mm wall sockets. Supplied with a battery, probe tips protection and manual. Safety isolation CAT IV 600V, IEC 61010. Water and dust protection IP65. 144890100- LED lights shows voltage in 7 levels. 12-24-50-120-230-400-690V 144890209 - Display shows real voltage value and also LED lights in 7 levels.

Stock no Display		144890100 No	144890209 Yes
LED lights Voltage	DCV/ACV	Yes 12-690	Yes 12-690
Continuity		Summer	Summer
Battery		2 x 1.5V AA	2 x 1.5V AA
Dimensions	mm	260x56x20	260x56x20
Stock No.	Price	Lin	1 PT
144890100	€75.00		
144890209	€85.00		

### Clamp meter

Digital mini clamp meter with automatic or manual range selection. Measures AC/DC voltage, AC current and resistance. It also tests diode, continuity with tester, datahold and low capacity warning. Automatic shut off. Supplied complete with test leads, protective case, battery and manual. Maximum display 1999. Safety Isolation CAT II 600V/CAT II 300V, IEC 61010.



Stock no		128560109
DC Voltage	DCV	200 mV-2-200-600 V
DC Voltage: resolution	mV	100
DC Voltage: accuracy		±0.8% + 1
AC Voltage	ACV	2-20-200-600 V
AC Voltage: resolution	mV	1
AC Voltage: accuracy		±1.2% + 5
AC Current	ACA	2-20-200-400 A
AC Current: resolution	mA	1
AC Current: accuracy		±4% + 5
Resistance	Ω	200 Ω-2-20 Ω-200 ΩK-2-20 MΩ
Resistance: resolution	Ω	0.1
Resistance: accuracy		±1% + 2
Automatic off after	min	15
Battery		2 pieces 1.5V (LR06)
Extra test leads		128600202

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Stock No.	Price
128560109	€75.00
128600202	€10.50

### Clamp meter

Digital clamp meter with auto range. It measures DC/AC voltage and current, resistance and frequency.

Also testing diode, continuity buzzer, datahold and low capacity warning.

Supplied complete with test leads, carrying case, battery and manual. Maximum display 6666. Safety isolation

CAT II 600v/CAT III 300V, IEC 61010.



Stock no		144870102
DC Voltage	DCV	400 mV-4-40-400-600V
DC Voltage: resolution	mV	0.1
DC Voltage: accuracy		±0.8% + 1
AC Voltage	ACV	4-40-400-60000V
AC Voltage: resolution	mV	1
AC Voltage: accuracy		±1.2% + 5
DC Current	DCA	40-400A
DC Current: resolution	μΑ	0.01
DC Current: accuracy		$\pm 2.5\% + 3$
AC Current	ACA	40-400A
AC Current: resolution	mA	0.01
AC Current: accuracy		±2.5% + 5
Resistance	Ω	400 Ω-4-40-400 ΩΚ-4-40 ΜΩ
Resistance: resolution	Ω	0.1
Resistance: accuracy		±1% + 2
Frequency	KHz	10Hz-1Mhz
Frequency: resolution	Hz	0.001Hz
Frequency: accuracy		±1% + 3
Duty cycle		0.1%-99.9%
Battery		9V (6F22)
Dimension	mm	210x76x30

LIMIT

Stock No.	Price
144870102	€127.50



### Clamp meter

Digital clamp meter with auto range. It measures DC/AC voltage and current, resistance. It also has a surge current measurement, true RMS for AC voltage, testing diode, continuity buzzer, datahold and low capacity warning. Supplied complete with test leads, carrying case, battery and manual. Maximum display 6666. Safety isolation CAT II 600v/CAT III 300V, IEC 61010.

Stock no		144860103
DC Voltage	DCV	6.6-66.600V
DC Voltage: resolution	mV	0.1
DC Voltage: accuracy		±0.8% + 1
AC Voltage	ACV	6.6-66.600V
AC Voltage: resolution	mV	1
AC Voltage: accuracy		±1.2% + 5
DC Current	DCA	66-1000V
DC Current: resolution	μΑ	0.01
DC Current: accuracy		±1.5% + 8
AC Current	ACA	66-1000A
AC Current: resolution	mA	0.01
AC Current: accuracy		±2% + 8
Resistance	Ω	660 Ω-46.6-66-600 ΩK-6.6-66 MΩ
Resistance: resolution	Ω	0.1
Resistance: accuracy		±1% + 2
Frequency	KHz	660 Hz-6.6-66-600 KHz-6.6-66 MHz
Frequency: resolution	Hz	0.1
Frequency: accuracy		±1% + 3
Duty cycle		0.1%-99.9%
Battery		9V (6F22)
Dimension	mm	285x105x45

DC Current: accuracy		±1.5% + 8
AC Current	ACA	66-1000A
AC Current: resolution	mA	0.01
AC Current: accuracy		±2% + 8
Resistance	Ω	660 Ω-46.6-66-600 ΩK-6.6-66 MΩ
Resistance: resolution	Ω	0.1
Resistance: accuracy		±1% + 2
Frequency	KHz	660 Hz-6.6-66-600 KHz-6.6-66 MHz
Frequency: resolution	Hz	0.1
Frequency: accuracy		±1% + 3
Duty cycle		0.1%-99.9%
Battery		9V (6F22)
Dimension	mm	285x105x45
Stock Pri	C9	LIMIT
No.		





### Digital Tyre depth gauge

Digital Tyre Depth gauge for measuring the profile depth of car tyres.

	132360108
mm	0-25
mm	5 x 4
mm	55 x 6
	29281003
	mm

Stock No.	Price
132360108	€50.90
29281003	€4.20



### Digital Tyre pressure gauge

Digital Tyre Pressure gauge for measuring tyre pressure for cars, etc. Ergonomic handle with readings in PSI, BAR, kg/cm or KPA. Automatically switches off after 10 seconds. Battery type CR2032.

Stock no.		132350109
Measuring range	PSI	0-100
Measuring range	BAR	0-7
Measurement point	kg/cm <sup>2</sup>	0-7
Spare Battery		109600304

Stock No.	Price	Limit
132350109	€15.90	
109600304	€4.20	





### Digital Tyre pressure gauge

Digital tyre pressure gauge with a measuring range of 150 psi, accuracy is +/-1% +0.5PSI at 100PSI and +/-2% +0.5 PSI at 150PSI. Operating temperature 10°C-30°C.

It has an auto shut off switch and a built in backlight with a replaceable LED battery.



### Thermometers

Digital thermometer with two inputs for measuring with two probes at the same time. Up to 99 measurements can be stored either by setting an automatic logging interval or manually. Stored measurements can then be transferred to a PC. The display shows maximum, minimum, average and the difference between the two probes. Hold function. Simple to compensate for probe errors. Display backlight. Switchable between °C and °F. Low battery warning. Probe types K, J, T and E can be used. Supplied with probe type K (maximum 260°C), PC cable and software, battery and manual.



	Stock	Price
Cable length	mm	900
Coble langth	mm	128600301 900
K type cable probe -50 to 26	0°C	40000004
Cable length	mm	1000
Probe length	mm	125
		153210307
K type probe for surface are	a -50 to 500°C	
oabio iongai		.000
Cable length	mm	1000
Probe length	mm	180
r type properor all/liulu =50	, 10 000 6	153210208
K type probe for air/fluid -50	to euu.c	
Weight	g	270
Dimensions	mm	175 x 8 x 30
Battery		1 piece 9V (6F22)
Storage temperature	°C	-40-60
Operating temperature	°C	-10-50
Accuracy	°C	0.8 0.5%
Reading	°C	0.1
Range (type K)	°C	-200 - +1370
Stock No.		153210109

7	Stock No.	Price
	153210109	€210.00
	153210208	€85.00
	153210307	€95.00
	128600301	€13.00



### Thermometer

Infrared thermometer for measuring temperature without any contact on most kinds of surfaces by directing the thermometer at the object with a laser sight and pressing the button to take an accurate reading to  $\pm$ 0 and with a reading of  $\pm$ 1 8°C to  $\pm$ 380°C. Includes the ability to register minimum and maximum values. It can switch between °C and °F , has an auto shut off after 8 seconds, has a display backlight and low battery warning. Supplied with battery and manual.

Stock No.		153180104
Measurement range	°C	-18 to +380
Resolution	°C	0.1
Accuracy	°C	±2 or ±2%
Automatic shut down	seconds	8
Emission factor		Fixed 0.95
Operating temperature	°C	0-50
Storage temperature	°C	-20 to +65
Distance/measurement surface		1:10
Battery		9V (6F22)
Dimensions	mm	169 x 138 x 53
Weight	g	270

Stock No.	Price
153180104	€159.90





### **Thermometer**

Fast response and high accuracy infrared thermometers for measuring temperature without any contact on most kinds of surfaces by directing the thermometer at the object with a laser sight and pressing the button to take an accurate reading to +/- 2% and with a reading of -18%C to +550%C or -32%C to +1050%C. Includes adjustable emissivity, scanning function for continuous measuring and the ability to register minimum and maximum values. It can switch between % and %, has an auto shut off after 8 seconds, has a display backlight and low battery warning. Supplied with % thread for mounting on a camera tripod, holder, battery and manual.

Stock No.		153190103	153190202
Measurement range	°C	-18 to +550	-32 to +1050
Resolution	°C	0.1	0.1
Accuracy	°C	±1.8 or ±1.8%	±1.8 or ±1.8%
Automatic shut down	seconds	8	8
Emission factor		0.1 to 1.0	0.1 to 1.0
Operating temperature	°C	0-50	0 to 50
Storage temperature	°C	-20 to +65	-20 to +65
Distance/measurement su	ırface	1:12	1:30
Battery		9V (6F22)	9V (6F22)
Dimensions	mm	169 x 138 x 53	169 x 138 x 53
Weight	g	270	270
Price		£220.00	£690.00

Stock No.	Price
153190103	€250.00
153190202	€790.00





### **Tachometer**

Combined photo measuring and mechanical contact tachometer. Photo measuring, Point the instrument against a reflecting tape or other contrast part on the rotating object. Measuring distance 50-150mm. Contact measuring rpm or surface speed. Press the measuring ring/point against the centre of the rotating object for rpm reading. Alternativley press the measuring wheel against the surface of the object for speed reading. Memory for last measured value and max/min value.



Stock no.		132370107
Туре		R 2000
Photo	rpm	2.5-100,000
Contact	rpm	2.5-20,000
Contact	m/min	0.05-2000
Contact	Ft/min	.02-6560
Spare reflecting tap	e	91940205
Spare measuring points 3 pieces		91950204

LIMIT	Stock No.	Price
	132370107	€220.00
	91940205	€9.00
	04050004	000.00

### Ultrasound thickness gauge

Digital thickness gauge. Suitable materials for ultrasound technology are most metals, glass and plastics. Conditions for accuracy measurement are that the material is homogeneous, surface is smooth and both sides are parallel. Automatic shut off after 2 minutes.



Stock no		144840105
Range	mm	1.2-200
Reading	mm	0.1
Probe diameter	mm	10
Accuracy 1-10mm	mm	±0.4
Accuracy 10-100mm	mm	±0.4+1%
Accuracy 100-250mm	mm	±3%
Operation temperature	°C	0-50
Humidity	% RH	0-80
Battery	4 pieces	1.5V LR03 AAA
Weight	g	165



Stock No.	Price
144840105	€510.00

### Coating Thickness gauges

Digital coating thickness gauge for measuring thickness of coating, e.g. paint, plastic, porcelain, enamel, copper, zinc, aluminium etc. Calibration can be made with included foils, with automatic shut off after 2 minutes.

Range	μm	0-1000
Reading 0-100	μm	0,1
Readin 100-1000	μm	1
Accuracy		±2.5µm or 1.3%
Battery	4 pieces	1.5V LR03 AAA

Stock No	PRICE
144830106	€650.00









### Rubber hardness tester

Digital hardness tester is designed to determine the hardness of soft material such as rubber, silicon, vinyl, etc. A spring loaded probe is held against the specimen and the Shore A value shows on the tester. The specimen surface should be flat and the instrument foot parallel to the specimen. The measurement area must have at least 12mm diameter and distance to any edge at least 12mm. Calibration can be made against the included test block. The average value can be given from 2-9mm measurements. Automatic shut off after 1 minute. The instrument meets DIN 53505, ISO 868 and AST D 2240 standards.

Range	Shore A	0-100
Mininum specimen thickness	mm	6
Accuracy	%	±1
Operation temperature	°C	0-50
Humidity	%	0-80
Battery	4 pieces	1.5V LR03 AAA
Weight	g	170



Stock No	PRICE
144850104	€540.00

### Sound level meter

Digital sound meter with two different weightings A or C and two response time Fast or Slow. With A weighting the frequency responds to the human ear and is commonly used for the environment measurings. C weightings have a much flatter response and are suitable for sound level analysing of machines, engines etc. Fast response time to capture noise peaks and noises that occur very quickly, slow response time to monitor a sound that has a consistent noise level or to average changing levels. It has a memory for 30 groups of measurement and can be connected to the PC for registration of data. The alarm function allows you to select an alarm value and the instrument shows with an LED lamp when the sound level is over value. Built in calibration signal of 94dB. Standard IEC 651 Type 2, ANSI 1, 4 type 2.

Stock no		151520103	
Measuring range	dB	30-130	
Reading	dB	0.1	
Accuracy	dB	±1	
Response time - fast	m/s	125	
Repsonse time - slow	seconds	1	
Time periods		10 sec, 1 min, 5 min, 10 min,	
		15 min, 30 min, 1 h, 8h, 24h	
Memory	groups	30	
Frequency range	Hz	20-12500	
Battery		4 x 1.5V LR03 AAA	
Dimensions	mm	236x63x26	
Weight	g	170	
Price		20.03	
Cable & software for PC connection RS-232 151520202		151520202	
External sound calibrator 94 & 114dB 15152		151520301	
Battery eliminator		151520400	

Stock No.	Price
151520103	€175.00
151520202	€120.00
151520301	€375.00
151520400	€10.50



