

# PRECISION MEASURING EQUIPMENT



[www.standardgage.com](http://www.standardgage.com)



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**STANDARD GAGE** is a new product line from HEXAGON METROLOGY, the leading supplier in the field of metrology worldwide.

The **STANDARD GAGE** line is positioned between the low-cost gauges, which offer an uncertain quality, and the Premium precision instruments, thus offering an excellent Price/Performance ratio.

**STANDARD GAGE** has endorsed the maxim «Effective and affordable, each precision tool can be used with every confidence for efficient quality control».

Among others, the **STANDARD GAGE** line offers traditional gauges such as calipers, micrometers, dial gauges, indicators, height and scribing gauges, gauge blocks. The range is constantly evolving, and includes a **STANDARD GAGE** machine VISUAL 250 for non-contact measurement.

**STANDARD GAGE** products are mainly manufactured in Asia, and further selected according to strict quality criteria from HEXAGON METROLOGY. **All are checked individually by means of certified master gauges for their traceability. They are also supplied with an inspection report attesting their conformity to technical specifications.**

All relevant information about **STANDARD GAGE** is available on **[www.standardgage.com](http://www.standardgage.com)**

For more information, please contact your local distributor or send an e-mail to **[standardgage@hexagonmetrology.com](mailto:standardgage@hexagonmetrology.com)**.







## QUALITY CONTROL

All STANDARD GAGE products are checked to the high quality standards offered by HEXAGON METROLOGY.



Following a rigorous procedure in the laboratory to ensure their quality level, each product comes with an inspection report (see below).



**Rapport de mesure**  
**Prüfbericht**  
**Inspection Report**

HEXAGON METROLOGY

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**Rapport de mesure No :**  
**Prüfbericht Nr. :** 4Q 102 01  
**Inspection report No. :**

Objet :  
Gegenstand : 58mm dial gauge 0.001mm 0,2mm/rev  
Test piece :

Marque :  
Marke : Standard Gage  
Brand :

Type :  
Typ : 01414020  
Type :

No de série :  
Serien Nr. : 102  
Serial No. :

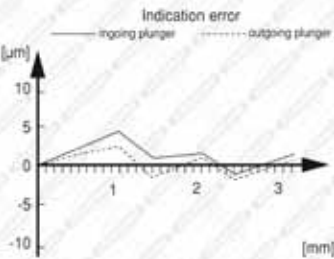
Contrôleur :  
Prüfer : L. Nic  
Inspector :

Timbre :  
Stempel : **LAB 01**  
Stamp :

HEXAGON METROLOGY

**Résultats de mesure**  
**Messergebnisse**  
**Measurement results**

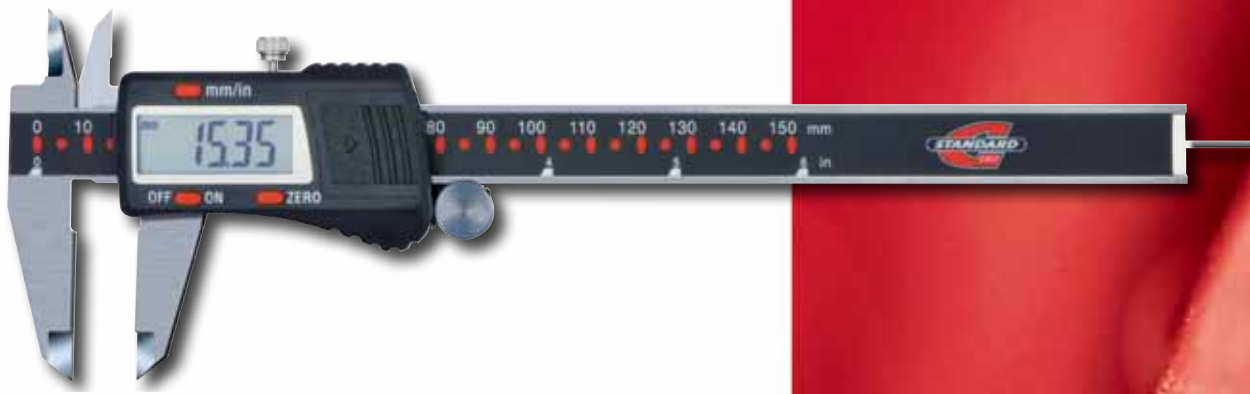
Indication error  
——— ingoing plunger    - - - - - outgoing plunger



Span of error (fe) 6  $\mu$ m  
Total of error (fges) 7  $\mu$ m  
Hysteresis (fu) 2,5  $\mu$ m  
Repeatability (fw) 0,5  $\mu$ m

HEXAGON METROLOGY



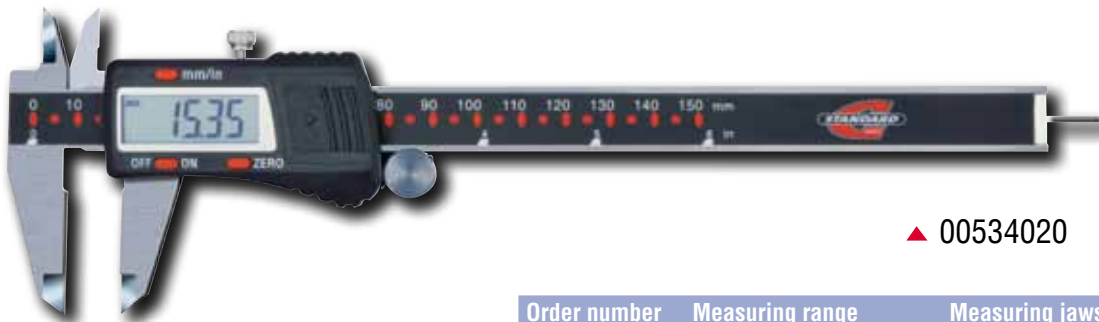
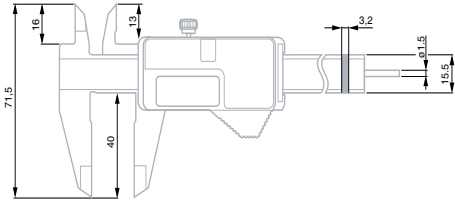


# CALIPERS



## ELECTRONIC CALIPERS

- ▶ Stainless steel beam and slider.
- ▶ With thumb roller.
- ▶ Direct metric/inch conversion.
- ▶ Precision to 0,02 mm (models 150 mm) or 0,04 mm (models 200 and 300 mm).
- ▶ Resolution 0,01 mm/0,0005 in.
- ▶ Supplied in a suited case with inspection report.



▲ 00534020

Order number	Measuring range		Measuring jaws L in mm	Thumb roller
	mm	in		
00534020*	0 ÷ 150	0 ÷ 6	40	✓
00534021	0 ÷ 200	0 ÷ 8	50	✓
00534022	0 ÷ 300	0 ÷ 12	60	✓

\*Only model with round depth rod

- ▶ Stainless steel beam and slider.
- ▶ With thumb roller.
- ▶ Direct metric/inch conversion.
- ▶ Absolute/Incremental measurement.
- ▶ Precision to 0,02 mm (models 150 mm) or 0,04 mm (models 200 and 300 mm).
- ▶ Resolution 0,01 mm/0,0005 in.
- ▶ Supplied in a suited case with inspection report.



▲ 00534231

Order number	Measuring range		Measuring jaws L in mm	Display	Hold feature
	mm	in			
00534230	0 ÷ 150	0 ÷ 6	40	Regular	
00534231	0 ÷ 200	0 ÷ 8	50	Regular	
00534232	0 ÷ 200	0 ÷ 8	50	Large	✓
00534233	0 ÷ 300	0 ÷ 12	60	Regular	

# ELECTRONIC CALIPERS, CERAMIC CAPA



- Patented ceramic capacitive sensor.
- Stainless steel beam and slider.
- Large LC display.
- With thumb roller.
- Direct metric/inch conversion.
- Precision to 0,02 mm (models 100 and 150 mm) or 0,04 mm (models 200 and 300 mm).
- Resolution 0,01 mm/0,0005 in.
- Supplied in a suited case with inspection report.



▲ 00534240

Order number	Measuring range		Measuring jaws
	mm	in	L in mm
<b>00534240</b>	0 ÷ 100	0 ÷ 4	30
<b>00534241</b>	0 ÷ 150	0 ÷ 6	40
<b>00534242</b>	0 ÷ 200	0 ÷ 8	50
<b>00534243</b>	0 ÷ 300	0 ÷ 12	60





## ELECTRONIC POLYCARBONATE CALIPER

- Polycarbonate beam and slider.
- Direct metric/inch/fraction conversion.
- Absolute/Incremental measurement.
- Precision to 0,02 mm.
- Resolution 0,01 mm/0,0005 in, fractions by 1/64" increments.
- Large LC display.
- Supplied in a suited case with inspection report.



▲ 00534210

Order number	Measuring range		Measuring jaws
	mm	in	L in mm
00534210	0 ÷ 150	0 ÷ 6	40

## IP54 ELECTRONIC CALIPER WITH FRACTION

- Water resistant to IP54 standards.
- Stainless steel beam and slider.
- With thumb roller.
- Direct metric/inch/fraction conversion.
- Absolute/Incremental measurement.
- Precision to 0,02 mm.
- Resolution 0,01 mm/0,0005 in, fractions by 1/64" increments.
- Supplied in a suited case with inspection report.



TOP LINE

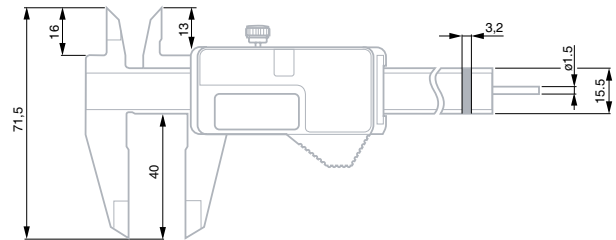
▲ 00534220

Order number	Measuring range		Measuring jaws
	mm	in	L in mm
00534220	0 ÷ 150	0 ÷ 6	40

# TOP LINE ELECTRONIC CALIPERS



- ▶ Stainless steel beam and slider.
- ▶ With or without thumb roller.
- ▶ Direct metric/inch conversion.
- ▶ Precision to 0,02 mm (models 150 mm) or 0,04 mm (models 200 and 300 mm).
- ▶ Resolution 0,01 mm/0,0005 in.
- ▶ Supplied in a suited case with inspection report.



▲ 00534002



▲ 00534003

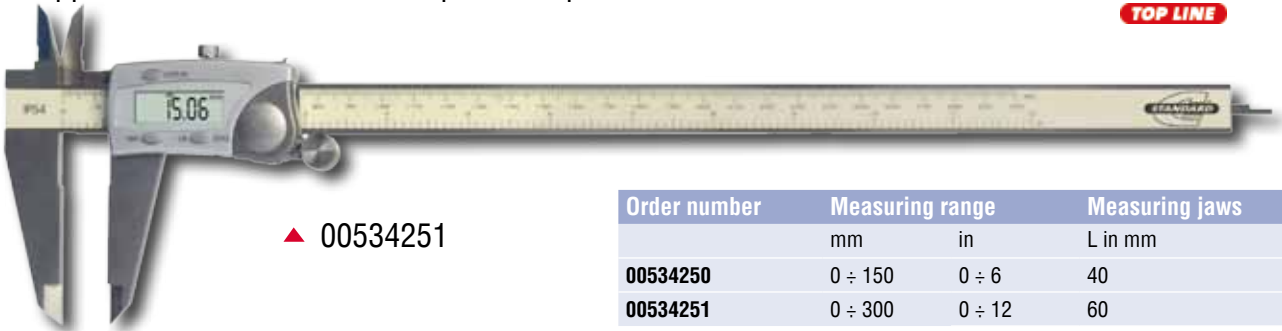
Order number	Measuring range		Measuring jaws L in mm	Thumb roller
	mm	in		
00534002*	0 ÷ 150	0 ÷ 6	40	-
00534003*	0 ÷ 150	0 ÷ 6	40	✓
00534004	0 ÷ 200	0 ÷ 8	50	✓
00534005	0 ÷ 300	0 ÷ 12	60	✓

\*Only model with round depth rod

## IP54 ELECTRONIC CALIPERS

- Water resistant to IP54 standards.
- Stainless steel beam and slider.
- Patented ceramic capacitive sensor.
- With thumb roller.
- Direct metric/inch conversion.
- RS232 output.
- Precision to 0,02 mm (models 150 mm) or 0,04 mm (models 300 mm).
- Resolution 0,01 mm/0,0005 in.
- Supplied in a suited case with inspection report.

TOP LINE



▲ 00534251

Order number	Measuring range		Measuring jaws
	mm	in	L in mm
00534250	0 ÷ 150	0 ÷ 6	40
00534251	0 ÷ 300	0 ÷ 12	60

## ELECTRONIC WORKSHOP CALIPERS, RS232

- Stainless steel beam and slider.
- With fine adjustment.
- Direct metric/inch conversion.
- Preset mode.
- Hold feature.
- RS232 output.
- Precision to 0,02 mm (models 300 mm), 0,03 mm (models 600 mm) or 0,04 mm (models 1000 mm).
- Resolution 0,01 mm/0,0005 in.
- Supplied in a suited wooden case with inspection report.

TOP LINE



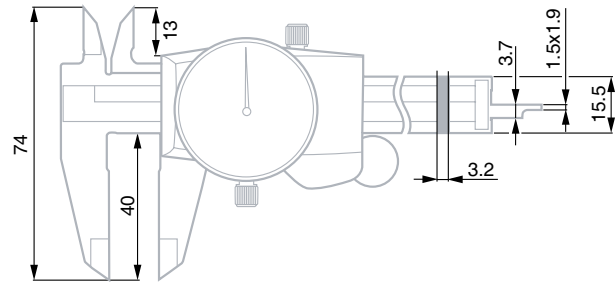
▲ 00534260

Order number	Measuring range		Measuring jaws
	mm	in	L in mm
00534260	0 ÷ 300	0 ÷ 12	60
00534261	0 ÷ 600	0 ÷ 24	150
00534262	0 ÷ 1000	0 ÷ 40	150

# DIAL CALIPERS, METRIC



- Shockproof design.
- Made to measure internal, external and depth dimensions besides shoulders.
- Robust construction in stainless steel.
- Silky smooth sliding within the entire range.
- Supplied in a suited case with inspection report.



▲ 00514018



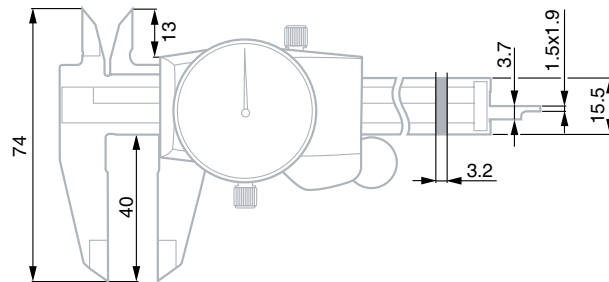
▲ 00514019

Order number	Measuring range	Reading	Travel per revolution	Length of jaws	Thumb roller	Dial face
Metric models	mm	mm	mm	mm		
00514018	0 ÷ 150	0,01	1	40	-	white
00514019	0 ÷ 150	0,02	2	40	-	white
00514020	0 ÷ 200	0,02	2	50	✓	white
00514021	0 ÷ 300	0,02	2	60	✓	white



## DIAL CALIPERS, INCH

- ▶ Shockproof design.
- ▶ Made to measure internal, external and depth dimensions besides shoulders.
- ▶ Robust construction in stainless steel.
- ▶ Silky smooth sliding within the entire range.
- ▶ Supplied in a suited case with inspection report.



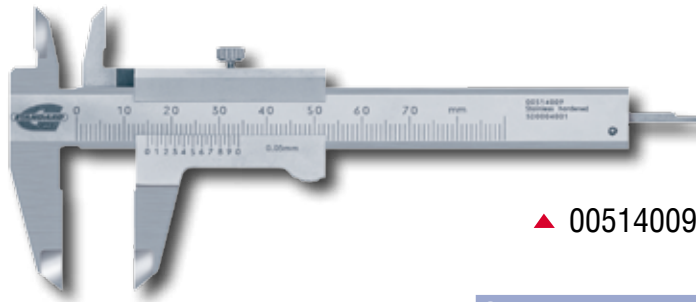
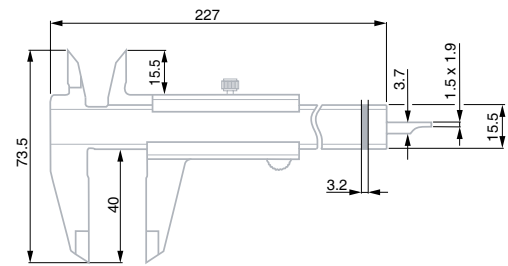
▲ 00524010

Order number	Measuring range	Reading	Travel per revolution	Length of jaws	Thumb roller	Dial face
Inch models	in	in	in	in		
<b>00524010</b>	0 ÷ 6	0,001	0,100	1,6	✓	black
<b>00524011</b>	0 ÷ 6	0,001	0,100	1,6	✓	white
<b>00524012</b>	0 ÷ 8	0,001	0,100	2	✓	white
<b>00524013</b>	0 ÷ 12	0,001	0,100	2,4	✓	white



## VERNIER CALIPERS, METRIC

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

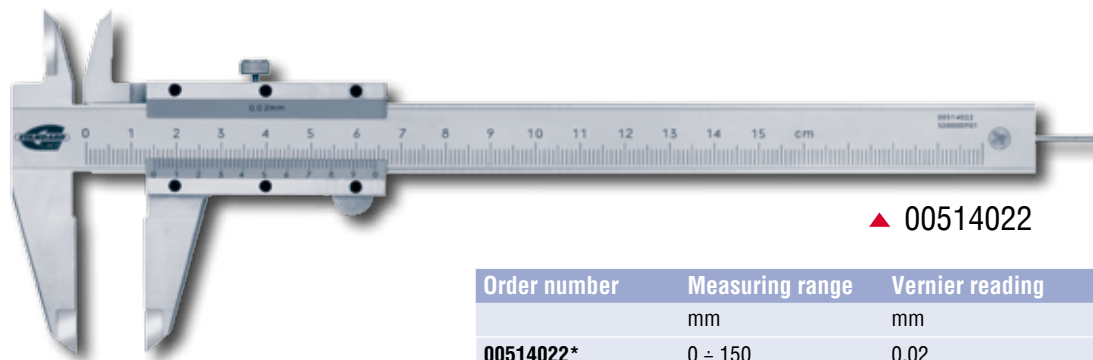


▲ 00514009

Order number	Measuring range	Vernier reading	Length of jaws
Metric models	mm	mm	mm
<b>00514009</b>	0 ÷ 70	0,05	30
<b>00514010</b>	0 ÷ 150	0,02	40
<b>00514011</b>	0 ÷ 150	0,05	40
<b>00514012</b>	0 ÷ 200	0,02	50
<b>00514013</b>	0 ÷ 200	0,05	50
<b>00514014</b>	0 ÷ 300	0,02	60
<b>00514015</b>	0 ÷ 300	0,05	60

## VERNIER CALIPERS, CARBON STEEL

- Carbon steel beam and slider.
- Precision to 0,02 mm (models 150 mm) or 0,04 mm (models 200 and 300 mm).
- Model 300 mm with fine adjustment.
- Supplied in a suited case with inspection report.



▲ 00514022

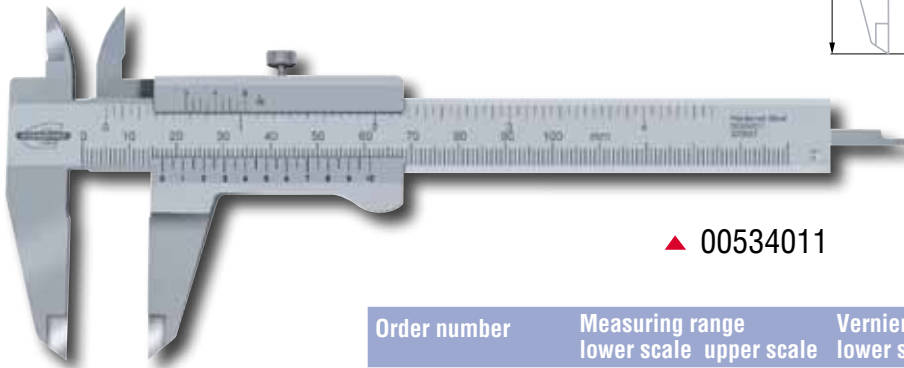
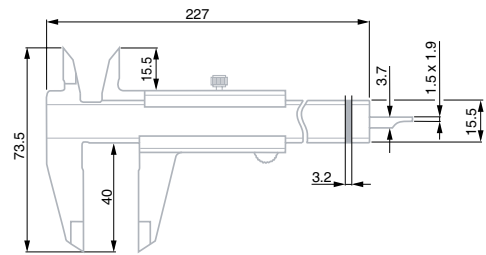
Order number	Measuring range	Vernier reading	Length of jaws
	mm	mm	L in mm
<b>00514022*</b>	0 ÷ 150	0,02	40
<b>00514023</b>	0 ÷ 150	0,02	40
<b>00514024</b>	0 ÷ 200	0,02	50
<b>00514025</b>	0 ÷ 300	0,02	64

\*only model with round depth rod



## VERNIER CALIPERS, METRIC/ INCH

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

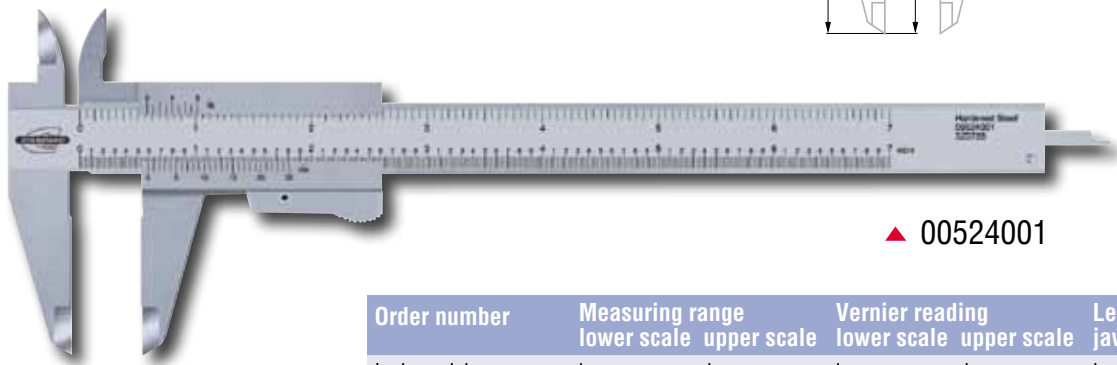
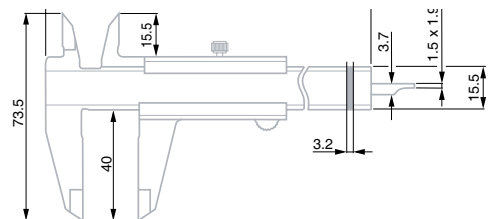


▲ 00534011

Order number	Measuring range		Vernier reading		Length of jaws
	lower scale	upper scale	lower scale	upper scale	
Metric/inch models	mm	in	mm	in	mm
<b>00534011</b>	0 ÷ 100	0 ÷ 4	0,05	1/128	30
<b>00534012</b>	0 ÷ 150	0 ÷ 6	0,02	0,001	40
<b>00534013</b>	0 ÷ 150	0 ÷ 6	0,05	1/128	40
<b>00534014</b>	0 ÷ 200	0 ÷ 8	0,02	0,001	50
<b>00534030</b>	0 ÷ 200	0 ÷ 8	0,05	1/128	50
<b>00534015</b>	0 ÷ 300	0 ÷ 12	0,02	0,001	60
<b>00534031</b>	0 ÷ 300	0 ÷ 12	0,05	1/128	60

## VERNIER CALIPERS, INCH

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

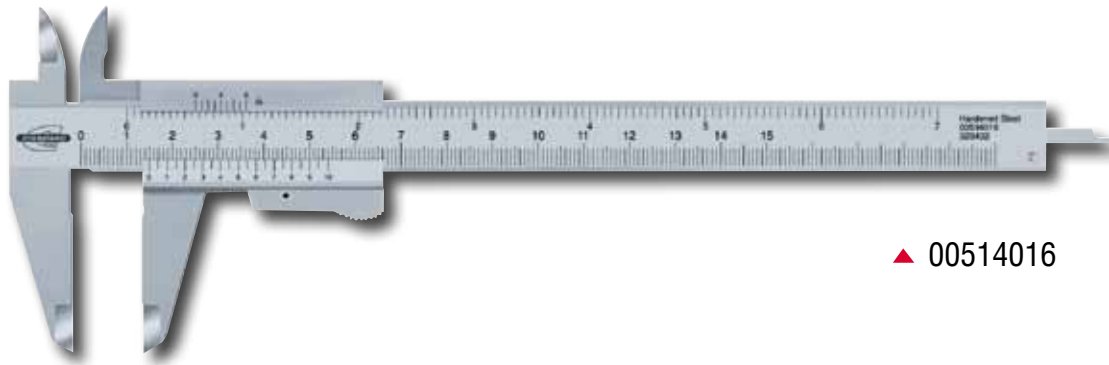


▲ 00524001

Order number	Measuring range		Vernier reading		Length of jaws
	lower scale	upper scale	lower scale	upper scale	
Inch models	in	in	in	in	in
<b>00524001</b>	0 ÷ 6	0 ÷ 6	0,001	1/128	1,6
<b>00524002</b>	0 ÷ 8	0 ÷ 8	0,001	1/128	1,6

## VERNIER CALIPERS, SELF-LOCKING

- Self-locking



▲ 00514016

Order number	Measuring range		Vernier reading		Length of jaws
	lower scale	upper scale	lower scale	upper scale	
	mm	in	mm	in	mm
<b>00514016</b>	0 ÷ 150		0,02		40
<b>00514017</b>	0 ÷ 150		0,05		40
<b>00534016</b>	0 ÷ 150	0 ÷ 6	0,05	1/128	40

## VERNIER CALIPERS, SELF-LOCKING, PARALLAX-FREE

- Self-locking
- Parallax-free



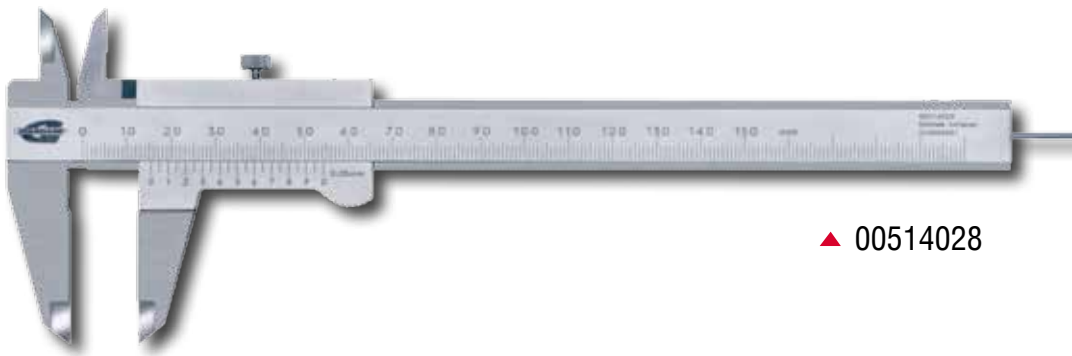
▲ 00534018

Order number	Measuring range		Vernier reading		Length of jaws
	lower scale	upper scale	lower scale	upper scale	
	mm	in	mm	in	mm
<b>00534017</b>	0 ÷ 150	0 ÷ 6	0,02	0,001	40
<b>00534018</b>	0 ÷ 150	0 ÷ 6	0,05	1/128	40



## VERNIER CALIPERS, PARALLAX-FREE

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Parallax-free.



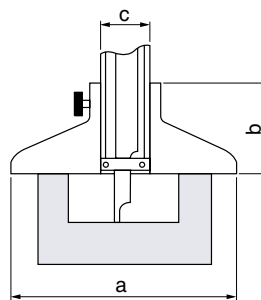
▲ 00514028

Order number	Measuring range		Vernier reading		Length of jaws
	lower scale	upper scale	lower scale	upper scale	
	mm	in	mm	in	mm
00514028	0 ÷ 150	-	0,05	-	40
00534019	0 ÷ 150	0 ÷ 6	0,05	1/128	40

## DEPTH FOOT FOR CALIPERS, 150MM



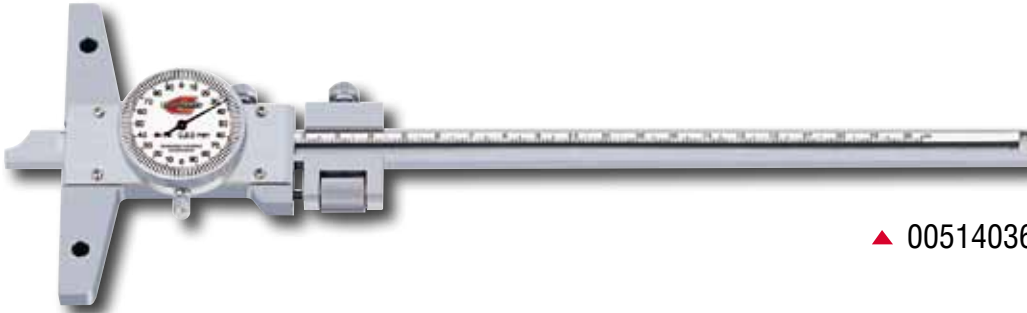
▲ 00564001



Order number	a (mm)	b (mm)	c (mm)
00564001	76,2	30	16,2

## DEPTH CALIPERS WITH DIAL, METRIC

- ▀ Solid stainless steel construction.
- ▀ Silky smooth sliding within the entire range.
- ▀ Supplied in a suited case with inspection report.
- ▀ White dial face.

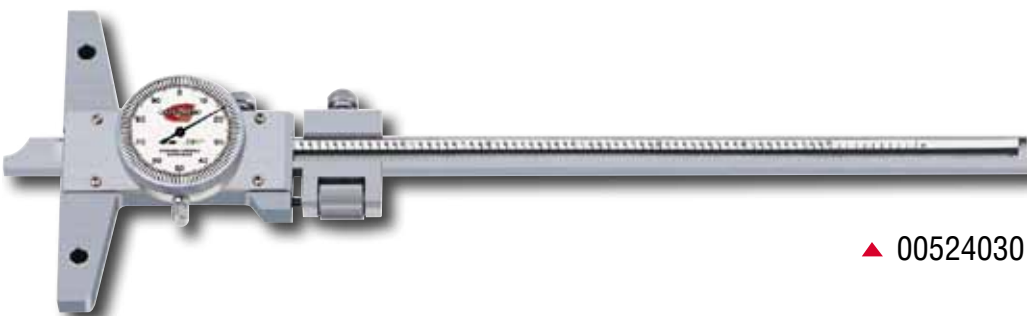


▲ 00514036

Order number	Measuring range (mm)	Reading (mm)	Travel per revolution (mm)	Bridge length (mm)
00514036	0 ÷ 150	0,02	2	100
00514037	0 ÷ 200	0,02	2	100
00514038	0 ÷ 300	0,02	2	100

## DEPTH CALIPERS WITH DIAL, INCH

- ▀ Solid stainless steel construction.
- ▀ Silky smooth sliding within the entire range.
- ▀ Supplied in a suited case with inspection report.
- ▀ White dial face.



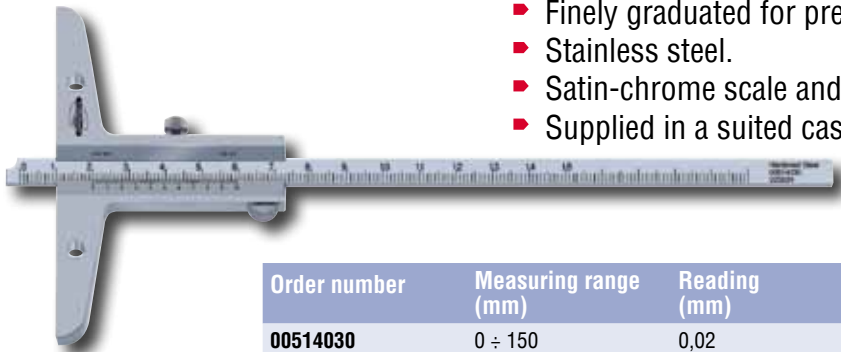
▲ 00524030

Order number	Measuring range (in)	Reading (in)	Travel per revolution (in)	Bridge length (in)
00524030	0 ÷ 6	0,001	0,1	4
00524031	0 ÷ 8	0,001	0,1	4
00534032	0 ÷ 12	0,001	0,1	4





## DEPTH CALIPERS WITH VERNIER, METRIC

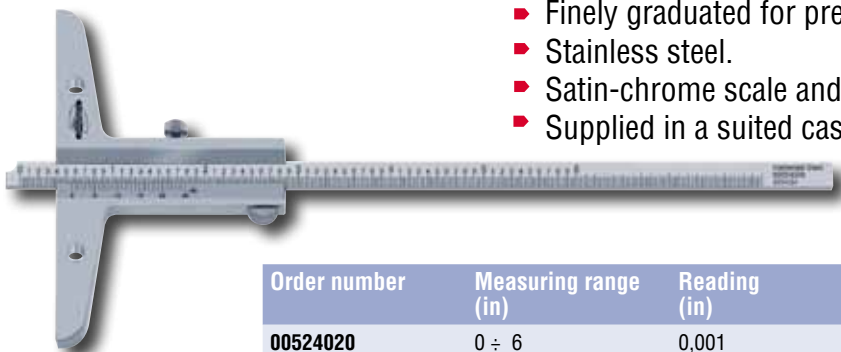


▲ 00514030

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

Order number	Measuring range (mm)	Reading (mm)	Beam section (mm)	Bridge length (mm)
00514030	0 ÷ 150	0,02	11 x 4	100
00514031	0 ÷ 150	0,05	11 x 4	100
00514032	0 ÷ 250	0,02	11 x 4	100
00514033	0 ÷ 250	0,05	11 x 4	100
00514034	0 ÷ 500	0,02	11 x 4	100
00514035	0 ÷ 500	0,05	11 x 4	100

## DEPTH CALIPERS WITH VERNIER, INCH



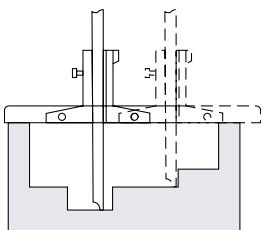
▲ 00524020

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

Order number	Measuring range (in)	Reading (in)	Beam section (in)	Bridge length (in)
00524020	0 ÷ 6	0,001	0.433 x 0.157	4
00524021	0 ÷ 10	0,001	0.433 x 0.157	4
00524022	0 ÷ 20	0,001	0.433 x 0.157	4

## REMOVABLE BRIDGES FOR DEPTH CALIPERS

- Stainless steel.
- Available for all models.

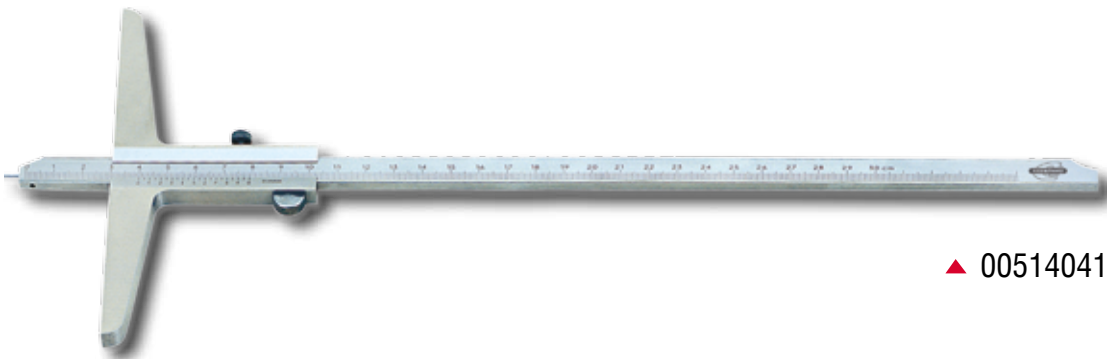


▲ 00564002

Order number	Description
00564002	Optional bridge, 180 mm
00564003	Optional bridge, 260 mm
00564004	Optional bridge, 320 mm

## DEPTH CALIPERS WITH VERNIER AND PIN, METRIC

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

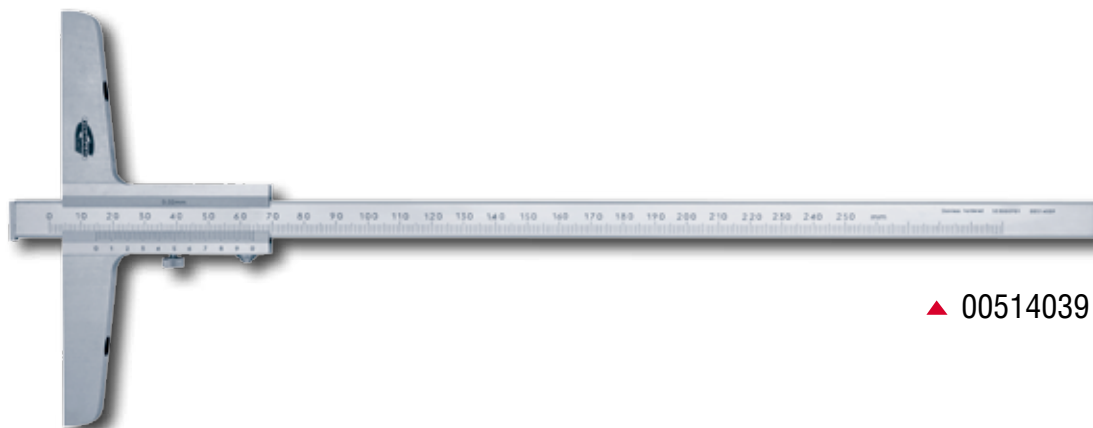


▲ 00514041

Order number	Measuring range (mm)	Reading (mm)	Beam section (mm)	Bridge length (mm)	Pin diameter and length (mm)
00514040	0 ÷ 80	0,02	8 x 3	50	Ø1 x 5
00514041	0 ÷ 300	0,05	12 x 4	150	Ø2 x 8

## DEPTH CALIPER WITH VERNIER AND ROTARY STOP PLATE

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- With rotary stop plate.
- Supplied in a suited case with inspection report.



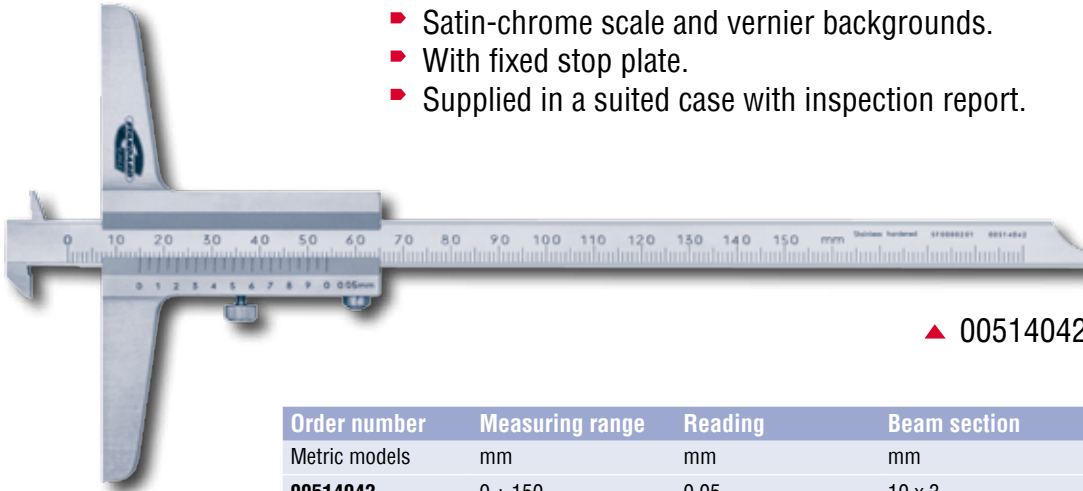
▲ 00514039

Order number	Measuring range	Reading	Beam section	Bridge length
Metric models	mm	mm	mm	mm
00514039	0 ÷ 250	0,02	12 x 4	130
Inch models	in	in	in	in
00524039	0 ÷ 10	0,001	0,472 x 0,157	5,11



## DEPTH CALIPER WITH VERNIER AND FIXED STOP PLATE

- ▀ Finely graduated for precise measurement.
- ▀ Stainless steel.
- ▀ Satin-chrome scale and vernier backgrounds.
- ▀ With fixed stop plate.
- ▀ Supplied in a suited case with inspection report.

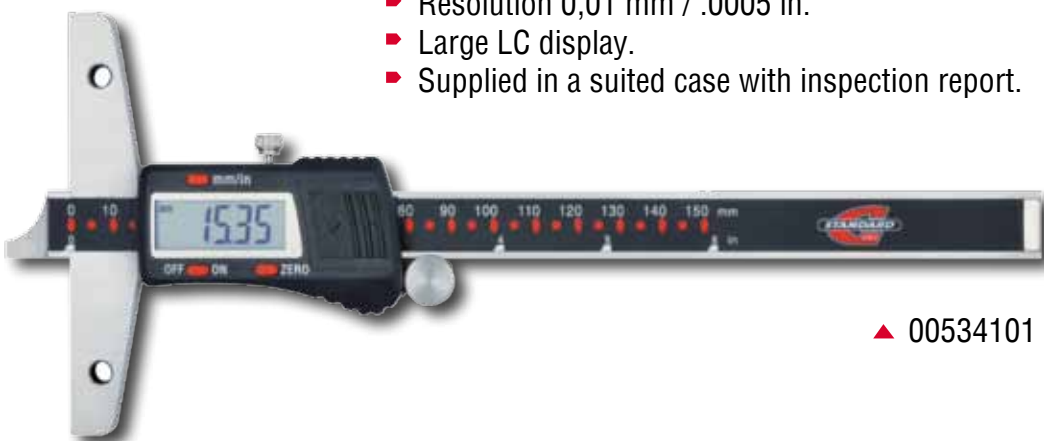


▲ 00514042

Order number	Measuring range	Reading	Beam section	Bridge length
Metric models	mm	mm	mm	mm
<b>00514042</b>	0 ÷ 150	0,05	10 x 3	100
<b>00514043</b>	0 ÷ 200	0,05	10 x 3	100
<b>00514044</b>	0 ÷ 300	0,05	10 x 3	100
Inch models	in	in	in	in
<b>00524043</b>	0 ÷ 8	1/128	0,393 x 0,118	3,937
<b>00524044</b>	0 ÷ 10	1/128	0,393 x 0,118	3,937

## ELECTRONIC DEPTH CALIPERS

- ▀ Stainless steel.
- ▀ Direct metric/inch conversion.
- ▀ Resolution 0,01 mm / .0005 in.
- ▀ Large LC display.
- ▀ Supplied in a suited case with inspection report.



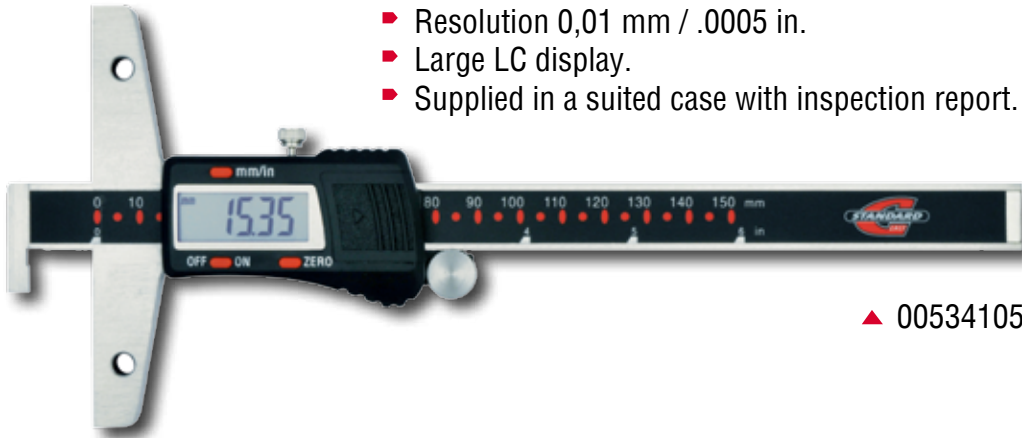
▲ 00534101

Order number	Measuring range		Reading		Beam section	Bridge length
	mm	in	mm	in		
<b>00534101</b>	0 ÷ 150	0 ÷ 6	0,01	,0005	16 x 3,5	100
<b>00534102</b>	0 ÷ 200	0 ÷ 8	0,01	,0005	16 x 3,5	100
<b>00534103</b>	0 ÷ 300	0 ÷ 12	0,01	,0005	16 x 3,5	150
<b>00534104</b>	0 ÷ 500	0 ÷ 20	0,01	,0005	16 x 3,5	150

\*Removable bridge available p.20

## ELECTRONIC DEPTH CALIPERS WITH HOOK

- Stainless steel.
- Direct metric/inch conversion.
- Resolution 0,01 mm / .0005 in.
- Large LC display.
- Supplied in a suited case with inspection report.



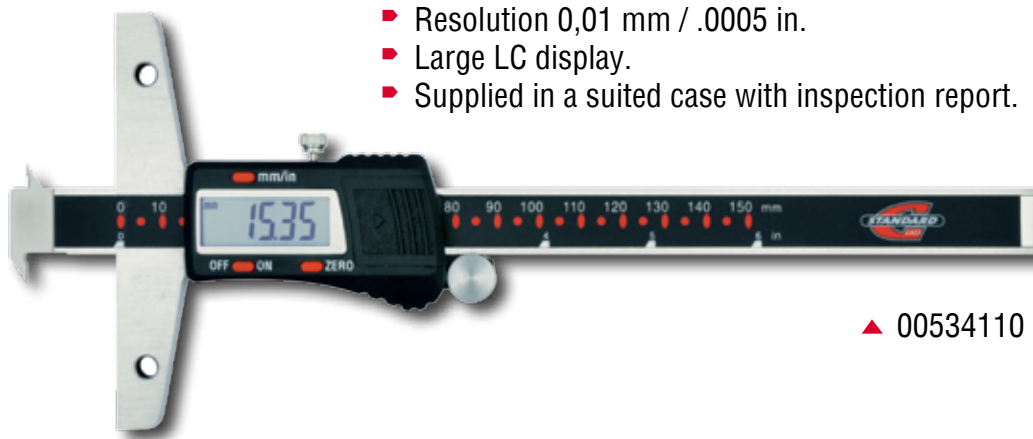
▲ 00534105

Order number	Measuring range		Reading		Beam section	Bridge length
	mm	in	mm	in	mm	mm
00534105	0 ÷ 150	0 ÷ 6	0,01	.0005	16 x 3,5	100
00534106	0 ÷ 200	0 ÷ 8	0,01	.0005	16 x 3,5	100
00534107	0 ÷ 300	0 ÷ 12	0,01	.0005	16 x 3,5	150
00534108	0 ÷ 500	0 ÷ 20	0,01	.0005	16 x 3,5	150

\*Removable bridge available p.20

## ELECTRONIC DEPTH CALIPERS, WITH HOOKS

- Stainless steel.
- Direct metric/inch conversion.
- Resolution 0,01 mm / .0005 in.
- Large LC display.
- Supplied in a suited case with inspection report.



▲ 00534110

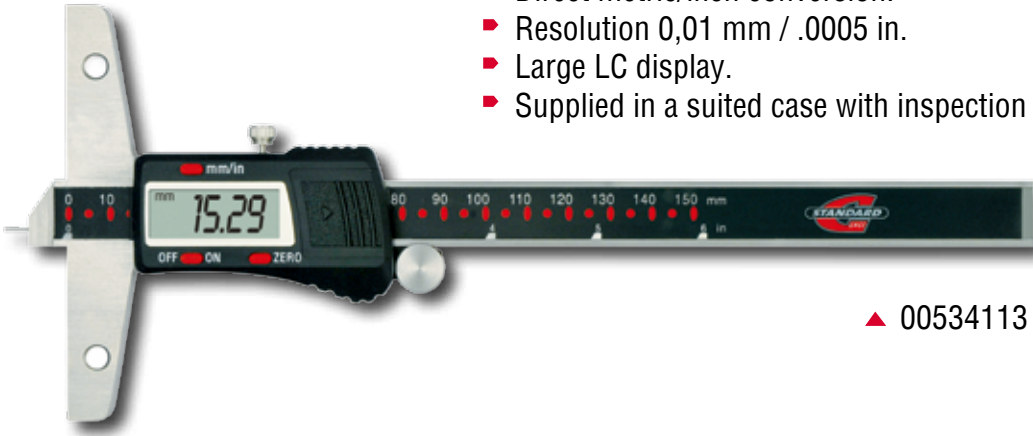
Order number	Measuring range		Reading		Beam section	Bridge length
	mm	in	mm	in	mm	mm
00534109	0 ÷ 150	0 ÷ 6	0,01	.0005	16 x 3,5	100
00534110	0 ÷ 200	0 ÷ 8	0,01	.0005	16 x 3,5	100
00534111	0 ÷ 300	0 ÷ 12	0,01	.0005	16 x 3,5	150
00534112	0 ÷ 500	0 ÷ 20	0,01	.0005	16 x 3,5	150

\*Removable bridge available p.20



## ELECTRONIC DEPTH CALIPERS WITH STEEL TIPS

- Stainless steel.
- Direct metric/inch conversion.
- Resolution 0,01 mm / .0005 in.
- Large LC display.
- Supplied in a suited case with inspection report.



▲ 00534113

Order number	Measuring range		Reading		Beam section	Bridge length	Steel tip
	mm	in	mm	in			
00534113	0 ÷ 150	0 ÷ 6	0,01	.0005	16 x 3,5	100	Ø1 x 6
00534114	0 ÷ 200	0 ÷ 8	0,01	.0005	16 x 3,5	100	Ø1 x 6
00534115	0 ÷ 300	0 ÷ 12	0,01	.0005	16 x 3,5	150	Ø1 x 6
00534116	0 ÷ 500	0 ÷ 20	0,01	.0005	16 x 3,5	150	Ø1 x 6

\*Removable bridge available p.20

## ELECTRONIC DEPTH GAGE

- Stainless steel.
- Direct metric/inch/fraction conversion.
- Spring-loaded travel.
- Precision to 0,02 mm ( $\leq 100$  mm), 0,03 mm ( $> 100$  mm).
- Resolution 0,01 mm/0,0005 in, fractions by 1/64ths increments.
- Large LC display.
- Supplied in a suited case with inspection report.



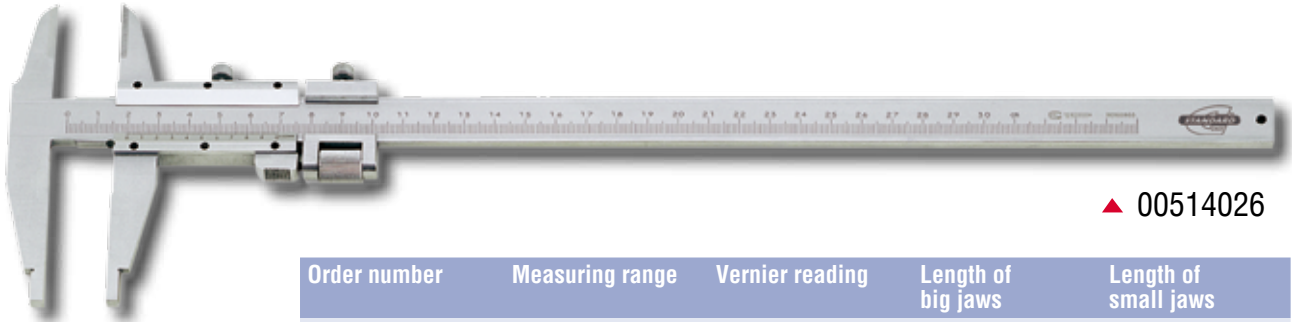
▲ 00534201

Order number	Measuring travel		Measuring range	
	mm	in	mm	in
00534201	0 ÷ 25	0 ÷ 1	0 ÷ 550	0 ÷ 22
00534202	0 ÷ 25	0 ÷ 1	0 ÷ 25	0 ÷ 1



## VERNIER CALIPER, KNIFE EDGE

- Carbon steel beam and slider.
- Precision to 0,04 mm.
- Model 300 mm with fine adjustment.
- Supplied in a suited case with inspection report.

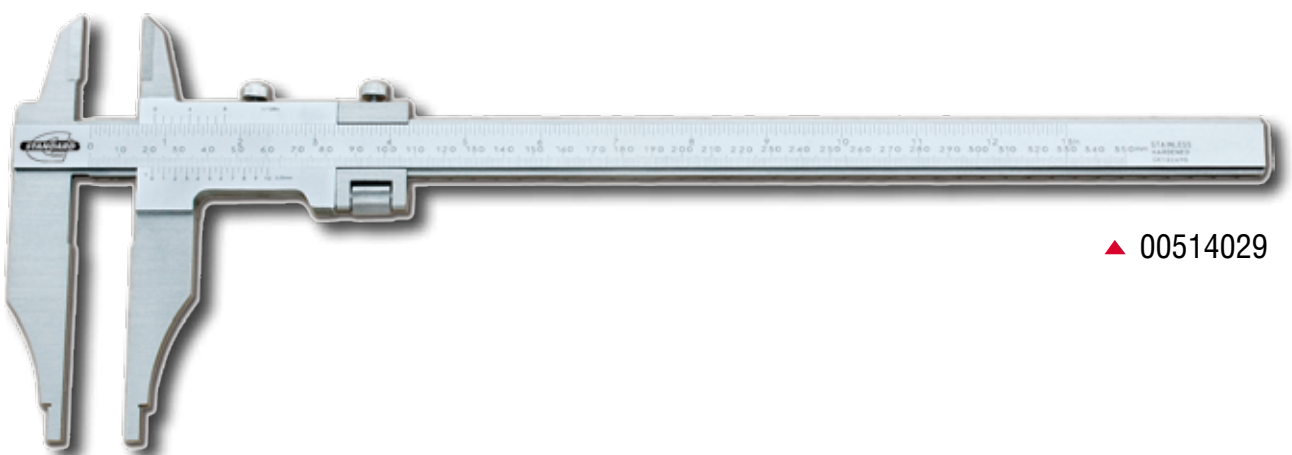


▲ 00514026

Order number	Measuring range	Vernier reading	Length of big jaws	Length of small jaws
	mm	mm	L in mm	L in mm
<b>00514026</b>	0 ÷ 300	0,02	60	33

## VERNIER CALIPERS, PARALLAX-FREE, KNIFE EDGE

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Parallax-free.
- With fine adjustment.
- Supplied in a suited case with inspection report.

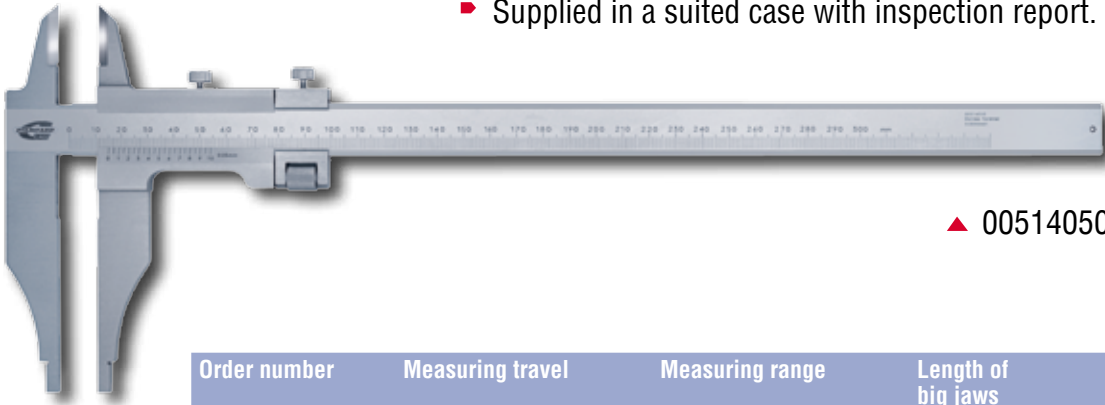


▲ 00514029

Order number	Measuring range lower scale upper scale	Vernier reading lower scale upper scale	Length of big jaws	Length of small jaws
Metric models	mm	mm	mm	mm
<b>00514029</b>	0 ÷ 300	0,05	90	38
Metric/Inch models	mm in	mm in		
<b>00534032</b>	0 ÷ 300 0 ÷ 12	0.05 1/128	90	38

## VERNIER CALIPERS, KNIFE EDGE

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- With fine adjustment.
- Supplied in a suited case with inspection report.



▲ 00514050

Order number	Measuring travel		Measuring range		Length of big jaws	Length of small jaws
Metric models	mm		mm		mm	mm
<b>00514050</b>	0 ÷ 300		0,05		90	38
<b>00514051</b>	0 ÷ 500		0,05		150	60
<b>00514052</b>	0 ÷ 1000		0,05		150	56
Metric/Inch models	mm	in	mm	in	mm	
<b>00534050</b>	0 ÷ 300	0 ÷ 12	0,05	1/128	90	38
<b>00534051</b>	0 ÷ 500	0 ÷ 20	0,05	1/128	150	60
<b>00534052</b>	0 ÷ 1000	0 ÷ 40	0,05	1/128	150	56

## VERNIER CALIPERS, CARBON STEEL, ROUND EDGE

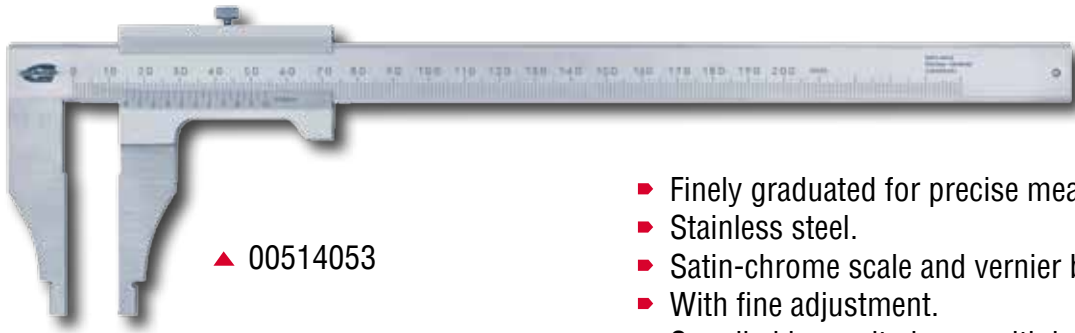
- Carbon steel beam and slider.
- Precision to 0,04 mm.
- Model 600 mm with fine adjustment.
- Supplied in a suited case with inspection report.



▲ 00514027

Order number	Measuring range	Vernier reading	Length of big jaws	Thickness of round edge
	mm	mm	L in mm	L in mm
<b>00514027</b>	0 ÷ 600	0,02	100	10

## VERNIER CALIPERS, ROUND EDGE

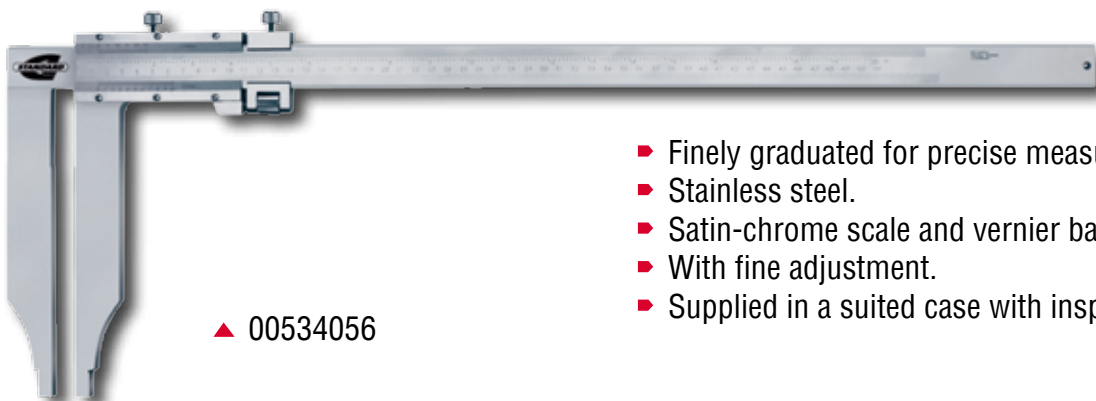


▲ 00514053

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- With fine adjustment.
- Supplied in a suited case with inspection report.

Order number	Measuring range		Vernier reading		Length of big jaws	Thickness of round edge
	lower scale	upper scale	lower scale	upper scale		
Metric models	mm		mm		mm	mm
<b>00514053</b>	0 ÷ 200		0,05		60	5
<b>00514054</b>	0 ÷ 500		0,05		150	10
<b>00514055</b>	0 ÷ 800		0,05		150	10
Metric/Inch models	mm	in	mm	in	mm	mm
<b>00534053</b>	0 ÷ 200	0 ÷ 8	0,05	1/128	60	5
<b>00534054</b>	0 ÷ 500	0 ÷ 20	0,05	1/128	150	10
<b>00534055</b>	0 ÷ 800	0 ÷ 32	0,05	1/128	150	10

## VERNIER CALIPERS, ROUND EDGE, LONG JAWS

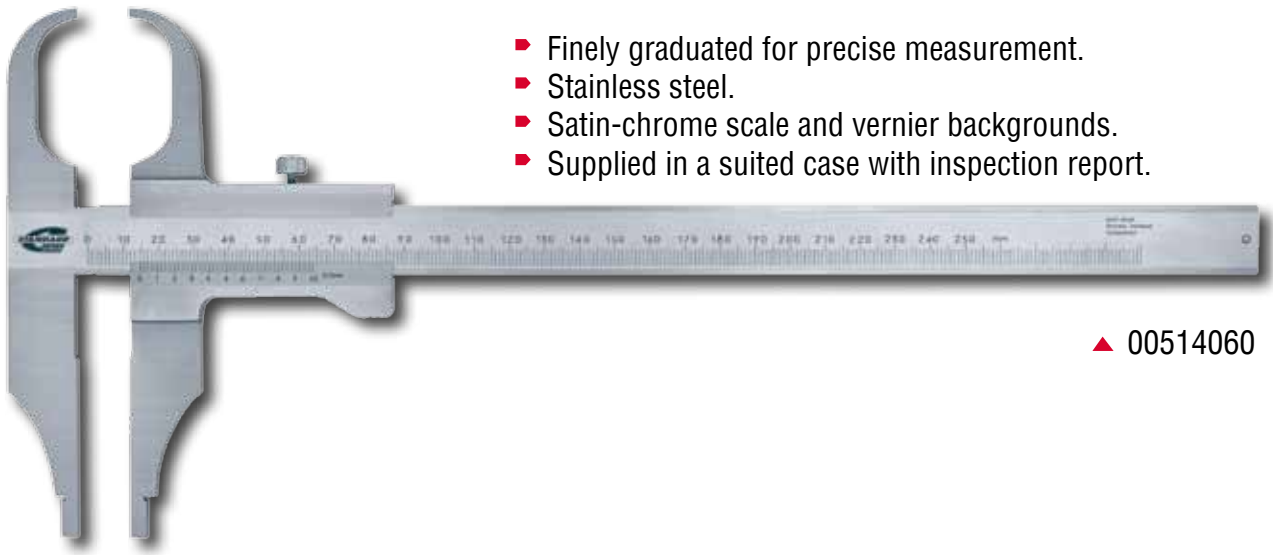


▲ 00534056

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- With fine adjustment.
- Supplied in a suited case with inspection report.

Order number	Measuring range		Vernier reading		Length of big jaws	Thickness of round edge
	lower scale	upper scale	lower scale	upper scale		
Metric models	mm		mm		mm	mm
<b>00514056</b>	0 ÷ 500		0,02		200	10
Metric/Inch models	mm	in	mm	in	mm	mm
<b>00534056</b>	0 ÷ 500	0 ÷ 20	0,02	0,001	200	10

## VERNIER CALIPERS, ARCHED JAW

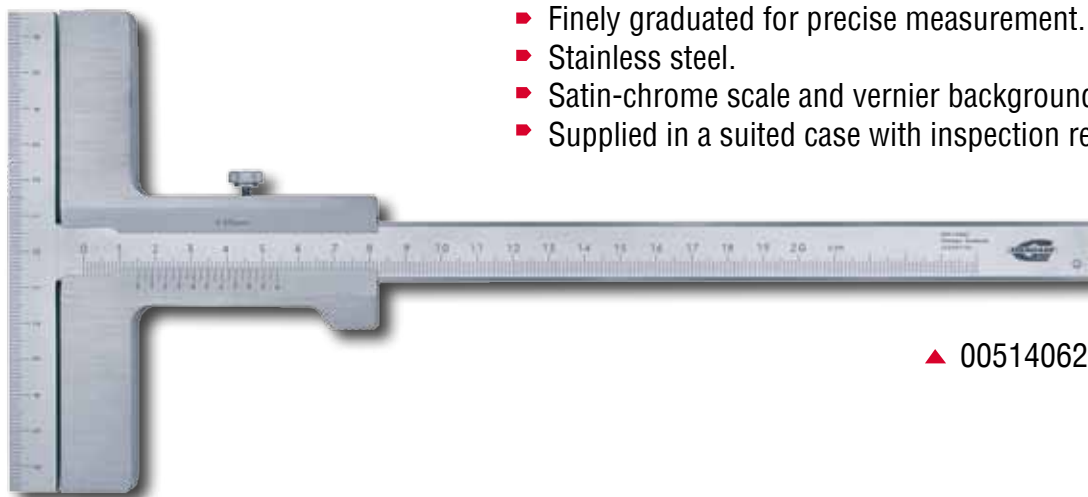


- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

▲ 00514060

Order number	Measuring range		Vernier reading		Length of big jaws	Length of small jaws
	lower scale	upper scale	lower scale	upper scale		
Metric models	mm		mm		mm	mm
<b>00514060</b>	0 ÷ 250		0,02		75	56
<b>00514061</b>	0 ÷ 250		0,05		75	56
Metric/Inch models	mm	in	mm	in	mm	mm
<b>00534061</b>	0 ÷ 250	0 ÷ 10	0,05	1/128	75	56

## VERNIER CALIPERS, T-TYPE



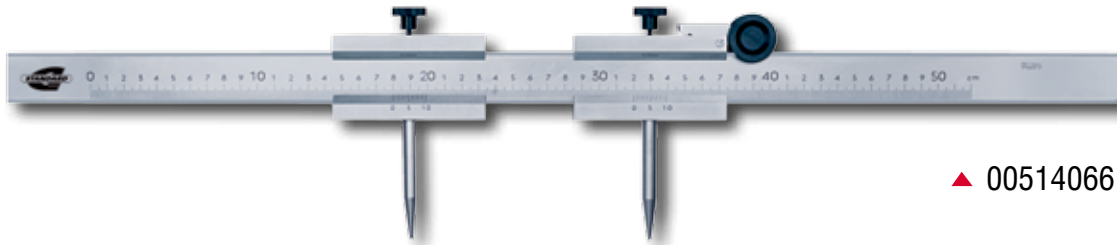
- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

▲ 00514062

Order number	Measuring range	Vernier reading	Length of T jaws
	lower scale	lower scale	
Metric models	mm	mm	mm
<b>00514062</b>	0 ÷ 200	0,05	135
<b>00514063</b>	0 ÷ 300	0,05	160
<b>00514064</b>	0 ÷ 400	0,05	160
Inch models	in	in	in
<b>00524063</b>	0 ÷ 12	1/128	6,3

## VERNIER CALIPERS, SCRIBER

- Finely graduated for precise measurement.
- Carbon steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.

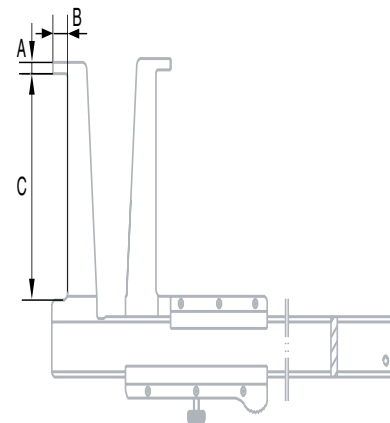


▲ 00514066

Order number	Measuring range		Vernier reading		Length of tip
	lower scale	upper scale	lower scale	upper scale	
Metric models	mm		mm		mm
<b>00514065</b>	0 ÷	300	0,1		70
<b>00514066</b>	0 ÷	500	0,1		72
<b>00514067</b>	0 ÷	1000	0,1		72

## VERNIER CALIPERS, GROOVE

- Finely graduated for precise measurement.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a suited case with inspection report.



▲ 00514070

Order number	Measuring range		Vernier reading		Length of jaws A	Length of jaws B	Length of jaws C
	lower scale	upper scale	lower scale	upper scale			
Metric models	mm		mm		mm	mm	mm
<b>00514070</b>	10 ÷	160	0,05		0,9	3	25
<b>00514071</b>	20 ÷	160	0,05		2	5	40
<b>00514072</b>	26 ÷	200	0,05		3	7	60
<b>00514073</b>	30 ÷	250	0,05		4	8,5	80
<b>00514074</b>	35 ÷	300	0,05		5	10	100



## ELECTRONIC CALIPER SNAP CAL

- Stainless steel beam and slider.
- Direct metric/inch/fraction conversion.
- Spring-loaded travel.
- Wide faced flat jaw for easy positioning.
- Precision to 0,02 mm.
- Resolution 0,01 mm/0,0005 in, fractions by 1/64" increments.
- Large LC display.
- Supplied in a suited case with inspection report.



▲ 00534200

Order number	Measuring range		Fixed jaw
	mm	in	L in in
00534200	0 ÷ 31,5	0 ÷ 1,25	0,47 x 0,90



# MICROMETERS



# ELECTRONIC MICROMETERS IP54, EXTERNAL, METRIC



▲ 00134041

▲ 00134001

- ▶ Automatic shut-on/off.
- ▶ Metric/inch conversion.
- ▶ Zero setting / Origin.
- ▶ SR44 battery type.
- ▶ Setting standard for sizes over 25 mm/1 in.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.
- ▶ Protection level to IP54.
- ▶ Absolute measurement.
- ▶ Carbide-tipped measuring faces.
- ▶ Resolution to 0,001 mm / 0,00005 in.
- ▶ Micrometer head resolution to 0,01 mm/0,0001 in.

### Electronic micrometers IP54, external, metric

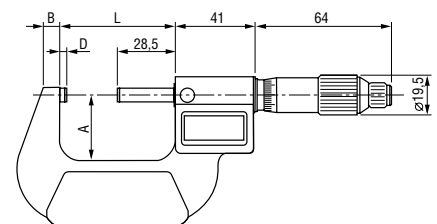
Order number	Measuring range (mm)	Resolution (mm)	Precision (mm)	Settings standards (mm)
		Numerical indication	Micrometer head	
00134001	0 ÷ 25	0,001	0,01	0,004
00134002	25 ÷ 50	0,001	0,01	0,004 25
00134003	50 ÷ 75	0,001	0,01	0,005 50
00134004	75 ÷ 100	0,001	0,01	0,005 75

### Electronic micrometer sets IP54, external, metric

Order number	Application range (mm)	Single micrometers	Setting standards (mm)
00134040	0 ÷ 75	3	25, 50
00134041	0 ÷ 100	4	25, 50, 75

Full sets are supplied in a suited case with inspection report for each micrometer.

Measuring range (mm)	Dimensions (mm)			
	A	B	D	L
0 ÷ 25	24	6	3,0	32
25 ÷ 50	32	8	3,0	57
50 ÷ 75	45	8	3,0	82
75 ÷ 100	57	10	3,0	107



# ELECTRONIC MICROMETERS IP54, EXTERNAL, INCH



▲ 00134046



▲ 00134021



## Electronic micrometers IP54, external, inch

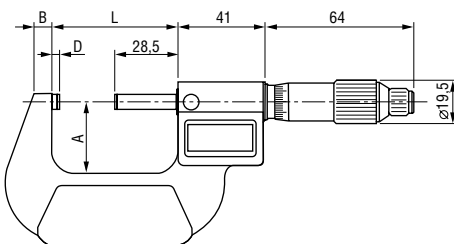
Order number	Measuring range (in)	Resolution (in)	Precision (in)	Setting standards (in)
		Numerical indication	Micrometer head	
00134021	0 ÷ 1	0,00005	0,0001	0,00016
00134022	1 ÷ 2	0,00005	0,0001	0,00016 1
00134023	2 ÷ 3	0,00005	0,0001	0,00020 2
00134024	3 ÷ 4	0,00005	0,0001	0,00020 3

## Electronic micrometers IP54, external, inch

Order number	Application range (in)	Single micrometers	Setting standards (in)
00134045	0 ÷ 3	3	1, 2
00134046	0 ÷ 4	4	1, 2, 3

Full sets are supplied in a suited case with inspection report for each micrometer.

Measuring range (in)	Dimensions (mm)			
	A	B	D	L
0 ÷ 1	24	6	3,0	32
1 ÷ 2	32	8	3,0	57
2 ÷ 3	45	8	3,0	82
3 ÷ 4	57	10	3,0	107



- ▶ Automatic shut-on/off.
- ▶ Metric/inch conversion.
- ▶ Zero setting / Origin.
- ▶ SR44 battery type.
- ▶ Setting standard for sizes over 25 mm/1 in.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.
- ▶ Protection level to IP54.
- ▶ Absolute measurement.
- ▶ Carbide-tipped measuring faces.
- ▶ Resolution to 0,001 mm / 0,00005 in.
- ▶ Micrometer head resolution to 0,01 mm/0,0001 in.



## EXTERNAL MICROMETERS WITH DIGIT COUNTER, METRIC

- ▶ High-resolution analogue counter for error-free readout.
- ▶ Carbide-tipped measuring faces.
- ▶ Counter resolution to 0,001 mm.
- ▶ Micrometer head resolution to 0,01 mm.
- ▶ Setting standard for sizes over 25 mm.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.



▲ 00114101

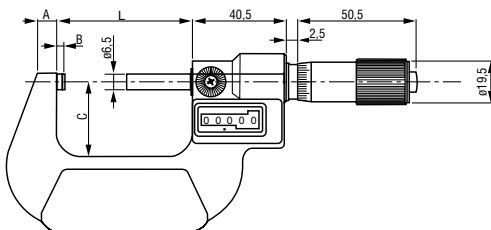
▲ 00114111

Order number	Measuring range (mm)	Resolution (mm)	Precision (mm)	Setting standards (mm)
		Counter	Micrometer head	
00114101	0 ÷ 25	0,001	0,01	0,004
00114102	25 ÷ 50	0,001	0,01	0,004
00114103	50 ÷ 75	0,001	0,01	0,005
00114104	75 ÷ 100	0,001	0,01	0,005

### Sets of micrometers with digit counter, metric

Order number	Application range (mm)	Single micrometers (mm)	Setting standards (mm)
00114110	0 ÷ 75	3	25, 50
00114111	0 ÷ 100	4	25, 50, 75

Full sets are supplied in a suited case with inspection report for each micrometer.



Measuring range (mm)	Dimensions (mm)			
	A	B	C	L
0 ÷ 25	24	6	3,0	32
25 ÷ 50	32	8	3,0	57
50 ÷ 75	45	8	3,0	82
75 ÷ 100	57	10	3,0	107

# EXTERNAL MICROMETERS WITH DIGIT COUNTER, INCH



- High-resolution analogue counter for error-free readout.
- Carbide-tipped measuring faces.
- Counter resolution to 0,0001 in.
- Micrometer head resolution to 0,0001 in.
- Setting standard for sizes over 1 in.
- Ratchet friction thimble and locking nut.
- Delivered in a suited case with inspection report.



▲ 00124024

▲ 00124029

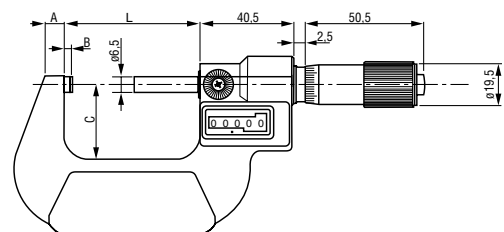
Order number	Measuring range (in)	Resolution (in)	Precision (in)	Setting standards (in)
		Counter	Micrometer head	
00124024	0 ÷ 1	0,00001	0,0001	0,00016
00124025	1 ÷ 2	0,00001	0,0001	0,00016
00124026	2 ÷ 3	0,00001	0,0001	0,00020
00124027	3 ÷ 4	0,00001	0,0001	0,00020

### Sets of micrometers with digit counter, inch

Order number	Application range (in)	Single micrometers (in)	Setting standards (in)
00124028	0 ÷ 3	3	1, 2
00124029	0 ÷ 4	4	1, 2, 3

Full sets are supplied in a suited case with inspection report for each micrometer.

Measuring range (in)	Dimensions (mm)			
	A	B	C	L
0 ÷ 1	24	6	3,0	32
1 ÷ 2	32	8	3,0	57
2 ÷ 3	45	8	3,0	82
3 ÷ 4	57	10	3,0	107



# EXTERNAL MICROMETERS, METRIC



▲ 00114010

▲ 00114041

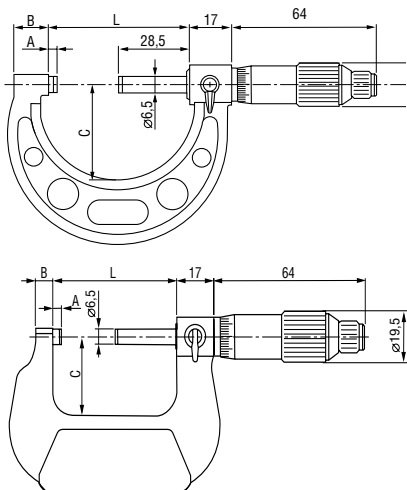
- ▶ Carbide-tipped measuring faces.
- ▶ Scale division 0,01 mm / 0,0001 in.
- ▶ Setting standard for sizes over 25 mm / 1 in.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.

Order number	Measuring range (mm)	Precision (mm)	Setting standards (mm)
00114010	0 ÷ 25	0,004	–
00114011	25 ÷ 50	0,004	25
00114012	50 ÷ 75	0,005	50
00114013	75 ÷ 100	0,005	75
00114014	100 ÷ 125	0,006	100
00114015	125 ÷ 150	0,006	125
00114016	150 ÷ 175	0,007	150
00114017	175 ÷ 200	0,007	175
00114018	200 ÷ 225	0,008	200
00114019	225 ÷ 250	0,008	225
00114020	250 ÷ 275	0,009	250
00114021	275 ÷ 300	0,009	275

### External micrometer sets, metric

Order number	Application range (mm)	Single micrometers	Setting standards (mm)
00114040	0 ÷ 75	3	25, 50
00114041	0 ÷ 100	4	25, 50, 75

Full sets are supplied in a suited case with inspection report to each micrometer.



Measuring range	Dimensions (mm)			
	A	B	C	L
Metric (mm)				
0 ÷ 25	3,0	6	24	32
25 ÷ 50	3,0	8	32	57
50 ÷ 75	3,0	8	45	82
75 ÷ 100	3,0	8	57	107
100 ÷ 125	3,0	8	70	133
125 ÷ 150	3,0	8	82	158
150 ÷ 175	5,5	8	95	183
175 ÷ 200	5,5	8	107	209
200 ÷ 225	5,5	19,4	130	234
225 ÷ 250	5,5	19,4	142	260
250 ÷ 275	5,5	19,4	155	285
275 ÷ 300	5,5	19,4	168	310

# EXTERNAL MICROMETERS, INCH



▲ 00124041



▲ 00124010



Order number	Measuring range (in)	Precision (in)	Setting standards (in)
00124010	0 ÷ 1	0,00016	–
00124011	1 ÷ 2	0,00016	1
00124012	2 ÷ 3	0,00020	2
00124013	3 ÷ 4	0,00020	3
00124014	4 ÷ 5	0,00024	4
00124015	5 ÷ 6	0,00024	5
00124016	6 ÷ 7	0,00028	6
00124017	7 ÷ 8	0,00028	7

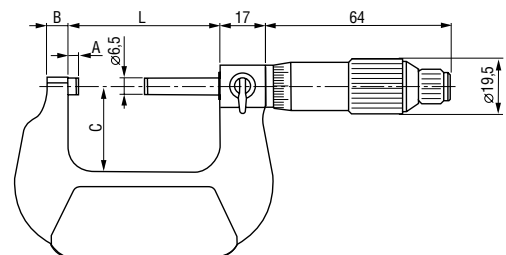
- ▶ Carbide-tipped measuring faces.
- ▶ Scale division 0,01 mm / 0,0001 in.
- ▶ Setting standard for sizes over 25 mm / 1 in.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.

## External micrometer sets, inch

Order number	Measuring range (in)	Single micrometers	Setting standards (in)
00124040	0 ÷ 3	3	1, 2
00124041	0 ÷ 4	4	1, 2, 3

Full sets are supplied in a suited case with inspection report to each micrometer.

Measuring range	Dimensions (mm)			
	A	B	C	L
Inch (in)				
0 ÷ 1	3,0	6	24	32
1 ÷ 2	3,0	8	32	57
2 ÷ 3	3,0	8	45	82
3 ÷ 4	3,0	8	57	107
4 ÷ 5	3,0	8	70	133
5 ÷ 6	3,0	8	82	158
6 ÷ 7	5,5	8	95	183
7 ÷ 8	5,5	8	107	209







## PARALLAX-FREE MICROMETERS, EXTERNAL

- ▶ Parallax-free vernier reading for high-precision measurements.
- ▶ Carbide-tipped measuring faces.
- ▶ Setting standards for sizes over 25 mm.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.



▲ 00114201

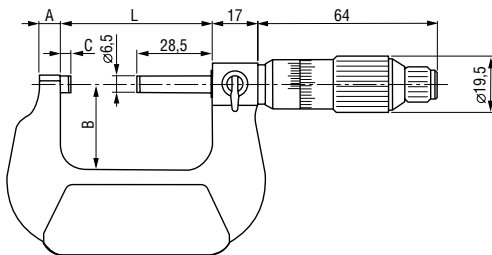
▲ 00114210

Order number	Measuring range (mm)	Resolution (mm)	Precision (mm)	Setting standards (mm)
00114201	0 ÷ 25	0,001	0,004	–
00114202	25 ÷ 50	0,001	0,004	25
00114203	50 ÷ 75	0,001	0,005	50
00114204	75 ÷ 100	0,001	0,005	75

### Sets of external micrometers with parallax-free readout

Order number	Application range (mm)	Single micrometers	Setting standards (mm)
00114210	0 ÷ 75	3	25, 50
00114211	0 ÷ 100	4	25, 50, 75

Full sets are supplied in a suited case with inspection report to each micrometer.



Measuring range (mm)	Dimensions (mm)			
	A	B	C	L
0 ÷ 25	6	24	3,0	32
25 ÷ 50	8	32	3,0	57
50 ÷ 75	8	45	3,0	82
75 ÷ 100	8	57	3,0	107



# CHROME STEEL FRAME MICROMETERS, EXTERNAL

- Chrome steel frame with engraved black-coloured decimal equivalents.
- Carbide-tipped measuring faces, 0,25 in dia.
- Scale division to 0,0001 in.
- Setting standard for sizes over 1 in.
- Ratchet friction thimble and locking nut.
- Delivered in a suited case with inspection report.

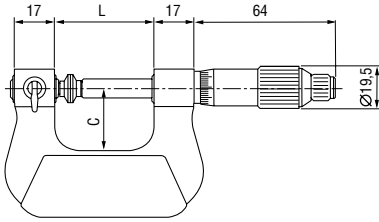


▲ 00124020

Order number	Measuring range (in)	Precision (in)	Setting standards (in)
00124020	0 ÷ 1	0,00016	-
00124021	1 ÷ 2	0,00016	1
00124022	2 ÷ 3	0,00020	2



## NON-ROTATING SPINDLE MICROMETERS, WITH INTERCHANGEABLE INSERTS



- Wide application range through 7 pairs of interchangeable inserts.
- Hardened steel anvil.
- Graduations to 0,01 mm.
- Ratchet friction thimble and locking nut.
- Delivered in a suited case with inspection report.



▲ 00114055

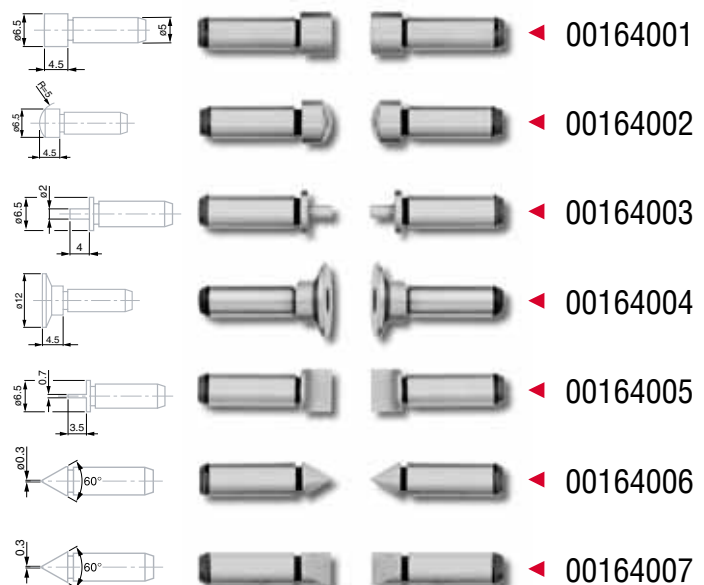
Order number	Measuring range (mm)	Precision (mm)	C (mm)	L (mm)
00114055*	0 ÷ 25	0,004	26	42
00114056*	25 ÷ 50	0,004	38	67
00114057*	50 ÷ 75	0,005	50	92
00114058*	75 ÷ 100	0,005	62	118

\*Supplied with 7 pairs of measuring inserts



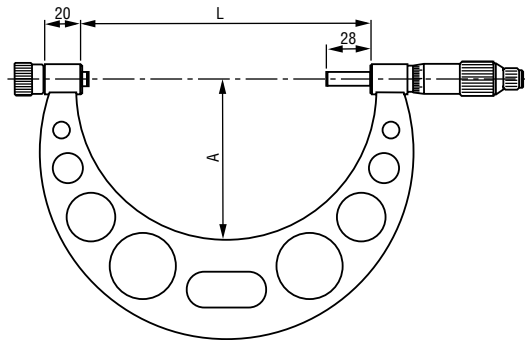
## INTERCHANGEABLE INSERTS IN PAIRS

Order number	Description
00164001	Flat, 6,5 mm dia.
00164002	Spherical, R = 5 mm
00164003	Small and flat, 2 mm dia.
00164004	Disk-shaped, 12 mm dia.
00164005	Blade-type, H x L = 0,7 x 3,5 mm
00164006	Cone-shaped, 60°, R = 0,3 mm
00164007	Knife-edged, 60°, 0,3 mm
00164008	Full set including 7 pairs of measuring inserts



## EXTERNAL MICROMETERS WITH INTERCHANGEABLE ANVILS

- Cast-iron frame up to 300 mm and tubular over 300 mm.
- Scale division to 0,01 mm.
- Setting standard included.
- Ratchet friction thimble and locking nut.
- Delivered in a suited case with inspection report.



▲ 00114031

Order number	Measuring range (mm)	Precision (mm)	A (mm)	L (mm)	Number of anvils	Number of setting standards
00114030	0 ÷ 150	0,006	82	158	6	5
00114031	150 ÷ 300	0,009	165	308	6	6
00114032	300 ÷ 450	0,011	250	459	6	6
00114033	450 ÷ 600	0,015	321	609	6	6
00114034	600 ÷ 750	0,016	401	759	6	6
00114035	750 ÷ 900	0,020	476	909	6	6
00114036	900 ÷ 1050	0,021	551	1059	6	6

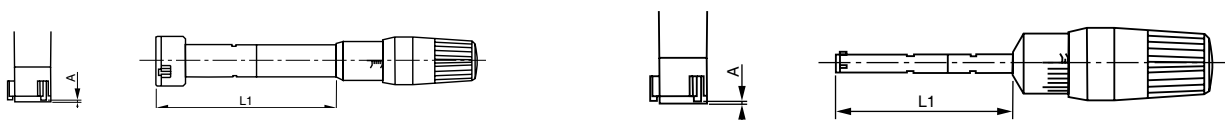


## THREE-POINT INTERNAL MICROMETERS, METRIC

- Application range 6 to 100 mm.
- Measure close to the bottom of blind bores.
- Allow access to deep holes using an extension delivered in standard.
- Carbide-tipped contact points for measuring application 12 ÷ 100 mm.
- Supplied in a suited case along with setting ring, extension rod, inspection report.



◀ 00914003



Order number	Measuring range (mm)	Scale division (mm)	Precision (mm)	Setting rings (mm)	L1 (mm)	A (mm)	Extension rods (mm)
00914001	6 ÷ 8	0,001	0,004	6	53,5	0,5	100
00914002	8 ÷ 10	0,001	0,004	8	53,5	0,5	100
00914003	10 ÷ 12	0,001	0,004	10	53,5	0,5	100
00914004	12 ÷ 16	0,005	0,004	16	80	0,5	150
00914005	16 ÷ 20	0,005	0,004	16	80	0,5	150
00914006	20 ÷ 25	0,005	0,004	25	90	0,5	150
00914007	25 ÷ 30	0,005	0,004	25	90	0,5	150
00914008	30 ÷ 40	0,005	0,004	40	97	0,5	150
00914009	40 ÷ 50	0,005	0,005	40	97	0,5	150
00914010	50 ÷ 63	0,005	0,005	62	114	0,5	150
00914011	62 ÷ 75	0,005	0,005	62	114	0,5	150
00914012	75 ÷ 88	0,005	0,005	87	114	0,5	150
00914013	87 ÷ 100	0,005	0,005	87	114	0,5	150

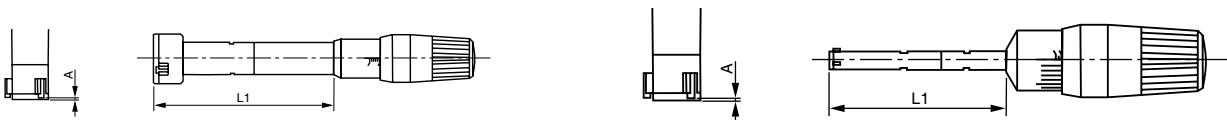
# THREE-POINT INTERNAL MICROMETERS, INCH



- Application range 0,275 in to 4 in .
- Measure close to the bottom of blind bores.
- Allow access to deep holes using an extension delivered in standard.
- Carbide-tipped contact points for measuring application 0,5 ÷ 4 in.
- Supplied in a suited case along with setting ring, extension rod, inspection report.



◀ 00924003



Order number	Measuring range (in)	Scale division (in)	Precision (in)	Setting rings (in)	L1 (in)	A (in)	Extension rods (in)
00924001	0,275 ÷ 0,35	0,0001	0,00016	0,275	2,14	0,02	4
00924002	0,35 ÷ 0,425	0,0001	0,00016	0,350	2,14	0,02	4
00924003	0,425 ÷ 0,5	0,0001	0,00016	0,500	2,14	0,02	4
00924004	0,5 ÷ 0,65	0,0002	0,00016	0,65	3,2	0,02	6
00924005	0,65 ÷ 0,8	0,0002	0,00016	0,65	3,2	0,02	6
00924006	0,8 ÷ 1	0,0002	0,00016	1	3,6	0,02	6
00924007	1 ÷ 1,2	0,0002	0,00016	1	3,6	0,02	6
00924008	1,2 ÷ 1,6	0,0002	0,00016	1,6	3,88	0,02	6
00924009	1,6 ÷ 2	0,0002	0,00020	1,6	3,88	0,02	6
00924010	2 ÷ 2,5	0,0002	0,00020	2,5	4,56	0,02	6
00924011	2,5 ÷ 3	0,0002	0,00020	2,5	4,56	0,02	6
00924012	3 ÷ 3,5	0,0002	0,00020	3,5	4,56	0,02	6
00924013	3,5 ÷ 4	0,0002	0,00020	3,5	4,56	0,02	6

## SETS OF THREE-POINT INTERNAL MICROMETERS, INTERNAL, METRIC



▲ 00914023

Order number	Measuring range	Single micrometers		Setting rings		Extension rods	
		No.	mm	No.	mm	No.	mm
<b>00914020</b>	6 ÷ 12	00914001	6 ÷ 8	00944004	6	00964001	100
		00914002	8 ÷ 10	00944005	8		
		00914003	10 ÷ 12	00944006	10		
<b>00914021</b>	12 ÷ 20	00914004	12 ÷ 16	00944008	16	00964002	150
		00914005	16 ÷ 20				
<b>00914022</b>	20 ÷ 50	00914006	20 ÷ 25	00944010	25	00964003	150
		00914007	25 ÷ 30				
		00914008	30 ÷ 40	00944012	40	00964004	150
		00914009	40 ÷ 50				
<b>00914023</b>	50 ÷ 100	00914010	50 ÷ 63	00944014	62	00964005	150
		00914011	62 ÷ 75				
		00914012	75 ÷ 88	00944017	87		
		00914013	87 ÷ 100				

Full sets are supplied in a suited case with inspection report for each internal micrometer.

# SETS OF THREE-POINT INTERNAL MICROMETERS, INTERNAL, INCH



◀ 00924020

Order number	Measuring range	Single micrometers		Setting rings		Extension rods	
		No.	in	No.	in	No.	in
00924020	0,275 ÷ 0,5	00924001	0,275 ÷ 0,35	00954003	0,275		
		00924002	0,35 ÷ 0,425	00954004	0,35	00964001	4
		00924003	0,425 ÷ 0,5	00954006	0,5		
00924021	0,5 ÷ 0,8	00924004	0,5 ÷ 0,65	00954007	0,65	00964002	6
		00924005	0,65 ÷ 0,8				
00924022	0,8 ÷ 2	00924006	0,8 ÷ 1	00954009	1	00964003	6
		00924007	1 ÷ 1,2				
		00924008	1,2 ÷ 1,6	00954011	1,6	00964004	6
		00924009	1,6 ÷ 2				
00924023	2 ÷ 4	00924010	2 ÷ 2,5	00954013	2,5		
		00924011	2,5 ÷ 3			00964005	6
		00924012	3 ÷ 3,5	00954016	3,5		
		00924013	3,5 ÷ 4				
		00914013	87 ÷ 100				

Full sets are supplied in a suited case with inspection report for each internal micrometer.

## EXTENSION RODS FOR 3 POINT MICROMETERS



◀ 00964001

Order number	Description	Length
	mm / in	mm / in
00964001	Extension rod for measuring range 6 ÷ 12 / 0,275 ÷ 0,500	100 / 4
00964002	Extension rod for measuring range 12 ÷ 20 / 0,500 ÷ 0,800	150 / 6
00964003	Extension rod for measuring range 20 ÷ 30 / 0,800 ÷ 1,2	150 / 6
00964004	Extension rod for measuring range 30 ÷ 50 / 1,2 ÷ 2	150 / 6
00964005	Extension rod for measuring range 50 ÷ 100 / 2 ÷ 4	150 / 6

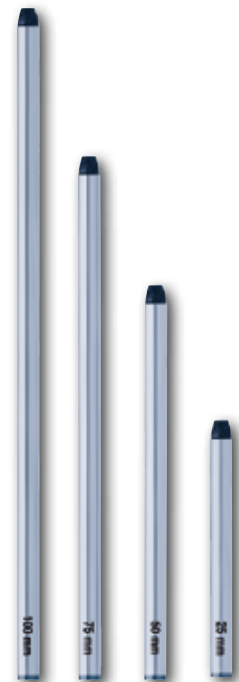


## DEPTH MICROMETERS WITH VERNIER READING, METRIC

- ▶ High-precision, interchangeable depth rods, adjusted in increments of 25 mm. No need for resetting when changing rods.
- ▶ Rod diameter 4,5 mm.
- ▶ Satin chrome finish.
- ▶ Hardened steel base, ground and lapped.
- ▶ Resolution: 0,01 mm.
- ▶ Ratchet stop and locking nut.
- ▶ Supplied in a suited case with inspection report.



▲ 00214003

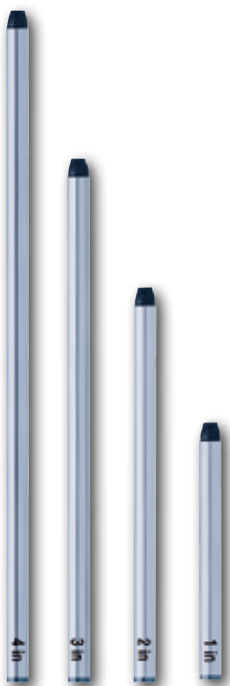


Order number	Measuring range (mm)	Precision (mm)	Depth foot (mm)	Number of depth rods
00214001	0 ÷ 100	0,005	63	4
00214002	0 ÷ 150	0,005	63	6
00214003	0 ÷ 100	0,005	101,5	4
00214004	0 ÷ 150	0,005	101,5	6

# DEPTH MICROMETERS WITH VERNIER READING, INCH



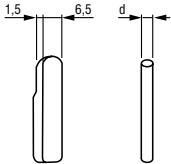
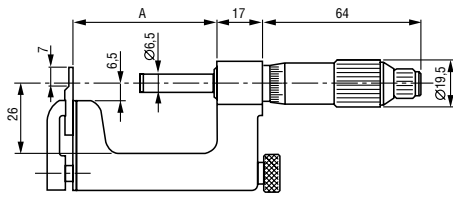
- High-precision, interchangeable depth rods, adjusted in increments of 1 in. No need for resetting when changing rods.
- Rod diameter 4,5 mm.
- Satin chrome finish.
- Hardened steel base, ground and lapped.
- Resolution: 0,001 in.
- Ratchet stop and locking nut.
- Supplied in a suited case with inspection report.



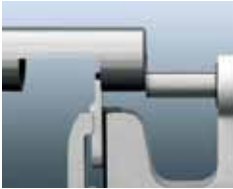
▲ 00224001

Order number	Measuring range (in)	Precision (in)	Depth foot (in)	Number of depth rods
00224001	0 ÷ 4	0,00020	2,5	4
00224002	0 ÷ 6	0,00020	2,5	6
00224003	0 ÷ 4	0,00020	4	4
00224004	0 ÷ 6	0,00020	4	6

## UNIVERSAL MICROMETERS, EXTERNAL



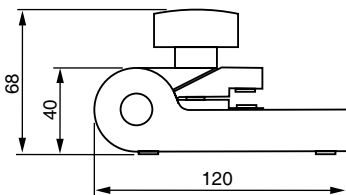
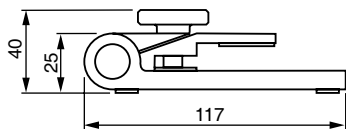
- ▶ Spindle end with a carbide-tipped insert.
- ▶ Hardened steel anvil.
- ▶ Chrome-plated frame.
- ▶ Scale division to 0,01 mm.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.



▲ 00114053

Order number	Measuring range (mm)	Precision (mm)	A (mm)	d (mm)
00114053	0 ÷ 25	0,004	28,5	3
00114054	25 ÷ 50	0,004	53,5	5

## ADJUSTABLE MICROMETER STANDS



▲ 00164009



▲ 00164010

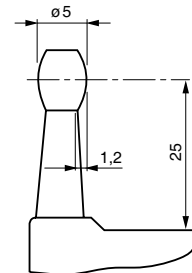
Order number	Description
00164009	Micrometer stand
00164010	Micrometer stand – Heavy model

## EXTERNAL MICROMETER FOR TUBE WALL THICKNESS

- ▶ Spindle fitted with a carbide-tipped insert.
- ▶ Hardened steel anvil.
- ▶ Scale division to 0,01 mm.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.



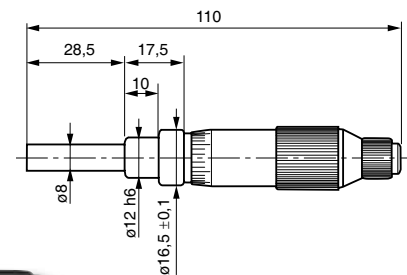
▲ 00114052



Order number	Measuring range (mm)	Precision (mm)
00114052	0 ÷ 25	0,006

## MICROMETER HEADS WITH NON-ROTATING SPINDLE

- ▶ Spindle end with a carbide-tipped insert.
- ▶ Ratchet friction thimble and locking nut.
- ▶ Delivered in a suited case with inspection report.



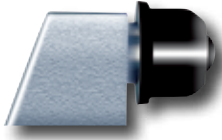
▲ 00114050

Order number	Measuring range (mm)	Reading (mm)	Precision (mm)
00114050	0 ÷ 25	0,01	0,003
00114051	0 ÷ 25	0,002	0,003



## INTERCHANGEABLE SPHERICAL ANVIL

Used for measuring tube wall thickness. Fitted with a steel ball, 5 mm/0,2 in.



▲ 00164011

Order number	Description
00164011	Interchangeable spherical anvil



# TOOL SETS



## TOOL SET WITH VERNIER READING, METRIC



◀ 00514100

Order number	Description	
00514100	Tool set including:	
	1 Micrometer with a 0 ÷ 25 mm measuring range, reading to 0,01 mm	00114010
	1 Caliper with a 0 ÷ 150 mm measuring range, vernier reading to 0,05 mm	00514011
	1 Black coloured plastic case	
	1 Inspection report provided with each tool	

## TOOL SET WITH VERNIER READING, INCH



◀ 00524100

Order number	Description	
00524100	Tool set including:	
	1 Micrometer with a 0 ÷ 1 in measuring range, reading to 0,0001 in	00124010
	1 Caliper with a 0 ÷ 6 in measuring range, vernier reading to 0,001 in/1/128 in	00524001
	1 Black coloured plastic case	
	1 Inspection report provided with each tool	



# TOOL SET WITH NUMERICAL INDICATION, METRIC



◀ 00534100

Order number	Description
<b>00534100</b>	Tool set including: 1 Electronic micrometer, 0 ÷ 25 mm measuring range, resolution to 0,001 mm 00134001 1 Caliper with a 0 ÷ 150 mm measuring range, resolution to 0,01 mm 00534020 1 Black coloured plastic case 1 Inspection report provided with each tool

## TOOL SET POLYCARBONATE, METRIC/INCH



◀ 00534098

Order number	Description
00534098	Tool set including: 1 Polycarbonate caliper, 0 ÷ 150 mm measuring range, resolution to 0,01 mm 00534210 1 Electronic depth gage, 0 ÷ 550 mm application range, resolution to 0,01 mm 00534201 1 Black coloured plastic case 1 Inspection report provided with each tool

## TOOL SET IP54, METRIC



◀ 00534099

Order number	Description
00534099	Tool set including: 1 Polycarbonate caliper, 0 ÷ 150 mm measuring range, resolution to 0,01 mm 00534220 1 Electronic depth gage, 0 ÷ 550 mm application range, resolution to 0,01 mm 00534201 1 Black coloured plastic case 1 Inspection report provided with each tool



# SETTING RINGS



## SETTING RINGS, METRIC

Used to set internal micrometers and three-point micrometers to zero.

► Inspection report included.

A Uncertainty of engraved diameter

B Cylindricity



▲ 00944010

Order number	Diameter (mm)	A (mm)	B (mm)
00944004	6	± 0,0015	0,0010
00944005	8	± 0,0015	0,0010
00944006	10	± 0,0015	0,0010
00944008	16	± 0,0015	0,0010
00944010	25	± 0,0015	0,0010
00944012	40	± 0,0015	0,0010
00944014	62	± 0,0015	0,0015
00944017	87	± 0,0015	0,0015

## SETTING RINGS, INCH

Used to set internal micrometers and three-point micrometers to zero.

► Inspection report included.

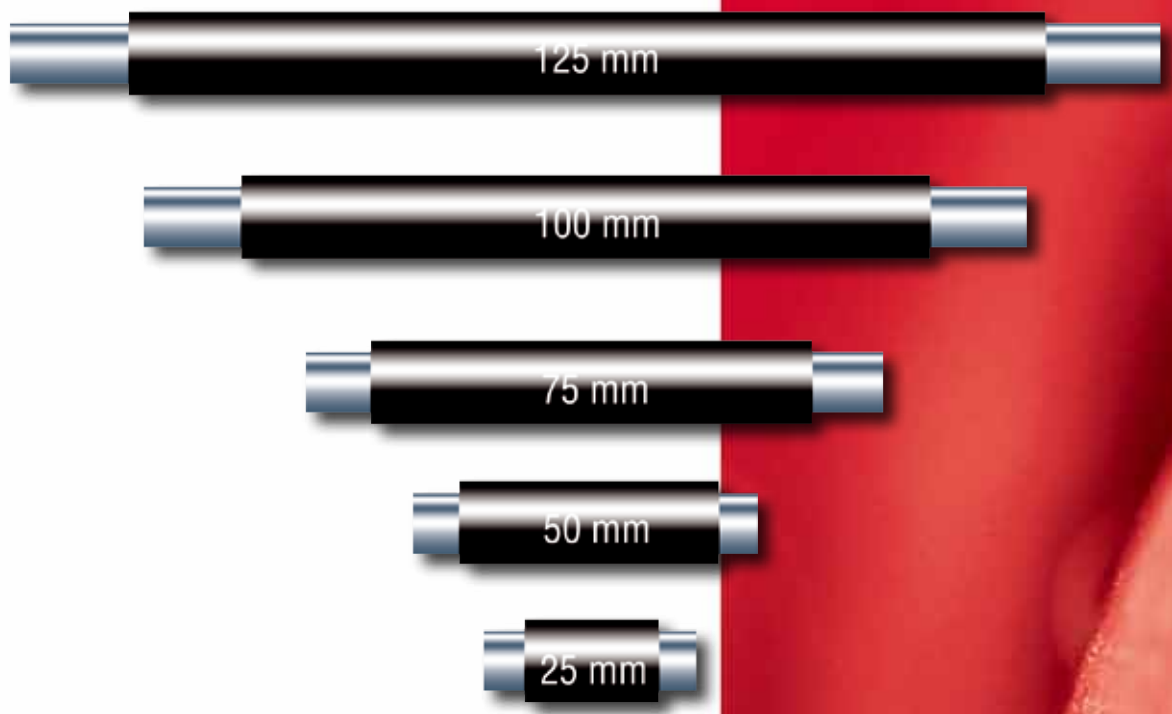
A Uncertainty of engraved diameter

B Cylindricity



▲ 00954009

Order number	Diameter (in)	A (in)	B (in)
00954003	0,275	± 0,00006	0,00004
00954004	0,350	± 0,00006	0,00004
00954006	0,500	± 0,00006	0,00004
00954007	0,650	± 0,00006	0,00004
00954009	1,000	± 0,00006	0,00004
00954011	1,600	± 0,00006	0,00004
00954013	2,500	± 0,00006	0,00006
00954016	3,500	± 0,00006	0,00006

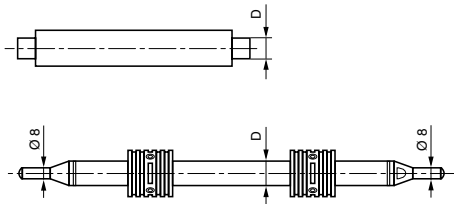



# SETTING STANDARDS




## SETTING STANDARDS
































- ▶ For calibrating the zero position on external micrometers.
- ▶ With heat insulating handle.
- ▶ Supplied with inspection report.










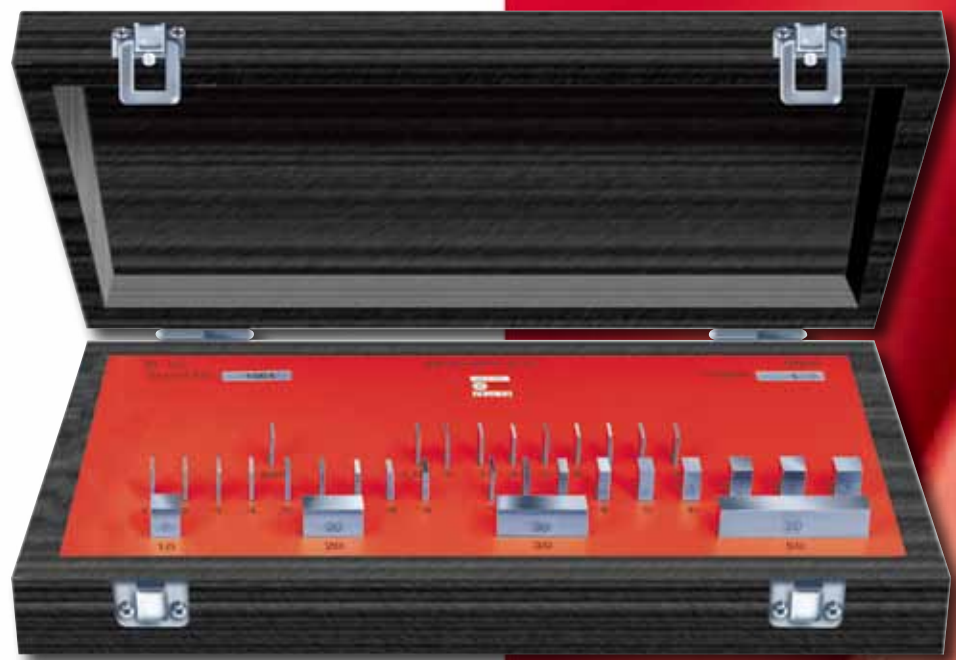
 Flat measuring faces

 Spherical measuring faces



Order number	Nominal dimensions (mm)	Precision (mm)	D (mm)	Measuring faces
02164001	25	± 0,0012	7	
02164002	50	± 0,0012	7	
02164003	75	± 0,0015	7	
02164004	100	± 0,0020	8	
02164005	125	± 0,0025	8	
02164006	150	± 0,0025	8	
02164007	175	± 0,0025	8	
02164008	200	± 0,0035	8	
02164009	225	± 0,0035	8	
02164010	250	± 0,0035	8	
02164011	275	± 0,0040	8	
02164012	300	± 0,0040	16	
02164013	325	± 0,0045	16	
02164014	350	± 0,0045	16	
02164015	375	± 0,0045	16	
02164016	400	± 0,0045	16	
02164017	425	± 0,0050	16	
02164018	450	± 0,0050	16	
02164019	475	± 0,0050	16	
02164020	500	± 0,0050	16	
02164021	525	± 0,0055	16	
02164022	575	± 0,0055	16	
02164023	625	± 0,0055	16	
02164024	675	± 0,0065	16	
02164025	725	± 0,0065	16	
02164026	775	± 0,0065	16	
02164027	825	± 0,0075	16	
02164028	875	± 0,0075	16	
02164029	925	± 0,0075	16	
02164030	975	± 0,0075	16	
02164031	1050	± 0,0075	23	

Order number	Nominal dimensions (in)	Precision (in)	D (in)	Measuring faces
02164101	1	± 0.00008	0.276	
02164102	2	± 0.00008	0.315	
02164103	3	± 0.00008	0.276	
02164104	4	± 0.00012	0.315	
02164105	5	± 0.00016	0.315	
02164106	6	± 0.00016	0.315	
02164107	7	± 0.00020	0.315	



# GAUGE BLOCK SETS

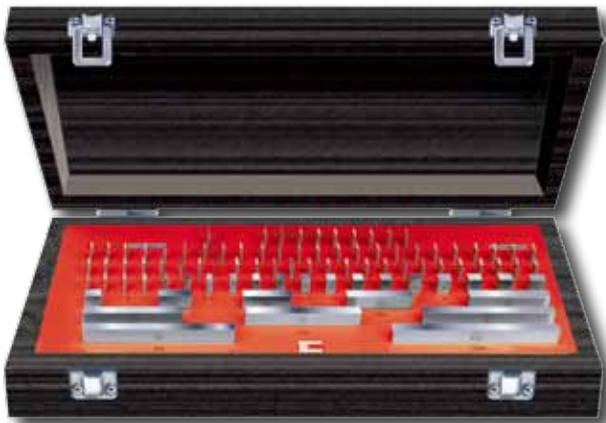




## SETS OF STEEL GAUGE BLOCKS, METRIC

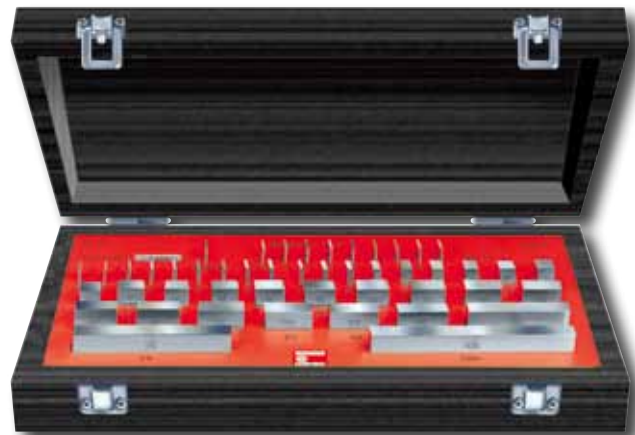
- ▶ M103, M88, M47, M32 gauge block sets.
- ▶ Accuracy grades 1 and 2.
- ▶ Complying with ISO 3650 .
- ▶ Provided in a wooden case with inspection report.

TOP LINE



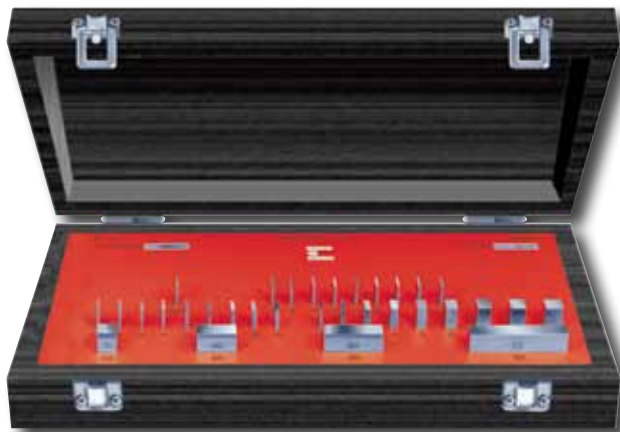
▲ 06511101

TOP LINE



▲ 06511103

TOP LINE



▲ 06511104

Order number	Description	Grades
06511101	M103 block set	1
06511102	M88 block set	1
06511103	M47 block set	1
06511104	M32 block set	1
06511201	M103 block set	2
06511202	M88 block set	2
06511203	M47 block set	2
06511204	M32 block set	2

## Set compositions

### 103-piece set

Dimensions (mm)	Steps (mm)	Pieces
1,005	-	1
1,01 ÷ 1,49	0,01	49
0,5 ÷ 24,5	0,5	49
25 ÷ 100	25	4

### 88-piece set

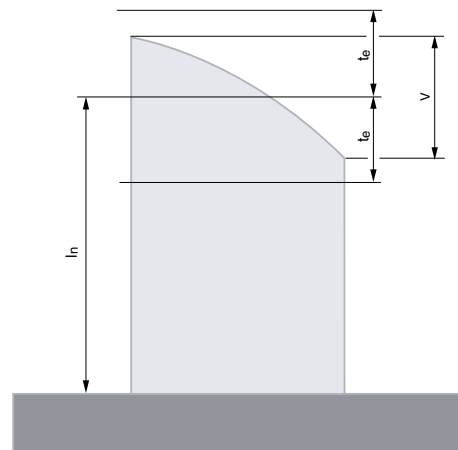
Dimensions (mm)	Steps (mm)	Pieces
1,0005	-	1
1,001 ÷ 1,009	0,001	9
1,01 ÷ 1,49	0,01	49
0,5 ÷ 9,5	0,5	19

### 47-piece set

Dimensions (mm)	Steps (mm)	Pieces
1,005	-	1
1,01 ÷ 1,19	0,01	19
1,2 ÷ 1,9	0,5	8
1 ÷ 9	1	9
10 ÷ 100	10	10

### 32-piece set

Dimensions (mm)	Steps (mm)	Pieces
1,005	-	1
1,01 ÷ 1,09	0,01	9
1,1 ÷ 1,9	0,1	9
1 ÷ 9	1	9
10, 20, 30, 50	-	4



Nominal length  $l_n$ ;  
variation  $v$ , limit deviations  $t_e$  at any  
point against the nominal length.



Nominal length	Grade 1		Grade 2	
	Limit deviation at any point against the nominal length	Tolerance for the variation in length	Limit deviation at any point against the nominal length	Tolerance for the variation in length
$l_n$ mm	$\pm t_e$ $\mu\text{m}$	$t_v$ $\mu\text{m}$	$\pm t_e$ $\mu\text{m}$	$t_v$ $\mu\text{m}$
$0,5 \geq l_n \leq 10$	0,2	0,16	0,45	0,3
$10 < l_n \leq 25$	0,3	0,16	0,6	0,3
$25 < l_n \leq 50$	0,4	0,18	0,8	0,3
$50 < l_n \leq 75$	0,5	0,18	1	0,35
$75 < l_n \leq 100$	0,6	0,2	1,2	0,35



# SQUARES



## KNIFE EDGE SQUARE 90°

- DIN 875.
- Grades "00" and "0".
- Stainless steel squares.
- 90° degrees squares with knife edge.
- Supplied in a suited case with inspection report.



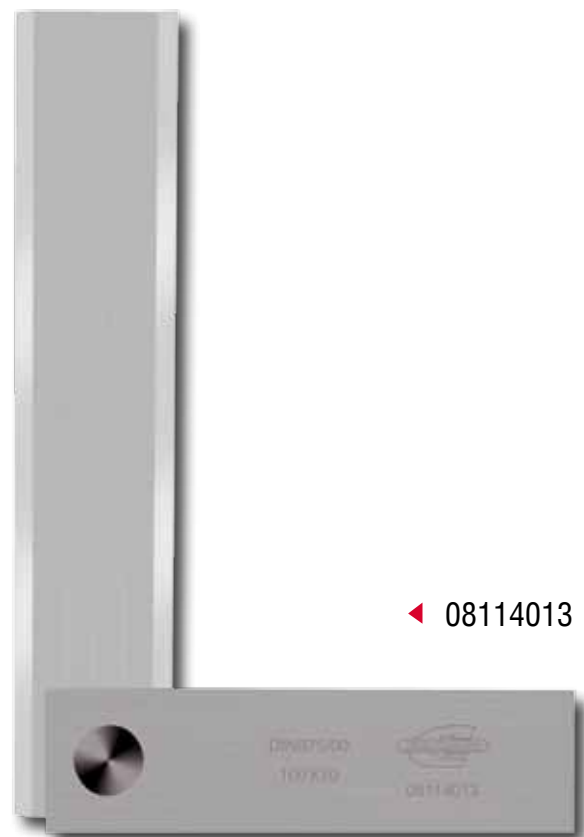
Order number	Dimensions	Grade
08114001	50 x 40	00
08114002	75 x 50	00
08114003	100 x 70	00
08114004	150 x 100	00
08114005	200 x 130	00
08114006	50 x 40	0
08114007	75 x 50	0
08114008	100 x 70	0
08114009	150 x 100	0
08114010	200 x 130	0

## FLAT EDGE SQUARE 90° WITH WIDE BASE

- DIN 875.
- Grades "00" or "0".
- Stainless steel squares.
- 90° degrees squares with knife edge.
- Supplied in a suited case with inspection report.



Order number	Dimensions	Grade
08114011	50 x 40	00
08114012	75 x 50	00
08114013	100 x 70	00
08114014	150 x 100	00
08114015	200 x 130	00
08114016	50 x 40	0
08114017	75 x 50	0
08114018	100 x 70	0
08114019	150 x 100	0
08114020	200 x 130	0



## FLAT EDGE SQUARE 90°

- DIN 875.
- Grade "0" or "1".
- Stainless steel squares.
- 90° degrees squares with knife edge.
- Supplied in a suited case with inspection report.



Order number	Dimensions	Grade
08114021	75 x 50	0
08114022	100 x 70	0
08114023	150 x 100	0
08114024	200 x 130	0
08114025	300 x 200	0
08114026	75 x 50	1
08114027	100 x 70	1
08114028	150 x 100	1
08114029	200 x 130	1
08114030	300 x 200	1



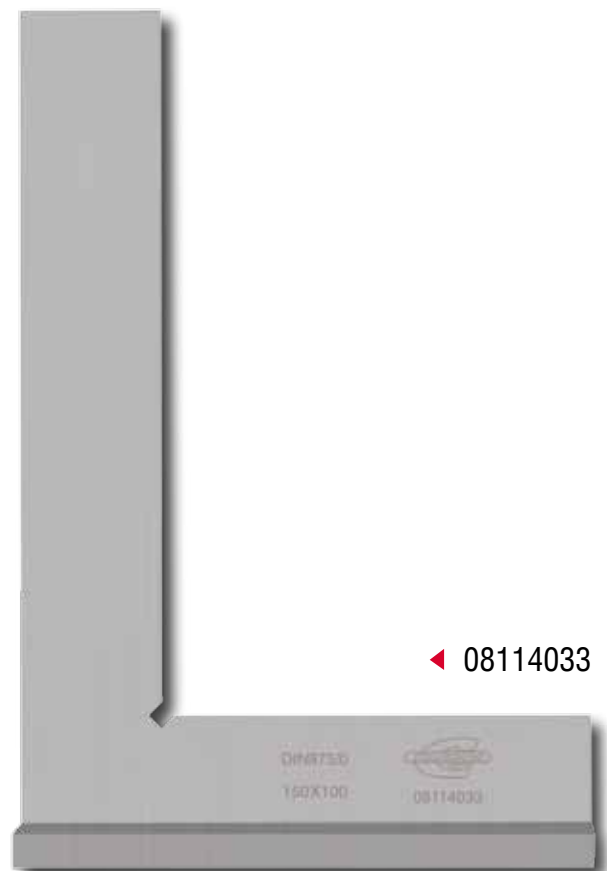
# FLAT EDGE SQUARE 90° WITH WIDE BASE, GRADE 0

- ▶ DIN 875.
- ▶ Grade "0" or "1".
- ▶ Stainless steel squares.
- ▶ 90° degrees squares with knife edge.
- ▶ Supplied in a suited case with inspection report.



◀ 08114032

Order number	Dimensions	Grade
08114031	75 x 50	0
08114032	100 x 70	0
08114033	150 x 100	0
08114034	200 x 130	0
08114035	300 x 200	0
08114036	75 x 50	1
08114037	100 x 70	1
08114038	150 x 100	1
08114039	200 x 130	1
08114040	300 x 200	1



◀ 08114033





## FLAT EDGE SQUARE 90° WITH BLOCK BASE, INCH

- ▶ DIN 875.
- ▶ Grades "A" or "B".
- ▶ Stainless steel squares.
- ▶ 90° degrees squares with knife edge.
- ▶ Supplied in a suited case with inspection report.



◀ 08124003

Order number	Dimensions	Grade
08124001	3"	A
08124002	4"	A
08124003	6"	A
08124004	9"	A
08124005	12"	A
08124006	3"	B
08124007	4"	B
08124008	6"	B
08124009	9"	B
08124010	12"	B



◀ 08134200

## DOUBLE SQUARE

- ▶ DIN 875.
- ▶ Graduation to the 8ths, 16ths, 32nds and 64ths.
- ▶ Cast head, satin chrome blades.
- ▶ Supplied in a suited carton box with inspection report.

Order number	Dimension of the blade	Perpendicularity	Planarity Straightness
	in	µm	µm
08134200	4	3	2

# SCRIBING GAUGES

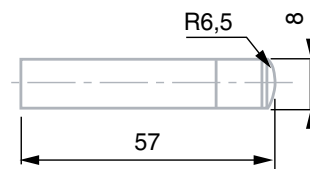
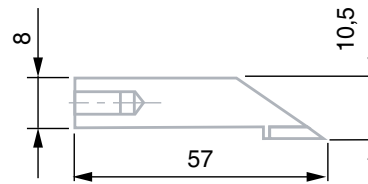


## DIAL SCRIBING GAUGES

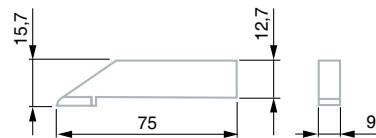
- Robust construction in stainless steel.
- Smooth move throughout the measuring range.
- Supplied in a suited case with inspection report.
- White dial face.



◀ 07714001



◀ 057138



◀ 057137

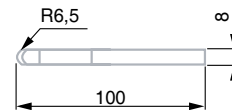
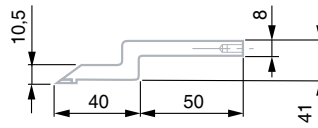
Order number	Measuring range	Scale division	Travel per revolution	Scriber
Metric models	mm	mm	mm	
<b>07714001</b>	300	0,01	1,0	057137
<b>07714002</b>	600	0,02	2,0	057138
Inch models	in	in	in	
<b>07724001</b>	12	0,001	0,100	057137
<b>07724002</b>	24	0,001	0,100	057138

# SCRIBING GAUGES WITH METRIC/ INCH VERNIER READING

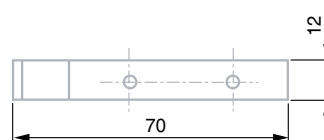
- Unbeatable for accurate and reliable scribing.
- Stainless steel.
- Satin-chrome scale and vernier backgrounds.
- Supplied in a resistant case with inspection report.



◀ 07734001



◀ 057139



◀ 057140



Order number	Measuring range		Vernier reading		Scriber
	left scale	right scale	left scale	right scale	
<b>07734001</b>	0 ÷ 300 mm	0 ÷ 12 in	0,02 mm	0,001 in	057139
<b>07734002</b>	0 ÷ 500 mm	0 ÷ 20 in	0,02 mm	0,001 in	057140

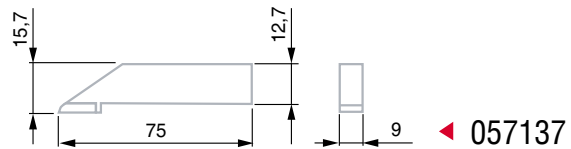


## ELECTRONIC SCRIBING GAUGES

- ▶ Direct metric/inch conversion.
- ▶ Precision:
  - Model 300 mm/12 in:  $\pm 0,04$  mm.
  - Model 600 mm/24 in:  $\pm 0,05$  mm.
- ▶ Resolution to 0,01 mm/0,0005 in.
- ▶ Large high-contrast LC display.
- ▶ Hold function.
- ▶ ABS/INC measurement.
- ▶ RS232 data output.
- ▶ Floating zero.
- ▶ Locking screw, carbide scriber.
- ▶ Supplied in a resistant case with inspection report.



◀ 07734003



Order number	Measuring range		Scriber
	mm	in	
07734003	300	12	057137
07734004	600	24	057137
057143	RS232 cable for scribing gauge		



# ANGLE PROTRACTOR







▲ 00634001

## UNIVERSAL BEVEL PROTRACTOR WITH VERNIER

- Made from stainless steel.
- Laser stamped scales, satin-chrome backgrounds.
- Parallax-free readout.
- Magnifying glass for easy reading.
- Adjustable beam to any position within the entire range.

Order number	Measuring range	Reading	Blades Length
00634001	4 x 90°	5'	300 mm / 12 in



▲ 00634002

## UNIVERSAL ANGLE PROTRACTOR

- Made from stainless steel.
- Dial with wide spaced graduations.
- Supplied in a fitted case.

Order number	Measuring range	Reading	Blades Length
00634002	0 ÷ 360°	5'	6 in / 12 in



▲ 00634003

## ELECTRONIC ANGLE PROTRACTOR

- Made from stainless steel.
- Fine adjustment.
- Range selection : 1 x 360°, 2 x 180°, 4 x 90°
- Accuracy : ±5'.
- Preset function.
- Dual reading LC display arc-minutes and decimal degrees.
- Supplied in a fitted case.

Order number	Measuring range	Reading	Blades Length
00634003	0 ÷ 360°	5'	6 in / 12 in

# LEVELS





## ELECTRONIC LEVELS WITH LASER

- Embedded magnet on the measuring surface.
- 90° laser cross hair for levelling at-a-distance.
- Reversible reading for inverted use.
- Precision :  $\pm 0.2^\circ$
- Repeatability :  $\pm 0.05^\circ$
- Standard 9V battery.



Order number	Measuring range	Reading	Dimensions (L x W x H)
05334001	4 x 90°	0.05°	9 x 1 x 2-1/4"

▲ 05334001

## ELECTRONIC INCLINOMETER

- Embedded magnet on both sides and the bottom.
- Hold feature.
- Reversible reading for inverted use.
- Precision :  $\pm 0.2^\circ$
- Repeatability :  $\pm 0.05^\circ$
- Standard 9V battery.



Order number	Measuring range	Reading	Dimensions (L x W x H)
05334002	4 x 90°	0.05°	2.375 x 1.375 x 2.375"

▲ 05334002

## POCKET ELECTRONIC INCLINOMETER

- Aluminium base with built-in magnet.
- Display of angle in degrees and in %.
- Hold function.
- Precision :  $\pm 0.2^\circ$
- 2 x CR2032 battery.



▲ 05334010

Order number	Measuring range	Reading	Length
05334010	4 x 90°	0.1°	100 mm



# DIAL GAUGES



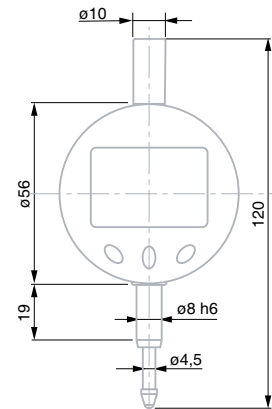
## ELECTRONIC COMPARATORS, READING 0,01 MM / 0,0005 IN



▲ 01434002

▲ 01434001

- 8 mm diameter shank.
- LC display, 10,5 mm digit height.
- PRESET function.
- Metric/inch conversion.
- ON/OFF function.
- ABS/DIFF modes.
- CR2032 battery type.
- Supplied in a case made of industrial plastic with inspection report.



Order number	Measuring range		Scale division		MPE	Repeatability
	mm	in	mm	in	$\mu\text{m}$	$\mu\text{m}$
01434001	12,5	0,5	0,01	0,0005	20	10
01434002	25	1	0,01	0,0005	20	10

## ELECTRONIC COMPARATORS, READING 0,001 MM / 0,00005 IN

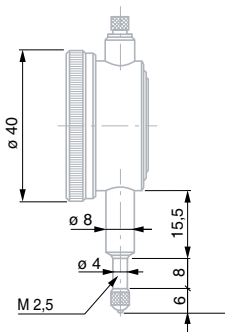
- 8 mm diameter shank.
- LC display, 10,5 mm digit height.
- PRESET function.
- Metric/inch conversion.
- ON/OFF function.
- ABS/DIFF/TOL/MAX modes.
- CR2032 battery type.
- Supplied in a case made of industrial plastic with inspection report.



▲ 01434003

Order number	Measuring range		Scale division		MPE	Repeatability
	mm	in	mm	in	$\mu\text{m}$	$\mu\text{m}$
01434003	12,5	0,5	0,001	0,00005	4	2
01434004	25	1	0,001	0,00005	5	2

# Ø40MM DIAL GAUGES, READING 0,01 MM



- Full-metal bezel and case housing.
- Shank and plunger in hardened stainless steel.
- Steel ball tip with a 3,175 mm diameter.
- Adjustable tolerance pointers.
- Measuring insert with a M2,5 clamping thread.
- Shank with a 8h6 mm dia. for metric dial gauges.
- Delivered in a suited case with inspection report.
- With extra red tinted reverse numbering.



▲ 01414001

Maximum permissible errors		
0,01 mm Reading	Measuring span	
		3 mm
Deviation span	10 µm	12 µm
Total deviation span	12 µm	14 µm
Max. hysteresis	3 µm	3 µm
Local deviation span (0,1 mm)	5 µm	5 µm
Repeatability limit	3 µm	3 µm

Order number	Measuring span	Reading	Travel/Rev.	Movement	Circular scale
01414001	3 mm	0,01 mm	1 mm	6 Jewelled	0 ÷ 50 ÷ 100
01414002	5 mm	0,01 mm	1 mm	6 Jewelled	0 ÷ 50 ÷ 100



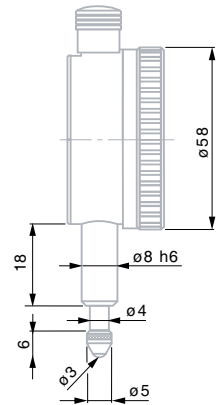


## HP DIAL GAUGE, READING 0,001 MM



▲ 01414030

- 1 mm measuring span.
- High-precision.
- Shockproof design.
- Ruby bearing movement.
- White dial face.



Order number	Measuring span	Scale division	Travel per revolution
01414030	1 mm	0,001 mm	0,2 mm

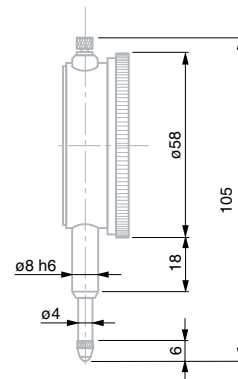
Measuring spans	1 mm
Scale division	0,001m
Deviation span of indication	5 µm
Total deviation span of indication	6 µm
Hystérésis max.	3 µm
Deviation span of indication (local deviation span of 0,1 mm)	3 µm
Repeatability limit	0,3 µm



# Ø58MM DIAL GAUGES, READING 0,01 MM



- Full-metal bezel and case housing.
- Shank and plunger in hardened stainless steel.
- Steel ball tip with a 3,175 mm diameter.
- Adjustable tolerance pointers.
- Measuring insert with a M2,5 clamping thread.
- Shank with a 8h6 mm dia. for metric dial gauges.
- Delivered in a suited case with inspection report.
- With extra red tinted reverse numbering.



▲ 01414010



▲ 01414013



▲ 01414015

Maximum permissible errors (MPE)			
Scale division 0,01 mm	Measuring span		
	10 mm	20 mm	30 mm
Deviation span of indication	15 µm	22 µm	28 µm
Total deviation span of indication	17 µm	25 µm	30 µm
Max. hysteresis	3 µm	5 µm	5 µm
Deviation span of indication(local deviation span of 0,1 mm)	5 µm	10 µm	10 µm
Repeatability limit	3 µm	3 µm	3 µm

Order number	Measuring span	Scale division	Travel per revolution	Circular scale	Movement
01414010	10 mm	0,01 mm	1 mm	0 ÷ 50 ÷ 100	
01414011	10 mm	0,01 mm	1 mm	0 ÷ 50 ÷ 100	Ruby
01414012	10 mm	0,01 mm	1 mm	0 ÷ 50 ÷ 100	Ruby – Shockproof
01414013	10 mm	0,01 mm	1 mm	0 ÷ 50 ÷ 100	Waterproof
01414014	20 mm	0,01 mm	1 mm	0 ÷ 50 ÷ 100	
01414015	30 mm	0,01 mm	1 mm	0 ÷ 50 ÷ 100	





## Ø58MM DIAL GAUGES, READING 0,002 OR 0,001 MM

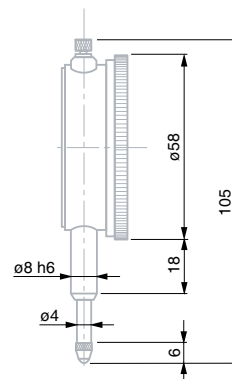


▲ 01414020



▲ 01414021

- Full-metal bezel and case housing.
- Shank and plunger in hardened stainless steel.
- Steel ball tip with a 3,175 mm diameter.
- Adjustable tolerance pointers.
- Measuring insert with a M2,5 clamping thread.
- Shank with a 8h6 mm dia. for metric dial gauges.
- Delivered in a suited case with inspection report.



Maximum permissible errors (MPE)				
Measuring spans	3 mm	5 mm	3 mm	5 mm
Scale division	0,002 mm	0,001 mm	0,002 mm	0,001 mm
Deviation span of indication	9 µm	8 µm	12 µm	9 µm
Total deviation span of indication	10 µm	9 µm	13 µm	10 µm
Hystérésis max.	4 µm	4 µm	4 µm	4 µm
Deviation span of indication (local deviation span of 0,1 mm)	7 µm	6 µm	7 µm	6 µm
Repeatability limit	1 µm	1 µm	1 µm	1 µm

Order number	Measuring span	Scale division	Travel per revolution	Circular scale	Movement
01414020	3 mm	0,001 mm	0,2 mm	0 ÷ 10 ÷ 20	Ruby – Shockproof
01414021	3 mm	0,002 mm	0,2 mm	0 ÷ 10 ÷ 20	Ruby – Shockproof
01414022	5 mm	0,001 mm	0,2 mm	0 ÷ 10 ÷ 20	Ruby – Shockproof
01414023	5 mm	0,002 mm	0,2 mm	0 ÷ 10 ÷ 20	Ruby – Shockproof

Standard accessories	
Order number	Description
01464001	Central lug back for indicators with a 40 mm dial diameter
01464002	Central lug back for indicators with a 58 mm dial diameter

# AGD2 DIAL INDICATORS, 58MM



- Dial diameters of 2¼ in.
- Revolution counter.
- Tolerance pointers.
- Central lug back.
- Carbide contact point.
- AGD2 clamping shank with diameter to 0,375 in.
- Supplied in a case made of industrial plastic with inspection report.



▲ 01424010



▲ 01424011



▲ 01424012



Order number	Measuring span	Scale division	Travel per revolution	Dial face	Movement
01424010	1 in	0,001 in	0,100 in	white	
01424011	1 in	0,001 in	0,100 in	black	
01424012	0,5 in	0,0005 in	0,05 in	white	Ruby – Shockproof

Maximum permissible errors (MPE)			
Scale division 0,001 / 0,0005	Measuring span		
	0,5 in	1 in	
Repeatability	0,20 scale division	0,20 scale division	
Hysteresis	0,33 scale division	0,33 scale division	
Precision			
1 revolution	1,00 scale division	1,00 scale division	
First revolution up to 2,5	1,00 scale division	1,00 scale division	
> 2,5 thru 10 revolutions	3,00 scale division	2,00 scale division	



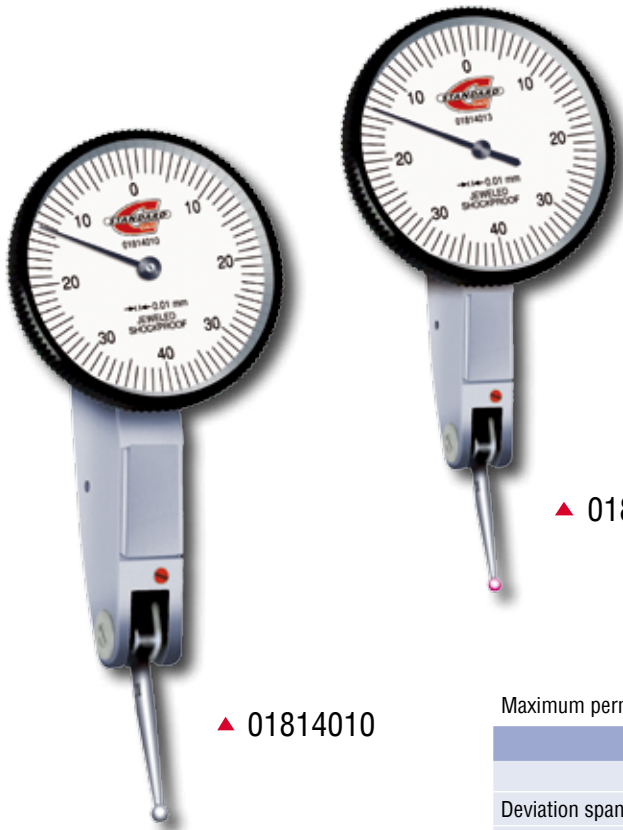


# LEVER INDICATORS



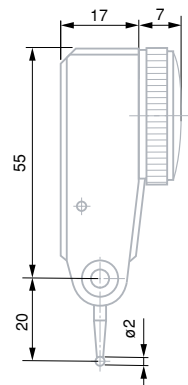
## LEVER INDICATORS, METRIC

- ▶ Small and large dial diameters.
- ▶ Resolution to 0,01 or 0,002 mm.
- ▶ Ruby or carbide contact point.
- ▶ Supplied in a case made of industrial plastic with inspection report.



▲ 01814010

▲ 01814013



Maximum permissible errors (MPE)

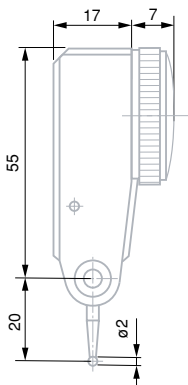
	Scale division	
	0,01 mm	0,002 mm
Deviation span of indication	10 $\mu\text{m}$	3 $\mu\text{m}$
Total deviation span of indication	13 $\mu\text{m}$	4 $\mu\text{m}$
Hysteresis max.	3 $\mu\text{m}$	2 $\mu\text{m}$
Deviation span of indication (local measuring span 0,1 mm)	5 $\mu\text{m}$	2 $\mu\text{m}$
Repeatability limit	3 $\mu\text{m}$	1.5 $\mu\text{m}$

Order number	Measuring span	Scale division	Diameter	Dial face	Contact		
					Diameter	Materials	Length
01814010	0,8 mm	0,01 mm	32 mm	white	2 mm	Carbide	19 mm
01814011	0,8 mm	0,01 mm	38 mm	white	2 mm	Carbide	19 mm
01814012	0,8 mm	0,01 mm	32 mm	white	2 mm	Ruby	19 mm
01814013	0,8 mm	0,01 mm	38 mm	white	2 mm	Ruby	19 mm
01814020	0,2 mm	0,002 mm	32 mm	white	2 mm	Carbide	19 mm
01814021	0,2 mm	0,002 mm	40 mm	white	2 mm	Cabide	19 mm
01814022	0,2 mm	0,002 mm	32 mm	white	2 mm	Ruby	19 mm
01814023	0,2 mm	0,002 mm	40 mm	white	2 mm	Ruby	19 mm

# LEVER INDICATORS, INCH



- Small and large dial diameters.
- Resolution to 0,001, 0,0001 or 0,0005 in.
- Carbide contact point.
- Supplied in a case made of industrial plastic with inspection report.



▲ 01824001



▲ 01824006

Maximum permissible errors (MPE)

	Scale division	
	0,001 / 0,005 in	0,0001 in
Deviation span of indication	0,4 $\mu$ in	0,12 $\mu$ in
Total deviation span of indication	0,5 $\mu$ in	0,16 $\mu$ in
Hysteresis max.	0,12 $\mu$ in	0,08 $\mu$ in
Deviation span of indication (local measuring span 0,1 mm)	0,2 $\mu$ in	0,08 $\mu$ in
Repeatability limit	0,12 $\mu$ in	0,10 $\mu$ in

Order number	Measuring span	Scale division	Diameter	Dial face	Contact		
					Diameter	Materials	Length
01824001	0,03 in	0,001 in	1,26 in	white	0,08 in	carbide	0,7 in
01824002	0,03 in	0,001 in	1,26 in	black	0,08 in	carbide	0,7 in
01824003	0,03 in	0,0005 in	1,26 in	white	0,08 in	carbide	0,7 in
01824004	0,03 in	0,0005 in	1,26 in	black	0,08 in	carbide	0,7 in
01824005	0,03 in	0,0005 in	1,54 in	white	0,08 in	carbide	0,7 in
01824006	0,03 in	0,0005 in	1,54 in	black	0,08 in	carbide	0,7 in
01824011	0,008 in	0,0001 in	1,26 in	white	0,08 in	carbide	0,64 in
01824012	0,008 in	0,0001 in	1,26 in	black	0,08 in	carbide	0,64 in
01824013	0,008 in	0,0001 in	1,54 in	white	0,08 in	carbide	0,64 in
01824014	0,008 in	0,0001 in	1,54 in	black	0,08 in	carbide	0,64 in





## LEVER INDICATORS, METRIC, 1,6 MM MEASURING SPAN

- Small and large dial diameters.
- Resolution to 0,01 mm
- 1,6 mm measuring span
- Regular or perpendicular dial
- Carbide contact point.
- Supplied in a case made of industrial plastic with inspection report.



▲ 07414001

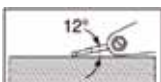


▲ 07414003

Maximum permissible errors (MPE)

	Scale division
	0,01 mm
Deviation span of indication	20 $\mu$ m
Total deviation span of indication	30 $\mu$ m
Hysteresis max.	5 $\mu$ m
Deviation span of indication (local measuring span 0,1 mm)	10 $\mu$ m
Repeatability limit	5 $\mu$ m

Order number	Measuring span	Scale division	Diameter	Dial face	Contact		
					Diameter	Dial	Length
07414001	1,6 mm	0,01 mm	28 mm	white	2 mm	Regular	18 mm
07414002	1,6 mm	0,01 mm	38 mm	white	2 mm	Regular	18 mm
07414003	1,6 mm	0,01 mm	28 mm	white	2 mm	Perpendicular	18 mm
07414004	1,6 mm	0,01 mm	38 mm	white	2 mm	Perpendicular	18 mm



Measuring position at 12° for true reading





# STANDS/BLOCKS/ PARALLELS



## MEASURING STANDS FOR DIAL GAUGES AND COMPARATORS

- Dovetail clamp, except for 01664001.
- 8 mm diameter fixing bore.
- Adherence on a flat surface  $\approx 450$  N.



▲ 01664001



▲ 01664002



▲ 01664003

Order number	Description	Arm length (mm)	Fixing bore (mm)	Magnetic force (N)	Weight (kg)
01664001	Magnetic stand	176 x 165	$\varnothing 8 \div 9,6$	450	1,5
01664002	Articulated arm	280 max.	$\varnothing 8$	450	1,5
01664003	Flexible arm	350 max.	$\varnothing 8 \div 9,6$	450	1,5

## SET OF PARALLELS



- 4 pairs of parallels.
- Accuracy : 0,005 mm.
- Matched accuracy :  $\pm 0,005$  mm.
- Holes :  $\varnothing = 7,93$  mm.
- Provided in a plastic case.

TOP LINE



Order number	Description
06764020	4 pairs parallels set

Set compositions						
Width		length		Thickness		Pieces
mm	in	mm	in	mm	in	
25,40	1	152,40	6	4,76	3/16	2
31,75	1-1/4	152,40	6	4,76	3/16	2
38,10	1-1/2	152,40	6	12,70	1/2	2
44,45	1-3/4	152,40	6	12,70	1/2	2

▲ 06764020

## BLOCKS SET, 1 HOLE

- Squareness tolerance : 0,002 mm.
- Matched accuracy :  $\pm 0,005$  mm.
- Holes :  $\varnothing = 12,8$  mm.
- Dimensions : 25,4 x 50,8 x 16,2 mm (1 x 2 x 3").
- Provided in a plastic case.



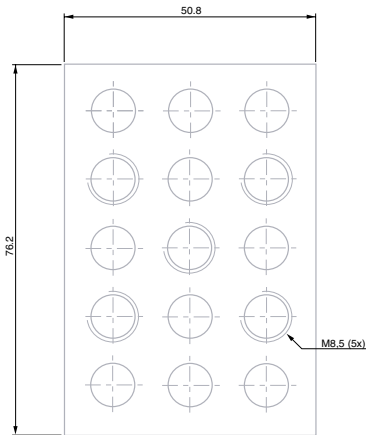
Order number	Description
06764001	Set of two blocks, one hole

▲ 06764001



## BLOCKS SETS, 23 HOLES

- Squareness tolerance : 0,005 mm.
- Matched accuracy :  $\pm 0,005$  mm.
- Provided in a case.

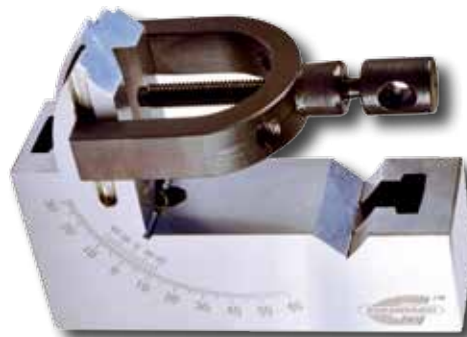


▲ 06764002

Order number	Description	Dimensions	Holes	Pieces
06764002	Set of blocks 23 holes	25,4 x 50,8 x 76,2 mm 1 x 2 x 3"	18 x $\varnothing$ 8,9 mm 5 x M8,5	2
06764003	Set of blocks 23 holes	50,8 x 101,6 x 152,4 mm 2 x 4 x 6"	18 x $\varnothing$ 16,3 mm 5 x M14	2

## ANGLE V-BLOCK WITH CLAMP

- Adjustable angle V-block.
- Angle between 30° - 0° - 60°.
- Provided in a wooden box.



◀ 06764004

Order number	Description	Dimensions	Angle resolution
06764004	Adjustable angle V-block with clamp for diameter up to 30 mm	30 x 49 x 101 mm	1



# COMPARATOR GAUGES





## OUTSIDE CALIPER GAUGE

- Hardened stainless steel.
- Direct metric/inch/fraction conversion.
- Resolution 0,1 mm/0,01 in, fractions by 1/64ths increments.
- Delivered with a fitted case.



▲ 07934200

Order number	Measuring range	
	mm	in
07934200	0 ÷ 150	0 ÷ 6

## INSIDE CALIPER GAUGE

- Hardened stainless steel.
- Direct metric/inch/fraction conversion.
- Resolution 0,1 mm/0,01 in, fractions by 1/64ths increments.
- Delivered with a fitted case.



Order number	Measuring range	
	mm	in
07934201	12 ÷ 150	0,5 ÷ 6

▲ 07934201



## DIAL BORE GAUGES, METRIC

- ▶ Chrome plated handle.
- ▶ Insulated grip.
- ▶ Carbide anvils.
- ▶ Includes extension holder and fitted case.

Order number	Measuring range	Reading	Accuracy	Repeatability
05714001	18 ÷ 35 mm	0,01 mm	0,02 mm	0,01 mm
05714002	35 ÷ 160 mm	0,01 mm	0,02 mm	0,01 mm
05714003	50 ÷ 160 mm	0,01 mm	0,02 mm	0,01 mm
05714004	100 ÷ 300 mm	0,01 mm	0,02 mm	0,01 mm

\*Setting rings available p.56



◀ 05714001

## DIAL BORE GAUGE, METRIC, PERPENDICULAR

- ▶ For measuring difficult-to-reach bores.
- ▶ Chrome plated handle.
- ▶ Insulated grip.
- ▶ Carbide anvils.
- ▶ Includes extension holder and fitted case.



◀ 05714010

Order number	Measuring range	Reading	Accuracy	Repeatability
05714010	50 ÷ 150 mm	0,01 mm	0,02 mm	0,01 mm

\*Setting rings available p.56

## DIAL DEPTH GAUGE

- 25 mm measuring span.
- Up to 550 mm measuring range.
- 60mm diameter gauge, 0,01 mm resolution.
- Electronic gauge with metric/inch conversion, ON/OFF, ABS/DIFF/HOLD.
- Precision to 0,025 mm.
- 100 mm hardened steel base.
- Delivered in a suited case with inspection report.



◀ 01614001



◀ 01634001

Order number	Measuring travel		Measuring range	
	mm	in	mm	in
01614001	0 ÷ 25		0 ÷ 550	
01634001	0 ÷ 25	0 ÷ 1	0 ÷ 550	0 ÷ 22





# AUXILIARY FIXTURES





## THREAD WIRE GAUGE

- Stainless steel.
- Thread wires US 60°.
- Includes fitted case.



▲ 00224200

Order number	Designation	Thread	Pieces
00224200	Thread wires gauges for US 60°	3 ÷ 48 thread per in	48

## FINE DEBURRING SET

- Finishing tools for removing burrs, notches, keyways and smoothing small parts.
- Fitted case.



◀ 09514001

Order number	Designation	Length	Pieces
09514001	Fine deburring set	150 mm	12



# OPTICAL MEASUREMENTS



## STANDARD GAGE – VISUAL 250

### ► Main features

The VISUAL Vision Machine 250 is the answer to a growing demand of industry for workpieces that could not be measured using common tactile precision tools. The VISUAL 250 is compact but with no compromise on its metrological performances. This manual machine meets most of the market needs for 2D-measurement.

Featuring a solid mechanical construction, the machine can equally be used in the workshop as in the inspection laboratory.

Equipped with VISUAL GAGE – the software that requires less than a half-day training – the VISUAL 250 is a perfect multi-tasking and multi-users inspection means.

TOP LINE



### ► Exceptional Quality/Price ratio

The machine has been specially marketed to offer an alternative option in the field of vision at highly optimized costs, whilst guaranteeing optimum accuracy besides a high-quality level.

### ► Z-axis

This coordinate axis is moved from the front of the machine, directly.

### ► X/Y coordinate tables

Both X and Y coordinate tables have a built-in, hand-operated release system, speeding up any displacement needed to reach the measuring area.

### ► Manual zoom

The delivery scope includes an indexable manual zoom with optical magnifications from 0,7x up to 4,5x (6,5:1).

### ► Light illumination

The Visual 250 is fitted with two illuminations through LEDs – i.e. a ringlight for episcopic illumination (top) along with a diascope illumination (bottom) for part profile projection. Both are controlled over the software.

### ► Laser pointer

A laser pointer is included to make tracing the measurement zone on the part being inspected easier.

► **Clamp system**

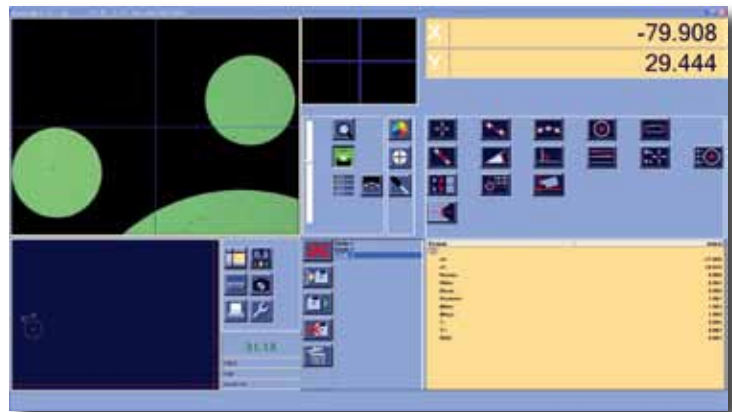
Your Visual 250 can be used in conjunction with VISUALFIX. This modular system includes a number of clamping elements available in either of both kits as below:

VISUALFIX kit, including 35 elements (**06860317**)

STANDARD VISUALFIX kit, including 51 elements (**06860316**)

► **Software**

VISUAL GAGE allows quick and accurate measurement of nearly all geometrical part features. This software can equally be run by a trained operator or a metrologist. It provides the user-friendliness and flexibility needed to create the measurement reports. Training takes just half a day. A clearly arranged User's interface makes this vision machine most easy to use.



Technical data	
<b>Order number</b>	<b>06834700</b>
Releasable X- and Y-axis	✓
Measuring range (X/Y)	250 x 150 mm
Z-Displacement	200 mm
Maximum workpiece weight	10 kg
<b>Accuracy</b>	
MPE <sub>xy</sub> (Ex, Eu)	3,9 µm + L/150* (L in mm)
MPE <sub>xy</sub> (Exy)	4,9 µm + L/150* (L in mm)
*m≤5 kg, uniformly distributed	
<b>Camera and Optics</b>	
CCD colour camera, 752 x 582 pixels	✓
Indexable zoom (0,7x up to 4,5x)	✓
Diascopic illumination, green LED	✓
Ringlight with a white LED	✓
Laser pointer	✓
<b>Additional data</b>	
Calibration	at 10 mm
Weight (w/o monitor and computer)	180 kg
Power supply	115 to 230 Vac ±10%, 50 to 60 Hz
Overall dimensions of the machine alone (LxHxD)	716 x 1015 x 753 mm
Reference temperature	20°C ±1°C
Operating temperature range	10°C to 40°C
Relative humidity	< 80%, non-condensing
VISUAL GAGE application software	✓
Provided with monitor and computer	✓



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