

# Presentation

## SYLVAC & TRIMOS CATALOGUE

Dear customer, dear reader,

This common catalogue symbolizes the synergy between Trimos SA and Sylvac SA. The collaboration between our two companies goes up at the Seventies. It enables us today to appear among the leaders of metrology and to guarantee a level of completion and "Swiss" quality.

It has been thus for more than 30 years that the two companies with the capital and management distinct collaborate on the face of dimensional digital measurement. It is with a very particular care that the specific image to each company was preserved.

The cooperation between Sylvac and Trimos extends to many fields such as research and development, production and particularly the distribution by common agents in more than 30 different countries. An attentive glance will immediately enable you to note that it is not a question of a simple work of consolidation of our offer of products, but that many innovations mark out this catalogue and are the witness of the spirit of innovation which prevails in our companies.

In an industrial world where the quality control becomes increasingly important, Trimos and Sylvac are proud to offer a vast range of solutions to you meeting your requirements in metrology. Our products associate accuracy, innovation, ergonomics and ease of use.

In close cooperation with our agents, we are capable to offer a wide service to you including/understanding the sale of instruments, the technical support, the after-sales service and the technical training.

Sylvac SA

Two handwritten signatures in black ink. The first signature is for E. Schnyder and the second is for D. Liechti.

E. Schnyder

D. Liechti

Trimos SA

A handwritten signature in black ink for P. Kemper.

P. Kemper



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# Contents



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**Hand tools**

Calipers, Ultra light calipers, micron calipers, micrometers, depth gauges, protractors

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**Dial gauges**

Test indicators S234, Mini-dial gauges S233, Dial gauges S229,S213

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**Internal measuring instruments**

Internal measuring instruments with micrometer screw and pistol type

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**Scales and micrometer screws**

Digital scales, cylindrical beam scales, scales type ULD III, micrometer screws

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**Height gauges, probes and digital display units, measuring benches**

Hi\_Cal, probes, digital display units D50S, D80S, D100S, D200S, dial gauge testing stand M3, measuring benches PS15, PS16, PS17

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**Multiplexers and cables**

D104PC, MUX, transmission without wires, cables, software's

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**Vertical measuring instruments**

TVM, Altia/Altia Premium, V+, Z\_Cal, Vectra-Touch, Mestra/Mestra-Touch

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**Horizontal measuring instruments and instruments for cylinder-shaped parts**

TELS, Alesta, Horizon, Horizon Granite, Horizon Premium, THV, Labconcept/Labconcept Premium, Twinner

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**Surface roughness measuring instruments**

TR Profile, TR Scan

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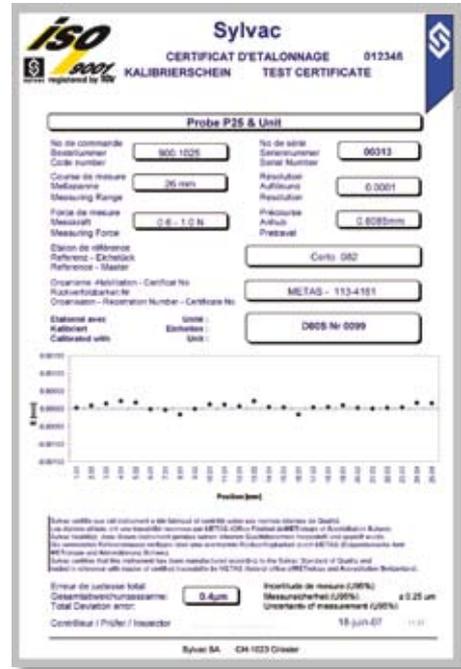
**Tool presetters and checking instruments**

TPR, Optima, Optima Premium

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# Certificates

## SYLVAC PRODUCTS



### 3 years guarantee :

The Sylvac mark rests on the conjugation of height industrial competences in electronics, micro-electronic and micro-mechanics.

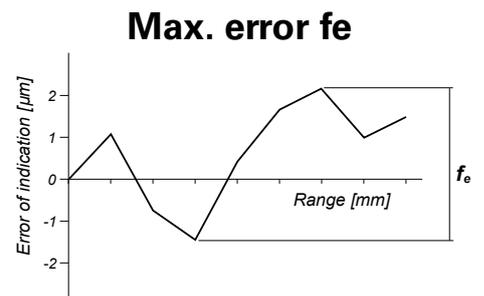
Trustful of its products quality, the Sylvac company offer a 3 years guarantee on its unit range.

### Error max :

The maximum error mentioned in our technical specifications corresponds to the acceptable maximum difference between the variation of lowest measurement and the variation of highest measurement, compared to the standard value, on all the travel of the instrument.

The local error is in a general way lower than this value. A certificate of calibration delivered with all our instruments with a resolution of 1 µm, this one indicates the effective maximum error of the instrument, controlled in our laboratory.

The repeatability determines the maximum interval in which will be a series of measurements taken at the same point of the travel of the instrument by the same operator and under the same conditions.



### Web site :

up to date information's as well as updated files and software can be downloaded on [www.sylvac.ch](http://www.sylvac.ch)

# General informations

## SYLVAC PRODUCTS

### SYLVAC PRODUCTS :

The Sylvac patented inductive measuring system is insensitive with the magnetic fields and the liquids being able to be on the sensor or on the scale of measurement. Very low consumption system keeping the zero setting even when switching "off". This system is particularly well adapted to the measuring instruments such as calipers, comparators digital, etc...

The Sylvac patented capacitive measuring system is used for the measuring probe instruments type, where the sensor is integrated in the body of the instrument. Contrary to the inductive probes, the capacitive Sylvac system can be used on a large measurement range (up to 50 mm) while preserving an excellent linearity (1 µm/25 mm) and repeatability (0.2 µm).



Characterize the instruments whose the electronic module as well as the measuring system are protected against the liquids. The IPxx degree defines the protection rating of doe's instruments.



The Characterize of the instruments equipped with Smart Inductive Sensor with automatic sleeping mode, automatic wake-up mode, position memorized in sleeping mode.

### IP54 / IP65 / IP67

Characterize the instruments whose the electronic module as well as the measuring system are protected against the liquids. The IPxx degree defines the protection rating of doe's instruments according to IEC 60529.

**IP54** : protected against dust. Protected against projections from water of all directions

**IP65** : completely seals against dust, protected against the water projection from all directions

**IP67** : completely seals against dust, protected against the effects of temporary total immersion

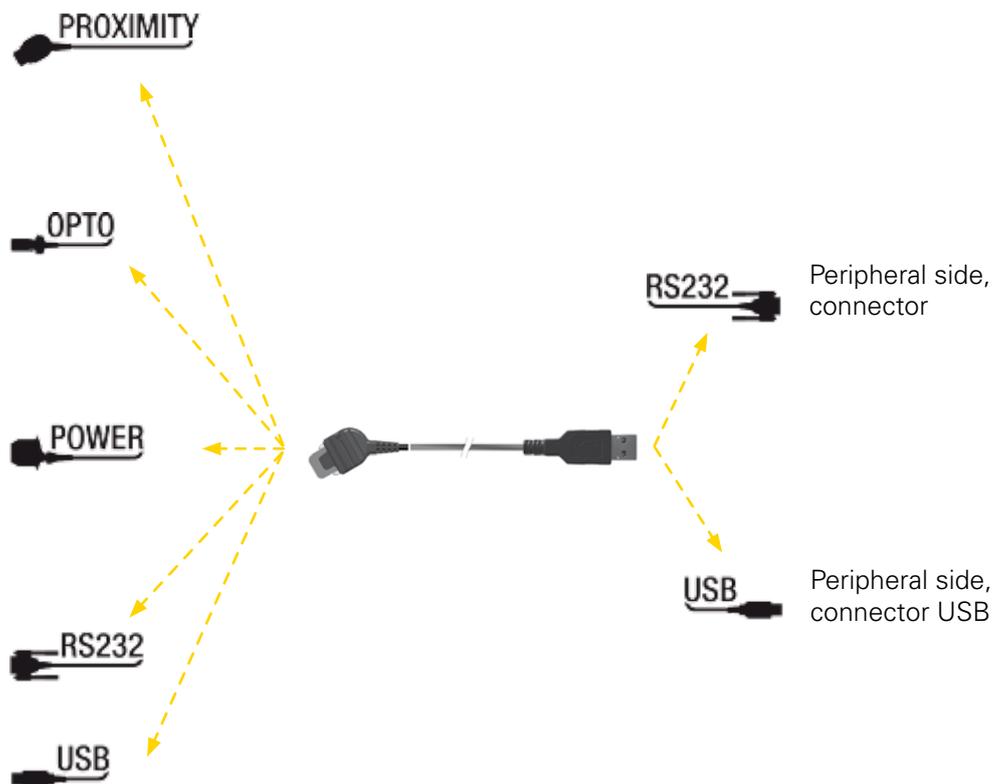
Instruments equipped with a Proximity type of Data output. The transfer of the data is done by inductive coupling, without contact.

Instruments equipped with an Opto type Data output. The transfer of the data is done by an optical opto-coupling, without contact.

Instruments equipped with a Power type Data output. The transfer of the data is done by galvanic coupling, with power supply of the instrument.

Instruments equipped with an RS232 data output (connector Sub-D 9 poles)

Instruments equipped with an USB data output



# General informations

## QUALITY

Quality has always been Trimos main concern. Our company, certified ISO9000 for several years, aims to offer its customer blue chip products and services.

All instruments are developed and produced in our workshops by highly qualified professionals. Therefore, the quality of our products is thoroughly mastered.

By choosing a Trimos instrument, you will benefit of more than 30 years of experience in the metrology field. Hence your certainty to acquire a top-of-the-range instrument bearing the "Swiss Made" label.



## LABORATORY

In order to ensure the highest performances of its instruments, Trimos is equipped with a control laboratory provided with the latest technologies.

Thanks to our exclusive **Trimos® Environment Control System**, the control of environmental conditions is fulfilled. Therefore, a faultless follow-up of temperature, humidity and pressure is guaranteed 24/7.

Specifications :  
Temperature : 20 °C ± 0.2  
Humidity : 50% ± 5



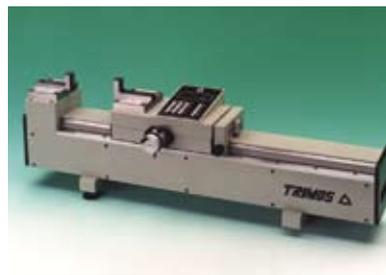
# General informations

## SERVICES

In parallel with the sales of instruments, Trimos and its agents offer a wide range of services allowing the most profitable exploitation of its products :

- Technical support
- Training (at Trimos or on site)
- After-sales service
- Repair of instruments
- Upgrade of old instruments
- Calibration
- Customized instruments and accessories
- Software and drivers
- Maintenance contract

Examples of instruments that we can repair :



TELMA

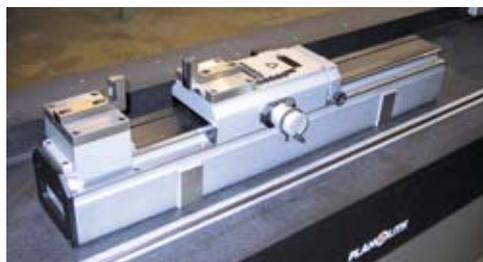


TVA

Instruments subject to upgrade :



TEL



TELMN

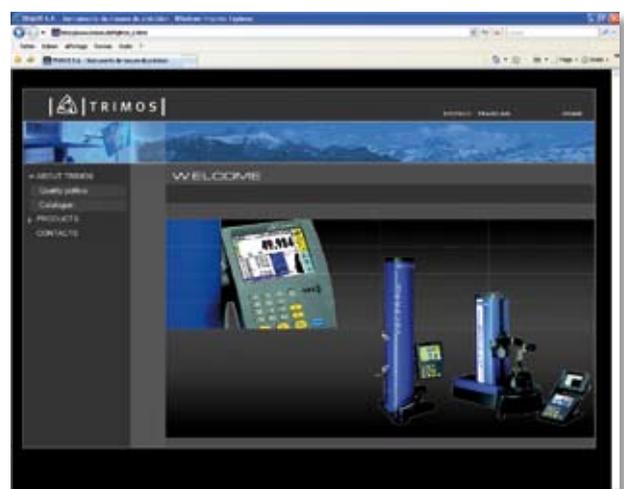


TVM

## WEBSITE

Our website [www.trimos.ch](http://www.trimos.ch) is at your disposal. You will find there the latest information in relation with our firm, our products as well as our sales network.

Do not hesitate to contact us.



[www.trimos.ch](http://www.trimos.ch)



# MEASURING HAND TOOLS

In 1981, Sylvac launches the first caliper with digital read-out on the market. Quickly, other models followed and the market of the instruments with hand tool add formidable rise.

Sylvac did not remain behind and proposes today a range of calipers with digital read-out of a measurement capacity going from 150 to 3000 mm. The family of the instruments with hand is completed by scribing and measuring instruments.

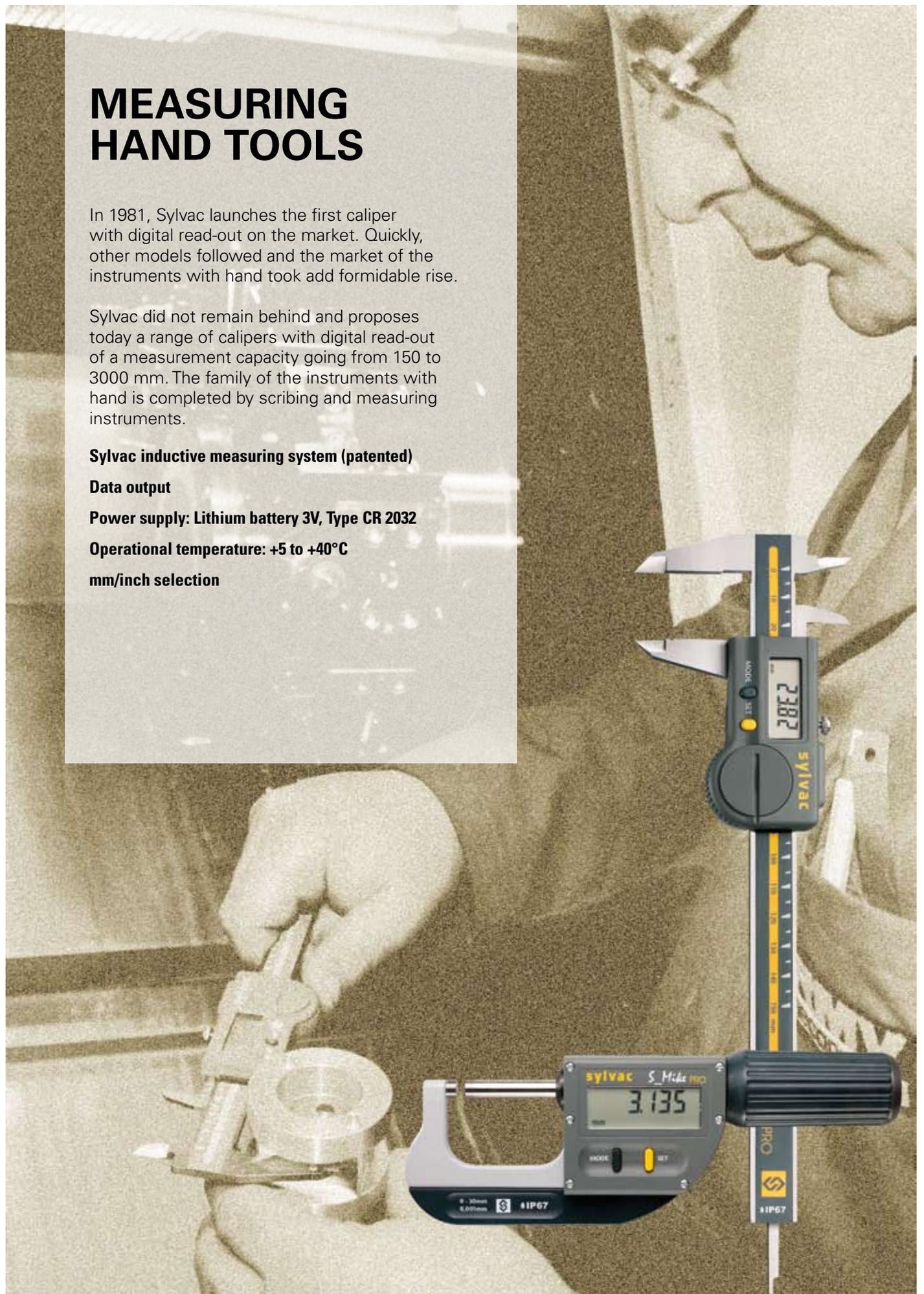
## **Sylvac inductive measuring system (patented)**

### **Data output**

**Power supply: Lithium battery 3V, Type CR 2032**

**Operational temperature: +5 to +40°C**

**mm/inch selection**

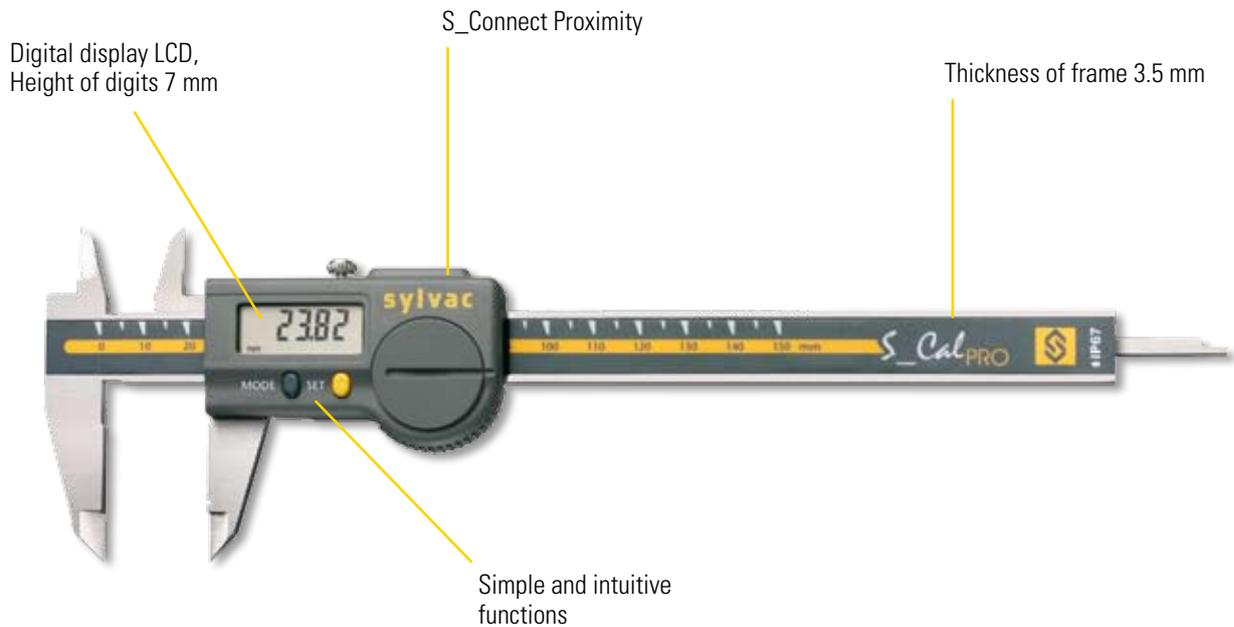


# Professional Caliper

# S\_Cal PRO

## DESCRIPTION

- Water protected for heavy-duty work with coolants and lubricants, protection rating IP67 according to IEC 60529, with or without connector
- Self-contained use : 12'000 hours continuously
- Automatic wake-up by moving the electronic on his frame. (system S.I.S)
- Sleeping mode after 20 min. of non use. (system S.I.S)
- Position memorized in sleeping mode (system S.I.S)
- Maximum velocity of displacement : 2.5 m/sec
- Mechanical frame in stainless steel, hardened and grinded
- Version with thumb wheel on request
- Great comfort of use thanks to its ergonomic frame



SIS Smart Inductive System

SWISS QUALITY

IP67

USB

RS232

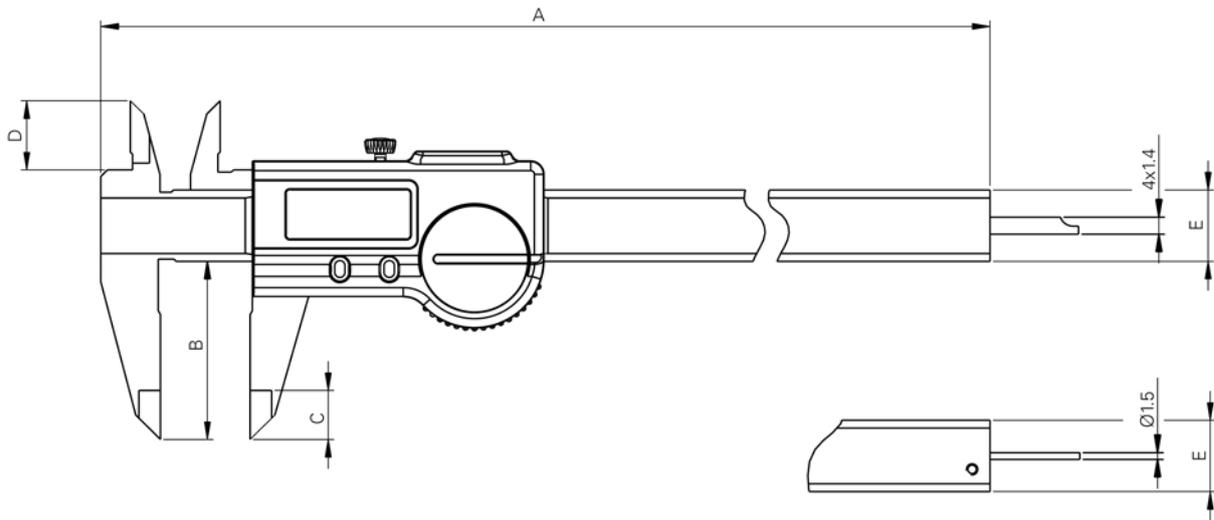
WiFi

PROXIMITY

# Professionnal Caliper

# S\_Cal PRO

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		910.1502	910.1507	910.1522	910.1532
Measuring range	mm	150	150	200	300
Max. Error G	µm	20 <sup>1)</sup>	20 <sup>1)</sup>	30	30
A	mm	234.5	234.5	290	387
B	mm	40	40	50	64
C	mm	11	11	14	14
D	mm	16	16	19	19
E	mm	16 x 3.5	16 x 3.5	16 x 3.5	16 x 4
Depth rod	mm	4 x 1.4	Ø 1.5	4 x 1.4	---
Protection rating according to IEC 60529	IP67 with or without connector				
S_Connect : Proximity	USB / RS232 / Digimatic / Wireless <sup>2)</sup>				
Zero setting	●				
Smart Inductive Sensor	●				

<sup>1)</sup> > 100 mm : 30 µm / DIN 862

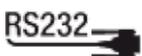
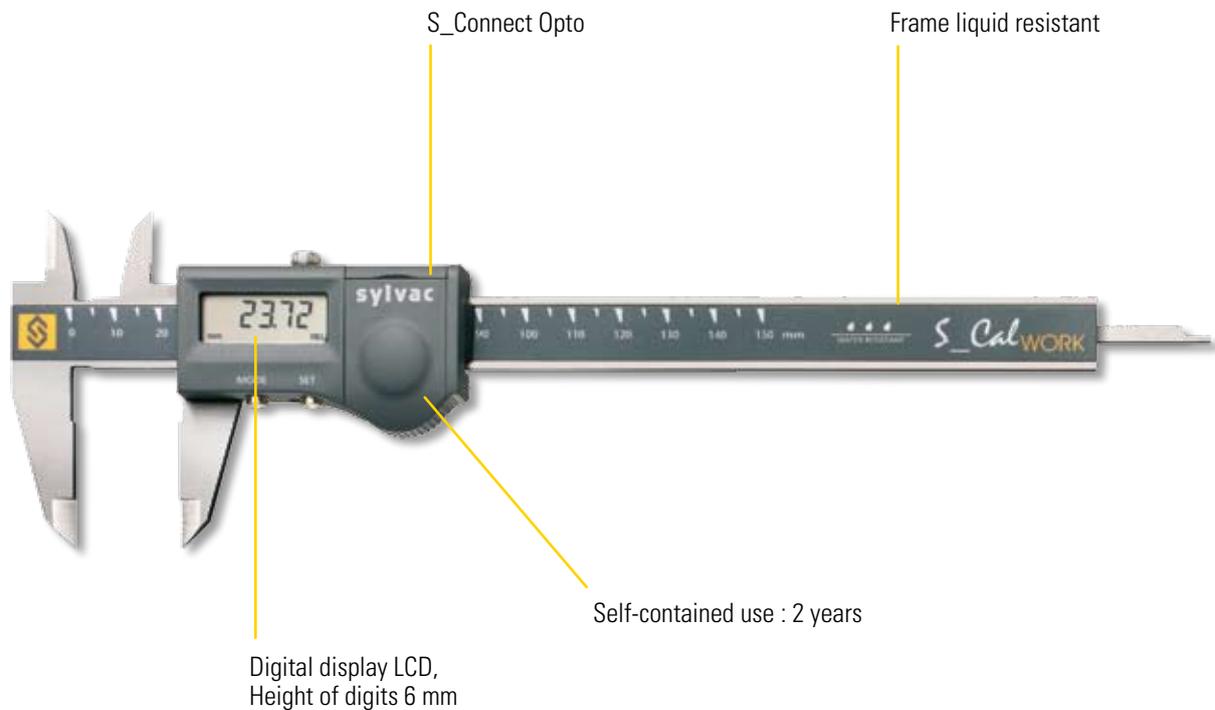
<sup>2)</sup> see cables chapter

# Workshop caliper

# S\_Cal WORK

## DESCRIPTION

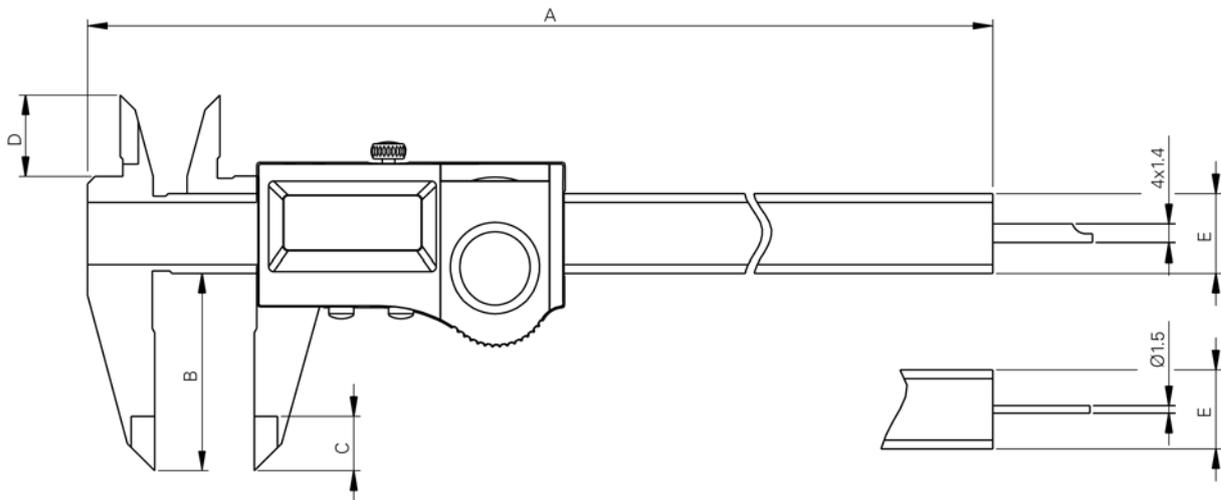
- Maximum velocity of displacement : 2 m/sec
- Mechanical frame in stainless steel, hardened and grinded
- Self-contained use : 5'000 hours continuously
- Automatic switch off mode
- Version with thumb wheel on request



# Workshop caliper

# S\_Cal WORK

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		910.0502	910.0507	910.0522	910.0527	910.0532
Measuring range	mm	150	150	200	200	300
Max. Error G	µm	20 <sup>1)</sup>	20 <sup>1)</sup>	30	30	30
A	mm	233	233	290	290	385
B	mm	40	40	50	50	65
C	mm	10	10	14	14	14
D	mm	16	16	20	20	20
E	mm	16 x 3	16 x 3	16 x 3	16 x 3	16 x 4
Depth rod	mm	4 x 1.4	Ø 1.5	4 x 1.4	Ø 1.5	---
Protection rating according to IEC 60529	IP54 with or without connector					
S_Connect : Opto	USB / RS232 / Digimatic / Wireless <sup>2)</sup>					
Zero setting	●					
REL and ABS functions	●					

<sup>1)</sup> > 100 mm : 30 µm / DIN 862

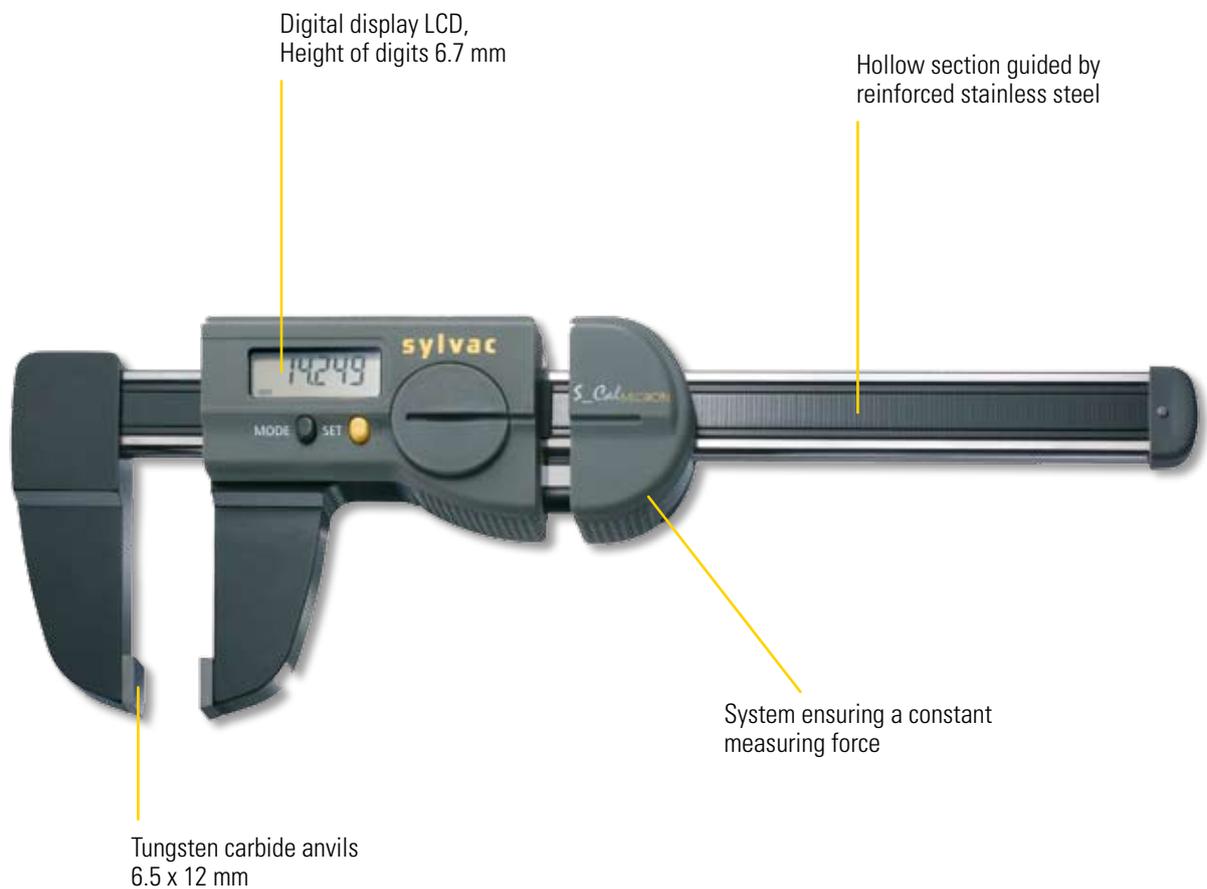
<sup>2)</sup> see cables chapter

# The micron caliper

# S\_Cal Micron

## DESCRIPTION

- PRESET function
- Digital display LCD, height of digits 6.7 mm
- Simplex transmission
- Constant measuring force
- Self-contained use : 12'000 hours continuously
- Delivered with paperboard box, without support



**SIS** Smart Inductive System

SWISS QUALITY

USB

RS232

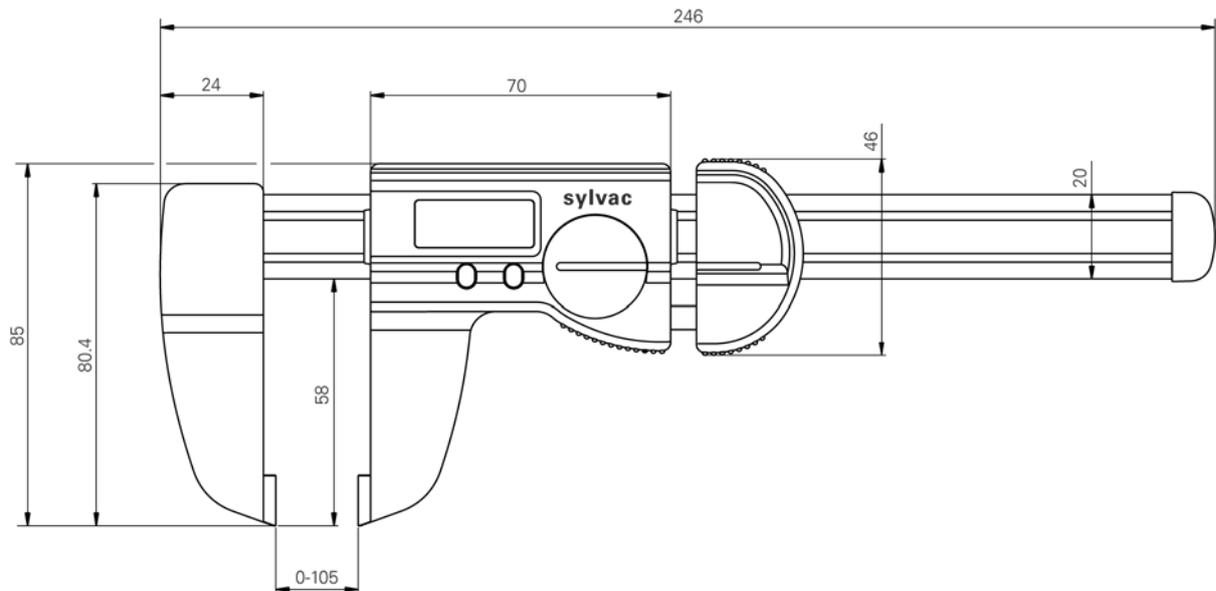
WiFi

PROXIMITY

# The micron caliper

# S\_Cal Micron

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		810.1901
Measuring range	mm	0-100
Max. Error	$\mu\text{m}$	4 <sup>1)</sup>
Repeatability	$\mu\text{m}$	2
Measuring force	N	2.5-3N
Beam	mm	5 x 20
Measuring surface	mm	6.5 x 12
S_Connect : Proximity		USB / RS232 / Digimatic / Wireless <sup>2)</sup>
Tungsten carbide anvils		●
PRESET function		●
Tolerance function		●
Smart Inductive Sensor		●

<sup>1)</sup>  $\pm$

<sup>2)</sup> see cables chapter

# S\_Cal + S\_Cal Micron

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual
- Calibration certificate (S\_Cal Micron)

## APPLICATIONS



Thickness measurement



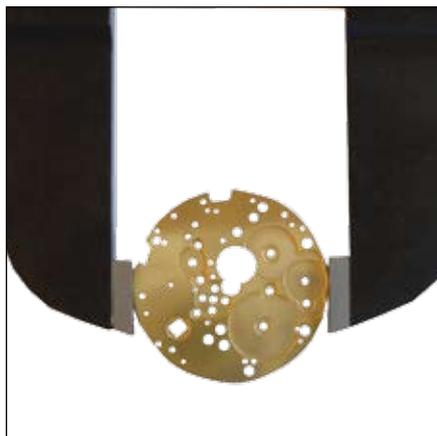
External measurement



Depth measurement



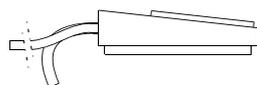
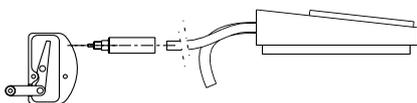
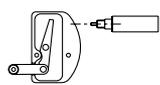
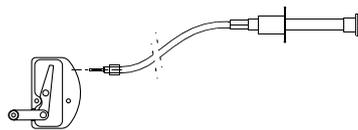
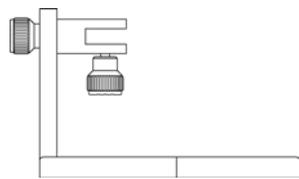
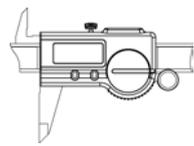
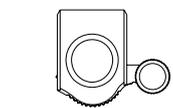
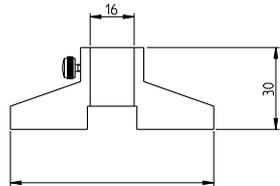
S\_Cal Micron



S\_Cal Micron on stand with lifting device

# S\_Cal + S\_Cal Micron

## ACCESSORIES



		S_CAL PRO	S_CAL WORK	S_Cal Micron
<b>910.2205</b>	Base for Depth Measurement	●	●	
<b>810.2201</b>	Thumb wheel device		●	
<b>910.2201</b>	Thumb wheel device	●		
<b>810.2210</b>	Stand			●
<b>810.2215</b>	Lifting device with photo-cable			●
<b>810.2216</b>	Pneumatic lifting device			●
<b>810.2217</b>	Pneumatic lifting device with footpedal			●
<b>810.2218</b>	Foot-pedal only			●

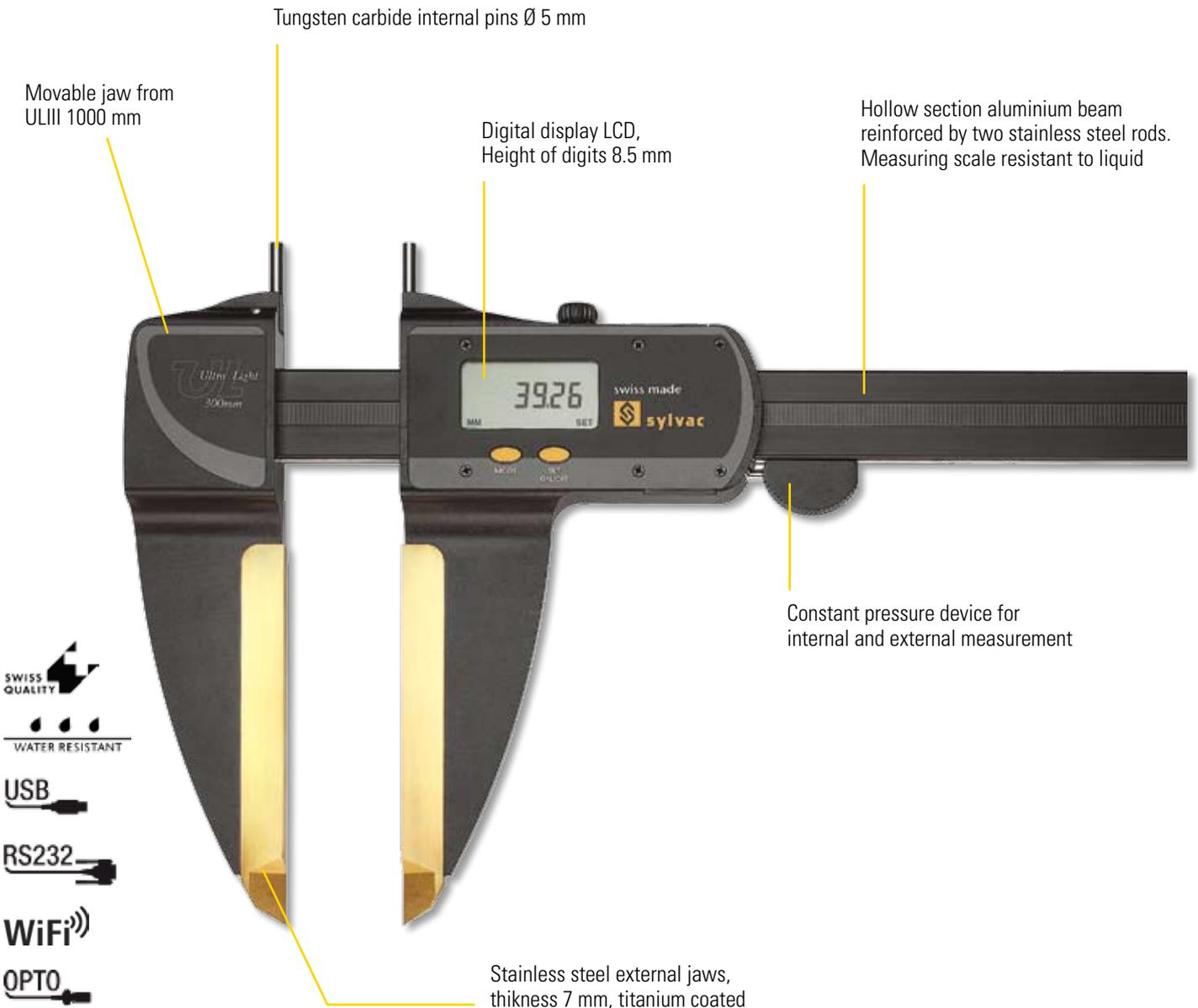
See also cable chapter

# Ultra light caliper

# S\_Cal UL

## DESCRIPTION

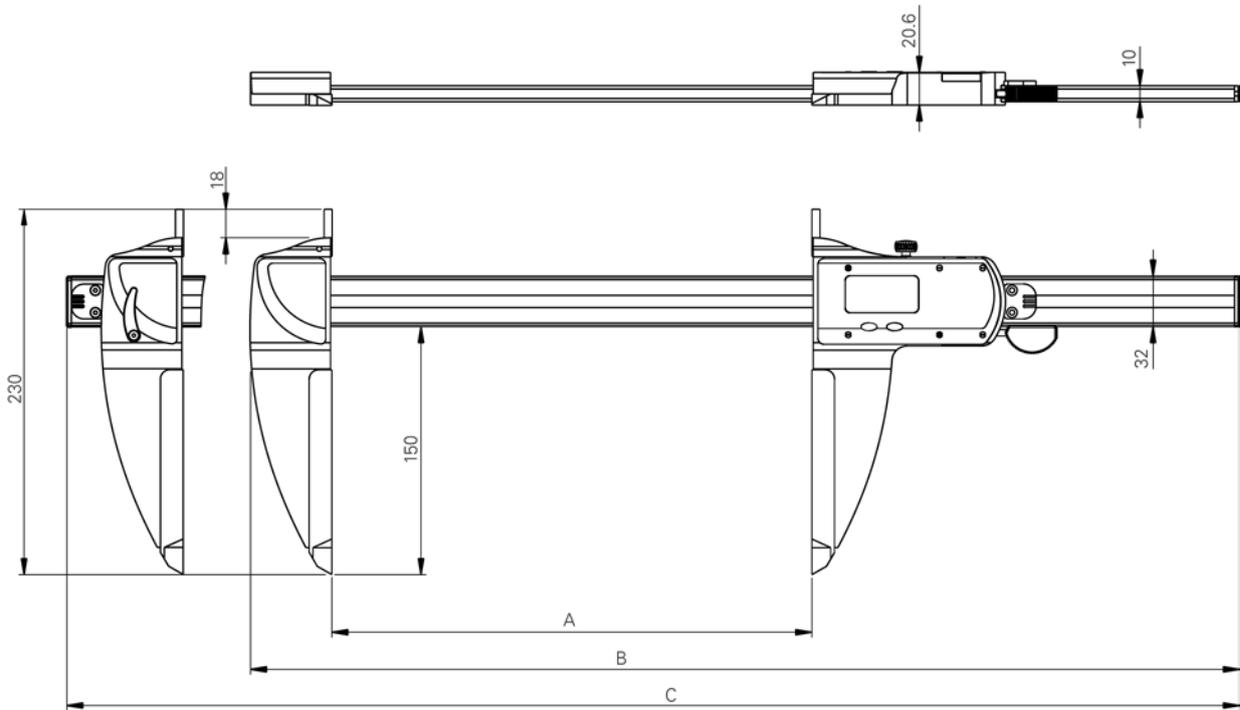
- Self-contained use : 3'300 hours continuously
- Maximum velocity of displacement : 1.55 m/s
- Internal and external measurement
- This system assures a perfect guidance and protects the beam against shocks
- Display the upper and lower tolerances
- Extremely light instrument



# Ultra light caliper

# S\_Cal UL

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		911.1403	911.1406	911.1410	911.1415	911.1420	911.1425	911.1430
Measuring range	mm	300	600	1000	1500	2000	2500	3000
Max.Error	µm	30	40	60	120	150	200	250
Repeatability	µm	20	20	20	20	30	30	30
A	mm	330	630	1025	1525	2040	2545	3050
B fix	mm	618	918	1)	1)	1)	1)	1)
C mobile	mm	1)	1)	1306	1806	2306	2806	3306
Weight	kg	1.1	1.3	1.6	2	2.3	2.6	3
S_Connect : Opto	USB / RS232 / Digimatic / Wireless <sup>2)</sup>							
Setting by PC	●							
Memory set	●							
2 references	●							
RESET function	●							
Min/Max function	●							
Tolerance limit indicators	●							

<sup>1)</sup> on request

<sup>2)</sup> see cable chapter

# Measuring and scribing instrument Calitrace

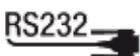
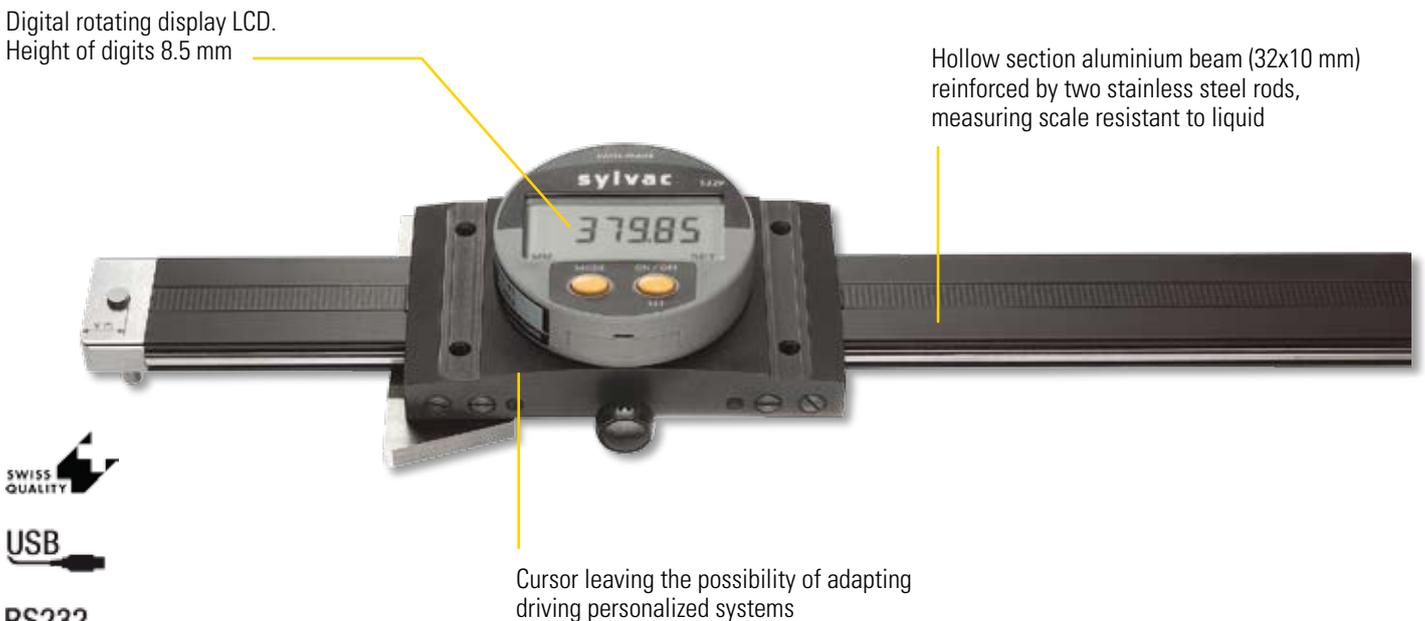
## DESCRIPTION

- SYLVAC measuring system patented
- Internal and external measurement with PRESET function
- Self-contained use : 5'000 hours continuously
- Scriber pin in tungsten carbide

### Calitrace



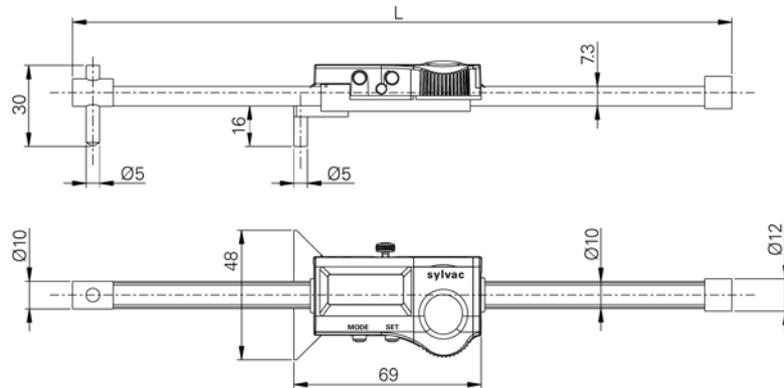
### Calitrace UL



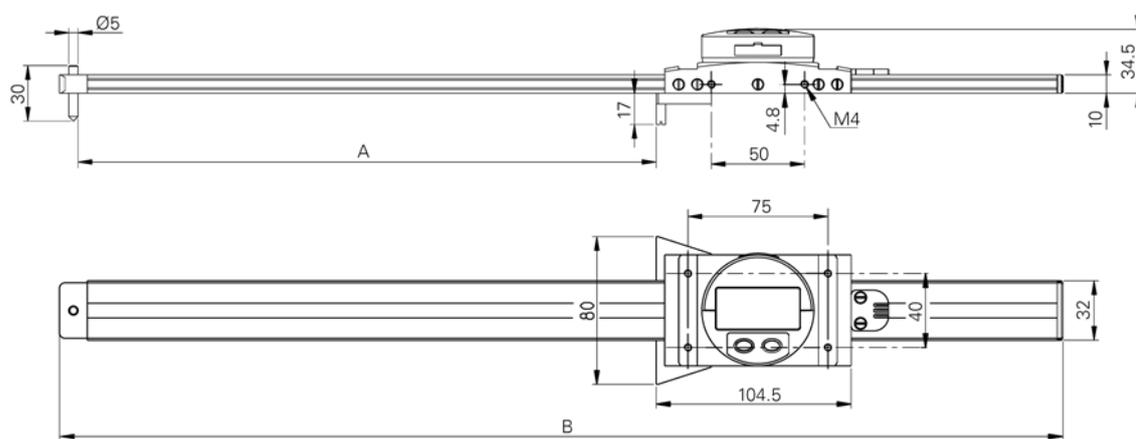
# Measuring and scribing instrument Calitrace

## DIMENSIONAL DRAWINGS

### Calitrace



### Calitrace UL



## TECHNICAL SPECIFICATIONS

		910.1600	910.1601	910.1602	910.1606	910.1610
Measuring range	mm	150	300	600	600 UL	1000 UL
Max. Error	µm	30	40	50	40	60
Repeatability	µm	10	10	10	20	20
L	mm	243	398	703		
A	mm				615	1020
B	mm				838	1243
S_Connect : Opto		USB / RS232 / Digimatic / Wireless <sup>1)</sup>				
2 References				●		
Preset function				●		
Half cylindrical beam Ø 10 mm			●			---
Beam 32 x 10 mm			---			●

<sup>1)</sup> see cables chapter

# S\_Cal UL + Calitrace

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual
- Calibration certificate for ULIII up to 1500

## APPLICATIONS



Special S\_Cal UL with modified measuring jaws.



Special S\_Cal UL with extended measuring jaws.



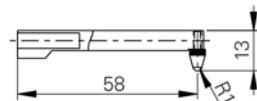
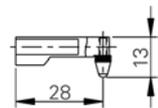
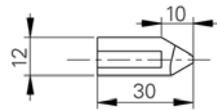
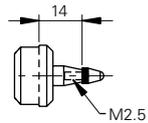
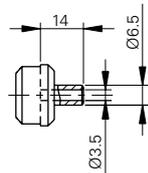
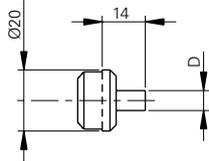
Calitrace



S\_Cal UL, movable left jaw

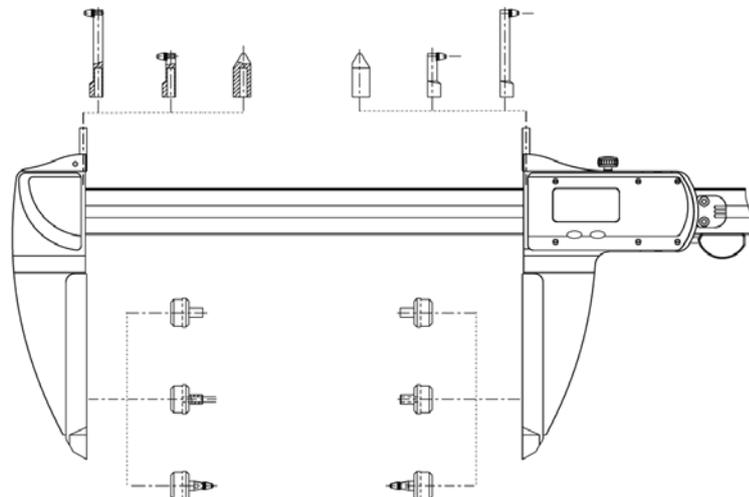
# S\_Cal UL + Calitrace

## ACCESSOIRES



		UL300-3000	Calitrace	Calitrace UL
<b>911.2301</b>	Support Ø 6.35 mm for thread measurement wires in holders, 2x	●		
<b>911.2302</b>	Dito Ø 6.5 mm, 2x	●		
<b>911.2303</b>	Dito Ø 8 mm, 2x	●		
<b>911.2304</b>	Thread anvils holders for thread measurement., 2x	●		
<b>911.2305</b>	Support with int. thread M 2.5 for measuring anvils, 2x	●		
<b>911.2307</b>	Inserts in hardened steel, cone 60° for bore clearance measurement > 10 mm, 2x	●	●	●
<b>911.2308</b>	Holder for dial gauge contact points for internal groove measurement, 2x	●	●	●
<b>911.2309</b>	Dito height 58 mm, 2x	●	●	●

See also cables chapter

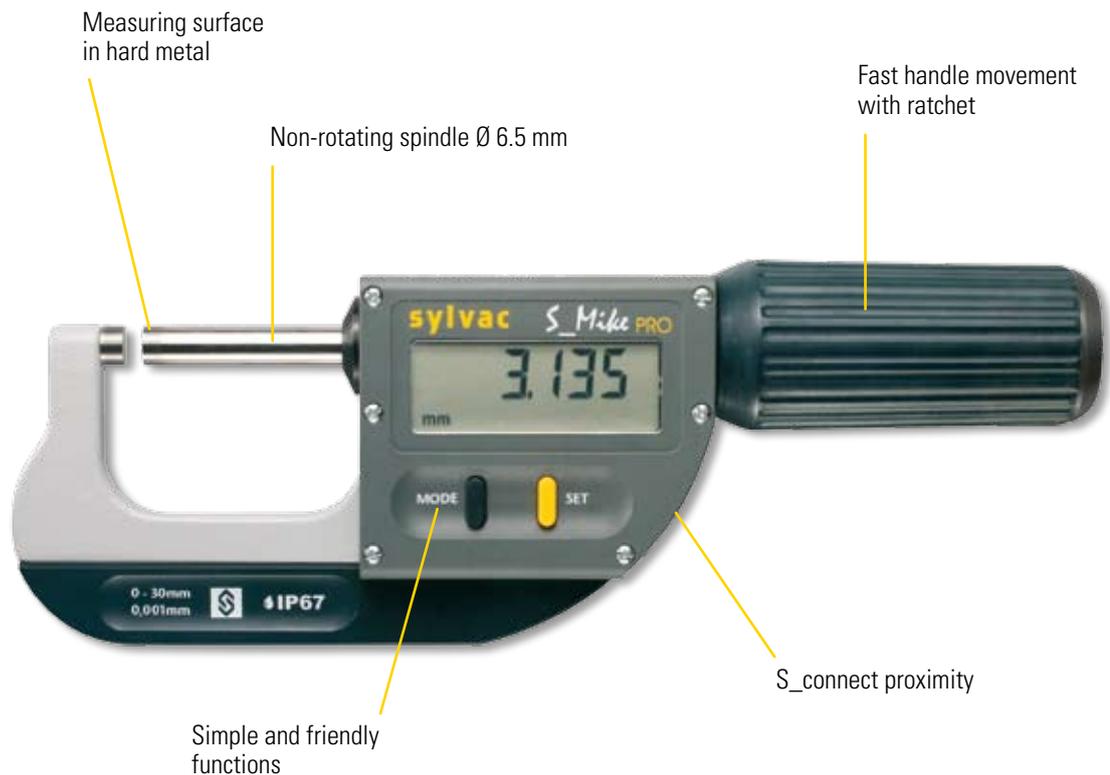


# Professional micrometer

# S\_Mike PRO

## DESCRIPTION

- Automatic wake-up by moving the measuring spindle (system S.I.S)
- Sleeping mode after 20 min. of no use (system S.I.S)
- Position memorized in sleeping mode (system S.I.S)
- Water protected for heavy-duty work with coolants and lubricants, protection rating IP67 according to IEC 60529, with or without connector
- Measuring range 0-102 mm covered with 3 instruments only
- Set of 3 micrometers 0-102 mm available
- Quick displacement of the measuring spindle 12 mm / rotation
- Adjustable measuring force 5N / 10N
- Repeatability and reproducibility unequalled
- Self-contained use: 12'000 hours continuously
- Thimble in Delrin®



SIS Smart Inductive System

SWISS QUALITY

IP67

USB

RS232

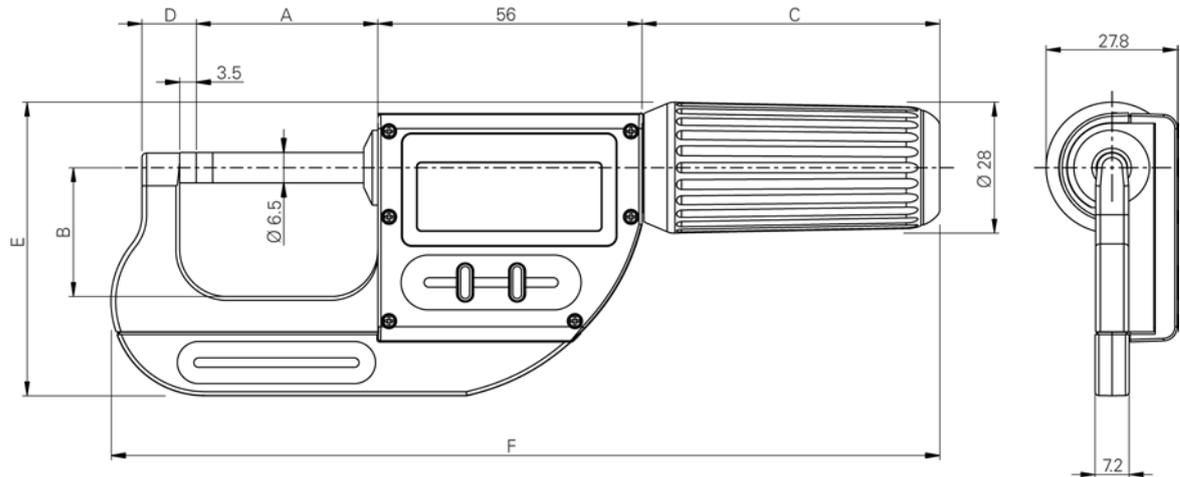
WiFi

PROXIMITY

# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		903.0300	903.0600	903.1000
Measuring range	mm	0-30	30-66	66-102
Max. Error G <sup>1)</sup>	µm	3	4	5
Repeatability <sup>2)</sup>	µm	1	1	1
A	mm	38.5	74.5	110.5
B	mm	27.5	43	60
C	mm	63	75	75
D	mm	11.5	12.5	13.5
E	mm	63	85	106
F	mm	176	231	270
S_Connect : Proximity	USB / RS 232 / Digimatic / Wireless <sup>3)</sup>			
Protection rating according to IEC 60529	IP67 with or without connector			
Setting by PC	●			
Adjustable measuring force	●			
Non-rotating spindle	●			
Fast movement	●			
Preset function	●			
Smart Inductive Sensor	●			

<sup>1)</sup> according to DIN 863

<sup>2)</sup> ± 1 digit

<sup>3)</sup> see cables chapter

Set of 3 micrometers 0-102 mm : 903.1300

# Professional micrometer

# S\_Mike PRO

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Master 50 mm (for 903.0600)
- Master 75 mm (for 903.1000)
- Lithium battery CR2302 included
- Manual
- Calibration certificate

## ACCESSORIES

<b>903.0330</b>	Support
<b>903.0620</b>	Setting master 50 mm
<b>903.1020</b>	Setting master 75 mm

# Depth gauge

## DESCRIPTION

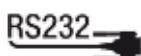
- PRESET function
- Selection of measuring direction
- Self-contained use: 5'000 hours continuously
- Interchangeable base

Digital rotating display LCD,  
Height of digits 8.5 mm



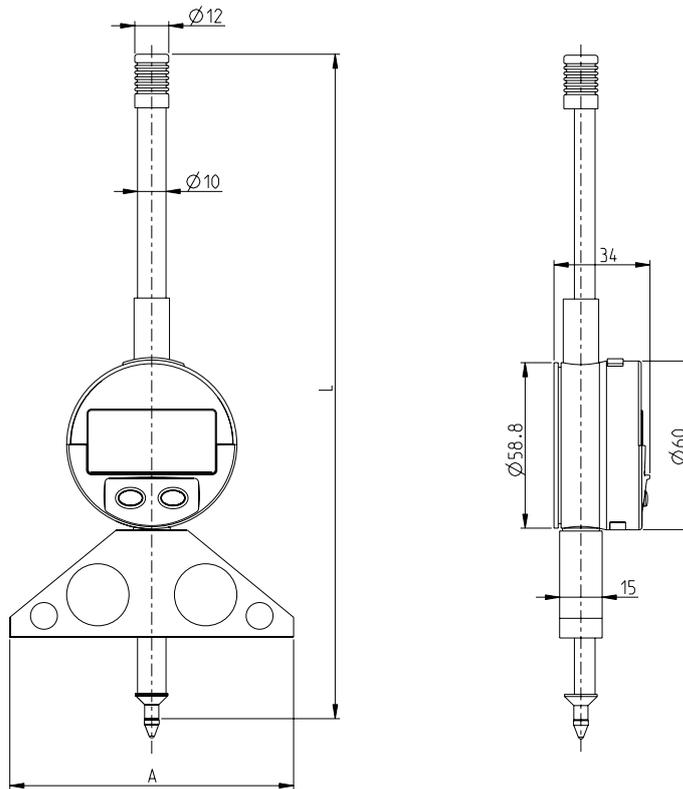
Interchangeable base,  
stainless steel, hardened  
and grinded

Measuring ball probe (M2.5),  
stainless steel, with tungsten  
carbide ball



# Depth gauge

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		905.6005	905.6006
Measuring range	mm	300	500
Max. Error	$\mu\text{m}$	30	40
Repeatability <sup>1)</sup>	$\mu\text{m}$	10	10
A	mm	100	200
L	mm	439	642
S_Connect : Opto	USB / RS232 / Digimatic / Wireless <sup>2)</sup>		
2 References	●		
PRESET function	●		

<sup>1)</sup>  $\pm 1$  digit

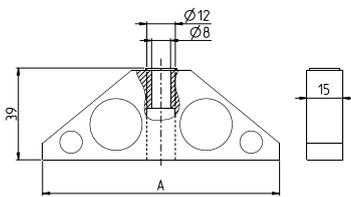
<sup>2)</sup> see cables chapter

# Depth gauge

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual

## ACCESSORIES



		A
<b>905.2001</b>	Base	100 mm
<b>905.2002</b>	Base	150 mm
<b>905.2003</b>	Base	200 mm

Special lengths on request.  
Interchangeable measuring probe M2.5 (see page 50)

## APPLICATIONS



Depth gauge



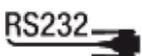
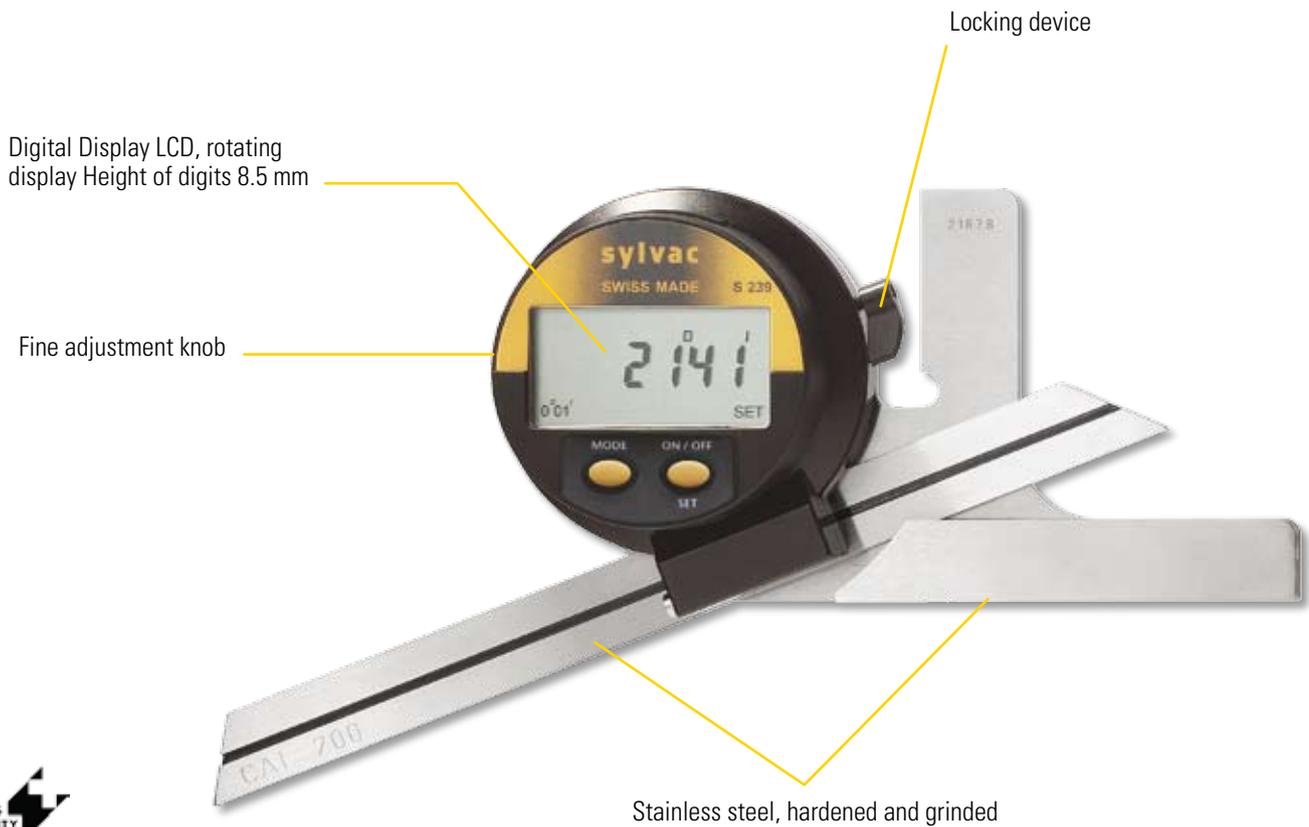
Depth gauge

# Protractor

# S239

## DESCRIPTION

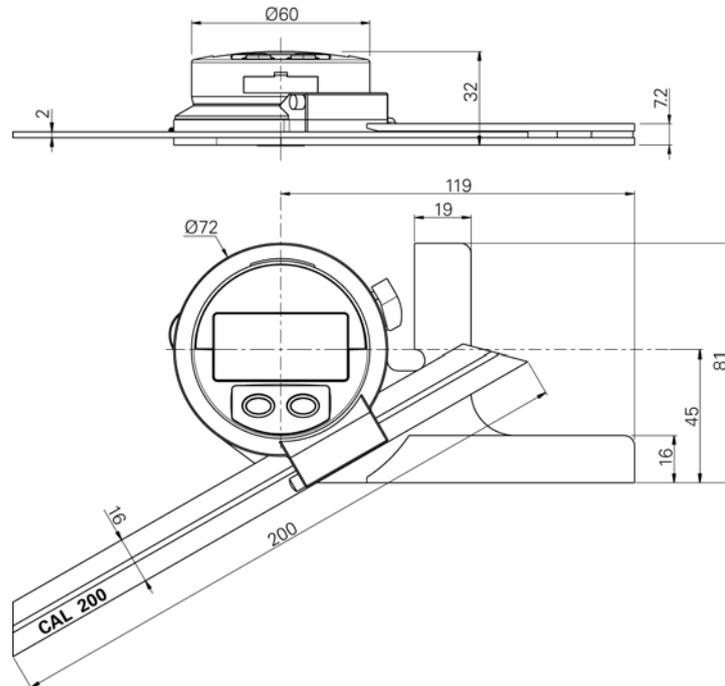
- Measuring range 1x360°, 2x180°, 4x90°
- Mechanical parts in stainless steel
- Self-contained use : 5'000 hours continuously



# Protractor

# S239

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		820.1700
Measuring range	mm	0-360°
Max. Error		4 minutes of arc
Resolution		1 minute of arc / 0.01°
Max. rotation speed		1080° / sec
Protection rating according to IEC 529		IP51
S_Connect : Opto		USB / RS232 / Digimatic / Wireless <sup>1)</sup>
Selection of measuring direction		●

<sup>1)</sup> see cables chapter

## BASIC INSTRUMENT

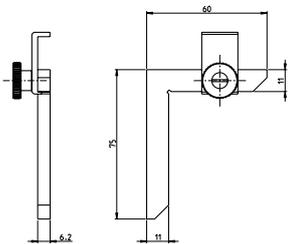
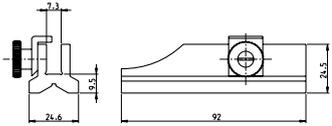
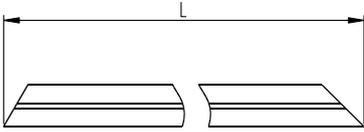
- Instrument according to technical specifications
- Wooden box with 200 mm scale <sup>2)</sup>
- Scale 200 mm (820.2420)
- Lithium battery CR2302 included
- Manual

<sup>2)</sup> Fumigated, compatible ISPM 15 and NIMP 15

# Protractor

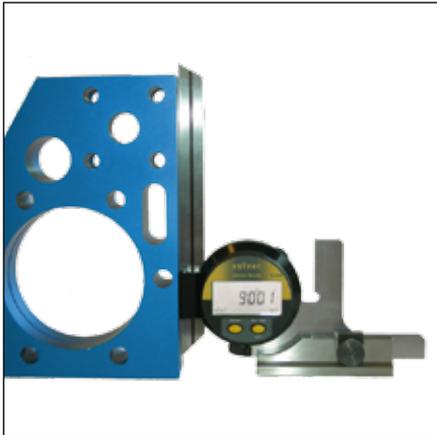
# S239

## ACCESSORIES



<b>820.2420</b>	Scale L 200 mm
<b>820.2430</b>	Scale L 300 mm
<b>820.2450</b>	Scale L 500 mm
<b>820.2460</b>	Stand for vertical application and small angular measurements
<b>820.2461</b>	Square for small angular measurements

## APPLICATIONS



Measurement with accessory type 820.2460



Standard measurement



Measurement with accessory type 820.2461

# DIGITAL DIAL GAUGE

The electronic indicators are equipped with an engraved scale, glued on the measuring spindle and a sensor which replaces the gears. The analogic display is transformed into a digital display.

The program of SYLVAC electronic indicators covers all the range of the mechanical indicators with resolutions of 0.01 to 0.001 mm and measuring range until 150 mm in a accuracy largely higher than the mechanical indicators.

**Sylvac inductive measuring system (patented)**

**Power supply : Lithium battery lithium 3V, type CR 2032**

**Operational temperature +5° à +40°C**

**mm/inch conversion**



## SUMMARY OF ALL TYPES



	S233						S234			
	905.4121	905.4125	905.4140	905.4521	905.4525	905.4540	905.4511	905.4515	905.4321	905.4322
<b>RANGE</b>										
0.5 mm										●
0.8 mm									●	
5 mm			●			●	●	●		
12.5 mm	●	●		●	●					
25 mm										
50 mm										
100 mm										
150 mm										
<b>RESOLUTION</b>										
0.01 mm	●	●	●							
0.001 mm				●	●	●	●	●	●	●
<b>MECHANIC</b>										
Diameter 8 mm h6	●	●	●	●	●	●	●	●		
Dove tail	●	●	●	●	●	●	●	●	●	●
M1.4 contact point									●	●
M2.5 contact point	●	●	●	●	●	●	●	●		
Rubber boot		●			●			●		
IP65 (IEC 60529)	●	●	●	●	●	●	●	●	●	●
IP67 (IEC 60529)										
<b>DIAL</b>										
Diameter 44 mm	●	●	●	●	●	●	●	●	●	●
Diameter 60 mm										
Rotating									●	●
Big digits										
Vertical display					●	●				
<b>FUNCTIONS</b>										
mm/inch	●	●	●	●	●	●	●	●	●	●
Preset	●	●	●	●	●	●				
Dynamic preset										
Measuring direction	●	●	●	●	●	●				
Hold	●	●	●	●	●	●				
Min / Max / Delta							●	●	●	●
Tolerances										
Absolute Function (ABS)	●	●	●	●	●	●				
Auto off	●	●	●	●	●	●	●	●	●	●
Analog display							●	●	●	●
Setting by PC										
Powered by connector	●	●	●	●	●	●	●	●	●	●

# Digital indicators

# S\_Dial

## SUMMARY OF ALL TYPES

	S229										S213										
	905.1201	905.1205	905.1301	905.1303	905.1305	905.1401	905.1405	905.1501	905.1505	905.1601	905.1621	905.1641	905.1661	905.1671	905.1681	905.5301	905.5302	905.5303	905.5305	905.5501	905.5505
<b>RANGE</b>																					
0.5 mm																					
0.8 mm																					
5 mm																					
12.5 mm	●	●	●	●	●											●	●	●	●		
25 mm						●	●	●	●											●	●
50 mm										●	●										
100 mm												●	●								
150 mm														●	●						
<b>RESOLUTION</b>																					
0.01 mm	●	●				●	●			●		●		●							
0.001 mm			●	●	●			●	●		●		●		●	●	●	●	●	●	●
<b>MECANIC</b>																					
Diameter 8 mm h6	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Dove tail																					
M1.4 contact point																					
M2.5 contact point	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Rubber boot		●			●		●		●									●			●
IP65 (IEC 60529)																					
IP67 (IEC 60529)																					
<b>DIAL</b>																					
Diameter 44 mm																					
Diameter 60 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Rotating	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Big digits	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Vertical display																					
<b>FUNCTIONS</b>																					
mm/inch	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Preset	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●
Dynamic preset																	●				
Measuring direction	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hold	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Min / Max / Delta																●	●	●	●	●	●
Tolerances																●	●	●	●	●	●
Absolute Function (ABS)																					
Auto off																					
Analog display																					
Setting by PC																●	●	●	●	●	●
Powered by connector																					

# Test indicator

# S\_Dial S234

## DESCRIPTION

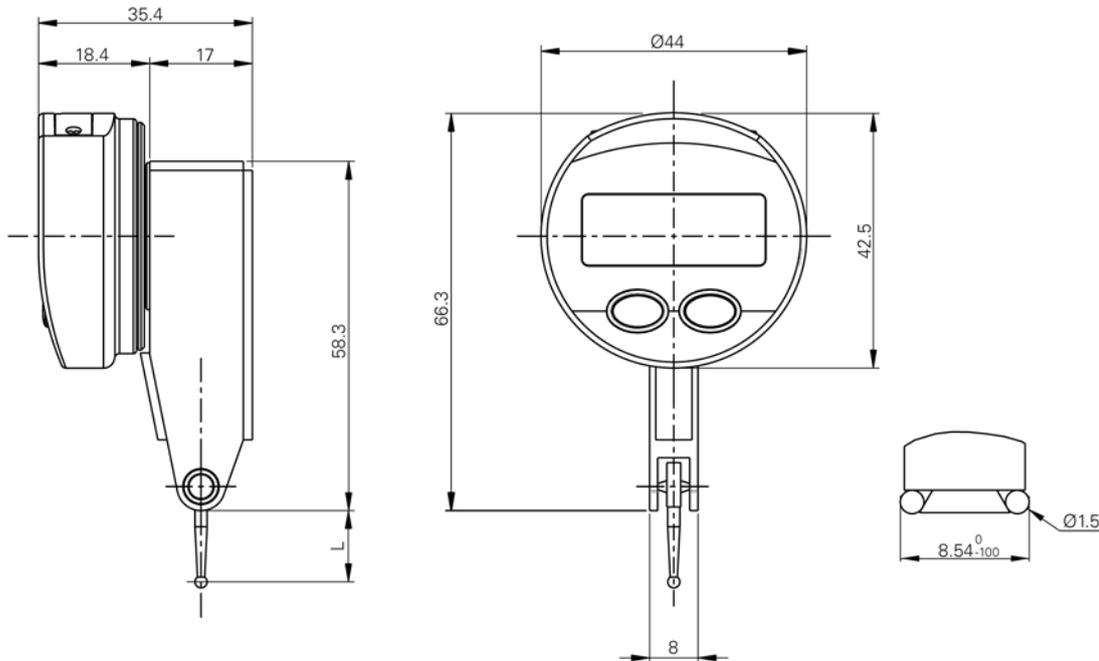
- Digital and analogic display
- Water and coolant resistant
- Data output RS 232 combined with external power
- Self-contained use : 5'000 hours continuously
- Automatic switch OFF
- Delivered with Stem Ø 8 mm and dovetail back
- Rotating display by 360°



# Test indicator

# S\_Dial S234

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		905.4321	905.4322
Measuring range	mm	0.8	0.5
Probe length	mm	12.5	36
Max Error fe	µm	10	10
Hysteresis fu	µm	3	3 <sup>1)</sup>
Resolution	mm	0.001	0.001
Repeatability	µm	1	1
Measuring force	N	0.13 ±15%	0.07 ±15%
Weight		75	75
Protection rating according to IEC 60529		IP65	
S_Connect : Power		USB / RS232 / Digimatic / Wireless <sup>2)</sup>	
Zero setting		●	
min / max / delta display		●	
Analog scale range ratio		●	
Selection of resolution		●	

<sup>1)</sup> ± 1 digit

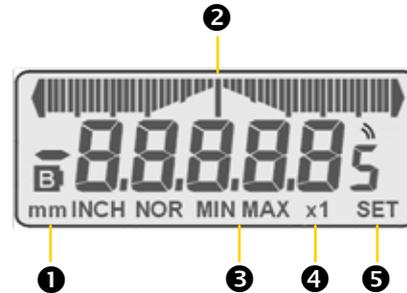
<sup>2)</sup> see cables chapter

# Test indicator

# S\_Dial S234

## DISPLAY

- ① Direct mm/inch conversion
- ② Analog display
- ③ Min/max/delta mode
- ④ Analogic resolution display
- ⑤ Zero setting



## BASIC INSTRUMENT

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual
- Stem Ø 8 mm

## APPLICATIONS



Run-out measurement



Checking the alignment of a vice on milling machine.



# Mini-dial gauge

# S\_Dial S233

## DESCRIPTION

- Compact, small diameter
- Water and coolant resistant, protection rating IP65 according to IEC 60529
- Data output RS 232 combined with external power supply.
- Interchangeable contact point M2.5
- Clamping Stem  $\varnothing$  8-h6 in hardened and ground stainless steel and dovetail back
- Self-contained use: 5'000 hours continuously
- Automatic power shut down

**Standard**

**Analogic**

**Vertical**

Polyamide case,  
fixed display

Digital display LCD,  
Height of digits 6 mm

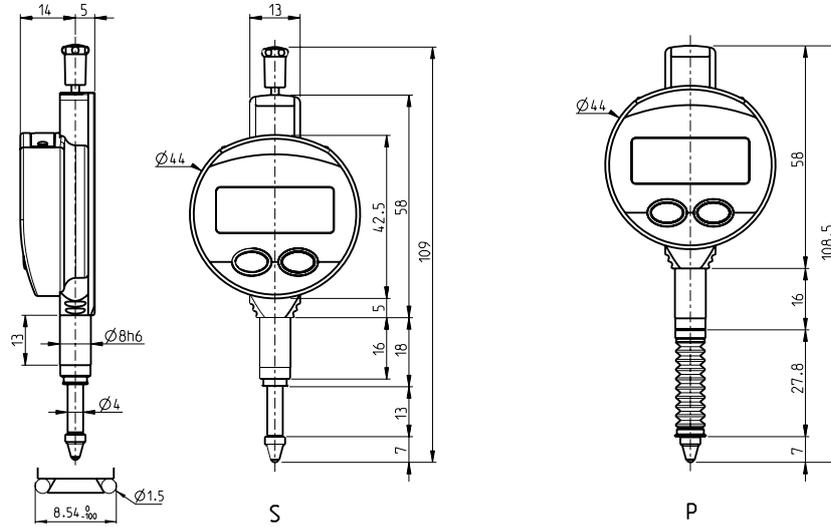


# Mini-dial gauge

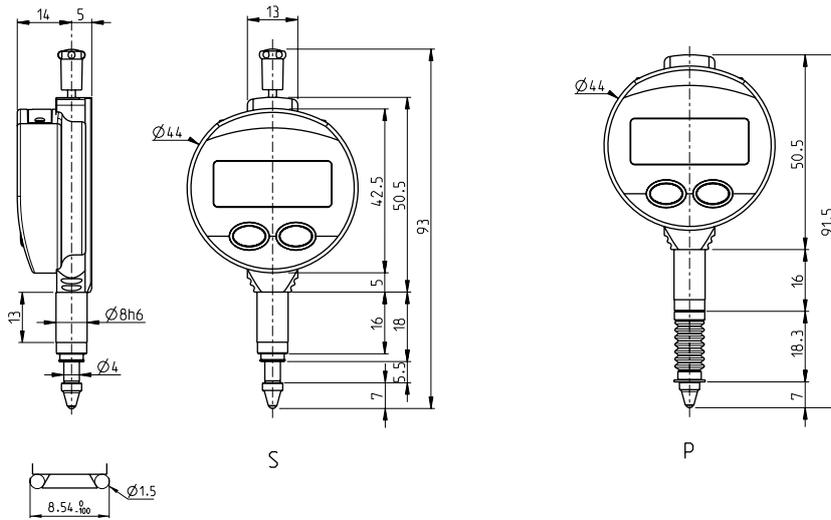
# S\_Dial S233

## DIMENSIONAL DRAWINGS

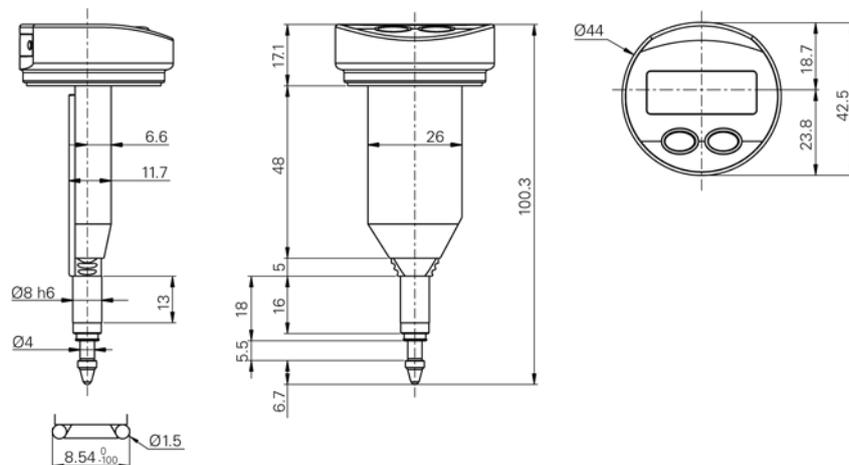
### Standard



### Analogic



### Vertical



S = standard

P = protected

# Mini-dial gauge

# S\_Dial S233

## TECHNICAL SPECIFICATIONS

		905.4140	905.4540	905.4511	905.4515
Measuring range	mm	5	5	5	5
Display 90°		●	●	---	---
Analogic scale		---	---	●	●
Resolution	mm	0.01	0.001	0.001	0.001
Execution <sup>3)</sup>		S	S	S	P
Max. Error fe	μm	10 <sup>1)</sup>	5	4	4
Repeatability	μm	2	2	2	2
Measuring force	N	0.50 - 0.65 <sup>2)</sup>	0.50 - 0.65 <sup>2)</sup>	0.50 - 0.65 <sup>2)</sup>	0.60 - 1.20 <sup>2)</sup>
Zero setting		●	●	●	●
REL and ABS measurement		●	●	---	---
Resolution selection		---	●	●	●
PRESET = (max. 130 mm)		●	●	---	---
Min / max / delta display		---	---	●	●
Selection of measuring direction		●	●	---	---
S_Connect : Power		USB / RS232 / Digimatic / Wireless <sup>4)</sup>			

		905.4121	905.4125	905.4521	905.4525
Measuring range	mm	12.5	12.5	12.5	12.5
Résolution	mm	0.01	0.01	0.001	0.001
Execution <sup>3)</sup>		S	P	S	P
Max. Error fe	μm	10 <sup>1)</sup>	10 <sup>1)</sup>	5	5
Repeatability	μm	2	2	2	2
Resolution selection		---	---	●	●
S_Connect : Power		USB / RS232 / Digimatic / Wireless <sup>4)</sup>			
Zero setting				●	
REL and ABS measurement				●	
PRESET = (max. 130 mm)				●	
Selection of measuring direction				●	

<sup>1)</sup> ± 1 digit

<sup>2)</sup> Values ± 20%, indicator in vertical position, outgoing measuring spindle

<sup>3)</sup> S = Standard P = Protected

<sup>4)</sup> see cables chapter

# Mini-dial gauge

# S\_Dial S233

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual
- Calibration certificate for instruments with resolution of 0.001 mm

## MEASURING FORCE FOR RANGE 12.5 mm

	S	P
Standard	0.5 - 0.90 N	0.6 - 1.3 N
Low <sup>1)</sup>	0.35 - 0.50 N	---
High <sup>1)</sup>	1.80 - 2.3 N	---

The values get along to  $\pm 20\%$ , indicator in vertical position, spindle in outgoing measurement position.

<sup>1)</sup> on request

## APPLICATIONS



Checking of an internal  $\varnothing$  with a mechanical head



Measure of the vertical displacement of an element



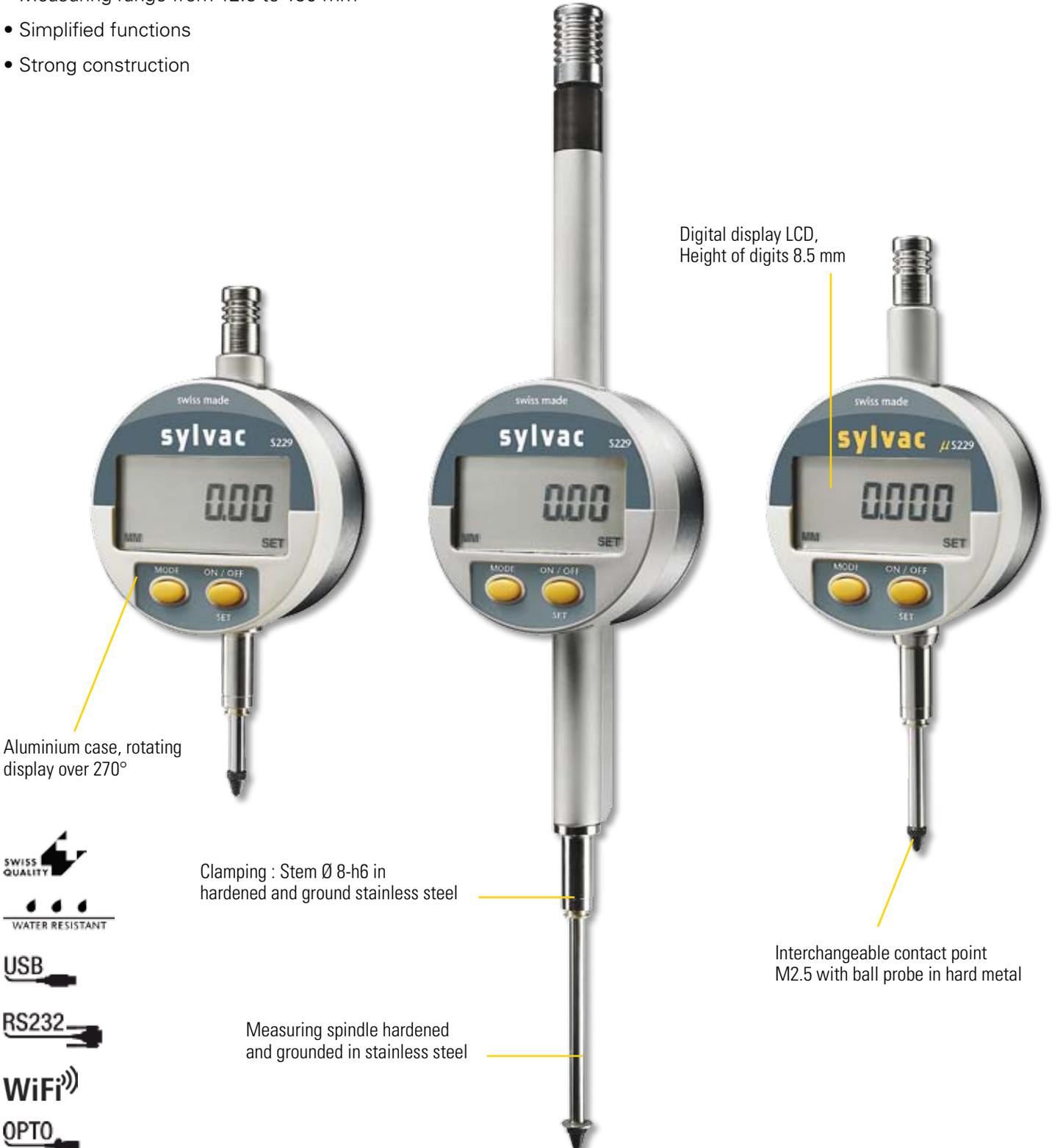
Alignment of a machine element

# Dial gauge

# S\_Dial S229

## DESCRIPTION

- Data output Opto-RS232 or Opto-USB
- Self-contained use : 4400 hours continuously
- Measuring range from 12.5 to 150 mm
- Simplified functions
- Strong construction



# Dial gauge

# S\_Dial S213

## DESCRIPTION

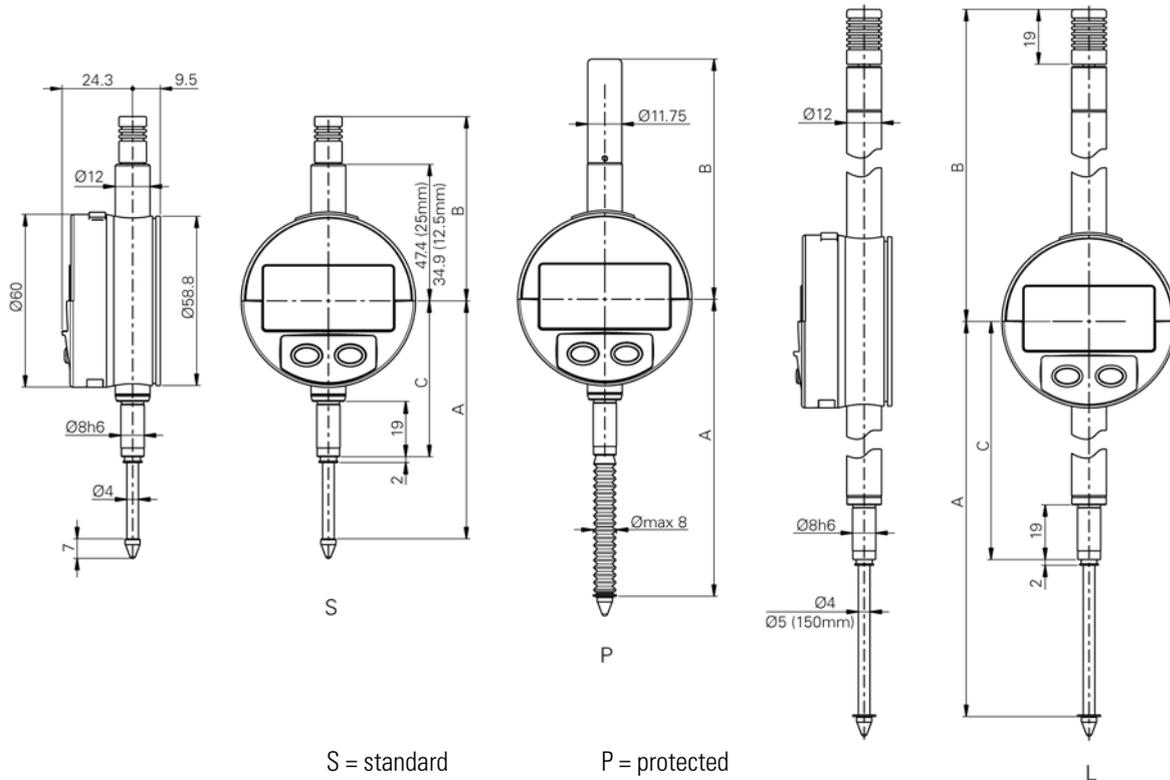
- Construction identical to the S229 version
- Data output Opto-RS232 or Opto-USB
- Self-contained use : 3300 hours continuously
- Min / max / delta values
- Selection and display of tolerances
- Programmable by PC
- Dynamic PRESET on type int /Ext (recall of the preset on value min/max memorized)



# Dial gauges

# S\_Dial S229 + S213

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

	S229	S213	Int / Ext
Zero setting	●	●	
Memory Set HOLD	●	●	●
2 references	●	●	●
PRESET	●	●	on min/max
Selection of measuring direction	●	●	●
Min / max / delta values	---	●	●
Selection and display of tolerances.	---	●	---
PRESET recall on min, max memorized value	---	---	●
Programmable by PC	---	●	●
S_Connect : Opto	RS232 / USB / Digimatic / Wireless <sup>1)</sup>		

<sup>1)</sup> see cables chapter

# Dial gauges

# S\_Dial S229 + S213

## TECHNICAL SPECIFICATIONS

	905.1201	905.1205	905.1301	905.1303	905.1305	905.5301	905.5303	905.5305
Measur. range mm	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Version	S229	S229	S229	S229	S229	S213	S213	S213
Execution <sup>2)</sup>	S	P	S	S	P	S	S	P
Resolution mm	0.01	0.01	0.001	0.001	0.001	0.001	0.001	0.001
Max. Error fe $\mu\text{m}$	10 <sup>1)</sup>	10 <sup>1)</sup>	5	3	5	5	3	5
Repeatability $\mu\text{m}$	2	2	2	2	2	2	2	2
A mm	66	78.5	66	66	78.5	66	66	78.5
B mm	54	60	54	54	60	54	54	60
C mm	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5

	905.1401	905.1405	905.1501	905.1505	905.5501	905.5505	905.5302
Measur. range mm	25	25	25	25	25	25	12.5
Version	S229	S229	S229	S229	S213	S213	Int / Ext
Execution <sup>2)</sup>	S	P	S	P	S	P	S
Resolution mm	10 <sup>1)</sup>	10 <sup>1)</sup>	5	5	5	5	5
Max. Error fe $\mu\text{m}$	0.01	0.01	0.001	0.001	0.001	0.001	0.001
Repeatability $\mu\text{m}$	2	2	2	2	2	2	2
A mm	82.5	102.5	82.5	102.5	82.5	102.5	66
B mm	64	83.5	64	83.5	64	83.5	54
C mm	53.9	53.9	53.9	53.9	53.9	53.9	50.5

	905.1601	905.1621	905.1641	905.1661	905.1671	905.1681
Measur. range mm	50	50	100	100	150	150
Version	S229	S229	S229	S229	S229	S229
Execution <sup>2)</sup>	S	S	S	S	S	S
Resolution mm	20 <sup>1)</sup>	7	20 <sup>1)</sup>	8	20 <sup>1)</sup>	9
Max. Error fe $\mu\text{m}$	0.01	0.001	0.01	0.001	0.01	0.001
Repeatability $\mu\text{m}$	2	2	2	2	2	2
A mm	142.5	142.5	244.5	244.5	351.5	351.5
B mm	121	121	172	172	223	223
C mm	88	88	139	139	194	194

<sup>1)</sup>  $\pm 1$  digit

<sup>2)</sup> S = Standard P = Protected

# Dial gauges

# S\_Dial S229 + S213

## MEASURING FORCE

		S 12.5	P 12.5	S 25	P 25	S 50	S 100	S 150
Standard	N	0.65 - 0.90	0.65 - 1.40	0.65 - 1.15	1.00 - 2.25	1.25 - 2.7	1.6 - 3.5	2.2 - 5.7
Low <sup>1)</sup>	N	0.4 - 0.55	---	0.45 - 0.9	---	---	---	---
High <sup>1)</sup>	N	1 - 1.6	---	0.9 - 1.80	---	---	---	---

The values get along to  $\pm 20\%$ , spindle in outgoing measurement position.

<sup>1)</sup> on request

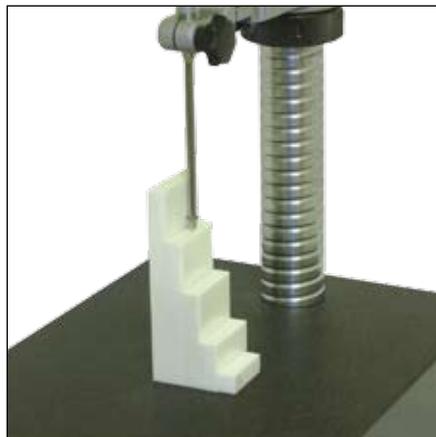
## BASIC INSTRUMENT

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual
- Calibration certificate for instruments with a resolution of 0.001 mm

## APPLICATIONS



Measure of a groove with a S213 and measuring ball probe 905.2207



Indicator S229, range 150 mm on stand



Use of S213 with a small measuring bench Sylvac PS15

# Dial gauges

# S\_Dial S229 + S213

## LIFTING DEVICES



Lower lifting lever, type 905.4214



Upper lifting lever type, 905.4215



Pneumatic lifting device type 905.2218



Lifting lever type 905.2214



Vacuum lifting device type 905.2220



Lifting device with photo-cable type 905.2216



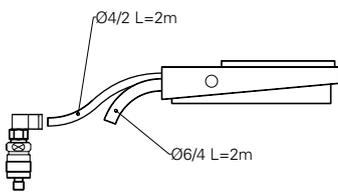
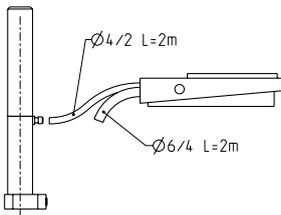
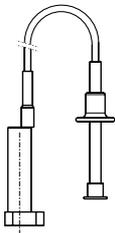
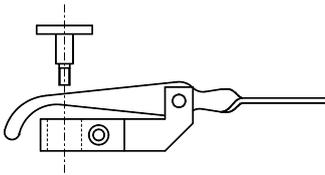
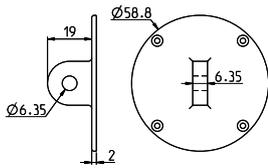
Upper lifting lever type 905.2215



# Dial gauges

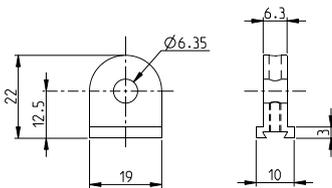
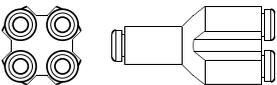
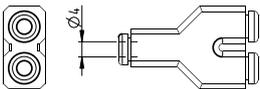
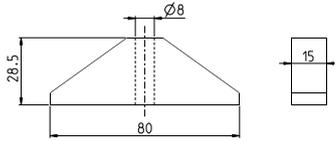
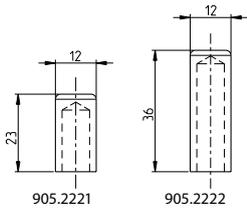
# S\_Dial

## ACCESSORIES



		S233	S234	S229 12,5 - 25 mm	S229 50 - 150 mm	S213 12,5 - 25 mm
<b>905.2211</b>	Centre lug back			●	●	●
<b>905.2214</b>	Lifting device			●	●	●
<b>905.2215</b>	Upper lifting device			●		●
<b>905.2216</b>	Lifting device with photo-cable			●		●
<b>905.2218</b>	Pneumatic lifting device with foot pedal			●		●
<b>905.2217</b>	Lifter only for 905.2218			●		●
<b>905.2219</b>	Pneumatic foot pedal for 905.2218	●		●		●
<b>905.2220</b>	Vacuum lifting device with foot pedal				●	
<b>905.2227</b>	Pressure controller for 905.2220				●	
<b>905.2228</b>	Vacuum foot pedal for 905.2220				●	

## ACCESSORIES

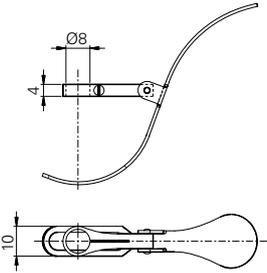
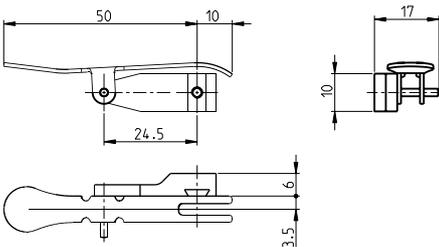
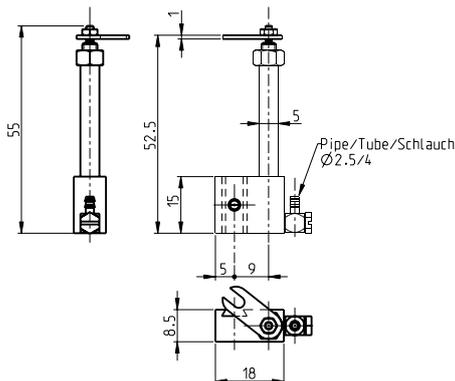
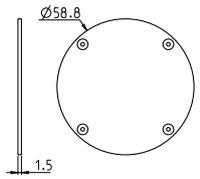


		S233	S234	S229 12,5 - 25 mm	S229 50 - 150 mm	S213 12,5 - 25 mm
<b>905.2221</b>	Dust protection for indicator, range 12.5 mm			●		●
<b>905.2222</b>	Dust protection for indicator, range 25 mm			●		●
<b>905.2223</b>	Depth measuring base See also page 29			●	●	●
<b>905.2230</b>	Protection for front face			●	●	●
<b>905.2261</b>	Snap connector for pneumatic lifter x 2	●		●	●	●
<b>905.2262</b>	Snap connector for pneumatic lifter x 4	●		●	●	●
<b>905.4211</b>	Centre lug back	●	●			
<b>926.5516</b>	External power supply			●	●	●

# Dial gauges

# S\_Dial

## ACCESSORIES

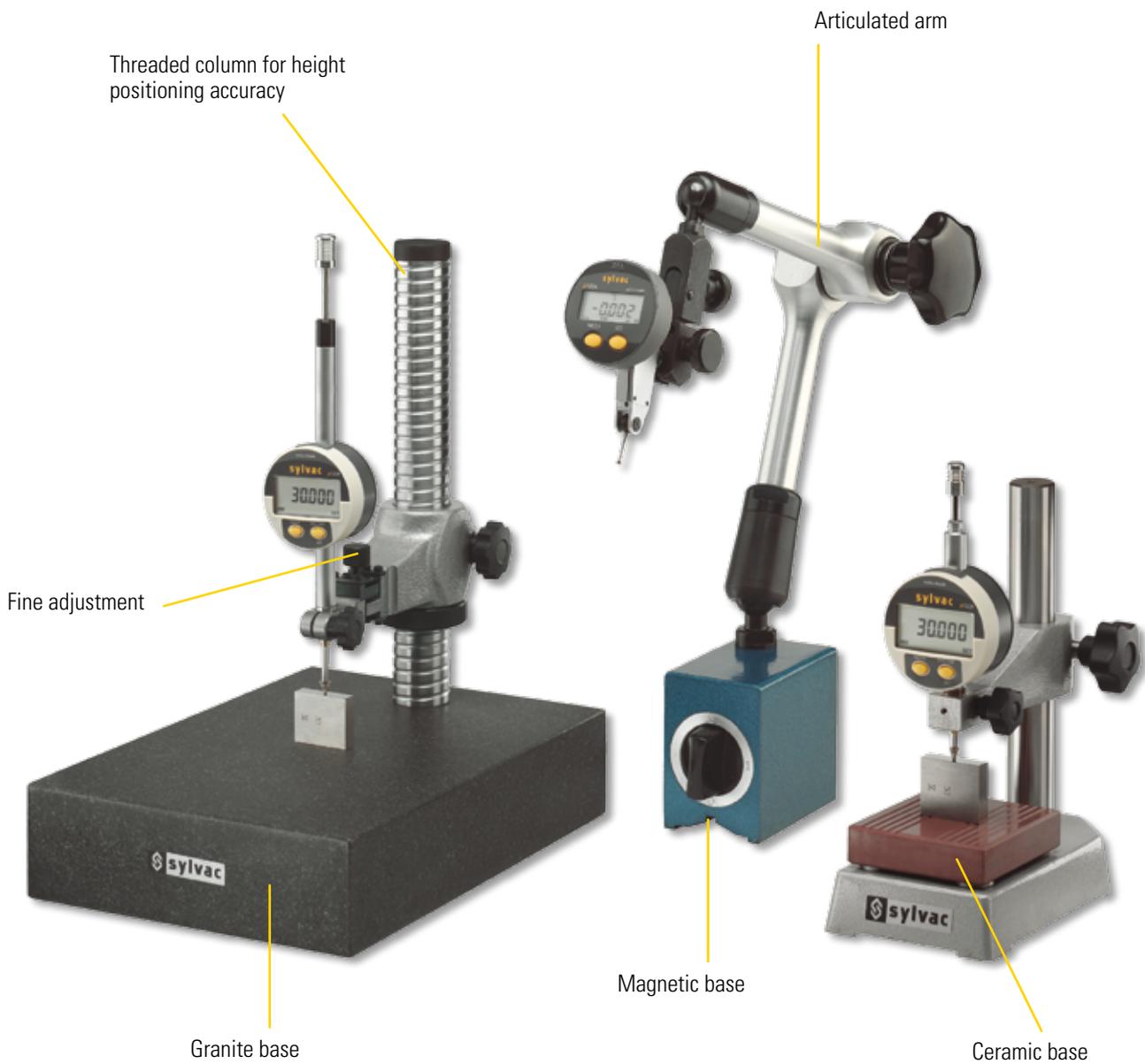
		S233	S234	S229 12,5 - 25 mm	S229 50 - 150 mm	S213 12,5 - 25 mm
	<b>905.4214</b>					
	Lower lifting device, range 12.5 mm	●		1)	1)	1)
	<b>905.4215</b>					
	Upper lifting device for S (Standard) execution, except vertical type	●				
	<b>905.4217</b>					
	Pneumatic lifting device for standard type	●				
	<b>905.2210</b>					
	Flat back			●	●	●

<sup>1)</sup> used on range 20 mm max

# Measuring stands

## DESCRIPTION

- A selection of universal measuring stands for fixing all probes, test indicators and dial gauges
- Clamping on  $\varnothing 8$  mm or dovetail on magnetic stand



# Measuring stands

## TECHNICAL SPECIFICATIONS



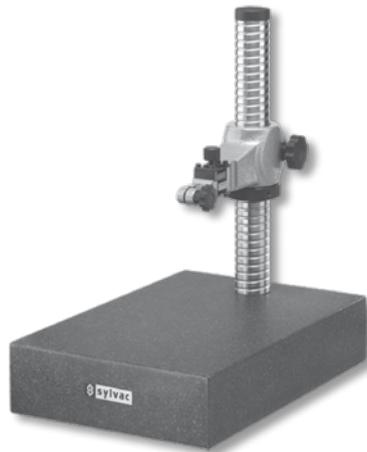
908.1201



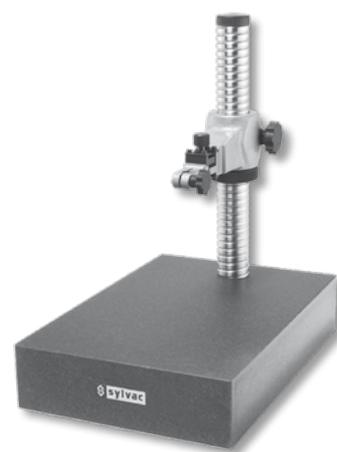
908.1206



908.1209



908.1203



908.1204

	908.1201	908.1206	908.1209	908.1203	908.1204
Base	magnetic <sup>1)</sup>	granite grade 00	cast iron, ceramic table	granite grade 00	granite grade 00
Base dimensions	70x46x65 mm	100x150x40 mm	85x85x25 mm	240x140x50mm	300x210x60
Central locking	1 handle	---	---	---	---
Column	---	Steel Ø 20 mm	Chr.st. Ø 25 mm	Hard Chr. Ø 35 mm	Hard Chr. Ø 35 mm
Clamping dimension	Ø 8 mm	Ø 8 mm	Ø 8 mm	Ø 8 mm	Ø 8 mm
Dist. Column.-meas. point.	---	60 mm	78 mm	67 mm	100 mm
Measuring range	---	0 - 170 mm	0 - 115 mm	0 - 150 mm	0 - 210 mm
Total height	430 mm	240 mm	215 mm	280 mm	360 mm
Weight	2.2 kg	2.6 kg	4.3 kg	8 kg	16 kg
Fine adjustment	---	---	---	●	●

<sup>1)</sup> Gripping coefficient : 600N



# INTERNAL MEASURING INSTRUMENTS

SYLVAC offers a large range of measuring internal instruments made up of interchangeable mechanical heads of 2 or 3 points, electronic units with digital display, integrated in the micrometer bodies or pistol grip guaranteeing a sure and fast measurement.

The measuring range goes from 2 to 300 mm in the XTreme type and from 1 to 310 mm in the Ultima type. Special executions are manufactured on request.

**Sylvac inductive measuring system (patented)**

**Power supply : Lithium battery 3V, type CR 2032**

**Operational temperature +5° à +40°C**

**Repeatability : 2 µm**



# Bore gauges

# Xtreme

## DESCRIPTION

- Great measuring range (2 - 300 mm)
- Blind bore measurement from 2 to 6 mm and from 12.5 mm
- Fixed anvils
- UKAS certificate included with all rings
- UKAS certificate included with each instrument
- Manufactured according to DIN863
- Memorization of 3 ring gauges values
- Water and coolant resistant, protection rating IP65 according to IEC 60529
- Programmable by PC
- Self-contained use : 3'300 hours continuously
- S\_Connect Power : RS232 / USB / Digimatic / Wireless

### X\_Treme XTD



### X\_Treme XTH



# Bore gauges

# Xtreme

## TECHNICAL SPECIFICATIONS INDIVIDUAL INSTRUMENTS XTD

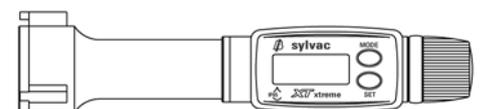
	950.1006	950.1007	950.1008	950.1009	950.1010	950.1011	950.1012	950.1013
Meas. range mm	2-2.5	2.5-3	3-4	4-5	5-6	6-8	8-10	10-12.5
Type	XTD1	XTD2	XTD3	XTD4	XTD5	XTD6	XTD8	XTD10
Depth	9	9	12	18	18	58	58	58
Max. Error $\mu\text{m}$	4	4	4	4	4	4	4	4
$\emptyset$ Incl. ring mm	2.5	2.5	4.0	4.0	5.0	8.0	8.0	12.5

	950.1014	950.1015	950.1016	950.1017	950.1018	950.1019	950.1020	950.1021
Meas. range mm	12.5-16	16-20	20-25	25-35	35-50	50-65	65-80	80-100
Type	XTD12.5	XTD16	XTD20	XTD25	XTD35	XTD50	XTD65	XTD80
Depth	62	62	66	66	80	80	80	100
Max. Error $\mu\text{m}$	4	4	4	4	4	5	5	5
$\emptyset$ Incl. ring mm	12.5	20.0	20.0	35.0	35.0	65.0	65.0	80.0

	950.1022	950.1023	950.1024	950.1025	950.1026	950.1027	950.1028	950.1029
Meas. range mm	100-125	125-150	150-175	175-200	200-225	225-250	250-275	275-300
Type	XTD100	XTD125	XTD150	XTD175	XTD200	XTD225	XTD250	XTD275
Depth	115	115	115	115	118	118	118	118
Max. Error $\mu\text{m}$	6	6	7	7	8	8	9	9
$\emptyset$ Incl. ring mm	125.0	125.0	175.0	175.0	225.0	225.0	275.0	275.0

## TECHNICAL SPECIFICATIONS INSTRUMENTS SETS SXTD

	951.1102	951.1103	951.1104	951.1105	951.1106	951.1107	951.1108	951.1109
Meas. range mm	2-6	6-10	10-20	20-50	50-100	100-150	150-200	100-200
Type	SXTD1	SXTD3	SXTD4	SXTD5	SXTD6	SXTD7	SXTD8	SXTD9
Number of heads	5	2	3	3	3	2	2	4
Numb. of rings $\mu\text{m}$	3	1	2	2	2	1	1	2
Meas. Force mm	8N	7N	15N	21N	28N	32N	32N	32N



# Bore gauges

# Xtreme

## TECHNICAL SPECIFICATIONS INDIVIDUAL INSTRUMENTS XTH

	954.1006	954.1007	954.1008	954.1009	954.1010	954.1011	954.1012	954.1013
Meas. range mm	2-2.5	2.5-3	3-4	4-5	5-6	6-8	8-10	10-12.5
Type	XTH1	XTH2	XTH3	XTH4	XTH5	XTH6	XTH8	XTH10
Depth	9	9	12	18	18	58	58	58
Max. Error $\mu\text{m}$	4	4	4	4	4	4	4	4
$\emptyset$ Incl. ring mm	2.5	2.5	4.0	4.0	5.0	8.0	8.0	12.5

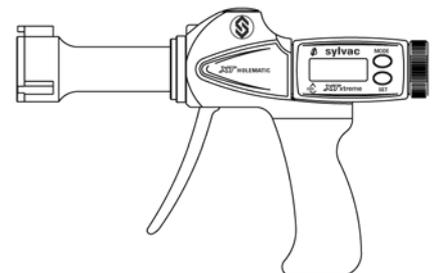
	954.1014	954.1015	954.1016	954.1017	954.1018	954.1019	954.1020	954.1021
Meas. range mm	12.5-16	16-20	20-25	25-35	35-50	50-65	65-80	80-100
Type	XTH12.5	XTH16	XTH20	XTH25	XTH35	XTH50	XTH65	XTH80
Depth	62	62	66	66	80	80	80	85
Max. Error $\mu\text{m}$	4	4	4	4	4	5	5	5
$\emptyset$ Incl. ring mm	12.5	20.0	20.0	35.0	35.0	65.0	65.0	80.0

	954.1022	954.1023	954.1024	954.1025	954.1026	954.1027	954.1028	954.1029
Meas. range mm	100-125	125-150	150-175	175-200	200-225	225-250	250-275	275-300
Type	XTH100	XTH125	XTH150	XTH175	XTH200	XTH225	XTH250	XTH275
Depth	100	100	100	100	100	103	103	103
Max. Error $\mu\text{m}$	6	6	7	7	8	8	9	9
$\emptyset$ Incl. ring mm	125.0	125.0	175.0	175.0	225.0	225.0	275.0	275.0

## TECHNICAL SPECIFICATIONS INSTRUMENTS SETS SXTH

	955.1102	955.1103	955.1104	955.1105	955.1106
Meas. range mm	2-6	6-10	10-20	20-50	50-100
Type	SXTH1	SXTH3	SXTH4	SXTH5	SXTH6
Number of heads	5	2	3	3	3
Number of rings	3	1	2	2	2
Measuring Force	4N	9N	9N	19N	19N

	955.1107	955.1108	955.1114	955.1115	955.1116
Meas. range mm	100-150	150-200	6-20	20-100	100-200
Type	SXTH7	SXTH8	SXTH10	SXTH11	SXTH12
Number of heads	2	2	5	6	4
Number of rings	1	1	3	4	2
Measuring Force	22N	22N	9N	19N	22N



# Bore gauges

# Xtreme

## BASIC INSTRUMENT XTD AND INDIVIDUAL XTH

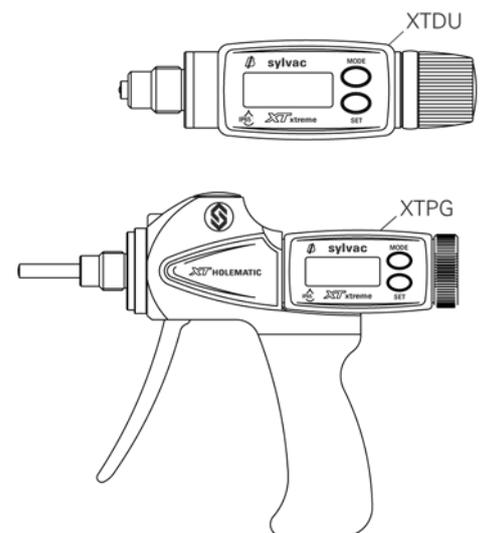
- Instrument according to technical specifications
- Wooden box (XTD : from 150 mm = 2 box; XTH : from 200 mm = 2 box) <sup>1)</sup>
- Rings according to technical specifications + UKAS certificate
- 1 x digital display XTDU or XTPG
- Lithium battery CR2302 included
- Manual
- Calibration certificate

<sup>1)</sup> Fumigated compatible ISPM 15 and NIMP 15

## TECHNICAL SPECIFICATIONS ELECTRONIC UNITS XTDU AND XTPG

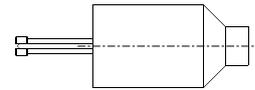
XTDU	951.3001	951.3002	951.3003	951.3004	951.3005	951.3006
Meas. range mm	2-6	6-10	10-20	20-50	50-100	100-300
Type	XTDU2	XTDU6	XTDU10	XTDU20	XTDU50	XTDU100
Thread	1/4"x 40 TPI	M5 x 0.5	5/16"x 40 TPI	5/8"x 24 TPI	5/8"x 24 TPI	5/8"x 24 TPI

XTPG	955.3001	955.3002	955.3003	955.3004
Meas. range mm	2-6	6-20	20-100	100-300
Type	XTPG1	XTPG2	XTPG3	XTPG4
Thread	1/4"x 40 TPI	5/16"x 40 TPI	5/8"x 24 TPI	5/8"x 24 TPI



## TECHNICAL SPECIFICATIONS MEASURING HEADS XTHD

	953.2496	953.2497	953.2498	953.2499	953.2500
Meas. range mm	2-2.5	2.5-3	3-4	4-5	5-6
Type	XTHD1	XTHD2	XTHD3	XTHD4	XTHD5
Execution	2 points / ST				



2 points head

	953.2501	953.2502	953.2503	953.2504	953.2505
Meas. range mm	6-8	8-10	10-12.5	12.5-16	16-20
Type	XTHD6	XTHD8	XTHD10	XTHD12.5	XTHD16
Execution	3 points / ST	3 points / ST	3 points / ST	3 points / TC	3 points / TC

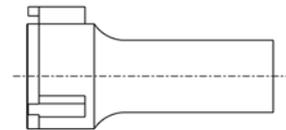
	953.2506	953.2507	953.2508	953.2509	953.2510
Meas. range mm	20-25	25-35	35-50	50-65	65-80
Type	XTHD20	XTHD25	XTHD35	XTHD50	XTHD65
Execution	3 points / TC				

	953.2511	953.2512	953.2513	953.2514	953.2515
Meas. range mm	80-100	100-125	125-150	150-175	175-200
Type	XTHD80	XTHD100	XTHD125	XTHD150	XTHD175
Execution	3 points / TC				

	953.2516	953.2517	953.2518	953.2519
Meas. range mm	200-225	225-250	250-275	275-300
Type	XTHD200	XTHD225	XTHD250	XTHD275
Execution	3 points / TC			

ST = steel  
TC = tungsten carbide

All heads are compatible with the HTX and XTH

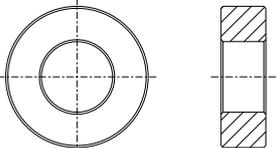


3 points head

# Bore gauges

# Xtreme

## TECHNICAL SPECIFICATIONS SETTING RINGS XTR

	953.2598	953.2599	953.2600	953.2601	953.2602	953.2603	
Meas. range mm	2.5	4	5	8	12.5	20	
Type	XTR2.5	XTR4	XTR5	XTR8	XTR12.5	XTR20	
	953.2604	953.2605	953.2606	953.2607	953.2608	953.2609	953.2610
Meas. range mm	35	65	80	125	175	225	275
Type	XTR35	XTR65	XTR80	XTR125	XTR175	XTR225	XTR275

## TECHNICAL SPECIFICATIONS EXTENSIONS SX

	953.2001	953.2002	953.2003	953.2004	953.2005
Meas. range mm	6-10	10-12.5	12.5-20	20-50	50-300
Type	SX200	SX400	SX500	SX1	SX4
Length mm	63	76	100	150	150



### Other accessories

	953.2010	953.2011
Meas. range mm	2-50	2-6
Description	Stand	Depth stop

## APPLICATIONS



Pistol measuring system



Measuring with ratchet XTD system



Measuring with pistol XTH system

# High accuracy internal measurement **Ultima**

## DESCRIPTION

- Measuring range from 2 to 310 mm
- Resolution up to 0.0001 mm
- Mechanical repeatability : 1µm from 2 to 210 mm and 2 µm from 210 to 310 mm
- Robust construction designed for use by inspection and machine shop
- UKAS certificate supplied with each head
- UKAS certificate supplied with each setting ring.
- Rings manufactured according to DIN 2250 part 2 (standard)
- Blind bore measuring from 14 to 310 mm
- Compatible with all Sylvac digital display D50S, D80S, D100S, D200S
- Special heads on request ( threads, grooves, splines, slot width, etc...)



# High accuracy internal measurement **Ultima**

## TECHNICAL SPECIFICATIONS OF MEASURING HEADS

		960.1006	960.1007	960.1008	960.1009	960.1010	960.1011	960.1012	960.1013
Meas. range	mm	2.0-2.5	2.5-3	3-4	4-5	5-6	6-8	8-10	10-12
Ring Ø	mm	2.5	2.5	4	5	5	8	8	12
Depth	mm	9	9	12	18	18	60	60	61
Max. Error	µm	1	1	1	1	1	1	1	1

		960.1014	960.1015	960.1016	960.1017	960.1018	960.1019	960.1020	960.1021
Meas. range	mm	12-14	14-17	17-20	20-24	24-28	28-32	32-38	38-44
Ring Ø	mm	12	17	17	24	24	32	32	44
Depth	mm	61	61	61	69	69	69	72	72
Max. Error	µm	1	1	1	1	1	1	1	1

		960.1022	960.1023	960.1024	960.1025	960.1026	960.1027	960.1028	960.1029
Meas. range	mm	44-50	50-60	60-70	70-80	80-90	90-100	100-110	110-120
Ring Ø	mm	44	60	60	80	80	100	100	120
Depth	mm	72	80	80	80	80	80	80	80
Max. Error	µm	1	1	1.5	1.5	1.5	1.5	1.5	1.5

		960.1030	960.1031	960.1032	960.1033	960.1034	960.1035	960.1036	960.1037
Meas. range	mm	120-130	130-140	140-150	150-160	160-170	170-180	180-190	190-200
Ring Ø	mm	120	140	140	160	160	180	180	200
Depth	mm	80	80	80	80	80	80	80	80
Max. Error	µm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

		960.1038	960.1039	960.1040	960.1041	960.1042	960.1043	960.1044	960.1045
Meas. range	mm	200-210	210-220	220-230	230-240	240-250	250-260	260-270	270-280
Ring Ø	mm	200	220	220	240	240	260	260	280
Depth	mm	80	80	2.5	80	80	80	80	80
Max. Error	µm	1.5	2	2	2	2	2	2	2

		960.1046	960.1047	960.1048
Meas. range	mm	280-290	290-300	300-310
Ring Ø	mm	280	300	300
Depth	mm	80	80	80
Max. Error	µm	2	2	2

# High accuracy internal measurement **Ultima**

## TECHNICAL SPECIFICATIONS SETS

	961.1102	961.1103	961.1104
Meas. range mm	2-6	6-10	10-20
Number of rings	3	1	2

	961.1107	961.1108	961.1109	961.1110
Meas. range mm	6-20	20-50	50-100	20-100
Number of rings	3	3	3	6

## BASIC INSTRUMENT

### Individual

- Instrument according to technical specifications (handle with integrated probe + head)
- Setting rings according to technical specifications
- Wooden box <sup>1)</sup>
- Manual

### Sets

- Instrument according to technical specifications (handle with integrated probe + head)
- Setting rings according to technical specifications
- Digital display D50S (804.1050)
- Wooden box <sup>1)</sup>
- Manual

<sup>1)</sup> Fumigated compatible ISPM 15 and NIMP 15

## TECHNICAL SPECIFICATIONS HANDLES

	961.3001	961.3002	961.3003	961.3004
Meas. range mm	2-6	6-20	20-100	100-310

Capacitive probe included

## TECHNICAL SPECIFICATIONS EXTENSIONS

	961.2001	961.2002	961.2003	961.2004	961.2005	961.2006	961.2007
Meas. range mm	6-10	10-12	12-20	20-50	50-310	20-50	50-310
Length mm	63	75	100	50	50	150	150

# High accuracy internal measurement **Ultima**

## APPLICATIONS



Data output thru RS232



Two Ultima gauges connected with one unit  
Sylvac D50S only



Adjustable depths stop (on request)



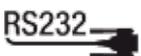
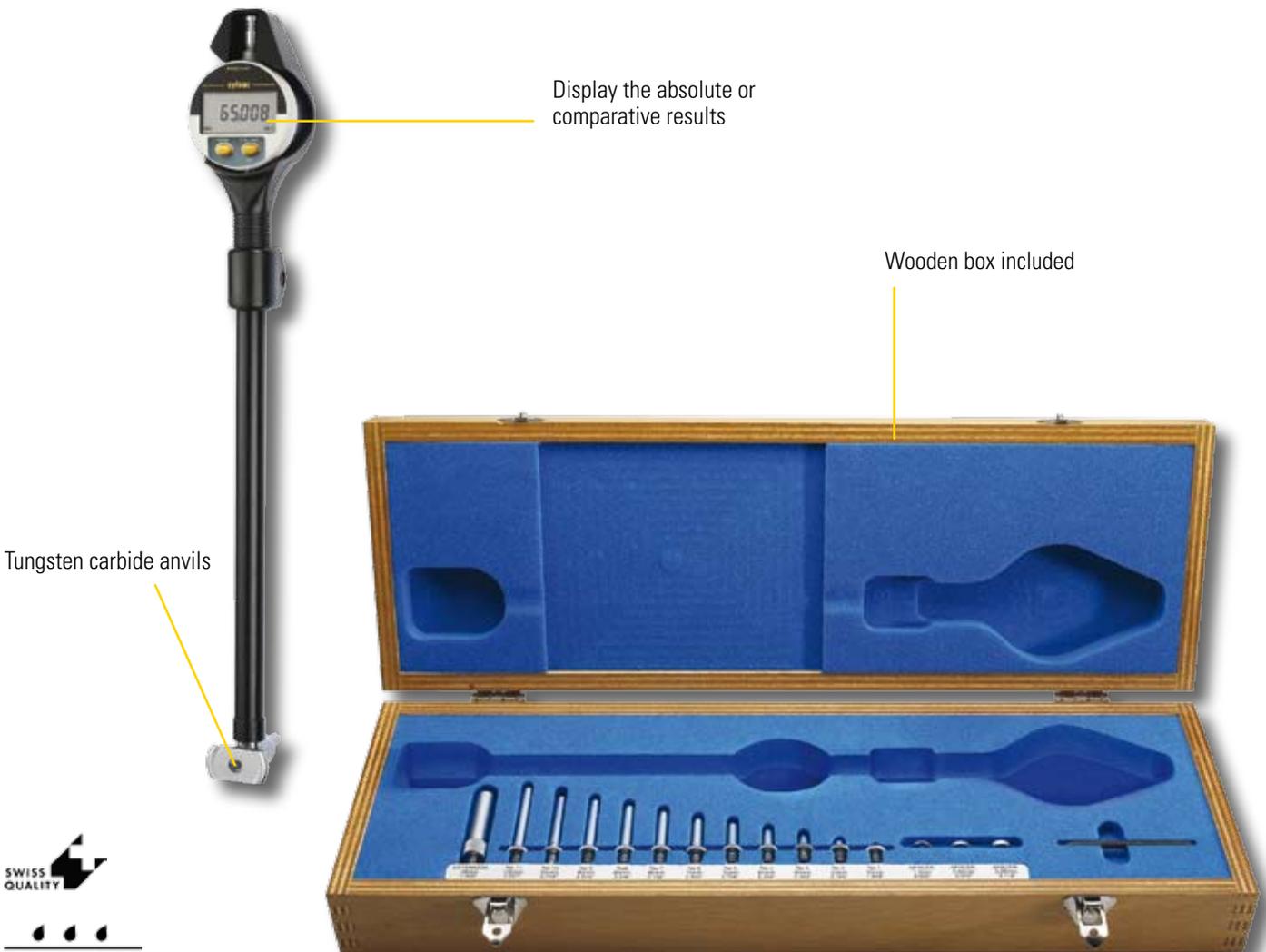
Set including 6 measuring heads, 3 master rings, 1 D50S, the handle and his probe, charging unit

# Digital cylindrical bore gauges

# CBG

## DESCRIPTION

- Measuring range 12.5 - 600 mm
- 3- point centering, 2-point measurement
- Fast simple checking for bore size, ovality, taper...
- Thermally insulated for extra stability
- Light and handy



# Digital cylindrical bore gauges

# CBG

## TECHNICAL SPECIFICATIONS

		956.2001	956.2002	956.2003	956.2004	956.2005
Measuring range	mm	12.5-22	22-50	50-150	150-300	150-600
Rod		7	6	11	---	---
Adjustable rod		---	---	---	6	6
Extension		1	2	1	1	1
Washer		---	---	3	---	---
Standard depth	mm	150	150	250	380	380
Other measuring depths on request	mm	75,300	75,300,450, 600,760,910	75,450,600 760,910	600,760,910	600,760,910
Repeatability	µm	2				
S_Connect : Opto		USB / RS232 / Digimatic / Wireless				
Programmable by PC		●				
Min / max / delta values		●				
PRESET recall on memorized min/max values <sup>1)</sup>		●				

<sup>1)</sup> Master value

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Anvils or adjustable anvils according to technical specifications
- Extensions and washers according to technical specifications
- Lithium battery CR2302 included
- Wooden box <sup>2)</sup>

<sup>2)</sup> Fumigated compatible ISPM 15 and NIMP 15

# Bore gauges

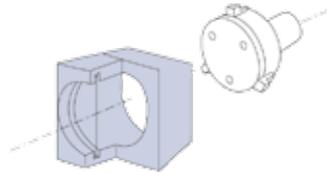
# other applications

## DESCRIPTION

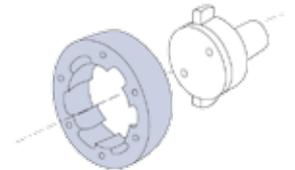
In spite of the fact that our range of interior measuring instruments is more complete, all the applications cannot be covered by the standard series. The illustrations below express the possibilities of special applications which we can carry out.

For instance, below some pictures of special applications :

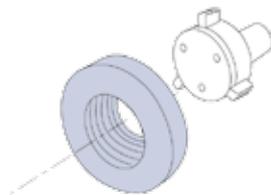
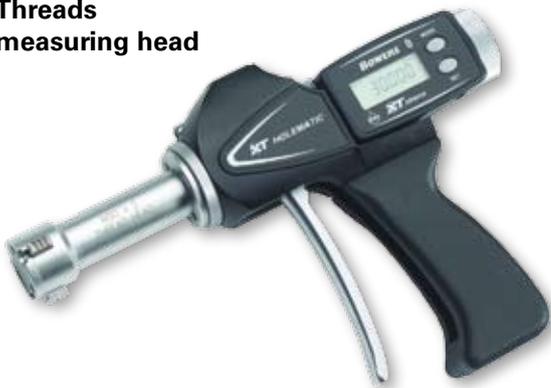
**Grooves measurement**



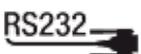
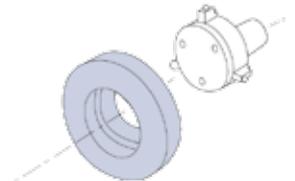
**2-points head with spherical anvils**



**Threads measuring head**



**Threads measurement with ball anvils**



# DIGITAL SCALES

The SYLVAC Program contains horizontal and vertical digital scales. The measuring range is between 100 and 4000 mm, special measuring range on request. The display units all are equipped with a data output.

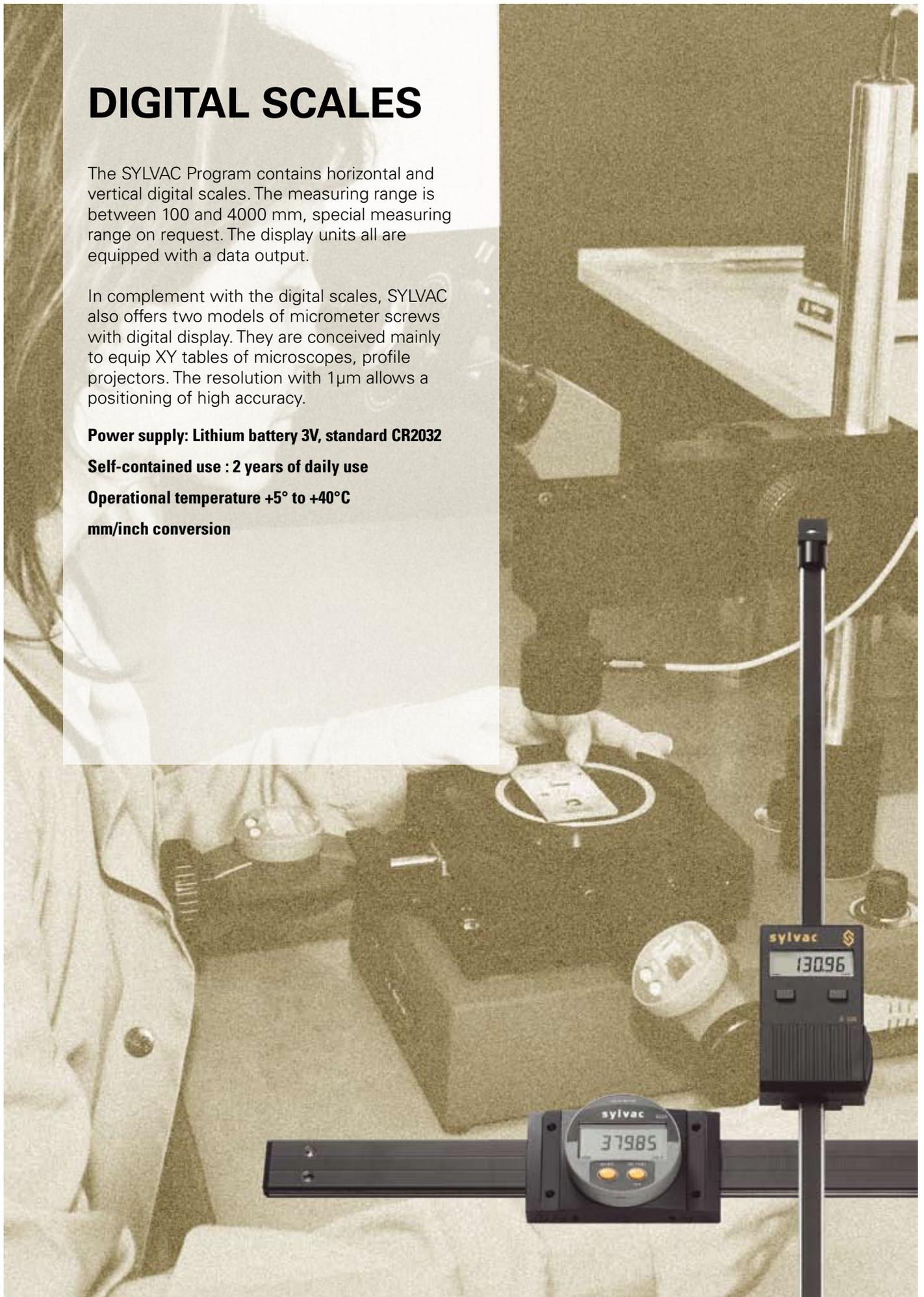
In complement with the digital scales, SYLVAC also offers two models of micrometer screws with digital display. They are conceived mainly to equip XY tables of microscopes, profile projectors. The resolution with  $1\mu\text{m}$  allows a positioning of high accuracy.

**Power supply: Lithium battery 3V, standard CR2032**

**Self-contained use : 2 years of daily use**

**Operational temperature  $+5^{\circ}$  to  $+40^{\circ}\text{C}$**

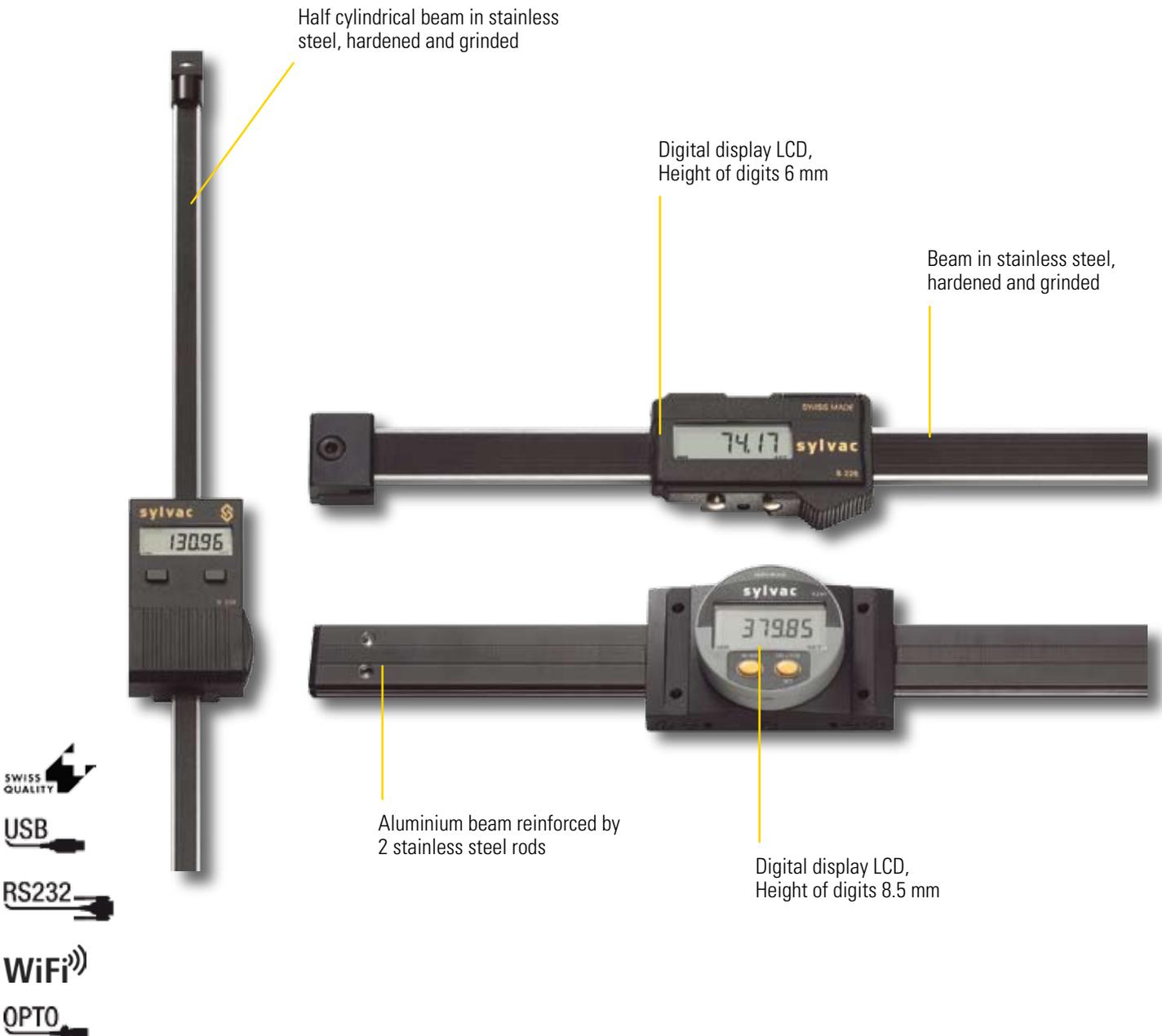
**mm/inch conversion**



# Digital scales

## DESCRIPTION

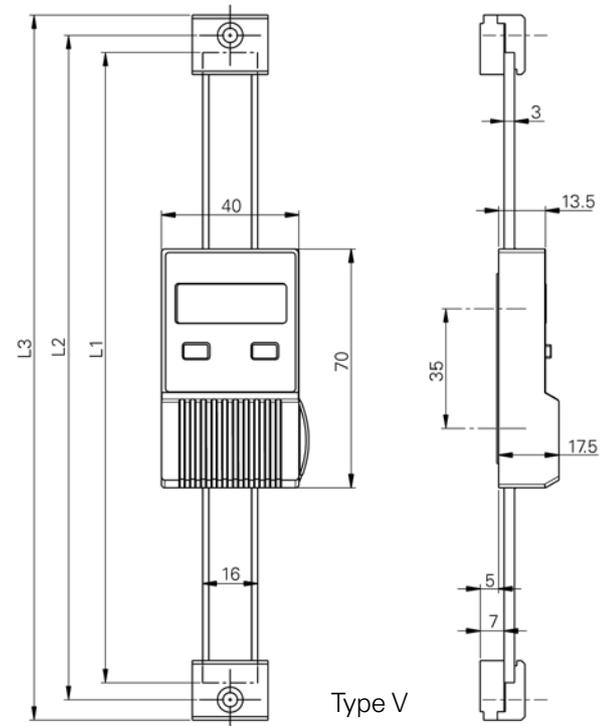
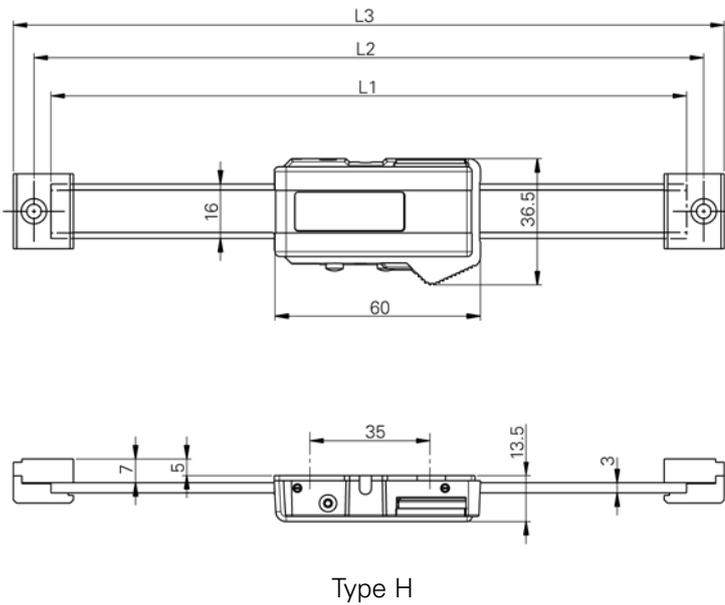
- Max. velocity of displacement : 2 m/sec
- Data output OPTO RS232
- External power supply possibility
- Special dimensions on request for half cylindrical beam and ULD III
- Easy assembling
- Range > 4 m possible



# Digital scales

# Flat

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

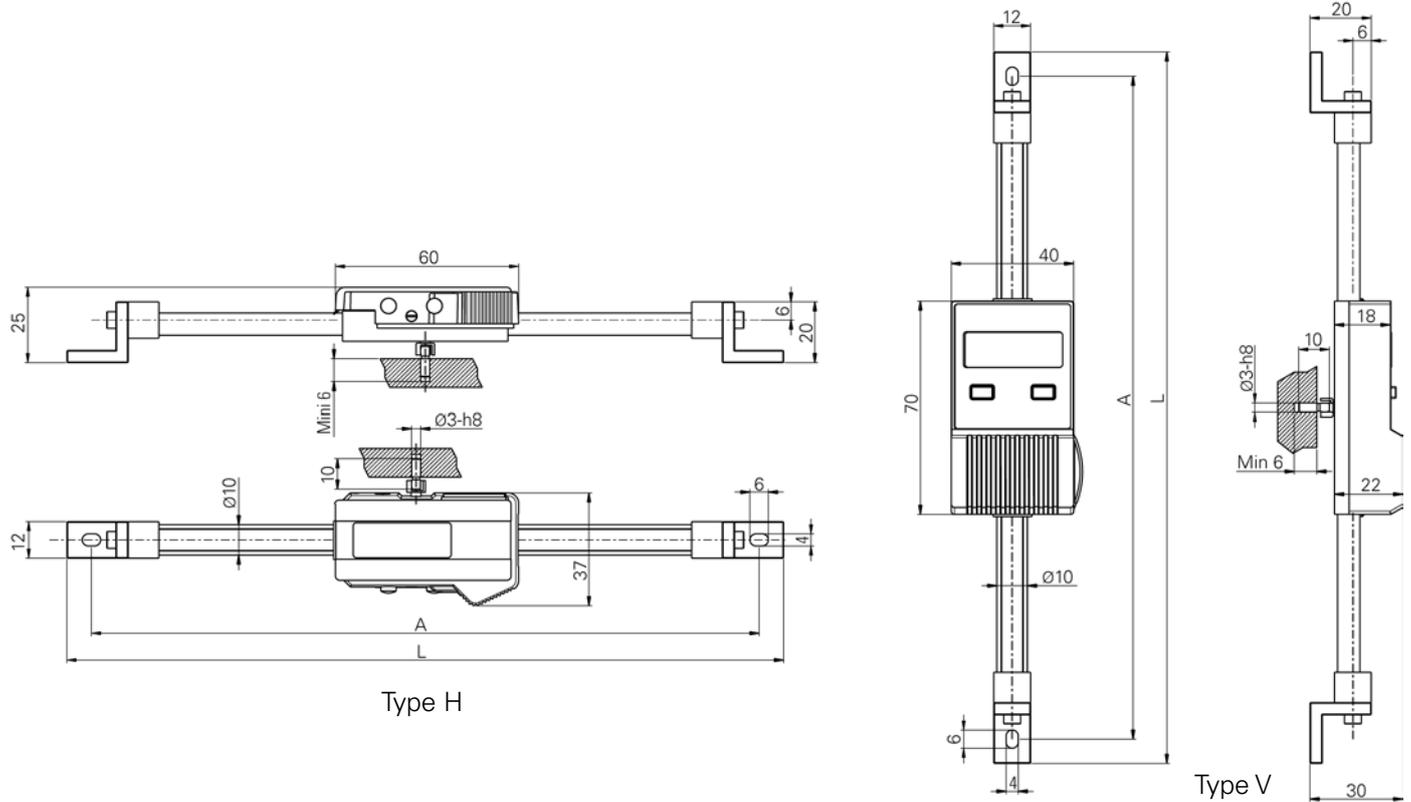
		916.1000	916.1002	916.1004	916.1500	916.1502	916.1504
Measuring range	mm	100	150	200	100	150	200
Type		H	H	H	V	V	V
Max. Error	µm	20	30	30	20	30	30
Repeatability <sup>1)</sup>	µm	10	10	10	10	10	10
Resolution mm		0.01	0.01	0.01	0.01	0.01	0.01
L1	mm	185	235	286	185	235	286
L2	mm	197	247	298	197	247	298
L3	mm	209	259	310	209	259	310
S_Connect : Opto	USB / RS232 / Digimatic / Wireless <sup>2)</sup>						
Selection of measuring direction	●						
PRESET function	●						
2 references	●						

<sup>1)</sup> ± 1 digit

<sup>2)</sup> see cables chapter

Drive type fastening see page 77

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

		916.3002	916.3004	916.3006	916.3008	916.3502	916.3504	916.3506	916.3508
Measuring range C	mm	≤ 300	≤ 600	≤ 800	≤ 1000	≤ 300	≤ 600	≤ 800	≤ 1000
Type		H	H	H	H	V	V	V	V
Max. Error	µm	30	40	50	50	30	40	50	50
Repeatability <sup>1)</sup>	µm	10	10	10	10	10	10	10	10
Resolution	mm	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
S_Connect : Opto		USB / RS232 / Digimatic / Wireless <sup>2)</sup>							
Selection of meas.direction		●							
PRESET function		●							
2 references		●							

<sup>1)</sup> ± 1 digit

<sup>2)</sup> see cables chapter

Dimensions of scale H :  $L = C + 2.5\% + 120$   
 $A = L - 16$

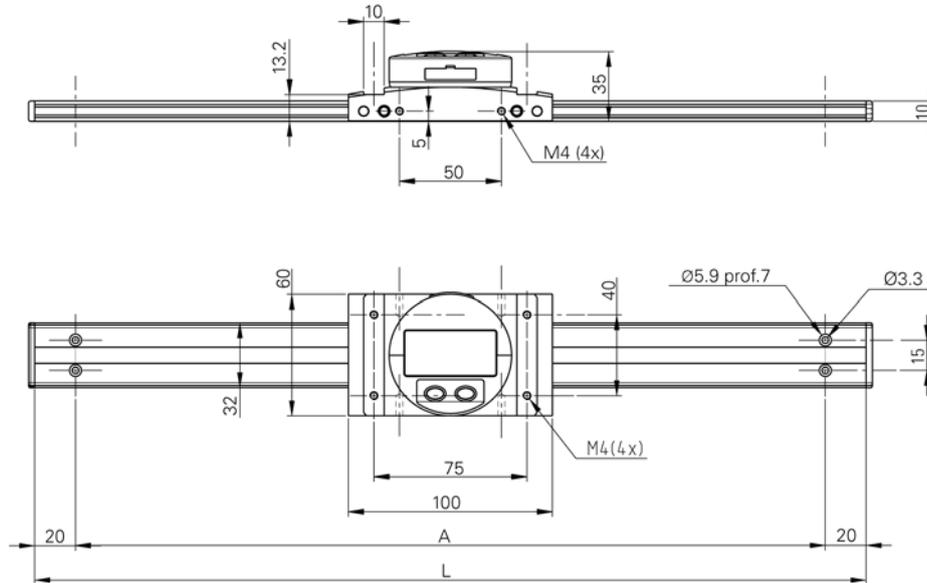
Dimensions of scale V :  $L = C + 2.5\% + 130$   
 $A = L - 16$

Drive type fastening, see page 77

# Digital scales

# ULD III

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

		914.1556	914.1560	914.1565	914.1570	914.1580	914.1590
Measuring range C	mm	600	1000	1500	2000	3000	4000
Max. Error	µm	50	70	80	150	200	250
Repeatability	µm	20	20	20	20	20	20
Resolution	mm	0.01	0.01	0.01	0.01	0.01	0.01
Number of clamping holes pairs	N	2	3	4	5	6	7
S_Connect : Opto	USB / RS232 / Digimatic / Wireless <sup>1)</sup>						
PRESET function	●						
Selection of measuring direction	●						
2 references	●						

<sup>1)</sup> see cables chapter

Sizes :  $L = C + 2.5\% + 100$

$A = L - 40/N - 1$  (N : Number of clamping holes pairs)

# Digital scales

## BASIC INSTRUMENT – DIGITAL SCALES

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual
- Clamping device 916.1901

## BASIC INSTRUMENT – CYLINDRICAL AND ULD III SCALES

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual

## APPLICATIONS



Depth measurement on a drilling machine



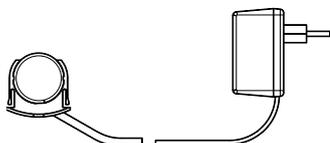
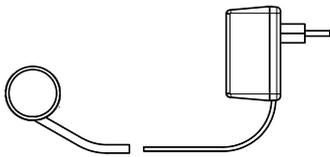
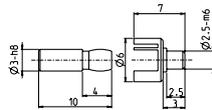
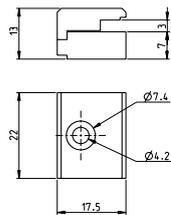
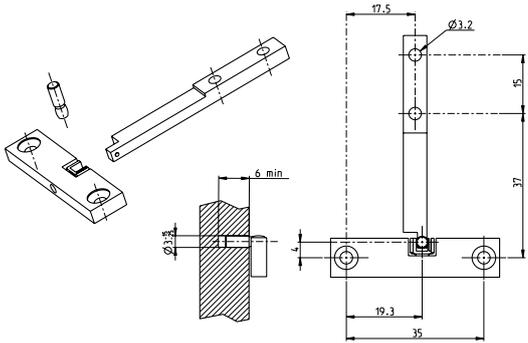
Stop thrust mounted on moving device



Measuring of metal rod

# Digital scales

## ACCESSORIES



		DIGITAL	HALF CYLINDRICAL	ULD III
<b>916.1900</b>	Drive type fastening	●		
<b>916.1901</b>	Clamping device	●		
<b>916.1903</b>	Battery extractor Only for H type	●	●	
<b>916.1904</b>	Drive type fastening		●	
<b>926.5515</b>	External power supply for H scales	●	●	
<b>926.5516</b>	External power supply for V and ULD III scales	●	●	●

# Digital micrometer screws

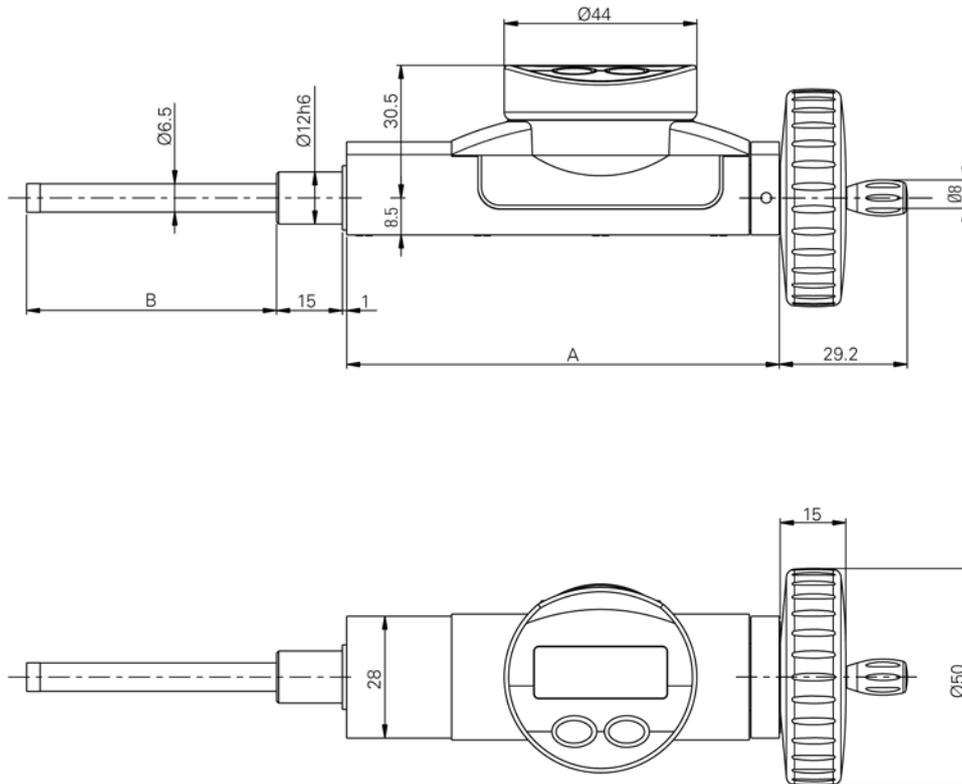
## DESCRIPTION

- Data output RS232, combined with external power supply
- Fine adjustment available (accessories)
- Type H and V (same model)
- Reduced dimensions, compact
- Other handwheels on request



# Digital micrometer screws

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		852.2101	852.2011
Measuring range	mm	0-25	0-50
Max. Error	µm	5	8
Repeatability	µm	2	2
Resolution	mm	0.001	0.001
A	mm	74.5	98.5
B	mm	33.1	57.1
S_Connect : Power	USB / RS232 / Digimatic / Wireless <sup>1)</sup>		
Selection of measuring direction	●		
PRESET function	●		
Absolute or relative measurement	●		

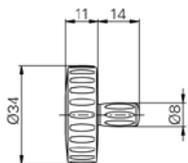
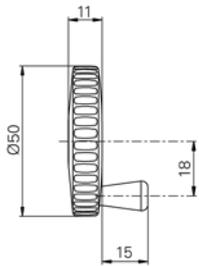
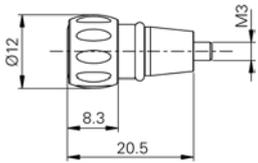
<sup>1)</sup> see cables chapter

# Digital micrometer screws

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Lithium battery CR2302 included
- Manual
- Handwheel Ø 50 mm (852.2311)
- Calibration certificate

## ACCESSORIES



<b>852.2310</b>	Fine adjustment device
<b>852.2311</b>	Handwheel Ø 50 mm with crank handle for fast motion
<b>852.2312</b>	Handwheel Ø 34 mm

## APPLICATIONS



Fine adjustment device type 852.2310



Use on measuring microscope

# HEIGHT GAUGE

Especially developed and optimized for a use in production line, HI\_Cal offers a great efficiency thanks to its large screen where it can simultaneously displayed measurements of diameters and distances between centres.

Its principal advantages consist in its ease of use, reduced dimensions of its base, its great lightness, the compatibility of the accessories with the instruments of preceding generation, the two speeds of travel which offer a great comfort during the measurement of small diameters.

**Inductive and motorized Sylvac system (patented)**

**Data output RS232 – USB**

**mm/inch conversion**



# Height gauge

# Hi\_Cal

## DESCRIPTION

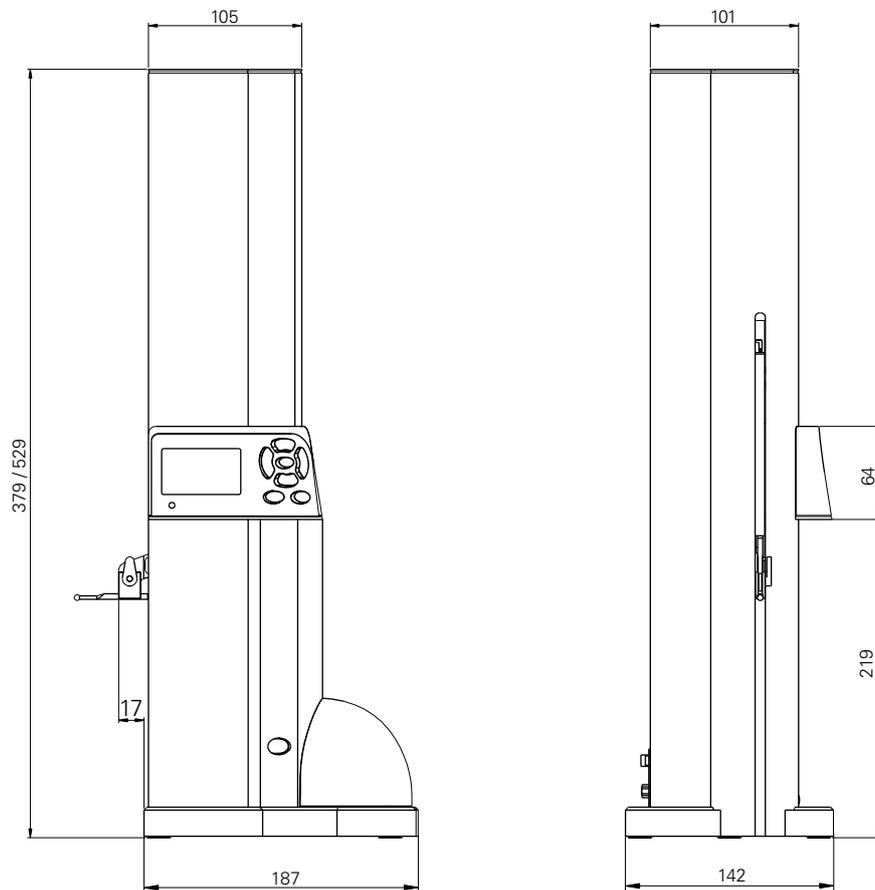
- Intuitive functions
- Great mobility
- Measurement of internal and external diameters, centerlines, heights, thicknesses, depths, surfaces
- Versions 150 and 300 mm
- Data output USB and RS232
- Measuring force extremely low and adjustable according to the probe
- No influence of the operator on the result of measurement
- Self-contained use: 40 hours
- Probe constant value memorized even when switching off



# Height gauge

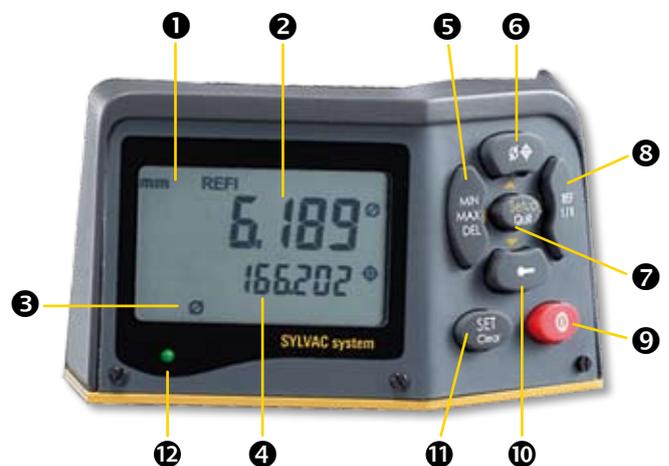
# Hi\_Cal

## DIMENSIONAL DRAWINGS



## DISPLAYS

- ① Measuring unit and actives reference
- ② Display of measuring value
- ③ Active measuring mode
- ④ Centerline display
- ⑤ Dynamic measuring mode
- ⑥ Diameter / height measurement
- ⑦ Access to setting menu
- ⑧ Selection of reference Ref I / Ref II
- ⑨ Switch ON / switch OFF
- ⑩ Constant of ball probe
- ⑪ Validation / Initialization of min, max mode
- ⑫ Luminous indication of valide measurement



## TECHNICAL SPECIFICATIONS

		830.0150	830.0300
Measuring range	mm	150	300
Application range	mm	0 - 155	0 - 320
Max. Error	µm	2.5 x L / 175 <sup>1)</sup>	
Repeatability	µm	2	
Resolution	mm	0.01 / 0.001	
Velocity	mm/s	50 / 100	
Measuring force	N	0.2 - 0.3	
Self-contained use	h	> 40	
Height	mm	379	529
Weight	kg	3.9	4.6
S_Connect		USB / mini USB / RS232 <sup>2)</sup>	
Programmable by PC		●	
Zero setting		●	
Min / max / delta		●	
PRESET function		●	
2 references		●	
Height measurement, Ø and centerlines		●	
2 types of progressive speed		●	

<sup>1)</sup> With standard probe, in laboratory conditions

<sup>2)</sup> see cables chapter

## BASIC INSTRUMENT

- Loose cover HI\_CAL 150
- Loose cover HI\_CAL 300
- Charging set (930.4010<sup>1)</sup> / 11/12/13)
- Ruby ball probe Ø 3 mm
- Setting gauge
- Calibration certificate

<sup>1)</sup> according to country

# Height gauge

# Hi\_Cal

## APPLICATIONS



Depth measurements with accessories 930.2108 and 930.2105



Depth measurements with accessories 930.2108 and 905.2204



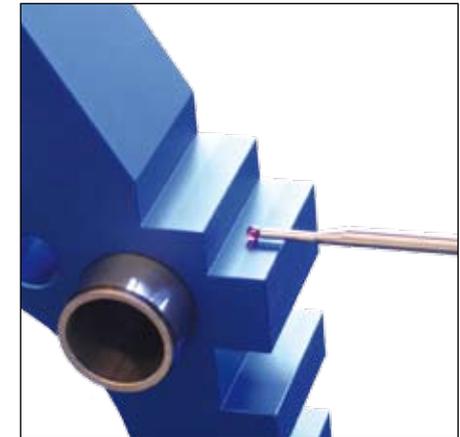
Internal measurements with ruby ball probe  $\varnothing$  3 mm, 930.2101 (standard)



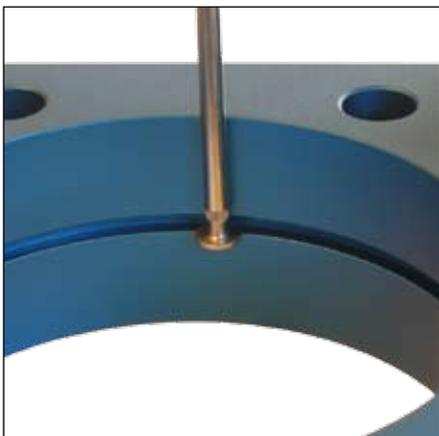
Heights and thicknesses measurements with the standard probe 930.2101



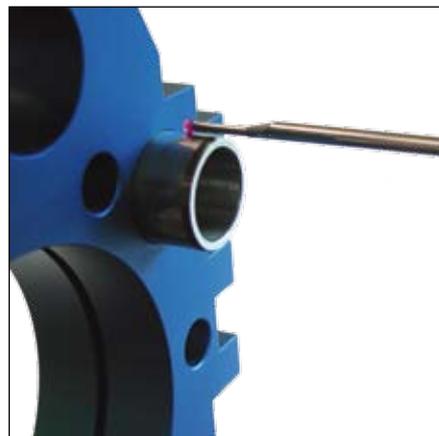
Internal groove measurements with accessories 930.2108, 930.2210 and 905.2207



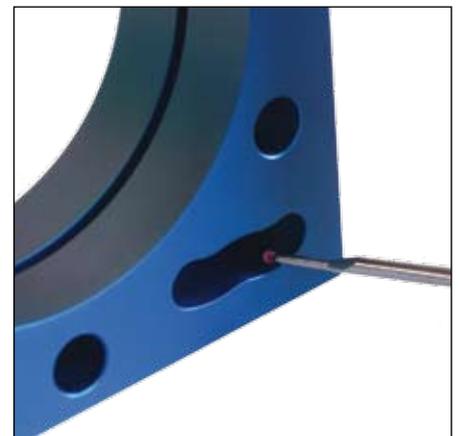
Taking the probe constant value with the setting bloc 930.2002 (standard)



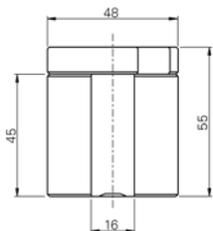
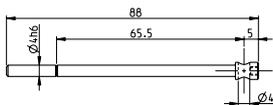
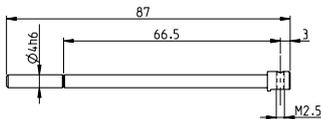
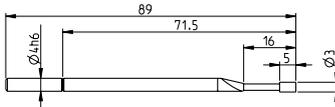
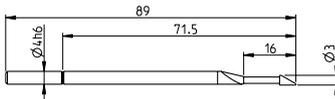
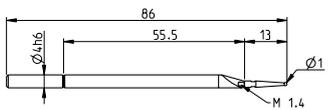
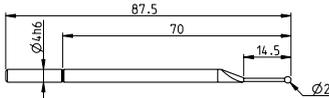
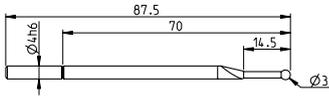
Internal groove measurements with accessories 930.2108, 930.2210 and 905.2205



External diameter measurements with the standard probe 930.2101



Min/Max/Delta measurements

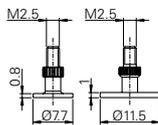
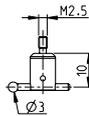
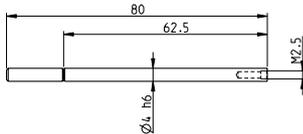
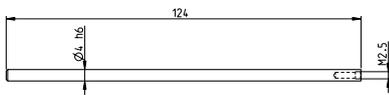
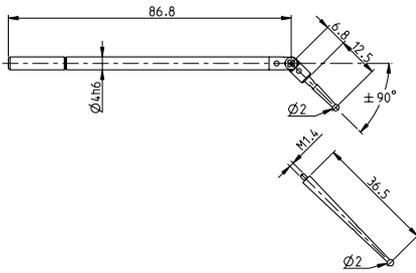


<b>930.2101</b>	Ruby ball probe Ø 3 mm
<b>930.2103</b>	Ruby ball probe Ø 2 mm
<b>930.2104</b>	Tungsten carbide ball probe Ø 1 mm
<b>930.2105</b>	Knife-edged measuring probe TC Ø 3 mm
<b>930.2106</b>	Cylindrical measuring probe TC Ø 3 mm
<b>930.2107</b>	Probe holder 90° M2.5
<b>930.2108</b>	Probe holder 90° Ø 4 mm
<b>930.2002</b>	Setting gauge
<b>904.4010</b>	Charging set 230V EUR
<b>904.4011</b>	Charging set 230V UK
<b>904.4012</b>	Charging set 120V US
<b>904.4013</b>	Charging set 100V JPN

# Height gauge

# Hi\_Cal

## ACCESSORIES



<b>930.2102</b>	Swivelling tungsten carbide ball probe (M1.4)
<b>930.2109</b>	Extension 124 mm M2.5
<b>930.2110</b>	Extension 80 mm M2.5
<b>905.2207</b>	Probe holder and ruby ball probe Ø 3 mm, M2.5
<b>905.2205</b>	Disk shaped anvils Ø 7.7 mm and Ø 11.5 mm, M2.5
<b>930.2150</b>	Full accessories set in wooden box Content : 930.2103, 930.2104, 930.2105, 930.2106, 930.2107, 930.2108, 930.2109, 930.2110, 930.2204, 930.2205, 930.2207
<b>930.2151</b>	Basic accessories set in wooden box Content : 930.2103, 930.2104, 930.2105, 930.2106
<b>904.4101</b>	External contact (foot-pedal)



# MEASURING PROBES, DIGITAL DISPLAYS AND BENCH TABLES

The Sylvac probes are based on the capacitive principle which is characterized by a high degree of accuracy also on long measuring range up to 50 mm.

The probes are elements of measurement to be placed on tables, supports, bench tables, special mechanical devices or on assemblies of multi-gauging.

The signal of a probe must be transmitted to a display unit. SYLVAC offers four of them. Benefiting from the high degree of accuracy as of its probes and units and an aim of being able to measure small parts of undercutting and clock industry, SYLVAC developed a whole series of benches and tables of measurement. These supports are conceived for the control of internal, external, heights, grooves etc, starting from 10 mm to 70 mm.

**Absolute capacitive measuring system (patented)**

**Digital display units RS232 and USB**

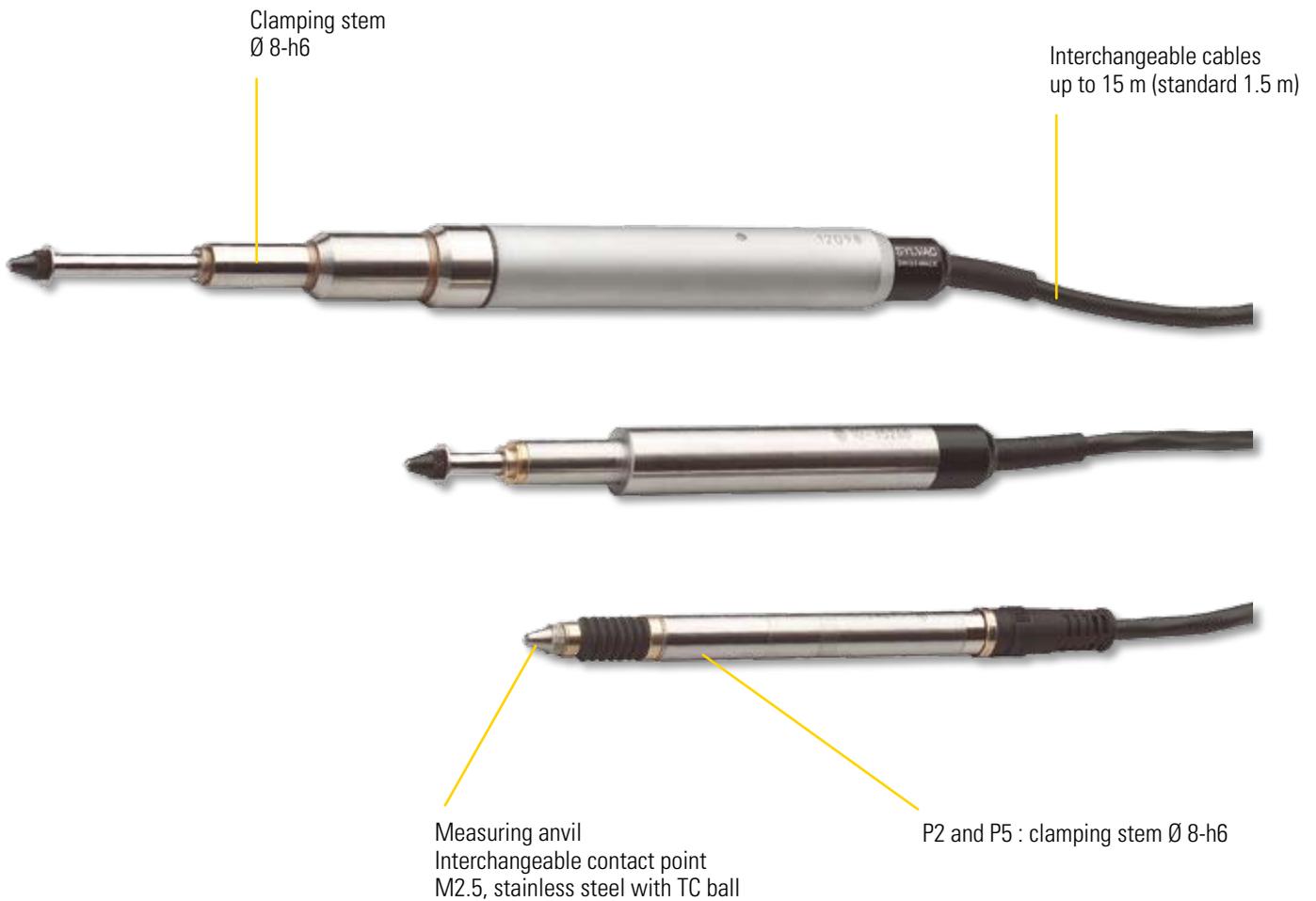
**Operational temperature 0 to + 50°C**



# Measuring probes

## DESCRIPTION

- Capacitive absolute measuring probes, plunger type
- Resolution 0.0001 mm
- Measuring range from 2 to 50 mm
- Plain bearing or ball bearing, integrated vacuum lifter on P2 and P5
- Compatible with the D50S, D80S, D90S, D100S and D200S units
- Excellent linearity
- Interchangeable cables





# Measuring probes

## LISTING OF ALL MODELS

	900.0992 P2BL	900.0994 P2B	900.0995 P2BV	900.0997 P2BVL	900.1001 P5	900.1003 P5V	900.1006 P5L	900.1008 P5VL	900.1010 P10	900.1012 P10S	900.1014 P10L	900.1016 P10LS	900.1025 P25	900.1027 P25S	900.1050 P50
<b>RANGE</b>															
2 mm	●	●	●	●											
5 mm					●	●	●	●							
10 mm									●	●	●	●			
25 mm													●	●	
50 mm															●
<b>EXECUTION</b>															
Plain bearing					●	●	●	●	●	●	●	●	●	●	●
B- Ball bearing	●	●	●	●											
V- Vacuum lifter			●	●		●		●							
L- 90 degrees cable	●			●			●	●			●	●			
S- with rubber boot	●	●	●	●	●	●	●	●		●		●		●	
<b>MECANIC</b>															
Diameter 8 mm h6	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Diameter 12 mm													●	●	●
Measuring anvil M2.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>LIFTING</b>															
Integrated			●	●		●		●							
Separate accessories	●	●			●		●		●	●	●	●	●	●	
<b>PROTECTION IP</b>															
Protection rating IP (IEC 60529)	64	64	64	64	64	64	64	64	40	50	40	50	40	50	40

# Measuring probes

## TECHNICAL SPECIFICATIONS

		P2	P5	P10	P25	P50
Pre-travel	mm	0.25	0.7	0.5	0.8	1
Max. Error <sup>1)</sup>	µm	0.8	1	1	1.2	2.5
Repeatability	µm	0.2	0.2	0.2	0.2	0.4
Moving mass	g	3.4	3.7	4.1	9.6	15.3

<sup>1)</sup> with master unit

## MEASURING FORCE

		P2B	P5	P10	P10S	P25	P25S	P50
Standard	N	0.60-0.75	0.60-1.20	0.60-0.80	0.70-1.25	0.60-1.00	0.70-1.40	0.50-1.10
Minimum	N	---	---	< 0.10	---	< 0.15	---	---
Low	N	---	0.20-0.25	0.20-0.25	---	0.20-0.30	---	---
High	N	---	1.00-1.80	0.70-1.50	---	0.70-1.60	---	---
Lateral max	N	0.70	0.70	0.60	---	0.30	---	0.25

The values have to be understood  $\pm 20\%$ , measuring probe in vertical position, outgoing spindle.

## BASIC INSTRUMENT

- Probe according to technical specifications
- Calibration certificate
- Cable 1.5 m
- Stainless steel contact point with tungsten carbide ball  $\varnothing 2$  mm (905.2204)

# Measuring probes

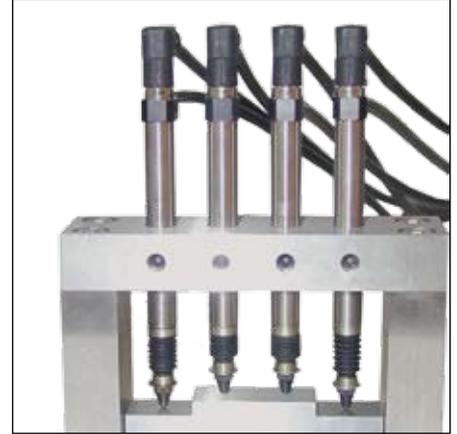
## APPLICATIONS



P25 probe connected to a D80S unit measuring the height of a part



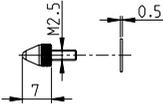
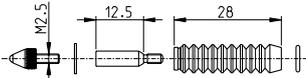
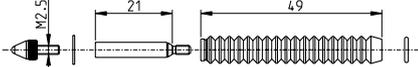
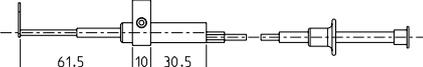
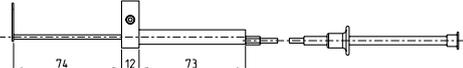
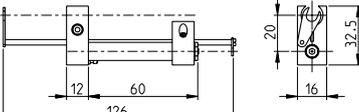
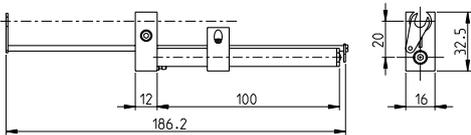
P5 probes connected to a D50S unit measuring the external diameter of a shaft



Combined probes for the measurement of several heights

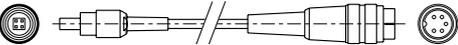
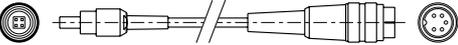
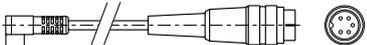
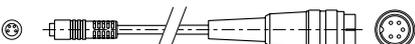
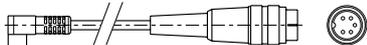
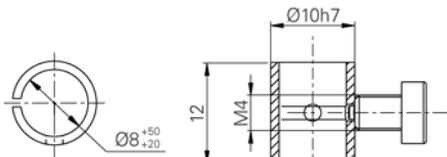
# Measuring probes

## ACCESSORIES

		P2	P5	P10	P25	P50
	<b>905.2204</b>					
	Stainless steel contact point M2.5 with TC ball probe (other contact points, see page 50)	●	●	●	●	●
	<b>901.2003</b>					
	Rubber boot and contact point set			●		
	<b>901.2004</b>					
	Rubber boot and contact point set				●	
	<b>901.2005</b>					
	Lifting device with photo-cable			●	●	
	<b>901.2006</b>					
	Lifting device with photo-cable					●
	<b>901.2010</b>					
	Pneumatic lifting device			●	●	
	<b>901.2011</b>					
	Pneumatic lifting device					●
	<b>901.2012</b>					
	Hose Ø 4 mm / 2 mm, Length to be specified	●	●	●	●	●
	<b>901.2013</b>					
	Hose Ø 6 mm / 4 mm, Length to be specified	●	●	●	●	●
	<b>901.2014</b>					
	Double hose diameter 2 x 4 mm / 2 mm, Length to be specified	●	●	●	●	●

# Measuring probes

## ACCESSORIES

		P2	P5	P10	P25	P50
	<b>901.5001</b>	Extension 3 m	●	●	●	●
	<b>901.5002</b>	Cable 1.5 m		●		
	<b>901.5012</b>	Cable 1.5 m			●	
	<b>901.5022</b>	Cable 1.5 m				●
	<b>901.5032</b>	Cable 1.5 m bent		●		
	<b>901.5042</b>	Cable 1.5 m	●	●		
	<b>901.5052</b>	Cable 1.5 m bent	●	●		
	<b>905.2231</b>	Adapting socket + screw	●	●	●	●

# Digital display

## TABLE OF CORRESPONDENCES

		D50S	D80S	D100S	D200S
Direct input	Probes	2	1	1	8
	RS instruments			1	
	External contact	1	1	2	1
Additional input	Probes	---	7 <sup>1)</sup>	63 <sup>1)</sup>	24 <sup>3)</sup>
	RS instruments	---	---	47 <sup>2)</sup>	---
Output	RS 232	●	●	●	●
	USB				●
	Opto-coupled output		●	●	●
	Analogic		●	●	
	Centronics			●	
Functions	Direct zero setting	●	●	●	●
	Selection of resolution	●	●	●	●
	Selection of measuring direction	●	●	●	●
	PRESET	●	●	●	●
	Tolerance indicators		●	●	●
	Classification (max 8 classes)			●	
	Min, Max, Delta		●	●	●
	A ± B	●		●	●
	A ± B ± C			●	●
	Scanning			●	●
	Histogram			●	
	Statistics			●	
	Memorization			●	●
	Accumulator			●	
	Simultaneous display of the channels				●
Dynamic measurement			4)	●	

<sup>1)</sup> with unit (s) additional (s) D108

<sup>2)</sup> with unit (s) additional (s) D104

<sup>3)</sup> with 3 units D200S

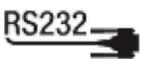
<sup>4)</sup> on 1 channel only

# Digital display

# S\_View D50S

## DESCRIPTION

- Digital display with 2 inputs
- Data output RS232C
- Power supply by external unit
- Light and compact
- Easy of use

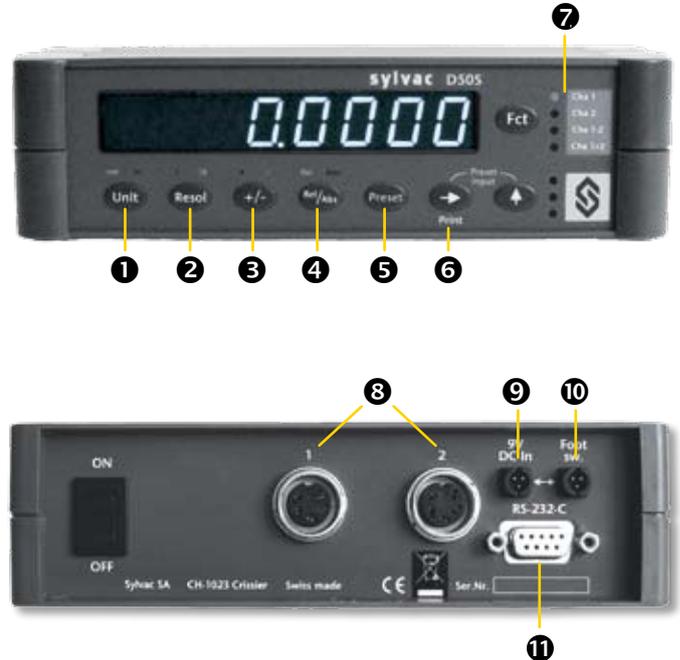


# Digital display

# S\_View D50S

## DISPLAY/SOFTWARE

- ① Conversion mm/inch
  - ② Selection of resolution
  - ③ Selection of measuring direction
  - ④ REL and ABS measurement
  - ⑤ PRESET function
  - ⑥ Data sending
  - ⑦ Selection of measuring mode: channel 1 ; channel 2 ; channel 1-2 ; channel 1+2
- 
- ⑧ Probe inputs
  - ⑨ Power supply connection
  - ⑩ External contact connection
  - ⑪ RS232 input/output



## TECHNICAL SPECIFICATIONS

		804.1050
Type		D50S
Max. Error	μm	P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9 / P50 : 3.9
Repeatability	μm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2 / P50 : 0.4
Sizes	mm	180 x 75 x 50
Weight	kg	0.3
Case		Terblend Plastic
Protection rating according to IEC 60529		IP40
S_Connect		RS232 <sup>1)</sup>
Programmable by PC		●

<sup>1)</sup> see cables chapter

## BASIC INSTRUMENT

- Unit according to technical specifications
- Heightening feet
- Charging unit according to country (904.4010 / 11 / 12 / 13)
- Manual

## APPLICATIONS



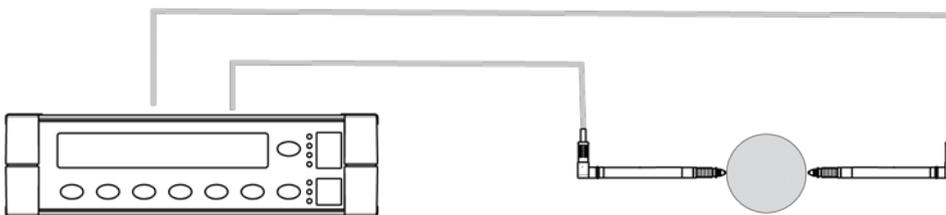
Measuring a shaft



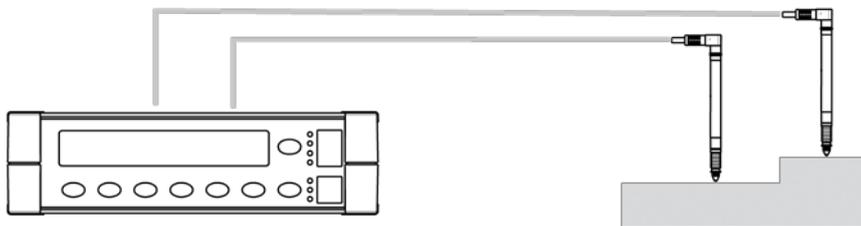
Simple measurement with one probe

## COMBINATIONS OF PROBES

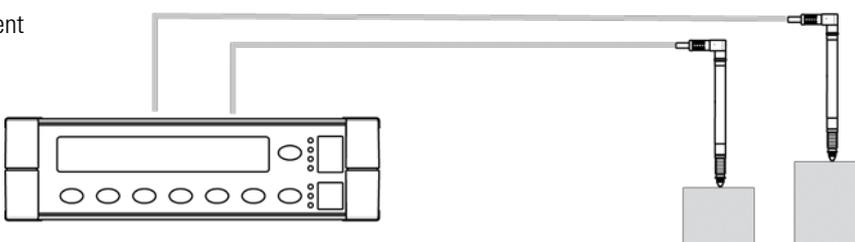
Diameter = 1+2



Variation = 1-2



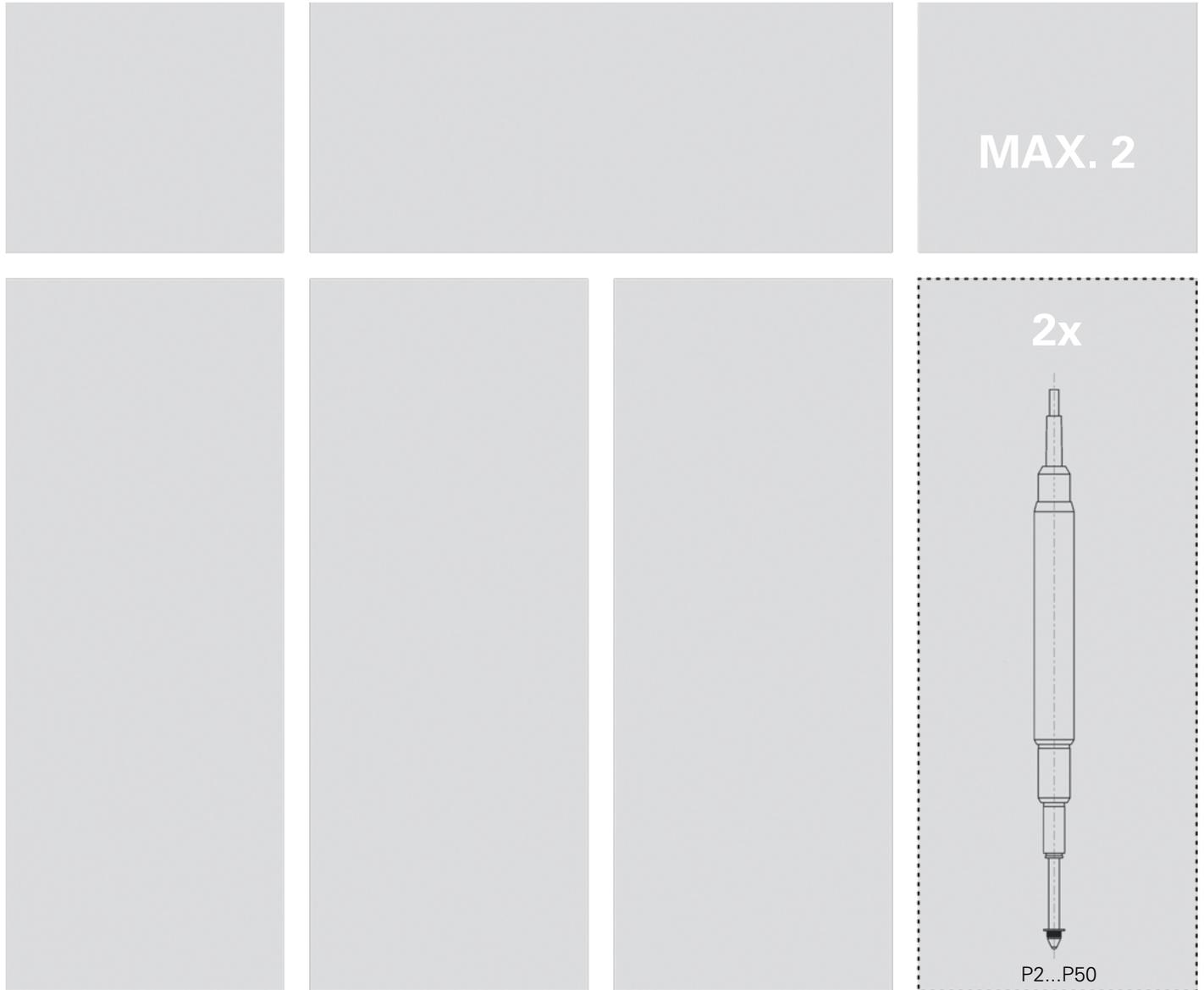
Individual measurement



# Digital display

# S\_View D50S

## POSSIBILITIES OF CONNECTION

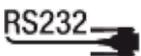


# Digital display

# S\_View D80S

## DESCRIPTION

- Digital unit with 1 probe input (8 channels extension)
- Resolution up to 0.0001 mm
- Data output RS232C
- Opto-coupled output (command signals)
- Possibility of probes pneumatic lifting
- Selection of measuring direction
- Memorization of programs
- Possibility of increase in the precision by calibrating the unit with the probe
- Powered by a charging unit

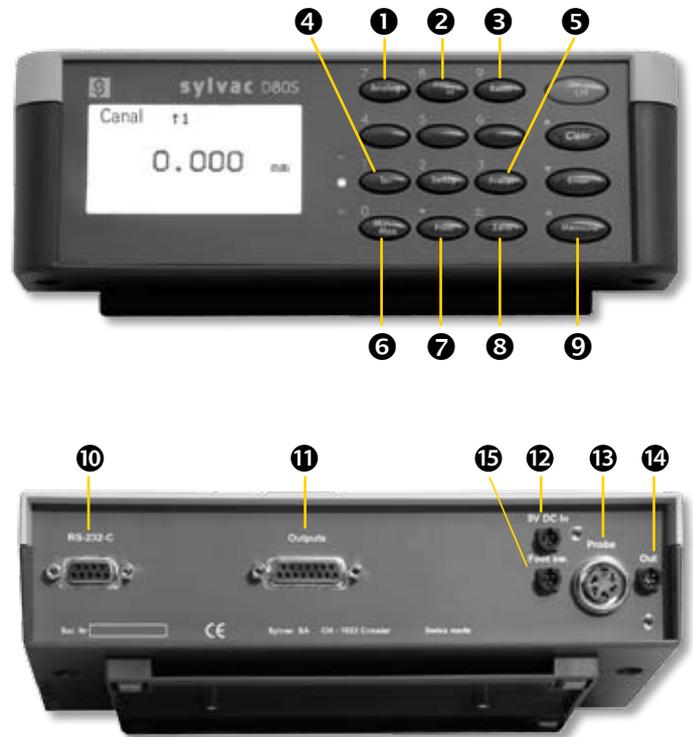


# Digital display

# S\_View D80S

## DISPLAY/SOFTWARE

- 1 Activation of analog display
- 2 Selection of unit mm/inch
- 3 Selection of resolution
- 4 Tolerance indicators with LED
- 5 PRESET function
- 6 Display Min/Max/Delta
- 7 Data sending
- 8 Zero setting
- 9 Configuration channel
- 10 RS232 input/output
- 11 Analog and digital Opto-coupled output
- 12 External power supply connection
- 13 Capacitive probe input
- 14 Connection D102/D108 unit
- 15 External contact connection



## TECHNICAL SPECIFICATIONS

		804.1080
Type		D80S
Max. Error	μm	P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9 / P50 : 3.9
Max. Error <sup>1)</sup>	μm	P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8 / P50 : 1.5
Repeatability	μm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2 / P50 : 0.4
Sizes	mm	227 x 77 x 132
Weight	kg	0.8
Case		Terlend Plastic
Protection rating according to IEC 60529		IP50
S_Connect		RS232 <sup>2)</sup>
Programmable by PC		●

<sup>1)</sup> Probe and unit calibrated

<sup>2)</sup> see cables chapter

# Digital display

# S\_View D80S

## BASIC INSTRUMENT

- Unit according to technical specifications
- Base
- External contact (foot-pedal)
- Charging unit according to country (904.4010 / 11 / 12 / 13)
- Manual

## APPLICATIONS



Measurement of 4 sizes on 4 channels with one single probe

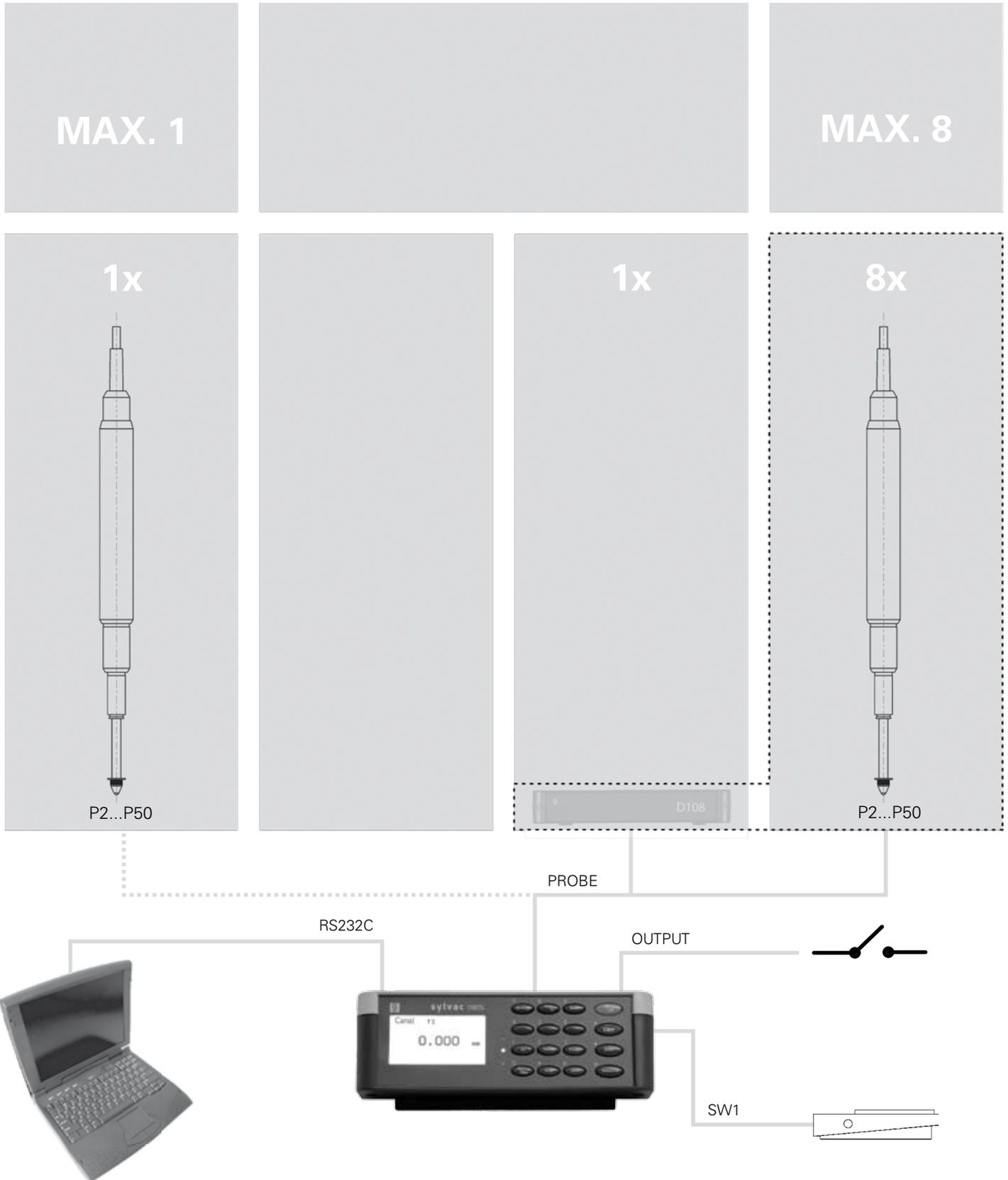


Using 3 measuring channels with 3 separated probes

# Digital display

# S\_View D80S

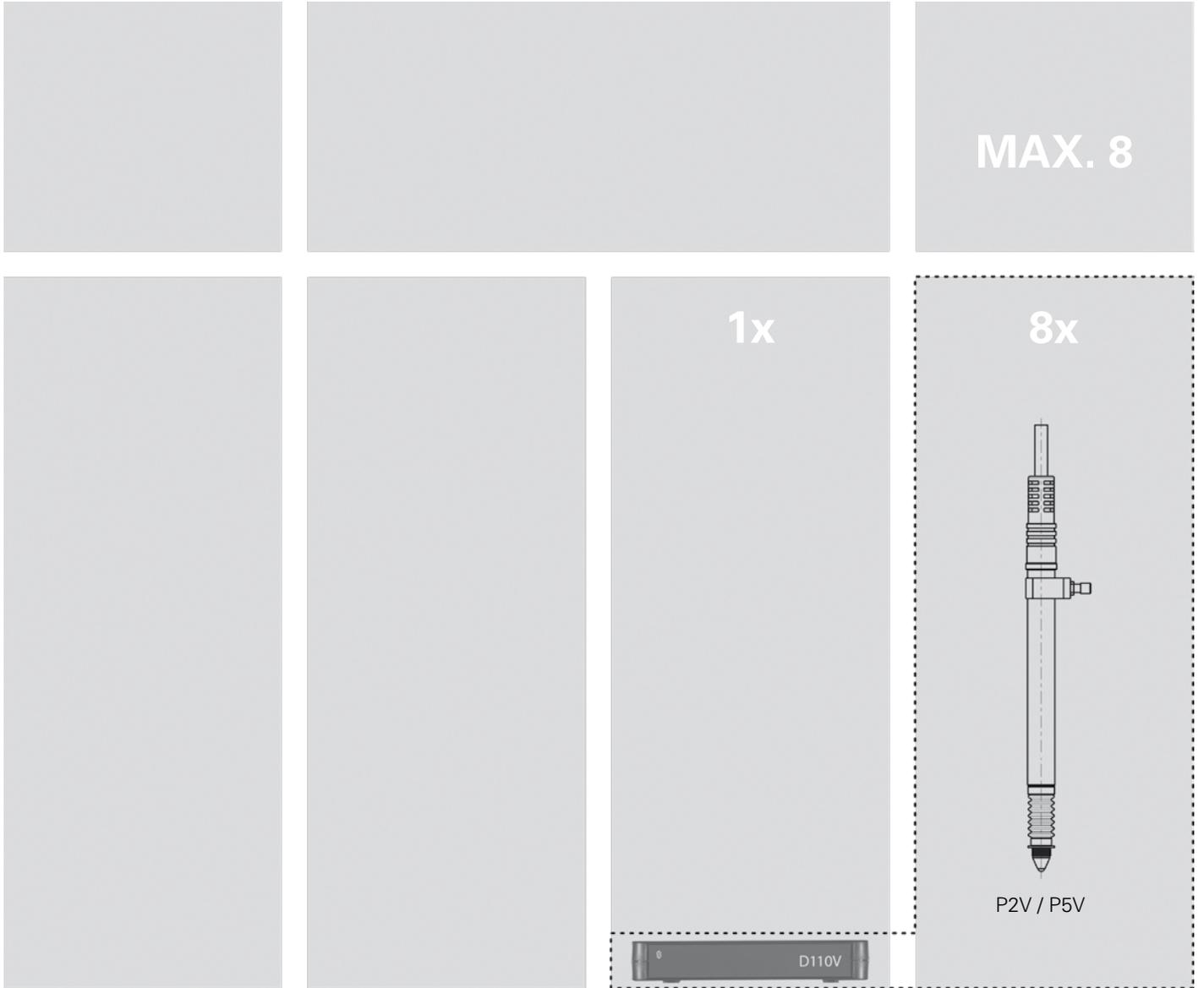
## CONNECTION DIAGRAM



# Digital display

# S\_View D80S

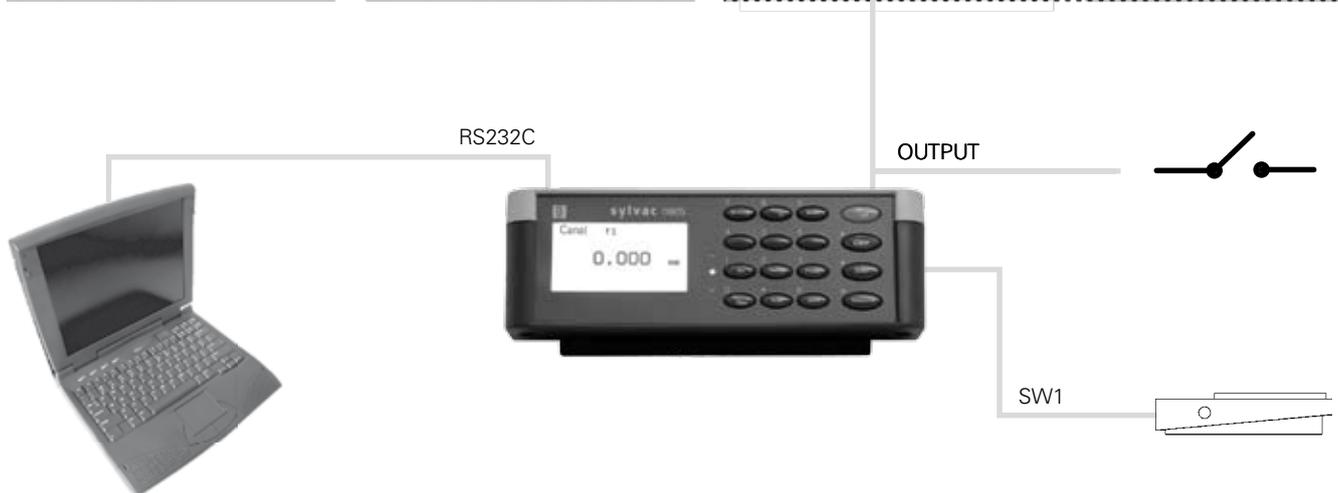
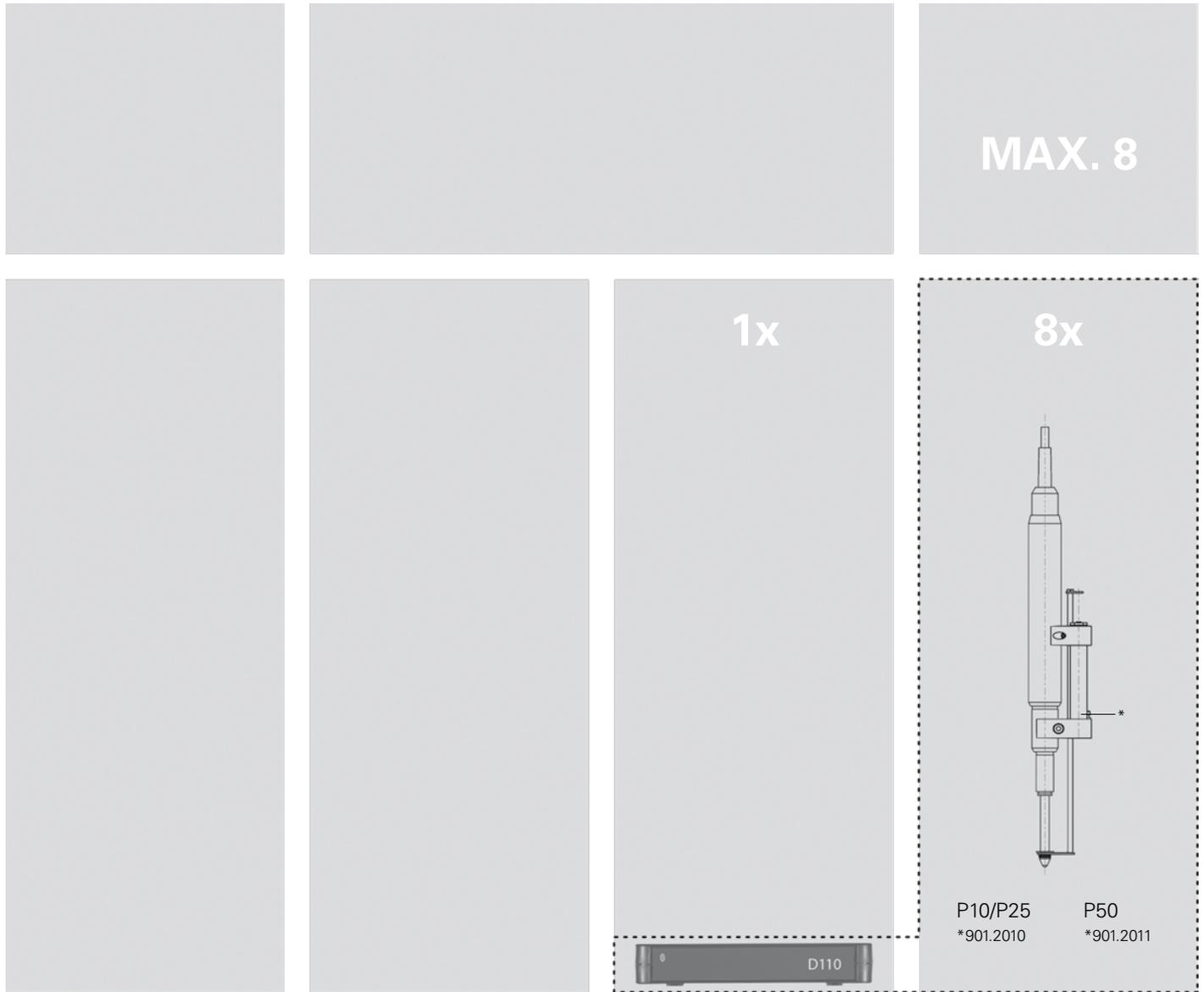
## POSSIBILITIES OF D110V LIFTER



# Digital display

# S\_View D80S

## POSSIBILITIES OF D110 LIFTER



## DESCRIPTION

- Digital display multi-functions from 1 to 64 analog channels
- Resolution up to 0.0001 mm
- Input for 1 Sylvac probe P2 to P50
- Input for 1 Sylvac RS232 instrument
- Data output RS 232C
- Power supply by charging unit 100 / 120 / 230V
- Analog and digital output Opto-coupled (command signals)
- Autonomy: 8h (NiMH accu)
- Possibility of pneumatic lifter of probes
- Memorizing and statistical processing of the measured values
- Selection of measuring direction
- Memorizing of the programming
- To increase the accuracy by calibrating the unit with the probe



CCFL graphic display  
with backlight

Adjustable base

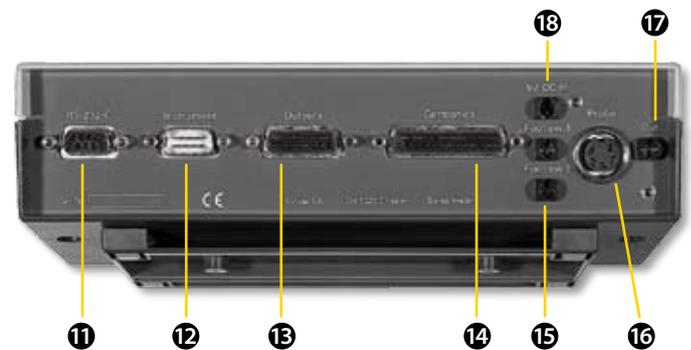
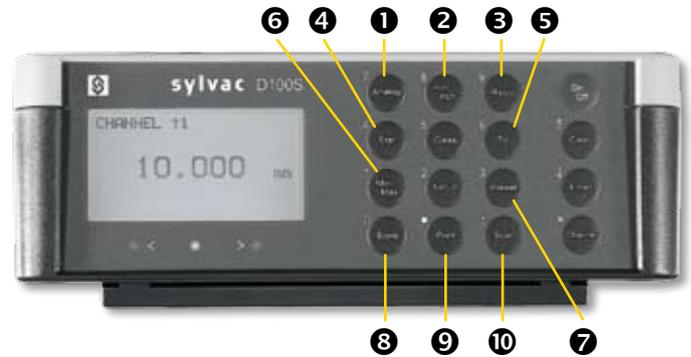
Keyboard ergonomic and  
protected from water and  
coolants

# Digital display

# S\_View D100S

## DISPLAY/SOFTWARE

- 1** Analogic scale display
- 2** Selection of unit mm/inch
- 3** Selection of resolution
- 4** Statistics
- 5** Tolerance limits shown by LED
- 6** Min/Max/Delta display
- 7** PRESET function
- 8** Memorization of measured values
- 9** Data sending
- 10** Scanning
- 11** RS232C input/output
- 12** RS232 instrument input
- 13** Opto-coupled digital output
- 14** Centronics output for printer
- 15** 2 connections for external contact
- 16** Capacitive probe input
- 17** Connection of D102/D108 unit
- 18** Connection of external power supply



## TECHNICAL SPECIFICATIONS

		804.1101
Type		D100S
Max. Error	µm	P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9 / P50 : 3.9
Max. Error <sup>1)</sup>	µm	P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8 / P50 : 1.5
Repeatability	µm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2 / P50 : 0.4
Sizes	mm	227 x 77 x 132
Weight	kg	1.3
Case		Terlend Plastic
Protection rating according to IEC 60529		IP50
S_Connect		RS232 <sup>2)</sup>
Programmable by PC		●

<sup>1)</sup> Probe and unit calibrated

<sup>2)</sup> see cables chapter

# Digital display

# S\_View D100S

## BASIC INSTRUMENT

- Unit according to technical specifications
- Base
- External contact (foot-pedal)
- Charging unit according to country (904.4010 / 11 / 12 / 13)
- Manual

## APPLICATIONS



Multi-gauging applications



Mixing of probes and hand tools

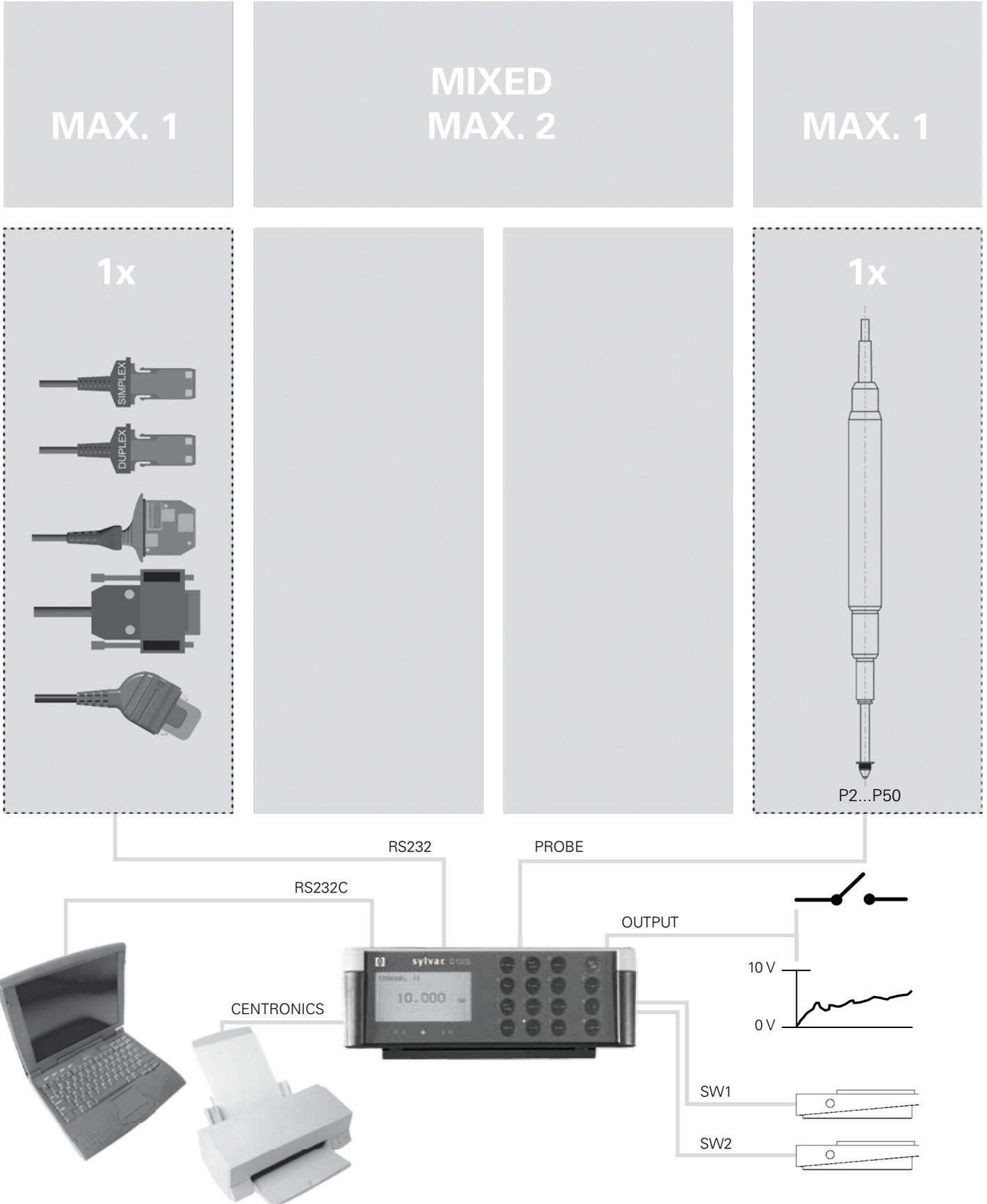


Multi-gauging applications

# Digital display

# S\_View D100S

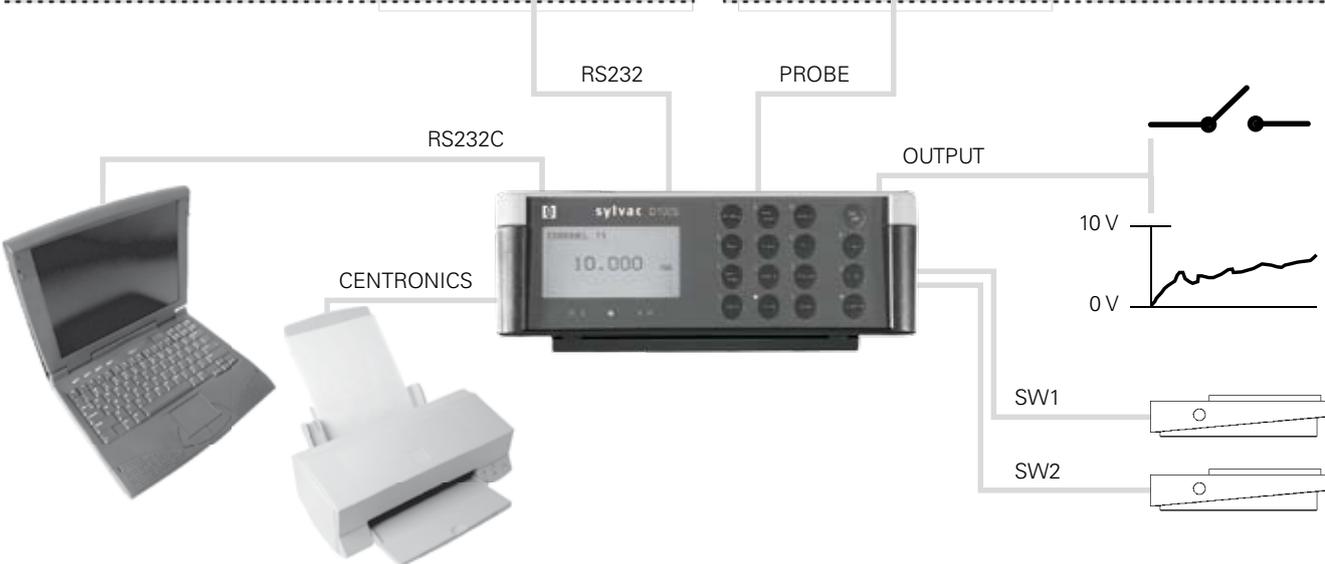
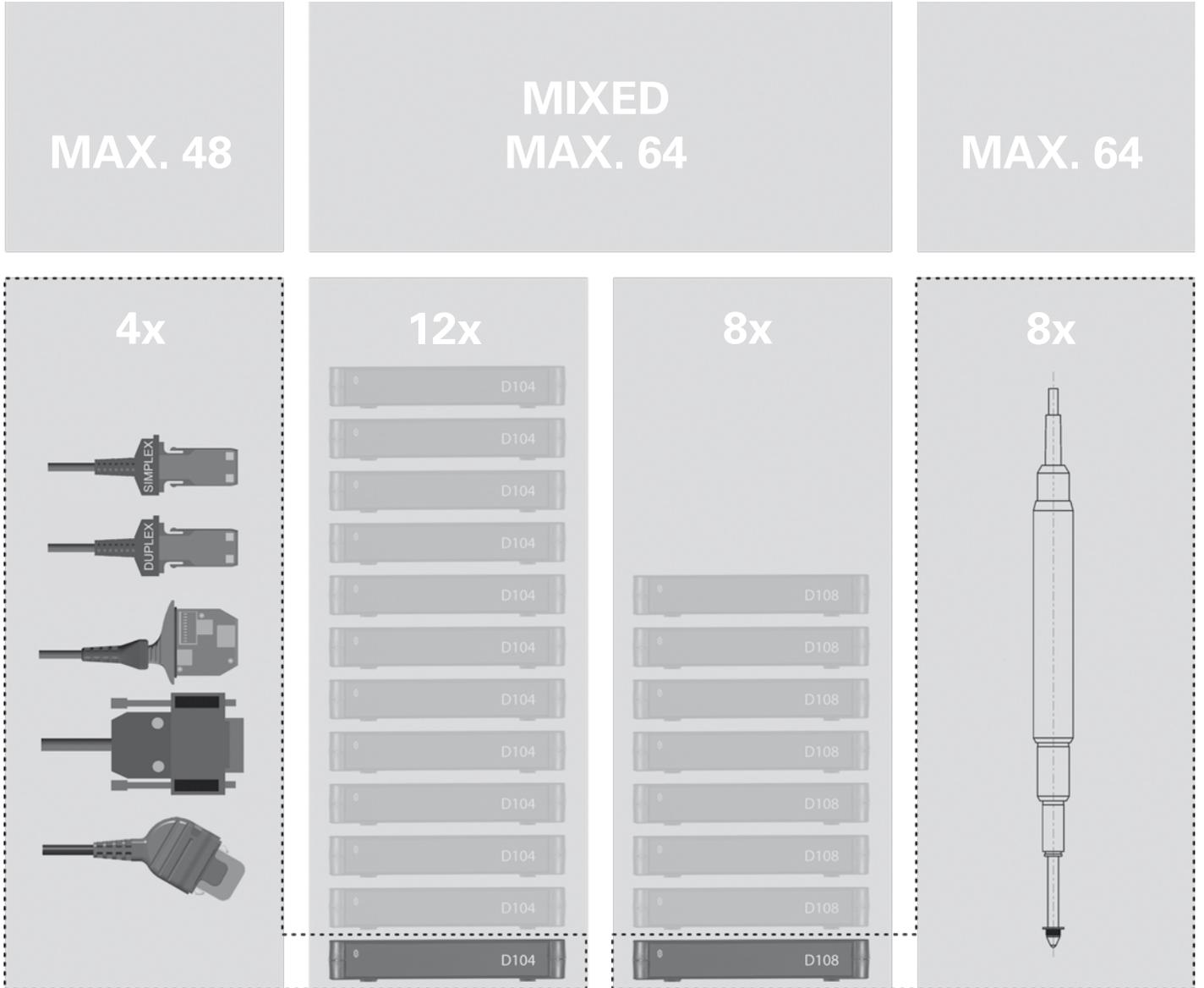
## POSSIBILITIES OF CONNECTION



# Digital display

# S\_View D100S

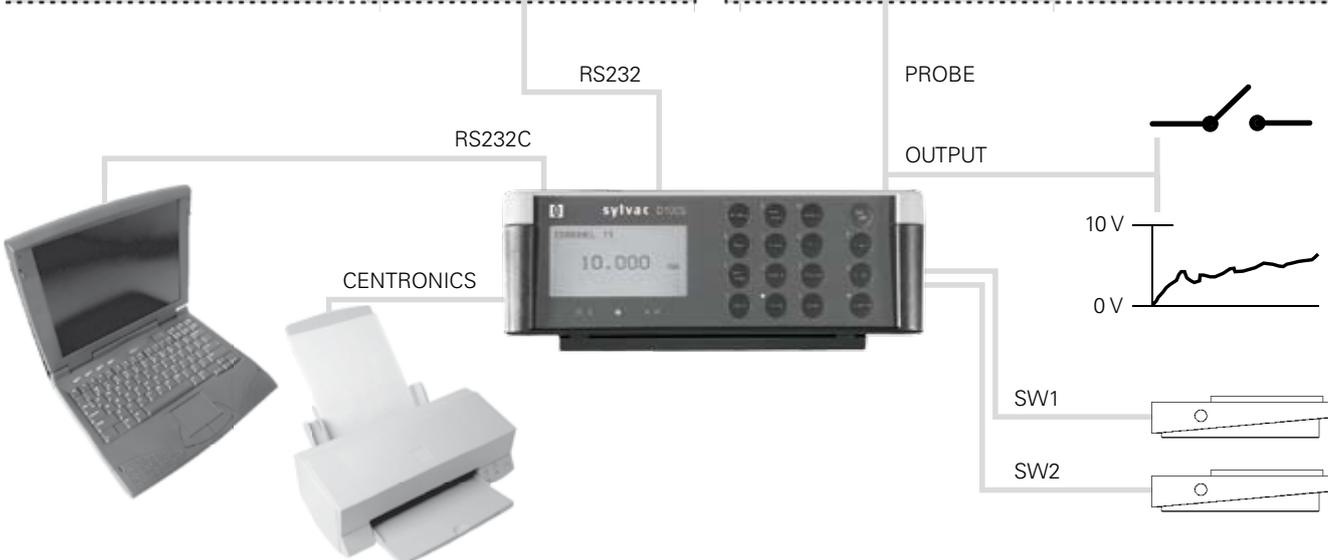
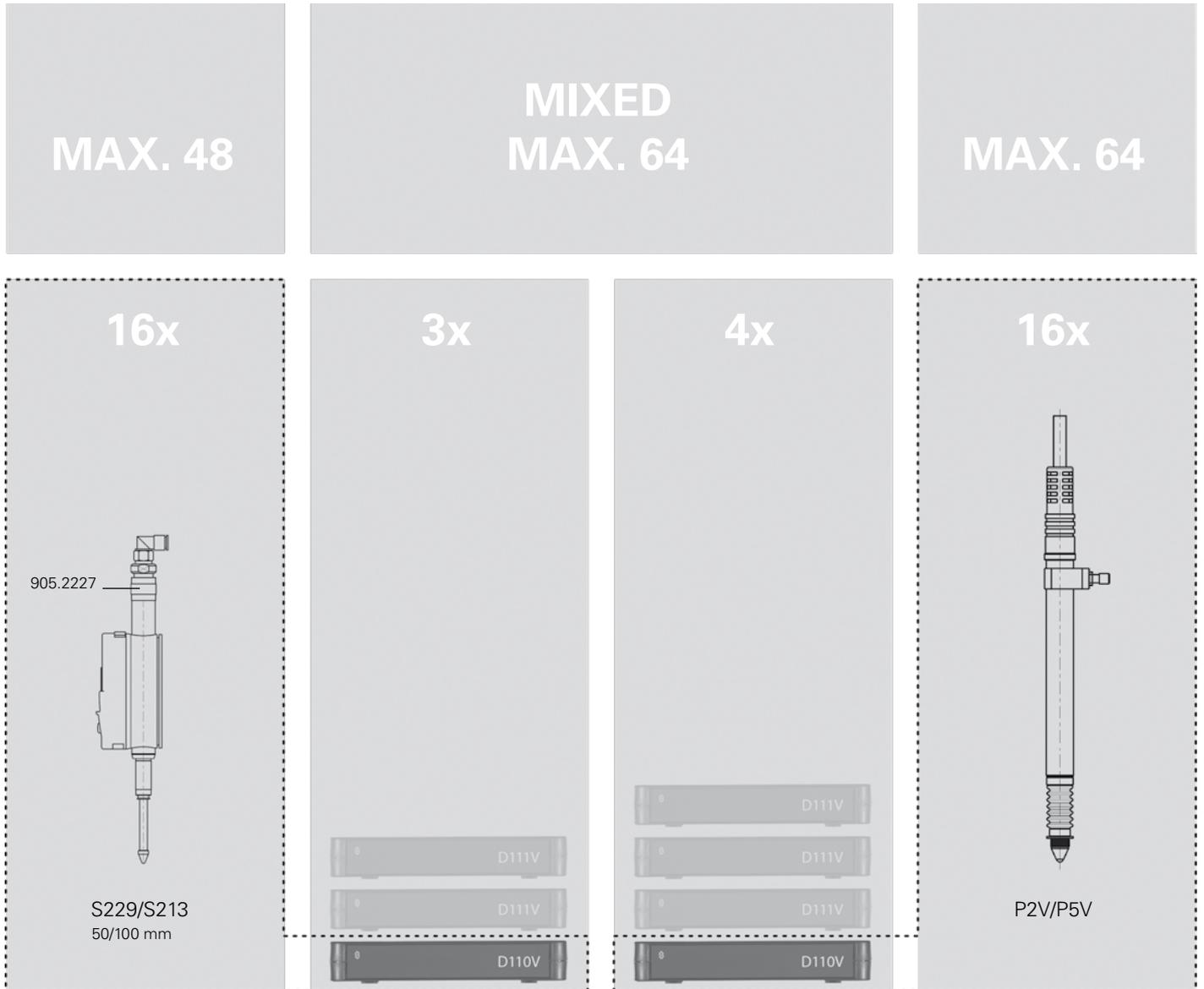
## POSSIBILITIES OF CONNECTION WITH ACCESSORIES



# Digital display

# S\_View D100S

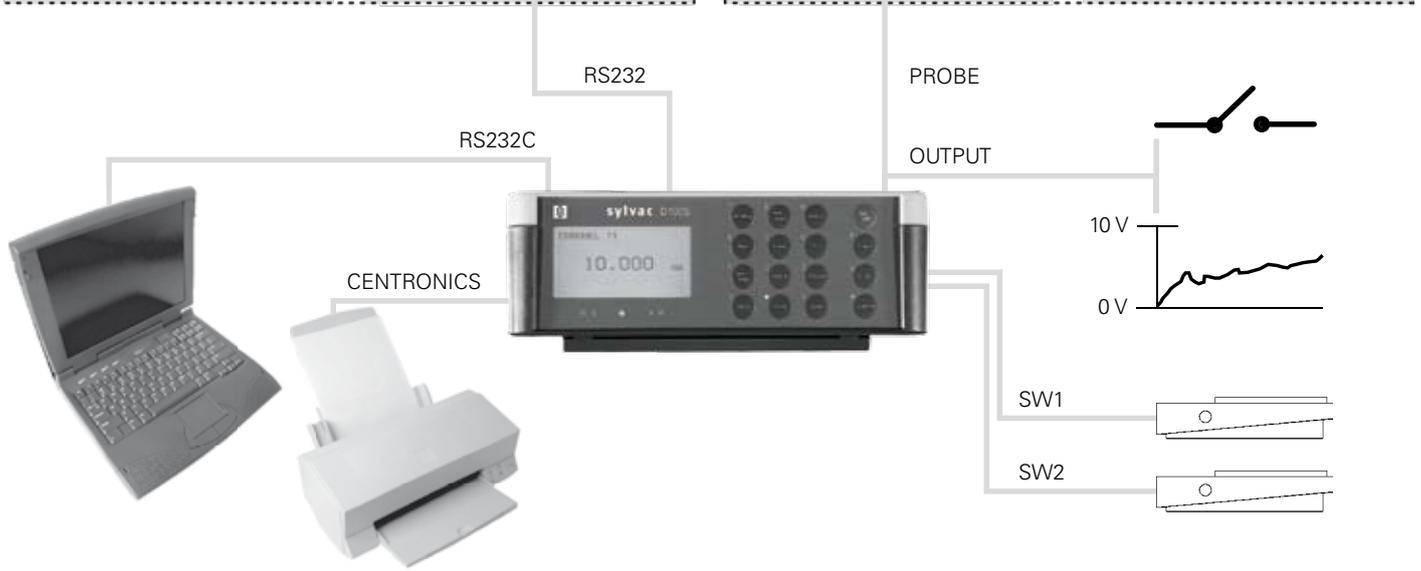
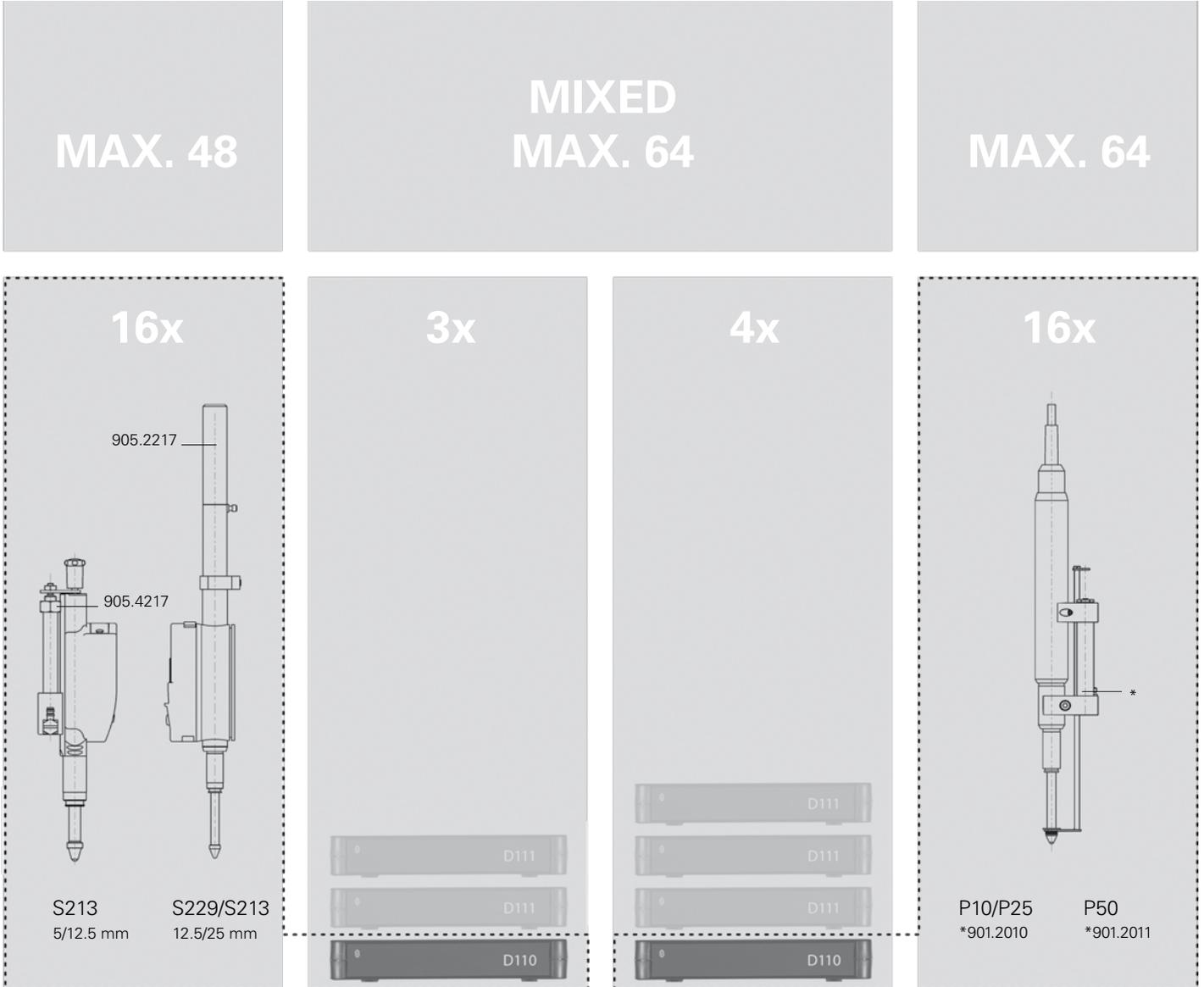
## POSSIBILITIES OF D110V PNEUMATIC LIFTER



# Digital display

# S\_View D100S

## POSSIBILITIES OF D110 PNEUMATIC LIFTER



# Multiplexer display

# S\_View D200S

## DESCRIPTION

- Multiplexer with 8 inputs for Sylvac probes P2 to P50
- Dynamic measurement (200 mes/s)
- Ideal for the layout conception of multi-gauging
- Possibility of pneumatic lifting of the probes
- Software allowing the treatment up to 24 channels simultaneously (bar graph)
- sending of the measured values in Excel, notepad or in specific file
- Create sequences of sending data
- Grouped or individual PRESET
- Mathematic combinations between channels
- Unit usable in an autonomous way



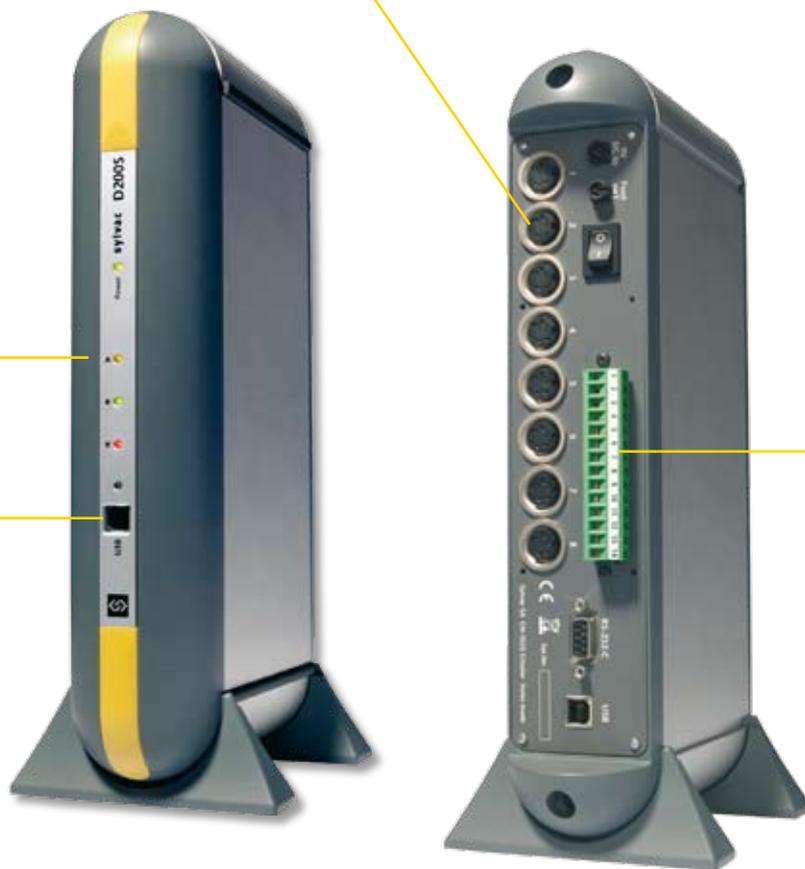
8 inputs for Sylvac probes

Software allowing the treatment up to 24 channels simultaneously (bar graph)

Tolerance indicators

Connection by USB (2x) or RS232 (1x)

Opto-coupled digital output rack



# Multiplexer display

# S\_View D200S

## DISPLAY/SOFTWARE

Selection of unit mm/inch

Selection of resolution

PRESET function

Sending Data

Tolerance indicators with LED

Min/Max/Delta display

Individual selection of measuring direction

Switchable digital/bargraph display

Global tolerance status of the measured part

Programming channels screen

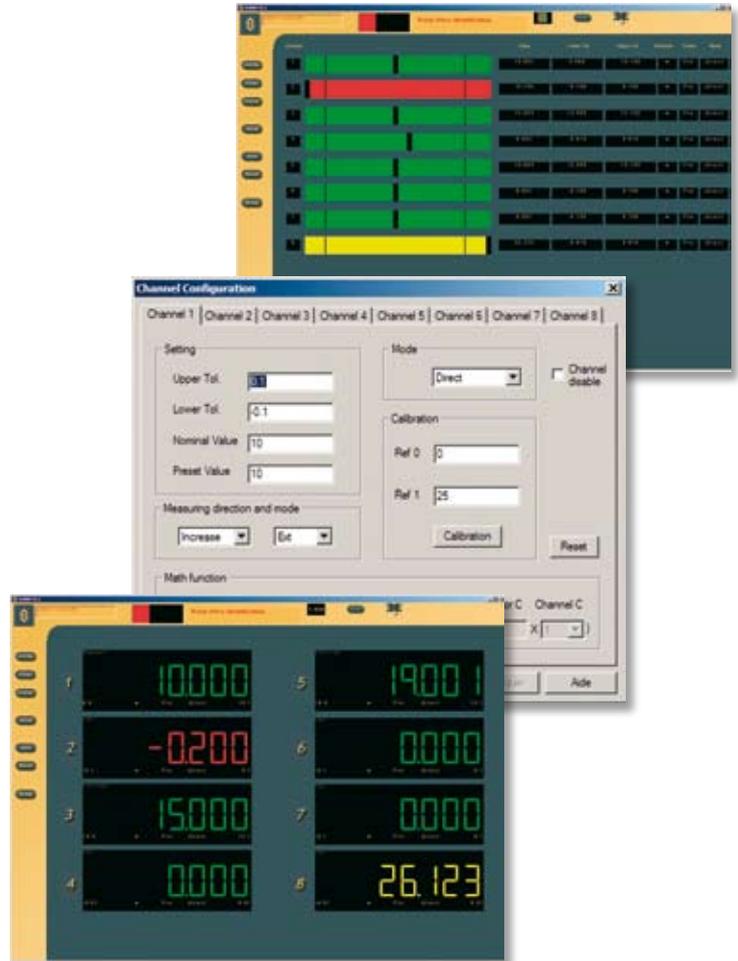
Sending Sequences of Data

External contact configuration

Electrical external contact configuration

Open / Save configurations

Transfer configuration to D200S unit



## TECHNICAL SPECIFICATIONS

		804.1200
Type		D200S
Max. Error	µm	P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9 / P50 : 3.9
Repeatability	µm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2 / P50 : 0.4
Frequency of measurement		200 values /second
Sizes	mm	304 x 171 x 61
Weight	kg	1.2
Case		Aluminium profile, Terlend plastic, ABS and aluminium vanished
Protection rating according to IEC 60529		IP50
S_Connect		USB / RS232 <sup>1)</sup>
Programmable by PC		●

<sup>1)</sup> see cables chapter

# Multiplexer display

# S\_View D200S

## BASIC INSTRUMENT

- Instrument according to technical specifications
- Feet for vertical position
- Charging unit according to country (904.4010 / 11 / 12 / 13)
- PC Connection cable type USB (804.1210)
- CD with software D200S
- Manual

## APPLICATIONS

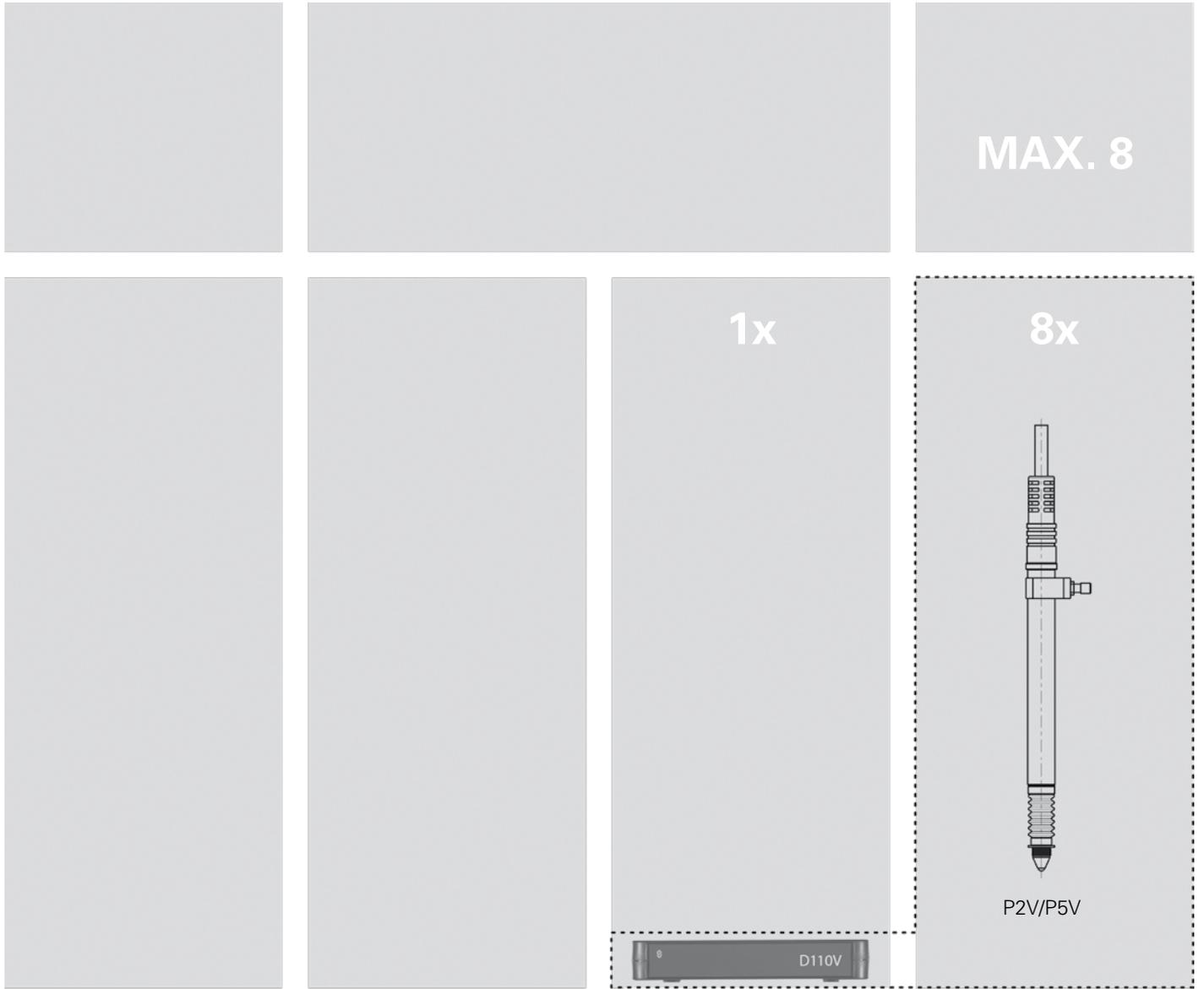


Dynamic measurement of several diameters,  
OD and ID of a shaft

# Multiplexer display

# S\_View D200S

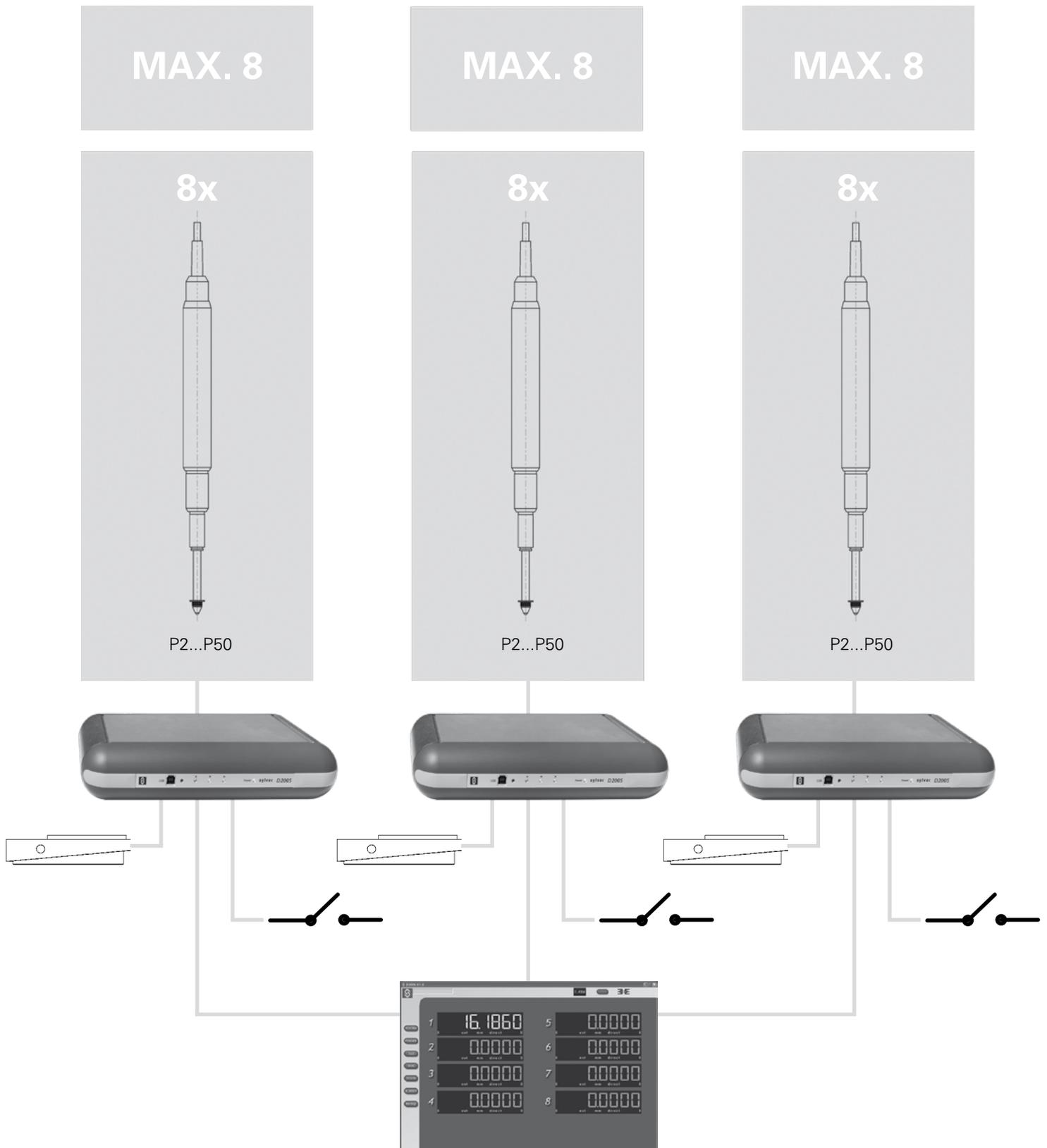
## POSSIBILITIES OF D110V PNEUMATIC LIFTER



# Multiplexer display

# S\_View D200S

## POSSIBILITIES OF CONNECTION



# Display units

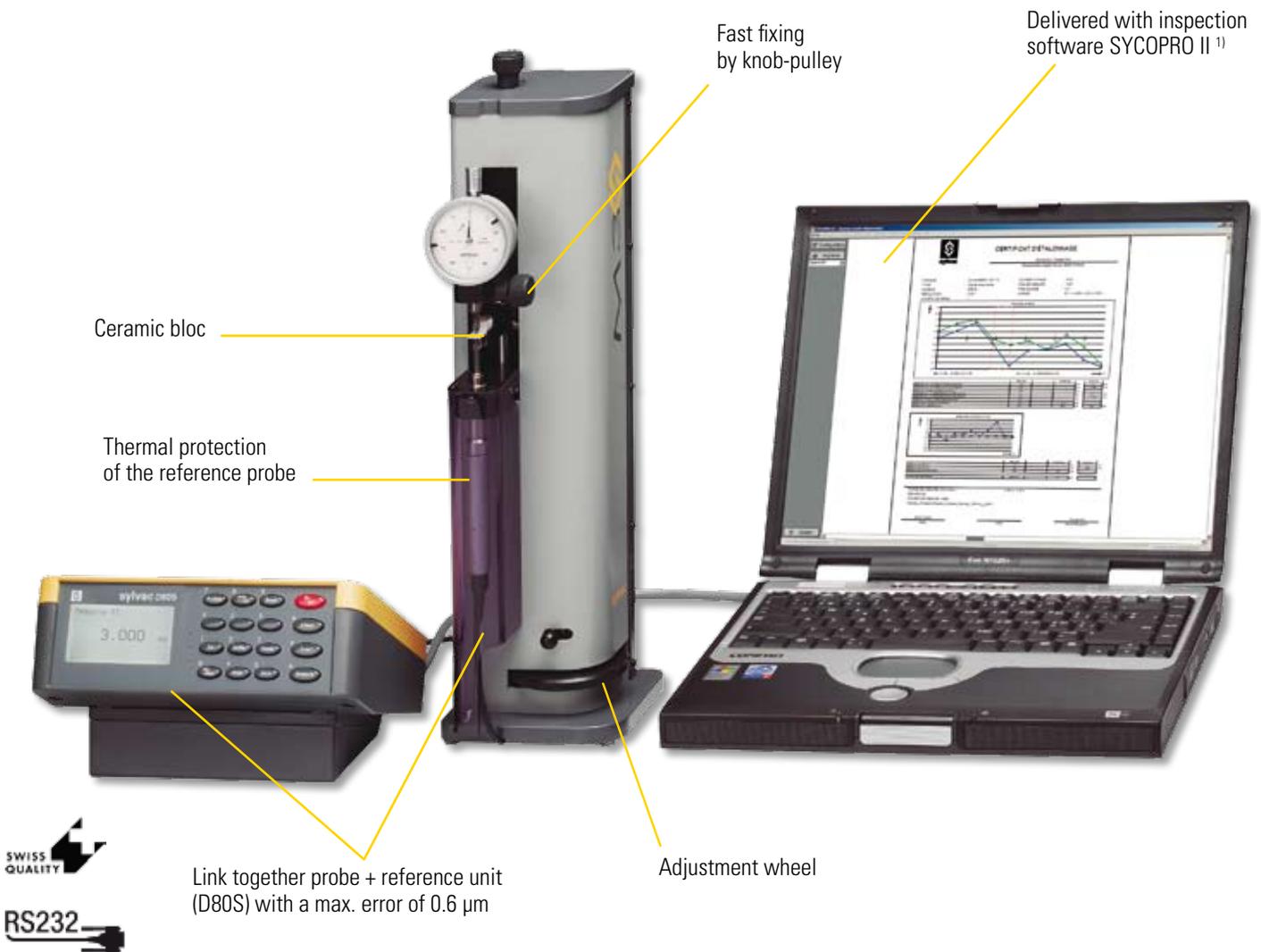
## ACCESSORIES

		D50S	D80S	D100S	D200S
	<b>904.1102</b> D102-additional 2 input unit for probes		●	●	
	<b>904.1104</b> D104-add. 4 input unit for RS232 instruments			●	
	<b>904.1108</b> D108-additional 8 input unit for probes		●	●	
	<b>904.1110</b> D110-Pneumatic control unit with 16 outputs		●	●	●
	<b>904.1112</b> D110V-control unit with 16 vacuum outputs		●	●	●
	<b>904.4010</b> Charging set 230V EUR	●	●	●	●
	<b>904.4011</b> Charging set 230V UK	●	●	●	●
	<b>904.4012</b> Charging set 120V USA	●	●	●	●
	<b>904.4013</b> Charging set 100V JPN	●	●	●	●
	<b>904.4101</b> External contact (footpedal)	●	●	●	●
<b>904.6001</b> Dust cover		●	●		
<b>804.1211</b> Connection cable D200S - D110/V					●

# Dial gauge testing stand M3

## DESCRIPTION

- Suitable for testing dial gauges plunger type, test indicators
- Testing system according to ABBE principle
- Can be used in vertical and horizontal position
- Ceramic gauges blocs (3x)
- Direct status from the instrument during checking
- Integrated standards
- Creation of personalized certificates of inspection
- Rapid and slow approach speeds
- Visualization at any time of the control status
- Control of digital instruments with direct connection

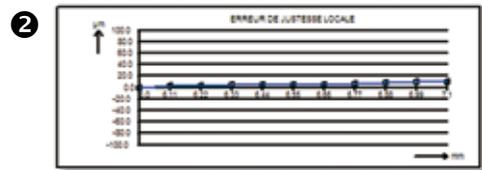
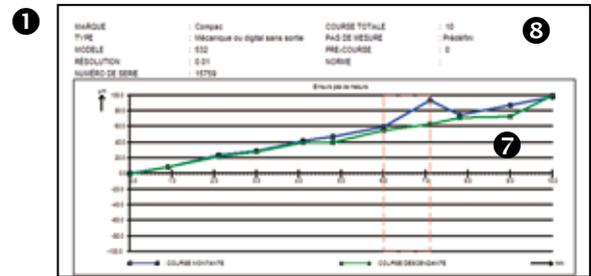


<sup>1)</sup> PC none included

# Dial gauge testing stand M3

## DISPLAY/SOFTWARE

- 1 Display the curves of measurement
- 2 Check the error and repeatability
- 3 Creation and management of instrument groups
- 4 Fast access to all of stored instruments
- 5 Integrated standards
- 6 Personalisation of the standards
- 7 Display the measured values
- 8 Possibility to customize the certificate



5 Instrument list screen showing various models and their specifications.

6 Configuration screen for 'Système expresso' with fields for 'Erreur justesse', 'Erreur locale', 'Erreur de lecture', 'Moyenne sur', 'Unité', 'Erreur maximum', 'Erreur justesse cible', 'Erreur locale cible', 'Erreur de lecture', and 'Erreur répétitive (%)'. It also includes a 'F12 TOUT SAISON' button.

4 Instrument selection screen with a dropdown menu and a list of instruments.

3 Instrument configuration screen with fields for 'Nom', 'Modèle', 'Précision', 'Type', 'Résolution', 'Unité', 'Gamme', and 'Nom'. It also includes a 'F12 TOUT SAISON' button.

## TECHNICAL SPECIFICATIONS

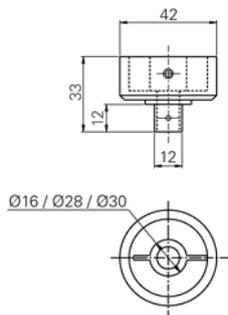
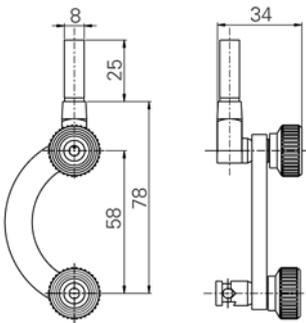
		909.1303	909.1301	909.1302
Measuring range	mm	M3 Kit 10 mm	M3 Kit 25 mm	M3 Kit 50 mm
Max. Error	µm	0.6	0.6	1.5

# Dial gauge testing stand M3

## BASIC INSTRUMENT

- Stand M3 (909.1300)
- Ceramic bloc gauges (3x)
- Thermal protection of the probe reference
- D80S + P25 calibrated
- Cable RS232C (925.5609)
- Charging unit according to country (904.4010 / 11 / 12 / 13)
- External contact (foot-pedal 904.4101)
- CD- with inspection software SYCOPRO II (981.7124)
- Accessory for lever indicators (909.2010)

## ACCESSORIES



<b>909.2010</b>	Clamping device for test indicator
<b>909.2011</b>	Clamping device for dial gauges Ø 16 / 28 / 30 mm

# Measuring bench table

# PS15

## DESCRIPTION

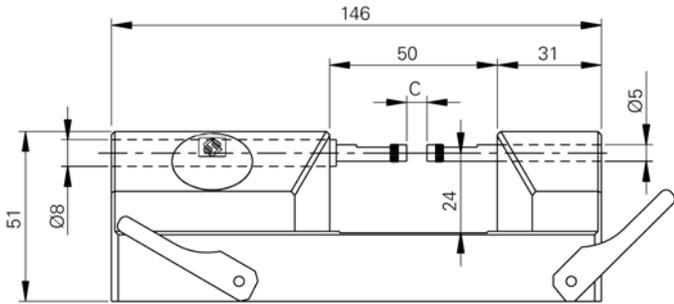
- Small horizontal or vertical bench table designed to easily and quickly check small parts up to 20 mm
- The measured value will be displayed either with Sylvac digital gauge 12.5 mm range 0.01 mm or 0.001 mm reading, or to reach an overall accuracy of 0.6  $\mu\text{m}$  and a repeatability of 0.2  $\mu\text{m}$
- This bench table can be equipped with different kind of tables as well as with several types of anvils of any shapes
- Large possibilities of special applications on request



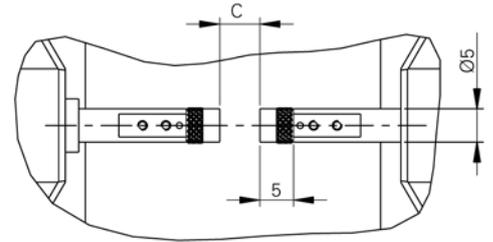
# Measuring bench table

# PS15

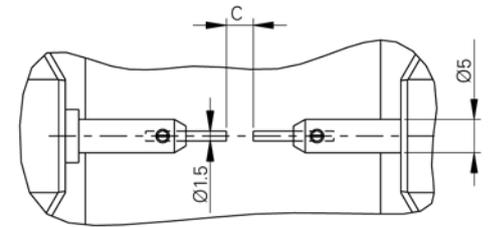
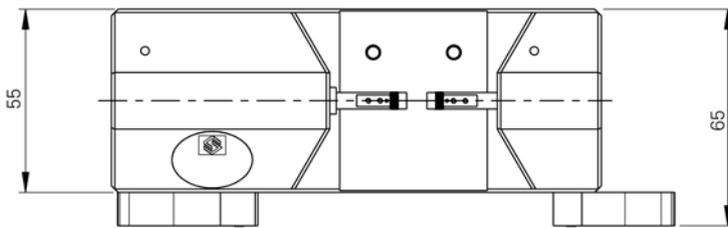
## DIMENSIONAL DRAWINGS



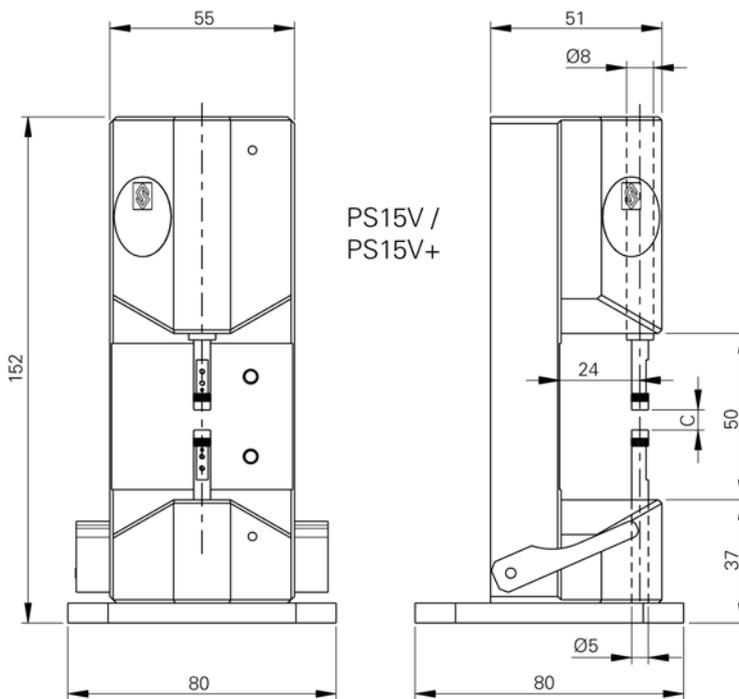
PS15H / PS15H+



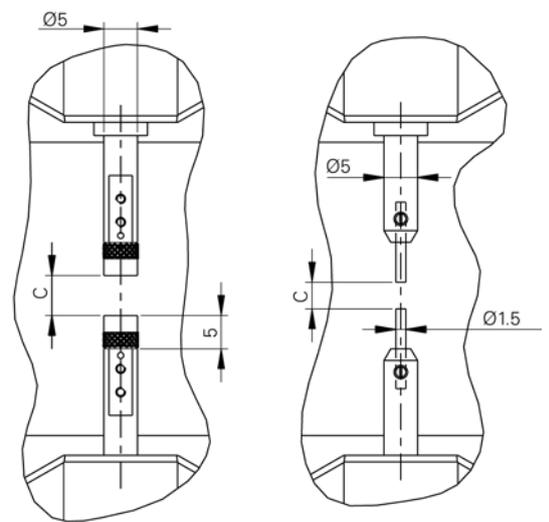
PS15H



PS15H+



PS15V / PS15V+



PS15V

PS15V+

# Measuring bench table

# PS15

## TECHNICAL SPECIFICATIONS

		908.1215	908.1216	908.1217	908.1218
Type		PS15H	PS15V	PS15H +	PS15V +
Max. capacity	mm	20	20	20	20
Measuring range C	mm	10	10	10	10
Adjustable measuring force	N	0.3 - 1.0	0.3 - 1.0	0.3 - 1.0	0.3 - 1.0
Weight	kg	1.8	1.8	1.8	1.8
Measuring direction		Horizontal	Vertical	Horizontal	Vertical
Anvils fixation		M2.5	M2.5	Ø 1.5 mm	Ø 1.5 mm
Cary Compatibility		●	●	---	---

## BASIC INSTRUMENT

### PS15 H / V

- Instrument according to technical specifications
- Manual
- Measuring anvils Ø 5 mm, M 2.5 (905.2201)
- Allen keys 2 and 2.5 mm

### PS15 H+ / V+

- Instrument according to technical specifications
- Manual
- Measuring anvils Ø 1.5 mm (908.2175)
- Allen keys 2 and 2.5 mm

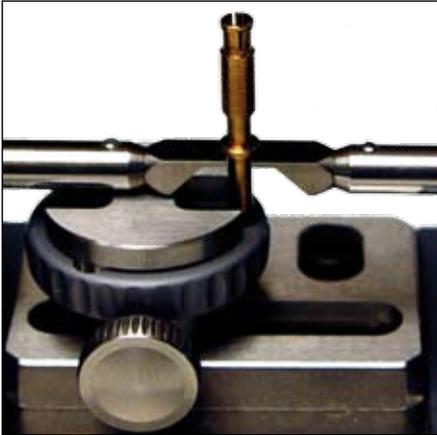
## TABLES AND ANVILS

Refer to pages 136-139

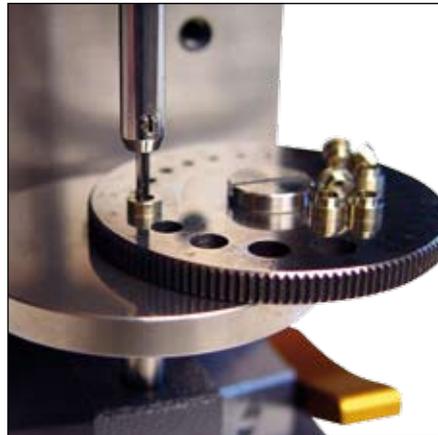
# Measuring bench table

# PS15

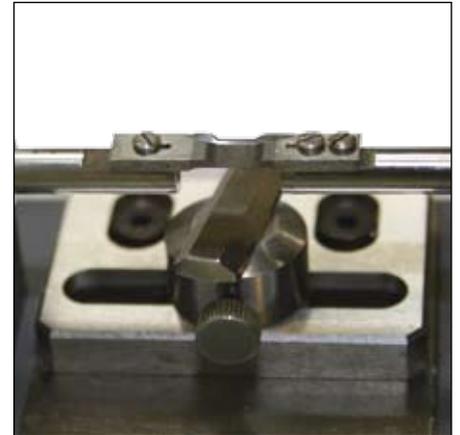
## APPLICATIONS



XYZ table with plate with fine adjustment. On request



Measurement of small parts with PS15V+ and rotation 25 holes support



Special anvils

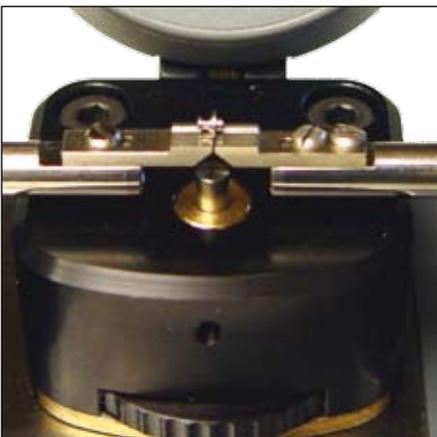
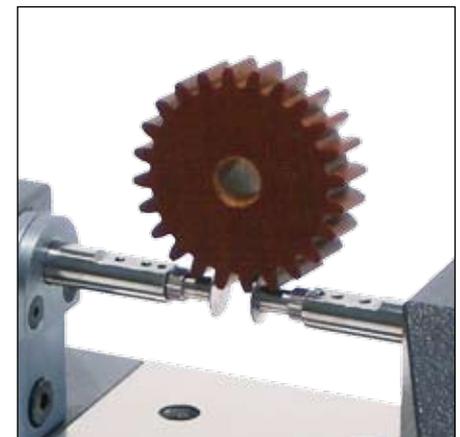


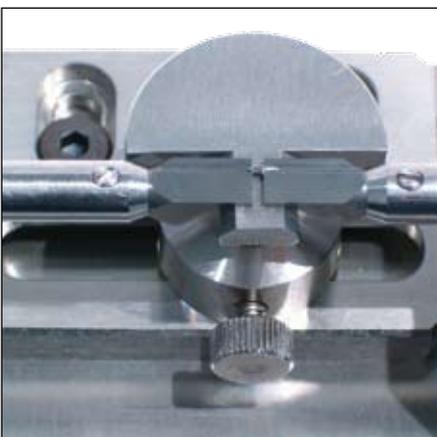
Table with plate  $\varnothing 3$  mm and fine adjustment. Indication of the height with S233



Multi-functional measuring station



Gear measuring anvils. On request



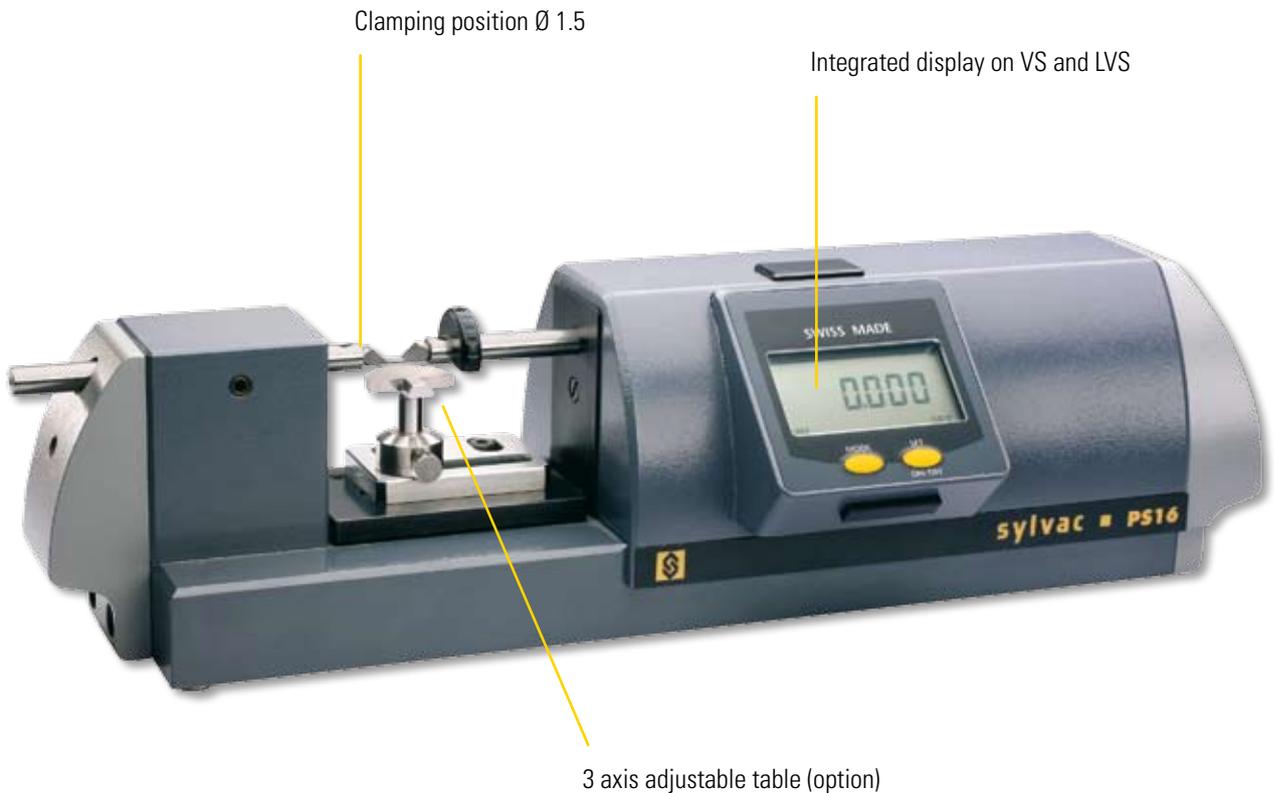
Standard XYZ table and knife-shape anvils with V

# Measuring bench table

# PS16

## DESCRIPTION

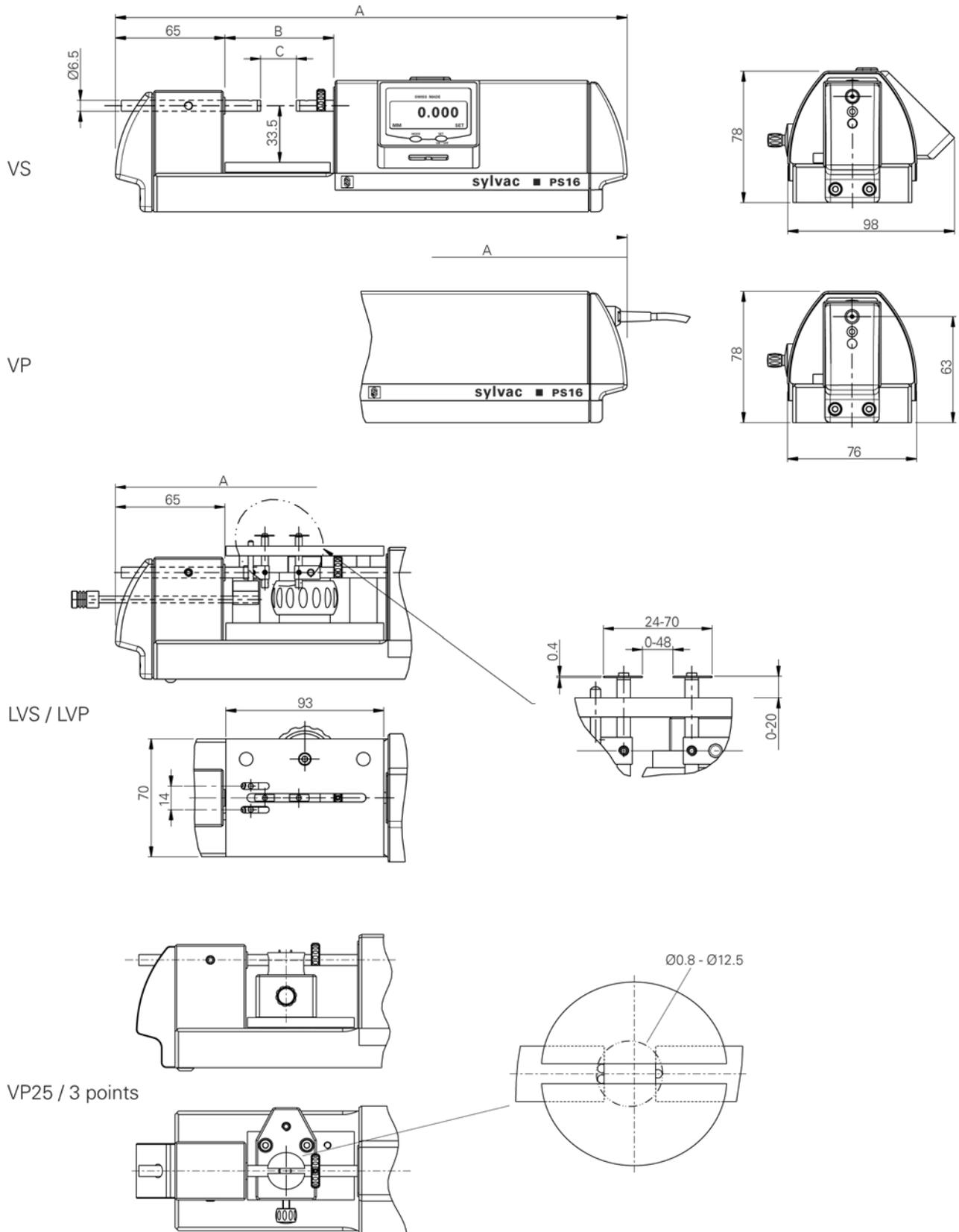
- The bench tables “to size” PS16 are designed to check internal up to 70 mm and external dimensions up to 50 mm
- The VS and LVS versions have an integrated display as well as an opto - RS232 output
- The VP and LVP versions have an integrated P25 or P50 Sylvac probe. The measured value will be displayed using a D50S, D80S and D100S display unit
- These bench tables can be equipped with different kind of tables to fit your needs as well as with several types of anvils of any shapes
- A ball bearing, an adjustable and reversible measuring force, as well as many other features and accessories make these tables a must for your workshop or your inspection room
- Adjustable measuring force
- Data output Opto-RS/ USB
- Standard measuring anvils  $\varnothing$  6.5 mm
- Large possibilities of special applications on request



# Measuring bench table

# PS16

## DIMENSIONAL DRAWINGS



# Measuring bench table

# PS16

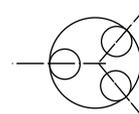
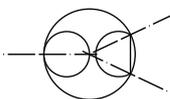
## TECHNICAL SPECIFICATIONS

External and internal measurement		908.1221	908.1231	908.1222	908.1232
Type		VS25	VP25	VS50	VP50
Measuring capacity C	mm	38	38	68	68
Measuring range	mm	25	25	50	50
Max. Error	µm	5	1.5	7	2.5
Repeatability	µm	1	0.3	1	0.4
Resolution	µm	1	0.1	1	0.1
Measuring force (Adjustable)	N	0.2 - 1.0 <sup>1)</sup>			
Weight	kg	5	5	6.5	5.5
Anvils clamping dimension	mm	Ø 1.5	Ø 1.5	Ø 1.5	Ø 1.5
A	mm	301	301	401	401
B	mm	65	65	96	96

2- points Internal measurement with centering pins		908.1224	908.1234
Type		LVS50	LVP50
Internal measuring capacity	mm	24 - 70	24 - 70
External measuring range	mm	48	48
Max. Error	µm	10	6
Repeatability	µm	4	2
Resolution	µm	1	0.1
Measuring force (Adjustable)	N	0.2 - 1.0 <sup>1)</sup>	0.2 - 1.0 <sup>1)</sup>
Weight	kg	7	7
Thickness of anvils	mm	0.4	0.4
Anvils clamping dimension		Clamping device	Clamping device
Adjustable range of the table	mm	20	20
A	mm	418	418
B	mm	96	96

<sup>1)</sup> ± 20%

3 - points Internal measurement		908.1235	908.1236	908.1237	908.1238	908.1239
Measuring range	mm	0.8-1.3	1.3-2.5	2.5-4	4-8	8-12.5
Max. Error, Repeatability, Measuring force, dimensions		VP25	VP25	VP25	VP25	VP25
Measuring pins	mm	Ø 0.5	Ø 0.5	Ø 10	Ø 1.5	Ø 1.5
Master ring gauges	mm	0.8 & 1.3	1.3 & 2.5	2.5 & 4.0	4 & 8	8 & 12.5



# Measuring bench table

# PS16

## BASIC INSTRUMENT

---

### PS16 VS/VP

- Instrument according to technical specifications
- Manual
- Calibration certificate
- Table not included
- Anvils Ø 6.5 mm included

### PS16 LVS/LVP

- Instrument according to technical specifications
- Manual
- Calibration certificate
- Table not included
- Anvils Ø 6.5 mm included

### PS16 VP25 3 - points Internal measurement

- Instrument according to technical specifications
- Manual
- Calibration certificate LVP
- Table according to technical specification and anvils 908.2184
- Set of master ring gauges
- Special Digital display D100S for 3 – points measurement

---

## TABLES AND ANVILS

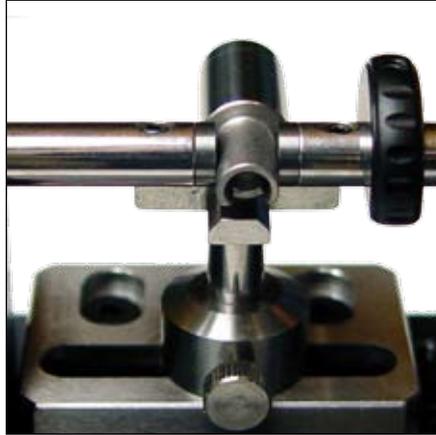
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Refer to pages 136-139

## APPLICATIONS



Internal measurement in 2 – points with auto-centering of the part on LVS 50



External measurement with anvils  $\varnothing$  6.5 and XYZ table

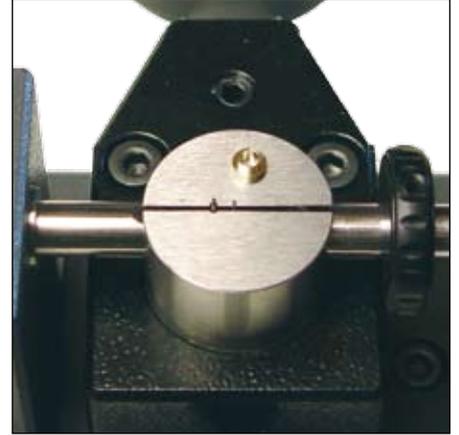


Table and anvils for internal measurement in 3 - points 1.3 - 2.5 mm

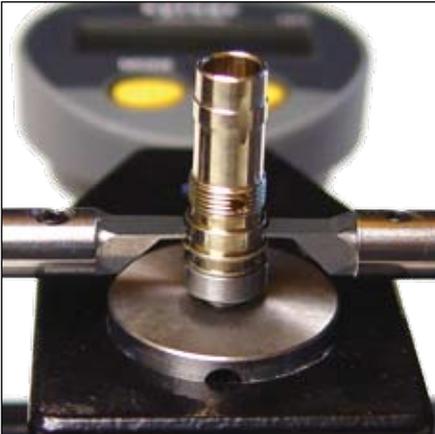


Table with adjustable plate (height). Different  $\varnothing$  plates available



3 – points internal measurement



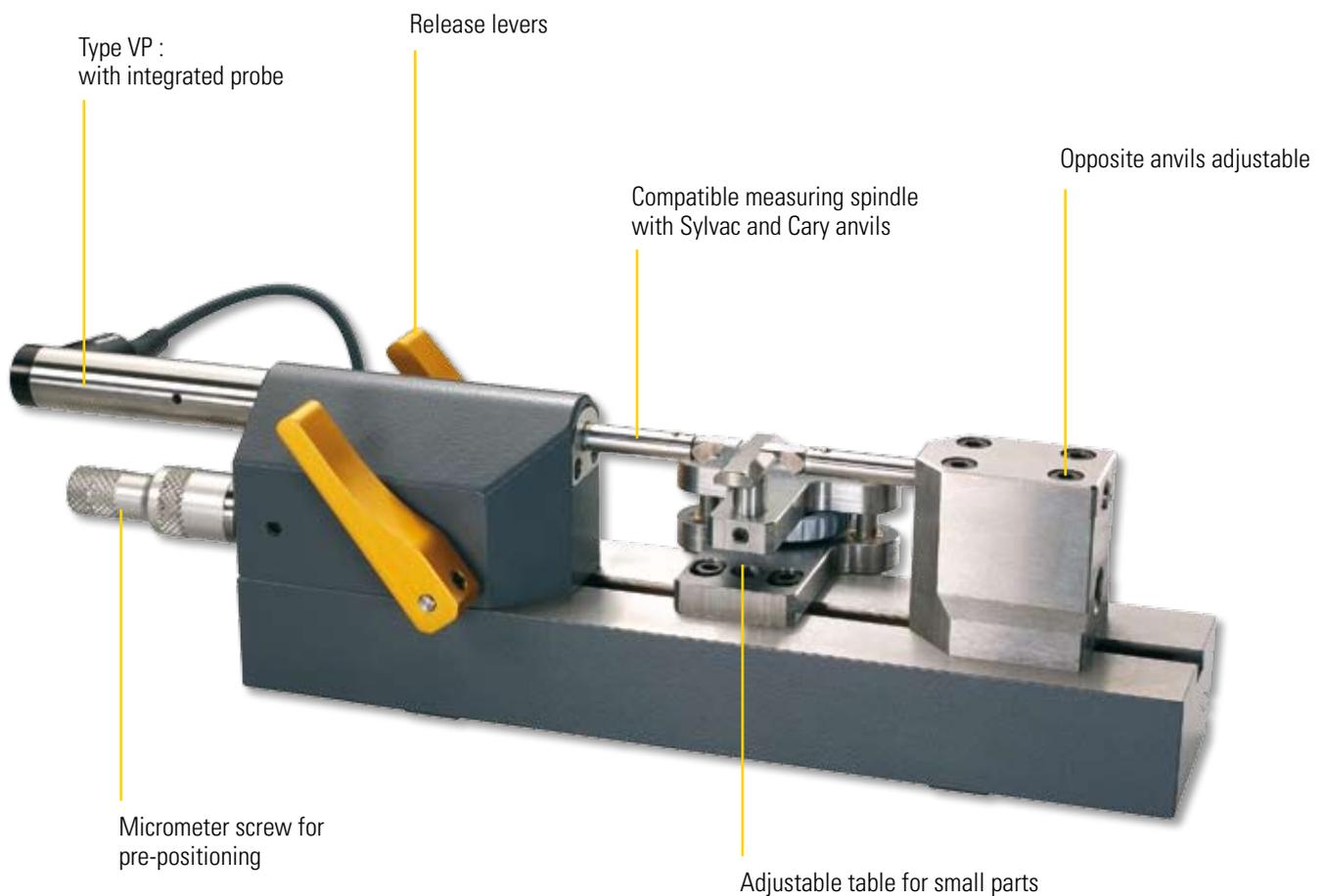
Table and anvils for internal measurement in 3 - points 2.5 - 4 mm

# Measuring bench table

# PS17

## DESCRIPTION

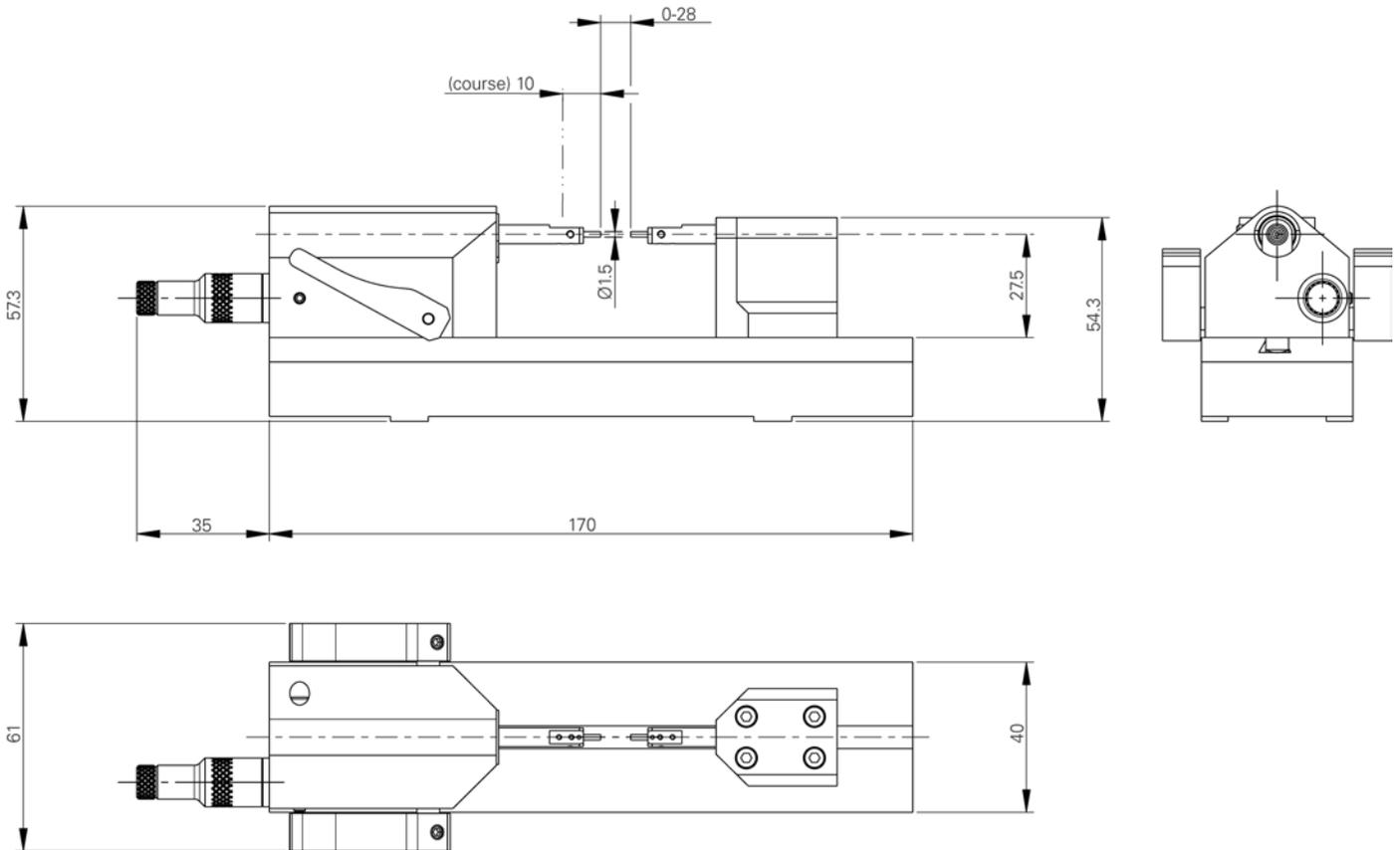
- Measuring bench with great flexibility of use
- Fix spindle adjustable
- Accurate micrometer screw for pre-positioning
- Compatibility with Sylvac anvils (Ø1.5mm) and Cary type
- Several accessories anvils
- 2 models :
  - Integrated P10 capacitive probe (VP)
  - Free use with digital indicator (VS)



# Measuring bench table

# PS17

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		908.1240	908.1241
Type	mm	VS <sup>1)</sup>	VP <sup>1)</sup>
Measuring system	mm	Dial gauges <sup>2)</sup>	Integrated P10 capacitive probe
Application range	mm	37	
Measuring range	µm	10	
Adjustable measuring force	N	0.2 - 1.0	
Weight	kg	1.4	1.5
Clamping anvils Ø 1.5 mm			●
Compatibility with Cary			●
Micrometer screw			●

<sup>1)</sup> Standard delivery with measuring anvils Ø 1.5 mm

<sup>2)</sup> not included

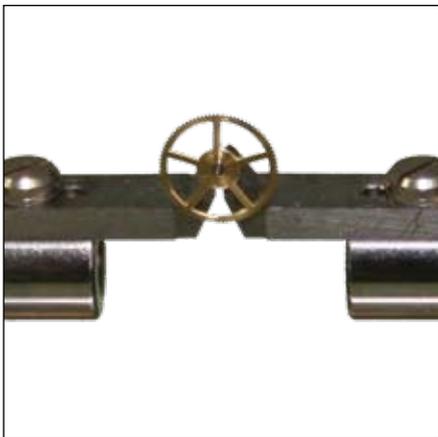
# Measuring bench table

# PS17

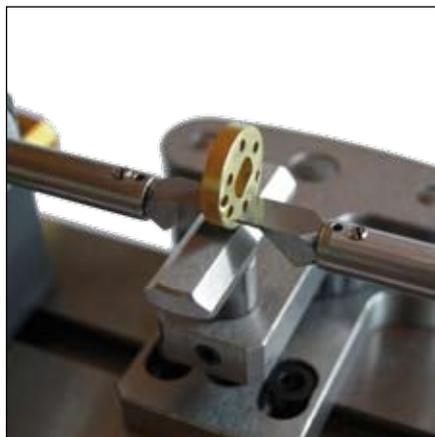
## BASIC INSTRUMENT

- Instrument according to technical specifications
- Manual
- Measuring anvils  $\varnothing$  1.5 mm (908.2175)
- Calibration certificate for VP

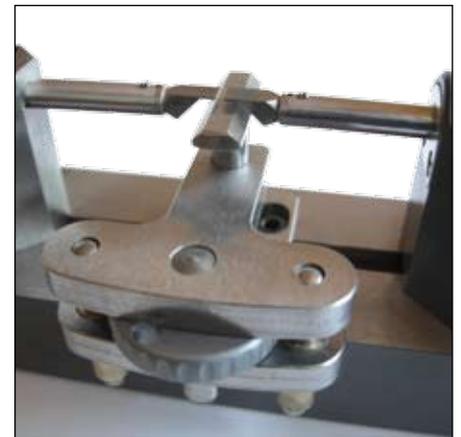
## STANDARD SPECIFICATIONS



Special anvils for PS17. On request



Knife-shape anvils, thickness 0.4 mm and standard XYZ table



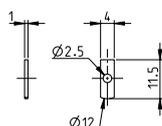
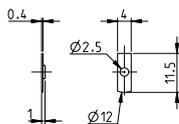
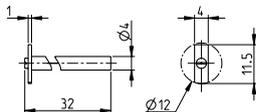
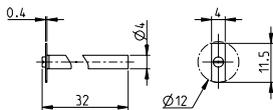
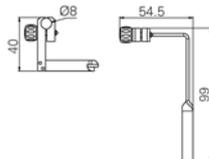
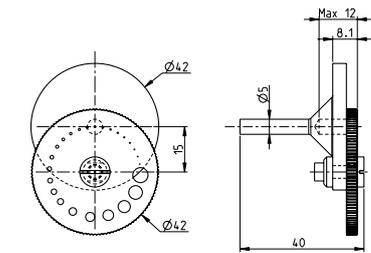
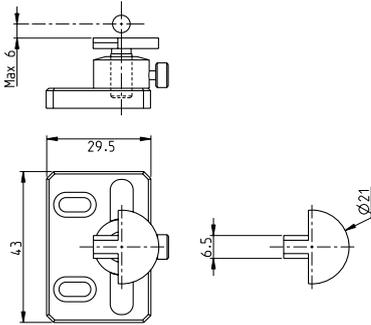
Special table with height adjustment system

## TABLES AND ANVILS

Refer to pages 136-139

# Measuring bench table

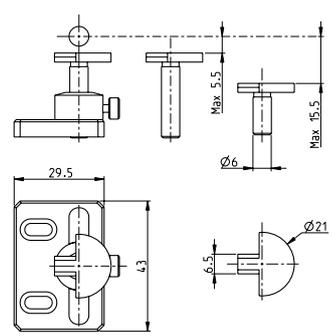
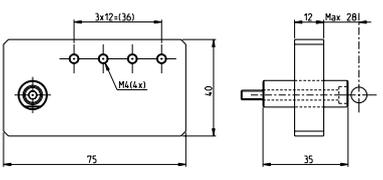
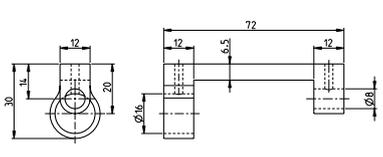
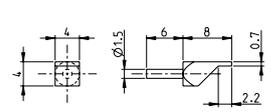
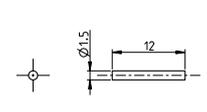
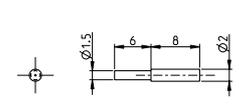
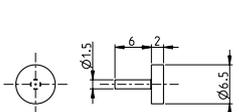
## ACCESSORIES



		PS15 H	PS15 V	PS16 VS/NP	PS16 LVS/LVP	PS17
<b>908.2170</b>	Supporting table adjustable in XYZ	●				
<b>908.2172</b>	Rotating-table with 25 bores from 0.2 to 5 mm		●			
<b>908.2150</b>	Releasing lever			●	●	
<b>908.2184</b>	Knife-shaped anvils 0.4 mm TC with clamping shaft				●	
<b>908.2185</b>	Knife-shaped anvils 1 mm TC with clamping shaft				●	
<b>908.2186</b>	Knife-shaped anvils 0.4 mm MD				●	
<b>908.2187</b>	Knife-shaped anvils 1 mm MD				●	

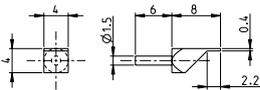
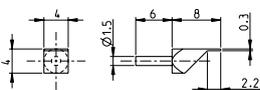
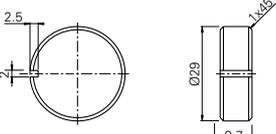
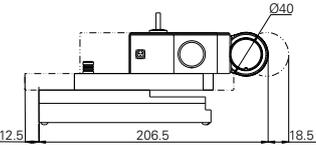
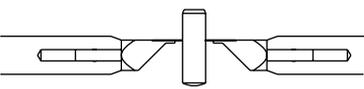
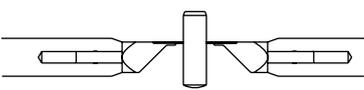
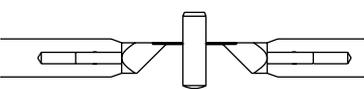
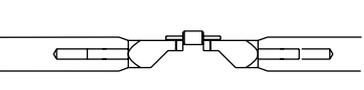
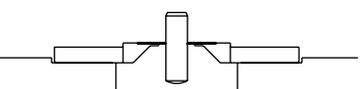
# Measuring bench table

## ACCESSORIES

		PS15 H	PS15 H +	PS15 V	PS15 V +	PS16 VS/NP	PS16 LVS/LVP	PS17
	<b>908.2190</b>					●		
	<b>908.2191</b>					●		
	<b>908.2194</b>						●	
	<b>908.2174</b>		●		●	●		●
	<b>908.2175</b>		●		●	●		●
	<b>908.2176</b>		●		●	●		●
	<b>908.2177</b>		●		●	●		●

# Measuring bench table

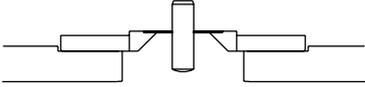
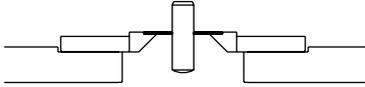
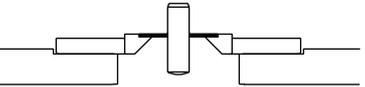
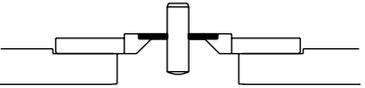
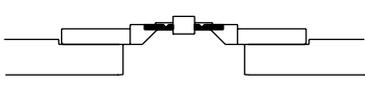
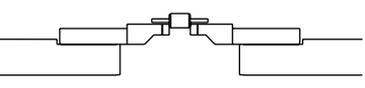
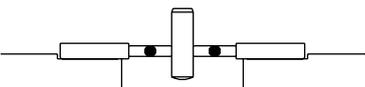
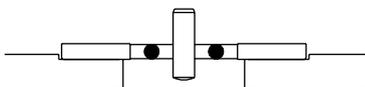
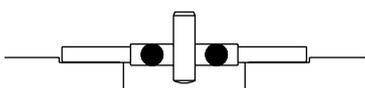
## ACCESSORIES

		PS15 H	PS15 H +	PS15 V	PS15 V +	PS16 VS/VP	PS16 LVS/LVP	PS17
	<b>908.2178</b> Knife-shaped anvils 0.4 mm MD		●		●	●		●
	<b>908.2179</b> Knife-shaped anvils 0.3 mm MD		●		●	●		●
	<b>908.2198</b> Replacement lapping stone for 908.2199							
	<b>908.2199</b> Lapping device (3 stones and lapping liquid included)	●	●			●		●
	<b>908.2180</b> Knife-shaped anvils standard 0.2 mm		●		●	●		●
	<b>908.2181</b> Knife-shaped anvils standard 0.14 mm		●		●	●		●
	<b>908.2182</b> Knife-shaped anvils standard 0.1 mm		●		●	●		●
	<b>908.2201</b> Knife-shaped anvils standard 0.1 mm / V		●		●	●		●
	<b>908.2202</b> Knife-shaped standard 1.5 mm		●		●	●		●
	<b>908.2215</b> Knife-shaped anvils 0.14 mm <sup>1)</sup>	●		●				●

<sup>1)</sup> Compatible Cary

# Measuring bench table

## ACCESSORIES

		PS15 H	PS15 H +	PS15 V	PS15 V +	PS16 VS/NP	PS16 LVS/LVP	PS17
	<b>908.2216</b> Knife-shaped anvils 0.2 mm <sup>1)</sup>	●		●				●
	<b>908.2217</b> Knife-shaped anvils 0.3 mm <sup>1)</sup>	●		●				●
	<b>908.2218</b> Knife-shaped anvils 0.4 mm <sup>1)</sup>	●		●				●
	<b>908.2219</b> Knife-shaped anvils 0.7 mm <sup>1)</sup>	●		●				●
	<b>908.2220</b> Knife-shaped anvils 0.7 mm <sup>1)</sup> with V	●		●				●
	<b>908.2222</b> Knife-shaped standard 1.5 mm <sup>1)</sup>	●		●				●
	<b>908.2223</b> Cylindrical anvils Ø 1.5 mm <sup>1)</sup>	●		●				●
	<b>908.2224</b> Cylindrical anvils Ø 2.0 mm <sup>1)</sup>	●		●				●
	<b>908.2225</b> Cylindrical anvils Ø 3.0 mm <sup>1)</sup>	●		●				●

<sup>1)</sup> Compatible Cary

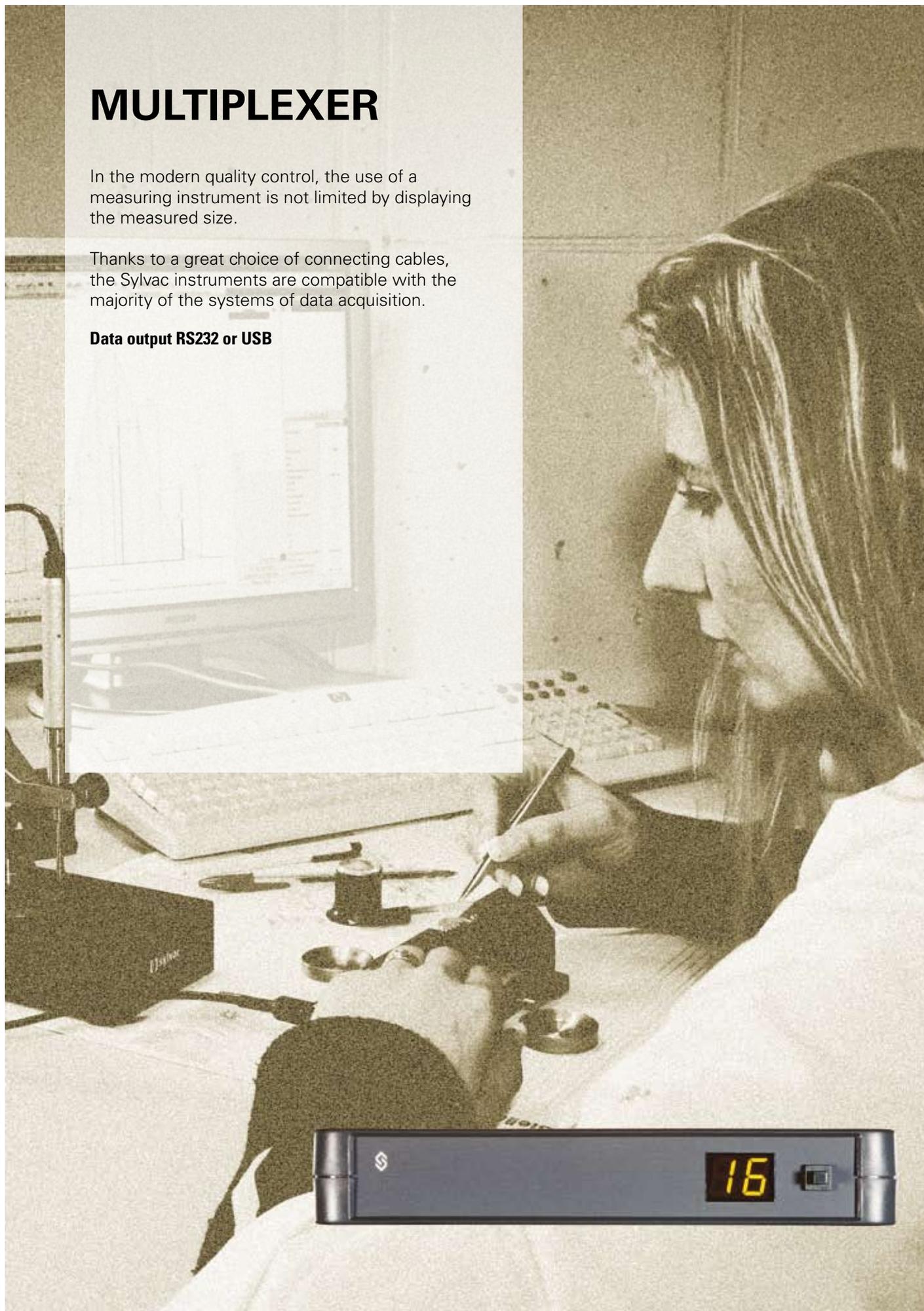


# MULTIPLEXER

In the modern quality control, the use of a measuring instrument is not limited by displaying the measured size.

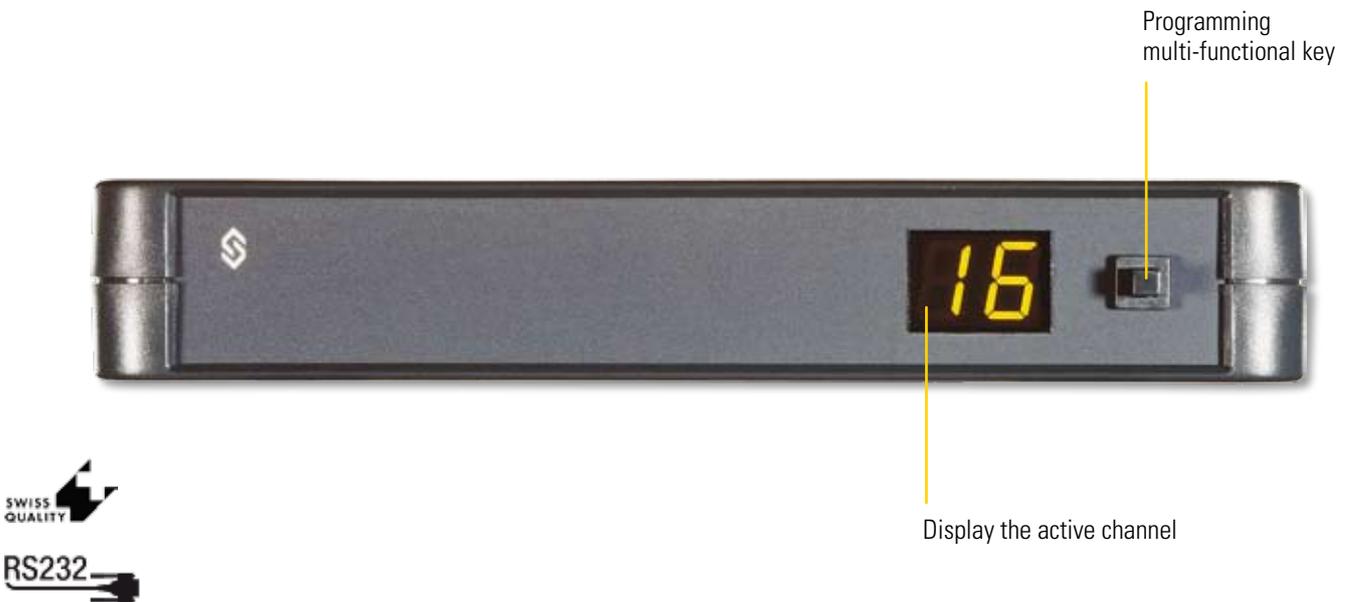
Thanks to a great choice of connecting cables, the Sylvac instruments are compatible with the majority of the systems of data acquisition.

**Data output RS232 or USB**



## DESCRIPTION

- The multiplexer D104-Pc is designed for connecting up to 4x RS232 instruments to the same port of a personal computer (PC)
- The D104 extension unit allows connection of 4 additional instruments
- The maximum is 48 inputs, so one D104-PC and 11 D104
- Display the active channel



## TECHNICAL SPECIFICATIONS

	904.1105
Type	D104PC
S_Connect	RS232 <sup>1)</sup>
Programmable by PC	●

<sup>1)</sup> see cables chapter

## BASIC INSTRUMENT

- Multiplexer according to technical specifications
- Charging unit according to country (904.4010/11/12/13)
- Connection cable to PC (925.5609)



## DESCRIPTION

- Possibility of connecting instruments from different marks
- Large choose of DIGIMATIC cables at disposal, on request
- Models with 2, 4 or 8 inputs
- Compatible with the DIGIMATIC system
- Automatic recognition of the instrument
- Selection channel by channel
- Simultaneous data request of all channels

Compatible with  
the Digimatic system

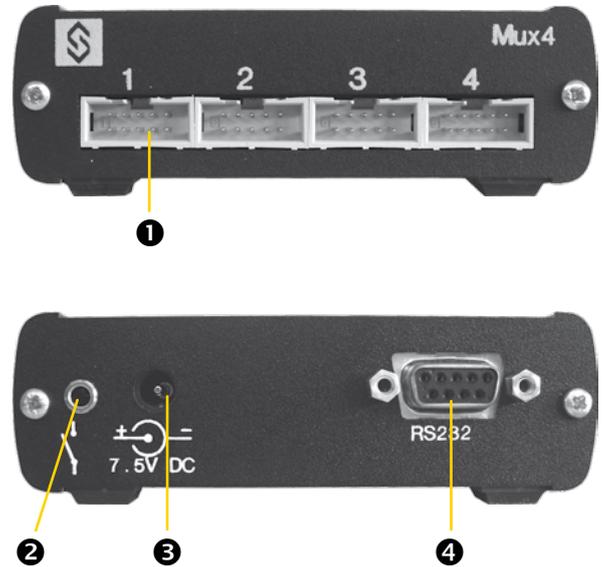


# Multiplexer

# SYLMUX

DISPLAY/SOFTWARE

- 1** Digimatic input
- 2** External contact input
- 3** External power supply connector
- 4** Input/output RS232



## TECHNICAL SPECIFICATIONS

	926.8002	926.8004	926.8008
Type	Sylmux 2	Sylmux 4	Sylmux 8
Number of input Digimatic	2	4	8
S_Connect	RS232 <sup>1)</sup>		
Programmable by PC		●	
Function programming of the cables		●	
Automatic instrument detection mode		●	
Selection of individual channel		●	
Simultaneous data request		●	

<sup>1)</sup> see cables chapter

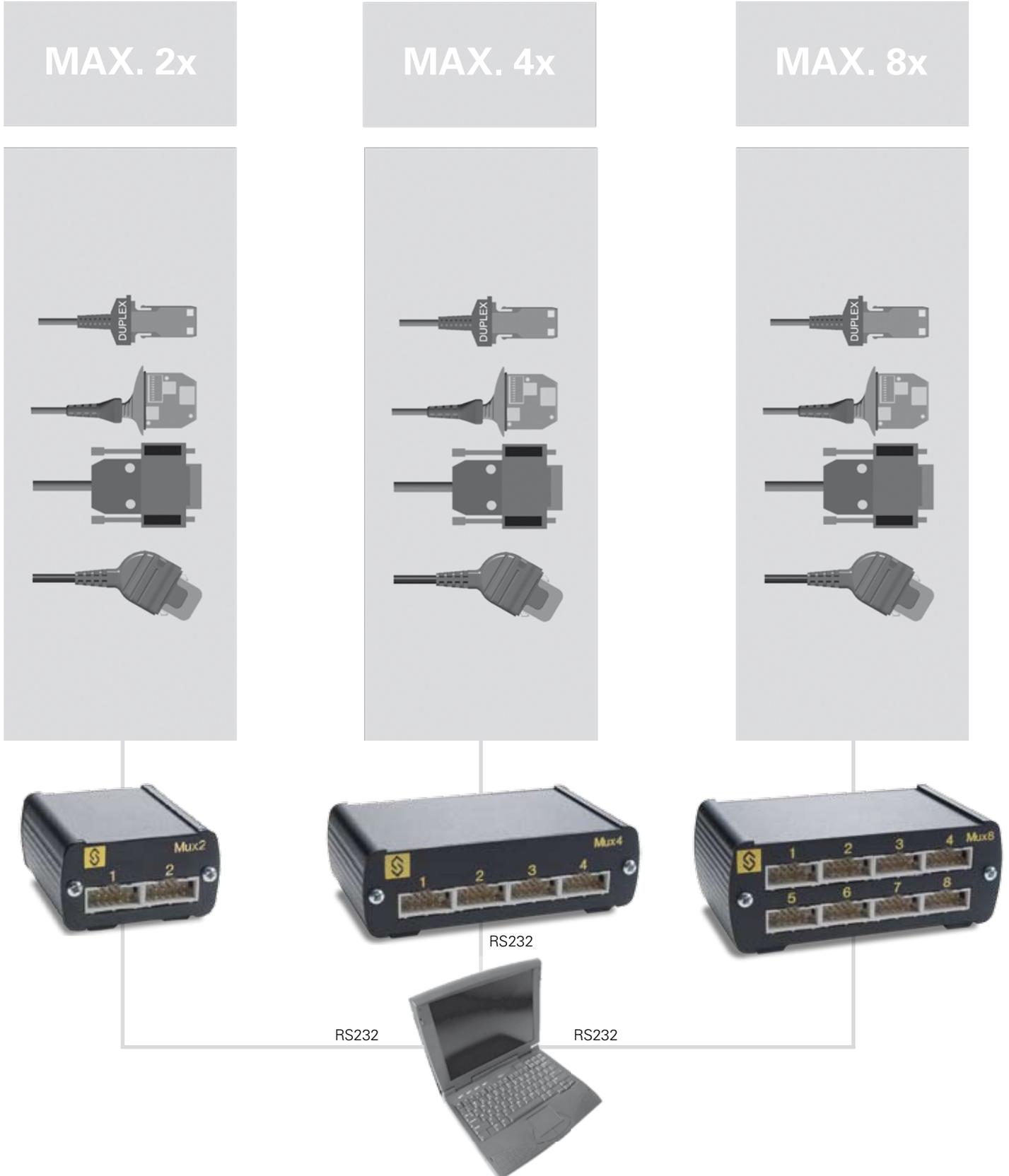
## BASIC INSTRUMENT

- Instrument according to technical specifications
- Charging unit according to country (926.8040/41/42/45)
- Connection Cable Sylmux-PC (926.8060)
- Manual

# Multiplexer

# SYLMUX

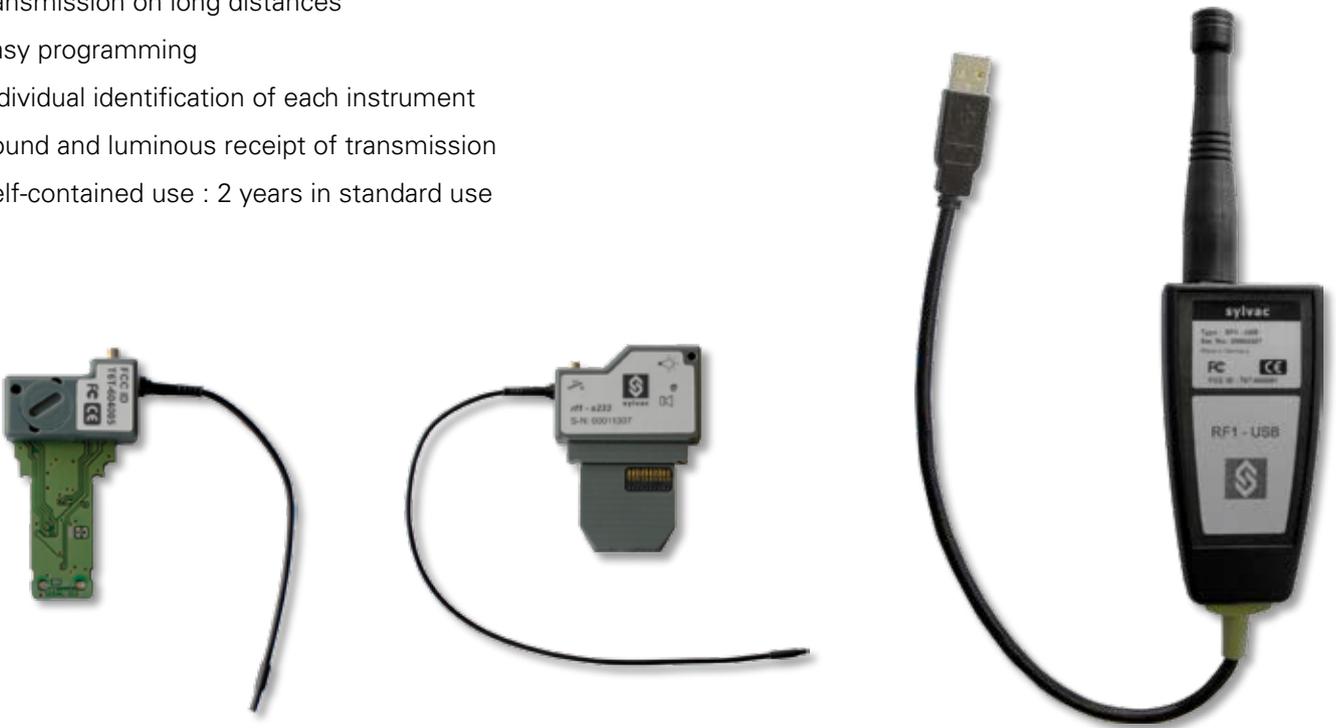
## CONNECTION DIAGRAM



# Wireless transmission

## DESCRIPTION

- Possibility of connecting 120 instruments on only one receiver
- Choice of modules according to the instruments
- Transmission on long distances
- Easy programming
- Individual identification of each instrument
- Sound and luminous receipt of transmission
- Self-contained use : 2 years in standard use

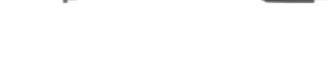


## TECHNICAL SPECIFICATIONS

		926.5110
USB		●
Confirmation of transmission OK/KO		●
Attribution of the addresses modules by software		●
Software interfaces and of configuration		●
Transmission distance <sup>1)</sup>	m	200

<sup>1)</sup> with large antenna

## CONNECTION

	Standard 2 m	Standard 3 m	≤15 m	Bi-directional	Programmable by PC
	926.5521	--	926.5535		
	926.6521	--	926.6535	●	
	926.6538	--	926.6542	●	
	926.6539	--	926.6543	●	
	926.6621	--	1)	●	
	926.8010	--	1)		
	926.8158	--	1)	●	●
	905.4516	--	905.4519	●	
	926.6821	--	1)	●	
	926.8154	--	1)	●	●

<sup>1)</sup> on request

# Cables

# S\_Connect

## CONNECTION

S_Cal Pro / S_Mike Pro	S_Cal Work, Ultra UL	Depth gauges	Protractor	S_Dial S229 / S213	S_Dial S233 / S234	Xtreme	Digital scales	Digital micrometer screws	Hi_Cal	PS16 VS	S_View D50S / D80S output PC	S-View D100S instrument input	S_View D100S output PC	S_View D200S	D104 PC instrument input	D104 PC output PC	MUX instrument input	MUX output PC	S_Cal Micron
	●	●	●	●			●			●		●			●				
	●	●	●	●			●			●		●			●				
	●	●	●	●			●			●		●			●				
	●	●	●	●			●			●		●			●				
	●	●	●	●			●			●		●			●				
	●	●	●	●			●			●		●			●		●		
	●	●	●	●			●			●		●			●		●		
					●	●		●				●			●				
					●	●		●											
					●	●		●									●		

## CONNECTION

	Standard 2 m	Standard 3 m	≤15 m	Bi-directional	Programmable by PC
	--	926.6723	<sup>1)</sup>	●	
	--	926.6721	<sup>1)</sup>	●	
	--	925.5609	<sup>1)</sup>	●	
	926.8116	--	<sup>1)</sup>	●	●
	--	804.1210	--	●	
	--	926.6001	--	●	
	925.1142	--	--	●	
	--	--	925.5630		
	926.8060	--	--	●	
	--	925.1143 <sup>2)</sup>	--	●	
	--	925.1150	--	●	

<sup>1)</sup> on request

<sup>2)</sup> must be connected with bi-directional cables only

# Cables

# S\_Connect

## CONNECTION

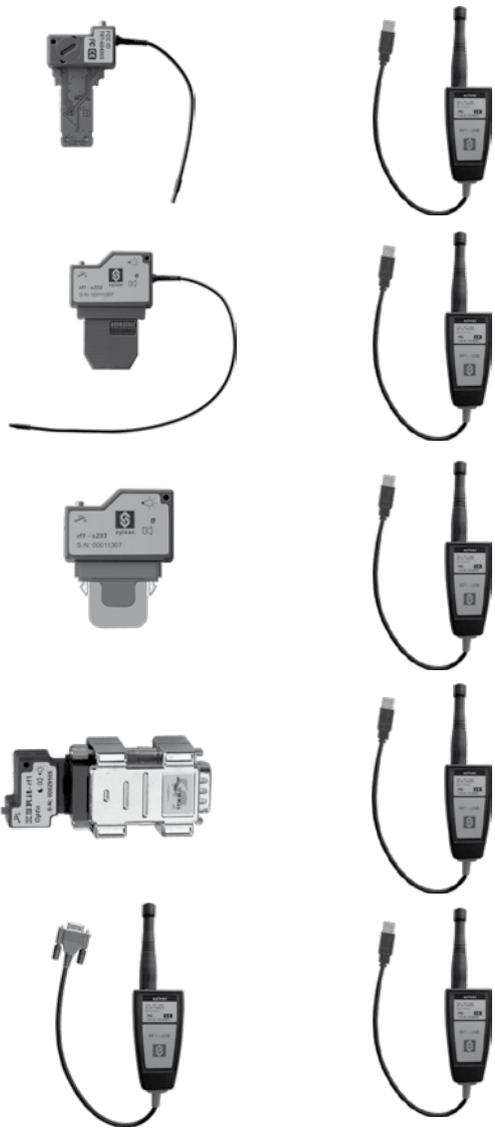
S_Cal Pro / S_Mike Pro	S_Cal Work, Ultra UL	Depth gauges	Protractor	S_Dial S229 / S213	S_Dial S233 / S234	Xtreme	Digital scales	Digital micrometer screws	Hi_Cal	PS16 VS	S_View D50S / D80S output PC	S-View D100S instrum. input	S_View D100S output PC	S_View D200S	D104 PC instrument input	D104 PC output PC	MUX instrument input	MUX output PC	S_Cal Micron
●												●			●				●
●																			●
									●		●	●	●	●	●	●			
									●		●	●	●				●		
														●					
									●										
3)	3)	3)	3)	3)	3)	3)	3)	3)	3)	3)	●		●	●		●		3)	3)
													●						
																		●	
3)	3)	3)	3)	3)	3)	3)	3)	3)		3)									3)
													4)						
																4)			

<sup>3)</sup> must be connected with RS232 cables

<sup>4)</sup> from 4 x S\_Indicators S233

# Wireless transmission

## CONNECTION



		Bi-directional	Programmable by PC
Opto module + USB receiver	926.5131 926.5110		
RS Power module + USB receiver	926.5132 926.5110		
Proximity module + USB receiver	926.5133 926.5110		
Adapter RS232/Opto + Opto module + USB receiver	926.5130 926.5131 926.5110		
RS232 module + USB receiver	926.5120 926.5110		

# Wireless transmission

## CONNECTION

S_Cal Pro / S_Mike Pro	S_Cal Work, Ultra UL	Depth gauges	Protractor	S_Dial S229 / S213	S_Dial S233 / S234	Xtreme	Digital scales	Digital micrometer screws	Hi_Cal	PS16 VS	S_View D50S / D80S output PC	S-View D100S instrument input	S_View D100S output PC	S_View D200S	D104 PC instrument input	D104 PC output PC	MUX instrument input	MUX output PC	S_Cal Micron
	●	●	●	●			●			●									
					●	●		●											
●																			●
									●		●		●			●			
														●				●	

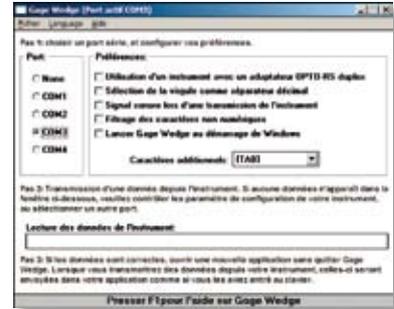
# Various software

## DATA TRANSFER

### Gauge wedge

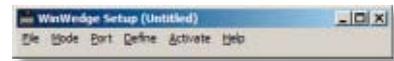
Allows the send Data in the usual applications of a computer since any instrument having the following Sylvac parameters of standard transmission: 4800 bauds, 7 dated bits, even parity, 2 stop bits.

Available (free) on [www.sylvac.ch](http://www.sylvac.ch)



### Win wedge

In addition to the send Data since the instrument, also makes it possible to modify the rS232 parameters in order to adapt them to the instrument to be connected, to send remote-command and to even create keyboard short cuts avoiding heavy macros programming.



	981.7140
Winwedge	●

## AQL SOFTWARE

### Quickcontrol Light

#### 1) Create a checking procedure

- Establishing a batch planning for your control.
- Optimizing your incoming and outgoing checking control.

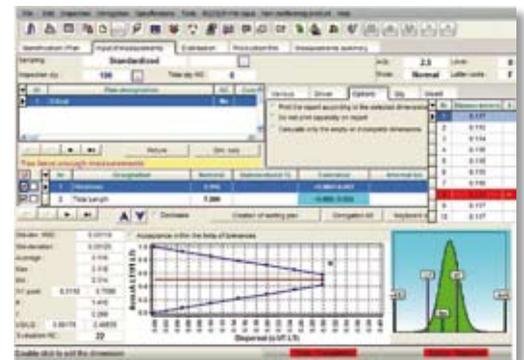
#### 2) Check the batch samples

From keyboard input to the most automatic complex instruments via RS232.

Selection of the measuring instrument .

Checking according to : AQL/nQA (ISO 2859/3951)

Fixed or percentage sample on the batch.

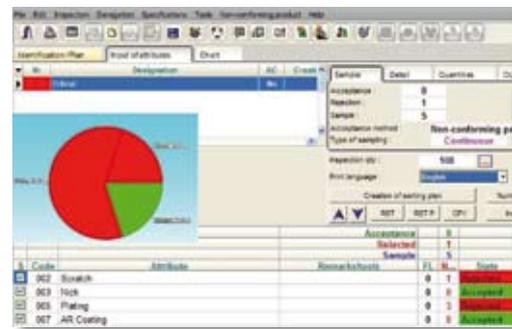


#### 3) Interpret and document the results

More than 70 models of paper documents in 4 languages available.

Reports : of control

Statistics of 1st none-conformity sample.



	981.7101	981.7103
Quickcontrol Light 1 licence	●	---
Quickcontrol Light 3 licences	---	●