

Developed in 

Manufactured in 

Assembled in 



# CATALOGUE

## Edition 12

CATALOGUE **Edition 12**



EN

Changes without prior notice  
Images may differ from reality





# Introduction

## SYLVAC CATALOGUE

Dear Customer, Dear Reader,

Welcome to the new edition of our Sylvac general catalogue. This new edition is considered necessary because of the many new items that have recently been added to our product range.

Discover without delay our new instruments for this new year, such as :

- S\_Dial TEST Smart Lever Indicator with Bluetooth® technology
- S\_Depth PRO Smart depth gauge with Bluetooth® technology
- S\_Screw Smart micrometer screws with Bluetooth® technology
- Digital ruler S\_Scale EVO Smart with Bluetooth® technology
- S\_Mike EVO Smart rotating spindle micrometer with Bluetooth® technology
- Compact optical machine for small parts Sylvac SCAN S25T
- P12D OPEN probe with open connector, perfect for the workshop
- And many more surprises...

This catalogue showcases all of Sylvac's know-how, as illustrated by the incredible number of new innovative products which are a perfect illustration of Sylvac's dynamism. Other exciting projects are in the pipeline and will be presented to you in a future edition, highlighting our passion for innovation and our boundless imagination!

**Discover other surprises that await you in our new catalogue now!**

### Why should you choose our products?

There are many sound arguments in our favour, particularly:

- More than 50 years expertise and experience in the area of dimensional measurement.
- Products developed and made in Switzerland with the «Swiss Made» label, representing acknowledged proof of quality throughout the world.
- Innovative, ergonomic, durable instruments designed by professional designers.
- A global presence based on a network of efficient agents who are able to provide you with local support in more than 40 countries.
- Products that meet international standards (a number of them are instruments protected in accordance with IP67).

In order to meet an increasing demand for traceability of controls, our instruments are fitted with a data output for wired or wireless connection.

dial gauges with data transmission by Bluetooth® signal, developed by Sylvac mark the start of a new era in the area of quality control and confirm our position as leaders in this market.

We hope that you will enjoy looking through our catalogue and using our Sylvac instruments. Thank you for your confidence in us. We remain faithfully at your service.



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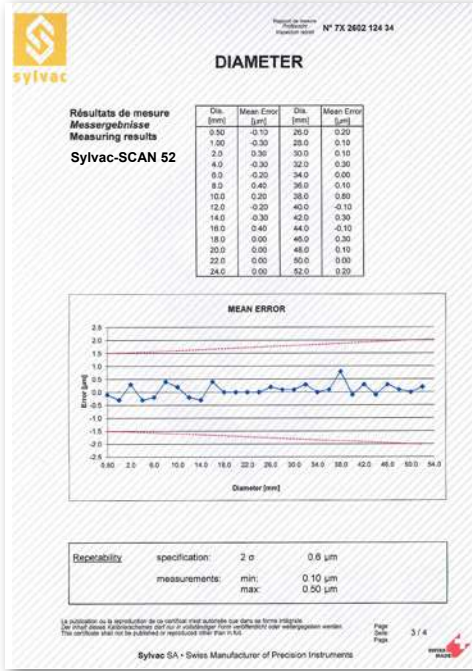


<b>Cables and softwares</b>	<b>7 - 26</b>	Wireless transmission, cables, accessories & softwares	<b>A</b>
<b>Digital indicators</b>	<b>27 - 70</b>	Test indicators, Mini-dial gauges S_Dial Mini, S_Dial PRO, S_Dial WORK, dial gauge testing stand M3 & Sylvac stands	<b>B</b>
<b>Calipers</b>	<b>71 - 122</b>	Calipers, micron caliper, special calipers, depth gauges & ultra light calipers	<b>C</b>
<b>Micrometers</b>	<b>123 - 146</b>	Micrometers & micrometers sets	<b>D</b>
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<b>Probes and digital display units</b>	<b>191 - 252</b>	Absolute digital / Inductive / Capacitive Probes, digital display units D50S, D62S, D70S/H/I/A, D80S, D200S, D300S, D302 / 304 & MBUS	<b>H</b>
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# Certificates

## SYLVAC PRODUCTS



**SYLVAC named best SMEs in western Switzerland in 2016 !**

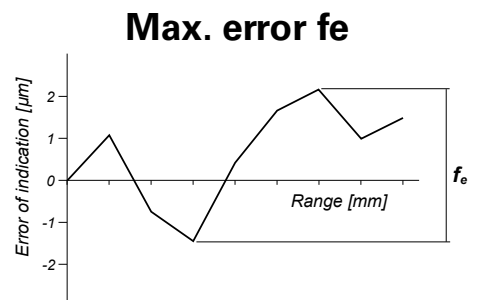


### 3-year guarantee :

The Sylvac brand is built on leading edge know-how in electronics, micro-electronics and micro-mechanics. Confident in the quality of its products, Sylvac offers a 3-year guarantee on its product range. (except optical machines with 2 years of guarantee, plus optional extension packages available)

### Error max :

The total error mentioned in our technical specifications corresponds to the maximum difference between the highest and lowest deviation from the true position within the instrument's measuring range. A certificate of calibration is delivered for all our instruments with a resolution of 1µm and indicates the effective maximum error of the instrument, controlled in our laboratory. The repeatability is defined as the maximum spread of series of measurements taken at the same position by the same operator and under the same conditions.



### Web site :

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



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

<http://www.filierepolymecanicien.ch>

# General information

## SYLVAC PRODUCTS

### SYLVAC PRODUCTS :

The Sylvac patented inductive measuring system is insensitive to magnetic fields and liquids on the sensor or on the measuring scale. A very low consumption system keeps the zero setting even when switched "off". This system is particularly well adapted for measuring instruments such as calipers, indicators etc...

The Sylvac patented capacitive measuring system is used for the linear probe type of instruments where the sensor is integrated in the probe. As opposed to inductive half bridge and LVDT probes, the capacitive Sylvac system can be used over a large measuring range (up to 50mm) while preserving an excellent linearity (1µm/25mm) and repeatability (0.2µm).



Characterizes the instruments whose the electronic module and the measuring system are protected against liquids. The IPXX degree defines the protection rating of the instruments.



Characterizes instruments equipped with a Smart Inductive Sensor with an extremely low power sleeping mode, which keeps its origin (last zero setting) and automatically wakes up when a movement is detected.

### 🚿IP54 / 🚿IP65 / 🚿IP67

Characterizes instruments whose electronic module and measuring system are protected against liquids. The IPXX degree defines the protection rating according to IEC 60529.

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

**IP65** : completely sealed against dust, protected against water jets from all directions

**IP67** : completely sealed against dust, protected against temporary total immersion

### Power and battery life

All the handtools, indicators, scales and micrometer heads are powered with a Lithium battery CR2032. If equipped with a «Power» output, the connector replaces the battery and the power is given by the PC or the display unit.

## Smart tools Bluetooth®

Sylvac devices integrating Bluetooth® wireless technology can achieve a range of about 15 meters. Electromagnetic wave emissions of the Bluetooth® low energy module are limited to 1 mW, which equals 1/100 of the power emitted by a WiFi network and 1/40 of the GSM/3G emission power of a smartphone.

If the device is kept at a distance of at least 20 cm, the effects on the human body are therefore thousands of times smaller than those of a cellphone held to the ear.

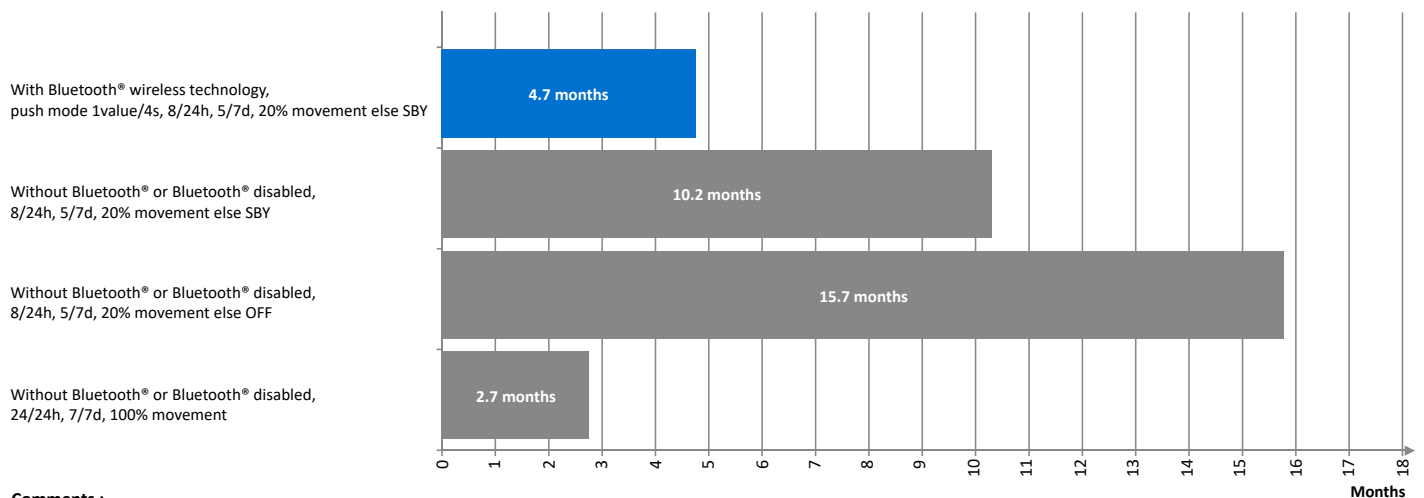
New IOT ready functions :



- Choose your profile
- Customise functions
- Save functions
- Monitor battery life
- Manage calibration date
- Blinking display function

Battery life with a CR2032 battery depending on working mode :

### Battery life (months) depending on working mode



**Comments :**

- Values may change depending on type of instrument.
- CR2477 battery usable with some instruments (four times the battery life compared to CR2032).
- SBY: Sleep mode with automatic wake-up on movement. Point of origin is preserved.
- OFF: Full off mode, wake-up only by pressing a button.

The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Sylvac is under license. Other trademarks and trade names are those of their respective owners.

# DATA TRANSMISSION & SOFTWARE

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With the help of the latest technologies, the industry is taking a new historical turn and is becoming increasingly «autonomous». In the sense that processes are simplified, ordered and organised in a predictive manner, inter-system connectivity is at the heart of the Industry 4.0 concept.

This new model is intended to be more interactive, in the sense that it is no longer up to the employee to fetch the information, but up to the devices to give it to them. Measuring instruments are an integral part of this process, which is why Sylvac is committed to offering innovative solutions for data collection and processing, which you will find in this chapter.





# Data transmission and software

## CONNECTIONS

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### What is the future for metrology?

Industry 4.0 and other similar concepts want to take data collection to new levels, monitoring all along the manufacturing process, collecting and storing information from all measuring equipment.

Traditional metrology will evolve towards more automation and digital (paperless) solutions which will enable increased traceability and remote monitoring of a whole set of information centralised on one server.

### Sylvac is ready for the challenge!

As Pioneer and Expert in connected Metrology, Sylvac did not wait the current excitement for data acquisition to offer reliable connection options and data processing software on the market. We have been striving to provide solutions for decades, first of all by offering wired connections (RS232 then USB) and over the last few years, by launching amazing Bluetooth wireless instruments that meet the current requirements, this at a price similar to the wired solutions of yesteryear.

### The advantage of our instruments with Bluetooth® Wireless technology

Wired connections limit operator's freedom of action and more flexibility for the operator requested to execute measurements. New solutions can also be implemented for control-line components using specific instruments or positions. Here are some of the highlights:



- The solution is totally integrated into the instrument  
The wireless Bluetooth® transmitter is fixed on the electronic module of the instrument and no further accessory is required. The Sylvac instrument with Bluetooth® Wireless technology that you receive is ready to be connected. Most of our competitors claim to offer wireless solutions, which are not really wireless solutions, or which require an external element to be acquired which is often fragile and costly! Our integrated system also has the advantage of not being sensitive to liquids or dirt.



- Transmission distance  
The maximum distance between the instrument and the peripheral device receiving the values is generally between 5 and 15 meters, depending on the configuration of the premises and any potential disruptive influences. Given that a wired USB connection is limited to 7 meters, the transmission range of our instruments with Bluetooth® Wireless technology is therefore greater than wired connections most of the time!



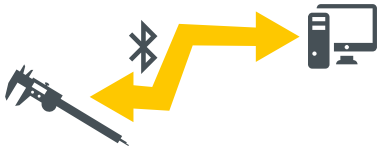
- Autonomy  
Sylvac's technological achievement was to offer a solution with energy-efficient Bluetooth® Wireless technology so that our instruments powered by a standard lithium battery could remain connected and used for several weeks, even several months. This is achieved thanks to our patented measurement system (Sylvac System) which only needs minimum energy. On request our agent can give you an estimate of the battery service life of your instrument taking your specific usage conditions into account.



# Data transmission and software

## CONNECTIONS

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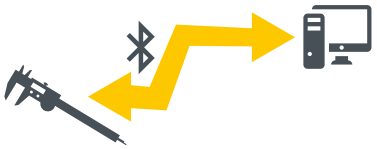
- Duplex Transmission  
Sylvac instruments are currently the only instruments able to communicate bidirectionally by Bluetooth® Wireless technology with the peripheral to which they are connected. This means that they can both send values and information and receive and interpret them. The best example of this is the transmission from the computer of a zero reset command for the instrument. This ensures the synchronisation of the value displayed on the instrument and on the peripheral device in order to limit the risks of error.



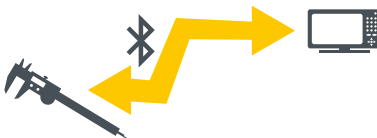
- Freedom of action at the price of a wired connection  
One important factor to consider when selecting an instrument is of course its price! Our Sylvac instruments with Bluetooth® Wireless technology also offer, as well as the features listed above, the benefit of not costing more than a traditional wired digital instrument. Therefore they can be used everywhere as replacements for wired instruments.

### How to connect our instruments with Bluetooth® Wireless technology

Flexibility is one of the watchwords that characterise our Sylvac instruments with Bluetooth® Wireless technology. They can be connected to a computer running Windows, to our D300S and D400S display units and to a Smartphone or Apple or Android tablet. This is how to connect them:



- Connection to a computer  
There are different requirements depending on the instrument and the Windows operating system running on your computer. The most reliable solution is to attach a Sylvac Bluetooth® dongle to your computer which can connect up to 8 instruments. The most recent instruments also have a Human Interface Device (HID) direct communication mode enabling them to connect to a computer as a peripheral keyboard and transmit the values in any software application. (Use without dongle with Windows 10 possible with Sylcom)



- Connection to our multi-functional display units  
Our D300S display unit can be fitted with a Sylvac Bluetooth® dongle in order to connect up to 8 Sylvac Bluetooth® instruments. The same applies to the D400S unit to which one or several (up to 12) M-Bus BT modules can be connected enabling a multitude of Sylvac Bluetooth® instruments to be connected to it.



- Connection to a smartphone or tablet  
Our instruments can be connected directly to a smartphone and to tablets running Android or iOS. Sylvac demonstration apps are available from the Google Store and the Apple Store. These apps demonstrate the connection of one of our instruments with Bluetooth® technology to one of these peripheral devices. As this area is evolving very rapidly, please refer to our website for the latest information.

# Data transmission and software

## CONNECTIONS

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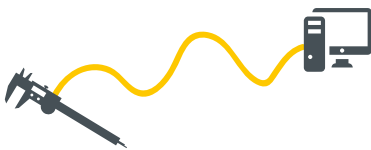
### IOT Ready connection profiles

The second generation of Sylvac Bluetooth® Technology equipped all Smart instrument for more possibilities and easier connection.



- SIMPLE Profile (default mode)
  - Instruments can be connected to several devices, but only one active connection and on a «first come, first served» basis.
  - Best solution if different people share the same instrument which has to be connected to several devices.
  - Avoid pairing manipulations at each device change.
  
- PAIRED Profile
  - Several instruments connected and locked (paired) to a specific device, which allows to have a lot of control stations side by side in a small area.
  - Best secured solution for a permanent control station.
  - Avoid instruments connecting to the wrong device.
  - Device-Instrument link has to be reset in order to connect to another device.
  
- HID Profile (Human Interface Device)
  - The instrument can be connected only to one specific device, but device can accept multiple input devices (keyboards, bar code reader, etc.).
  - Emulate a keyboard action.
  - Write and send data to any software/device without any further settings.
  - Device-Instrument link has to be reset in order to connect to another device.

### Wired connections



- Wired Connections  
Despite all the benefits described above, it could be that Bluetooth® Wireless technology is not the most appropriate solution for a specific application. We are of course able to provide a connection cable fitted either with an RS232 or USB connector for every Sylvac instrument with a data output. Our standard cables are 2 or 3 meters in length depending on the models. On request they can be delivered in special lengths of up to 15 metres for RS232 cables and up to 7 metres for USB cables.

### Use of a digital test indicator without its battery

In some cases, as for example when a digital test indicator is installed in a location that is difficult to access, or if it is fitted on a non-stop operating machine, it may be advisable to replace the battery of the instrument with a special cable (Power) which will ensure both its power supply and the data transfer. Most of our digital test indicators offer this option and they are identified by the Power logo. Other digital test indicators, intended for connection to programmable logic controllers (PLC) also operate without a battery and their power supply is provided by the controller.



Please refer to the chapter on cables for details on the different cables available.



# Data transmission and software

## CONNECTIONS

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**Connection Proximity**



**Connection RS-485**



**Connection M8**



**Bluetooth® Wireless technology with dongle**



**Bluetooth® Wireless technology via HID**



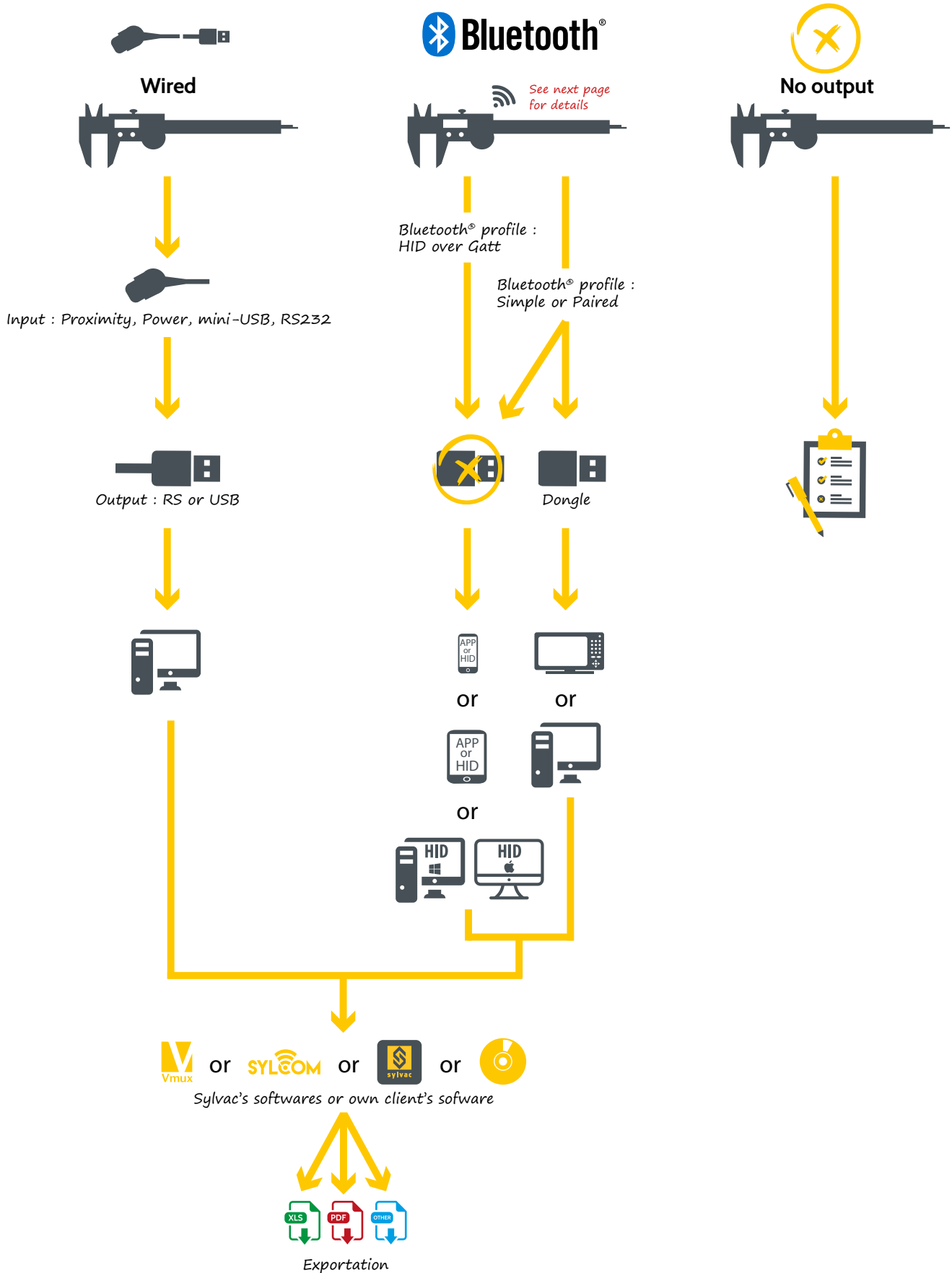
**Bluetooth® Wireless technology and USB**



# Data transmission and software

## CONNECTIONS POSSIBILITIES

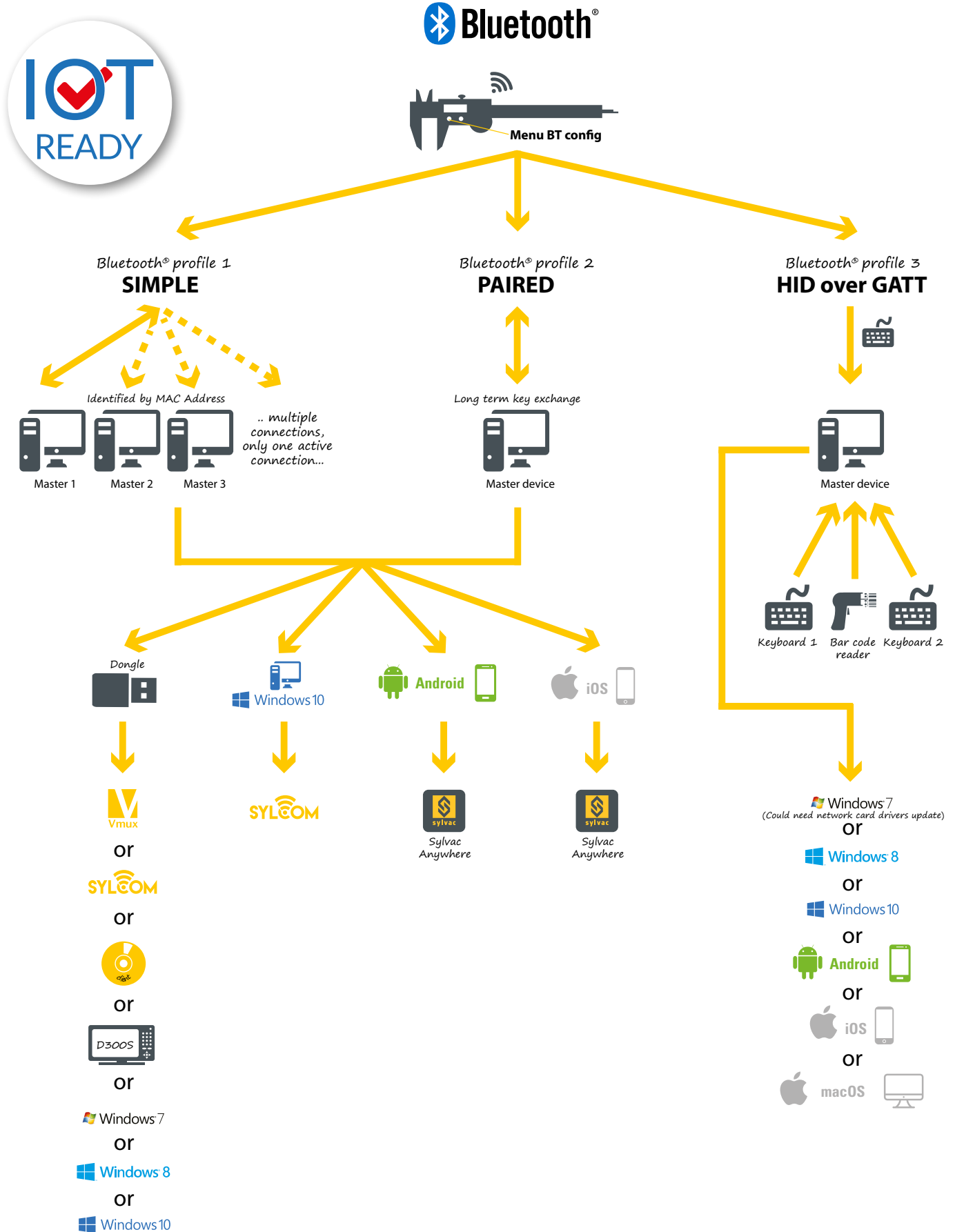
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# Data transmission and software

## WIRELESS CONNECTION PROFILES



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# Sylvac softwares

## DATA TRANSFER

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### SYLCOM

Sylcom is the latest software product to be launched by Sylvac and has been designed to process information from instruments connected via Bluetooth® Wireless technology or via a USB cable. It creates an almost limitless number of display channels spread over one or several pages. Several display modes are available so that the status of the variable measured (GO/NG) can be visualised instantaneously. Sylcom can also be used to measure components sequentially, to collect all values simultaneously and to define a time interval in order to save values automatically. The data can be saved in Sylcom and then exported to an Excel file.

The concept is to offer a modular software application based on the specific functionalities required.

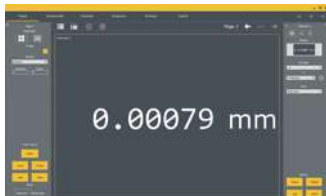


Free Sylcom LITE version on [www.sylvac.ch](http://www.sylvac.ch)

Available in **LITE** version of the software allowing to connect 1 instrument and 1 pedal (free), **Standard** version with standard functions allowing to connect up to 16 instruments or pedals, by USB cable (maximum 15) by Bluetooth® or by M-BUS modules., **PRO** version, allowing to connect up to 15 instruments by USB cable, up to 40 instruments by Bluetooth® and up to 128 instruments by M-BUS modules (total maximum 128 connected instruments). Several features such as control plans, monitoring, statistics and SPC export are available (60 days trial version available) and **Expert** version offering the same functionalities as the PRO version, but with the additional possibility of connecting up to 500 instruments via Bluetooth® with the «On the fly» mode, to communicate in the OPC-UA protocol and to automatically suggest tool corrections to some CNCs machines.

Your metrology partner for the new challenges ahead!

We hope that all the information described above has convinced you that Sylvac is not only a manufacturer of innovative and high-quality measuring instruments but also the partner you need to help your quality control evolve towards the new industrial model that awaits us.



Channel display



Multi-channel display with colour-coded tolerances



Statistics



Control plans

Softwares	Order number Dongle licence	Order number Digital licence	Accessories	Order number
Sylcom LITE	-	<b>FREE</b>	Dongle Smart	981-7100
Sylcom Standard	981-7132	981-7129	USB pedal	926-7020
Sylcom Pro	981-7240	981-7245	USB pedal robust	926-7021
Sylcom Expert	981-7250	981-7255	Footpedal Smart	926-7022
Upgrade Sylconnect to Sylcom*	981-7139	-		

\* contact us to get the procedure for the update



# Applications

## DATA TRANSFER

### Vmux

This software may be considered as a virtual interface which assigns a COM port to instruments connected by wireless Bluetooth® transmission or by USB cable and then redirects the values from these instruments to any Windows software (SPC or other).

For the simplest applications Vmux simply exports the values into a selectable Excel file. Extremely user-friendly, Vmux is an excellent replacement for the multiplexer boxes used in the past.

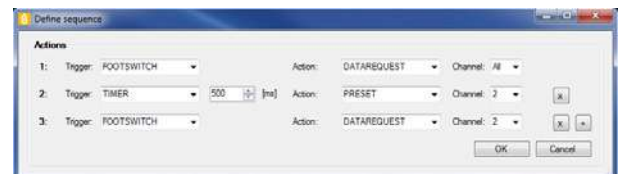
A free version Vmux Lite, limited to eight connections can be downloaded free of charge from our website. The full version of Vmux with the capacity to connect up to 32 instruments (max. 16 instruments with wireless Bluetooth® transmission) can be ordered from the Sylvac distributor in your country.



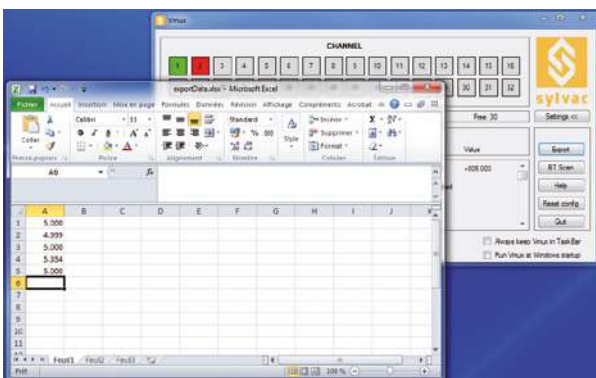
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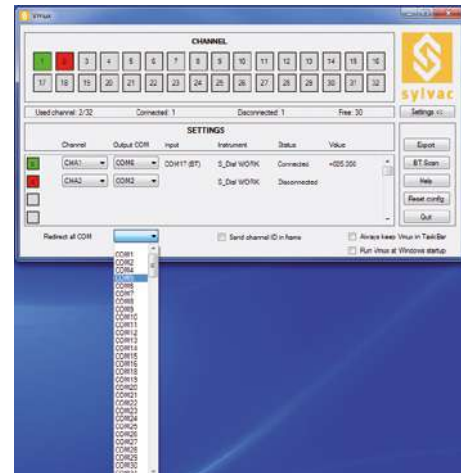
Basic display



Defining a sequence



Exporting data in Excel®



Port COM changing



Softwares **Vmux**

**Order number**

Vmux LITE

**FREE**

Vmux (Dongle licence)

981-7161

Vmux (Digital licence)

981-7163

Try the free version Vmux LITE available on our website [www.sylvac.ch](http://www.sylvac.ch)

**Accessories**

**Order number**

Dongle Smart

981-7100

USB pedal

926-7020

USB pedal robust

926-7021

Footpedal Smart

926-7022



# Applications

## DATA TRANSFER

### A **Sylvac Anywhere**

Allow to display the instruments values with Wireless *Bluetooth®* Technology on tablets and smartphones Android from version 5.0 and Apple from version IOS9, equipped with Wireless *Bluetooth®* Technology 4.0.

Possibility to saved data on the device and to export them to any compatible application.

Available for free on the Google Play Store and the I'App Store.



Display

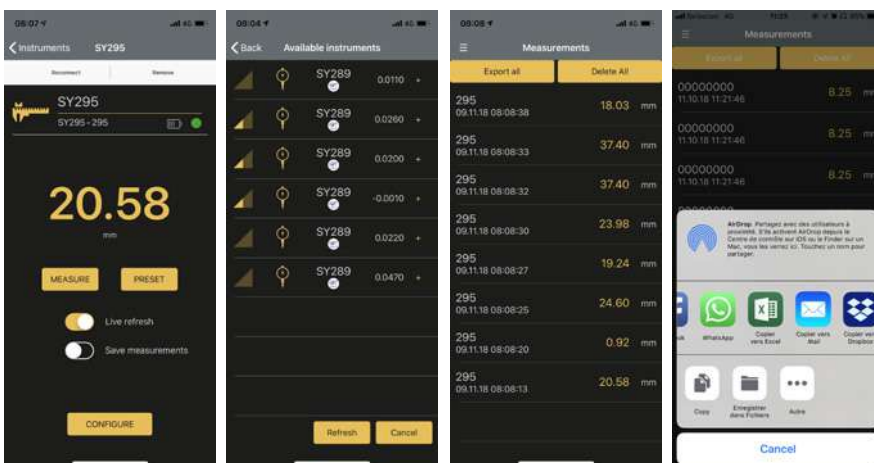


Save



Export

**Dedicated application for Sylvac instruments with old and new Bluetooth® technology.**



Instrument connected

Available instruments

Data saved

Exportation of data

**No dongle required !**





# Various softwares

## OVERVIEW OF SOFTWARE AND FUNCTIONS

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	SYLCOM					VMUX	
	LITE	Standard	Pro	Expert	Upgrade from Sylconnect	LITE	Standard
		981-7132/29	981-7240	981-7250	981-7139		981-7161
<b>NUMBER OF INSTRUMENTS</b>							
Max. 1	●						
Max. 8						●	
Max. 16		●			●		
Max. 32							● <sup>1)</sup>
Up to 128			● <sup>2)</sup>				
Max. 500				● <sup>3)</sup>			
<b>PLATFORMS</b>							
Windows 7	●	●	●	●	●	●	●
Windows 8.1	●	●	●	●	●	●	●
Windows 10	●	●	●	●	●	●	●
Dongle required for instruments Smart	(●)	(●)	(●)	(●)	(●)	●	●
<b>FUNCTIONS</b>							
Export CSV	●	●	●	●	●		
Export to Microsoft Excel®	●	●	●	●	●		
Immediate export to external program	●	●	●	●	●	●	●
Communication gateway (virtual COM port)						●	●
Display value	●	●	●	●	●	●	●
Display tolerances	●	●	●	●	●		
Analogue display	●	●	●	●	●		
Chart display	●	●	●	●	●		
Multi-channel		●	●	●	●		●
Flatness and advanced formulas			●	●			
Inspection plan			●	●			
Statistics			●	●			
Action sequences		●	●	●	●		
Actions scripts			●	●			
User management	●	●	●	●	●		
Work menu (controlling instrument menus)	●	●	●	●	●		
OPC-UA Mode				●			
Tool corrector				●			

<sup>1)</sup> Max. 32 USB or 16 USB and 16 instruments with Bluetooth® Wireless technology

<sup>2)</sup> via Mbus (depends on hardware), max. 40 instruments with Bluetooth® Wireless technology (5 dongles)

<sup>3)</sup> via «On the fly» Mode, no pairing

# Wireless transmission

# Dongle Smart

## DESCRIPTION

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- Possibility to connect up to 8 instruments per dongle
- Duplex data transmission
- Plug and play !
- Individual identification of each instrument with *Bluetooth®* wireless technology
- Automatic detection of instruments



## TECHNICAL SPECIFICATIONS

		981-7100
USB		•
Coupled instruments per module		8
Automatic detection of instrument		•
Instruments and software compatibility		D300S & Sylcom & Vmux
Transmission distance <sup>1)</sup>	m	15

<sup>1)</sup> depends on the environment.



# Wireless transmission

# S\_Footswitch Smart

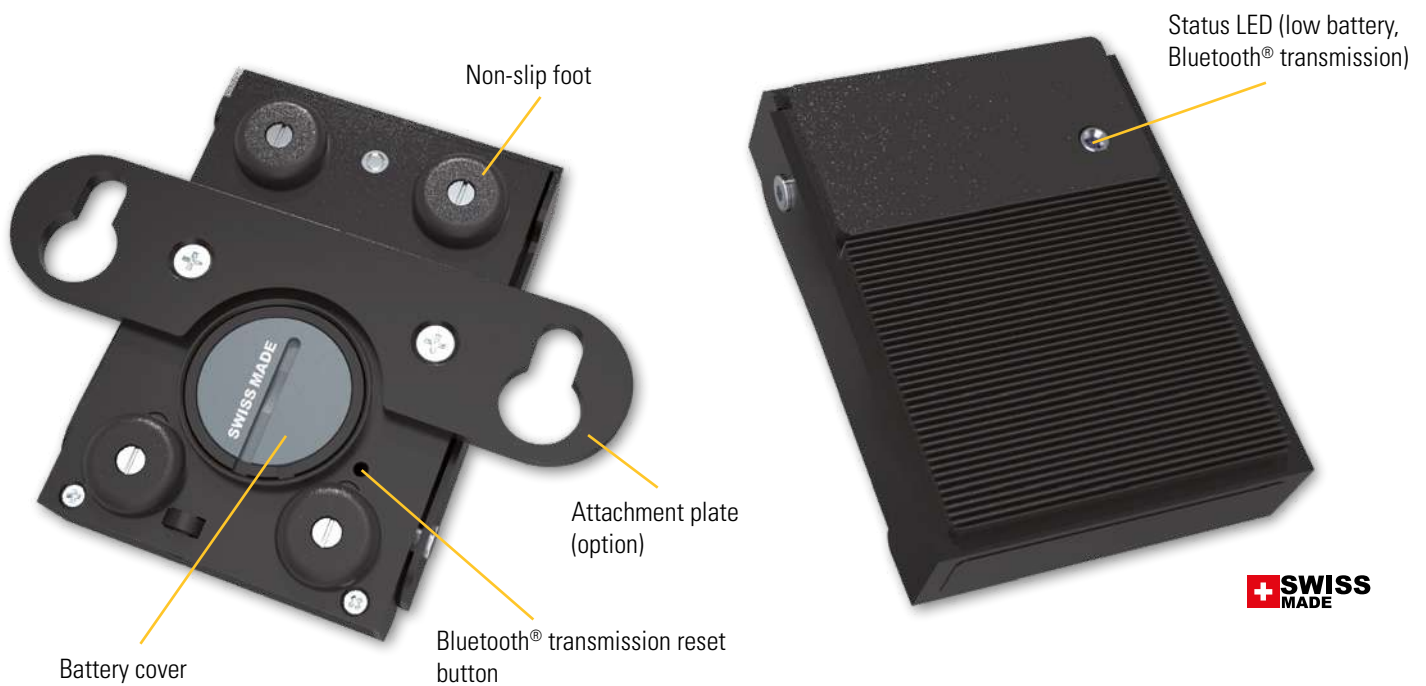
## DESCRIPTION

## FOOTPEDAL SMART

- Robust footpedal with Bluetooth® wireless technology
- IP rating IP53
- Battery life : 3 years (Battery CR2477)
- Possibility of triggering sequences from the software Vmux & Sylcom



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Dongle with Bluetooth® Wireless technology 981.7100



## TECHNICAL SPECIFICATIONS

<b>S_Footswitch Smart</b>		<b>926-7022</b>
Connection		Bluetooth® wireless technology*
Weight	g	260
Software compatibility		Vmux (1.37 and later) and Sylcom
Transmission distance <sup>1)</sup>	m	up to 15m

<sup>1)</sup> depends on the environment

\* Connection with dongle #981.7100

<b>Accessories</b>		<b>926-7023</b>	<b>985-2217</b>
Description		Fixing plate	Adapter for battery CR2032
Weight	g	85	5

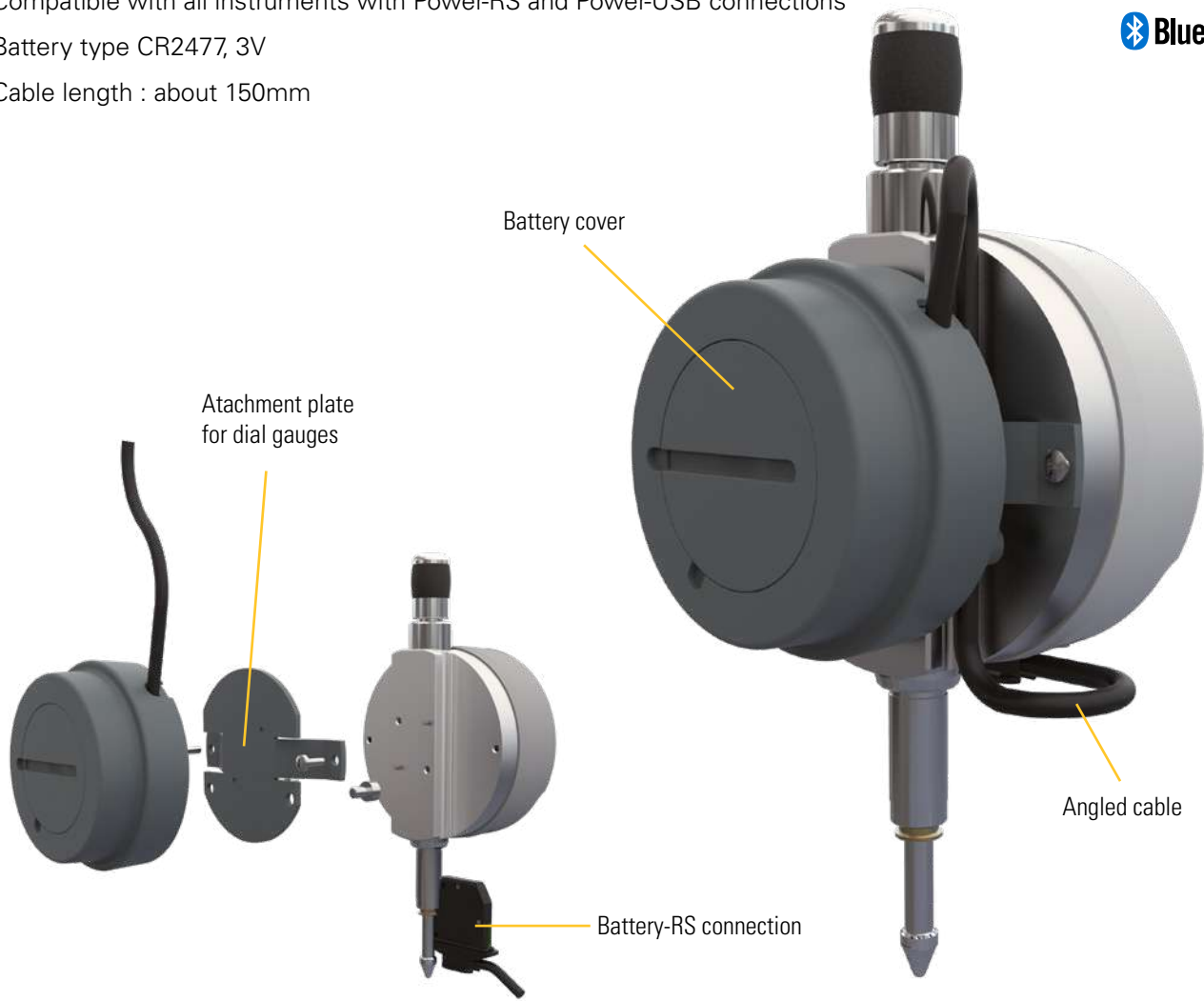
# Wireless transmission

# Battery Pack

## DESCRIPTION

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- External power-supply for instruments with Bluetooth® wireless technology
- Compatible with all instruments with Power-RS and Power-USB connections
- Battery type CR2477, 3V
- Cable length : about 150mm



## TECHNICAL SPECIFICATIONS

<b>Battery Pack</b>		<b>926-7024</b>
Connections		Power-RS / Battery-RS
Weight	g	71.6 (91.4g with attachment plate)
Capacity max.	mAh	1000
Clamping		compatible with dial gauges Ø60mm
Cable length	mm	150

<b>Accessories</b>		<b>985-2217</b>
Description		Adapter for battery CR2032
Weight	g	5



# Other

## BATTERIES

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### Order number and compatibilities



<b>Battery CR2032</b>	<b>985-2215</b> Calipers S_Cal, ultra-light calipers ULX4 <sup>1)</sup> , dial gauges S_Dial (except PLC), micrometers, bore gauges, digital scale S_Scale digital micrometer screws, Feeler Gage, depth gauges S_Depth, Protractor, Hi_Gage, footpedal Smart <sup>1)</sup> and benches table PS16 V2 <sup>1)</sup>
<b>Battery CR2477</b>	<b>985-2216</b> Ultra-light calipers ULX4, benches table PS16 V2, footpedal Smart, Battery Pack

<sup>1)</sup> With adapter



# Cables

# S\_Connect










## CONNECTION

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Our cables are available in various lengths indicated below.

On request, we can deliver our special length cables, within the following limits:

- RS232 cables: maximum length 15 meters
- USB cable: maximum length 7 meters.
- Special length cable on request : 926.1999.99

		Standard 2 m	Standard 3 m	Standard 5 m	≤15 m	Bi-directional
	Opto RS	926-5521	--	--	926-5535	
	Opto RS	926-6521	--	--	926-6535	●
	Opto RS	926-6538	--	--	926-6542	●
	Opto RS	926-6539	--	--	926-6543	●
	Opto USB	926-6621	--	--	<sup>1)</sup>	●
	Power RS	--	905-4516	--	905-4519	●
	Power RS (bent)	--	905-4538	--	<sup>1)</sup>	●
	Power USB	--	926-6821	--	<sup>1)</sup>	●
	Power USB (bent)	--	926-6838	--	<sup>1)</sup>	●
	PLC digital indicator	--	--	926-6101	--	--

<sup>1)</sup> Maximum 7m (Standard 5m)



# Cables

# S\_Connect

## CONNECTION

A












S_Cal Pro / S_Mike Pro / S_Cal EVO Proximity	UL4	S_Depth PRO S_Scale WORK / S_Scale EVO	Protractor	S_Dial S233 / S234 / S_Dial MINI / S_Dial TEST	S_Dial PRO / S_Dial WORK Hi_Gage ONE	Xtreme	Digital microscrew	Hi_Cal	PS16 VS	S_View D50S / D80S PC output	S_View D200S	D300S instr. input	D300S output PC	D302 / D304	D400S	D70S/H//A	S_Dial WORK PLC
•									•			•					
•									•			•					
•									•			•					
•									•			•					
•									•			•					
•		•	•	•	•	•	•					•					
•		•	•	•	•	•	•					•					
•		•	•	•	•	•	•					•					
•		•	•	•	•	•	•					•					
•																	•

# Cables

# S\_Connect

## CONNECTION

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	Standard 2 m	Standard 3 m	≤15 m	Bi-directional
	--	926-6723	<sup>1)</sup>	●
	--	926-6721	<sup>1)</sup>	●
	--	925-5609	<sup>1)</sup>	●
	--	804-1210	--	●
	--	926-6001	--	●
	925-1142*	--	--	●
	--	925-1143 <sup>2)</sup>	--	●
	--	926-5505	--	●
	--	804-2201	--	●
	--	804-2204	--	●
	--	804-2205	--	

<sup>1)</sup> Maximum 7m (Standard 5m)

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

\* The D70 and D400S do not work on Vmux with this adapter



# Cables

# S\_Connect

## CONNECTION

S_Cal Pro / S_Mike Pro / S_Cal EVO Proximity	UL4	S_Depth PRO / S_Scale WORK / S_Scale EVO	Mesureur d'angles	S_Dial S233 / S234 / S_Dial MINI / S_Dial TEST	S_Dial ONE / S_Dial WORK	Hi_Gage ONE	PS16 V2	Digital microscrew	Hi_Cal	PS16 V1 VS	S_View D50S / D80S PC output	S_View D200S	D300S instr. input	D300S output PC	D302 / D304	D400S	D70 H/I	D70 S	D70 A	D62S	Xtreme 3	M-Bus (except RS)	Z5
•	•		•		•	•							•								•		
•	•		•		•	•							•								•		
									•		•	•	• <sup>6)</sup>		•	• <sup>4)</sup>		•		•		•	
												•		•		•							
							•		•						•					•			•
3)	3)	3)	3)	3)	3)			3)	3)	3)	•	•				• <sup>5)</sup>	• <sup>5)</sup>	• <sup>5)</sup>	• <sup>5)</sup>	•	3)		
3)	3)	3)	3)	3)	3)			3)		3)											3)		
																							•
																	• <sup>7)</sup>		• <sup>7)</sup>				
																	• <sup>8)</sup>		• <sup>8)</sup>				
																			• <sup>9)</sup>				

<sup>3)</sup> must be connected with RS232 cables  
<sup>4)</sup> For MB-XX module and RS232 PC connections  
<sup>5)</sup> RS232 connection to PC (D70S version and D400S only) bidirectional. Versions D70I/H require a crossover RS232 cable.  
<sup>6)</sup> Not working on PC  
<sup>7)</sup> Update of the units  
<sup>8)</sup> Crossover cable for PC connection  
<sup>9)</sup> Connection cable for MB-I/O

A



A

# DIGITAL INDICATORS S\_DIAL

---

Digital comparators have contributed greatly to Sylvac's success and reputation for decades. Sylvac can therefore be considered the world leader in this type of instrument, thanks to the wide range of products available, but also because of the specifications and advanced functions offered by the dial indicators that you will find in this chapter.

## GENERAL CHARACTERISTICS :

- **Powered by lithium battery type CR2032**
- **Absolute measuring system S.I.S**
- **Automatic sleep and wake-up**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**
- **Comparators supplied with interchangeable steel M2.5 contact point, with tungsten carbide ball Ø 2 mm**







# Digital indicators

# S\_Dial

## SUMMARY OF ALL TYPES

B

	S_Dial MINI								S_Dial TEST					S_Dial WORK																		
	BASIC				SMART									BASIC		ANALOG		CBG		ADVANCED IP67		PLC										
RANGE	805-4121	805-4125	805-4521	805-4525	805-6121	805-6123	805-6125	805-6521	805-6523	805-6525	805-4321	805-4322	805-4323	805-1201	805-1301	805-1401	805-1501	805-1601	805-1621	805-5307	805-5507	805-6308	805-6317	805-5305	805-5505	805-5625	805-7301	805-7201	805-7501	805-7401		
0.8 mm											•		•																			
2.0 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	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Diameter 25mm g7																																
Dove tail	•	•	•	•	•	•	•	•	•	•	•	•																				
M1.4 contact point											•	•	•																			
M2.5 contact point	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Rubber boot	•		•				•		•															•	•	•						
IP51 (IEC 60529)														•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
IP54 (IEC 60529)	•		•								•	•	•								•	•	•	•	•	•	•		•	•		
IP65 (IEC 60529)																																
IP67 (IEC 60529)	•		•	•	•	•	•	•	•	•	•	•												•	•	•	•	•	•	•		
<b>DIAL</b>																																
Diameter 45 mm	•	•	•	•	•	•	•	•	•	•	•	•																				
Diameter 60 mm														•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Rotating											•	•	•								•	•	•	•	•	•	•	•	•	•		
Lifting cap	•	•	•	•	•		•							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
<b>FUNCTIONS</b>																																
mm/inch	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Preset	•1)	•1)	•1)	•1)	•	•	•	•	•	•	•	•		•1)	•1)	•1)	•1)	•1)	•1)	•	•	•	•	•	•	•	•	•	•	•		
Preset dynamic																					•	•	•	•	•	•	•	•	•	•		
Measuring direction	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Hold					•	•	•	•	•	•	•	•									•	•	•	•	•	•	•	•	•	•		
Min / Max / Delta					•	•	•	•	•	•	•	•									•	•	•	•	•	•	•	•	•	•		
Tolerances																					•	•	•	•	•	•	•	•	•	•		
Absolute system S.I.S.*	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Auto off	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Analog display					•	•	•	•	•	•	•	•									•	•	•	•	•	•	•	•	•	•		
Setting by PC	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Programmable menus					•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Powered by connector	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Multiplication factor					•	•	•	•	•	•	•	•									•	•	•	•	•	•	•	•	•	•		
Ref I / II																							2)	2)	•	•	•	•	•	•		

\* SIS Smart Production Systems description on page 5

Models with Bluetooth® technology

1) Preset configuration only by PC  
2) 4 references



# Digital indicators

# S\_Dial

## SUMMARY OF ALL TYPES

	S_Dial WORK																ANALOG NANO SMART		S_Dial PRO									
	ADVANCED								SMART				NANO & NANO SMART				SMART											
	805-5201	805-5301	805-5401	805-5501	805-5601	805-5621	805-5641	805-5661	805-5671	805-5681	805-6301	805-6501	805-6621	805-6661	805-5306	805-5506	805-6306	805-6506	805-6307	805-6507	805-8601	805-8701	805-8602	805-8702	805-8501	805-8502	805-8661	
<b>RANGE</b>																												
0.8 mm																												
2.0 mm																												
12.5 mm	•	•									•				•		•		•									
25 mm			•	•								•				•		•		•						•	•	
50 mm					•	•							•								•	•		•	•			
100 mm							•	•						•										•	•			•
150 mm									•	•																		
<b>RESOLUTION</b>																												
0.01 mm	•		•		•		•		•																			
0.001 mm		•		•		•		•		•	•		•															
0.0001 mm															•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>MECHANIC</b>																												
Diameter 8 mm h6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Diameter 25 mm g7																							•	•				
Spring	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M1.4 contact point																												
M2.5 contact point	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Rubber boot																												
IP51 (IEC 60529)																						•	•	•	•	•	•	•
IP54 (IEC 60529)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
<b>DIAL</b>																												
Diameter 60 mm	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Rotating	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>FUNCTIONS</b>																												
mm/inch	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Preset	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Preset dynamic																					•	•						
Measuring direction	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Hold	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Min / Max / Delta	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tolerances	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Absolute system S.I.S*	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Auto off	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Analog display																					•	•						
Setting by PC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Programmable menus	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Powered by connector	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Multiplication factor	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ref I / II	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

B



# Digital test indicator

# S\_Dial TEST Smart

## DESCRIPTION

- First digital test indicator with integrated Bluetooth® system
- Instrument for checking roundness and flatness
- Data transfer by sending a request or by foot pedal
- Compact housing Ø 45 mm rotatable by 270°.
- Revolutionary mechanical construction, without gears or gears, which eliminates hysteresis error
- Digital display resolution 0.001 mm with analogue scale
- M1.4 stylus with Ø 2 mm tungsten carbide ball, swivelling and interchangeable
- Available in 3 versions :
  - Model with stylus length 12 mm, measuring range 0.8 mm
  - Model with stylus length 36 mm, measuring range 2.0 mm
  - Combination model for 12 and 36 mm styli (supplied with both styli), measuring range 0.8/2.0 mm
- Protected against liquids IP54



B

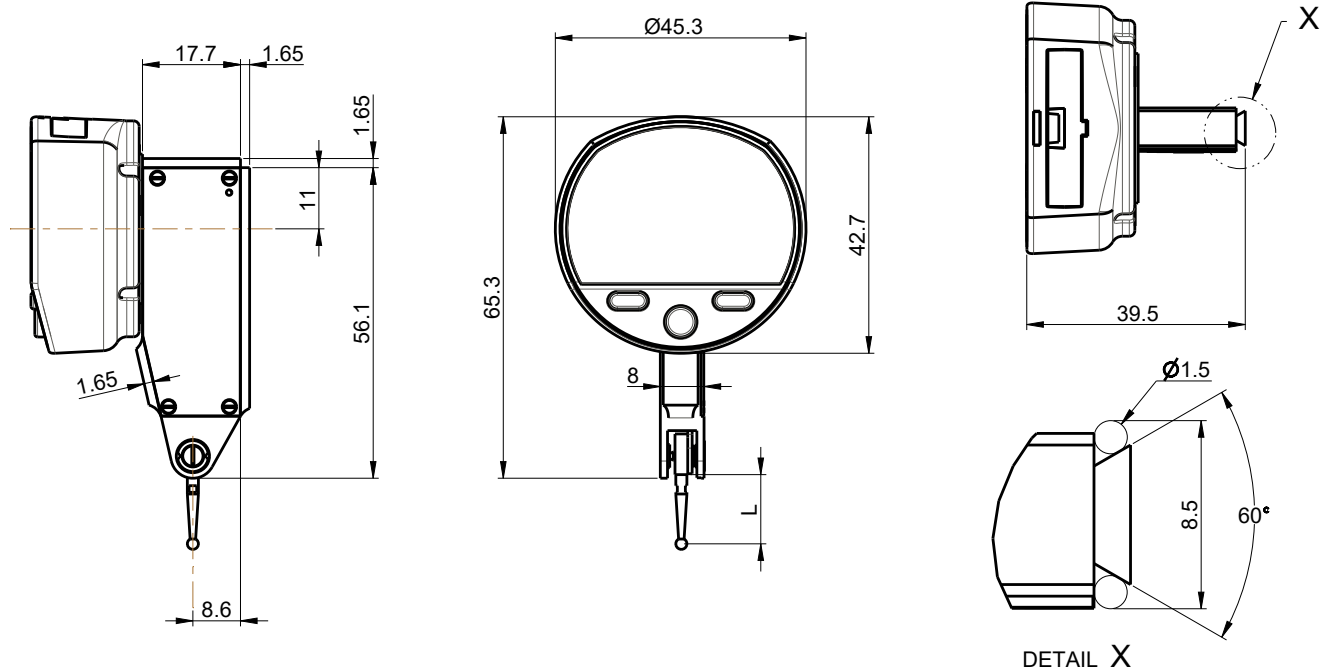




# Digital test indicator

# S\_Dial TEST Smart

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		805-4321	805-4322	805-4323
Measurement capacity	mm	0.8	2.0	0.8 / 2.0
Stylus length L	mm	12.5	36.5	12.5 / 36.5
Accuracy fe ( $\alpha=0^\circ$ )	$\mu\text{m}$	3	8	3 / 8
Total accuracy fges ( $\alpha=0^\circ$ )	$\mu\text{m}$	4	10	4 / 10
Reversibility fu	$\mu\text{m}$	2	3	2 / 3
Resolution	mm	0.001mm / .00005"		
Repeatability fw	$\mu\text{m}$	1		
Measuring force	N	0.15	0.06	0.15 / 0.06
Friction on probe orientation	N	4	1.6	4 / 1.6
Weight	g	70		
Protection rating according to IEC 60529		IP54		
Output data		Bluetooth® wireless technology* / RS232 / USB <sup>1)</sup>		
Zero setting		●		
min / max / delta display		●		
Analog display		●		
Selection of resolution		●		
Preset (0.01 resolution)		$\pm 99.999 \text{ mm} / \pm 3.99995 \text{ IN} (\pm 999.99 \text{ mm} / \pm 39.9995 \text{ IN})$		

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

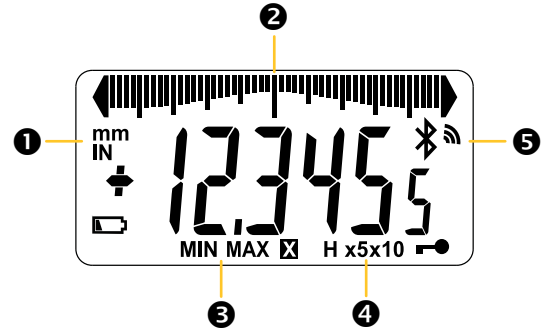
\* Up to 8 instruments connected per dongle #981-7100

# Digital test indicator

# S\_Dial TEST Smart

## DISPLAY

- ❶ Direct mm/inch conversion
- ❷ Analog display
- ❸ Min/max/delta mode
- ❹ Analogic resolution display
- ❺ Bluetooth® technology



## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Quickstart
- Stem Ø 8 mm (905-2247)
- Clamping key for measuring button
- 2 contact points Ø2mm, 12.5 and 36.5mm (model 805-4332 only)

## APPLICATIONS



Run-out measurement



Checking the alignment on milling machine.



Perpendicularity measurement with a S234 mounted on a Hi\_Gage ONE



# Mini digital indicators

# S\_Dial MINI Basic

## DESCRIPTION

- Smallest digital comparator available on the market, with compact Ø 45 mm non-rotating housing
- New robust construction
- Ideal for integration into machines or various measuring fixtures
- Only one central button with favourite function to choose between recall of the preset or transmission of the value
- Selection of unit (mm/inch) and direction of measurement
- Data output «Power», works without battery when connected via cable
- Digital display resolution 0.01 or 0.001 mm
- Measuring range 12.5 mm
- Available in Protected or Standard execution
  - P version: IP67 with bellows-protected spindle, without lifting cap
  - S version: IP54, without bellows, with lifting cap

B



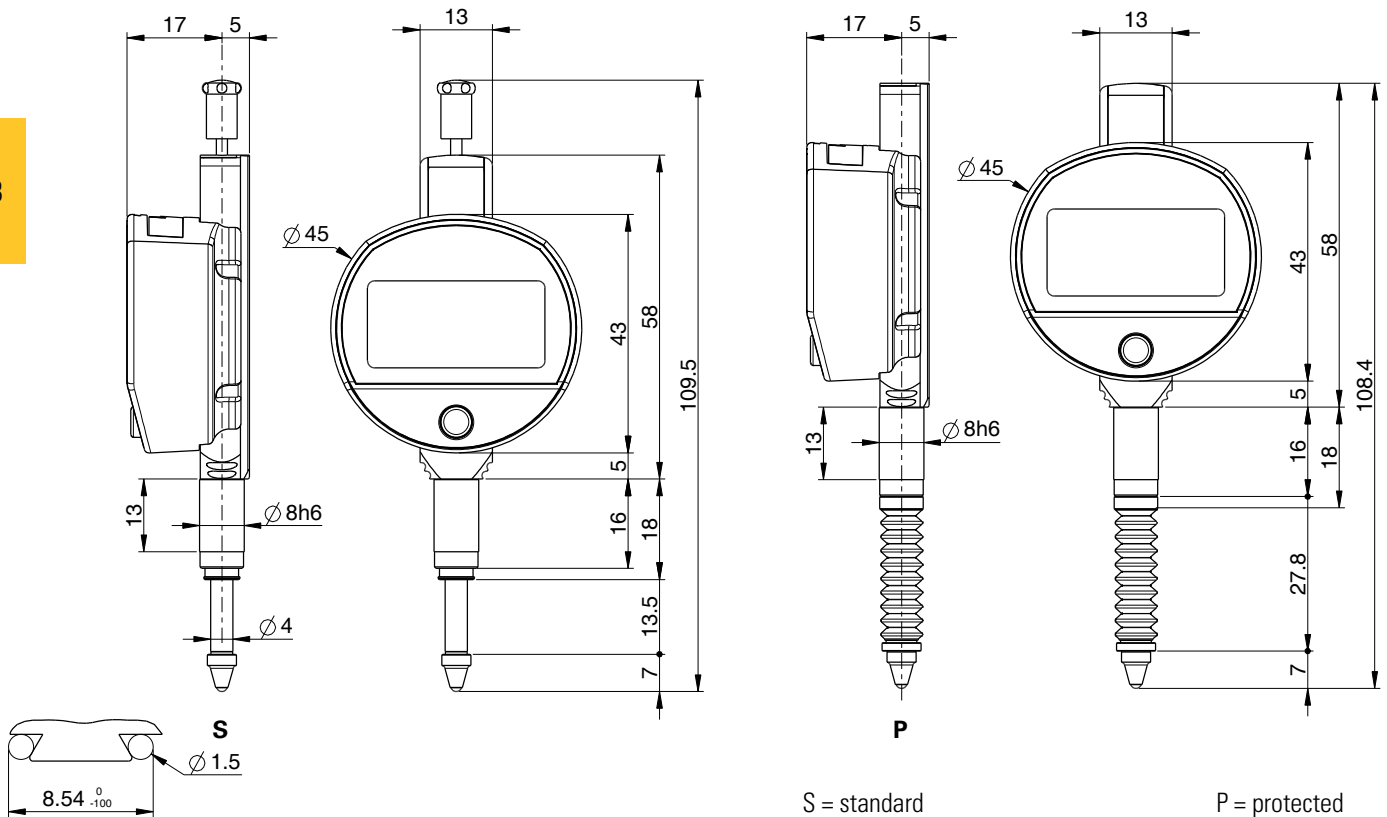


# Mini digital indicators

# S\_Dial MINI Basic

## DIMENSIONAL DRAWINGS

B



## TECHNICAL SPECIFICATIONS

		805-4121	805-4125	805-4521	805-4525
Measuring range	mm	12.5	12.5	12.5	12.5
Analog scale		---	---	---	---
Resolution	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>	4	4
Repeatability	µm	2	2	2	2
Measuring force <sup>2)</sup>	N	0.5 - 0.90 N	0.6 - 1.3 N	0.5 - 0.90 N	0.6 - 1.3 N
Zero setting				●	
Resolution selection				---	
PRESET = (max. ±999.99 mm)				● <sup>5)</sup>	
Min / max / delta display				---	
Selection of measuring direction				●	
Multiplication factor				---	
Output data				USB / RS232 <sup>4)</sup>	
IP rating		IP54	IP67	IP54	IP67

<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

<sup>4)</sup> voir chapitre câbles

<sup>5)</sup> Preset configuration only by computer



# Mini digital indicators

# S\_Dial MINI Smart

## DESCRIPTION

- Smallest digital comparator available on the market with compact Ø 45 mm non-rotating housing and integrated Bluetooth® system
- New robust construction
- Ideal for integration into machines or various measuring fixtures
- Data output «Power», works without battery when connected via cable
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Digital display resolution 0.01 or 0.001 mm with analogue scale
- Measuring range 12.5 mm
- Available in Protected or Standard execution
  - P version: IP67 with bellows-protected spindle, without lifting cap
  - S version: IP54 or IP67, without bellows, with or without lifting cap

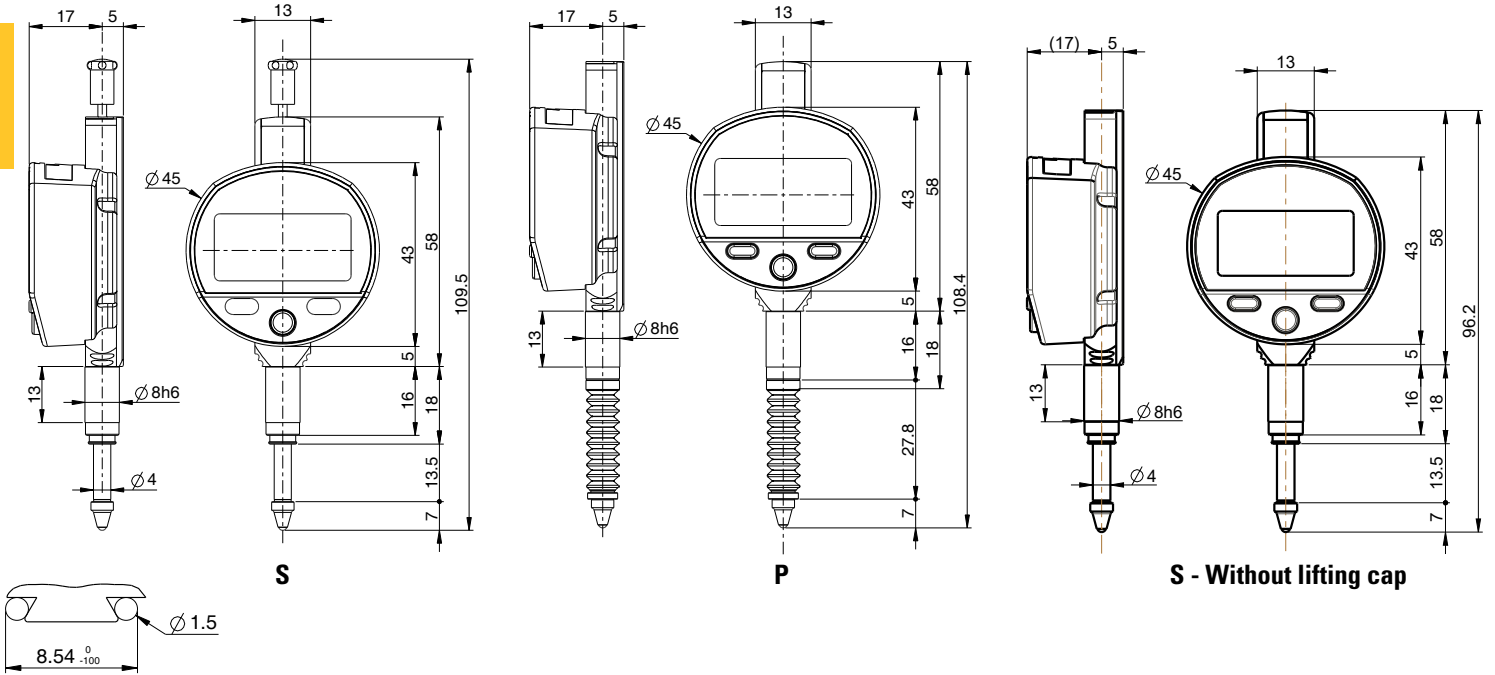
B



# Mini digital indicators

# S\_Dial MINI Smart

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Smart		805-6121	805-6123	805-6125	805-6521	805-6523	805-6525
Measuring range	mm	12.5	12.5	12.5	12.5	12.5	12.5
Analog scale		●	●	●	●	●	●
Resolution	mm	0.01	0.01	0.01	0.001	0.001	0.001
Execution <sup>3)</sup>		S	S	P	S	S	P
Max. Error fe	µm	10 <sup>1)</sup>	10 <sup>1)</sup>	10 <sup>1)</sup>	4	4	4
Repeatability	µm	2	2	2	2	2	2
Measuring force <sup>2)</sup>	N	0.5 - 0.90 N	0.5 - 0.90 N	0.6 - 1.3 N	0.5 - 0.90 N	0.5 - 0.90 N	0.6 - 1.3 N
Lifting cap		●			●		
Zero setting					●		
Resolution selection					●		
PRESET = (max. ±999.99 mm)					●		
Min / max / delta display					●		
Selection of measuring direction					●		
Multiplication factor					●		
Output data		Bluetooth® wireless technology* / RS232 / USB <sup>4)</sup>					
IP rating		IP67	IP67	IP67	IP67	IP67	IP67

<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

\* Up to 8 instruments connected per dongle #981-7100



# Mini digital indicators

# S\_Dial MINI Smart

## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate for instruments with resolution 0.001 mm

B

## 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	---

Tolerance  $\pm 20\%$ , indicator in vertical position, spindle in outgoing measurement.  
<sup>1)</sup> on request

## APPLICATIONS



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



Measurement of the vertical displacement of an element



Measurement of internal chamfer

# Digital indicators

# S\_Dial WORK

## DESCRIPTION

## BASIC

- Simple and robust digital comparator with Ø 59.5 mm non-rotating housing
- One central button with favourite function to choose between preset recall or value transmission
- Selection of unit (mm/inch) and direction of measurement
- Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Available in version with display resolution 0.01 mm and 0.001 mm
- Measuring range selectable: 12.5, 25 and 50 mm



**PROXIMITY**

**POWER**

**SWISS MADE**

**WATER RESISTANT**

\* SIS description on page 5

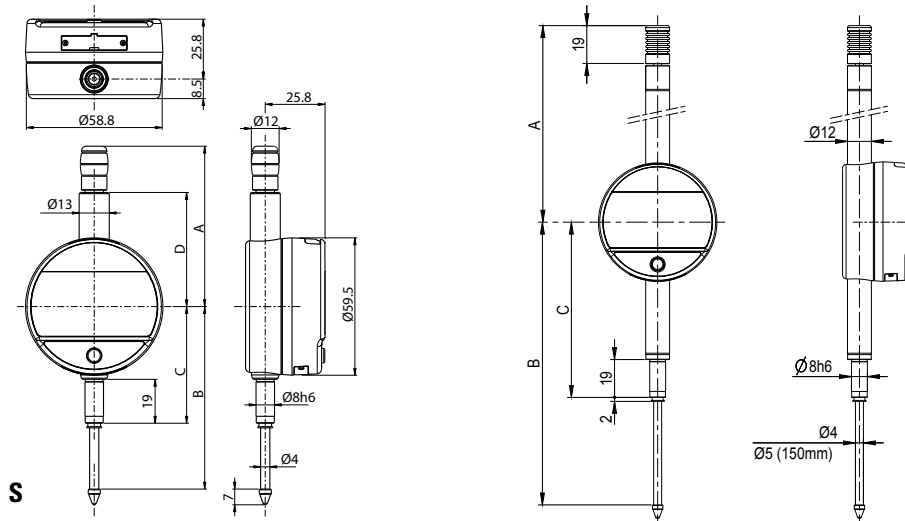


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

## BASIC



## TECHNICAL SPECIFICATIONS

		805-1201	805-1301	805-1401	805.1501	805-1601	805-1621
Measuring range	mm	12.5	12.5	25	25	50	50
Resolution	mm	0.01	0.001	0.01	0.001	0.01	0.001
Max. Error fe	µm	10 <sup>1)</sup>	<b>4</b>	10 <sup>1)</sup>	<b>5</b>	20 <sup>1)</sup>	<b>7</b>
Repeatability	µm	2					
IP rating		IP51					
A	mm	56.7		69.9		121.3	
B	mm	66.1		78.5		142	
C	mm	50.5		50.5		88	
D	mm	36.6		49.4		-	
Output data		USB / RS232					
Programmable by PC		●					
Standard functions (customized by PC)		Preset (max 999.999) only programmable by PC with cable, mm/inch, direction of measurement					

<sup>1)</sup> ± 1 digit

## STANDARD DELIVERY

## MEASURING FORCE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate for instruments 0.001 mm

		S 12.5	S 25	S 50
Standard	N	0.65 - 0.90	0.65 - 1.15	1.1 - 2.6
Low <sup>3)</sup>	N	0.4 - 0.55	0.45 - 0.9	---
High <sup>3)</sup>	N	1.0 - 1.6	0.9 - 1.8	---

Tolerance ± 20%, spindle in outgoing measurement position.  
<sup>3)</sup> on request





# Digital indicators

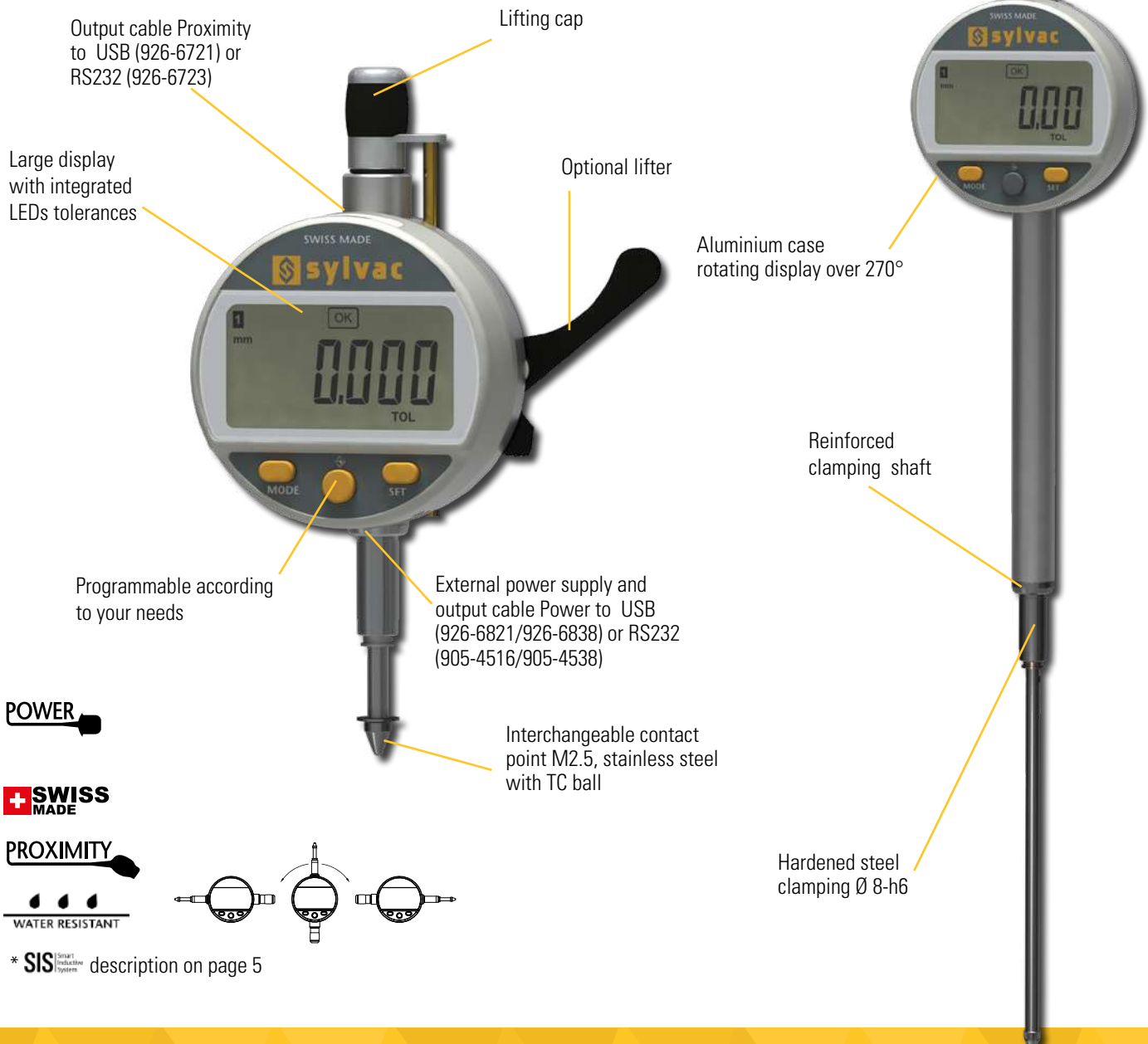
# S\_Dial WORK

## DESCRIPTION

## ADVANCED

- Robust digital comparator with Ø 59.5 mm housing rotatable by 270°.
- Large display with colour LED tolerance status indication
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Available with display resolution 0.01 mm or 0.001 mm
- Measuring range selectable: 12.5, 25, 50, 100 and 150 mm
- The 12.5 and 25 mm versions are available in special low or high pressure versions on request.
- Protected IP54

B



**POWER**

**SWISS MADE**

**PROXIMITY**

**WATER RESISTANT**

\* SIS description on page 5

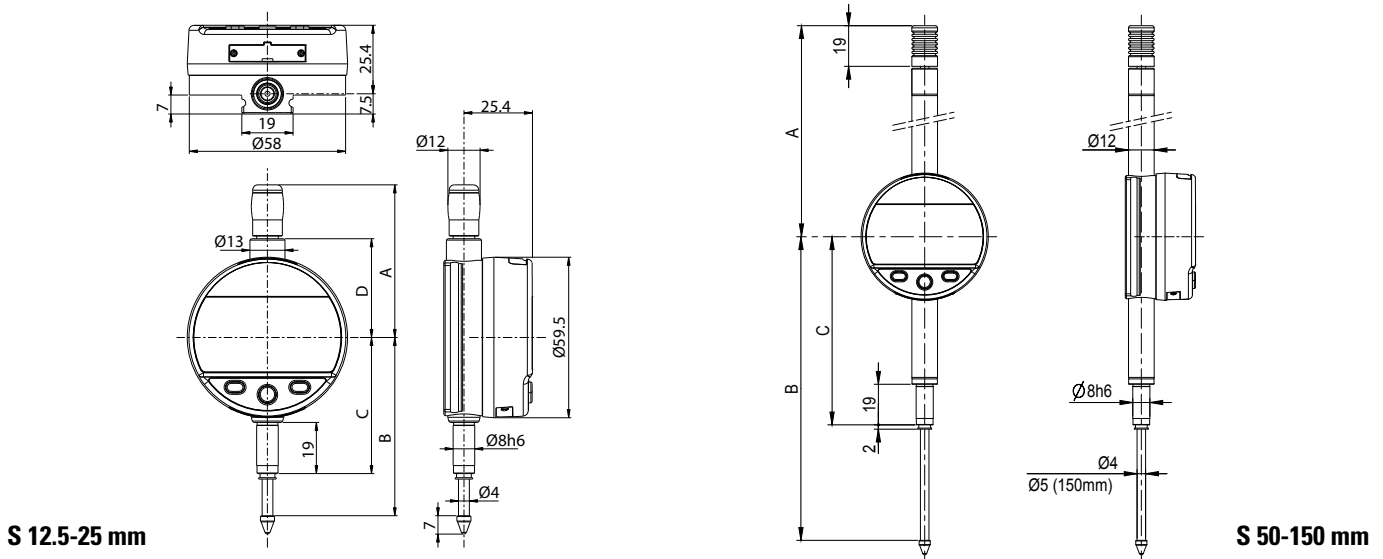


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

## ADVANCED



**S 12.5-25 mm**

**S 50-150 mm**

## TECHNICAL SPECIFICATIONS

		805-5201	805-5301	805-5401	805-5501	805-5601	805-5621	805-5641	805-5661	805-5671	805-5681
Measuring range	mm	12.5	12.5	25	25	50	50	100	100	150	150
Resolution	mm	0.01	0.001	0.01	0.001	0.01	0.001	0.01	0.001	0.01	0.001
Max. Error fe	µm	10 <sup>1)</sup>	<b>3</b>	10 <sup>1)</sup>	<b>4</b>	20 <sup>1)</sup>	<b>5</b>	20 <sup>1)</sup>	<b>6</b>	20 <sup>1)</sup>	<b>10</b>
Repeatability	µm	2									
IP rating		IP54									
A	mm	56.7		69.4		121		172		224	
B	mm	66.1		78.5		142		244		349	
C	mm	50.5		50.5		88		139		193	
D	mm	36.6		49.4		-		-		-	
Output data		USB / RS232									
Programmable by PC		●									
Standard functions (customized by PC)		mm/inch, ref I/II, preset (max 999.999) min/max/delta, tolerances, resolution, direction of measurement, multiplication factor, automatic or manual switch off, key lock									

<sup>1)</sup> ± 1 digit

## STANDARD DELIVERY

## MEASURING FORCE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate for instruments 0.001 mm

		12.5	25	50	100	150
Standard	N	0.65 - 0.9	0.65 - 1.15	1.1 - 2.6	1.8 - 3.8	2.6 - 5.7
Low <sup>2)</sup>	N	0.4 - 0.55	0.45 - 0.9	---	---	---
High <sup>2)</sup>	N	1.0 - 1.6	0.9 - 1.8	---	---	---

Tolerance ± 20%, spindle in outgoing measurement position.  
<sup>2)</sup> on request





# Digital indicators

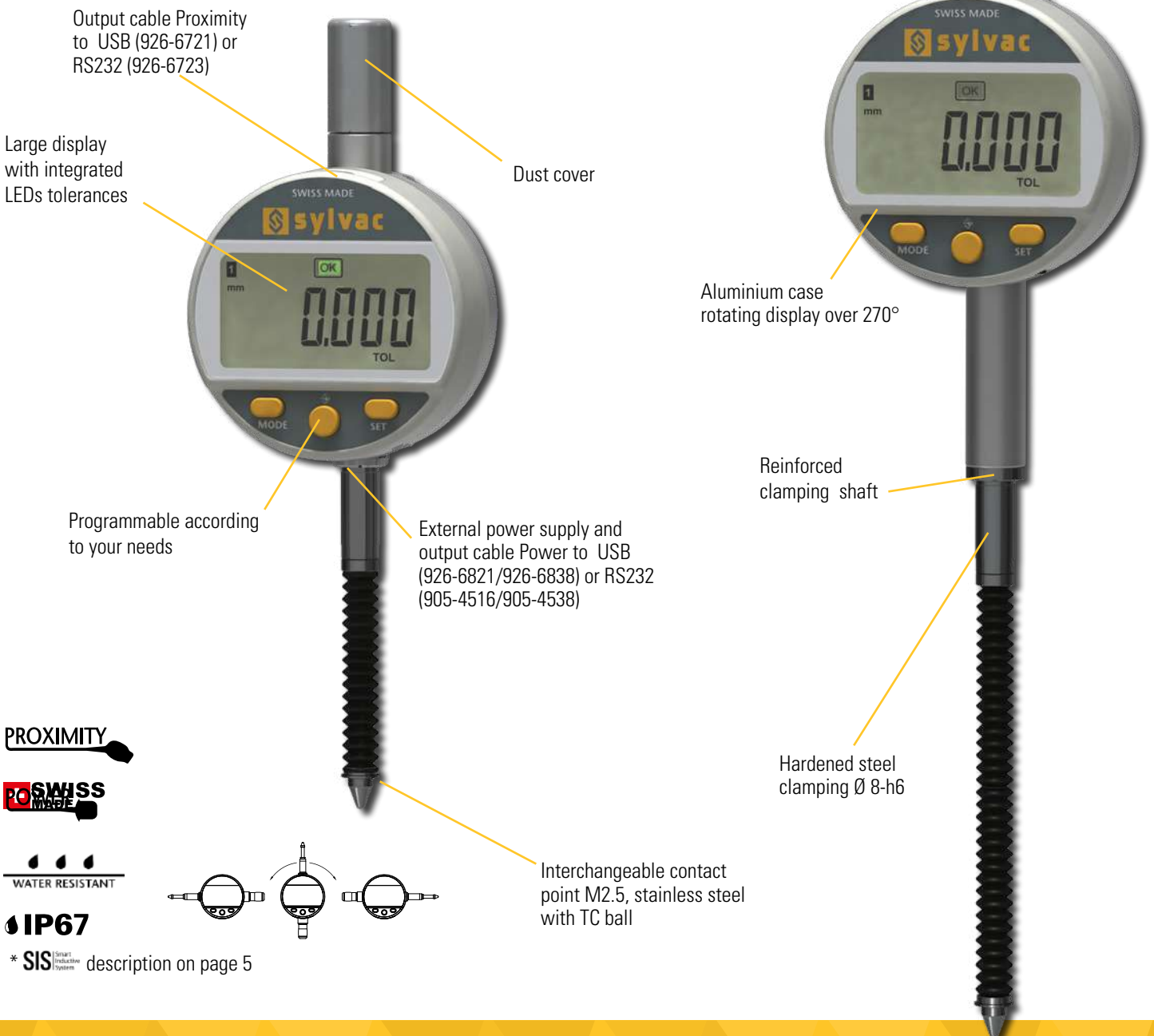
# S\_Dial WORK

## DESCRIPTION

ADVANCED IP67

- Robust digital comparator with Ø 59.5 mm housing rotatable by 270°.
- Large display with 0.001 mm resolution and colour LED tolerance status indication
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Measuring range selectable: 12.5, 25 and 50 mm
- IP67 protection with bellows-protected stem and dust cap
- Brake valve on 50 mm version

B



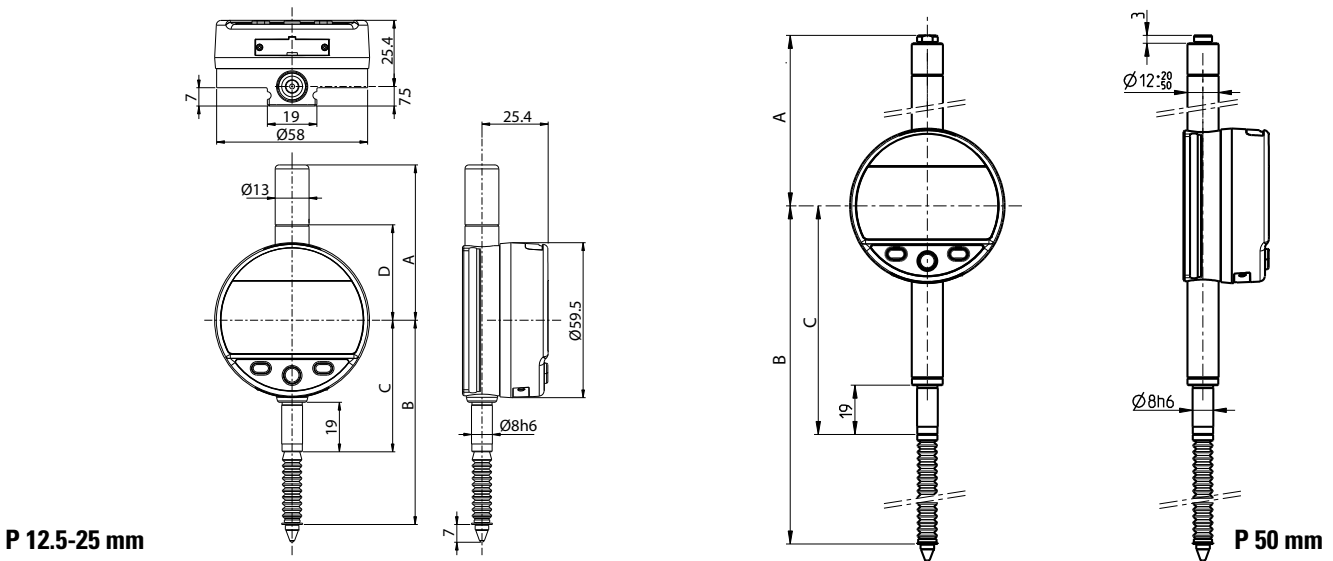


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

## ADVANCED IP67



## TECHNICAL SPECIFICATIONS

		805-5305	805-5505	805-5625
Measuring range	mm	12.5	25	50
Resolution	mm	0.001	0.001	0.001
Max. Error fe	µm	<b>3</b>	<b>4</b>	<b>5</b>
Repeatability	µm		2	
IP rating			IP67	
A	mm	59.6	85.4	104.4
B	mm	78.4	99.7	175.3
C	mm	50.5	50.5	88
D	mm	36.6	49.4	-
Output data		USB / RS232		
Programmable by PC		●		
Standard functions (customized by PC)		mm/inch, ref I/II, preset (max 999.999) min/max/delta, tolerances, resolution, direction of measurement, multiplication factor, automatic or manual switch off, key lock		

## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate for instruments 0.001 mm

## MEASURING FORCE

		P 12.5	P 25	P 50
Standard	N	0.7 – 1.4	0.65 – 1.8	0.9 – 2.8
Low <sup>2)</sup>	N	---	---	---
High <sup>2)</sup>	N	---	---	---

Tolerance ± 20%, spindle in outgoing measurement position.  
<sup>2)</sup> on request



# Digital indicators

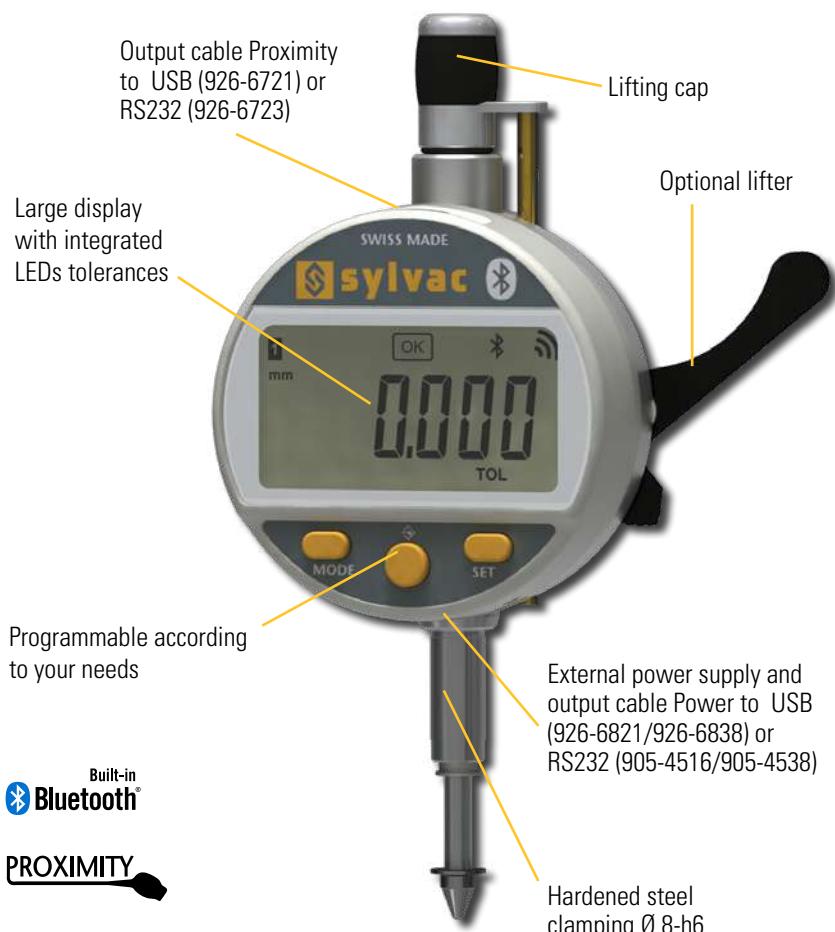
# S\_Dial WORK

## DESCRIPTION

## SMART

- Robust digital comparator with Ø 59.5 mm housing rotatable by 270°.
- Large display resolution 0.001 mm
- Integrated Bluetooth® system
- Large display with colour LED tolerance status indication
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Measuring range selectable: 12.5, 25, 50 and 100 mm
- Protection class IP54

B



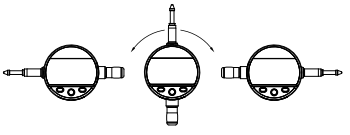
Built-in Bluetooth®

**PROXIMITY**

**POWER**

**SWISS MADE**

WATER RESISTANT



\* SIS description on page 5

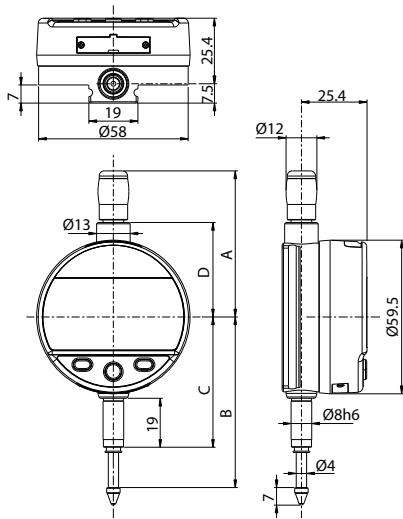


# Digital indicators

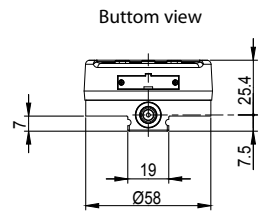
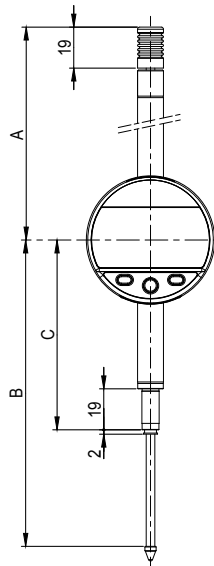
# S\_Dial WORK

## DIMENSIONAL DRAWINGS

## SMART



**S 12.5 - 25**



**S 50 - 100**

## TECHNICAL SPECIFICATIONS

		805-6301	805-6501	805-6621	805-6661
Measuring range	mm	12.5	25	50	100
Resolution	mm	0.001	0.001	0.001	0.001
Max. Error fe	µm	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Repeatability	µm	2			
IP rating		IP54			
A	mm	56.7	69.4	121	172
B	mm	66.1	78.5	142	244
C	mm	50.5	50.5	88	139
D	mm	36.6	49.4	-	-
Output data		USB / RS232 / Bluetooth® wireless technology*			
Programmable by PC		●			
Standard functions (customized by PC)		mm/inch, ref I/II, preset (max 999.999) min/max/delta, tolerances, resolution, direction of measurement, multiplication factor, automatic or manual switch off, key lock			

<sup>1)</sup> ± 1 digit

**\* Up to 8 instruments connected per dongle #981-7100**

## STANDARD DELIVERY

## MEASURING FORCE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate for instruments 0.001 mm

		12.5	25	50	100
Standard	N	0.65 - 0.90	0.65 - 1.15	1.1 - 2.6	1.8 - 3.8
Low <sup>2)</sup>	N	0.4 - 0.55	0.45 - 0.9	---	---
High <sup>2)</sup>	N	1.0 - 1.6	0.9 - 1.8	---	---

Tolerance ± 20%, spindle in outgoing measurement position.  
<sup>2)</sup> on request

B





# Digital indicators

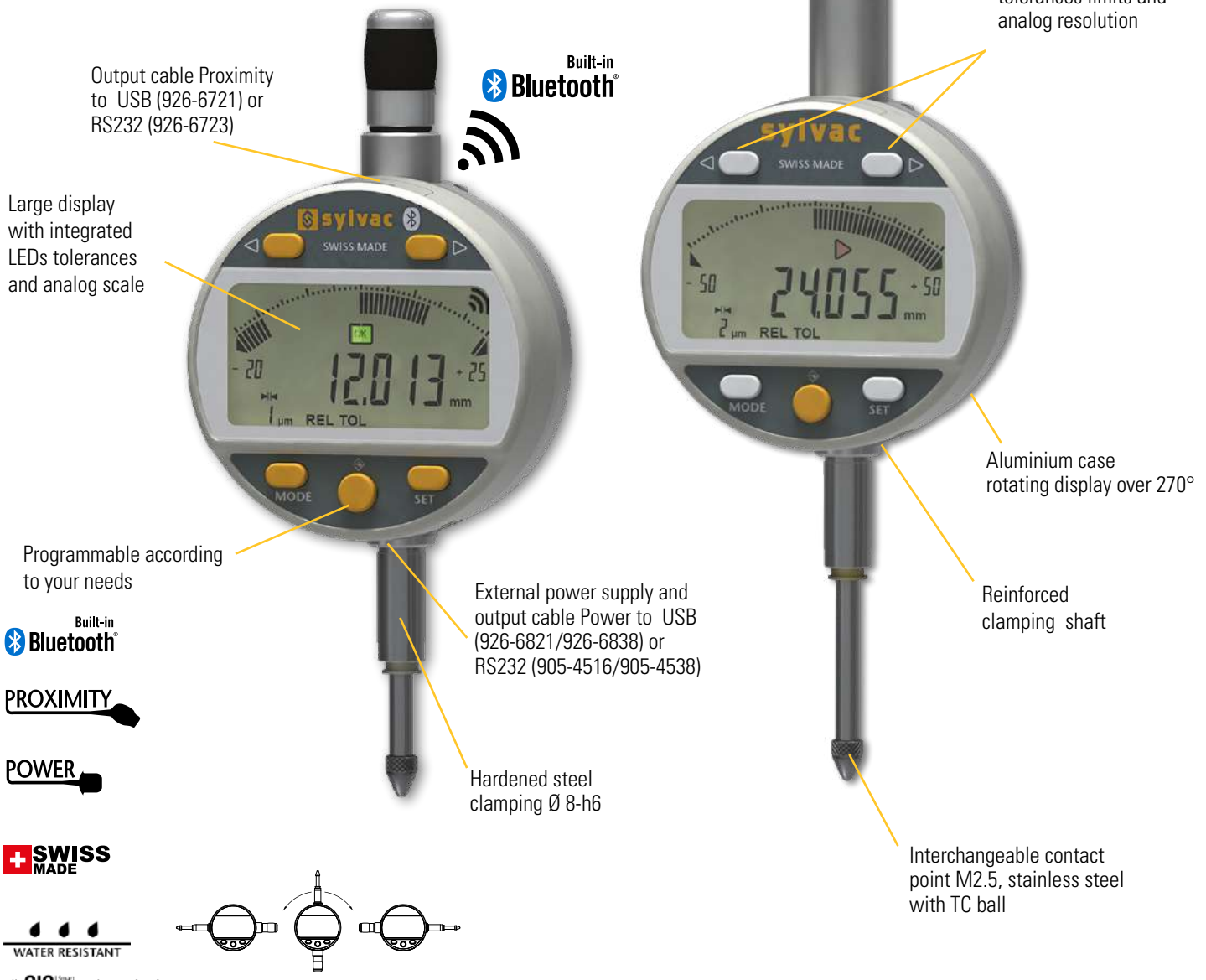
# S\_Dial WORK

## DESCRIPTION

## ANALOG & ANALOG SMART

- Robust digital comparator with Ø 59.5 mm housing rotatable by 270°.
- Integrated Bluetooth® system on Smart model
- Large display with 0.001 mm resolution and colour LED tolerance status indication
- Analogue display with selectable scale (from 0.2 µm per division)
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Measuring range selectable: 12.5 and 25 mm
- Special low or high pressure versions available on request
- Protection class IP54

B



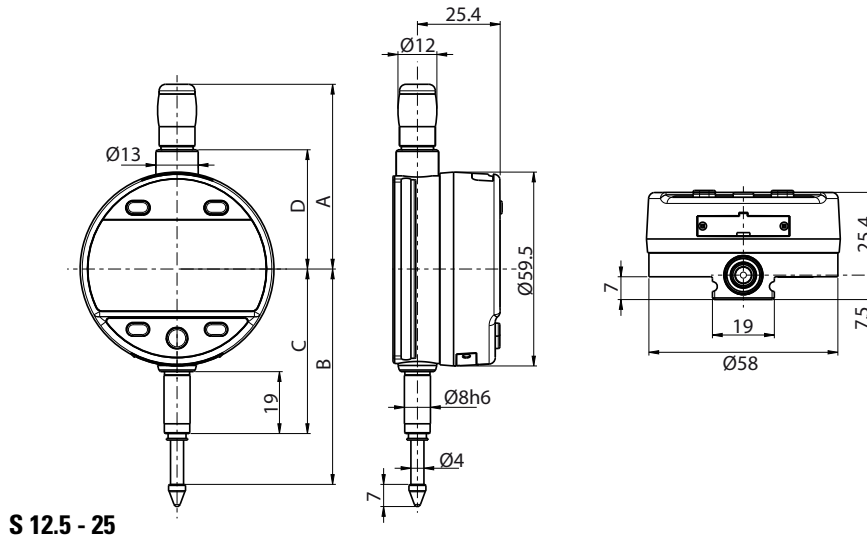


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

## ANALOG & ANALOG SMART



## TECHNICAL SPECIFICATIONS

		805-5307	805-5507	805-6308
Measuring range	mm	12.5	25	12.5
Resolution	mm	0.001		
Max. Error fe	µm	<b>3</b>	<b>4</b>	<b>3</b>
Repeatability	µm	2		
IP rating		IP54		
A	mm	56.7	69.4	56.7
B	mm	66.1	78.5	66.1
C	mm	50.5	50.5	50.5
D	mm	36.6	49.4	36.6
Output data		USB / RS232		USB / RS232 / Bluetooth® *
Programmable by PC		●		
Standard functions (customized by PC)		mm/inch, preset (max 999.999) min/max/delta, tolerances, resolution, direction of measurement, multiplication factor, automatic or manual switch off, key lock		

<sup>1)</sup> ± 1 digit

**\* Up to 8 instruments connected per dongle #981-7100**

## STANDARD DELIVERY

## MEASURING FORCE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate

		S 12.5	S 25
Standard	N	0.65 - 0.90	0.65 - 1.15
Low <sup>2)</sup>	N	0.4 - 0.55	0.45 - 0.9
High <sup>2)</sup>	N	1.0 - 1.6	0.9 - 1.8

Tolerance ± 20%, spindle in outgoing measurement position.

<sup>2)</sup> on request

# Digital indicators

# S\_Dial WORK

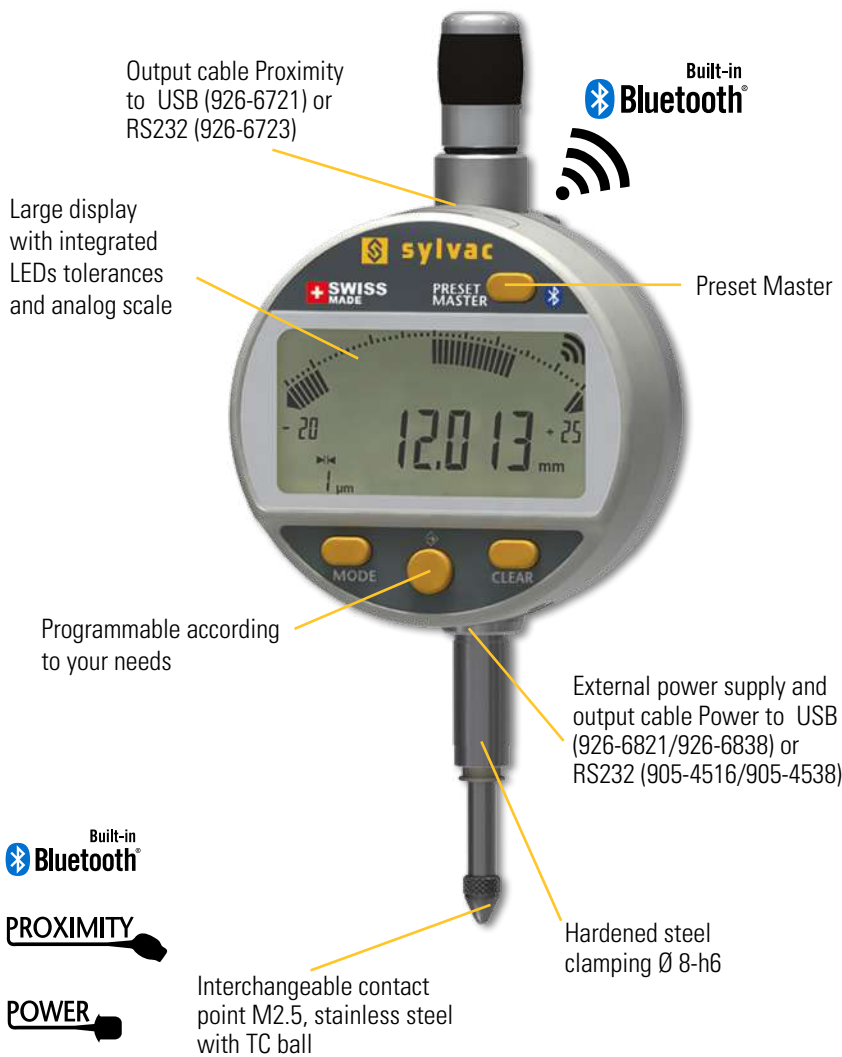
## DESCRIPTION

CBG

- Special version for cylindrical bore gauges
- Data output Power, Proximity & Bluetooth®
- Introduction of the Preset value on the saved Min value
- Quick measure of the reversal point
- Robust construction
- Water and coolant resistant
- Broad choice of functions (MIN/MAX/DELTA, TOL, PRESET, AUTO OFF, etc.)
- Automatic wake-up and sleeping mode, Absolute System S.I.S\*
- Maximum error of 3 µm



B



Lifting cap  
Aluminium case rotating display over 270°



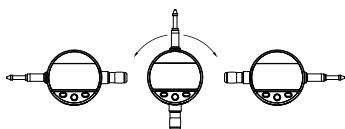
**Built-in Bluetooth**

**PROXIMITY**

**POWER**

**SWISS MADE**

**WATER RESISTANT**



\* SIS description on page 5

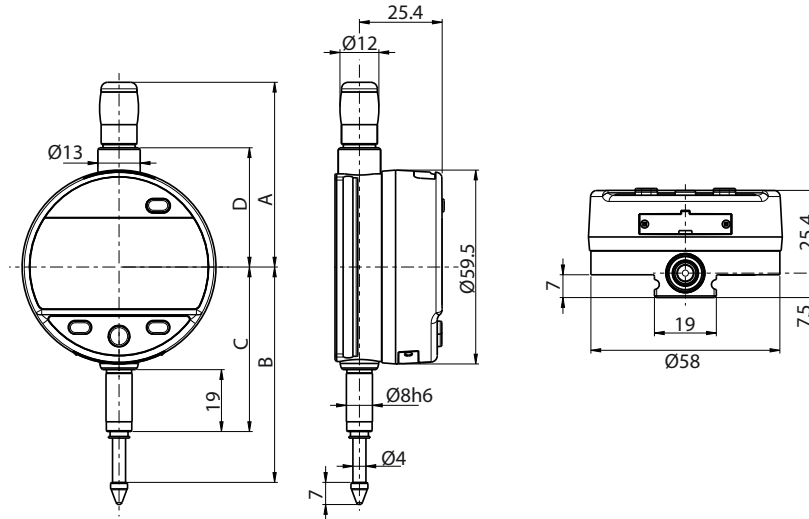


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

CBG



B

## TECHNICAL SPECIFICATIONS

		<b>805-6317</b>
Measuring range	mm	12.5
Resolution	mm	0.001
Max. Error fe	µm	<b>3</b>
Repeatability	µm	2
IP rating		IP54
A	mm	56.7
B	mm	66.1
C	mm	50.5
D	mm	36.6
Output data	USB / RS232 / Bluetooth® wireless technology*	
Programmable by PC	●	
Standard functions (customized by PC)	mm/inch, preset (max 999.999) min/max/delta, tolerances, resolution, multiplication factor, automatic or manual switch off	

<sup>1)</sup> ± 1 digit

**\* Up to 8 instruments connected per dongle #981-7100**

## STANDARD DELIVERY

## MEASURING FORCE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate

		<b>S 12.5</b>
Standard	N	0.65 - 0.90
Low <sup>2)</sup>	N	0.4 - 0.55
High <sup>2)</sup>	N	1.0 - 1.6

Tolerance ± 20%, spindle in outgoing measurement position.  
<sup>2)</sup> on request



# Digital indicators

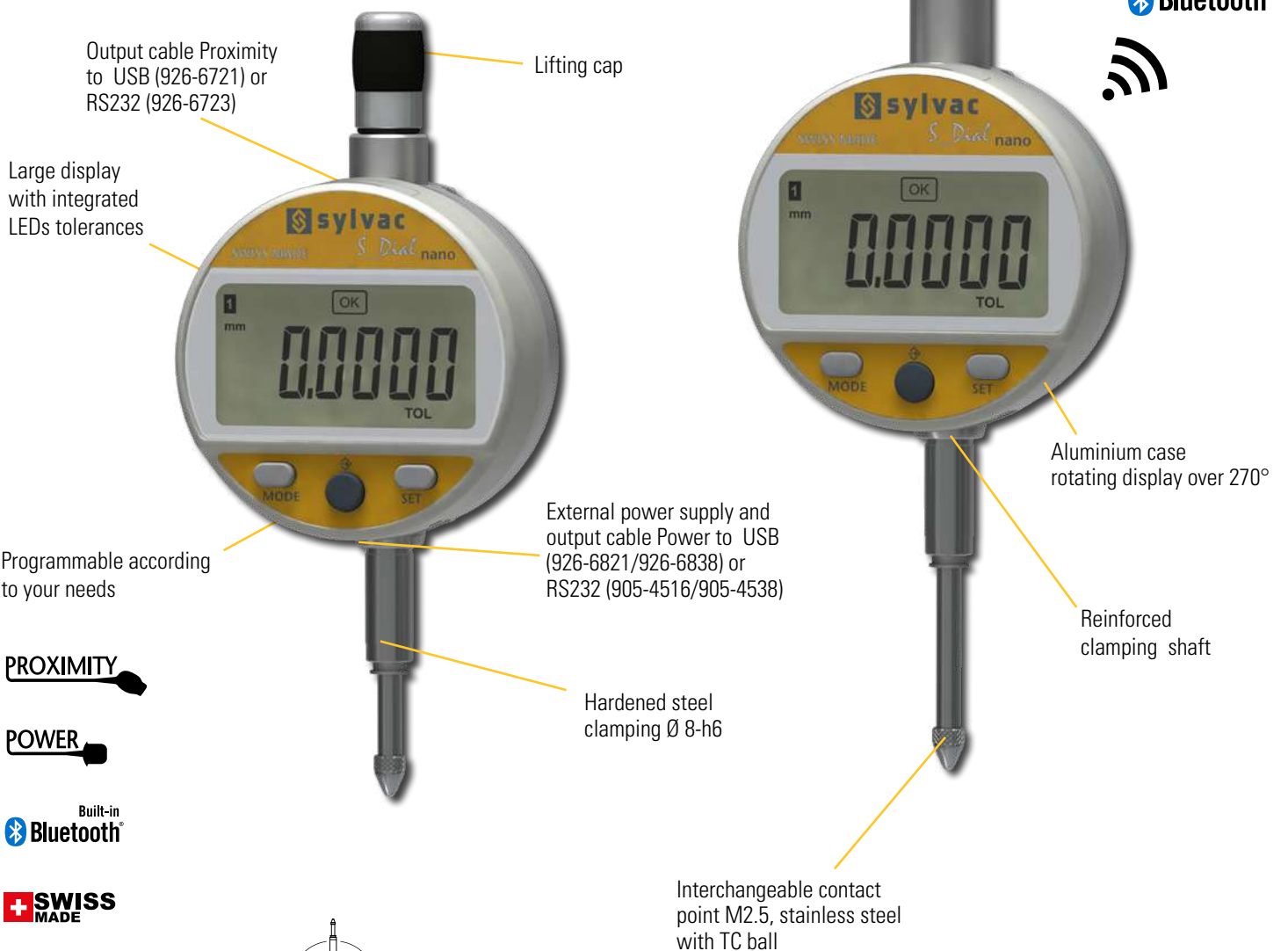
# S\_Dial WORK

## DESCRIPTION

## NANO & NANO SMART

- Robust digital comparator with Ø 59.5 mm housing rotatable by 270°.
- Integrated Bluetooth® system on Smart model
- Large display resolution 0.0001 mm (0.1 µm) with tolerance status indication by colour LEDs
- High accuracy and repeatability
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Measuring range selectable: 12.5 and 25 mm
- Special low or high pressure versions available on request
- Protection class IP54

B



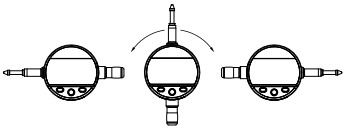
**PROXIMITY**

**POWER**

Built-in **Bluetooth**

**SWISS MADE**

**WATER RESISTANT**



\* SIS description on page 5

**Max error 1.2 µm**  
**Repeatability 0.3 µm**

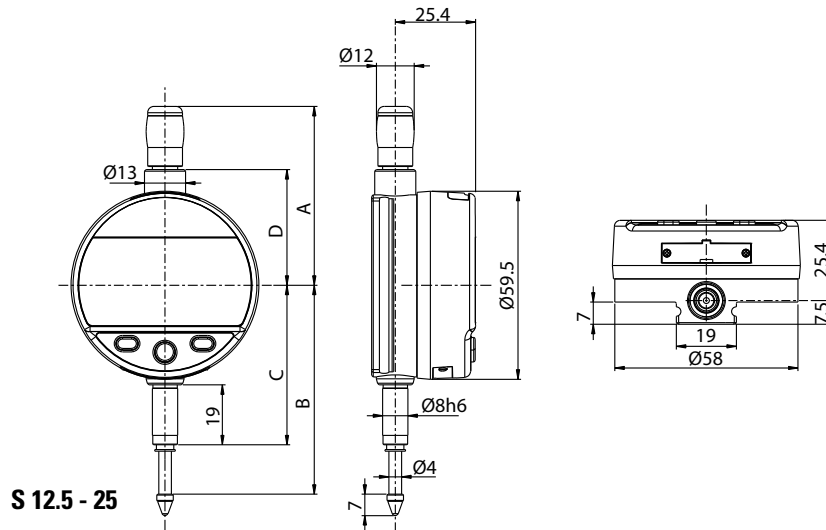


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

## NANO & NANO SMART



## TECHNICAL SPECIFICATIONS

		805-5306	805-5506	805-6306	805-6506
Measuring range	mm	12.5	25	12.5	25
Resolution	mm	0.0001	0.0001	0.0001	0.0001
Max. Error fe	µm	<b>1.2</b>	<b>1.6</b>	<b>1.2</b>	<b>1.6</b>
Repeatability	µm	0.3			
IP rating		IP54			
A	mm	56.7	69.4	56.7	69.4
B	mm	66.1	78.5	66.1	78.5
C	mm	50.5	50.5	50.5	50.5
D	mm	36.6	49.4	36.6	49.4
Output data		USB / RS232		USB / RS232 / Bluetooth® wireless technology*	
Programmable by PC		●			
Standard functions (customized by PC)		mm/inch, ref I/II, preset (max 999.999) min/max/delta, tolerances, resolution, direction of measurement, multiplication factor, automatic or manual switch off, key lock			

**\* Up to 8 instruments connected per dongle #981-7100**

## STANDARD DELIVERY

## MEASURING FORCE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate

		S 12.5	S 25
Standard	N	0.65 - 0.90	0.65 - 1.15
Low <sup>2)</sup>	N	0.4 - 0.55	0.45 - 0.9
High <sup>2)</sup>	N	1.0 - 1.6	0.9 - 1.8

Tolerance ± 20%, spindle in outgoing measurement position.  
<sup>2)</sup> on request

# Digital indicators

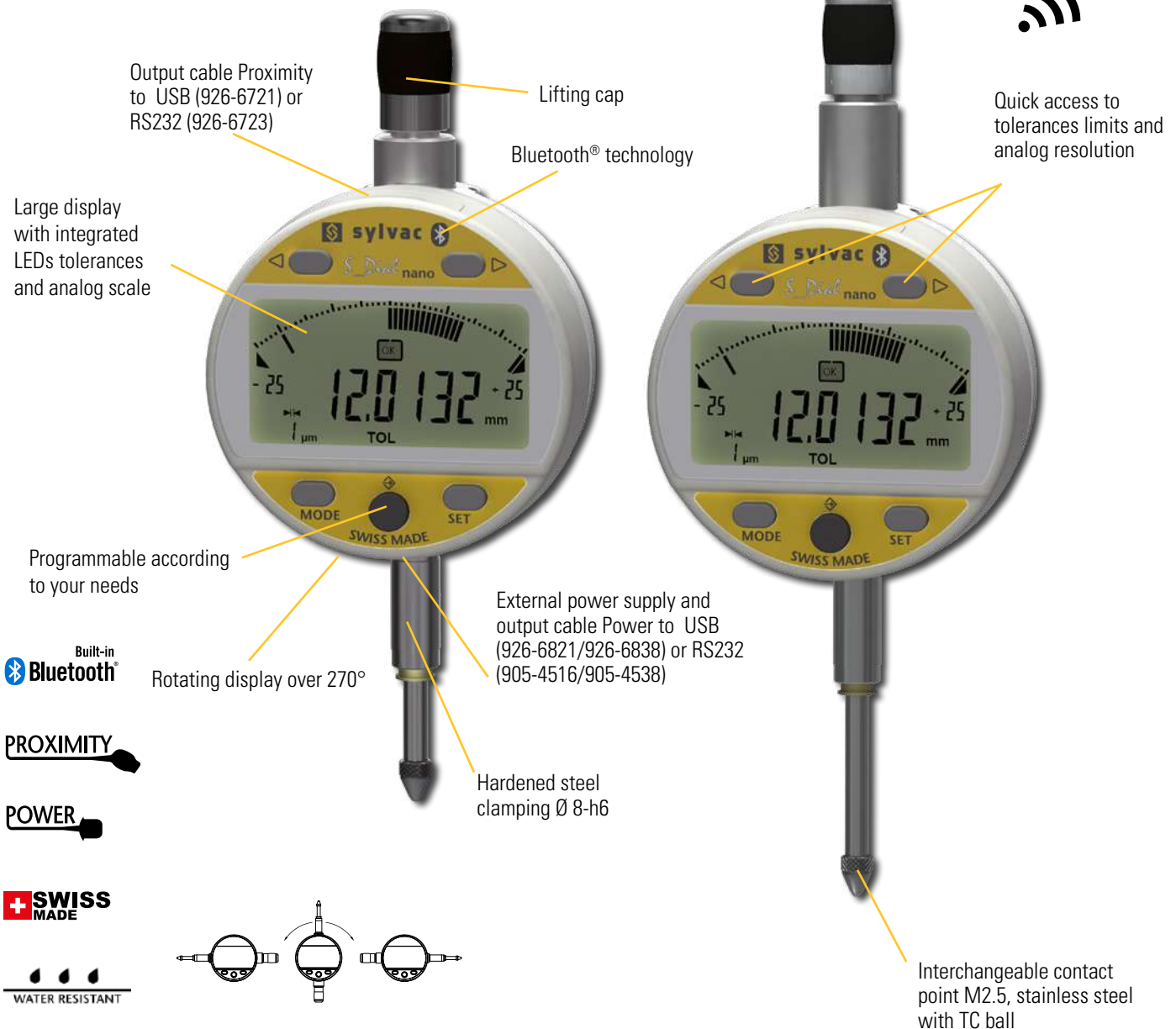
# S\_Dial WORK

## DESCRIPTION

## ANALOG NANO SMART

- Robust digital comparator with  $\varnothing$  59.5 mm housing rotatable by 270°.
- Integrated Bluetooth® system on Smart model
- Large display resolution 0.0001 mm (0.1  $\mu$ m) with tolerance status indication by colour LEDs
- High accuracy and repeatability
- Five buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Measuring range selectable: 12.5 and 25 mm
- Special low or high pressure versions available on request
- Protection class IP54

B



\* SIS description on page 5



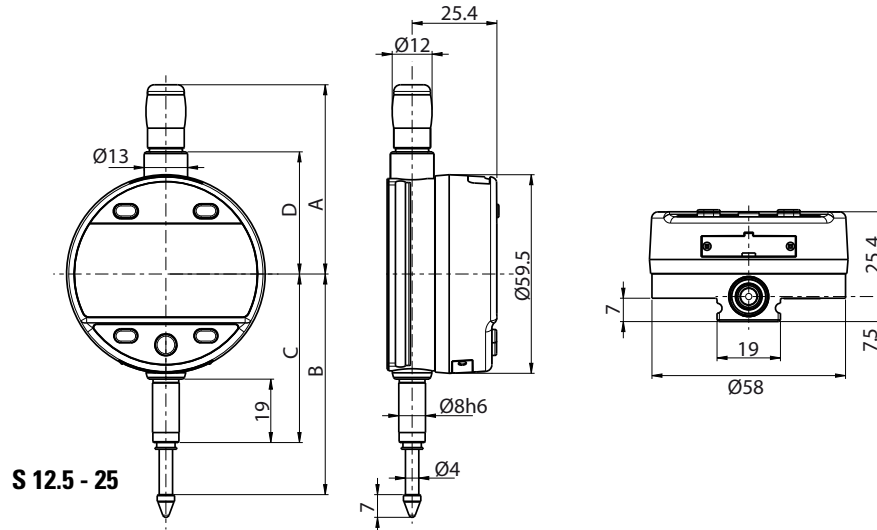


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

## ANALOG NANO SMART



## TECHNICAL SPECIFICATIONS

		805-6307	805-6507
Measuring range	mm	12.5	25
Resolution	mm	0.0001	
Max. Error fe	µm	<b>1.2</b>	<b>1.6</b>
Repeatability	µm	0.3	
IP rating		IP54	
A	mm	56.7	69.4
B	mm	66.1	78.5
C	mm	50.5	50.5
D	mm	36.6	49.4
Output data	USB / RS232 / Bluetooth® wireless technology*		
Programmable by PC	●		
Standard functions (customized by PC)	mm/inch, preset (max 99.9999 or 999.999) min/max/delta, tolerances, resolution, direction of measurement, multiplication factor, automatic or manual switch off, key lock		

**\* Up to 8 instruments connected per dongle #981-7100**

## STANDARD DELIVERY

## MEASURING FORCE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate

		S 12.5	S 25
Standard	N	0.65 - 0.90	0.65 - 1.15
Low <sup>2)</sup>	N	0.4 - 0.55	0.45 - 0.9
High <sup>2)</sup>	N	1.0 - 1.6	0.9 - 1.8

Tolerance ± 20%, spindle in outgoing measurement position.  
<sup>2)</sup> on request

# Digital indicators

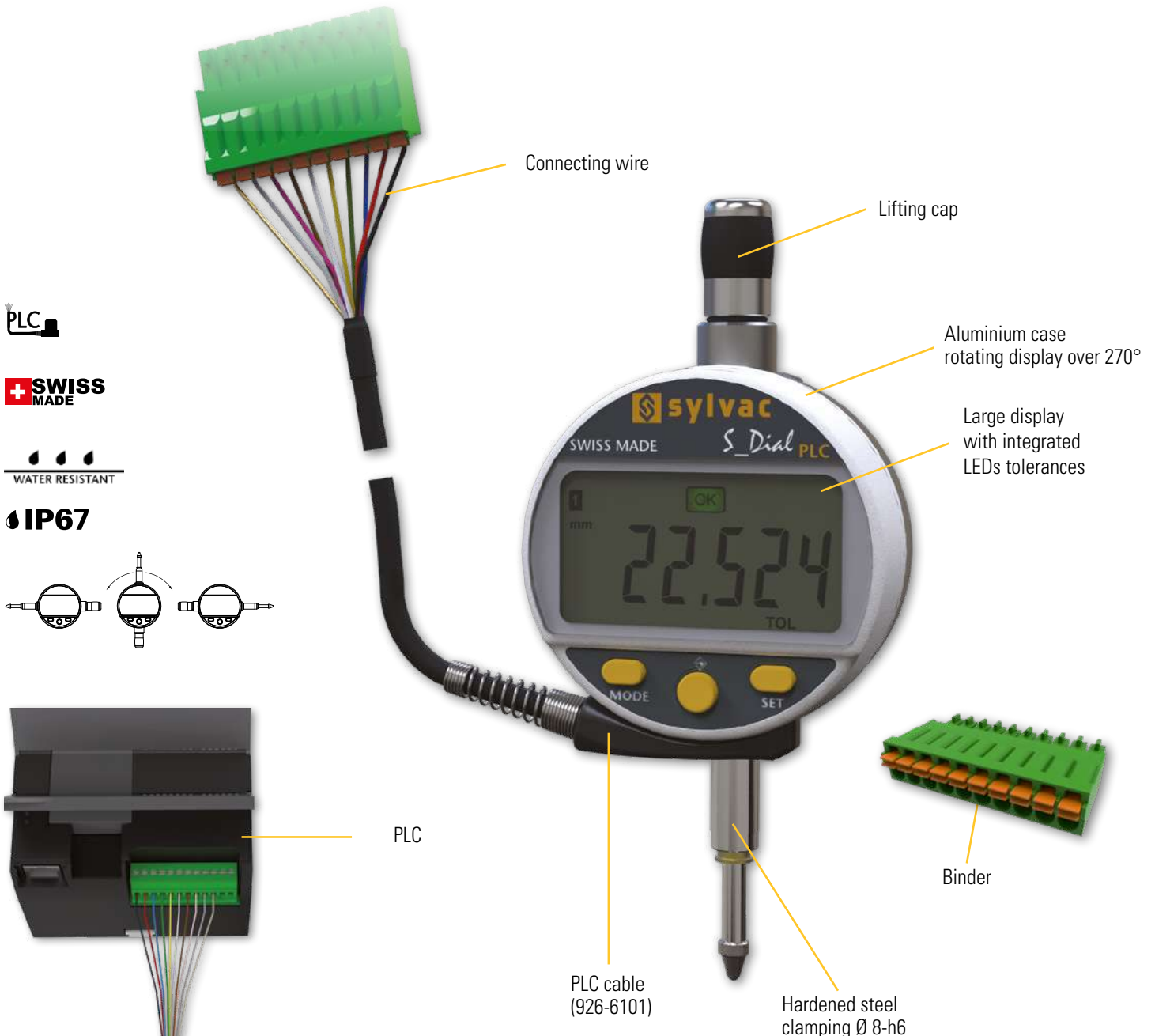
# S\_Dial WORK

## DESCRIPTION

PLC

B

- Robust digital comparator with Ø 59.5 mm housing rotatable by 270°.
- Instrument for automation and robotics
- Large display resolution 0.01 mm or 0.001 mm with tolerance status indication by colour LEDs
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Data outputs «Open connector» for using the instrument without batteries (powered by the device) and «Proximity».
- Selection of the communication protocol to be chosen between ASCII, MODBUS and ORBIT
- Measuring range selectable: 12.5 and 25 mm
- Special low or high pressure versions available on request
- Protection IP54 for the 0.01 mm resolution version and IP67 for the 0.001 mm resolution version



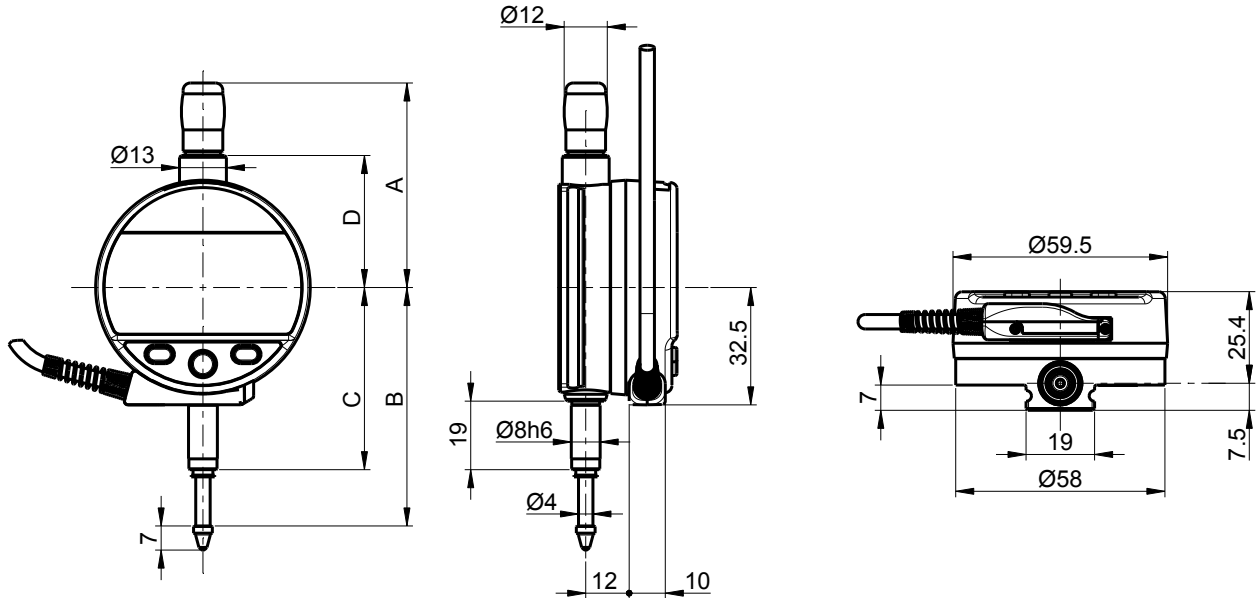


# Digital indicators

# S\_Dial WORK

## DIMENSIONAL DRAWINGS

PLC



B

## TECHNICALS SPECIFICATIONS

		805-7301	805-7201	805-7501	805-7401
Measuring range	mm	12.5	12.5	25	25
A	mm	56.7		69.4	
B	mm	66.1		78.5	
C	mm	50.5		50.5	
D	mm	36.6		49.4	
Resolution	mm	0.001	0.01	0.001	0.01
Max. Error fe	µm	4	10	5	10
Repeatability	µm	2			
Output data		PLC cable / RS232 (Proximity) and RS485 (cable) compatible			
Data bus		RS485 compatible / Charge 1/256 (Protocole MODBUS, ASCII or ORBIT)			
Measuring force	N	0.65 - 0.9		0.65 - 1.15	
IP rating		IP67	IP54	IP67	IP54
Clamping		Ø8h6, interchangeable anvil probe M2.5			
Standard functions (customizable by PC)		mm/inch, ref I/II, preset (max 999.999) min/max/delta, tolerances, resolution, measuring direction, multiplier, keylock			

## INSTRUMENT DE BASE

- Instrument according to technical specifications
- Manual
- PLC cable + binder included
- Calibration certificate

# Digital indicators

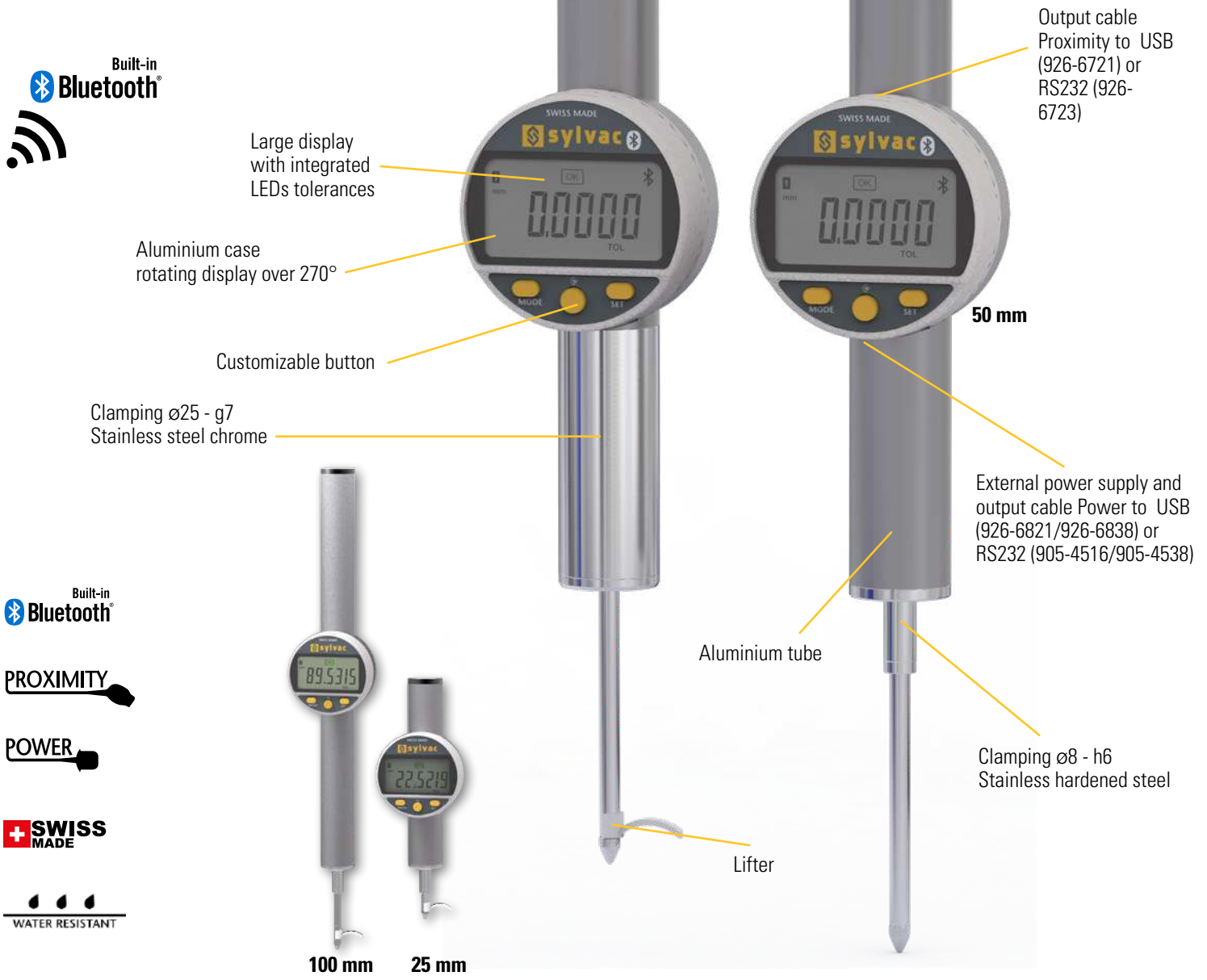
# S\_Dial PRO

## DESCRIPTION

## SMART

B

- Robust digital comparator with Ø 59.5 mm housing rotatable by 270°.
- Large display resolution 0.0001 mm (0.1 µm) with tolerance status indication by colour LEDs
- High accuracy over the entire measuring range thanks to an electronically corrected scale system with reference marks
- Measuring error less than 1.2 µm over 50 mm
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Bluetooth®, Proximity» and «Power» data outputs allowing the instrument to be used without batteries when connected by this cable.
- Available with a fixing diameter of 8 mm and 25 mm for some models
- Measuring range of your choice: 25, 50 and 100 mm
- Available in standard pressure or low-pressure version without return spring for vertical use.
- Protection class IP51



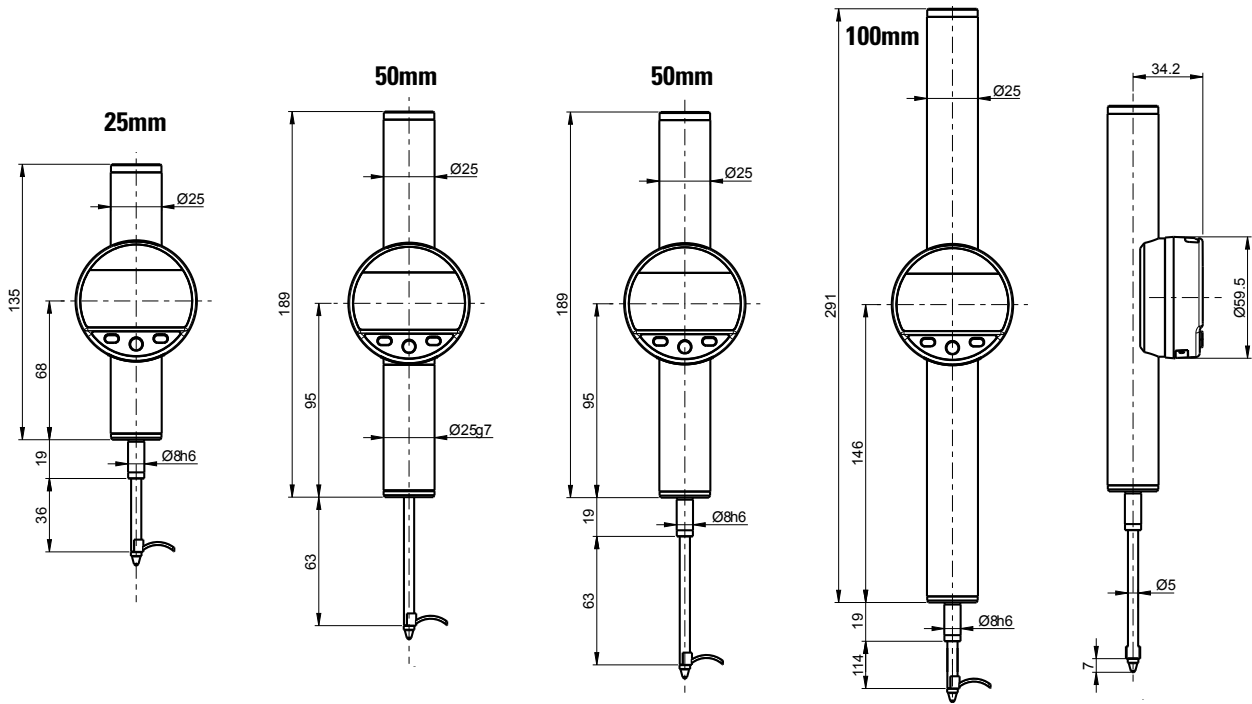


# Digital indicators

# S\_Dial PRO

## DIMENSIONAL DRAWINGS

## SMART



## TECHNICALS SPECIFICATIONS

		805-8501	805-8502	805-8601	805-8701	805-8602	805-8702	805-8661
Measuring range	mm	25		50			100	
Resolution	mm	0.0001						
Max. Error fe	µm	<b>1.0</b>		<b>1.2</b>			<b>1.8</b>	
Repeatability	µm	0.2						
Output data		USB / RS232 / Bluetooth® wireless technology*						
Programmable by PC		●						
Clamping		ø8 h6			ø25 g7		ø8 h6	
Spring		●	1)	●	1)	●	1)	●
Measuring force	N	0.75 - 1.00 <sup>2)</sup>	0.30 <sup>2)</sup>	0.85 - 1.2 <sup>2)</sup>	0.40 <sup>2)</sup>	0.85 - 1.2 <sup>2)</sup>	0.40 <sup>2)</sup>	0.90 - 1.30 <sup>2)</sup>
IP rating		IP51						
Standard functions (customizable by PC)		mm/inch, ref I/II, preset (max 99.9999) min/max/delta, tolerances, resolution, measuring direction, multiplier, automatic extinction/manual, keylock						

<sup>1)</sup> Model without spring : Constant measuring force, use only in a vertical position

<sup>2)</sup> The values agree within ± 20% (vertical down, measuring rod outgoing)

**\* Up to 8 instruments connected per dongle #981-7100**

## INSTRUMENT DE BASE

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Lifter included
- Manual
- Calibration certificate



# Digital indicators

# S\_Dial

## APPLICATIONS

B



Measurement of a span with S\_Dial WORK equipped with measuring ball probe 905-2207



S\_Dial WORK CBG measuring with bore gauge system



S\_Dial WORK mounted on a Sylvac PS15 bench



S\_Dial WORK Smart working in duplex mode and connected to D300S to measure concentricity, roundness, etc.



S\_Dial WORK PLC connected to a PLC



S\_Dial WORK Analog used on bore gauge system



Indicators with Bluetooth® Wireless technology on a 4 points jig



Indicators with Bluetooth® Wireless technology on an iPad through the Sylvac BT Smart App



S\_Dial PRO on ceramic stand





# Digital indicators

# S\_Dial

## LIFTING DEVICES



Lower lifting lever, type 905-4214



Lifting device on S\_Dial PRO Basic



Upper lifting device type 905-4215

B



Pneumatic lifting device type 905-2218



Vacuum lifting device type 905-2220



Lifting device with photo-cable type 905-2216



Lifting device type 905-2214



Lifting device on S\_Dial WORK Smart



Upper lifting lever type, 905-2215





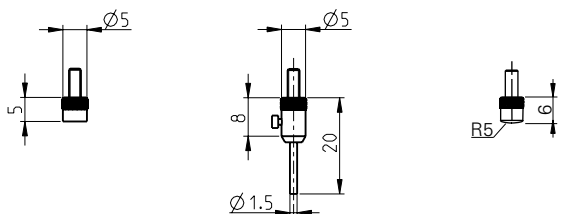
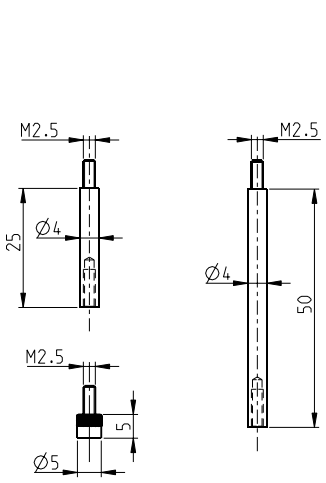
# Digital indicators

# S\_Dial

## ACCESSORIES

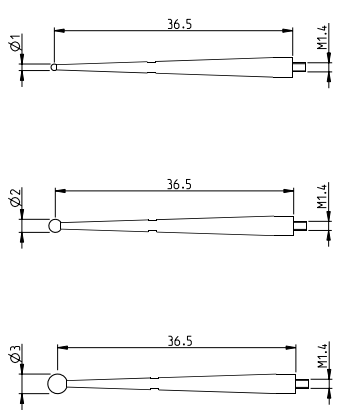
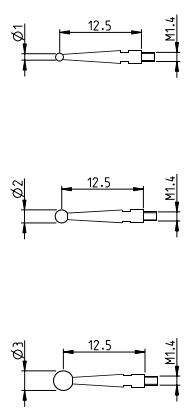
Contact points M2.5

B



S\_Dial Mini  
 S\_Dial TEST (805-4321)  
 S\_Dial TEST (805-4322)  
 S\_Dial TEST (805-4323)  
 S\_Dial WORK  
 12,5 - 25 mm  
 S\_Dial WORK  
 50 - 150 mm  
 S\_Dial PRO

905-2201 (carbide)	905-2202	905-2203	•				•	•	•
905-2206	905-2204	905-2205	•				•	•	•



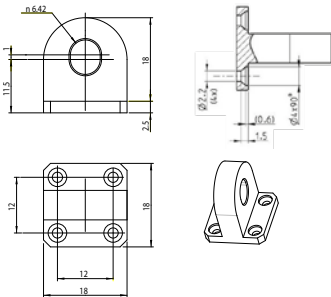
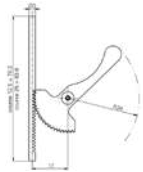
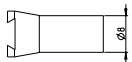
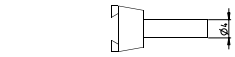
905-2240	Short stylus, TC ball		•		•				
905-2241	Short standard stylus, TC ball		•		•				
905-2242	Short stylus, TC ball		•		•				
905-2243	Long stylus, TC ball				•	•			
905-2244	Long standard stylus, TC ball				•	•			
905-2245	Long stylus, TC ball				•	•			



# Digital indicators

# S\_Dial

## ACCESSORIES



		S_Dial Mini	S_Dial TEST	S_Dial WORK 12,5 - 25 mm	S_Dial WORK 50 - 150 mm
<b>905-2246</b>	Clamping stem	•	•		
<b>905-2247</b>	Clamping stem	•	•		
<b>905-2248</b>	Spanner for probe		•		
<b>805-0214</b>	Lifting device, range 12.5mm			• 1)	
<b>805-0215</b>	Lifting device, range 25mm			• 1)	
<b>805-0213</b>	Lug back (delivered with 4 screws M2x4 DIN 963A)			• 1)	• 1)
<b>905-2231</b>	Sleeve Ø8 --> 10mm with locking screw	•	•	•	•
<b>905-4212</b>	Screwdriver for S_Dial MINI & TEST	•	•		

B

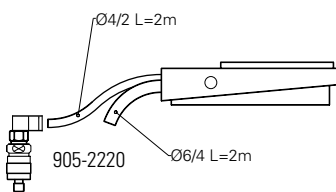
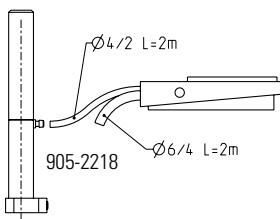
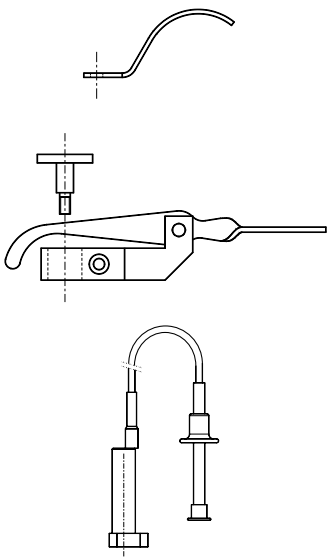
<sup>1)</sup> Except S\_Dial WORK Basic

# Digital indicators

# S\_Dial

## ACCESSORIES

B



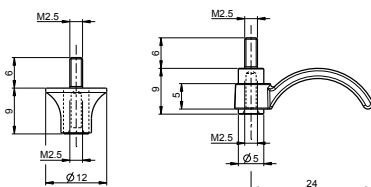
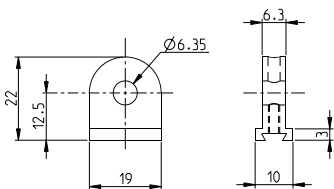
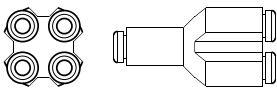
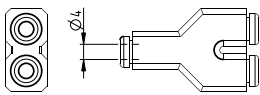
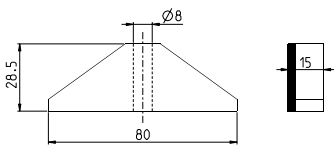
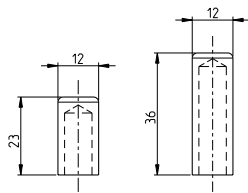
		S_Dial Mini	S_Dial TEST	S_Dial WORK 12,5 - 25 mm	S_Dial WORK 50 - 150 mm	S_Dial PRO
<b>905-2214</b>	Lifting device	•		•	•	•
<b>905-2215</b>	Upper lifting device			•		
<b>905-2216</b>	Lifting device with photo-cable			•		
<b>905-2218</b>	Pneumatic lifting device with foot pedal			•		
<b>905-2217</b>	Lifter 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				•	
<b>905-2228</b>	Vacuum foot pedal for 905-2220				•	



# Digital indicators

# S\_Dial

## ACCESSORIES



		S_Dial Mini	S_Dial TEST	S_Dial WORK 12,5 - 25 mm	S_Dial WORK 50 - 150 mm	S_Dial PRO
<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			•	•	
<b>905-2261</b>	Snap connector for pneumatic lifter x2	•		•	•	
<b>905-2262</b>	Snap connector for pneumatic lifter x4	•		•	•	
<b>905-4211</b>	Center lug back	•	•			
<b>905-2224</b>	Plastic lifting lever (bottom)	•		•	•	•
<b>905-2225</b>	Plastic lifting ring (bottom)	•		•	•	•

B

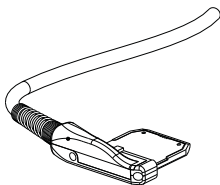
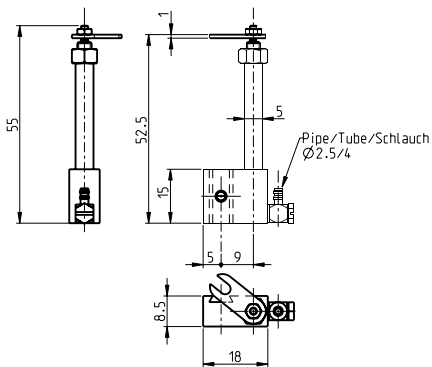
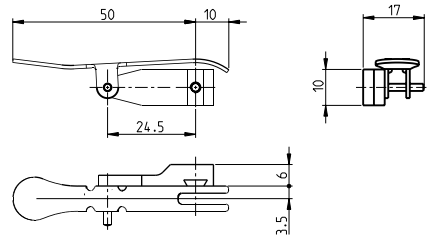
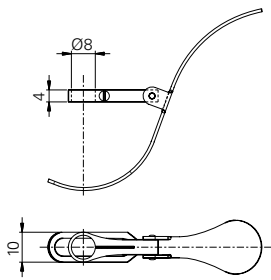


# Digital indicators

# S\_Dial

## ACCESSORIES

B



		S_Dial Mini	S_Dial TEST	S_Dial WORK 12,5 - 25 mm	S_Dial WORK 50 - 150 mm	S_Dial WORK PLC
<b>905-4214</b>	Lower lifting device, range 12.5 mm	●	1)	1)	1)	1)
<b>905-4215</b>	Upper lifting device for S (Standard) execution	●				
<b>905-4217</b>	Pneumatic lifting device for standard type	●				
<b>926-6101</b>	Replacement cable for digital indicator PLC					●

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

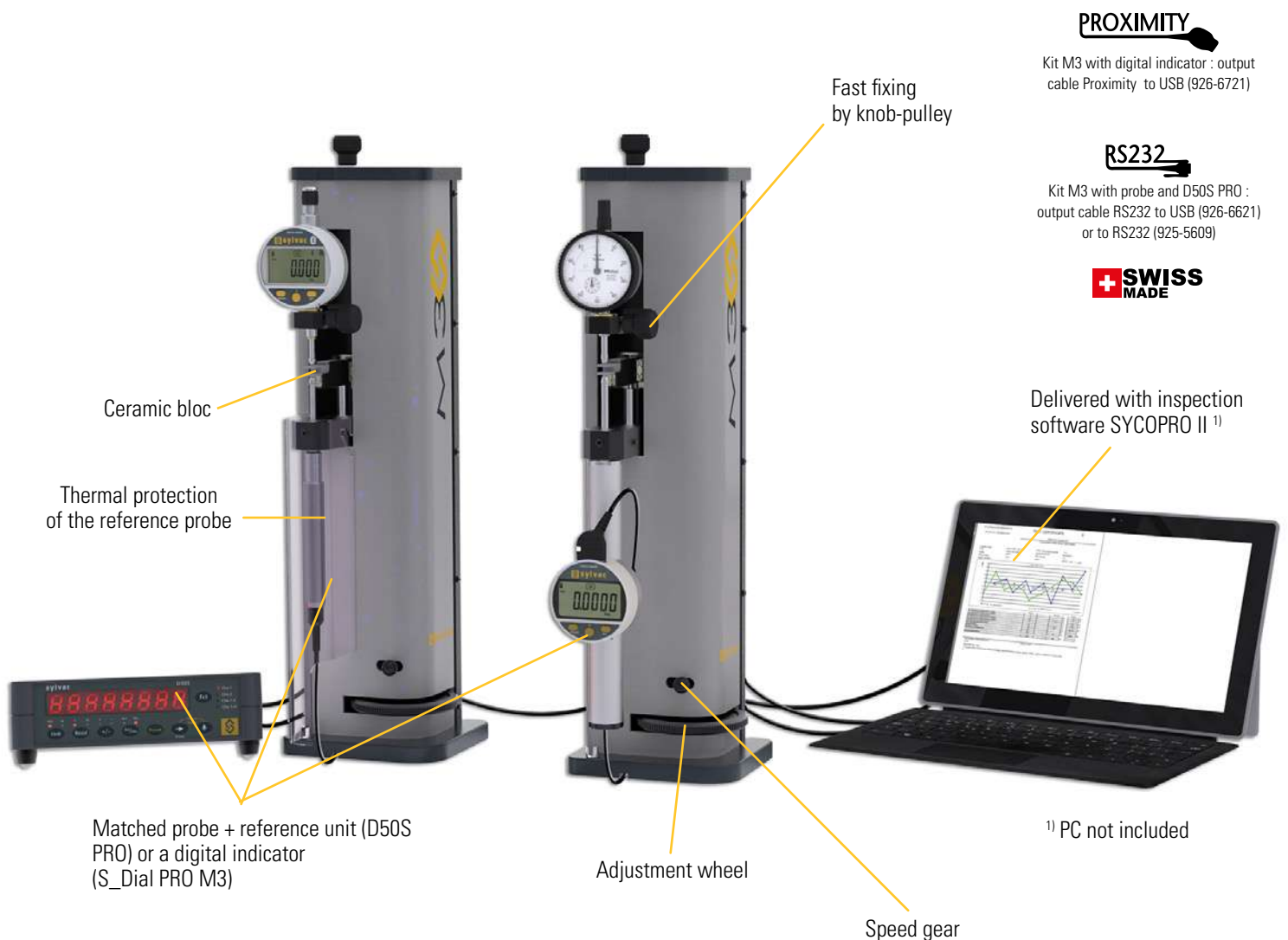


# Digital indicator testing stand M3

## DESCRIPTION

- Set for the periodic calibration of analogue and digital comparators up to 50 mm stroke as well as for lever indicators
- Set consisting of the M3 bench that can be used vertically or horizontally, the reference instrument and the Sycopro II software integrating several international standards.
- Bench with rapid manual movement and fine final approach
- Available in 2 versions, with different reference instruments and different measuring ranges :
  - Set with capacitive touch probe paired with display unit, 10 and 25 mm (max. error 0.8 µm)
  - Set with precision dial gauge with integrated display, 25 and 50 mm (max. error 1.2 µm)
- Calibration according to the ABBE principle
- Real-time display of instrument status
- Creation of customised test certificates

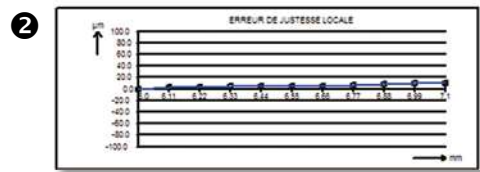
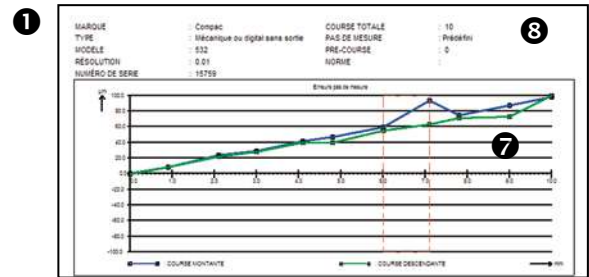
B



# Digital indicator 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



## TECHNICAL SPECIFICATIONS

		Kit with probe and D50S PRO		Kit with digital indicator	
		809-1303	809-1301	809-1305	809-1304
Measuring range	mm	M3 Kit probe 10 mm	M3 Kit probe 25 mm	M3 Kit S_Dial PRO M3 25 mm	M3 Kit S_Dial PRO M3 50 mm
Max. Error	µm	0.6	0.8	1.0	1.2





# Digital indicator testing stand M3

## STANDARD DELIVERY

- M3 support
- 3 ceramic shims precision DIN861 Grade 1: 2 x 1.5 mm and 1 x 4 mm
- CD with Sycopro II software and its activation licence
- Accessory 909-2010 for the control of lever indicators
- Calibration certificate

B

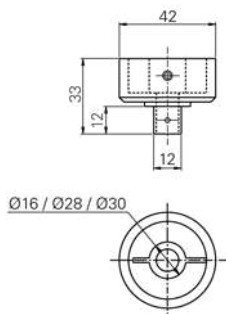
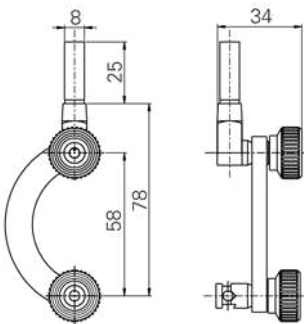
### Set with probe and units

- Pair measuring probe with unit D50S Pro
- Charging unit according to country
- External contact (pedal) 904-4101
- RS232 connection cable 925-5609

### Set with precision digital indicator

- S\_Dial Pro M3 dial gauge with special measuring force
- Proximity-USB connection cable 926-6721
- External USB contact (footswitch) 926-7020

## 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 stands

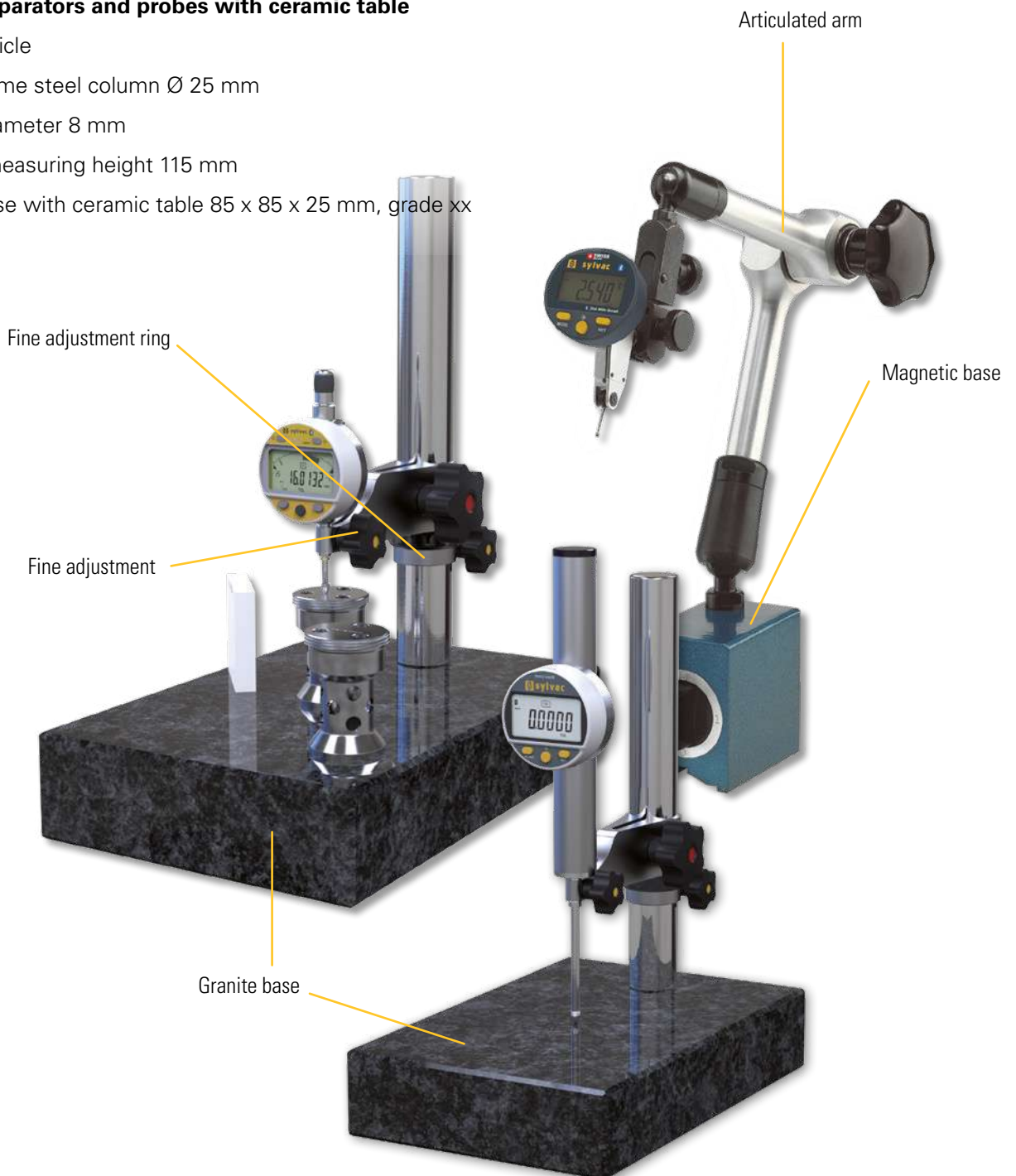
## DESCRIPTION

### Stands with magnetic base for lever indicators

- Imported article
- Vertical rod Ø 16 mm and hinged horizontal rod Ø 12 mm
- Maximum measuring height 350 mm
- Magnetic base with attraction force 80 kg
- Clamping diameter 8 mm

### Stands for comparators and probes with ceramic table

- Imported article
- Vertical chrome steel column Ø 25 mm
- Clamping diameter 8 mm
- Maximum measuring height 115 mm
- Cast iron base with ceramic table 85 x 85 x 25 mm, grade xx



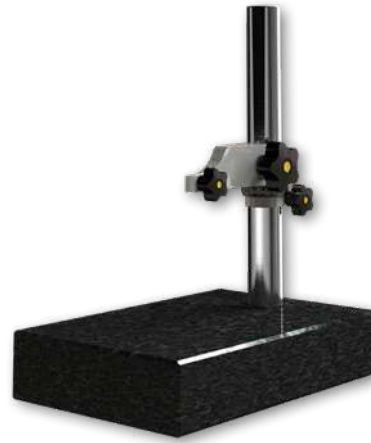


# Measuring stands

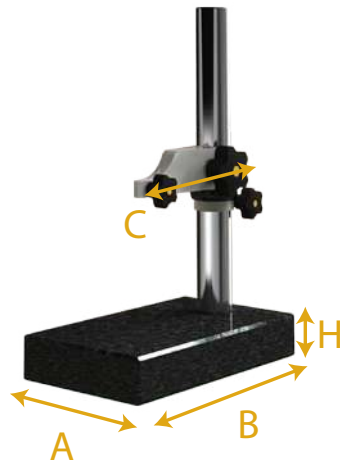
## TECHNICAL SPECIFICATIONS



**908-1201**



**808-1204**



B

		908-1201	808-1204	808-1205
Base		magnetic <sup>1)</sup>	granit grade 00	granit grade 00
Base dimensions AxBxH	mm	70x46x65	300x210x60	300x210x60
Central locking		●	---	---
Column	mm	---	Steel Ø 35	Steel Ø 35
Clamping dimension	mm	Ø 8	Ø 8	Ø 25
Dist. Column.-meas. point. C	mm	---	115	115
Measuring range	mm	---	0 - 260	0 - 260
Total height	mm	430	360	360
Weight	kg	2.2	13.4	13.5
Fine adjustment		---	●	●

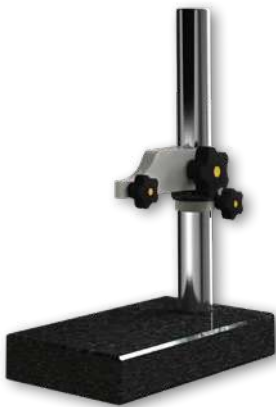
<sup>1)</sup> Gripping coefficient : 600N

# Measuring stands

## TECHNICAL SPECIFICATIONS

### Series 808 stands for digital indicators and probes

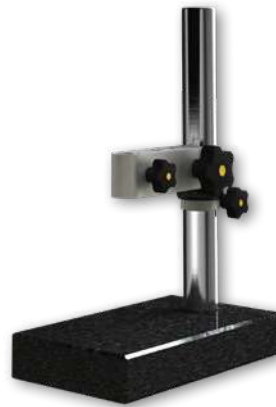
- Made at Sylvac in Switzerland
- Superior quality compared to the Asian tables generally found on the market
- Reinforced column  $\varnothing$  25 or 35 mm with precision measuring arm for excellent parallelism and high rigidity reducing the measuring error generated by the support.
- Clamping diameter 8 mm and 25 mm (for fixing S\_Dial PRO dial gauges)
- Ring for fine adjustment of the vertical position
- Grade 00 granite base



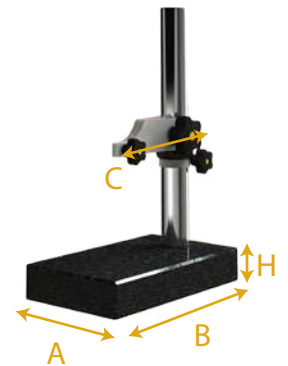
808-1206



808-1203



808-1202



		808-1206	808-1207	808-1202	808-1203	808-1201
Base		granit grade 00	granit grade 00	granit grade 00	granit grade 00	granit grade 00
Base dimensions AxBxH	mm	100X150X40	100X150X40	240x140x50	240x140x50	240x140x50
Central locking		---	---	---	---	---
Column	mm	Steel $\varnothing$ 25	Steel $\varnothing$ 35	Steel $\varnothing$ 35	Steel $\varnothing$ 35	Steel $\varnothing$ 35
Clamping dimension	mm	$\varnothing$ 8	$\varnothing$ 8	$\varnothing$ 25	$\varnothing$ 8	$\varnothing$ 8
Dist. Column.-meas. point. C	mm	70	70	115	70	115
Measuring range	mm	0 - 190	0 - 260	0 - 260	0 - 260	0 - 260
Total height	mm	270	340	340	340	340
Weight	kg	2.9	4.3	6.6	6.5	6.6
Fine adjustment		•	•	•	•	•

# CALIPERS

---

The 80s, another era, another way of living, thinking and, above all, working. It was then that the first Sylvac digital calipers were born, which revolutionised measurement, until then carried out exclusively with the help of mechanical verniers. The digital calipers brought more precision and greater ease of use. Over the years, our range has been enriched by the numerous models presented in this chapter.

## GENERAL CHARACTERISTICS :

- **Accuracy according to ISO13385-1**
- **Powered by lithium battery type CR2032**
- **Absolute measuring system S.I.S**
- **Automatic sleep and wake-up**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**



# Caliper

# S\_Cal EVO

## DESCRIPTION

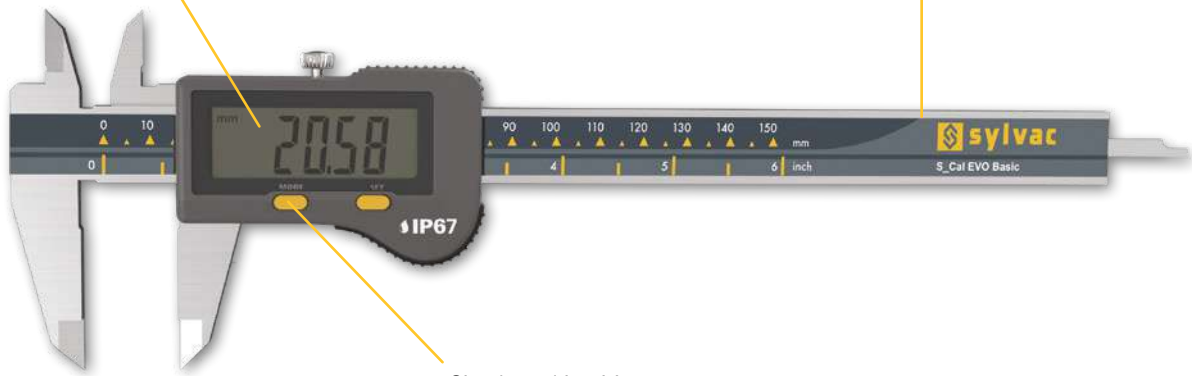
## BASIC

- High-quality, ergonomic calliper without data output
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Memorising the home position even when the instrument is switched off
- Available in the following executions :
  - Measuring range 150 mm with rectangular depth rod
  - Measuring range 150 mm with cylindrical depth rod
  - Measuring range 200 mm with rectangular depth rod
  - Measuring range 300 mm without depth rod
- Protection class IP67
- Wheel available as an option

C

Digital display LCD,  
Height of digits 11.5 mm

Thickness of frame 3.5 mm



Simple and intuitive  
functions

## ISO 13385-1

**NO OUTPUT**

**SIS** Smart Inductive System

**WATER RESISTANT**

**IP67**

## Protection rating IP67 !

\* SIS description on page 5

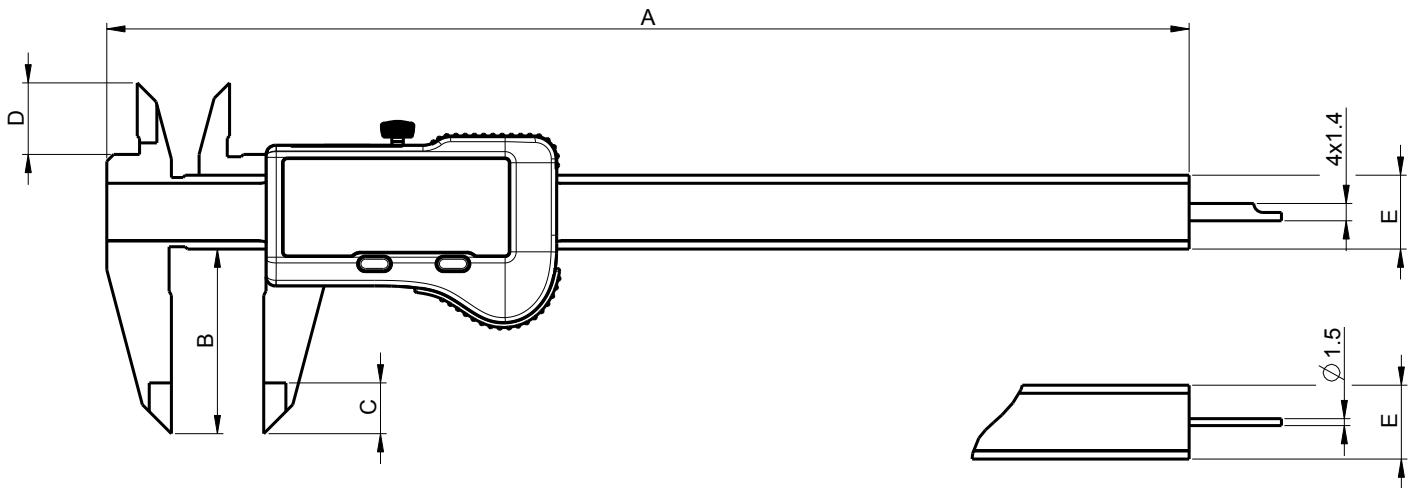


# Caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## BASIC



## TECHNICAL SPECIFICATIONS

		810-1502	810-1507	810-1522	810-1532
Measuring range	mm	150	150	200	300
Max. Error G - external measurements	µm	20 <sup>1)</sup>	20 <sup>1)</sup>	30 <sup>1)</sup>	30 <sup>1)</sup>
Max. Error - internal measurements	µm	20-30 <sup>2)</sup>	20-30 <sup>2)</sup>	30 <sup>2)</sup>	40 <sup>2)</sup>
A	mm	234.5	234.5	290.5	388
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	∅ 1.5	— 4 x 1.4	---
Protection rating according to IEC 60529	IP67				
Functions	Zero setting, Preset (max 999.99), mm/inch, Hold				
Smart Inductive Sensor	●				

<sup>1)</sup> 0-150 mm : 20 µm / ISO13385-1  
 > 150 mm : 30 µm / ISO13385-1

<sup>2)</sup> ∅4-25 : 20 µm / ISO13385-1  
 ∅26-150 : 30 µm / ISO13385-1  
 >∅150 : 40 µm / ISO13385-1





# Caliper

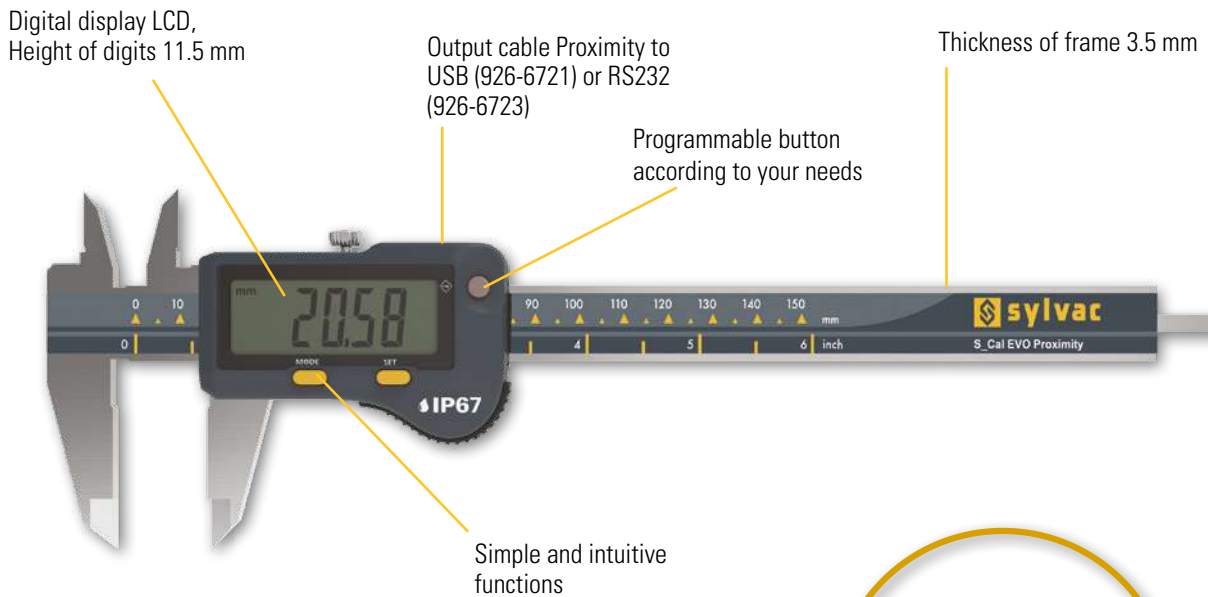
# S\_Cal EVO

## DESCRIPTION

## PROXIMITY

- High-quality ergonomic caliper with Proximity data output
- 3.5 mm thick hardened and ground stainless steel pole
- New extra-large display unit with 11.5 mm high digits
- Additional button with selectable favourite function
- Memorising the home position even when the instrument is switched off
- Available in the following executions :
  - Measuring range 150 mm with rectangular depth rod
  - Measuring range 150 mm with cylindrical depth rod
  - Measuring range 200 mm with rectangular depth rod
  - Measuring range 300 mm without depth rod
- Protection class IP67
- Wheel available as an option

C



## ISO 13385-1



**Proximity cable**

## Proximity version

\* SIS description on page 5

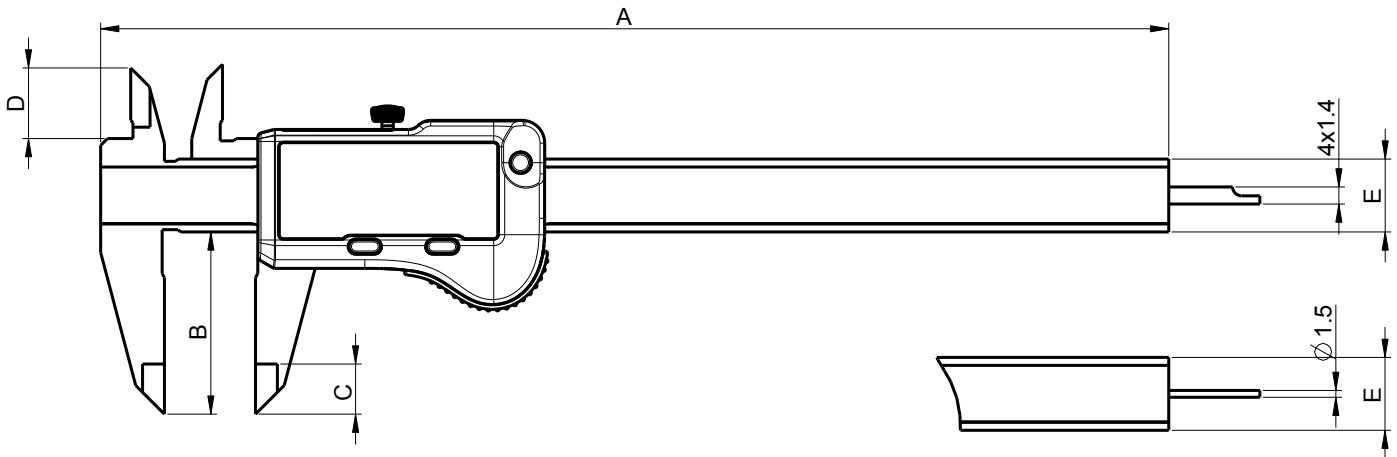


# Caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## PROXIMITY



## TECHNICAL SPECIFICATIONS

		810-1702	810-1707	810-1722	810-1732
Measuring range	mm	150	150	200	300
Max. Error G - external measurements	µm	20 <sup>1)</sup>	20 <sup>1)</sup>	30 <sup>1)</sup>	30 <sup>1)</sup>
Max. Error - internal measurements	µm	20-30 <sup>2)</sup>	20-30 <sup>2)</sup>	30 <sup>2)</sup>	40 <sup>2)</sup>
A	mm	234.5	234.5	290.5	388
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	∅ 1.5	▬ 4 x 1.4	---
Protection rating according to IEC 60529		IP67			
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold			
Output data		USB / RS232 <sup>3)</sup>			
Smart Inductive Sensor		●			

<sup>1)</sup> 0-150 mm : 20 µm / ISO13385-1  
> 150 mm : 30 µm / ISO13385-1

<sup>2)</sup> ∅4-25 : 20 µm / ISO13385-1  
∅26-150 : 30 µm / ISO13385-1  
>∅150 : 40 µm / ISO13385-1

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



# Micron Caliper

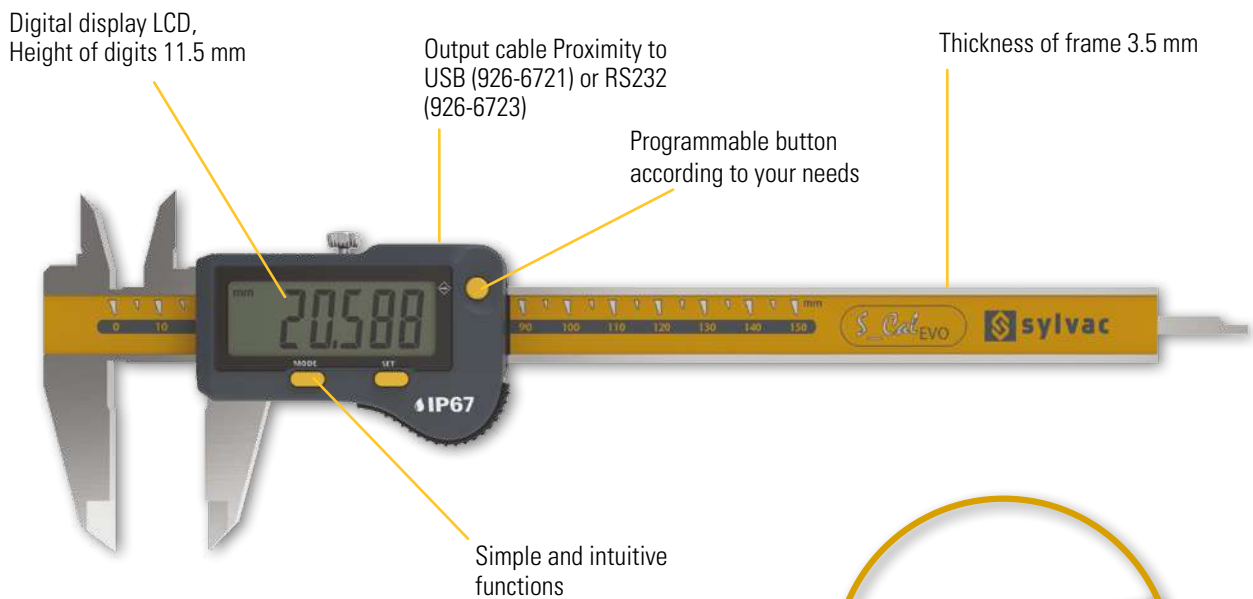
# S\_Cal EVO

## DESCRIPTION

## PROXIMITY MICRON

- High quality ergonomic caliper with micron display and Proximity data output
- Hardened, finely ground stainless steel frame, thickness 3.5 mm
- New extra-large display unit, resolution 0.001 mm, digits height 11.5 mm
- Preset function to measure by comparison
- Additional button with selectable favourite function
- Memorising the home position even when the instrument is switched off
- Available in the following executions :
  - Measuring range 150 mm with rectangular depth rod
  - Measuring range 150 mm with cylindrical depth rod
- Protection class IP67
- Delivered with calibration certificate
- Wheel available as an option

C



**ISO 13385-1**

**PROXIMITY**

**SIS** Smart Inductive System

**WATER RESISTANT**

**IP67**



**Proximity cable**

## Version Proximity micron

\* SIS description on page 5

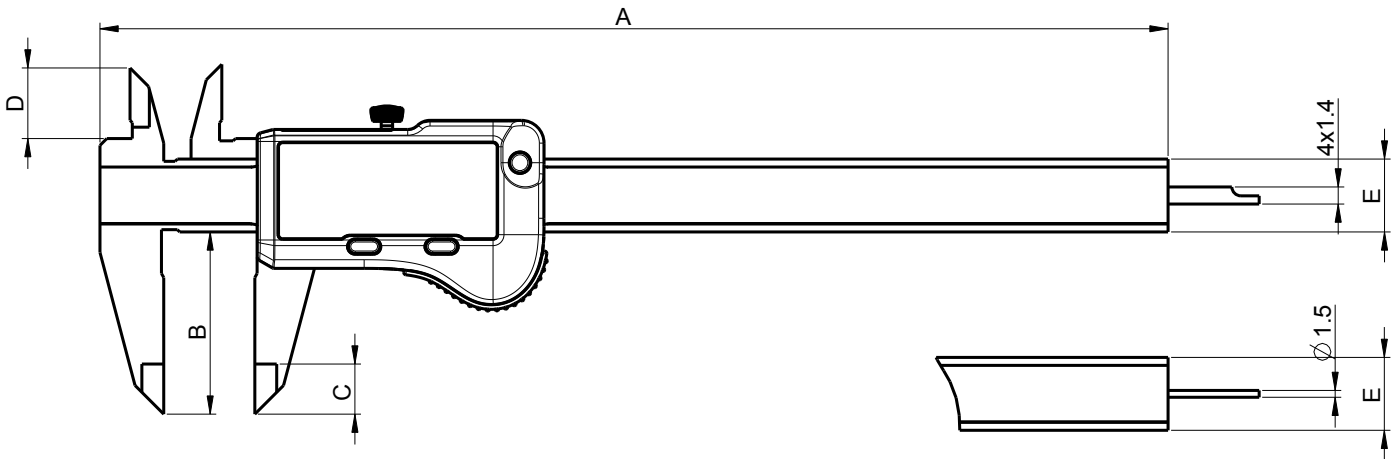


# Micron Caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## PROXIMITY MICRON



## TECHNICAL SPECIFICATIONS

		810-9702	810-9707
Measuring range	mm	150	150
Max. Error G - external measurements	µm	15 <sup>1)</sup>	15 <sup>1)</sup>
Max. Error - internal measurements	µm	TBD	TBD
Resolution	mm	0.001	
A	mm	234.5	234.5
B	mm	40	40
C	mm	11	11
D	mm	16	16
E	mm	16 x 3.5	16 x 3.5
Depth rod	mm	4 x 1.4	Ø1.5
Functions		Zero setting, Preset (max 99.999), mm/inch, Hold	
Protection rating according to IEC 60529		IP67	
Output data		USB / RS232 <sup>3)</sup>	
Smart Inductive Sensor		●	

<sup>1)</sup> 0-150 mm : 15 µm / ISO13385-1

<sup>2)</sup> Ø4-25 : 15 µm / ISO13385-1  
Ø26-150 : 25 µm / ISO13385-1

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



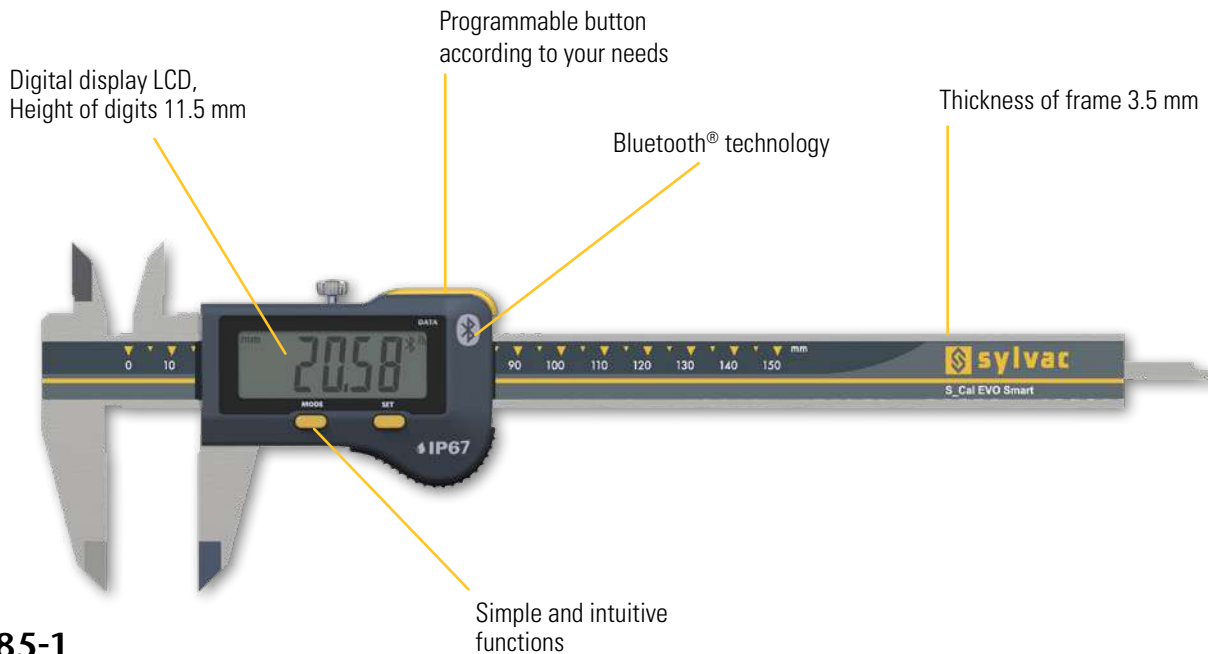
# Caliper

# S\_Cal EVO

## DESCRIPTION

SMART

- High-quality ergonomic caliper with integrated Bluetooth® system
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Available in the following executions :
  - Measuring range 150 mm with rectangular depth rod
  - Measuring range 150 mm with cylindrical depth rod
  - Measuring range 200 mm with rectangular depth rod
  - Measuring range 300 mm without depth rod
- Protection class IP67
- Wheel available as an option



ISO 13385-1



**IP67**

**Bluetooth® wireless technology and IP67 protection rating!**



\* SIS description on page 5

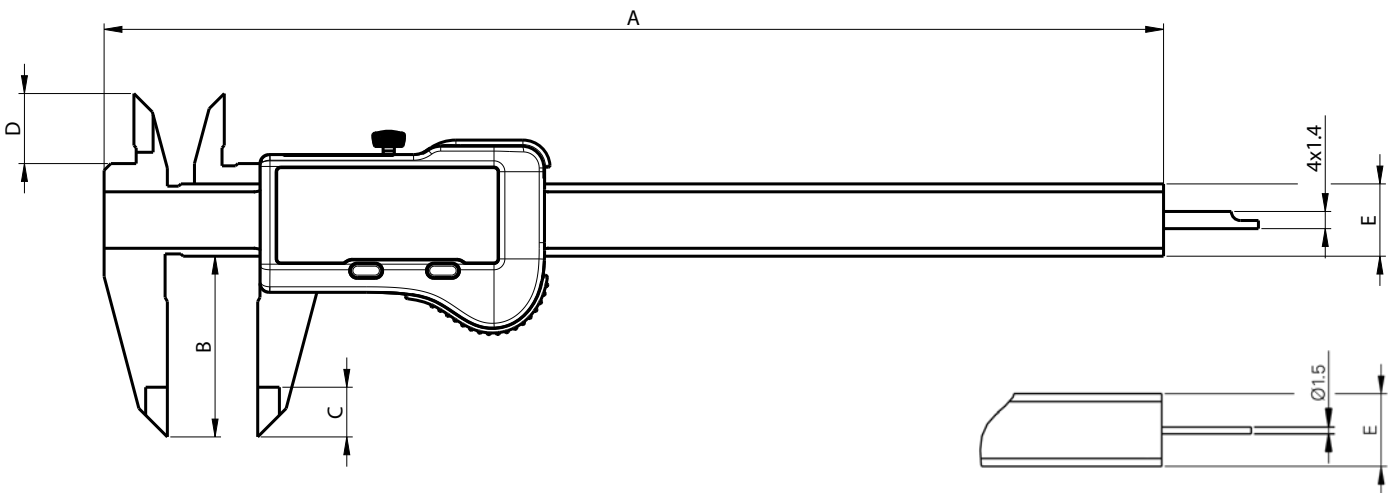


# Caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## SMART



## TECHNICAL SPECIFICATIONS

		810-1506	810-1516	810-1526	810-1536
Measuring range	mm	150	150	200	300
Max. Error G - external measurements	$\mu\text{m}$	20 <sup>1)</sup>	20 <sup>1)</sup>	30 <sup>1)</sup>	30 <sup>1)</sup>
Max. Error - internal measurements	$\mu\text{m}$	20-30 <sup>2)</sup>	20-30 <sup>2)</sup>	30 <sup>2)</sup>	40 <sup>2)</sup>
A	mm	234.5	234.5	290.5	388
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	∅ 1.5	▬ 4 x 1.4	---
Protection rating according to IEC 60529	IP67				
Output data	Bluetooth® wireless technology*				
Functions	Zero setting, Preset (max 999.99), mm/inch, Hold, Data				
Smart Inductive Sensor	●				

<sup>1)</sup> 0-150 mm : 20  $\mu\text{m}$  / ISO13385-1  
 > 150 mm : 30  $\mu\text{m}$  / ISO13385-1

<sup>2)</sup>  $\varnothing 4-25$  : 20  $\mu\text{m}$  / ISO13385-1  
 $\varnothing 26-150$  : 30  $\mu\text{m}$  / ISO13385-1  
 > $\varnothing 150$  : 40  $\mu\text{m}$  / ISO13385-1

\* Up to 8 instruments connected per dongle #981-7100



# Caliper

# S\_Cal EVO

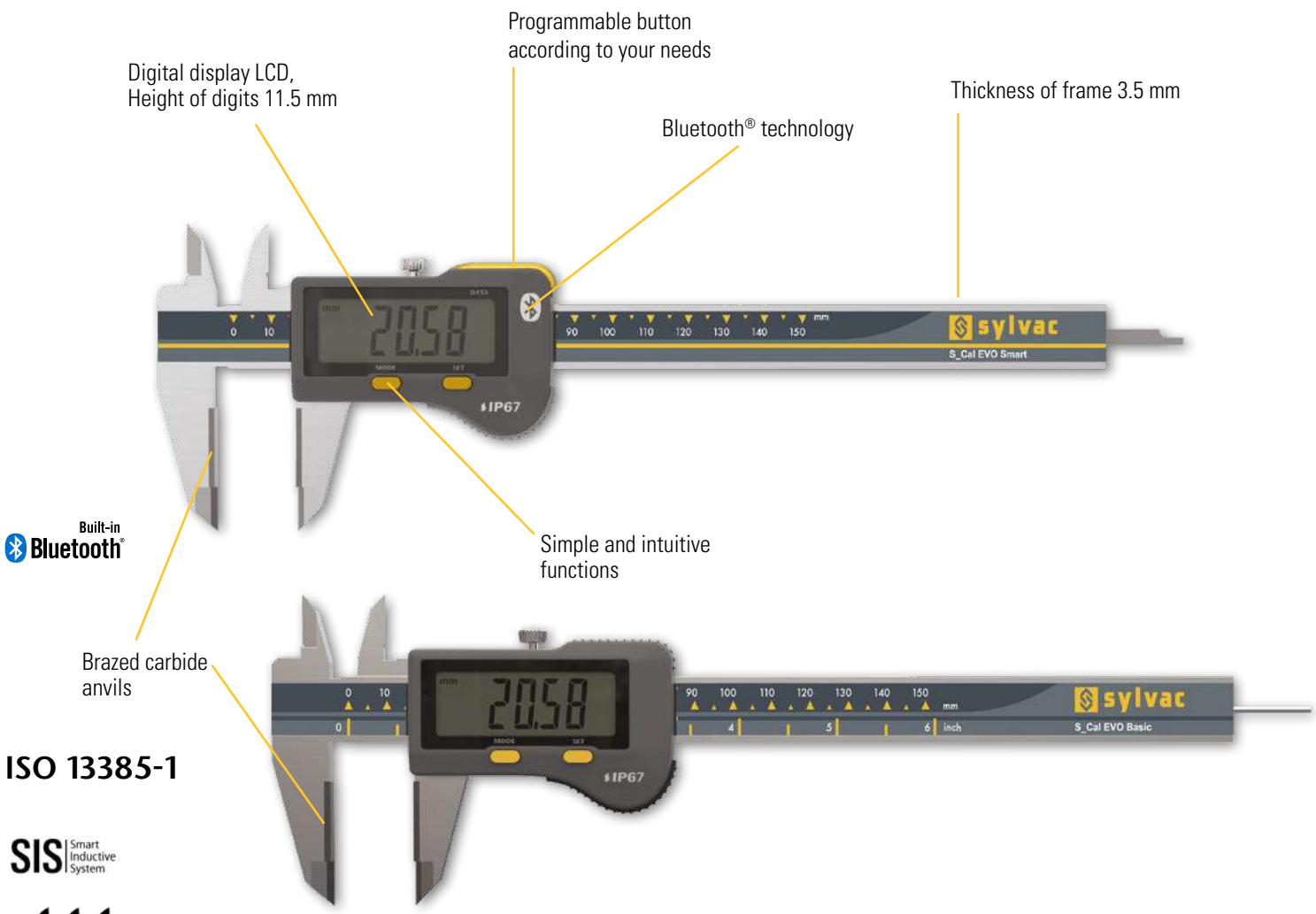
## DESCRIPTION

CARBIDE

- High-quality ergonomic caliper with integrated Bluetooth system
- Outdoor measuring jaws with brazed carbide anvils
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Available in the following executions :
  - Measuring range 150 mm with rectangular depth rod
  - Measuring range 150 mm with cylindrical depth rod
- Protection class IP67
- Wheel available as an option



C



ISO 13385-1



**IP67**

**External carbide jaws**

\* SIS description on page 5



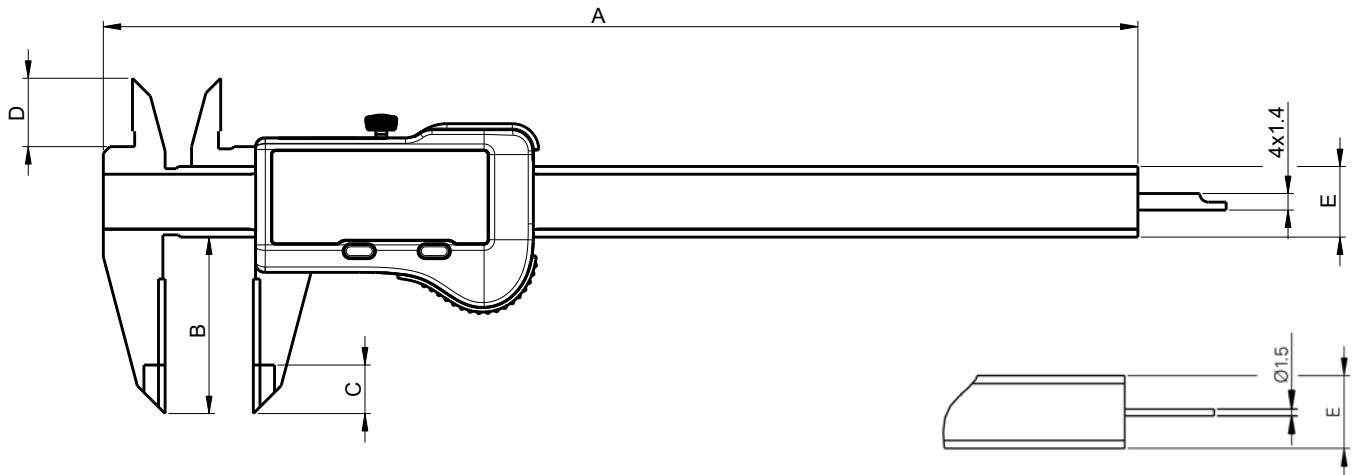


# Caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## CARBIDE



## TECHNICAL SPECIFICATIONS

		810-1410	810-1510
Measuring range	mm	150	150
Max. Error G - external measurements	µm	20 <sup>1)</sup>	20 <sup>1)</sup>
Max. Error - internal measurements	µm	20-30 <sup>2)</sup>	20-30 <sup>2)</sup>
A	mm	234.5	234.5
B	mm	40	40
C	mm	11	11
D	mm	16	16
E	mm	16 x 3.5	16 x 3.5
Depth rod	mm	Ø 1.5	4 x 1.4
Protection rating according to IEC 60529		IP67	IP67
Output data		-	Bluetooth® wireless technology*
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data	
Smart Inductive Sensor		●	

<sup>1)</sup> 0-150 mm : 20 µm / ISO13385-1

<sup>2)</sup> Ø4-25 : 20 µm / ISO13385-1  
Ø26-150 : 30 µm / ISO13385-1

\* Up to 8 instruments connected per dongle #981-7100



# Micron Caliper

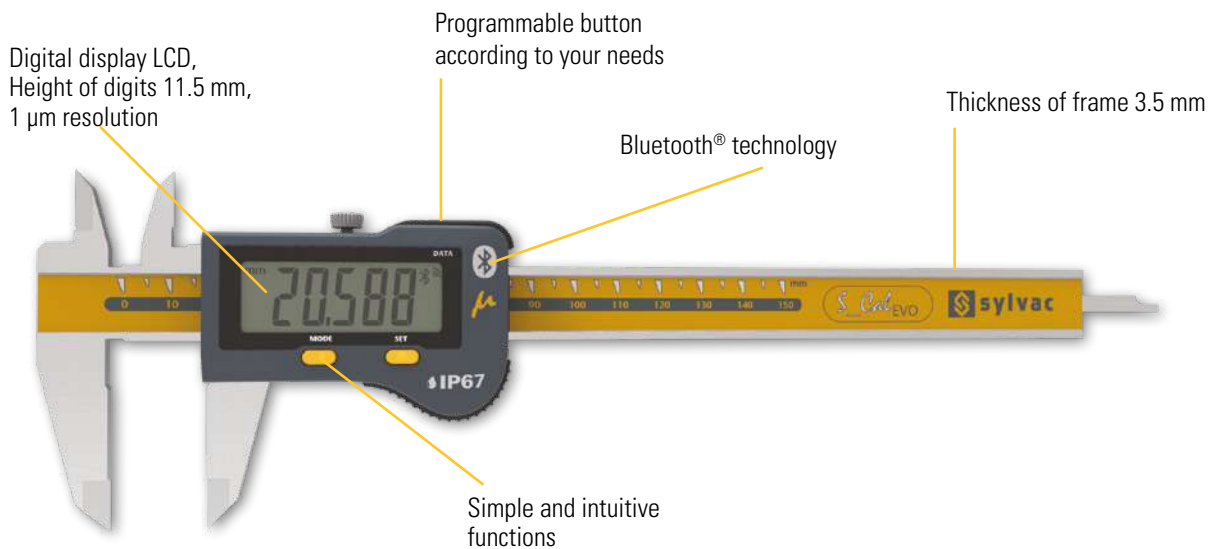
# S\_Cal EVO

## DESCRIPTION

## SMART MICRON

- High-quality ergonomic caliper with micron display and integrated Bluetooth® system
- Hardened and finely ground stainless steel frame, thickness 3.5 mm
- New extra-large display unit, resolution 0.001 mm, digits height 11.5 mm
- Preset function to measure by comparison
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Available in the following executions :
  - Measuring range 150 mm with rectangular depth rod
  - Measuring range 150 mm with cylindrical depth rod
- Protection class IP67
- Delivered with calibration certificate
- Wheel available as an option

C



## ISO 13385-1



\* SIS description on page 5



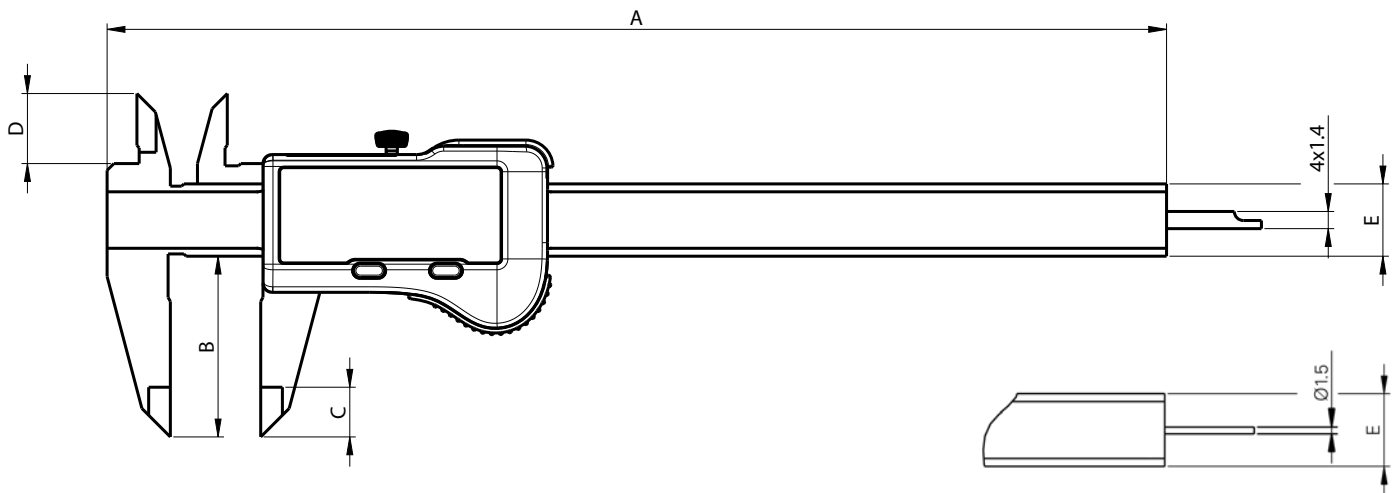


# Micron Caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## SMART MICRON



## TECHNICAL SPECIFICATIONS

		810-9506	810-9516
Measuring range	mm	150	150
Max. Error G - external measurements	µm	15 <sup>1)</sup>	15 <sup>1)</sup>
Max. Error - internal measurements	µm	TBD	TBD
Resolution	mm	0.001	
A	mm	234.5	234.5
B	mm	40	40
C	mm	11	11
D	mm	16	16
E	mm	16 x 3.5	16 x 3.5
Depth rod	mm	4 x 1.4	Ø 1.5
Protection rating according to IEC 60529		IP67	IP67
Output data		Bluetooth® wireless technology*	
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data	
Smart Inductive Sensor		●	

<sup>1)</sup> 0-150 mm : 15 µm / ISO13385-1

<sup>2)</sup> Ø4-25 : 20 µm / ISO13385-1  
Ø26-150 : 30 µm / ISO13385-1

\* Up to 8 instruments connected per dongle #981-7100



# Special caliper

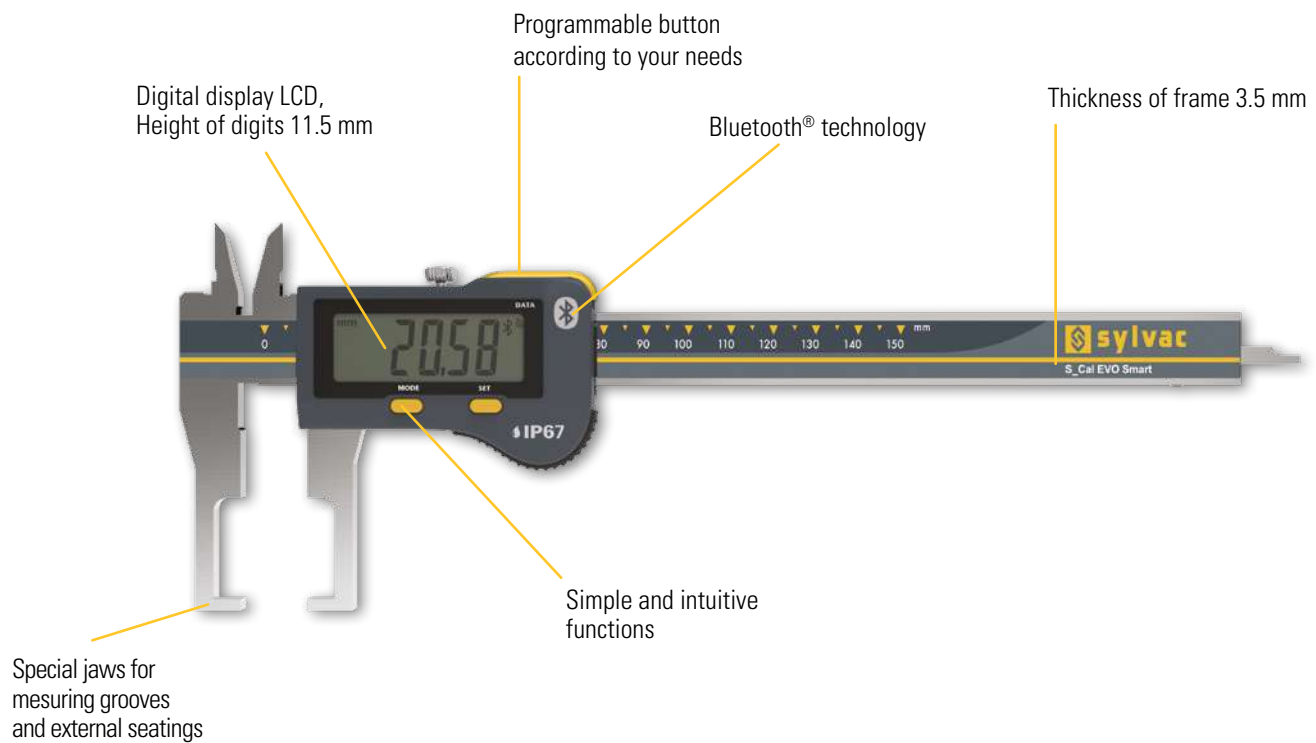
# S\_Cal EVO

## DESCRIPTION

## SMART EXTERNAL GROOVE

- High-quality, ergonomic caliper with integrated Bluetooth® system
- Model for the measurement of external grooves from 2.6 mm wide
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 150 mm with rectangular depth rod
- Protection class IP67
- Wheel available as an option

C



## ISO 13385-1



\* SIS description on page 5

## For measuring grooves and external seatings

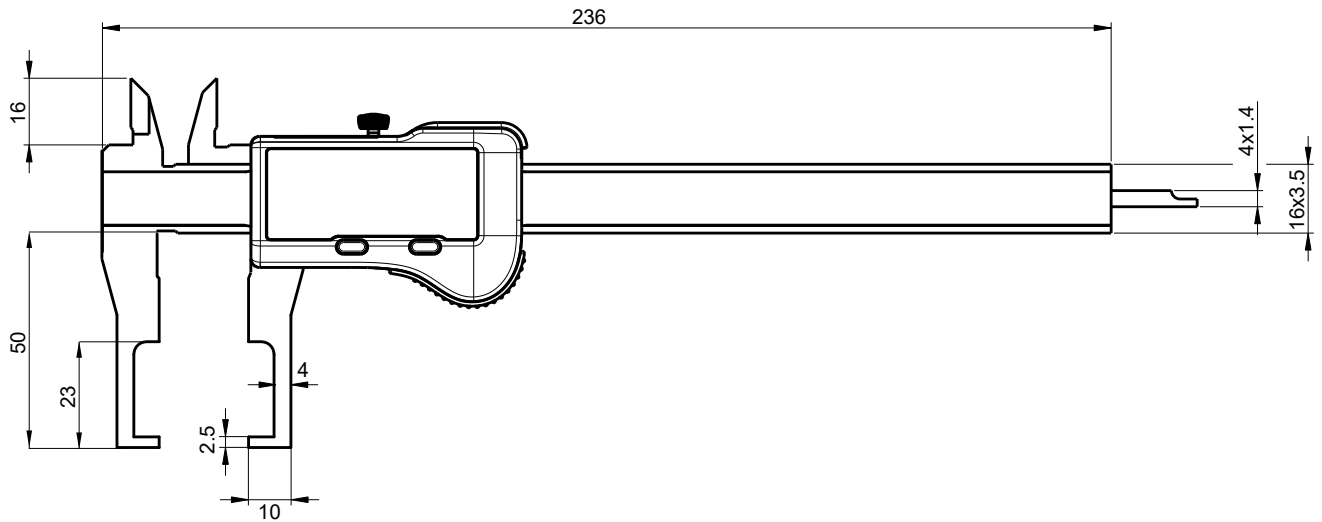


# Special caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## SMART EXTERNAL GROOVE



## TECHNICAL SPECIFICATIONS

		810-1602
Measuring range	mm	150
Max. Error G - external measurements	µm	20 <sup>1)</sup>
Max. Error - internal measurements	µm	20-30 <sup>2)</sup>
Depth rod	mm	4 x 1.4
Protection rating according to IEC 60529		IP67
Output data		Bluetooth® wireless technology*
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data
Smart Inductive Sensor		●

<sup>1)</sup> 0-150 mm : 20 µm / ISO13385-1

<sup>2)</sup> Ø4-25 : 20 µm / ISO13385-1  
Ø26-150 : 30 µm / ISO13385-1

**\* Up to 8 instruments connected per dongle #981-7100**



# Special caliper

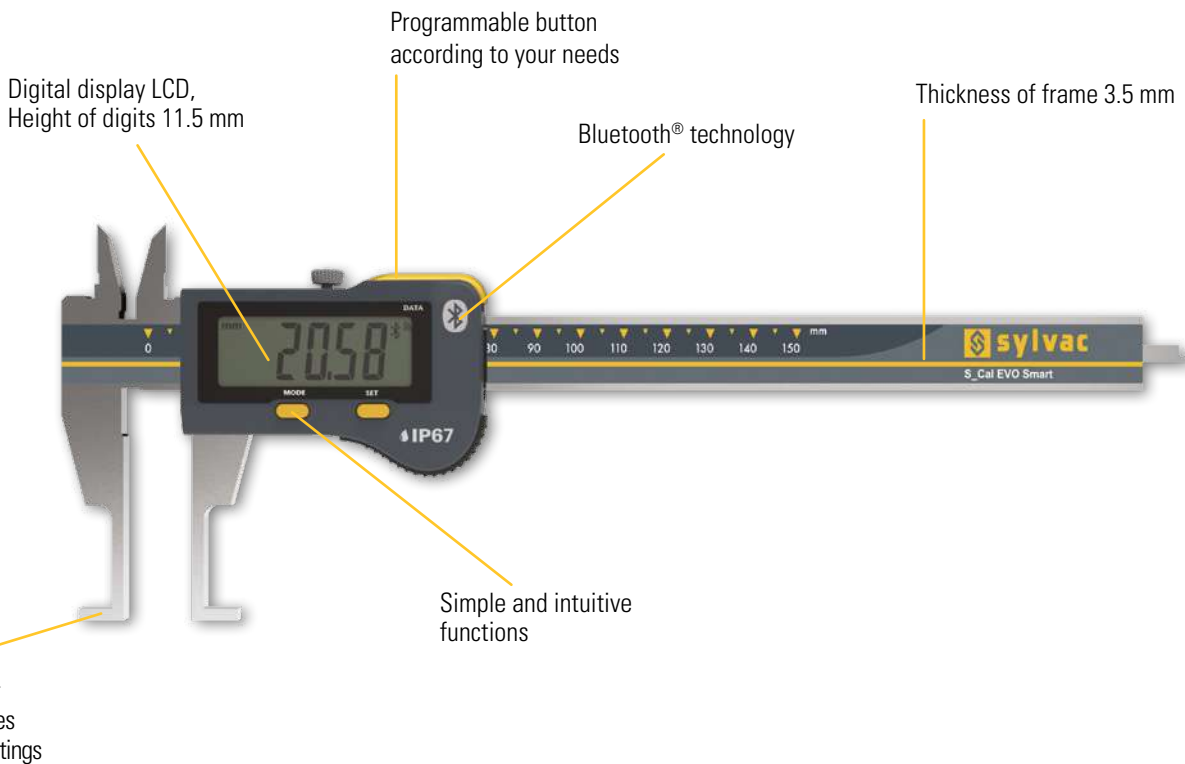
# S\_Cal EVO

## DESCRIPTION

## SMART INTERNAL GROOVE

- High-quality, ergonomic caliper with integrated Bluetooth® system
- Model for the measurement of internal grooves from 2.6mm width
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 150 mm with rectangular depth rod
- Protection class IP67
- Wheel available as an option

C



## ISO 13385-1



\* SIS description on page 5

## For measuring grooves and internal seatings







# Special caliper

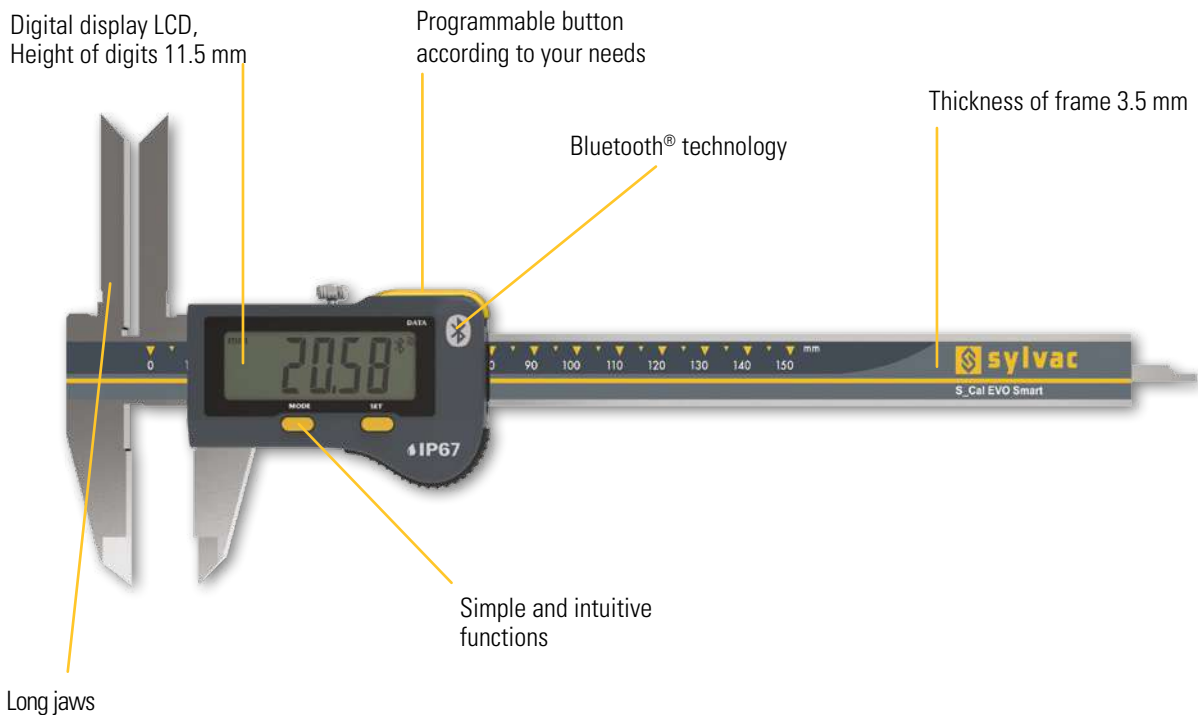
# S\_Cal EVO

## DESCRIPTION

## SMART DEEP MEASUREMENT

- High-quality, ergonomic caliper with integrated Bluetooth® system
- Model with long 45 mm jaws for deep internal measurements
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 150 mm with rectangular depth rod
- Protection class IP67
- Wheel available as an option

C



## ISO 13385-1



\* SIS description on page 5

### Long internal jaws for deep measurements

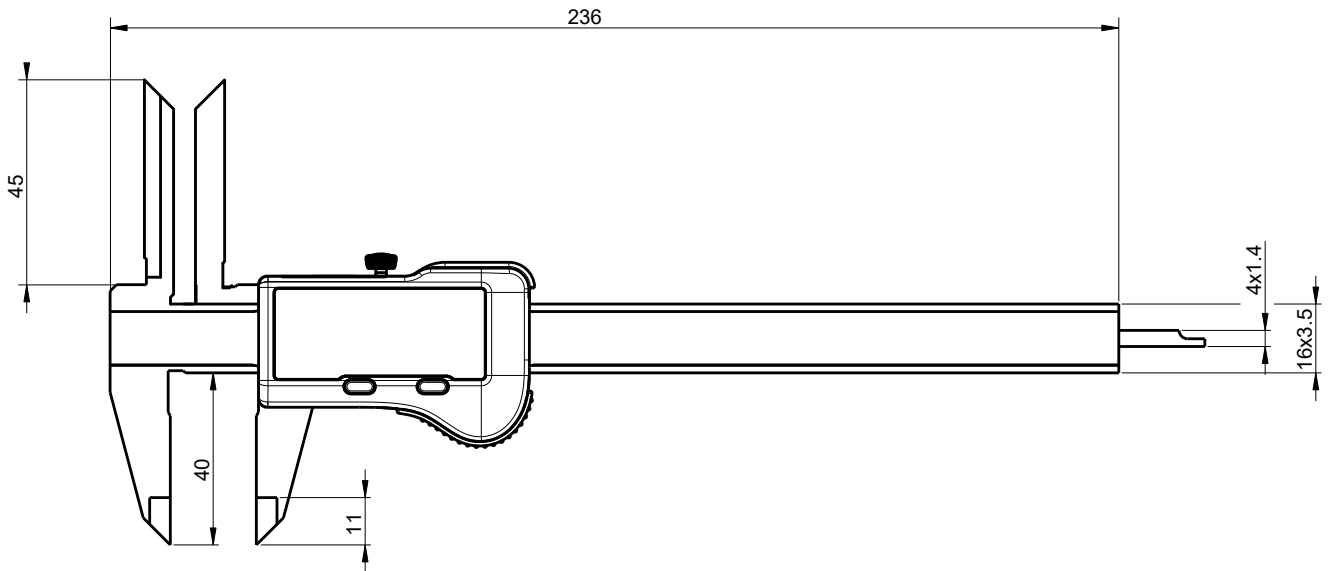


# Special caliper

# S\_Cal EVO

## DIMENSIONAL DRAWING

## SMART DEEP MEASUREMENT



C

## TECHNICAL SPECIFICATIONS

		810-1603
Measuring range	mm	150
Max. Error G - external measurements	µm	20 <sup>1)</sup>
Max. Error - internal measurements	µm	20-30 <sup>2)</sup>
Depth rod	mm	■ 4 x 1.4
Protection rating according to IEC 60529		IP67
Output data		Bluetooth® wireless technology*
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data
Smart Inductive Sensor		●

<sup>1)</sup> 0-150 mm : 20 µm / ISO13385-1

<sup>2)</sup> Ø4-25 : 20 µm / ISO13385-1  
Ø26-150 : 30 µm / ISO13385-1

\* Up to 8 instruments connected per dongle #981-7100



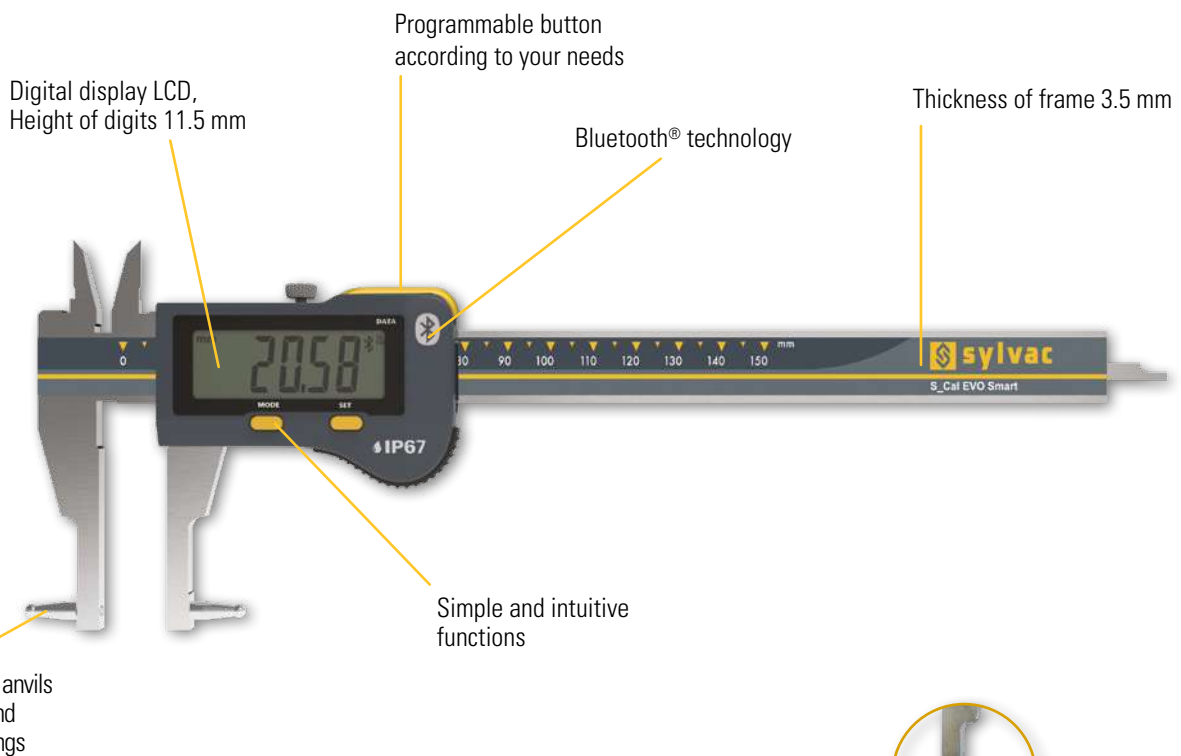
# Special caliper

# S\_Cal EVO

## DESCRIPTION

## SMART POINTS JAWS

- High-quality, ergonomic caliper with integrated Bluetooth® system
- Equipped with interchangeable M2.5 keys with hard metal ball Ø 2.5 mm, for all kinds of internal measurements from 34 mm with these keys.
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the original position even when the instrument is switched off
- Measuring range 150 mm with rectangular depth rod
- Protection class IP67
- Wheel available as an option



**ISO 13385-1**



**IP67**

\* SIS description on page 5



M2.5

## Interchangeable anvils





# Caliper mid size

# S\_Cal EVO Form E

## DESCRIPTION

## MID SIZE CALIPER R5

- High-quality, ergonomic caliper with integrated Bluetooth® system
- Equipped with long, 100 mm long beaks with a clear end, enabling both external and internal dimensions to be measured from 10.1 mm upwards.
- Hardened and ground stainless steel rod 5 mm thick
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 300 mm
- Protection class IP67

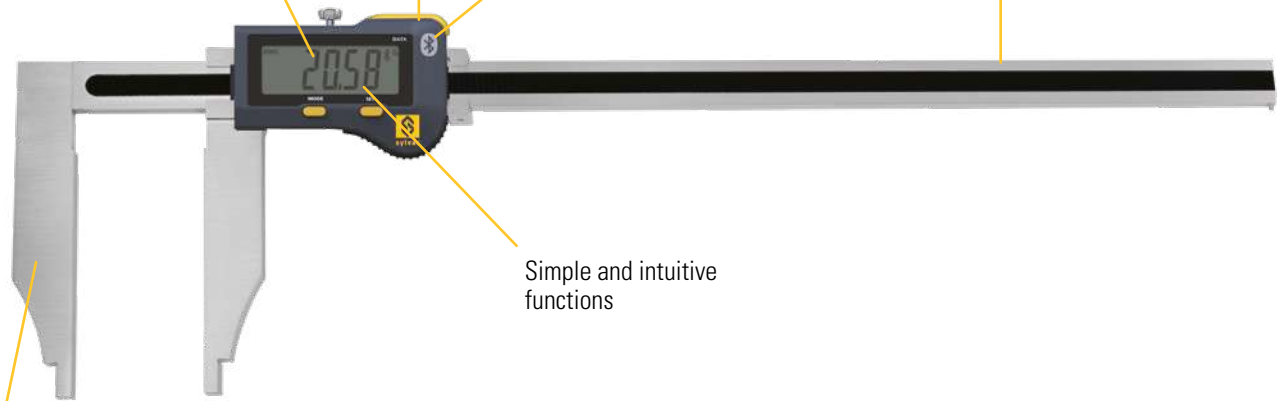


Digital display LCD,  
Height of digits 11.5 mm

Programmable button  
according to your needs

Bluetooth® technology

Thickness of frame 5 mm



Simple and intuitive  
functions

Jaws for internal/external  
measurement

## ISO 13385-1



## Mid size caliper



WATER RESISTANT



\* SIS description on page 5

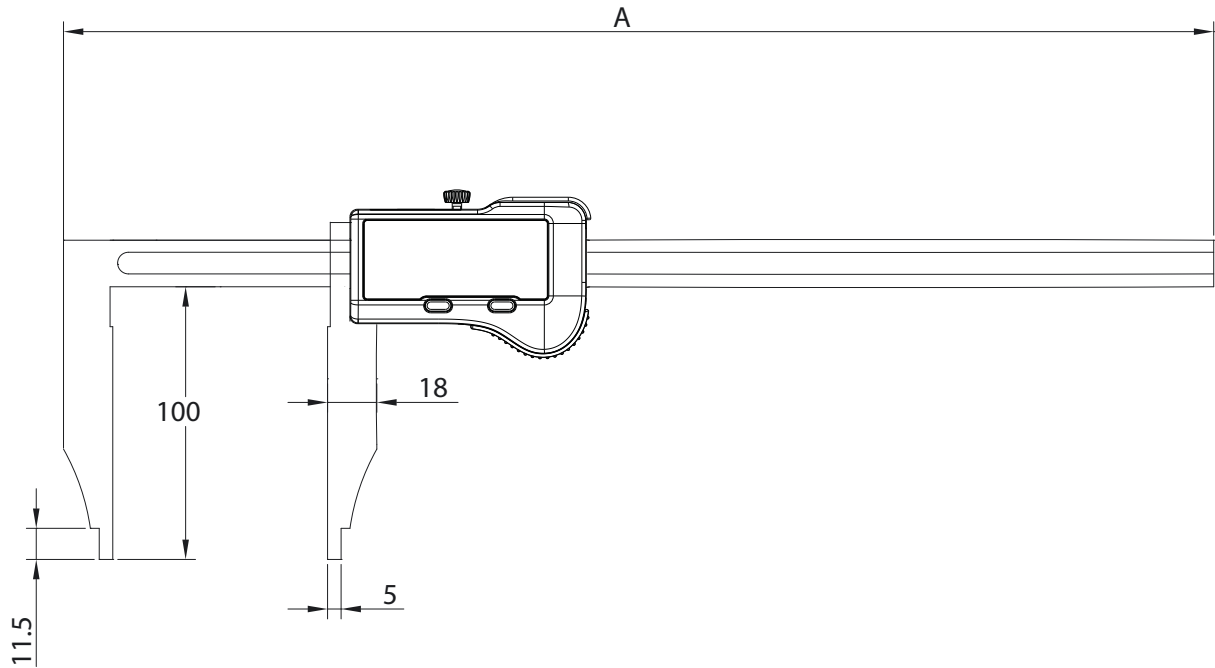


# Caliper mid size

# S\_Cal EVO Form E

## DIMENSIONAL DRAWING

## MID SIZE CALIPER R5



C

## TECHNICAL SPECIFICATIONS

		810-1546
Measuring range	mm	300
Accuracy	mm	0.03
Resolution	mm	0.01
A	mm	425
Bar section	mm	17x5
Protection rating according to IEC 60529		IP67
Output data		Bluetooth® wireless technology*
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data
Smart Inductive Sensor		●

**\* Up to 8 instruments connected per dongle #981-7100**



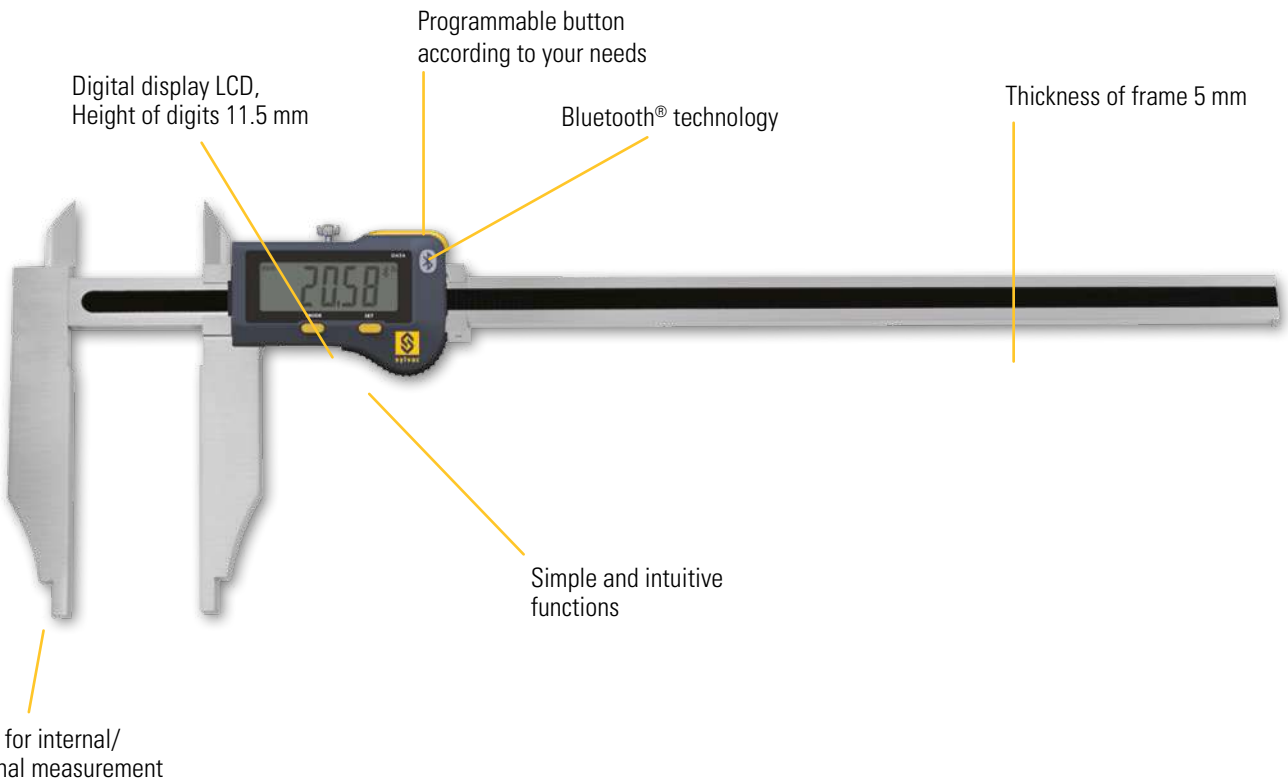
# Caliper mid size

# S\_Cal EVO Form B

## DESCRIPTION

## MID SIZE CALIPER R5 WITH UPPER JAWS

- High-quality, ergonomic caliper with integrated Bluetooth® system
- Equipped with long 100 mm beaks free at the end for measuring both external and internal dimensions from 10.1 mm and small top beaks for measuring internal dimensions.
- Hardened and ground stainless steel rod 5 mm thick
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 300 and 500 mm
- Protection class IP67



**ISO 13385-1**



**SIS** Smart Inductive System



**IP67**

\* **SIS** description on page 5

## Mid size caliper with upper jaws



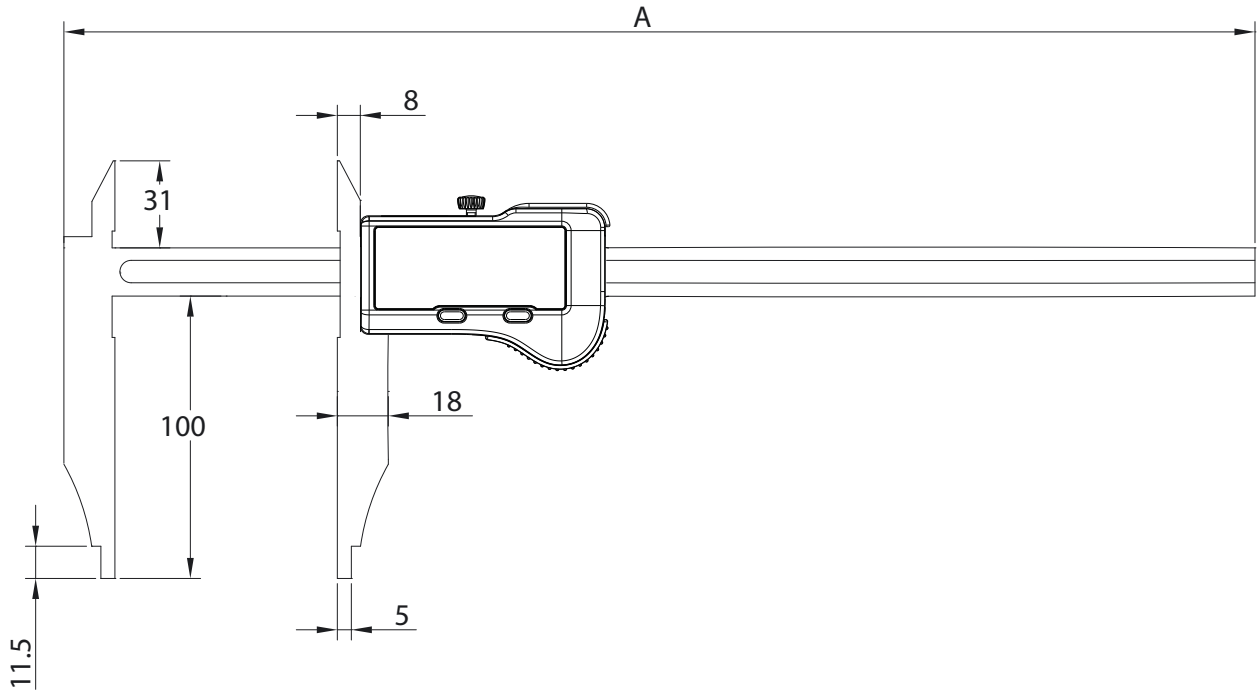


# Caliper mid size

# S\_Cal EVO Form B

## DIMENSIONAL DRAWING

## MID SIZE CALIPER R5 WITH UPPER JAWS



C

## TECHNICAL SPECIFICATIONS

		810-1556	810-1558
Measuring range	mm	300	500
Accuracy	mm	0.03	
Resolution	mm	0.01	
A	mm	425	525
Bar section	mm	17x5	
Protection rating according to IEC 60529		IP67	
Output data		Bluetooth® wireless technology*	
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data	
Smart Inductive Sensor		●	

\* Up to 8 instruments connected per dongle #981-7100



# Depth gauge

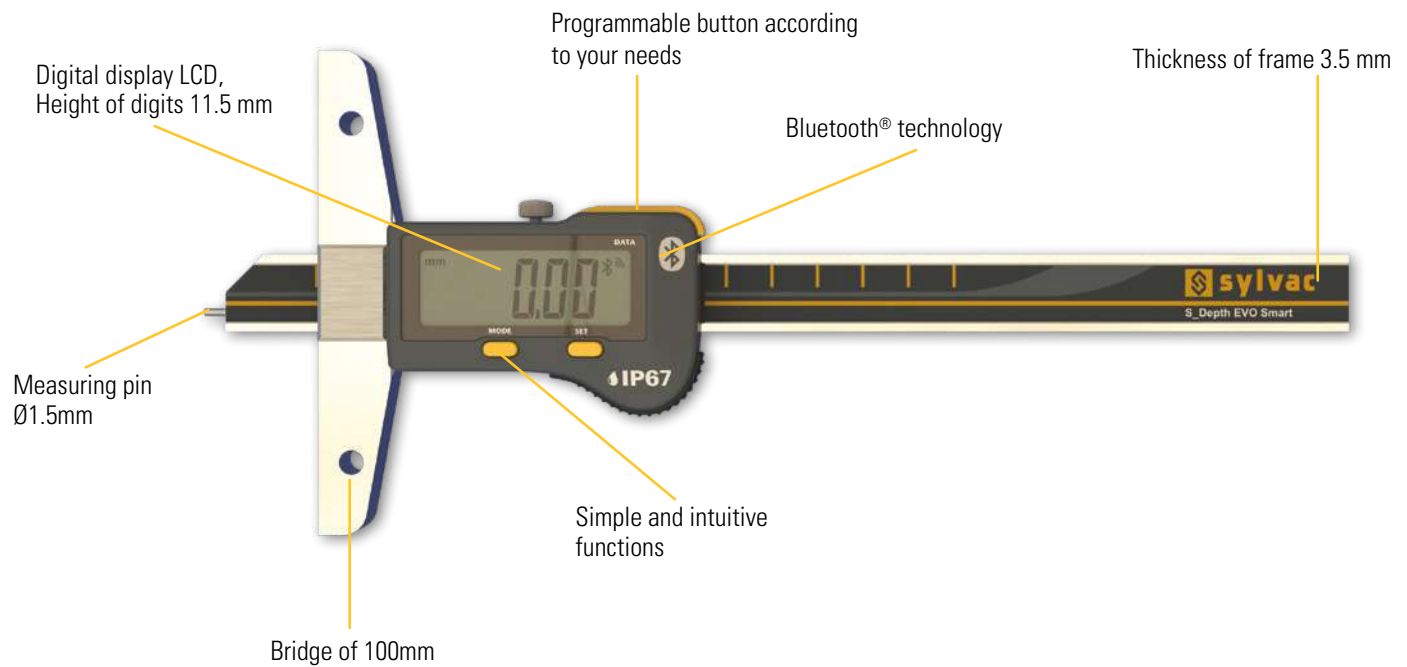
# S\_Depth EVO Smart

## DESCRIPTION

PIN Ø1.5

- High-quality, ergonomic depth gauge with integrated Bluetooth® system
- 100 mm wide bridge with holes for the attachment of an additional wider bridge
- Hardened steel measuring pin Ø 1.5 mm x 5 mm
- 3.5 mm thick hardened and ground stainless steel frame
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 150, 200 and 300 mm
- Protection class IP67

C



## ISO 13385-2



## Measuring pin Ø1.5mm

\* SIS description on page 5

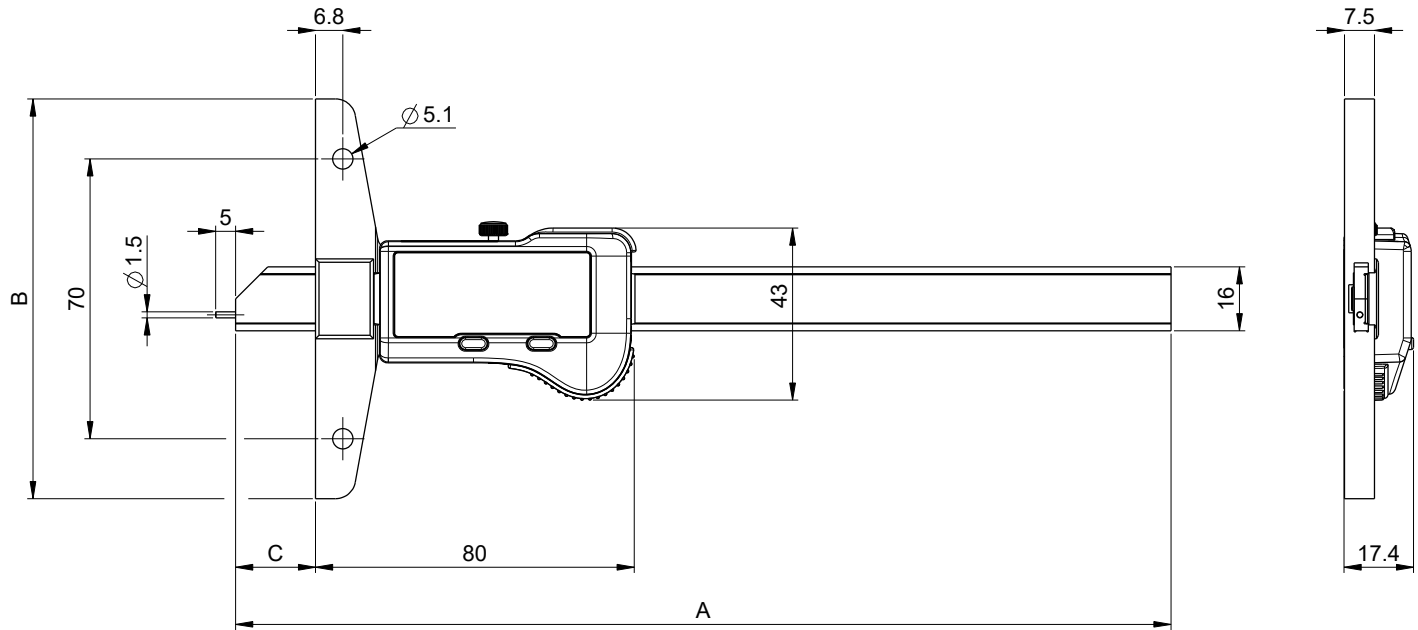


# Depth gauge

# S\_Depth EVO Smart

## DIMENSIONAL DRAWING

PIN Ø1.5



## TECHNICAL SPECIFICATIONS

		812-1506	812-1526	812-1536
Measuring range	mm	150	200	300
Max. Error	µm	20 <sup>1)</sup>	30	30
Resolution	mm		0.01	
A	mm	234	284	384
B - Bridge	mm		100	
C	mm	0-152	0-202	0-302
Frame	mm		16x3.5	
Output data		Bluetooth® wireless technology*		
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data		
Smart Inductive Sensor		●		

<sup>1)</sup> > 100 mm : 30 µm / ISO13385-2

\* Up to 8 instruments connected per dongle #981-7100



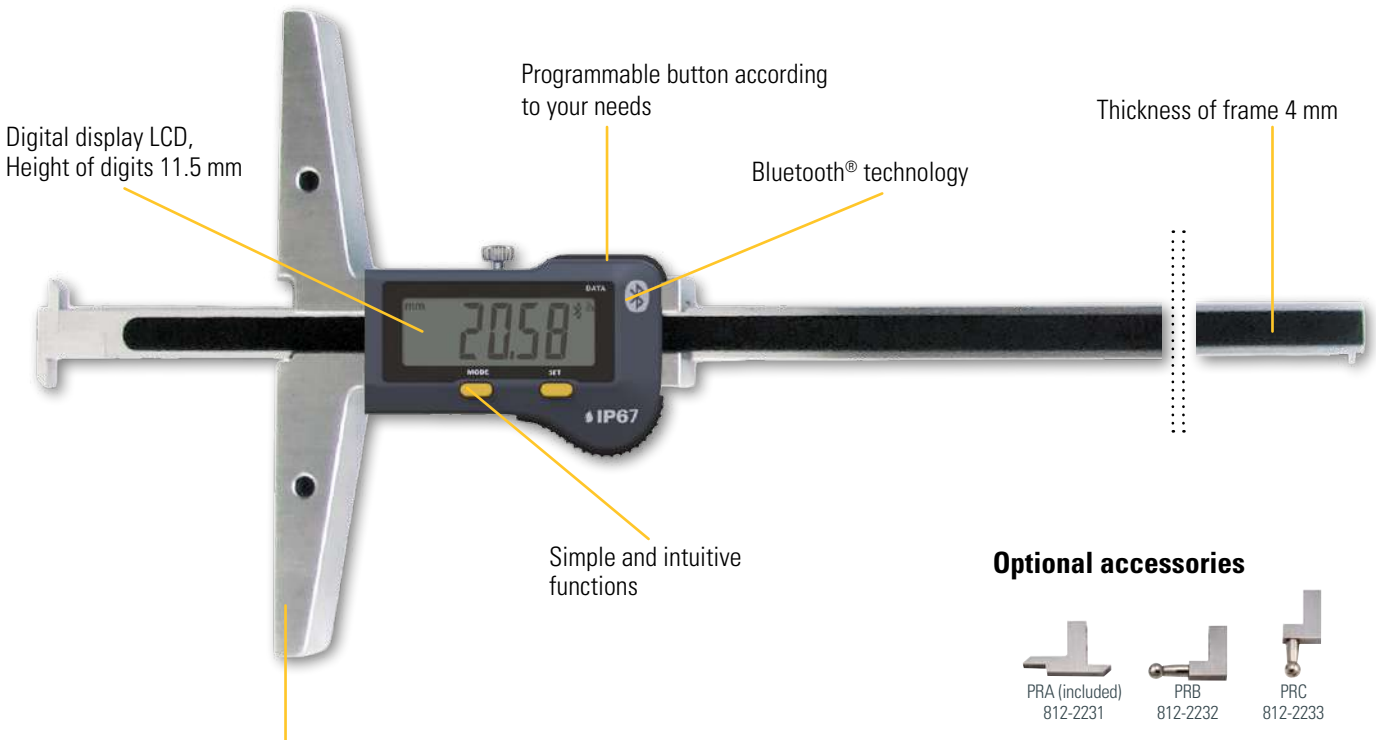
# Depth gauge

# S\_Depth EVO

## DESCRIPTION

## TWO FIXED MEASURING JAWS

- High-quality, ergonomic depth gauge with integrated Bluetooth® system
- 100 mm wide bridge with holes for the attachment of an additional wider bridge
- Interchangeable Up & Down measuring button
- Numerous other optional keys available for all kinds of measurements
- Hardened and ground stainless steel frame, thickness 4 mm
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 300, 400 and 600 mm
- Protection class IP67



**ISO 13385-2** Bridge of 100mm



**IP67**

\* SIS description on page 5

### Optional accessories



## Interchangeable anvils



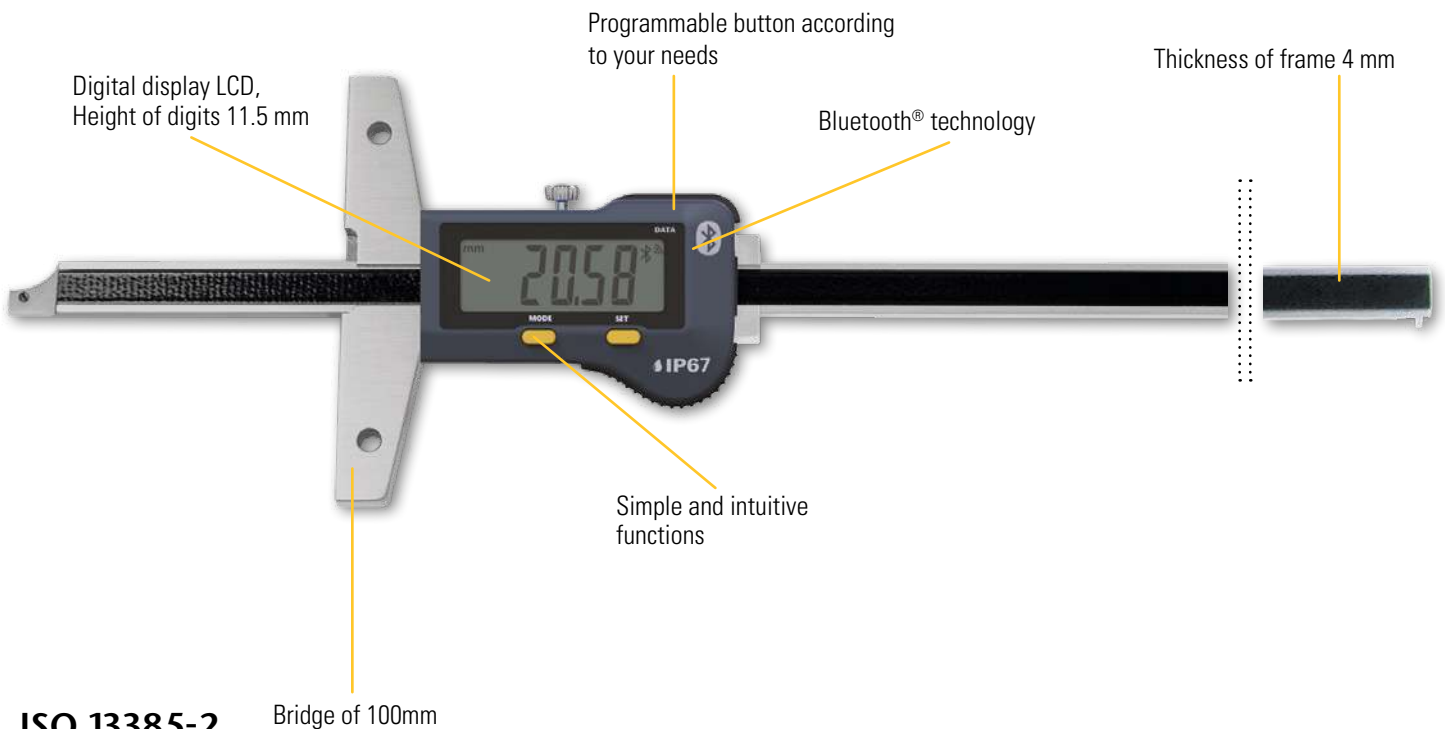
# Depth gauge

# S\_Depth EVO

## DESCRIPTION

## SHORTCUT MEASURING FACE

- High-quality, ergonomic depth gauge with integrated Bluetooth® system
- 100 mm wide bridge with holes for the attachment of an additional wider bridge
- Short measuring key 5 mm wide
- Hardened and ground stainless steel frame, thickness 4 mm
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 300, 400 and 600 mm
- Protection class IP67



**ISO 13385-2**

Bridge of 100mm



**IP67**

\* SIS description on page 5

## Bridge of 100mm with clamping screw

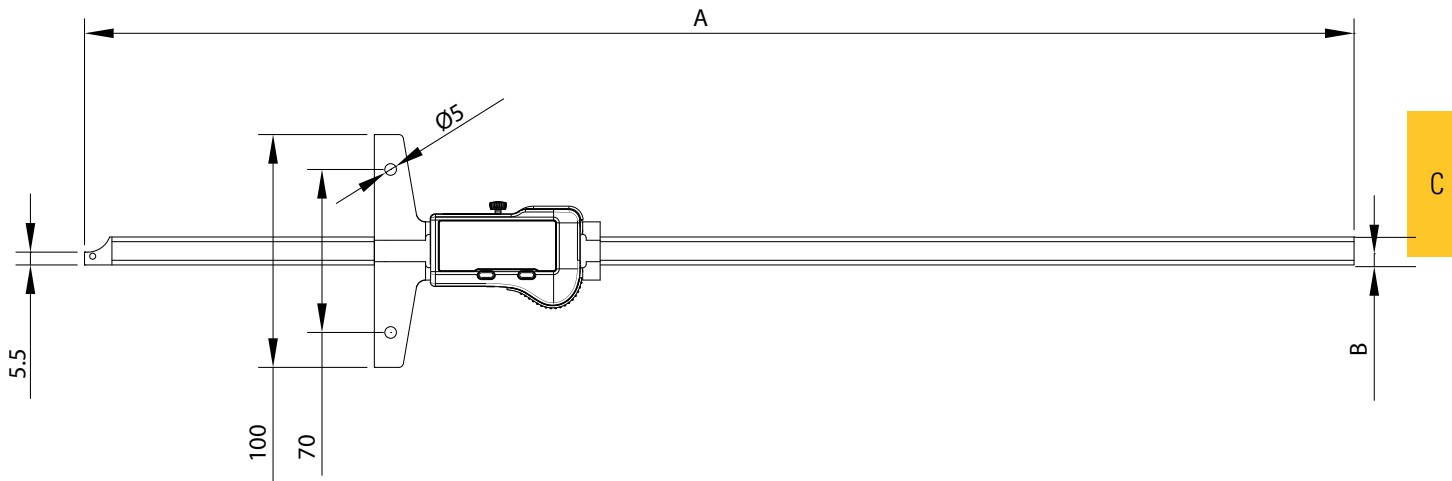


# Depth gauge

# S\_Depth EVO

## DIMENSIONAL DRAWING

## SHORTCUT MEASURING FACE



## TECHNICAL SPECIFICATIONS

		812-1611	812-1613	812-1615
Measuring range	mm	200	300	500
Max. Error	µm	30	30	50
Resolution	mm	0.01		
A	mm	300	400	600
B	mm	12x4		
Output data		Bluetooth® wireless technology*		
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data		
Smart Inductive Sensor		●		

**\* Up to 8 instruments connected per dongle #981-7100**





# Depth gauge

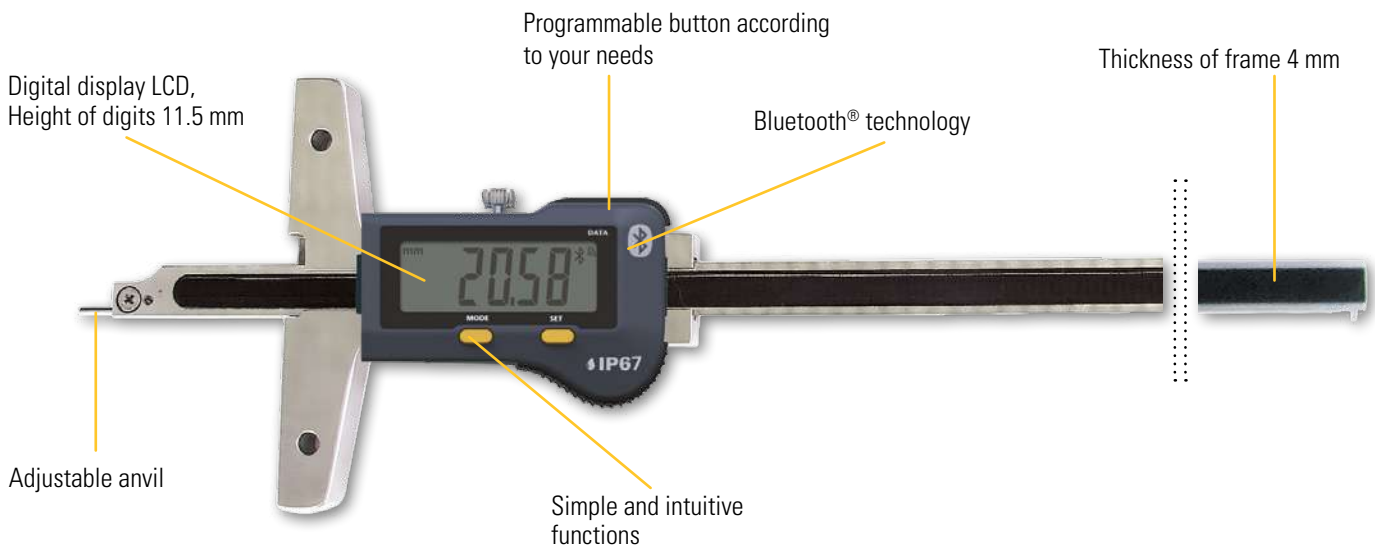
# S\_Depth EVO

## DESCRIPTION

## ROTARY PIN

- High-quality, ergonomic depth gauge with integrated Bluetooth® system
- 100 mm wide bridge with holes for the attachment of an additional wider bridge
- Measuring pin Ø 1.5 x 5 mm can be rotated and locked in the desired position by a clamping screw
- Hardened and ground stainless steel frame, thickness 4 mm
- New extra-large display unit with 11.5 mm high digits
- Convenient push button for sending data that can also be programmed with another function
- Memorising the home position even when the instrument is switched off
- Measuring range 300, 400 and 600 mm
- Protection class IP67

C

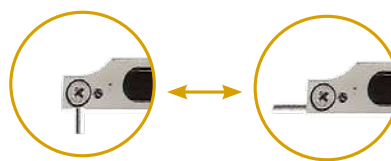


**ISO 13385-2**



**IP67**

\* SIS description on page 5



**Adjustable anvil !**

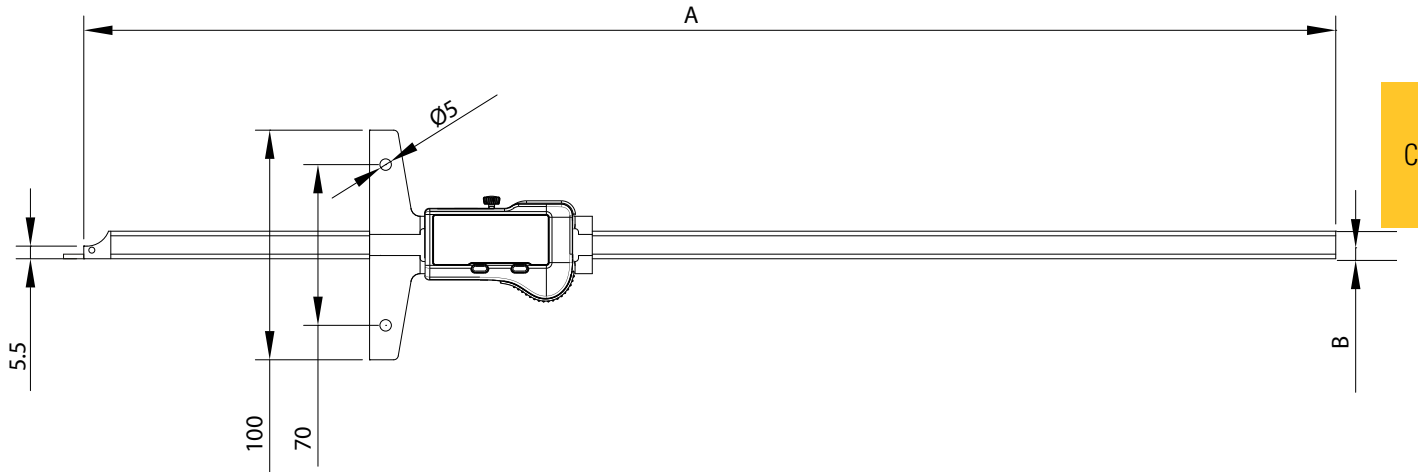


# Depth gauge

# S\_Depth EVO

DIMENSIONAL DRAWING

ROTARY PIN



## TECHNICAL SPECIFICATIONS

		812-1621	812-1623	812-1625
Measuring range	mm	200	300	500
Max. Error	µm	30	30	50
Resolution	mm	0.01		
A	mm	300	400	600
B	mm	12x4		
Output data		Bluetooth® wireless technology*		
Functions		Zero setting, Preset (max 999.99), mm/inch, Hold, Data		
Smart Inductive Sensor		●		

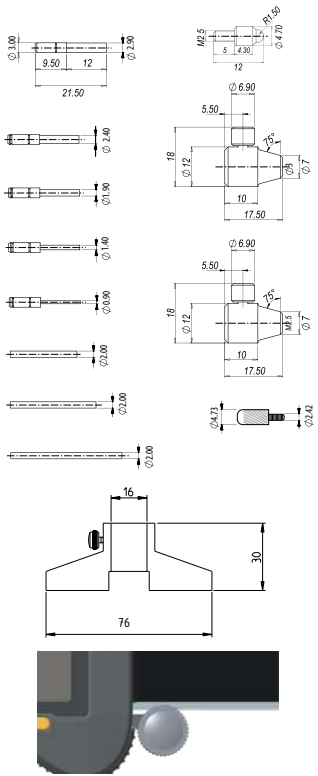
**\* Up to 8 instruments connected per dongle #981-7100**



# S\_Cal / S\_Depth

## ACCESSORIES FOR CALIPERS

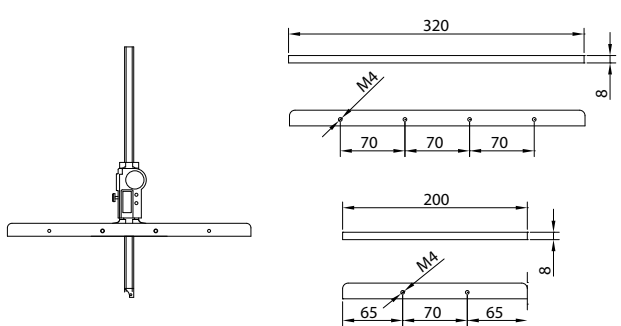
C



		S_Cal EVO Proximity S_Cal EVO Proximity $\mu\text{m}$	S_Cal EVO Basic	S_Cal EVO Smart S_Cal EVO Smart $\mu\text{m}$
<b>910-2207</b>	Accessory kit for S_Cal (12 pieces)	●	●	●
<b>910-2205</b>	Base for Depth Measurement	●	●	●
<b>810-2203</b>	Thumb wheel*			●
<b>810-2204</b>			●	
<b>810-2205</b>		●		

See also chapter cables.  
\* not for mid size models 810-1546, 810-1556, 810-1558

## ACCESSORIES FOR SPECIAL DEPTH CALIPER (TJ / SF / RP)



		Length	Thickness
<b>812-2240</b>	Additional base	320	8
<b>812-2241</b>	Additional base	200	8



# S\_Cal / S\_Depth

## STANDARD DELIVERY

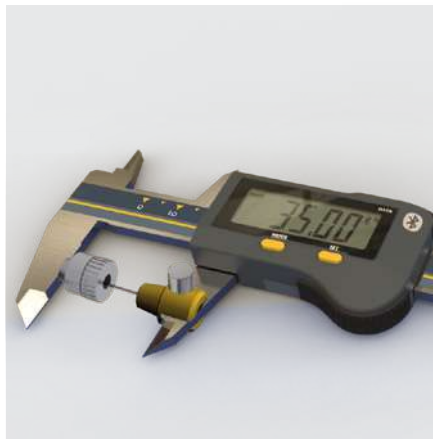
- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate (S\_Cal EVO  $\mu\text{m}$ )

## APPLICATIONS

C



Depth measurement with S\_Cal EVO and base 910-2205.



S\_Cal EVO Smart with kit 910-2207  
Depth measurement of small internal  $\emptyset$



S\_Cal EVO Standard measurement



Part measurement with S\_Cal  $\mu\text{m}$



Part measurement with sending data



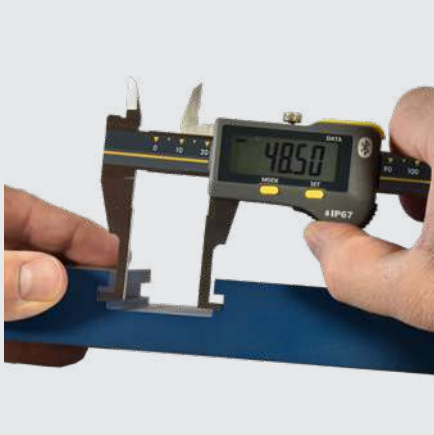
Depth measurement with S\_Cal EVO



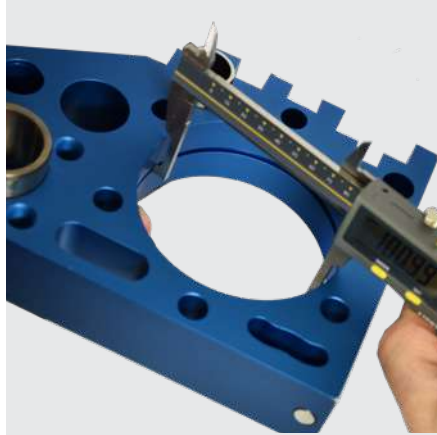
# Special S\_Cal & S\_Depth

## APPLICATIONS

C



Internal groove measurement with S\_Cal EVO Smart IG



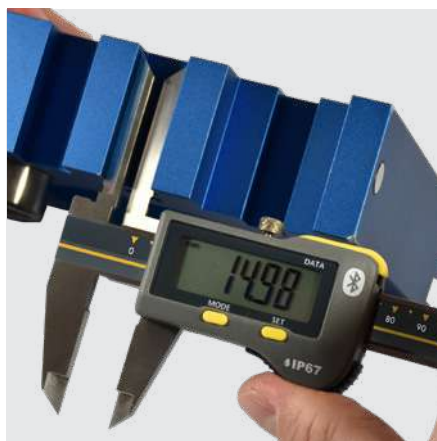
Internal groove measurement with S\_Cal EVO Smart IG



Internal measurement with S\_Cal EVO Smart PJ



Deep measurement with S\_Cal EVO Smart DM



Deep measurement with S\_Cal EVO Smart DM



External groove measurement with S\_Cal EVO Smart EG



External groove measurement with S\_Cal EVO Smart EG



External groove measurement with S\_Cal EVO Smart EG



S\_Depth EVO Smart TJ communicating with Sylvac Anywhere App on touchpad

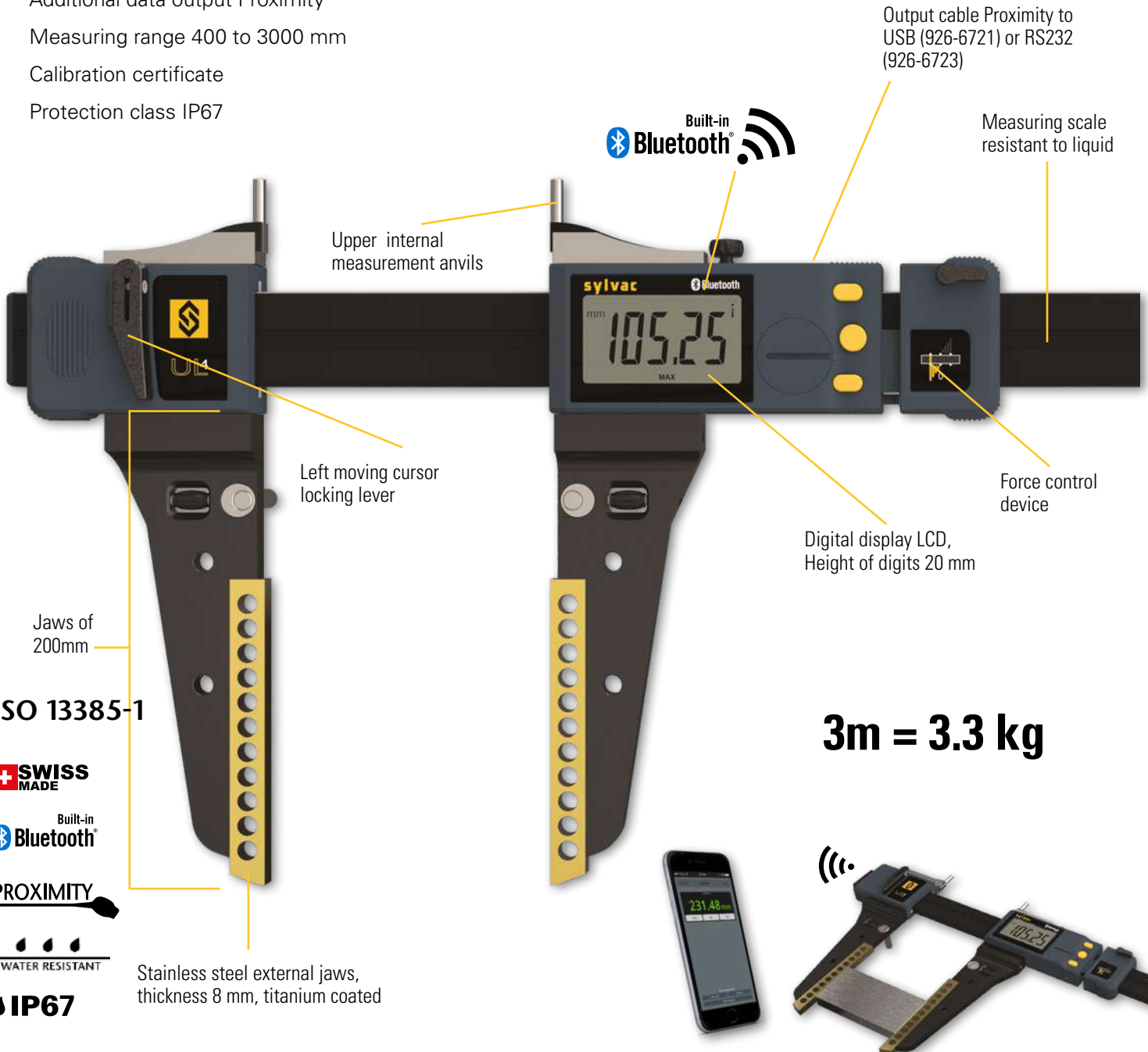


# Ultra light caliper

UL4

## DESCRIPTION

- Ultra-light, large callipers with integrated Bluetooth® system
- Frame made of special aluminium profile reinforced with 4 stainless steel guide rods
- New XXL display unit with digits 20 mm high
- Three buttons, including the central button with selectable favourite function
- Measuring force control device
- Long outer jaws 200 mm with measuring part made of hardened steel 124 x 8 mm coated with titanium nitride (TiN)
- On request, our UL4 callipers with jaws up to 400 mm long are available (please specify when ordering).
- Lever-lockable movable left jaw
- Removable upper studs with hardened metal pin Ø 5 mm for internal measurements
- Additional data output Proximity
- Measuring range 400 to 3000 mm
- Calibration certificate
- Protection class IP67



C

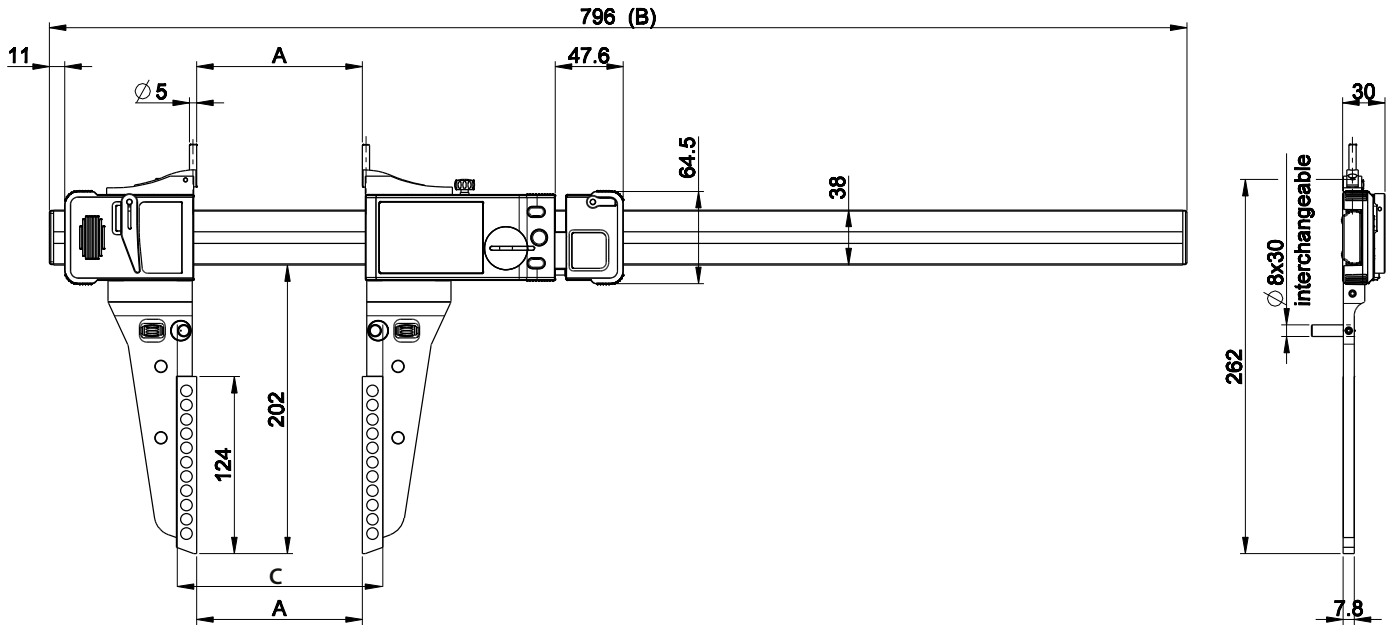




# Ultra light caliper

# UL4

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		811-1404	811-1406	811-1410	811-1415	811-1420	811-1425	811-1430
Model	mm	400	600	1000	1500	2000	2500	3000
Max. Error	µm	30	40	50	90	120	150	200
Repeatability	µm	20			30			
Resolution	mm	0.01						
A	mm	0-478	0-683	0-1093	0-1608	0-2123	0-2638	0-3153
C	mm	27-505	27-710	27-1110	27-1635	27-2150	27-2665	27-3180
B	mm	796	1001	1411	1926	2441	2956	3471
Measuring Force	N	7.5 - 11.5 (±20%)						
Output data		Bluetooth® wireless technology* / RS232 / USB						
IP67 Protection		●						
Preset max.		±9999.99 mm / ±399.9995 IN						
Weight	kg	1.5	1.6	1.9	2.3	2.6	2.9	3.3
Setting by PC		●						
2 references		●						
Min/Max function		●						
Tolerance limit indicators		●						

\* Up to 8 instruments connected per dongle #981-7100

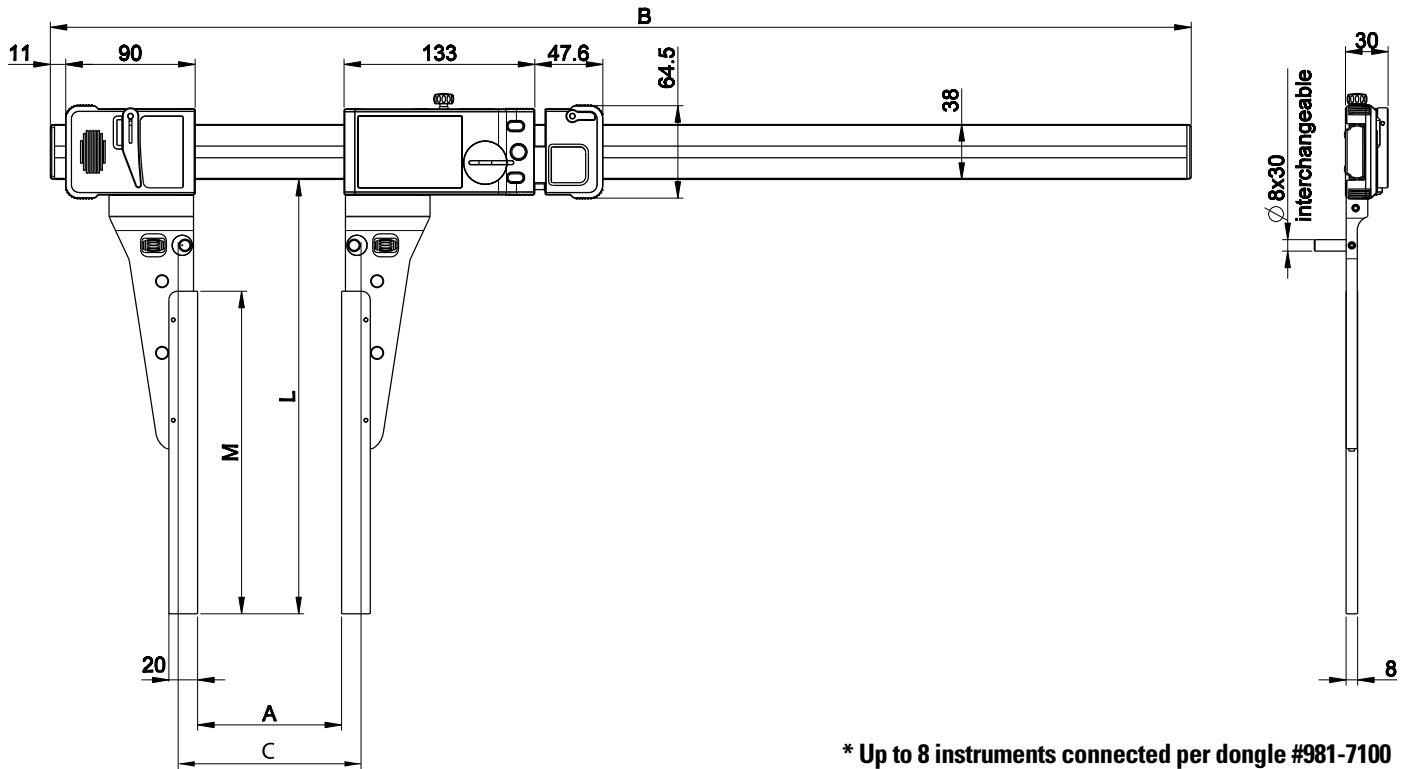




# Ultra light caliper

UL4

SPECIAL EXECUTIONS | SPECIAL JAWS TYPE A



\* Up to 8 instruments connected per dongle #981-7100  
More informations on How to use Bluetooth® leaflet SYL\_1401\_EN\_BT

## TECHNICAL SPECIFICATIONS

		811-2316-99	811-2317-99
<b>Special jaws (pair)</b>		Length L to specify with order (max 400 mm)	
L	mm	≤ 300	≤ 400
M	mm	L - 75	

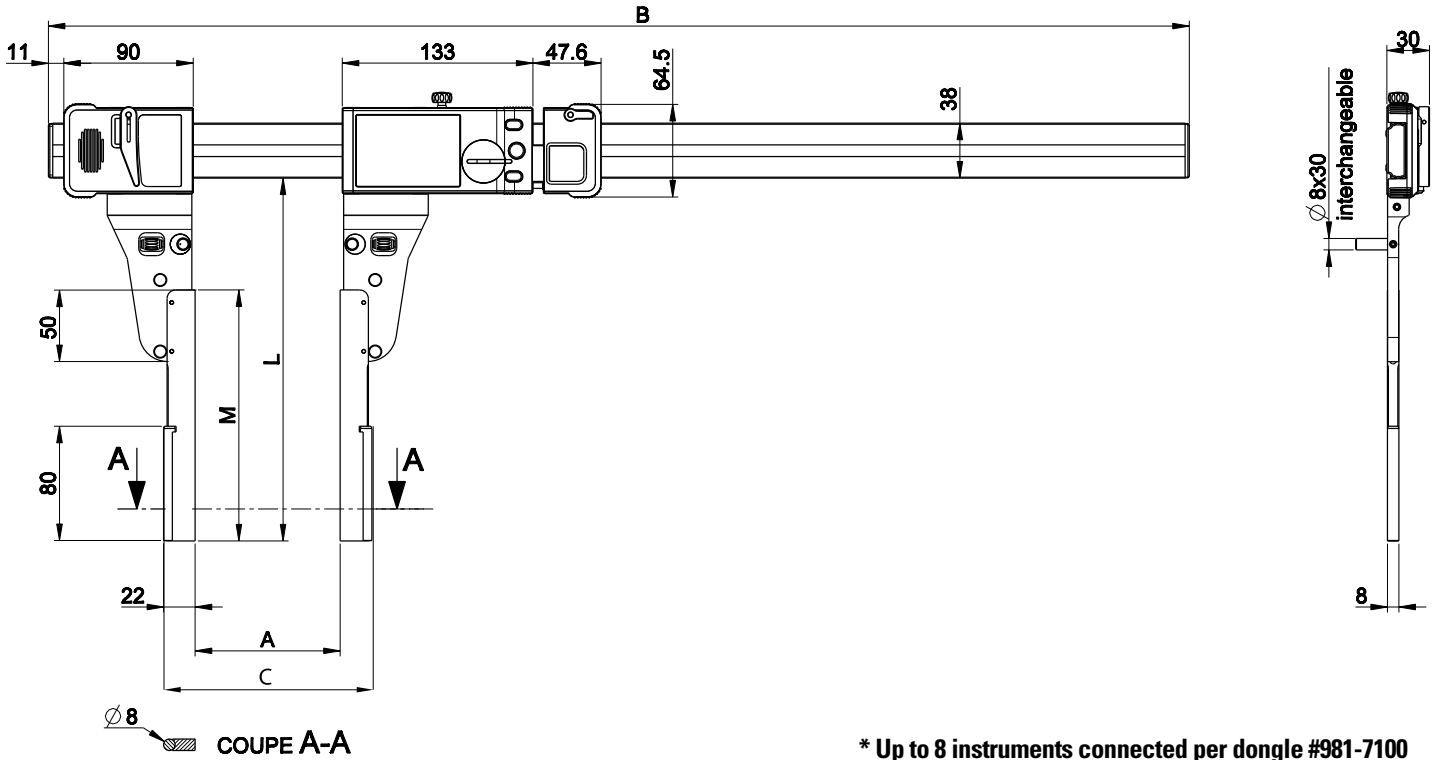
		UL 400	UL 600	UL 1000	UL 1500	UL 2000	UL 2500	UL 3000
<b>UL specification</b>		<b>Max. error. [µm] / Repeatability [µm]</b>						
With Jaws 811-2316-99		40/20	50/20	70/20	130/30	180/40	220/40	320/40
With Jaws 811-2317-99		70/40	80/40	120/40	200/50	300/60	400/70	500/80
Measuring range	mm	400	600	1000	1500	2000	2500	3000
A	mm	0-478	0-683	0-1093	0-1608	0-2123	0-2638	0-3153
C	mm	27-505	27-710	27-1110	27-1635	27-2150	27-2665	27-3180
B	mm	796	1001	1411	1926	2441	2956	3471
Resolution	mm	0.01						



# Ultra light caliper

UL4

SPECIAL EXECUTIONS | SPECIAL JAWS TYPE C



\* Up to 8 instruments connected per dongle #981-7100

## TECHNICAL SPECIFICATIONS

			811-2319-99
<b>Special jaws (pair)</b>			Lenght L to specify with order (max 300 mm)
L max	mm		300
M	mm		L - 75

		UL 400	UL 600	UL 1000	UL 1500	UL 2000	UL 2500	UL 3000
<b>UL specification</b>		<b>Max. error. [µm] / Repeatability [µm]</b>						
With Jaws ≤ 200	mm	40/20	50/20	70/30	120/30	170/30	210/30	300/40
With Jaws ≤ 300	mm	50/30	60/30	90/30	150/30	200/40	300/40	400/50
Measuring range	mm	400	600	1000	1500	2000	2500	3000
A	mm	0-478	0-683	0-1093	0-1608	0-2123	0-2638	0-3153
C	mm	44-522	44-727	44-1137	44-1652	44-2167	44-2682	44-3197
B	mm	796	1001	1411	1926	2441	2956	3471
Resolution	mm	0.01						

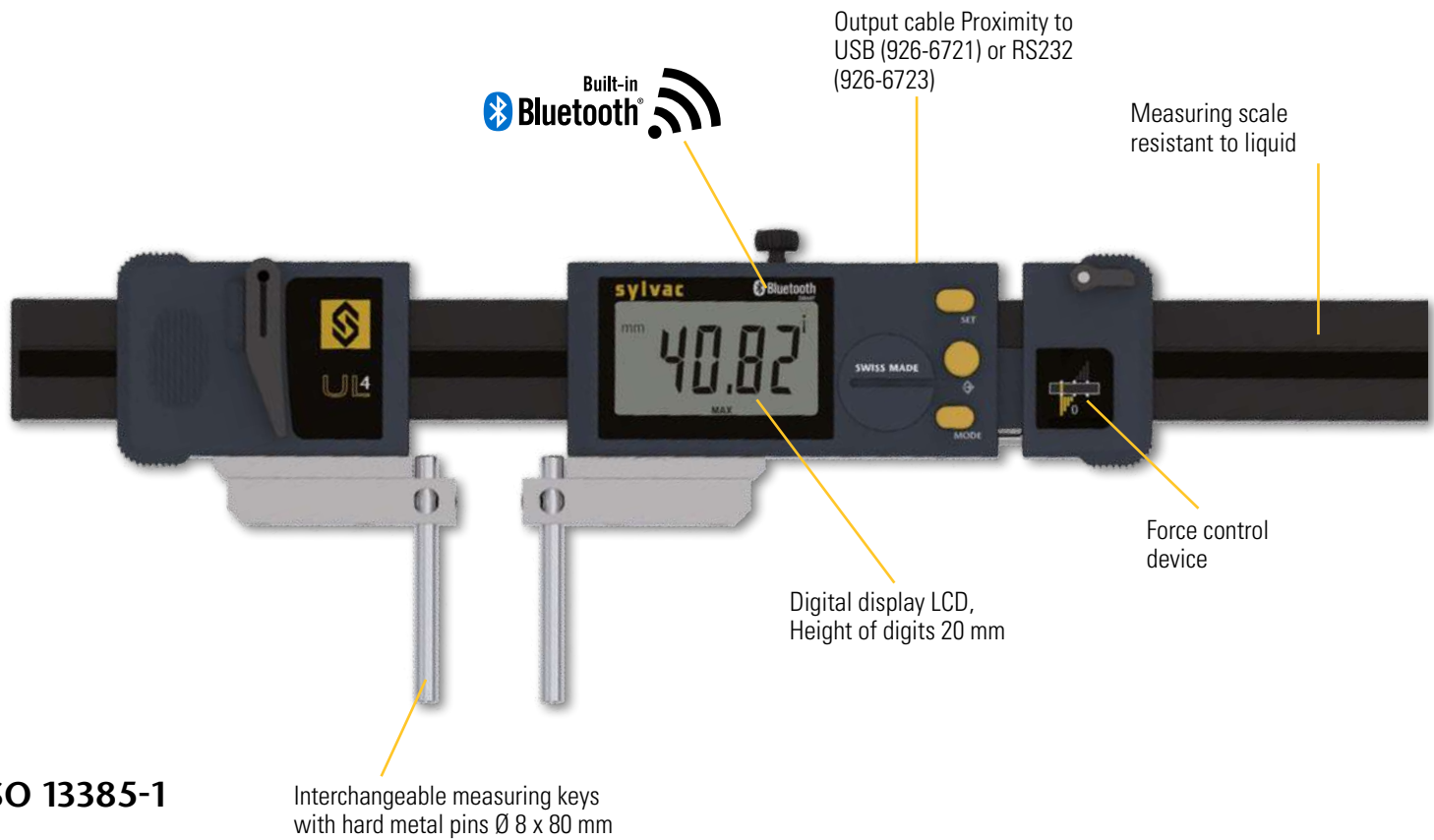
# Ultra light caliper

ULH4

## DESCRIPTION

- Ultra-light, large universal instrument with integrated Bluetooth® system
- Frame made of special aluminium profile reinforced with 4 stainless steel guide rods
- New XXL display unit with digits 20 mm high
- Three buttons, including the central button with selectable favourite function
- Measuring force control device
- Supplied with interchangeable measuring keys with hard metal pins Ø 8 x 80 mm
- Numerous other measuring keys available as options
- Lever-lockable movable left jaw
- Additional data output Proximity
- Measuring range 400 to 3000 mm
- Protection class IP67

C



ISO 13385-1

**SWISS MADE**

Built-in Bluetooth®

PROXIMITY

WATER RESISTANT

**IP67**

## Interchangeable keys

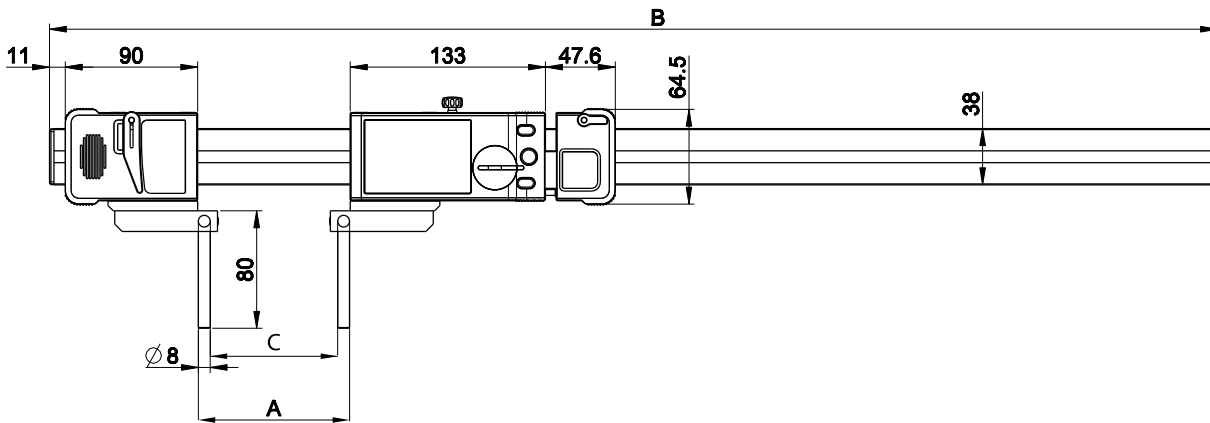




# Ultra light caliper

# UL H4

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		811-8040	811-8060	811-8100	811-8150	811-8200	811-8250	811-8300	
Model	mm	400	600	1000	1500	2000	2500	3000	
Max. Error	µm	30	40	50	90	120	150	200	
Repeatability	µm	20				30			
Resolution	mm	0.01							
A	mm	26-480	26-685	26-1095	26-1610	26-2125	26-2640	26-3155	
C	mm	10-464	10-669	10-1079	10-1594	10-2109	10-2624	10-3139	
B	mm	796	1001	1411	1926	2441	2956	3471	
Measuring Force	N	7.5 - 11.5 (±20%)							
Output data		Bluetooth® wireless technology* / RS232 / USB							
IP67 Protection		●							
Preset max.		±9999.99 mm / ±399.9995 IN							
Weight	kg	1.1	1.2	1.5	1.9	2.2	2.5	2.9	
Setting by PC		●							
2 references		●							
Min/Max function		●							
Tolerance limit indicators		●							

\* Up to 8 instruments connected per dongle #981-7100

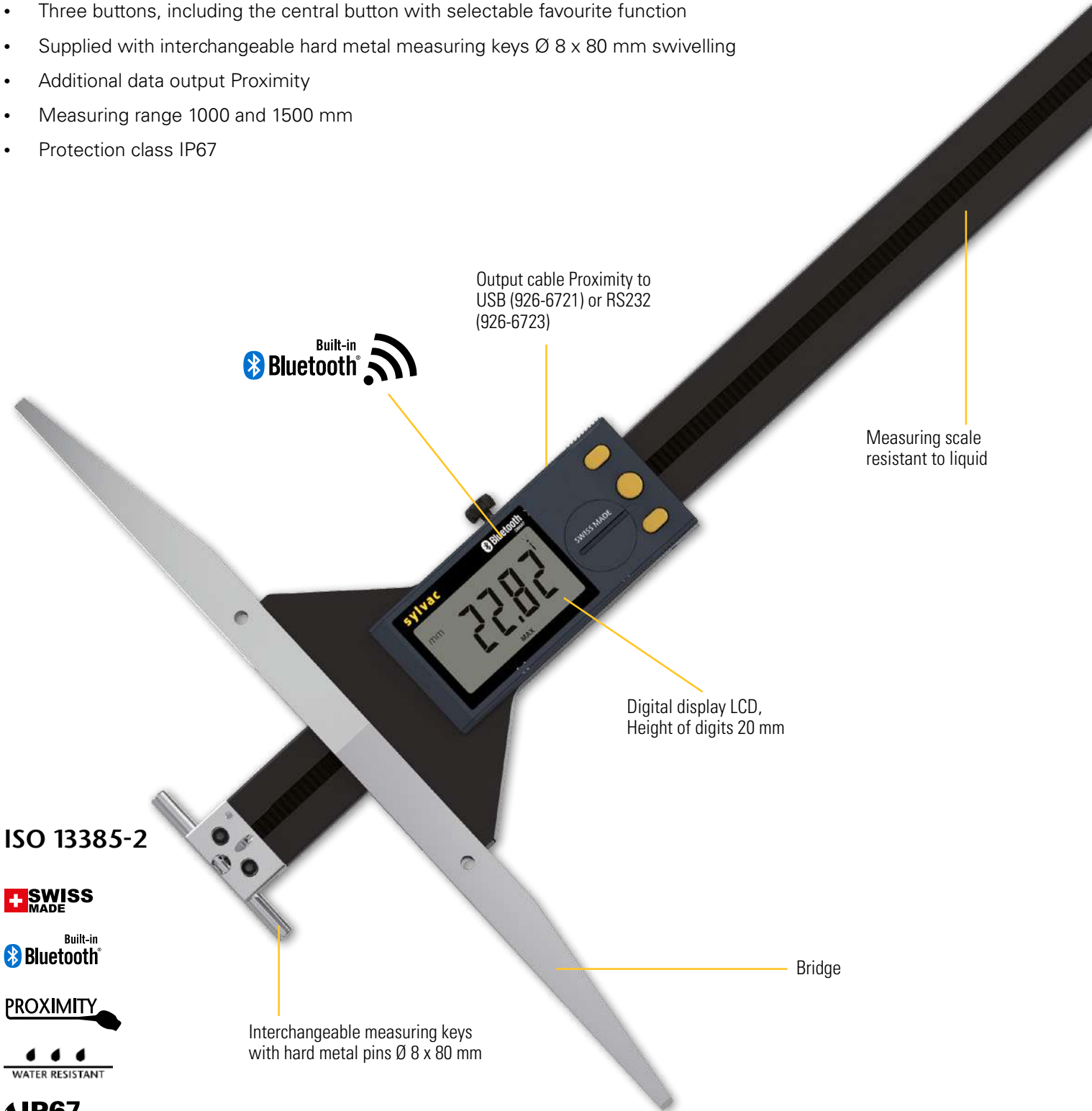
# Ultra light depth gauge

# UL V4

## DESCRIPTION

- Large, ultra-lightweight depth gauge with integrated Bluetooth® system
- Frame made of special aluminium profile reinforced with 4 stainless steel guide rods
- Bridge width 400/600 mm with holes for the attachment of an additional wider bridge
- New XXL display unit with digits 20 mm high
- Three buttons, including the central button with selectable favourite function
- Supplied with interchangeable hard metal measuring keys Ø 8 x 80 mm swivelling
- Additional data output Proximity
- Measuring range 1000 and 1500 mm
- Protection class IP67

C



Output cable Proximity to USB (926-6721) or RS232 (926-6723)

Built-in Bluetooth

Measuring scale resistant to liquid

Digital display LCD, Height of digits 20 mm

ISO 13385-2

SWISS MADE

Built-in Bluetooth

PROXIMITY

WATER RESISTANT

IP67

Interchangeable measuring keys with hard metal pins Ø 8 x 80 mm

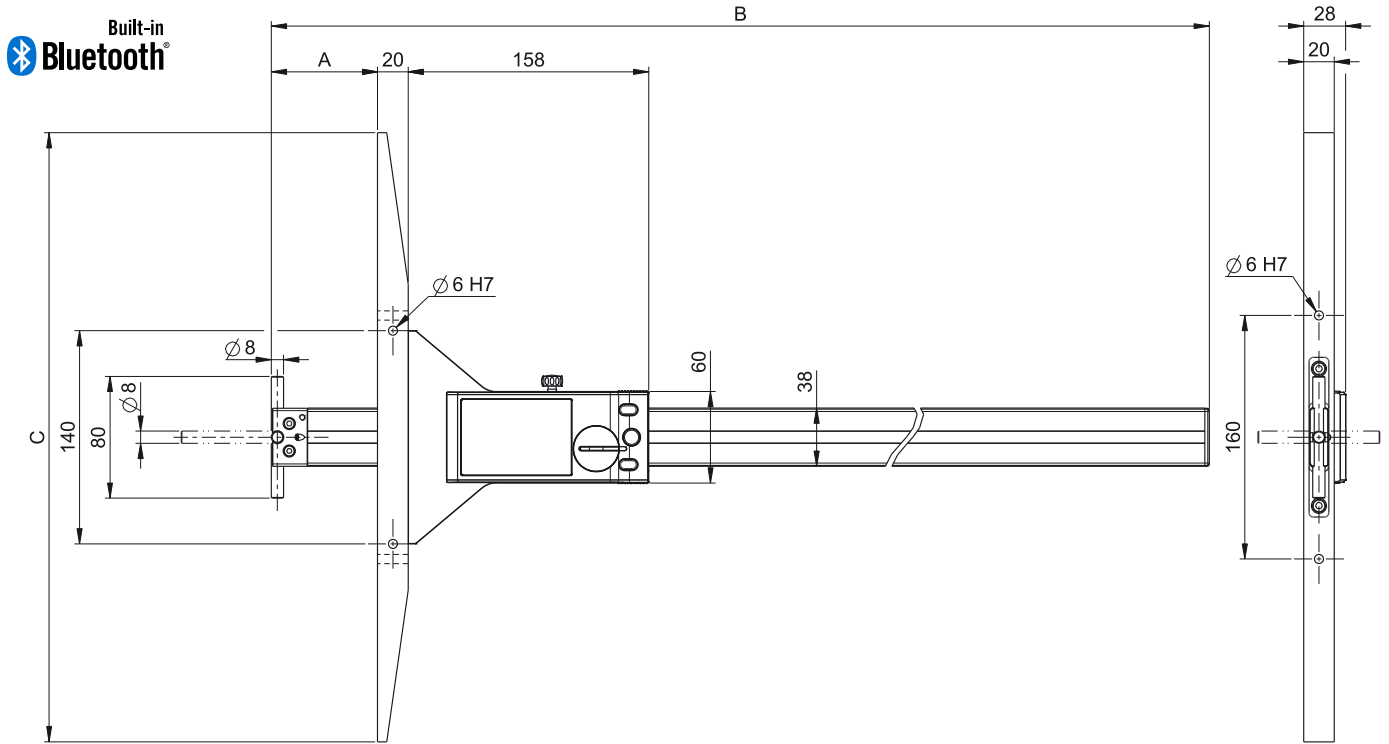
Bridge



# Ultra light depth gauge

# UL V4

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		811-6100	811-6150
Model	mm	1000	1500
Max.Error	µm	100	130
Repeatability	µm	20	
Resolution	mm	0.01	
A	mm	0 - 1030	0 - 1545
C	mm	400	600
B	mm	1242	1757
Output data		Bluetooth® wireless technology* / RS232 / USB	
IP67 Protection		●	
Preset max.		±9999.99 mm / ±399.9995 IN	
Weight	kg	2.2	3.16
Setting by PC		●	
2 references		●	
Min/Max function		●	
Tolerance limit indicators		●	

\* Up to 8 instruments connected per dongle #981-7100

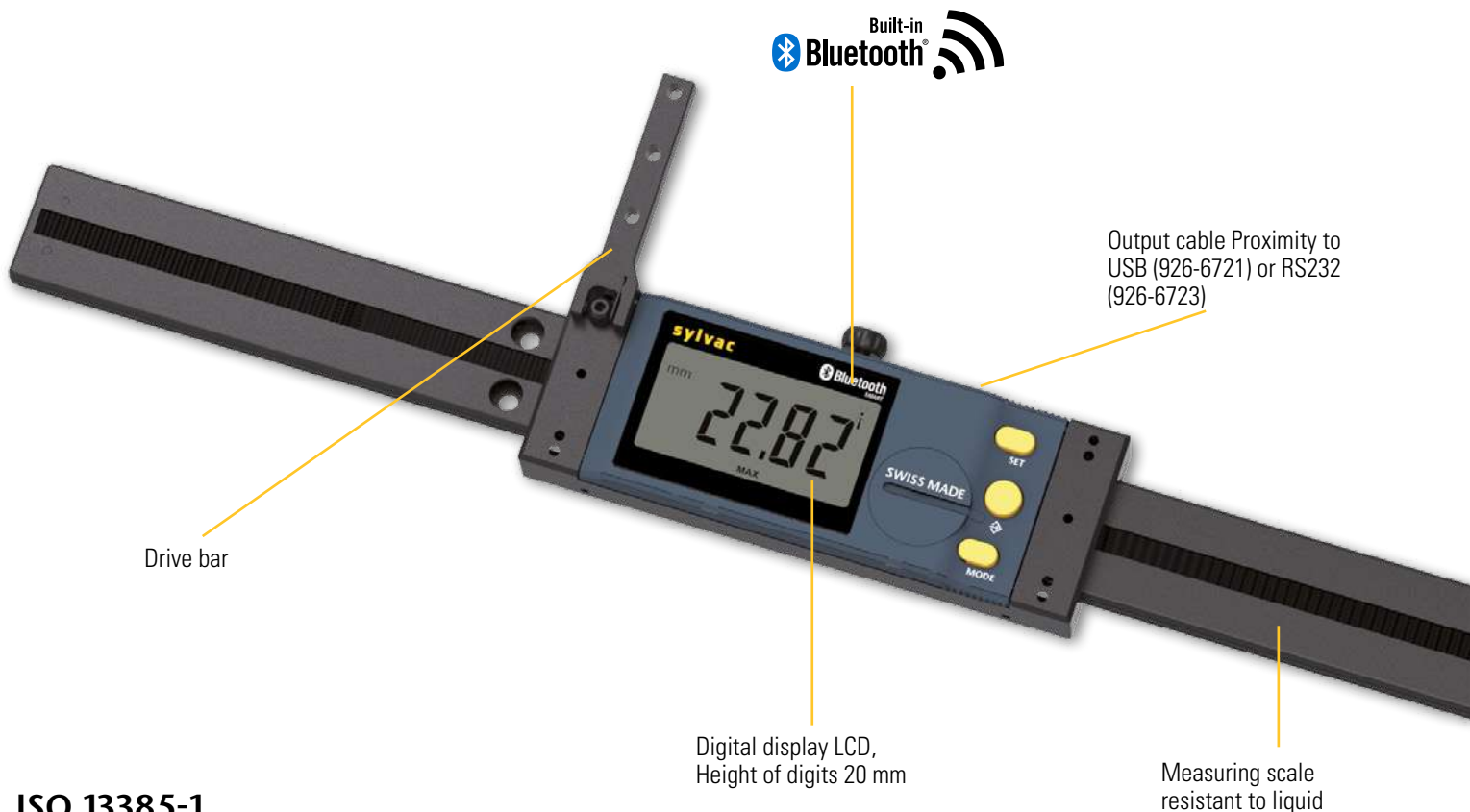
# Ultra light digital scale

# UL D4

## DESCRIPTION

- Ultra-light, large linear ruler with integrated Bluetooth® system
- Frame made of special aluminium profile reinforced with 4 stainless steel guide rods with fixing holes
- New XXL display unit with digits 20 mm high
- Three buttons, including the central button with selectable favourite function
- Supplied with a drive bar that can be positioned at the top or bottom of the display.
- Additional data output Proximity
- Measuring range 1000 and 3000 mm
- On request, several rulers can be joined together to increase the measuring range.
- Protection class IP67

C



**ISO 13385-1**

**SWISS MADE**

Built-in **Bluetooth**

**PROXIMITY**

**WATER RESISTANT**

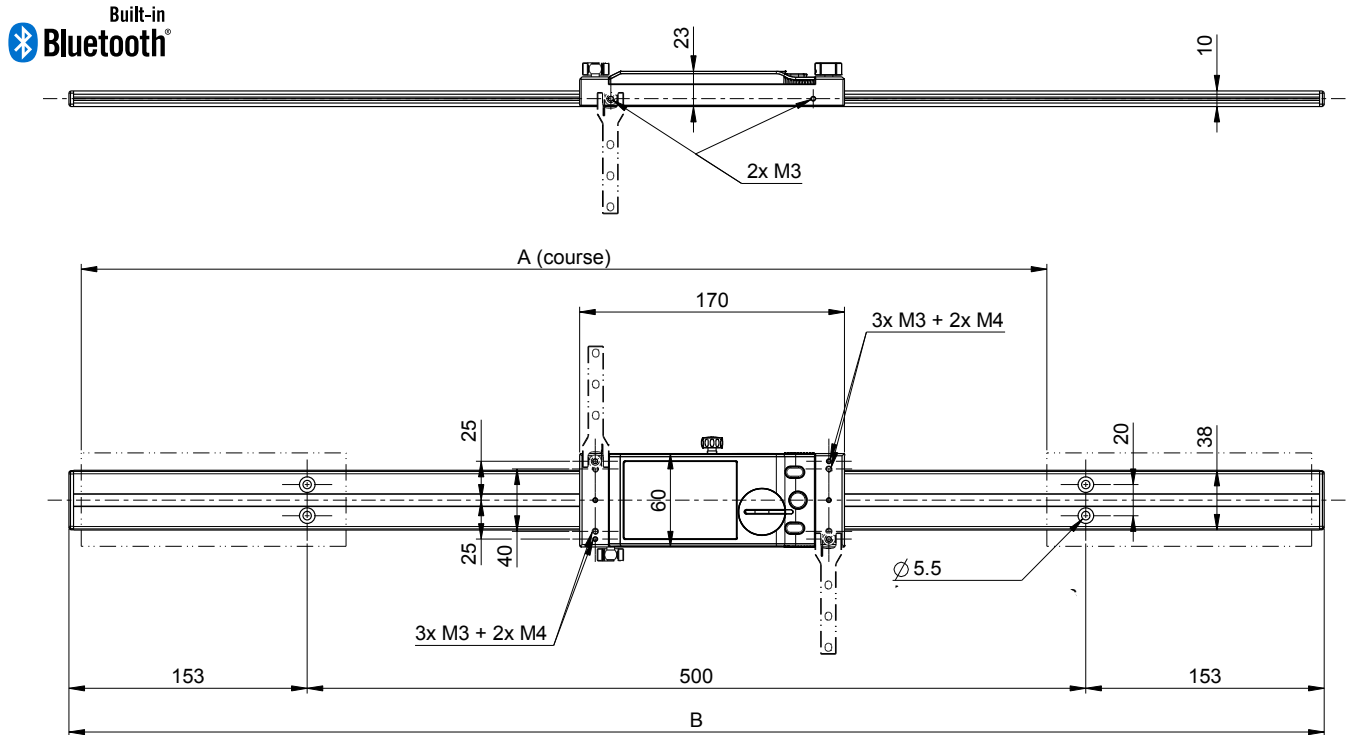
**IP67**



# Ultra light digital scale

# UL D4

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		814-1510	814-1515	814-1520	814-1525	814-1530
Model	mm	1000	1500	2000	2500	3000
Max. Error	µm	60	90	120	150	200
Repeatability	µm	20				
Resolution	mm	0.01				
A	mm	0 - 1120	0 - 1620	0 - 2120	0 - 2620	0 - 3120
B	mm	1306	1806	2306	2806	3306
Number range of raws		3	4	5	6	7
Output data		Bluetooth® wireless technology* / RS232 / USB				
IP67 Protection		●				
Preset max.		±9999.99 mm / ±399.9995 IN				
Weight	kg	1.2	1.5	1.8	2.2	2.5
Setting by PC		●				
2 references		●				
Min/Max function		●				
Tolerance limit indicators		●				

\* Up to 8 instruments connected per dongle #981-7100

C



# Ultra light caliper

# UL4

STANDARD DELIVERY



### UL4 Standard

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Calibration certificate for UL up to 3000mm
- Upper internal measurement anvil (811-2323 - 2pcs)
- Universal base 811-2301
- Instruction manual



### UL4 Special Jaws Type A

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Special long jaws Type A (811-2316-99 or 811-2317-99)
- Length of jaws to specify when order (max. 400mm)
- Instruction manual



### UL4 Special Jaws Type C

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Special long jaws Type C (811-2319-99)
- Length of jaws to specify when order (max. 300mm)
- Instruction manual



# Ultra light caliper

STANDARD DELIVERY



## ULH4

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Calibration certificate for UL up to 3000mm
- Universal base 811-2301
- Anvil holder 811-2302
- Long cylindrical anvil  $\varnothing 8 \times 80$ mm (811-2324)
- Instruction manual



## ULV4

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Long cylindrical anvil  $\varnothing 8 \times 80$ mm (811-2324)
- Bridge 400mm or 600mm
- Instruction manual



## ULD4

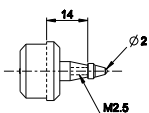
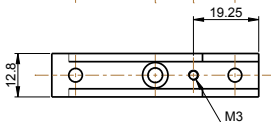
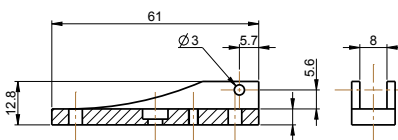
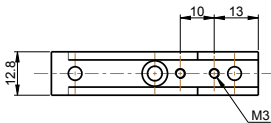
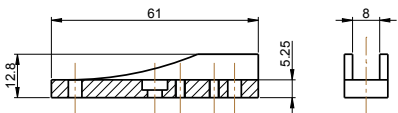
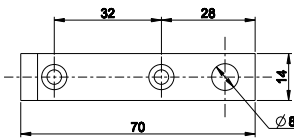
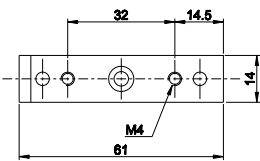
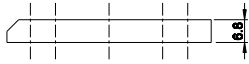
- Instrument according to technical specifications
- Lithium battery CR2477 included
- Driving shaft
- Instruction manual



# Ultra light caliper

## ACCESSORIES

C



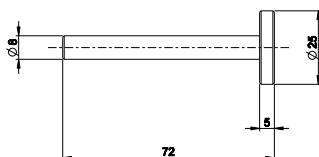
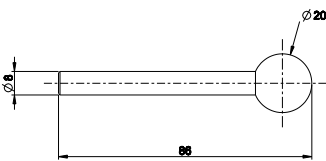
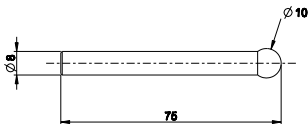
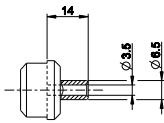
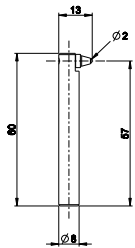
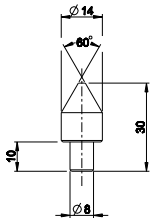
		UL4	ULH4	ULV4	ULD4
<b>811-2301</b>	Universal base (2 pieces)	●	●		
<b>811-2302</b>	Ø8 Anvil holder (2 pieces, to combine with 811-2301)	●	●		
<b>811-2303</b>	Accessories holder (2 different pieces)	●	●		
<b>811-2305</b>	Support with int. thread M 2.5 (2 pieces)	●			

See also cables chapter



# Ultra light caliper

## ACCESSORIES



		UL4	UL H4	ULV4	UL D4
<b>811-2307</b>	Inserts in hardened steel, cone 60° for bore clearance measurement > 10 mm, (2 pieces)	●	●		
<b>811-2309</b>	Holder for dial gauge contact points for internal groove measurement, (2 pieces)	●	●		
<b>811-2304</b>	Thread anvils holders (2 pieces)	●			
<b>811-2310</b>	Anvil Ø10mm (2 pieces)	●	●		
<b>811-2311</b>	Anvil Ø20mm (2 pieces)	●	●		
<b>811-2312</b>	Anvil Ø25x5mm (2 pieces)	●	●		
<b>811-6306</b>	Wooden box for UL4 400 and 600mm	●	●		
<b>811-6310</b>	Wooden box for UL4 1000mm	●	●		
<b>811-6315</b>	Wooden box for UL4 1500mm	●	●		

C

See also cables chapter



# Ultra light caliper

## ACCESSORIES



		UL4	UL H4	ULV4	UL D4
<b>811-2321</b>	Lower plate for internal anvil (2 pieces) (for Bowers Unical's «L anvils»)	●	●		
<b>811-2322</b>	Lower internal anvil (2 pieces)	●	●		
<b>811-2323</b>	Upper internal measurement anvil (2 pieces)* (to combine with 811.2303)	●	●		
<b>811-2324</b>	Long cylindrical anvil Ø8x80mm (2 pieces) (to combine with 811-2302 & 811-2301)	●	●		
<b>811-2325</b>	Cylindrical anvil Ø8x30mm (2 pieces)	●	●		

## APPLICATIONS



Internal measure with UL4



External measure with UL4



# MICROMETERS

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Historically, the micrometric screw was invented by William Gascoigne in the 17th century and it was Jean-Laurent Palmer who applied the principle to the measurement of small distances in 1848. Another classic length-measuring instrument, the micrometer provides greater precision than the caliper. Whereas a drum lathe generally represents a spindle displacement of 0.5 mm, Sylvac had the brilliant idea of developing revolutionary fast-feed micrometers in various versions, which can be discovered in this chapter.

## GENERAL CHARACTERISTICS :

- **Accuracy according to DIN 863**
- **Powered by lithium battery type CR2032**
- **Absolute measuring system S.I.S**
- **Automatic sleep and wake-up**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**



# Professional micrometer

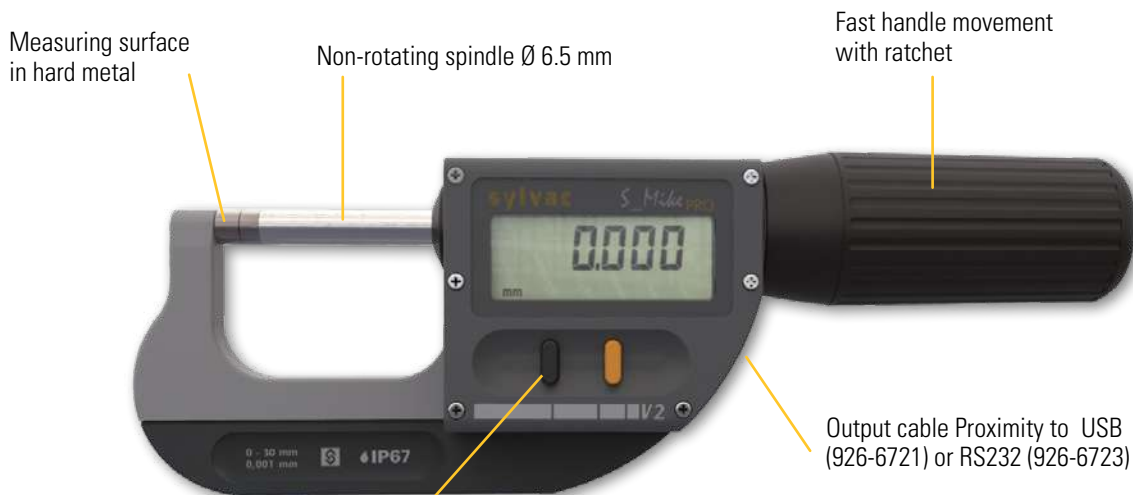
# S\_Mike PRO

## DESCRIPTION

CYLINDRICAL Ø6.5

- High-speed micrometer with non-rotating spindle
- Linear spindle feed 10 mm per revolution
- Measuring range greater than traditional micrometers
- Tungsten carbide measuring anvils Ø 6.5 mm
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N for the 0-30 mm model
- Proximity data output
- Measuring range up to 161 mm
- Protection class IP67

D



**DIN 863**

**PROXIMITY**

**SIS** Smart Inductive System

**WATER RESISTANT**

**IP67**

**SWISS MADE**



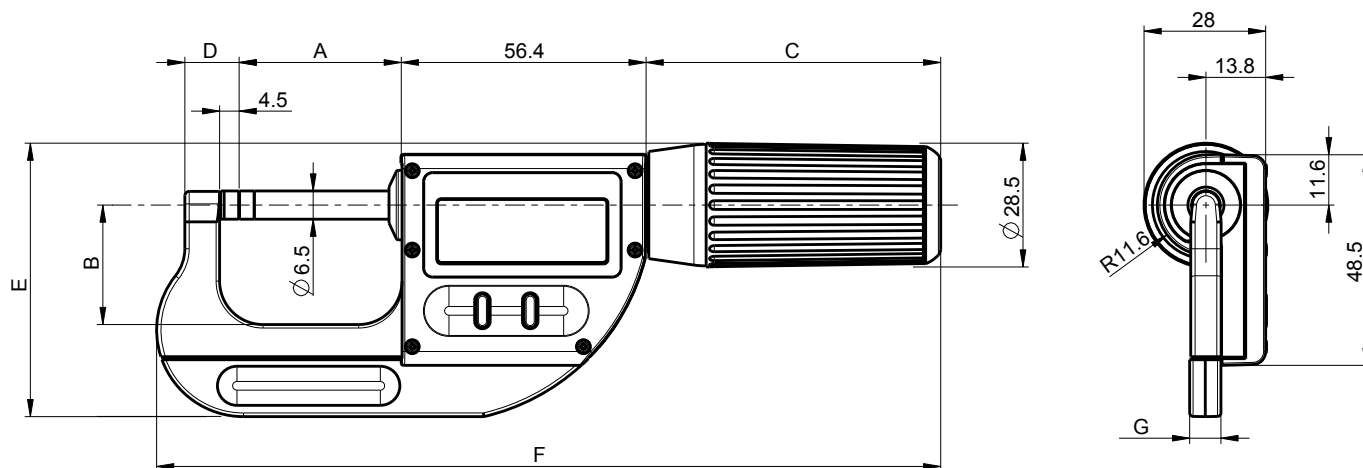
\* SIS description on page 5

# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

## CYLINDRICAL Ø6.5



## TECHNICAL SPECIFICATIONS

		803-0300	903-0600	903-1000	903-1360	903-1600
Measuring range	mm	0-30	30-66	66-102	100-136	125-161
Max. Error G <sup>1)</sup>	µm	3	4	5	7	8
Repeatability <sup>2)</sup>	µm	1	1	1	2	2
Anvils types		Ø6.5				
A	mm	37.3	73.3	109.3	143.3	168.3
B	mm	27.5	43	60	95	110
C	mm	68	74	74	74	74
D	mm	12.5	13.5	14.5	19.5	19.5
E	mm	63	86	106	151	169
F	mm	181	230	269	306	339
G	mm	7.2	9	9	9	9
Output data		USB / RS 232 <sup>3)</sup>				
Prot. rating accor. to IEC 60529		IP67 even connected				
Setting by PC		●				
Adjustable measuring force		5N / 10N		10N		
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



# Professional micrometer

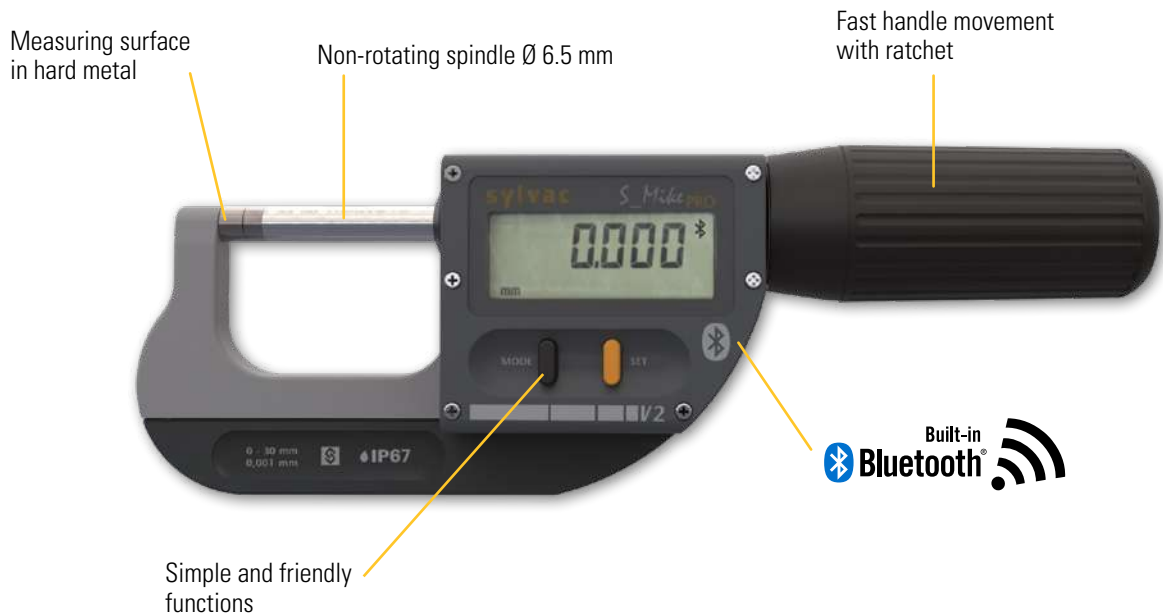
# S\_Mike PRO Smart

## DESCRIPTION

## CYLINDRICAL Ø6.5 SMART

- Ultra-fast non-rotating spindle micrometer with integrated Bluetooth® system
- Linear spindle feed 10 mm per revolution
- Measuring range greater than traditional micrometers
- Tungsten carbide measuring anvils Ø 6.5 mm
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N for the 0-30 mm model
- Measuring range up to 102 mm (161 mm on request)
- Protection class IP67

D



**DIN 863**

Built-in Bluetooth

SIS Smart Inductive System

WATER RESISTANT

IP67

SWISS MADE

**Cylindrical Ø6.5mm**



\* SIS description on page 5

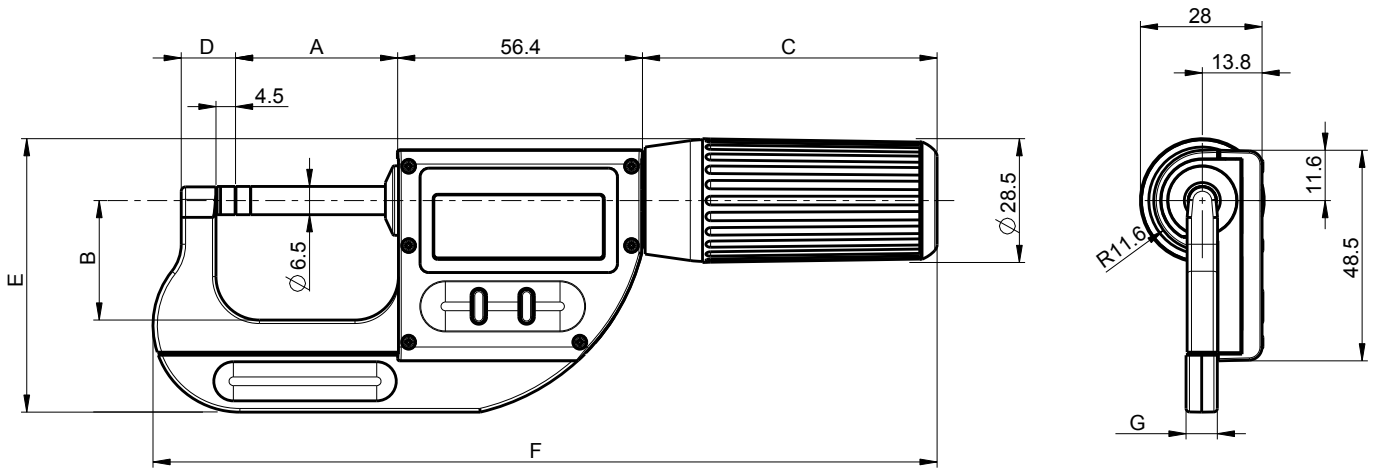


# Professional micrometer

# S\_Mike PRO Smart

## DIMENSIONAL DRAWING

## CYLINDRICAL Ø6.5 SMART



## TECHNICAL SPECIFICATIONS

		803-0306	903-0606	903-1006
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
Anvils types		Ø6.5 <sup>3)</sup>		
A	mm	37.3	73.3	109.3
B	mm	27.5	43	60
C	mm	68	74	74
D	mm	12.5	13.5	14.5
E	mm	63	86	106
F	mm	181	230	269
G	mm	7.2	9	9
Output data	Bluetooth® wireless technology*			
Prot. rating accor. to IEC 60529	IP67 even connected			
Setting by PC	●			
Adjustable measuring force	5N / 10N		10N	
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> Other anvils type on demand.

\* Up to 8 instruments connected per dongle #981-7100

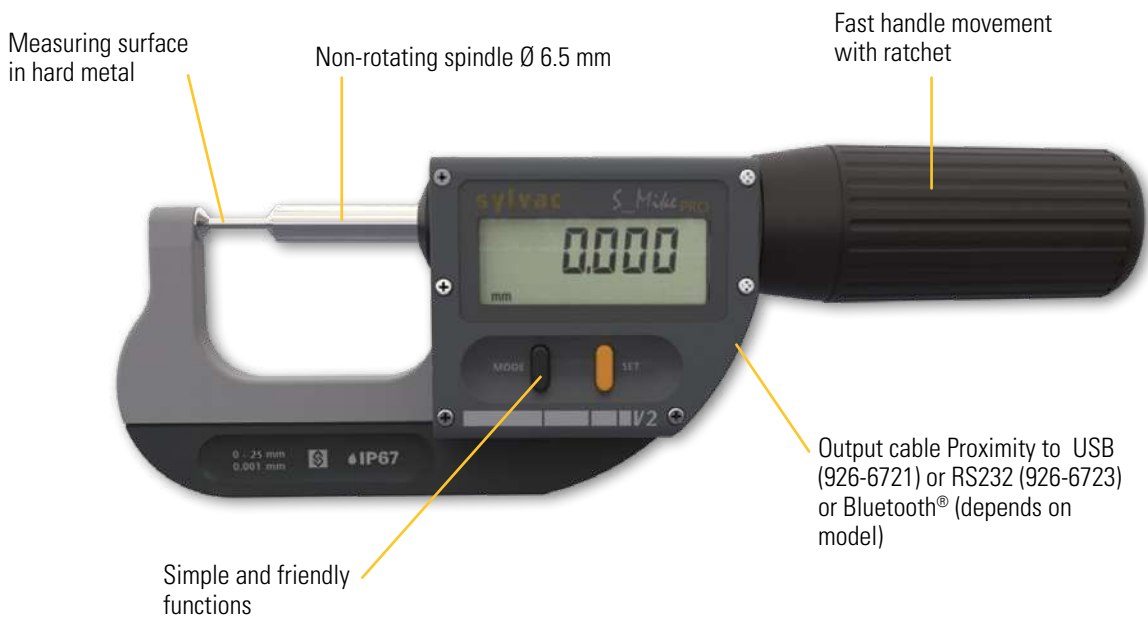
# Professional micrometer

# S\_Mike PRO

## DESCRIPTION

## CYLINDRICAL Ø2

- High-speed micrometer with non-rotating spindle with or without integrated Bluetooth® system
- Linear spindle feed 10 mm per revolution
- Tungsten carbide measuring anvils Ø 2 x 5 mm
- Possibility to obtain this micrometer with different diameter keys (more than 2 mm) on request.
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N for the 0-25 mm model
- Proximity data output for non-Bluetooth models
- All models are available in Bluetooth version on request.
- Measuring range up to 95 mm
- Protection class IP67



**DIN 863**



**SIS** Smart Inductive System



**IP67**

**SWISS MADE**

## Cylindrical Ø2mm



\* SIS description on page 5

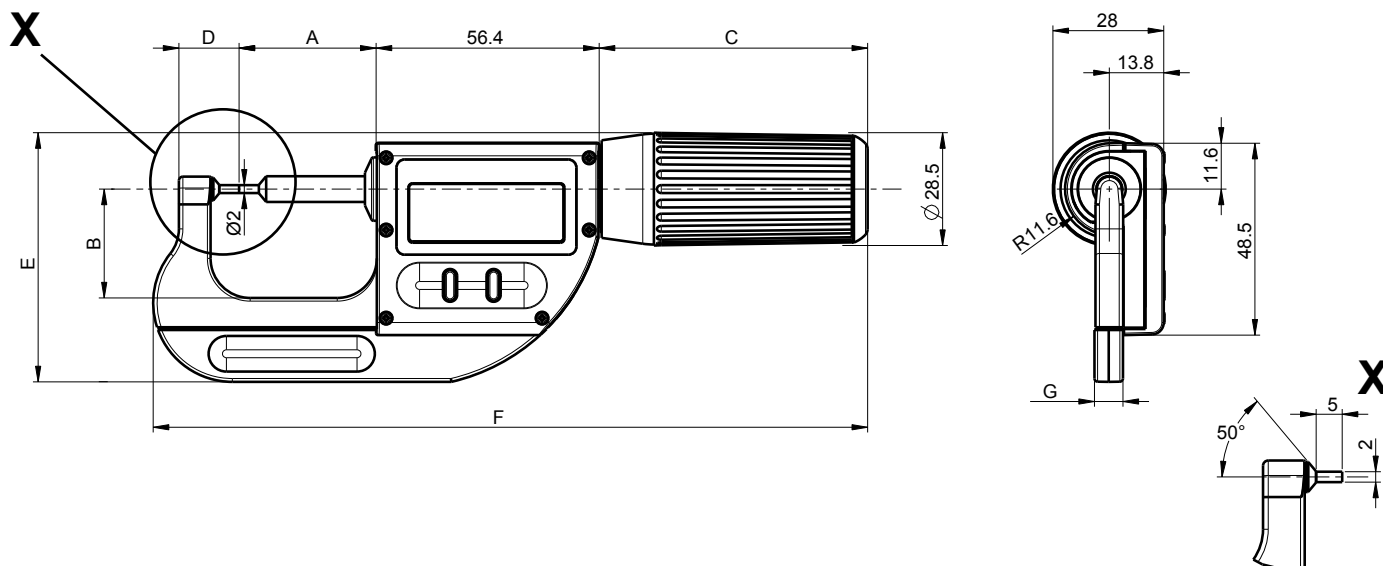


# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

## CYLINDRICAL Ø2



## TECHNICAL SPECIFICATIONS

		803-0301	903-0601	903-1001	803-0307
Measuring range	mm	0-25	25-60	60-95	0-25
Max. Error G <sup>1)</sup>	µm	3	4	5	3
Repeatability <sup>2)</sup>	µm	1	1	1	1
Anvils types			Ø2		Ø2
A	mm	34.6	70.6	106.6	34.6
B	mm	27.5	43	60	27.5
C	mm	68	74	74	68
D	mm	15.2	16.2	17.2	15.2
E	mm	63	86	106	63
F	mm	181	230	269	181
G	mm	7.2	9	9	7.2
Output data		USB / RS 232 <sup>3)</sup>			Bluetooth*
Prot. rating accor. to IEC 60529		IP67 even connected			
Setting by PC			●		
Adjustable measuring force		5N / 10N		10N	5N / 10N
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

**\* Up to 8 instruments connected per dongle #981-7100**

# Professional micrometer

# S\_Mike PRO

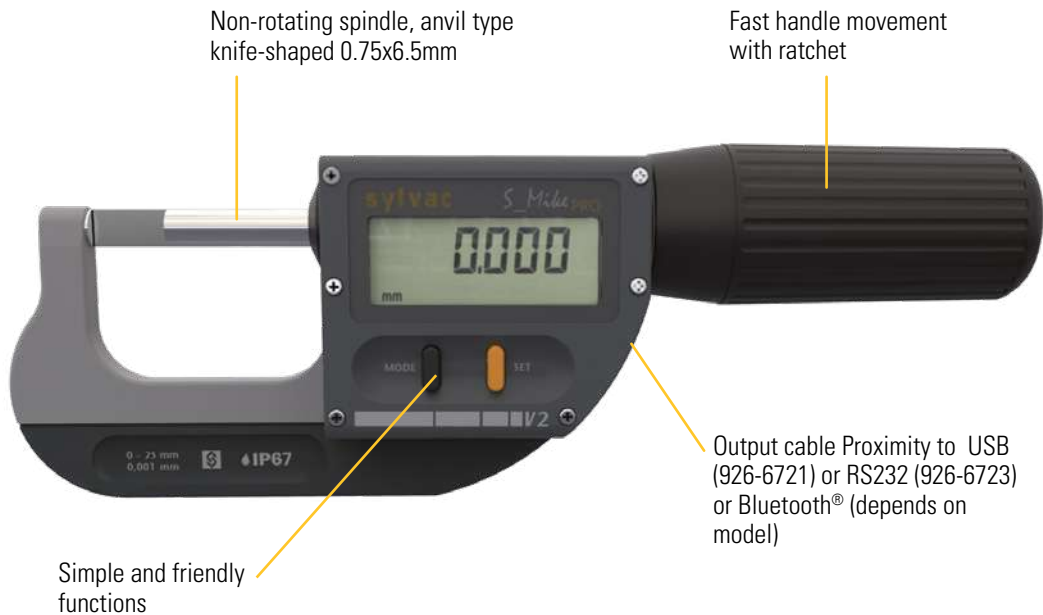
## DESCRIPTION

## KNIFE-SHAPED

- High-speed micrometer with non-rotating spindle with or without integrated Bluetooth® system
- Linear spindle feed 10 mm per revolution
- Tungsten carbide measuring anvils, knife type, thickness 0.75 x 6.5 mm
- Possibility to obtain this micrometer with anvils of different thickness (minimum 0.4 mm) on request.
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N for the 0-25 mm model
- Proximity data output for non-Bluetooth® models
- All models are available in Bluetooth® version on request.
- Measuring range up to 95 mm
- Protection class IP67



D



**DIN 863**



**SIS** Smart Inductive System



**IP67**



**Knife-shaped**



\* SIS description on page 5

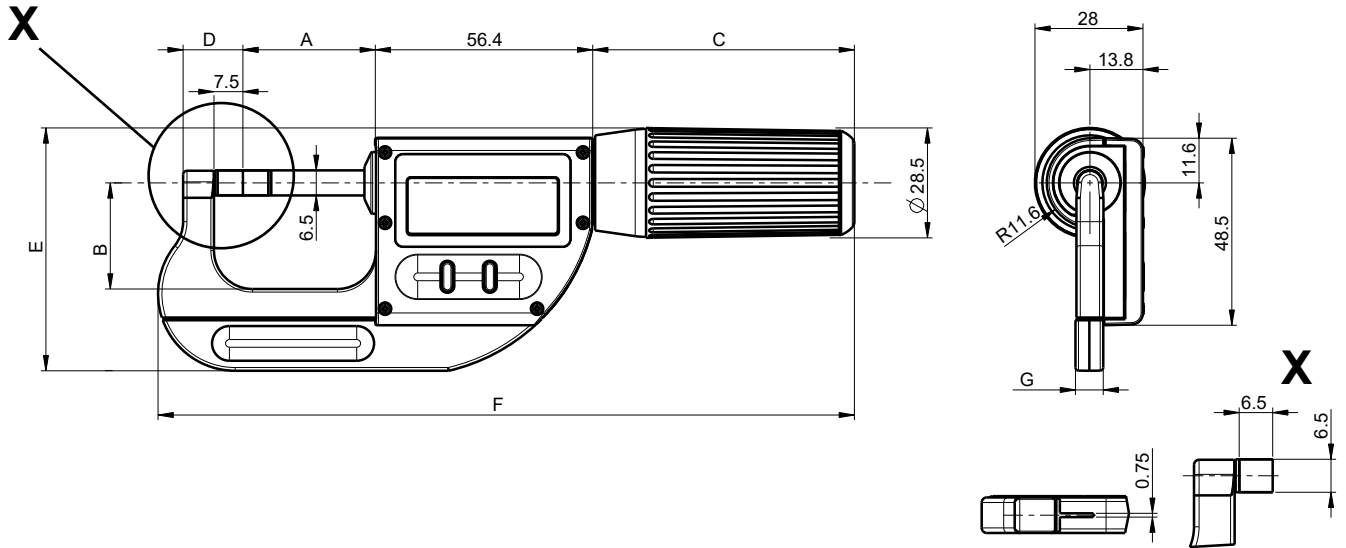


# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

## KNIFE-SHAPED



## TECHNICAL SPECIFICATIONS

		803-0302	903-0602	903-1002	903-1302	903-1602	803-0308
Measuring range	mm	0-25	25-60	60-95	95-130	120-155	0-25
Max. Error G <sup>1)</sup>	µm	3	4	5	6	7	3
Repeatability <sup>2)</sup>	µm	1	1	1	2	2	1
Anvils types		0.75x6.5					0.75x6.5
A	mm	34.3	70.3	106.3	140.3	165.3	34.3
B	mm	27.5	43	60	95	110	27.5
C	mm	68	74	74	74	74	68
D	mm	15.5	16.5	17.5	22.5	22.5	15.5
E	mm	63	86	106	151	169	63
F	mm	181	230	269	306	339	181
G	mm	7.2	9	9	9	9	7.2
Output data		USB / RS 232 <sup>3)</sup>					Bluetooth*
Prot. rating accor. to IEC 60529		IP67 even connected					
Setting by PC		●					
Adjustable measuring force		5N / 10N	10N				5N / 10N
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

\* Up to 8 instruments connected per dongle #981-7100

# Professional micrometer

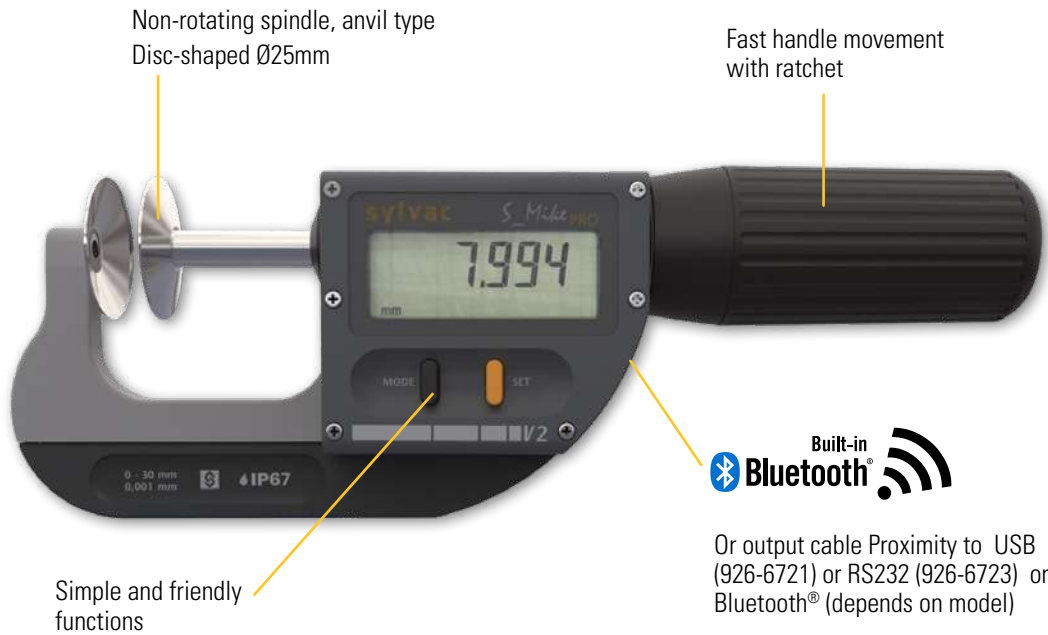
# S\_Mike PRO

## DESCRIPTION

## DISC-SHAPED

- High-speed micrometer with non-rotating spindle
- Linear spindle feed 10 mm per revolution
- Tungsten carbide measuring discs Ø 25 mm
- For technical reasons, this micrometer cannot be delivered with different discs.
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N
- Bluetooth® data output (Proximity data output for non-Bluetooth® models)
- Measuring range limited to 102 mm
- Protection class IP67

D



**DIN 863**

**SIS** Smart Inductive System

**WATER RESISTANT**

**IP67**

**SWISS MADE**

**Disc-shaped**

\* SIS description on page 5

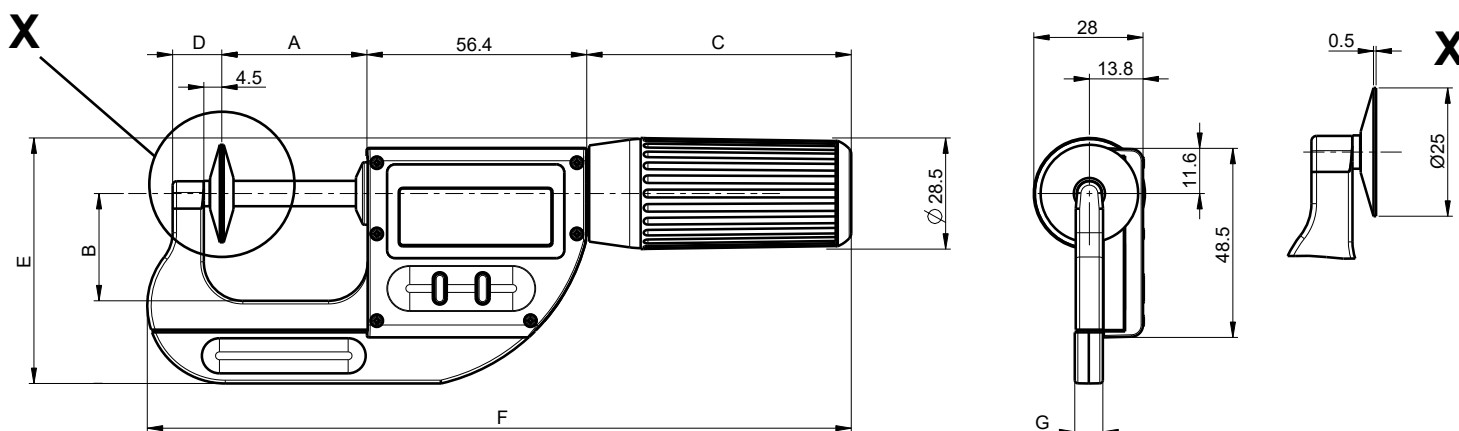


# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

## DISC-SHAPED



## TECHNICAL SPECIFICATIONS

		803-0303	803-0313	903-0613	903-1013
Measuring range	mm	0-30	0-30	30-66	66-102
Max. Error G <sup>1)</sup>	µm	4 (full-touch-contact) / 10 (partial contact)		5 (full-touch-contact) / 11 (partial contact)	6 (full-touch-contact) / 12 (partial contact)
Repeatability <sup>2)</sup>	µm	1			
Flatness	µm	2			
Parallelism	µm	5 (full-touch-contact) / 10 (partial contact)		6 (full-touch-contact) / 12 (partial contact)	6 (full-touch-contact) / 12 (partial contact)
Gear unit		Measurable module ≥ 0.5			
Anvils types		Ø25			
Output data		USB / RS 232 <sup>3)</sup>	Bluetooth® wireless technology*		
Prot. rating accor. to IEC 60529		IP67 even connected			
A		37.3	37.3	73.3	109.3
B		27.5	27.5	43	60
C		68	68	74	74
D		12.5	12.5	13.5	14.5
E		63	63	86	106
F		181	181	230	269
G		7.2	7.2	9	9
Setting by PC		●			
Measuring force		5N / 10N	5N / 10N	5N	
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

\* Up to 8 instruments connected per dongle #981-7100



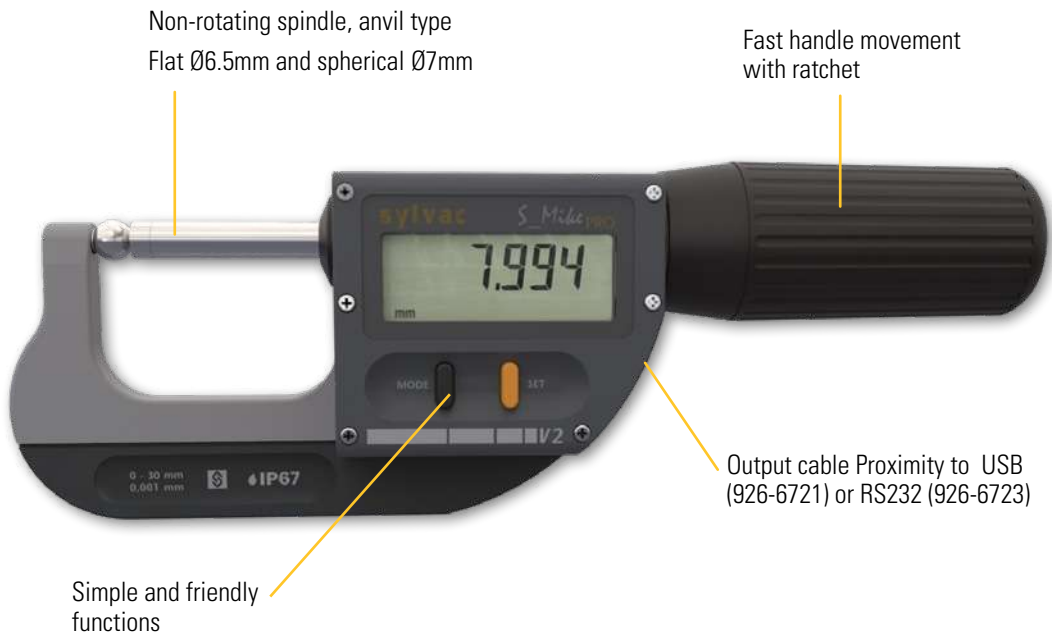
# Professional micrometer

# S\_Mike PRO

## DESCRIPTION

FLAT Ø6.5 / SPHERICAL Ø7

- High-speed micrometer with non-rotating spindle
- Linear spindle feed 10 mm per revolution
- Tungsten-carbide measuring anvils with a fixed Ø 7 mm ball probe on the fixed side and a flat Ø 6.5 mm probe on the movable side.
- For technical reasons, this micrometer cannot be delivered with different anvils.
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N
- Proximity data output
- This model is available in Bluetooth® version on request.
- Measuring range limited to 30 mm
- Protection class IP67



**DIN 863**

**PROXIMITY**

**SIS** Smart Inductive System

**WATER RESISTANT**

**IP67**

**SWISS MADE**

**Flat Ø6.5mm / Spherical Ø7mm**

\* SIS description on page 5

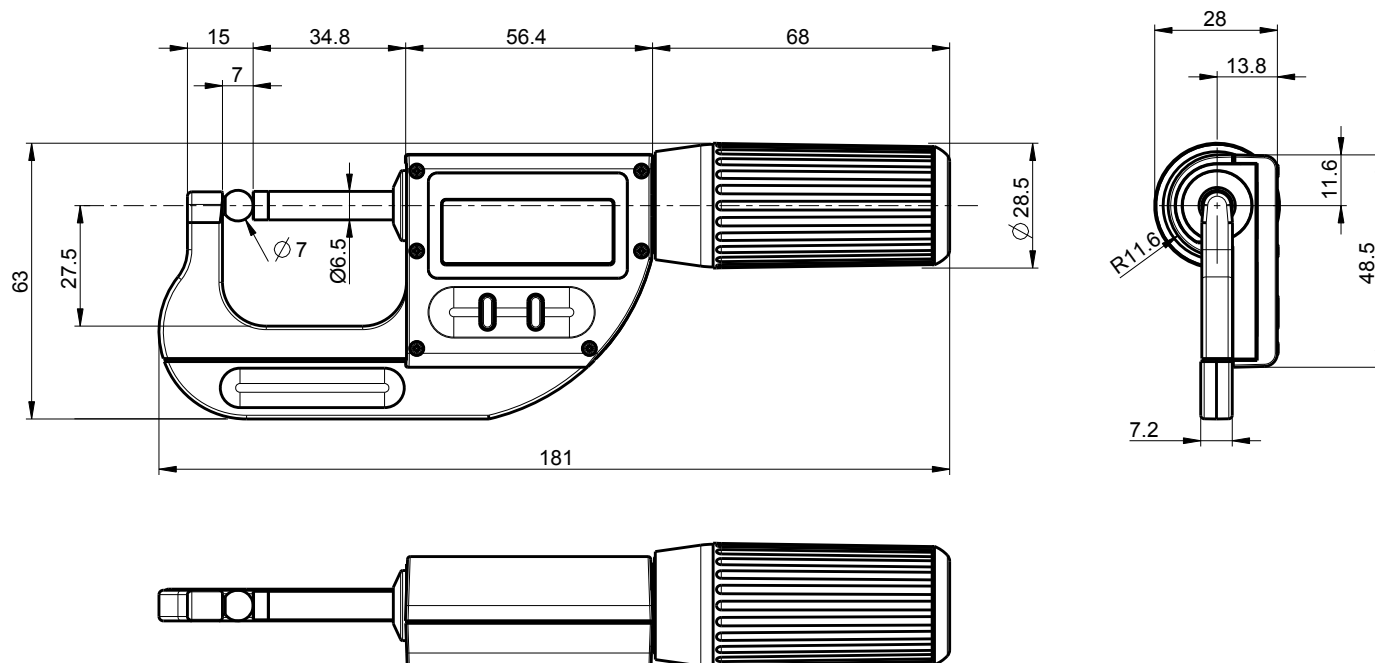


# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

FLAT Ø6.5 / SPHERICAL Ø7



D

## TECHNICAL SPECIFICATIONS

		<b>803.0304</b>
Measuring range	mm	0-30
Max. Error G <sup>1)</sup>	µm	3
Repeatability <sup>2)</sup>	µm	1
Parallelism	µm	1
Anvils types		Ø7 flat and Ø7 spherical
Output data		USB / RS 232 / Wireless <sup>3)</sup>
Prot. rating accor. to IEC 60529		IP67 even connected
Setting by PC		●
Adjustable measuring force		5N / 10N
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

# Professional micrometer

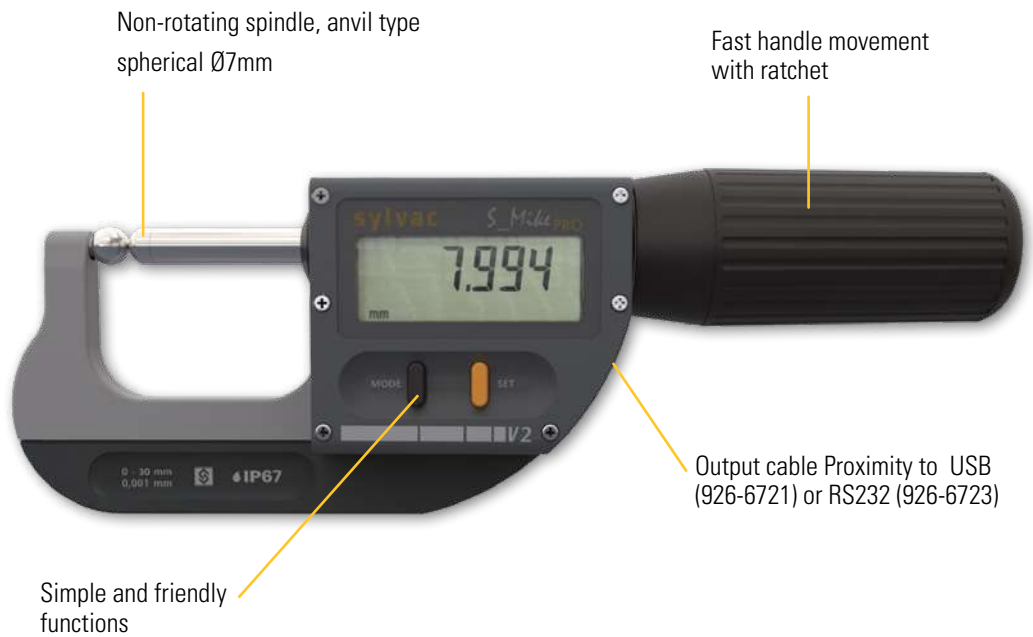
# S\_Mike PRO

## DESCRIPTION

## SPHERICAL Ø7

- High-speed micrometer with non-rotating spindle
- Linear spindle feed 10 mm per revolution
- Tungsten-carbide measuring anvils with fixed side a complete sphere Ø 7 mm and movable side a spherical probe with a radius of 3.5 mm
- For technical reasons, this micrometer cannot be delivered with different anvils.
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N
- Proximity data output
- This model is available in Bluetooth® version on request.
- Measuring range limited to 30 mm
- Protection class IP67

D



**DIN 863**

**PROXIMITY**

**SIS** Smart Inductive System

**WATER RESISTANT**

**IP67**

**SWISS MADE**

## Spherical Ø7mm

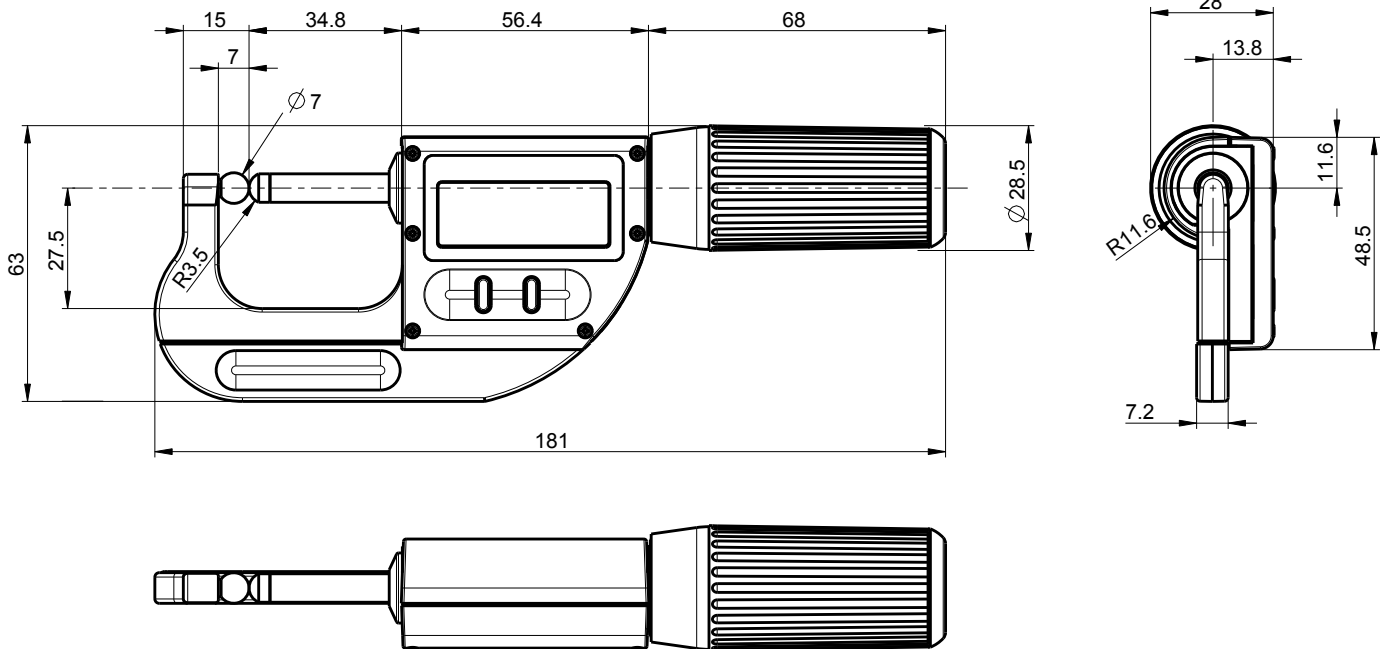
\* SIS description on page 5

# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

## SPHERICAL Ø7



D

## TECHNICAL SPECIFICATIONS

		803.0305
Measuring range	mm	0-30
Max. Error G <sup>1)</sup>	$\mu\text{m}$	4
Repeatability <sup>2)</sup>	$\mu\text{m}$	1
Anvils types		$\phi 7$ (2 spherical)
Output data		USB / RS 232 / Wireless <sup>3)</sup>
Prot. rating accor. to IEC 60529		IP67 even connected
Setting by PC		●
Adjustable measuring force		5N / 10N
Non-rotating spindle		●
Fast movement		●
Preset function		●
Smart Inductive Sensor		●

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

<sup>2)</sup>  $\pm 1$  digit

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

# Professional micrometer

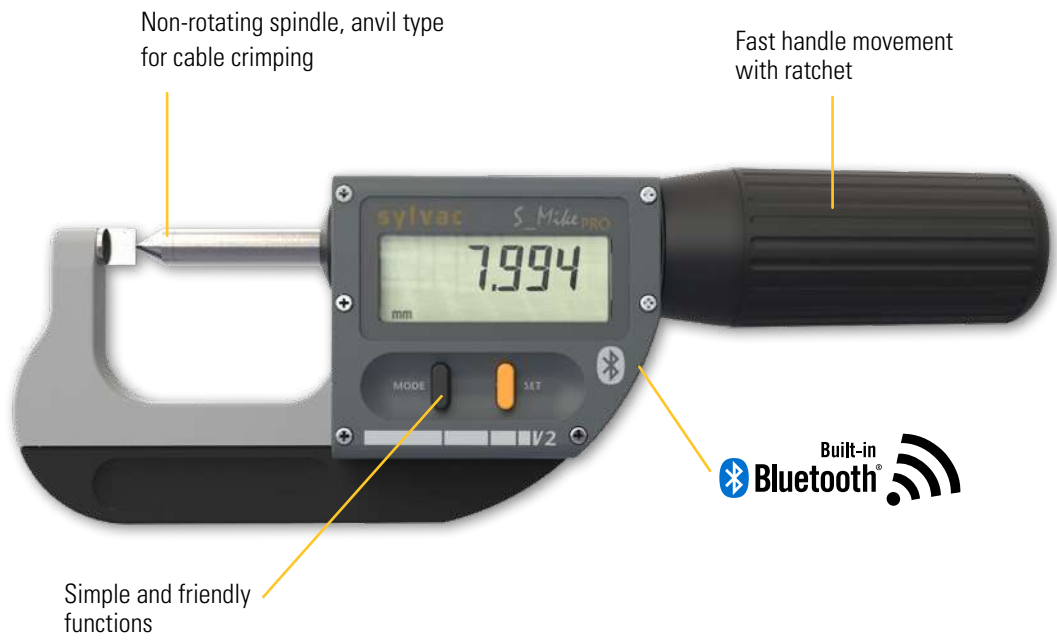
# S\_Mike PRO

## DESCRIPTION

## KNIFE-SHAPED / CONE

- High-speed micrometer with non-rotating spindle and integrated Bluetooth® system
- Linear spindle feed 10 mm per revolution
- Special instrument for checking the crimping of electrical cables
- Tungsten-carbide measuring anvils with fixed anvil side, one knife anvil 0.5 x 6.6 mm thick and movable anvil side, one conical anvil 5.2 mm wide.
- For technical reasons, this micrometer cannot be delivered with different anvils.
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N
- Measuring range limited to 25 mm
- Protection class IP67

D



**DIN 863**

Built-in Bluetooth

SIS Smart Inductive System  
WATER RESISTANT

**IP67**

**SWISS MADE**

**Knife-shaped 0.5mm - cone 60°/Ø0.5mm**

\* SIS description on page 5



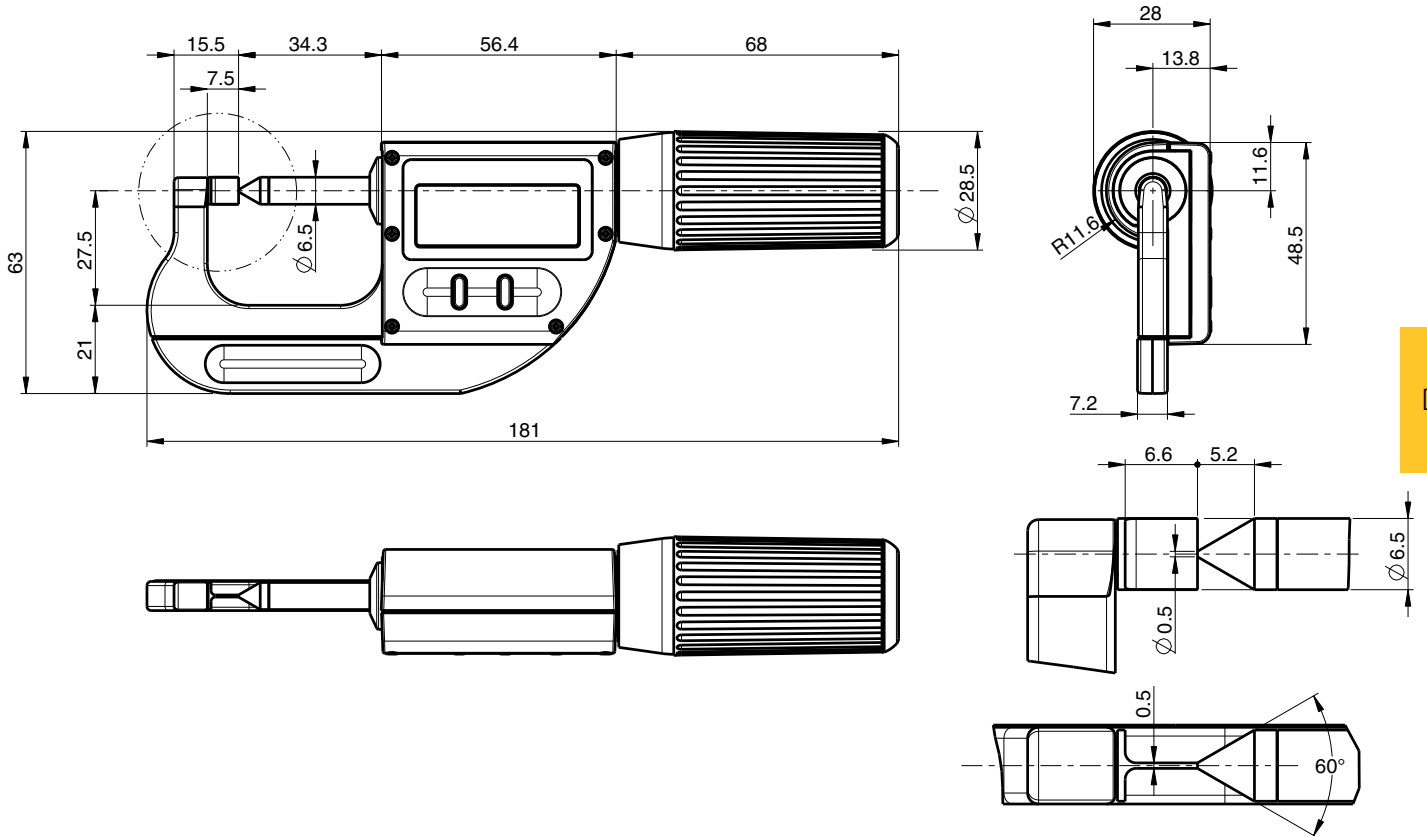
# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

## KNIFE-SHAPED / CONE

### Built-in Bluetooth **Cable crimping**



## TECHNICAL SPECIFICATIONS

		803-0309
Measuring range	mm	0-25
Max. Error G <sup>1)</sup>	µm	3
Repeatability <sup>2)</sup>	µm	1
Anvils types		Knife 0.5mm - cone 60°/Ø0.5mm
Output data		Bluetooth® wireless technology*
Prot. rating accor. to IEC 60529		IP67 even connected
Setting by PC		●
Adjustable measuring force		5N / 10N
Non-rotating spindle		●
Fast movement		●
Preset function		●
Smart Inductive Sensor		●

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

<sup>2)</sup> ± 1 digit

\* Up to 8 instruments connected per dongle #981-7100

# Professional micrometer

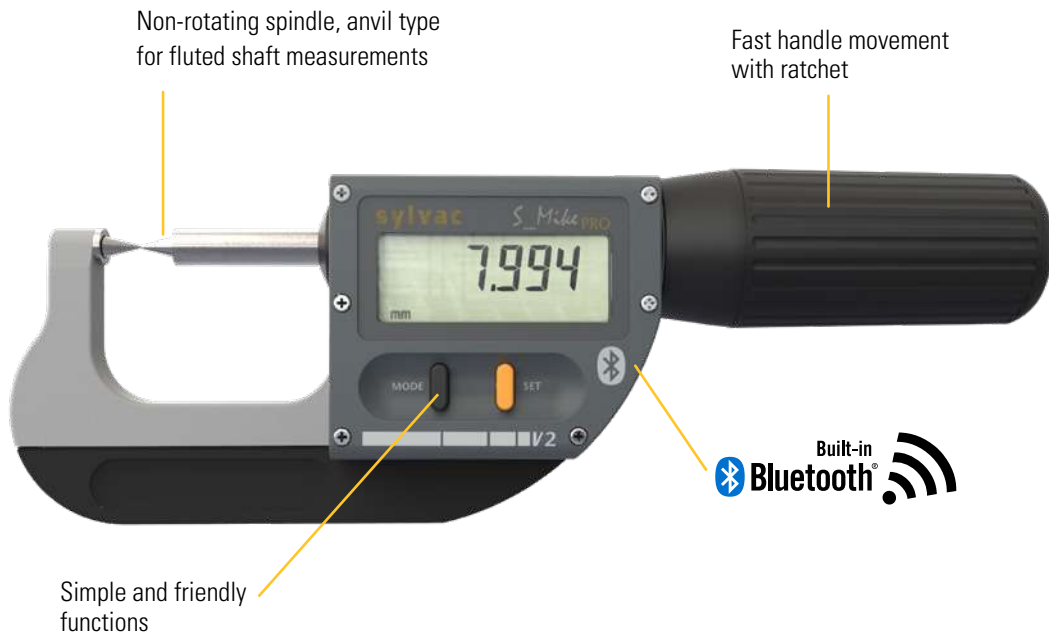
# S\_Mike PRO

## DESCRIPTION

## POINT / SPHERICAL

- High-speed micrometer with non-rotating spindle and integrated Bluetooth® system
- Linear spindle feed 10 mm per revolution
- Special instrument for checking splines
- 30° tapered hard metal measuring anvils with a small radius of 0.3 mm at the tip
- For technical reasons, this micrometer cannot be delivered with different anvils.
- Display resolution 0.001 mm
- Ratchet system cancels operator influence and guarantees excellent repeatability
- Switchable measuring force 5 or 10 N
- Measuring range limited to 25 mm
- Protection class IP67

D



**DIN 863**

Built-in **Bluetooth®**

**SIS** Smart Inductive System

WATER RESISTANT

**IP67**

**SWISS MADE**

**Point 30° - Spherical R0.3mm**

\* SIS description on page 5



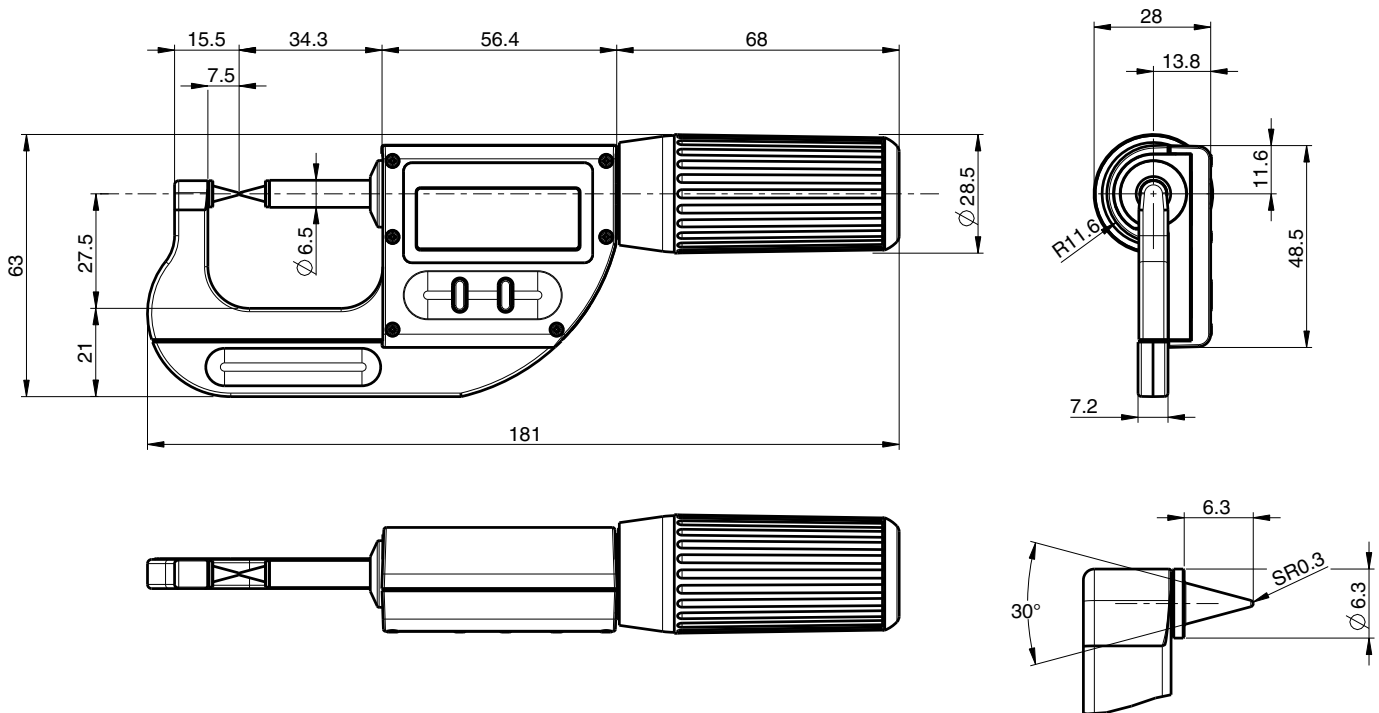
# Professional micrometer

# S\_Mike PRO

## DIMENSIONAL DRAWING

## POINT / SPHERICAL

### Built-in Bluetooth® **Fluted Shaft**



## TECHNICAL SPECIFICATIONS

		803-0310
Measuring range	mm	0-25
Max. Error G <sup>1)</sup>	$\mu\text{m}$	3
Repeatability <sup>2)</sup>	$\mu\text{m}$	1
Anvils types		Point 30° - spherical R0.3mm
Output data		Bluetooth® wireless technology*
Prot. rating accor. to IEC 60529		IP67 even connected
Setting by PC		●
Adjustable measuring force		5N / 10N
Non-rotating spindle		●
Fast movement		●
Preset function		●
Smart Inductive Sensor		●

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

<sup>2)</sup> ± 1 digit

\* Up to 8 instruments connected per dongle #981-7100



# Professional micrometer

# S\_Mike PRO

## STANDARD DELIVERY



903-1301



910-1301 including:  
910-1502, 903-0300 and 903-0330



910-1304 including:  
810-1506, 803-0306 and 805-6301

		903-1300	903-1301	910-1301	910-1304	903-1306
Measuring range	mm	0-102	0-102	150 / 0-30	150 / 0-30 / 12.5	0-102
Plastic case		●	-	-	●	●
Aluminium case		-	●	●	-	-
Output data		USB / RS 232			Bluetooth®	

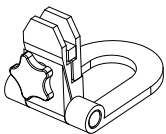
## STANDARD DELIVERY

- Instrument according to technical specifications
- Setting master 50 mm (for 903-060X)
- Setting master 75 mm (for 903-100X)
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate

## MICROMETERS SETS

- 803-0300 / 903-0600 / 903-1000
- Setting master 50 mm
- Setting master 75 mm
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate

## ACCESSORIES



<b>903-0330</b>	Stand
<b>903-0620</b>	Setting master 50 mm
<b>903-1020</b>	Setting master 75 mm
<b>903-1620</b>	Setting master 125 mm



# Professional micrometer

# S\_Mike PRO

## MODELS



Cylindrical Ø6.5mm Proximity /  
Cylindrical Ø6.5mm Smart



Disk Ø25mm



Ball-Ball Ø7mm



Flat Ø6.5mm-Ball Ø7mm



Knife 0.75x6.5mm



Cylindrical Ø2mm



Cable crimping Knife 0.5mm -  
cone 30° / Ø0.5mm Smart



Fluted Shaft - Point 30° - ball  
Ø0.3mm Smart

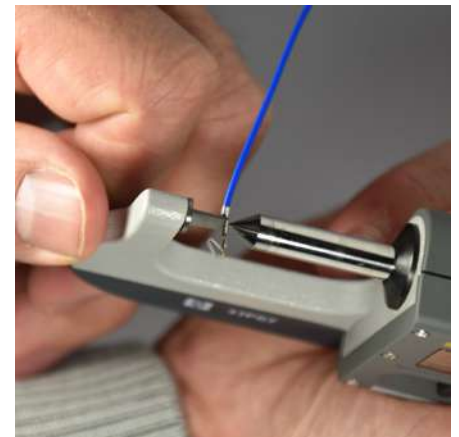
## APPLICATIONS



Part measurement with a S\_Mike PRO Disk



Length measurement of a lathed part



Cable crimping measurement



# Professional micrometer

# S\_Mike EVO

## DESCRIPTION

CYLINDRICAL Ø6.5

- New rotating spindle micrometer with integrated Bluetooth® system
- Spindle feed rate 1 mm per revolution
- Tungsten carbide measuring anvils Ø 6.5 mm
- Large XXL display with 0.001 mm resolution
- Measuring force 10N
- Measuring range up to 100mm
- Protection class IP67

D

Measuring surface in hard metal

Rotating spindle Ø 6.5 mm

Fast handle movement



Output Bluetooth® Wireless technology

Simple and friendly functions

\* instrument soon available

**DIN 863**

Built-in **Bluetooth**

**SIS** Smart Inductive System

WATER RESISTANT

**IP67**



Mounting unit (on request)

\* SIS description on page 5

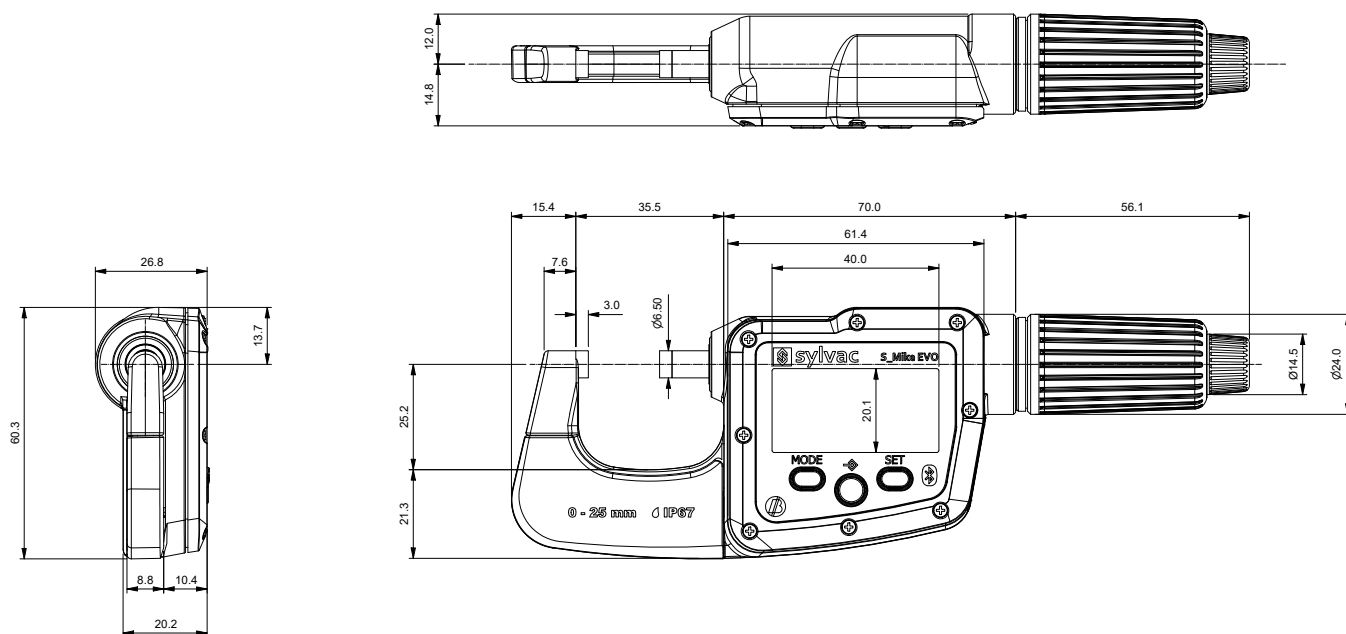


# Professional micrometer

# S\_Mike EVO

## DIMENSIONAL DRAWING

## CYLINDRICAL Ø6.5



## TECHNICAL SPECIFICATIONS

		803-6025	803-6050	803-6075	803-6100
Measuring range	mm	0-25	25-50	50-75	75-100
Max. Error G <sup>1)</sup>	µm	3	4	5	7
Repeatability <sup>2)</sup>	µm	1	1	1	2
Anvils types		Ø6.5			
L	mm	35.5	61	86	112
B	mm	7.5	11	12	13
C	mm	25	37	50	63
D	mm	3	3	3	3
Output data		Bluetooth® wireless technology*			
Prot. rating accor. to IEC 60529		IP67 even connected			
Setting by PC		●			
Measuring force		10N			
Rotating spindle		●			
Advance		1mm/rotation			
Preset function		●			
Smart Inductive Sensor		●			

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

<sup>2)</sup> ± 1 digit

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

\* Up to 8 instruments connected per dongle #981-7100

D

# SMALL & MID-SIZE INSTRUMENTS

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This chapter brings together various instruments, some of which may seem unusual at first glance, but which have provided a vital solution for clients for whom mistakes are forbidden. The star of this section is undoubtedly our set of digital thickness gages, which is a marvellous illustration of Sylvac's boundless ingenuity. You will also find other instruments such as an angle protractor, micrometric screws and depth gages, all of which can be connected either via Bluetooth® or cable.

## GENERAL CHARACTERISTICS :

- **Powered by lithium battery type CR2032**
- **Absolute measuring system S.I.S**
- **Automatic sleep and wake-up**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**







# Digital thickness gage

# Feeler Gage Smart

## DESCRIPTION

- World novelty, the first set of thickness gages with digital display of the total thickness of all feelers removed from the case.
- Integrated Bluetooth® system
- Developed for sensitive applications (aerospace, automotive, defence, etc.) where error is prohibited
- Available with steel feelers with thickness in mm or inches.
- Accuracy of feeler thickness according to DIN 2275: 2014-03 class TC1
- Sets in mm with 19 or 20 feelers, useful length 99 mm
- Set in inch with 14 feelers, usable length 3.9"
- Individual replacement feelers available on request
- Display resolution 0.01 mm and .001».
- IP65 protection



E



Transmission of data into any software or application, without dongle. Can be used with Microsoft (W7, 8, 10), Android or Apple.

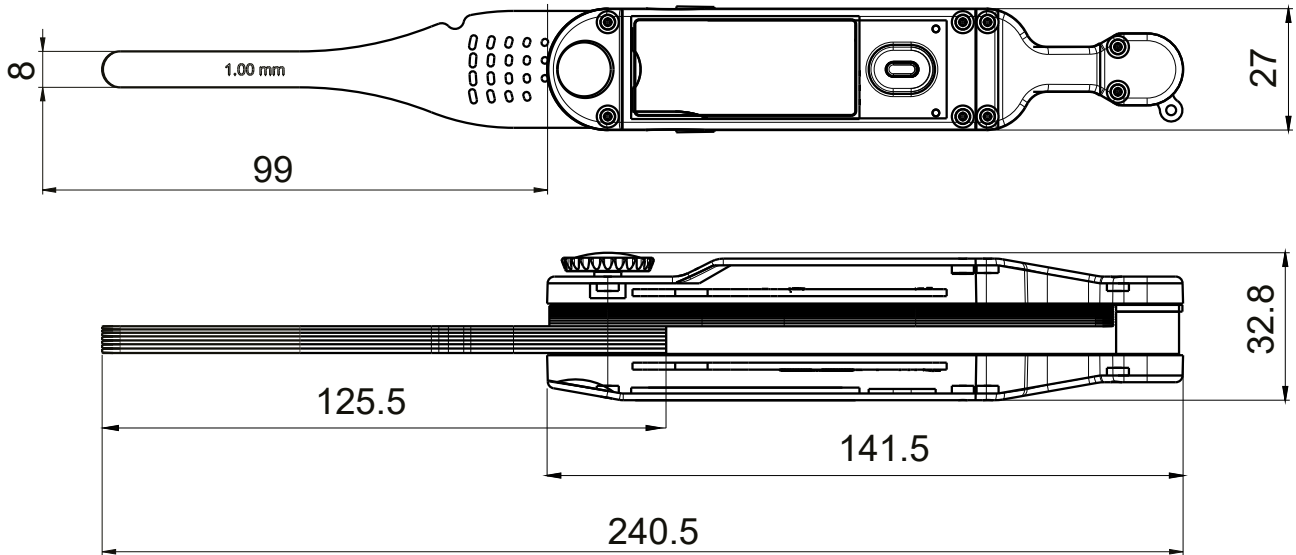




# Digital thickness gage

# Feeler Gage Smart

## DIMENSIONAL DRAWING



### Model 921-0100

The thickness may differ slightly for the other models according to the number of gages.

## TECHNICAL SPECIFICATIONS

		921-0100	921-0110	921-0114
Type of version		mm	mm	inch
Measurement capacity	mm/in	0.05...1.00 mm	0.04...1.00 mm	0.0020...0.0310 in
Feelers thickness	mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00	0.0020, 0.0030, 0.0040, 0.0050, 0.0060, 0.0070, 0.0080, 0.0090, 0.0100, 0.0120, 0.0150, 0.0200, 0.0250, 0.0310
Usable length	mm	99		
Thickness Tolerance Class according to DIN 2275		TC1		
Protection rating according to IEC 529		IP65		
Output data		Bluetooth® wireless technology*		
Number of feelers		20	19	14
Weight	g	280	224	212
Functions		Unit (mm/inch)		

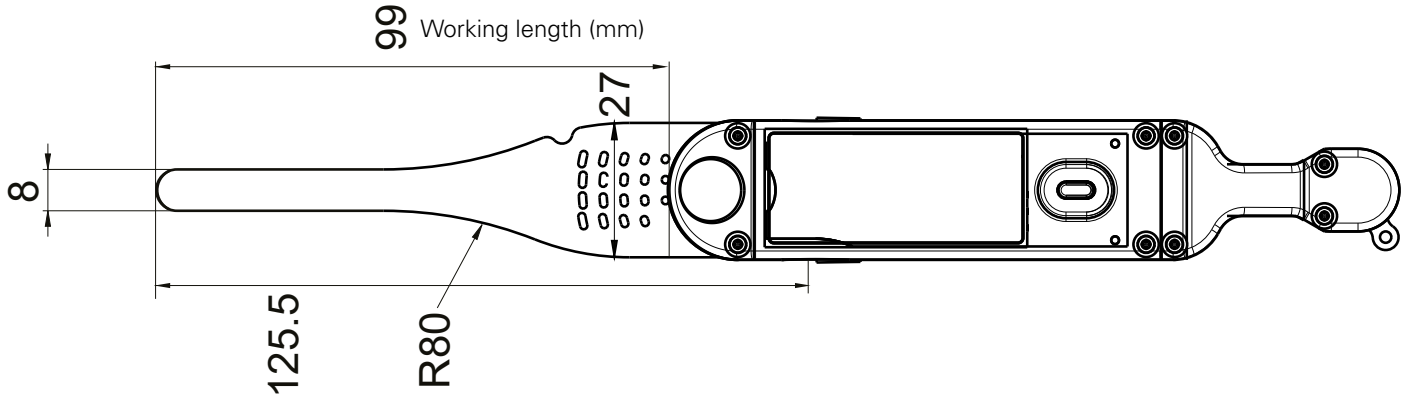




# Digital thickness gage

# Feeler Gage Smart

## REPLACEMENT FEELERS



**Model 921-0100**  
Metric Feeler Gage  
0.05...1.00mm  
20 blades

**Model 921-0110**  
Metric Feeler Gage  
0.04...1.00mm  
19 blades

**Model 921-0114**  
Imperial Feeler Gage  
0.0020...0.0310in  
14 blades

Reference	Thickness (mm)	Tolerance (mm)
921-1001	0.05	±0.004
921-1006	0.10	±0.005
921-1007	0.15	±0.006
921-1008	0.20	±0.006
921-1009	0.25	±0.007
921-1010	0.30	±0.007
921-1011	0.35	±0.008
921-1012	0.40	±0.009
921-1013	0.45	±0.009
921-1014	0.50	±0.010
921-1015	0.55	±0.011
921-1016	0.60	±0.011
921-1017	0.65	±0.012
921-1018	0.70	±0.012
921-1019	0.75	±0.013
921-1020	0.80	±0.014
921-1021	0.85	±0.014
921-1022	0.90	±0.015
921-1023	0.95	±0.016
921-1024	1.00	±0.017

Reference	Thickness (mm)	Tolerance (mm)
921-1000	0.04	±0.004
921-1001	0.05	±0.004
921-1002	0.06	±0.004
921-1003	0.07	±0.004
921-1004	0.08	±0.004
921-1005	0.09	±0.004
921-1006	0.10	±0.005
921-1007	0.15	±0.006
921-1008	0.20	±0.006
921-1009	0.25	±0.007
921-1010	0.30	±0.007
921-1011	0.35	±0.008
921-1012	0.40	±0.009
921-1014	0.50	±0.010
921-1016	0.60	±0.011
921-1018	0.70	±0.012
921-1020	0.80	±0.014
921-1022	0.90	±0.015
921-1024	1.00	±0.017

Reference	Thickness (in)	Tolerance (mm)
921-1025	0.0020	±0.004
921-1026	0.0030	±0.004
921-1027	0.0040	±0.004
921-1028	0.0050	±0.005
921-1029	0.0060	±0.005
921-1030	0.0070	±0.006
921-1031	0.0080	±0.006
921-1032	0.0090	±0.006
921-1033	0.0100	±0.006
921-1034	0.0120	±0.007
921-1035	0.0150	±0.008
921-1036	0.0200	±0.009
921-1037	0.0250	±0.011
921-1038	0.0301	±0.012

Material of the feelers : spring tempered stainless steel 1.4310 / alloy 301



# Digital thickness gage

# Feeler Gage Smart

## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Instruction manual
- Lanyard

## APPLICATIONS



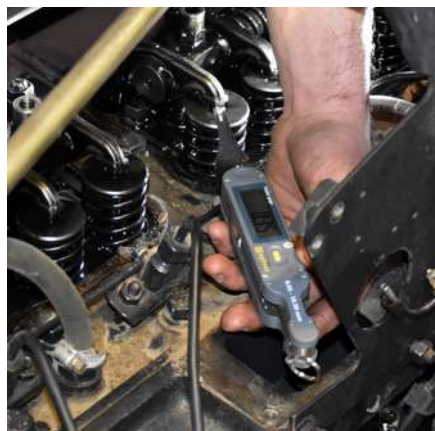
Gap measurement



Gap measurement



Gap setting



Valve adjustment



Data transmission via HID

E



# Digital micrometer screws

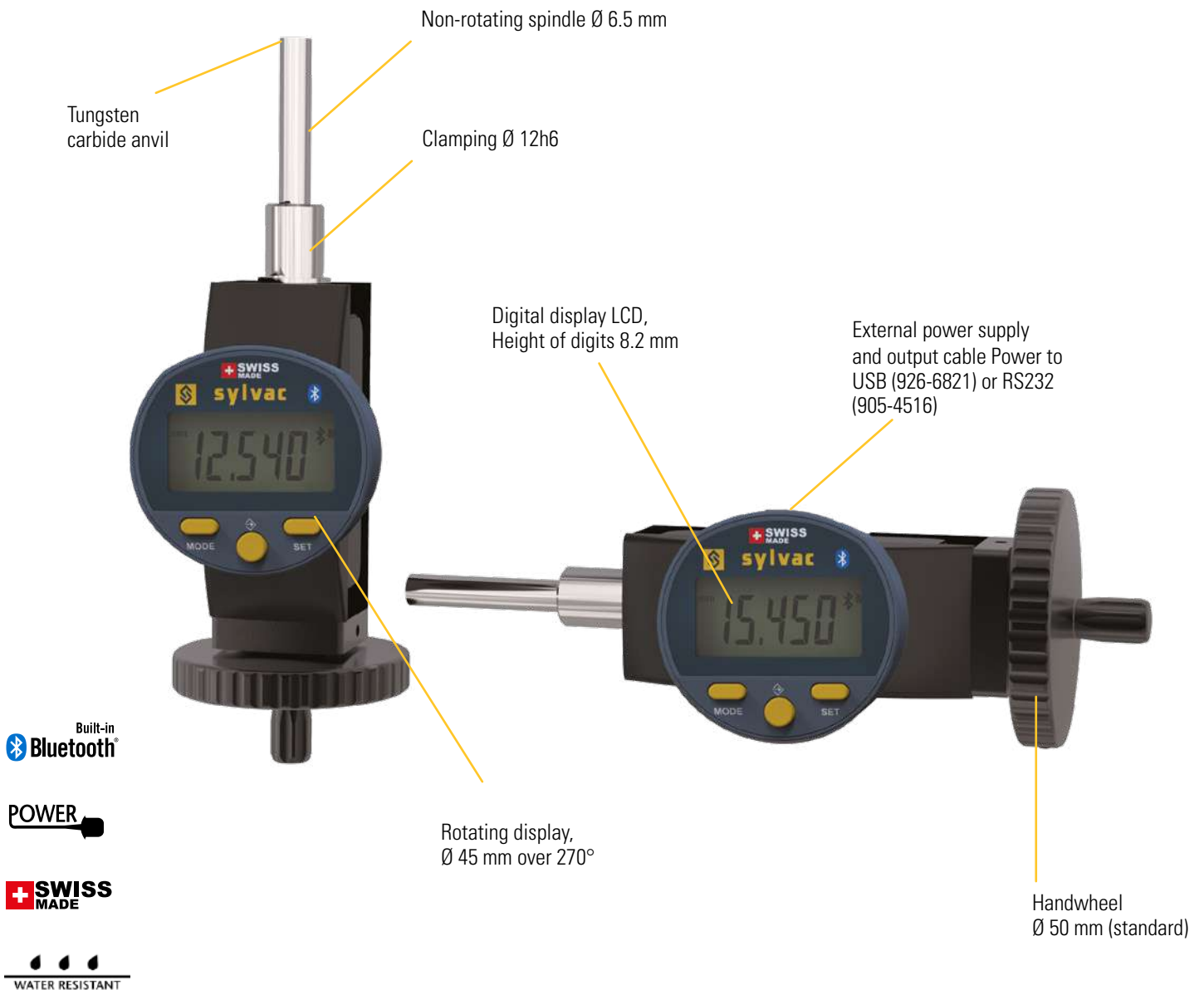
# S\_Screw Smart

## DESCRIPTION

- Digital micrometric screws with  $\varnothing$  45 mm dial rotatable by 270° allowing use in the X or Y axis
- Integrated Bluetooth® system
- Developed mainly to equip X-Y measuring tables (measuring microscopes)
- Display resolution 0.001 mm
- Non-turnable spindle  $\varnothing$  6.5 with hard metal tip
- Fixing by  $\varnothing$  12 h6
- Steering wheel  $\varnothing$  50 mm
- Additional data output Power
- Measuring range 25 and 50 mm
- IP54 protection



E

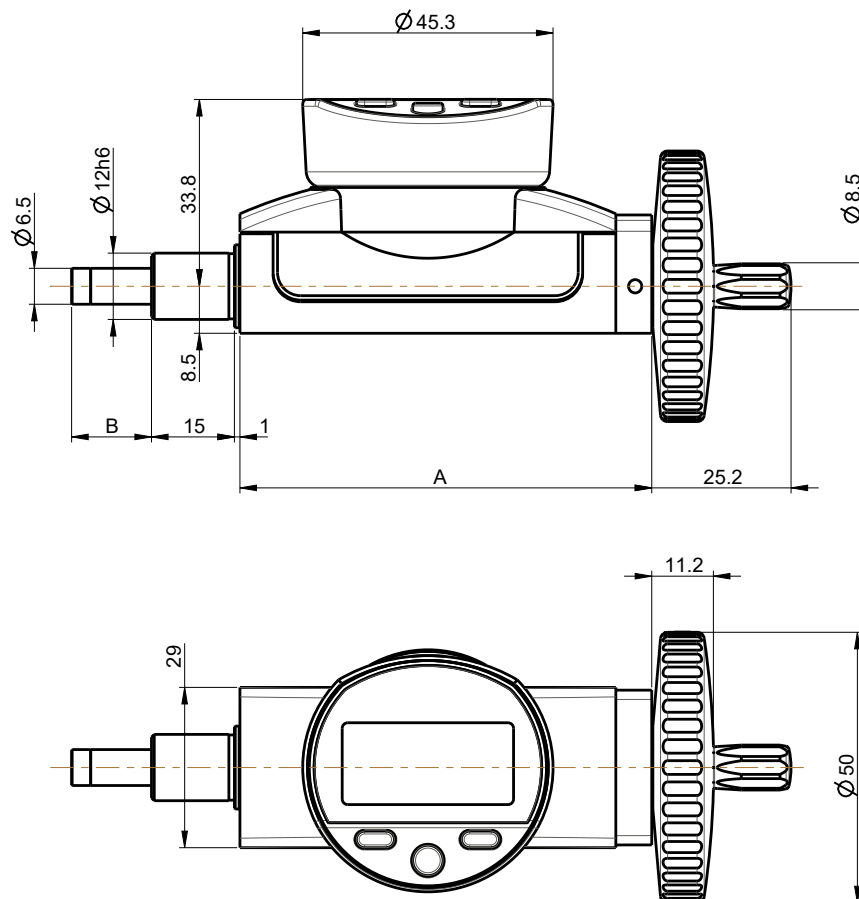




# Digital micrometer screws

# S\_Screw Smart

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		852-2601	852-2611
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
Output data		Bluetooth® wireless technology* / USB / RS232 <sup>1)</sup>	
Selection of measuring direction		●	
PRESET function		●	
4 measurement references		●	
Multiplication factor		●	

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

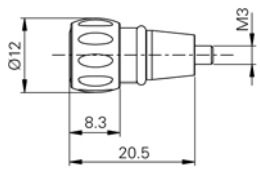
# Digital micrometer screws

# S\_Screw Smart

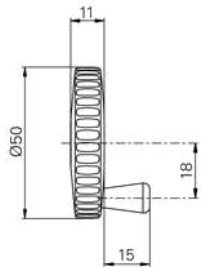
## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Quickstart
- Handwheel Ø 50 mm (852-2311)
- Calibration certificate

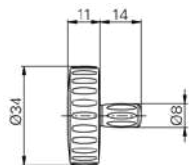
## ACCESSORIES



**852.2310** Fine adjustment device



**852.2311** Handwheel Ø 50 mm with crank handle for fast motion



**852.2312** Handwheel Ø 34 mm

## APPLICATIONS



Fine adjustment device type 852.2310



Use on measuring microscope



Handwheel use

E



# Protractor

# Protractor Smart

## DESCRIPTION

- Protractor with integrated Bluetooth® system
- Housing Ø 59.5 mm rotatable by 270°.
- Large display with colour LED tolerance status indication
- Angular value display in : Degrees, resolution 0.01° / Degrees/minute, resolution 0°01' / Radian, resolution .0001
- Three buttons, including the central button with selectable favourite function
- Ruler length 200 mm (other lengths available as an option)
- Measuring range: 1 x 360°, 2 x 180°, 4 x 90°.
- Additional data outputs Proximity and Power
- Protection class IP54



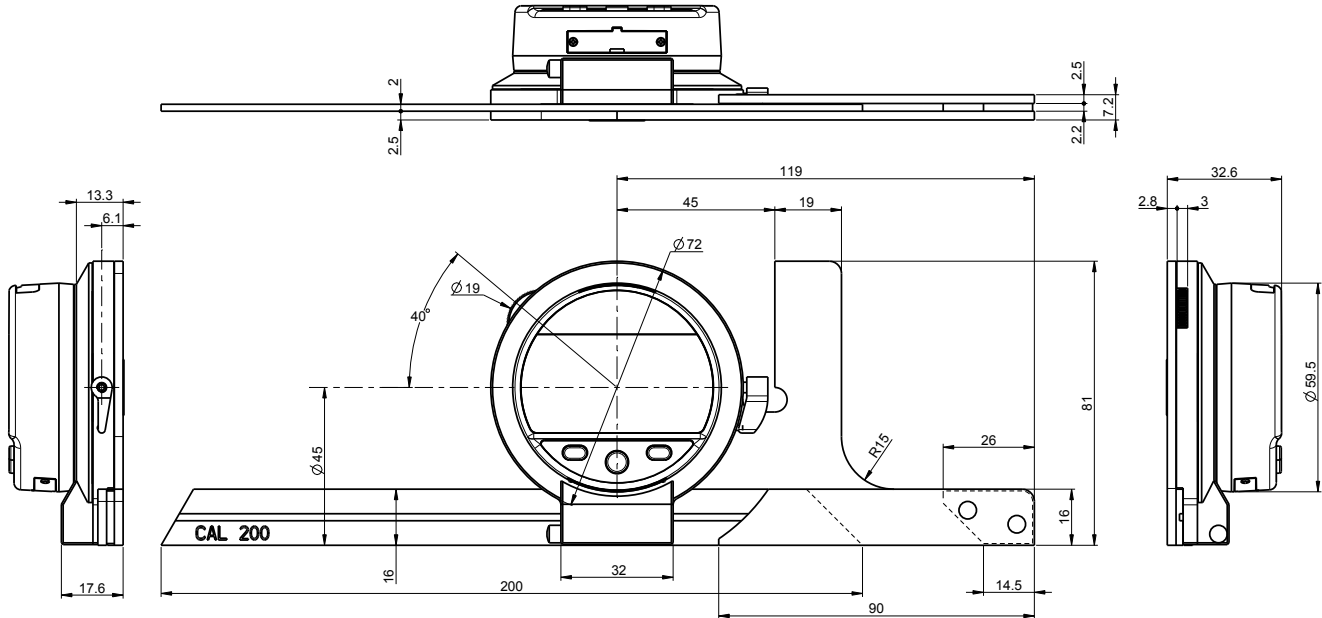
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# Protractor

# Protractor Smart

## DIMENSIONAL DRAWING



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## TECHNICAL SPECIFICATIONS

	820-1706
Measuring range	1x360°, 2x180°, 4x90°
Accuracy	4 minutes of arc / 0.06° / 0.0012 rad
Resolution	0.01° / 1 minute of arc (0°01') / 0.0001rad
Repeatability	0.01°
Max. rotation speed	1080° / sec
Protection rating according to IEC 529	IP54
Output data	Bluetooth® wireless technology* / USB / RS232
Functions	Unit (dEG, rAd or d-A), reference, Preset, Measurement direction, mode MIN/MAX/DELTA, tolerance display, switch off, keypad lock

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

**\* Up to 8 instruments connected per dongle #981-7100**  
 More informations on How to use Bluetooth® leaflet SYL\_1401\_EN\_BT

## STANDARD DELIVERY

- Instrument according to technical specifications
- Wooden box <sup>2)</sup>
- Scale 200 mm (820-2420)
- Lithium battery CR2032 included
- Instruction manual

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

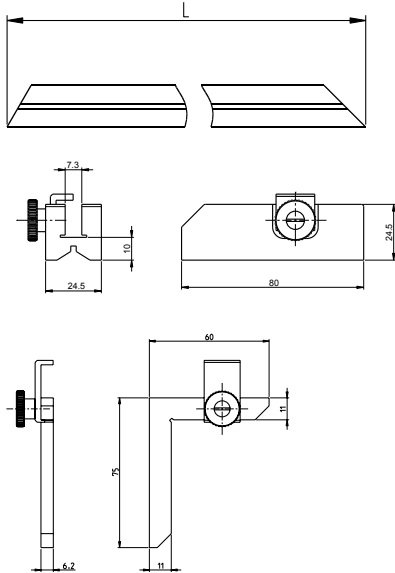




# Protractor

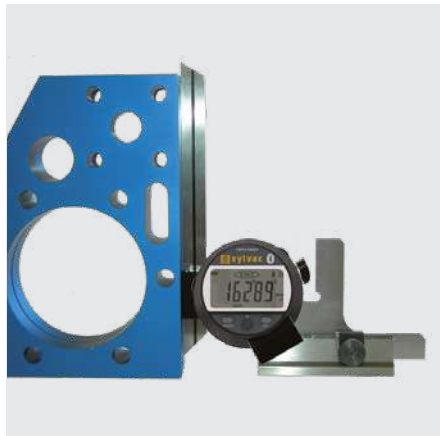
# Protractor Smart

## 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

E





# Depth gage

# S\_Depth PRO Smart

## DESCRIPTION

- Depth gages equipped with a compact Ø 45 mm rotating housing and integrated Bluetooth® system
- 100 mm wide bridge with holes for the attachment of an additional wider bridge
- Flat pole 20 x 5 mm in hardened and ground stainless steel
- Cursor locking screw
- Three buttons, including the central button with selectable favourite function
- Input of the constant for cylindrical or spherical touch button (with accessory 805-6103) for groove height measurement
- Digital display resolution 0.01 mm
- Measuring range 300 and 600 mm
- Additional data output «Power», works without battery when connected via this cable
- Interchangeable measuring key M2.5
- IP54 protection



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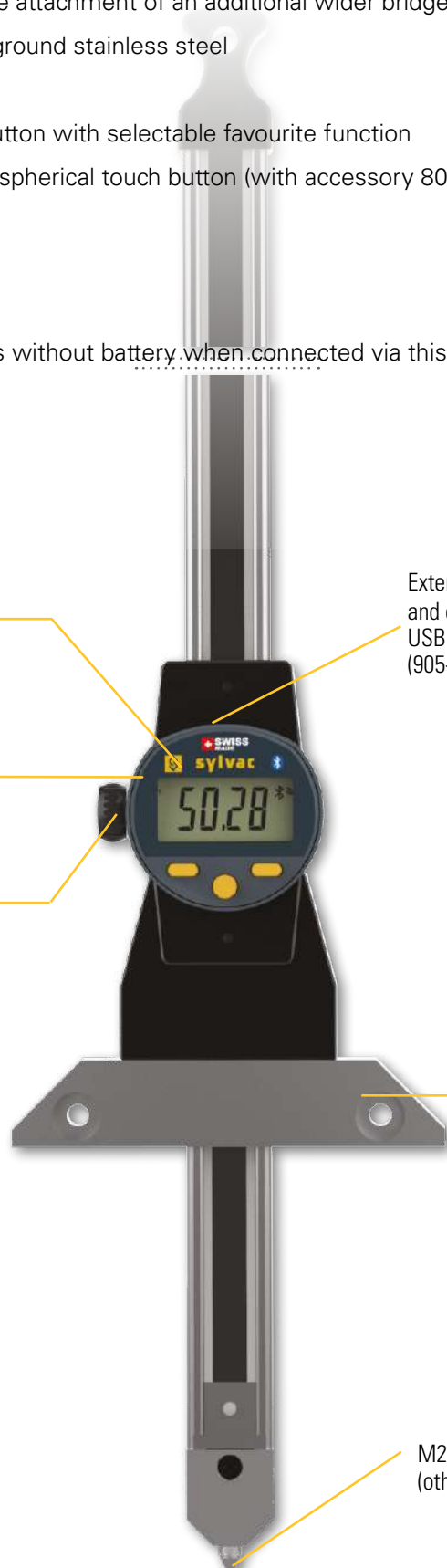
Digital LCD display with 8.2mm high digits and 270° rotating display

External power supply and output cable Power to USB (926-6821) or RS232 (905-4516)

Automatic reference switching (REFI/ REFI) by the measurement inversion

Cursor locking screw

Base 100mm with clamping system for additional bases.



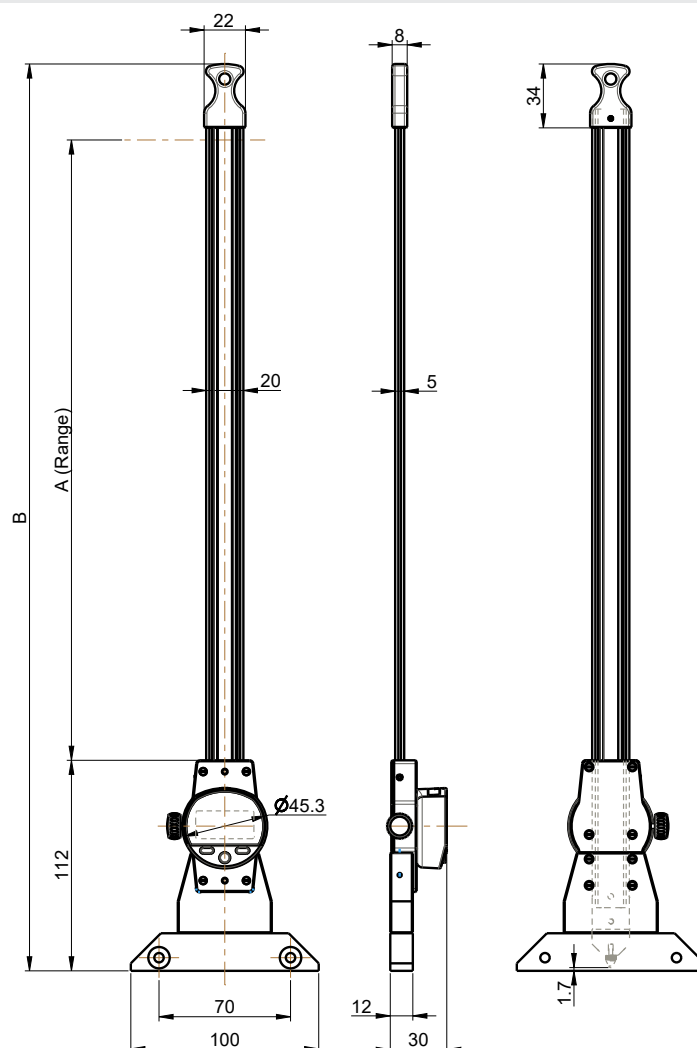
M2.5 ball key Ø2mm as standard (other keys as accessories)



# Depth gage

# S\_Depth PRO Smart

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		805-6605	805-6606
Measuring range	mm	300	600
Max. Error	µm	30	40
Repeatability <sup>1)</sup>	µm	10	10
A	mm	335	625
B	mm	483	773
Output data	Bluetooth® wireless technology* / USB / RS232 <sup>2)</sup>		
2 References			●
Automatic reference			●
PRESET function			●
Multiplication factor			●

<sup>1)</sup> ± 1 digit  
<sup>2)</sup> see cables chapter

**\* Up to 8 instruments connected per dongle #981-7100**  
 More informations on How to use Bluetooth® leaflet SYL\_1401\_EN\_BT

# Depth gage

# S\_Depth PRO Smart

## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2032 included
- Quickstart
- Ball probe M2.5 Ø2mm (805-6101)

## COMPATIBLE ACCESSORIES

		Length	Thickness	
	<b>812-2241</b>	Additional base	200 mm	8 mm
	<b>812-2240</b>	Additional base	320 mm	8 mm
	<b>805-6101</b>	Ball probe M2.5 (standard)		
	<b>805-6102</b>	Anvils UP&DOWN		
	<b>805-6103</b>	Anvil with pin Ø4 mm		

## APPLICATIONS



Measure of an internal groove (height) thanks to the constant (automatic reference).



Depth measurement



Depth measurement in a drilling with an additional base

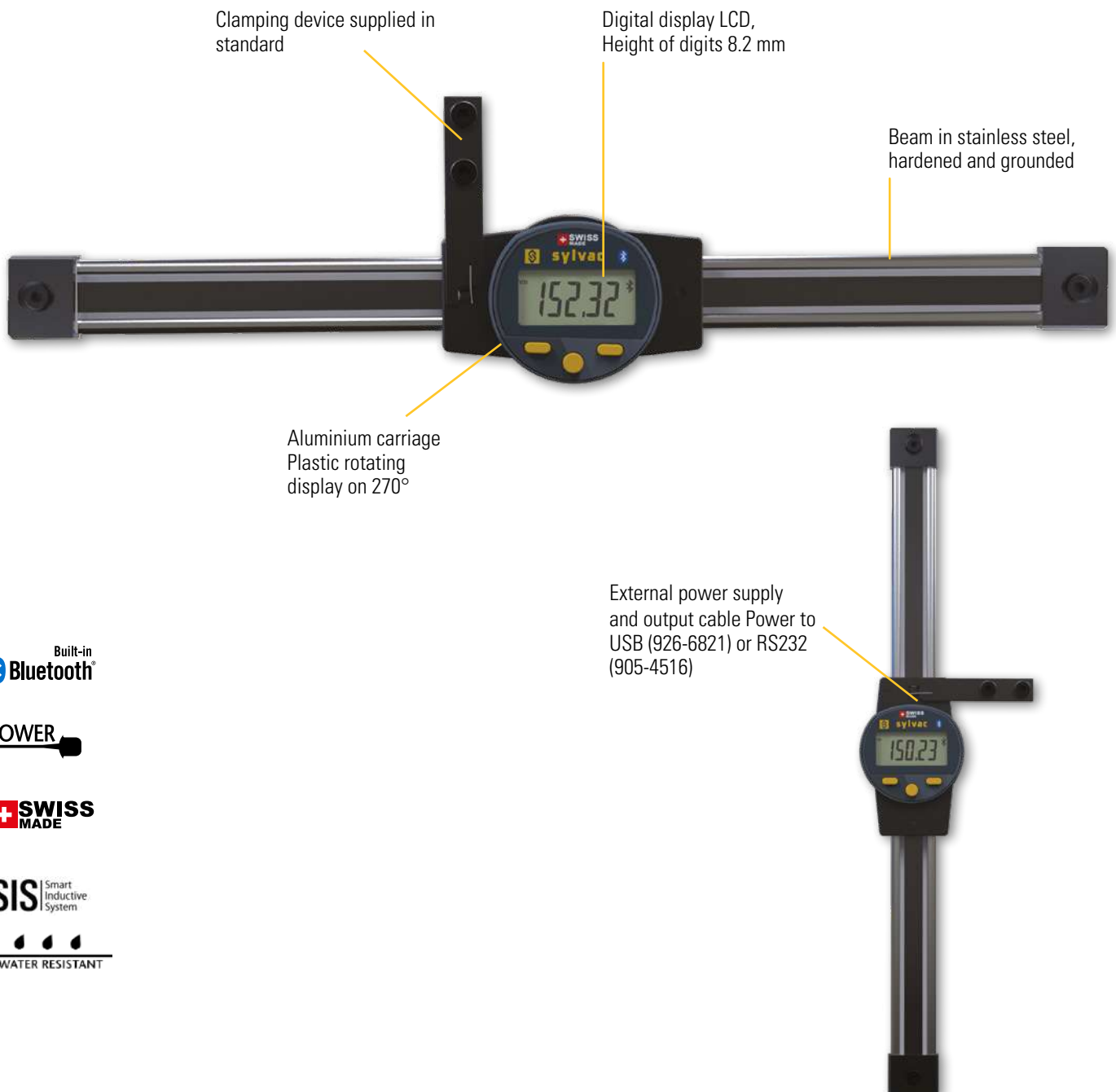


# Digital scales

# S\_Scale EVO Smart

## DESCRIPTION

- Digital scales with integrated Bluetooth® system
- Housing Ø 45 mm rotatable by 270° for horizontal or vertical use
- Flat pole 20 x 5 mm in hardened and ground stainless steel
- Digital display resolution 0.01 mm
- Three buttons, including the central button with selectable favourite function
- Supplied with a drive bar that can be positioned at the top or bottom of the display.
- Measuring range 150, 200, 300 and 600 mm
- Additional data output «Power», works without battery when connected via this cable
- IP54 protection



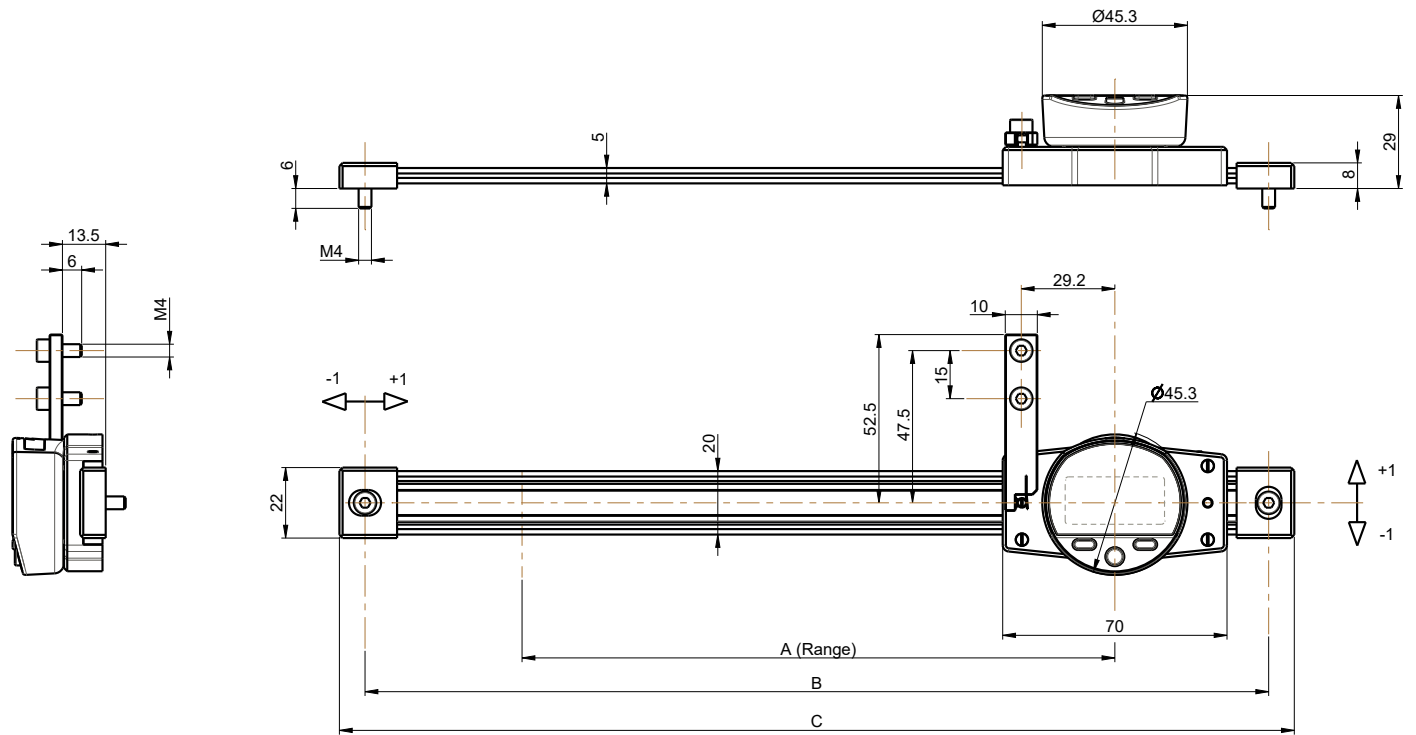
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# Digital scales

# S\_Scale EVO Smart

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

		816-1615	816-1620	816-1630	816-1660
Measuring range	mm	150	200	300	600
Type		H / V	H / V	H / V	H / V
Max. Error	µm	20	20	30	30
Repeatability <sup>1)</sup>	µm	10	10	10	10
Resolution mm		0.01	0.01	0.01	0.01
A	mm	185	235	335	665
B	mm	282	332	432	762
C	mm	298	348	448	778
Output data	Bluetooth <sup>®</sup> wireless technology* / USB / RS232 <sup>2)</sup>				
Selection of measuring direction	●				
PRESET function	●				
2 references	●				

<sup>1)</sup> ± 1 digit

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

**\* Up to 8 instruments connected per dongle #981-7100**  
**More informations on How to use Bluetooth<sup>®</sup> leaflet SYL\_1401\_EN\_BT**

# INTERNAL MEASURING INSTRUMENTS

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It is often difficult to find a solution perfectly adapted to the measurement of internal dimensions which can be very complex. Sylvac and Bowers joined forces several decades ago to offer the most comprehensive range of instruments on the market for virtually any application. Whether you need to measure very precise, blind, deep bores or other internal elements such as grooves, threads, flutes, etc., you will certainly find the key to your problem in this chapter.

## GENERAL CHARACTERISTICS :

- **Powered by lithium battery type CR2032**
- **Absolute measuring system S.I.S**
- **Automatic sleep and wake-up**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**



# Bore gauges

# Xtreme 3

## DESCRIPTION

## SMART

- New unit with integrated Bluetooth® system
- Display resolution 0.001 mm, digit height 9 mm
- Storage of the size of 4 calibration rings
- Interchangeable measuring heads with hard metal 2 points (Ø 2 to 6 mm) and 3 points (from Ø 6 mm) contact points
- Possibility to measure blind holes with the Ø 2 to 6 mm heads and from Ø 12.5 mm
- Instruments available in 2 versions:
  - XTD : unit with micrometric drum
  - XTH : pistol type unit, with quick retraction handle
- Measuring range Ø 2 to 300 mm
- Optional extensions available for measuring deep holes up to 2000 mm
- Calibration ring and certificates included with each individual instrument
- Special measuring heads for threads, grooves, splines, etc. available on request
- Additional Proximity data output
- Each instrument is delivered in a wooden box containing all items
- IP67 protection

Output cable Proximity to USB (926-6721) or RS232 (926-6723) and Bluetooth® Wireless technology

Interchangeable heads

Micrometer screw

**XT3D**

Digital display LCD, Height of digits 9 mm

Built-in Bluetooth®

Contact points in Tungsten carbide from 12.5 mm

**XT3H**

Retraction handle

Built-in Bluetooth®

PROXIMITY

SIS Smart Inductive System

WATER RESISTANT

IP67

\* Up to 8 instruments connected per dongle #981-7100  
More informations on How to use Bluetooth® leaflet SYL\_1401\_EN\_BT





# Bore gauges


# Xtreme 3

## TECHNICAL SPECIFICATIONS INDIVIDUAL INSTRUMENTS XT3D

## SMART

<b>XT3D</b> 	<b>950-6006</b>	<b>950-6007</b>	<b>950-6008</b>	<b>950-6009</b>	<b>950-6010</b>	<b>950-6011</b>	<b>950-6012</b>	<b>950-6013</b>
Meas. range mm	2-2.5	2.5-3	3-4	4-5	5-6	6-8	8-10	10-12.5
Type	XT3D BT 1M	XT3D BT 2M	XT3D BT 3M	XT3D BT 4M	XT3D BT 5M	XT3D BT 6M	XT3D BT 8M	XT3D BT 10M
Depth mm	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

<b>XT3D</b> 	<b>950-6014</b>	<b>950-6015</b>	<b>950-6016</b>	<b>950-6017</b>	<b>950-6018</b>	<b>950-6019</b>	<b>950-6020</b>	<b>950-6021</b>
Meas. range mm	12.5-16	16-20	20-25	25-35	35-50	50-65	65-80	80-100
Type	XT3D BT 12M	XT3D BT 16M	XT3D BT 20M	XT3D BT 25M	XT3D BT 35M	XT3D BT 50M	XT3D BT 65M	XT3D BT 80M
Depth mm	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

<b>XT3D</b> 	<b>950-6022</b>	<b>950-6023</b>	<b>950-6024</b>	<b>950-6025</b>	<b>950-6026</b>	<b>950-6027</b>	<b>950-6028</b>	<b>950-6029</b>
Meas. range mm	100-125	125-150	150-175	175-200	200-225	225-250	250-275	275-300
Type	XT3D BT 100M	XT3D BT 125M	XT3D BT 150M	XT3D BT 175M	XT3D BT 200M	XT3D BT 225M	XT3D BT 250M	XT3D BT 275M
Depth mm	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





# Bore gauges

# Xtreme 3

## TECHNICAL SPECIFICATIONS INDIVIDUAL INSTRUMENTS XT3H

## SMART

XT3H	954-6006	954-6007	954-6008	954-6009	954-6010	954-6011	954-6012	954-6013
Meas. range mm	2-2.5	2.5-3	3-4	4-5	5-6	6-8	8-10	10-12.5
Type	XT3H BT 1M	XT3H BT 2M	XT3H BT 3M	XT3H BT 4M	XT3H BT 5M	XT3H BT 6M	XT3H BT 8M	XT3H BT 10M
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

XT3H	954-6014	954-6015	954-6016	954-6017	954-6018	954-6019	954-6020	954-6021
Meas. range mm	12.5-16	16-20	20-25	25-35	35-50	50-65	65-80	80-100
Type	XT3H BT 12M	XT3H BT 16M	XT3H BT 20M	XT3H BT 25M	XT3H BT 35M	XT3H BT 50M	XT3H BT 65M	XT3H BT 80M
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

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XT3H	954-6022	954-6023	954-6024	954-6025	954-6026	954-6027	954-6028	954-6029
Meas. range mm	100-125	125-150	150-175	175-200	200-225	225-250	250-275	275-300
Type	XT3H BT 100M	XT3H BT 125M	XT3H BT 150M	XT3H BT 175M	XT3H BT 200M	XT3H BT 225M	XT3H BT 250M	XT3H BT 275M
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





# Bore gauges

# Xtreme 3


## STANDARD DELIVERY XT3D AND XT3H INDIVIDUAL


## SMART

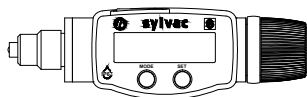
- Instrument according to technical specifications
- Wooden box (XT3D : from 150 mm = 2 box; XT3H : from 200 mm = 2 box) <sup>1)</sup>
- Rings according to technical specifications + UKAS certificate
- 1 x digital display XT3DU or XT3PG
- Lithium battery CR2032 included
- Instruction manual
- Calibration certificate

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

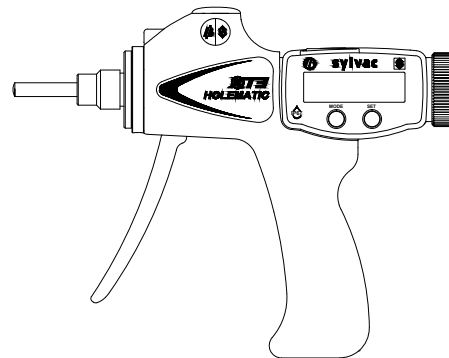
## TECHNICAL SPECIFICATIONS ELECTRONIC UNITS XT3DU AND XT3PG

<b>XT3DU</b> 	<b>951-6001</b>	<b>951-6002</b>	<b>951-6003</b>	<b>951-6004</b>	<b>951-6005</b>	<b>951-6006</b>	<b>951-6007</b>
Meas. range mm	2-6	6-10	10-20	20-50	50-100	100-300	200-300
Type	XT3DU BT 2M	XT3DU BT 6M	XT3DU BT 10M	XT3DU BT 20M	XT3DU BT 50M	XT3DU BT 100M	XT3DU BT 200M
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	5/8"x 24 TPI

<b>XT3PG</b> 	<b>955-6001</b>	<b>955-6002</b>	<b>955-6003</b>	<b>955-6004</b>
Meas. range mm	2-6	6-20	20-100	100-300
Type	XT3PG BT 01M	XT3PG BT 02M	XT3PG BT 03M	XT3PG BT 04M
Thread	1/4"x 40 TPI	5/16"x 40 TPI	5/8"x 24 TPI	5/8"x 24 TPI



**XT3DU**



**XT3PG**

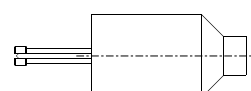
# Bore gauges

# Xtreme 3

## TECHNICAL SPECIFICATIONS MEASURING HEADS XTHD

## SMART

	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 / ST	2 points / ST	2 points / ST	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

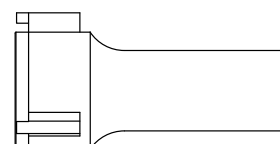
	953.2506	953.2507	953.2508	953.2509	953.2510
Meas. range mm	20-25	25-35	35-50	50-65	65-80
Type	XTHD20	XTHD25	XTHD35	XTHD50	XTHD65
Execution	3 points / TC	3 points / TC	3 points / TC	3 points / TC	3 points / TC

	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	3 points / TC	3 points / TC	3 points / TC	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	3 points / TC	3 points / TC	3 points / TC

ST = steel  
TC = tungsten carbide

All heads are compatible with the XT3D and XT3H systems.



3 points head



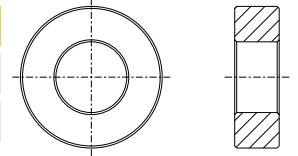
# Bore gauges

# Xtreme 3

## TECHNICAL SPECIFICATIONS SETTING RINGS XTR

SMART

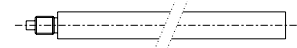
		953-2598	953-2599	953-2600	953-2601	953-2602	953-2603
Size	mm	2.5	4	5	8	12.5	20
Type		XTR2.5	XTR4	XTR5	XTR8	XTR12.5	XTR20



		953-2604	953-2605	953-2606	953-2607	953-2608	953-2609	953-2610
Size	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
Description		Stand	Depth stop
Meas. range	mm	2-50	2-6

## APPLICATIONS



Pistol measuring system



Measuring with ratchet XTD system



Measuring with pistol XTH system

F

# Bore gauges

# Xtreme SETS

## DESCRIPTION

## SMART

- Sets available in XTD and XTH versions
- The XTH sets are delivered with the pistol type unit, the heads necessary to cover the measuring range of the set as well as the calibration rings and certificates.
- The XTD sets are delivered as desired:
  - Together with the drum unit, the heads required to cover the range of the set, as well as the rings and calibration certificates
  - With a complete instrument (unit and head) for each measuring range, as well as calibration rings and certificates
- Measuring range Ø 2 to 200 mm (up to Ø 300 mm on request)
- Each set is delivered in a wooden box containing all items



**951-6105**

Output cable Proximity to USB (926-6721) or RS232 (926-6723) and Bluetooth® Wireless technology

Electronic unit



**955-6105**

Ring

Head



**951-7105**



**\* Up to 8 instruments connected per dongle #981-7100**  
 More informations on How to use Bluetooth® leaflet SYL\_1401\_EN\_BT

F





# Bore gauges


# Xtreme SETS


## TECHNICAL SPECIFICATIONS INSTRUMENTS SETS


## SMART

<b>Sets XT3D</b> 	<b>951-6102</b>	<b>951-6103</b>	<b>951-6104</b>	<b>951-6105</b>
Meas. range mm	2-6	6-10	10-20	20-50
Type	SXT3D 1M BT	SXT3D 3M BT	SXT3D 4M BT	SXT3D 5M BT
Number of heads	5	2	3	3
Numb. of rings	3	1	2	2
Meas. Force	8N	7N	15N	21N

<b>Sets XT3D</b> 	<b>951-6106</b>	<b>951-6107</b>	<b>951-6108</b>	<b>951-6109</b>
Meas. range mm	50-100	100-150	150-200	100-200
Type	SXT3D 6M BT	SXT3D 7M BT	SXT3D 8M BT	SXT3D 9M BT
Number of heads	3	2	2	4
Numb. of rings	2	1	1	2
Meas. Force	28N	32N	32N	32N

<b>Sets XT3D</b> 	<b>951-7103</b>	<b>951-7104</b>	<b>951-7105</b>	<b>951-7106</b>
Meas. range mm	6-10	10-20	20-50	50-100
Type	SXTD3U-BT	SXTD4U-BT	SXTD5U-BT	SXTD6U-BT
Number of instruments	2	3	3	3
Number of heads	2	3	3	3
Numb. of rings	1	2	2	2

<b>Sets XT3H</b> 	<b>955-6102</b>	<b>955-6103</b>	<b>955-6104</b>	<b>955-6105</b>	<b>955-6106</b>
Meas. range mm	2-6	6-10	10-20	20-50	50-100
Type	SXT3H 1M BT	SXT3H 3M BT	SXT3H 4M BT	SXT3H 5M BT	SXT3H 6M BT
Number of heads	5	2	3	3	3
Numb. of rings	3	1	2	2	2
Meas. Force	4N	9N	9N	19N	19N

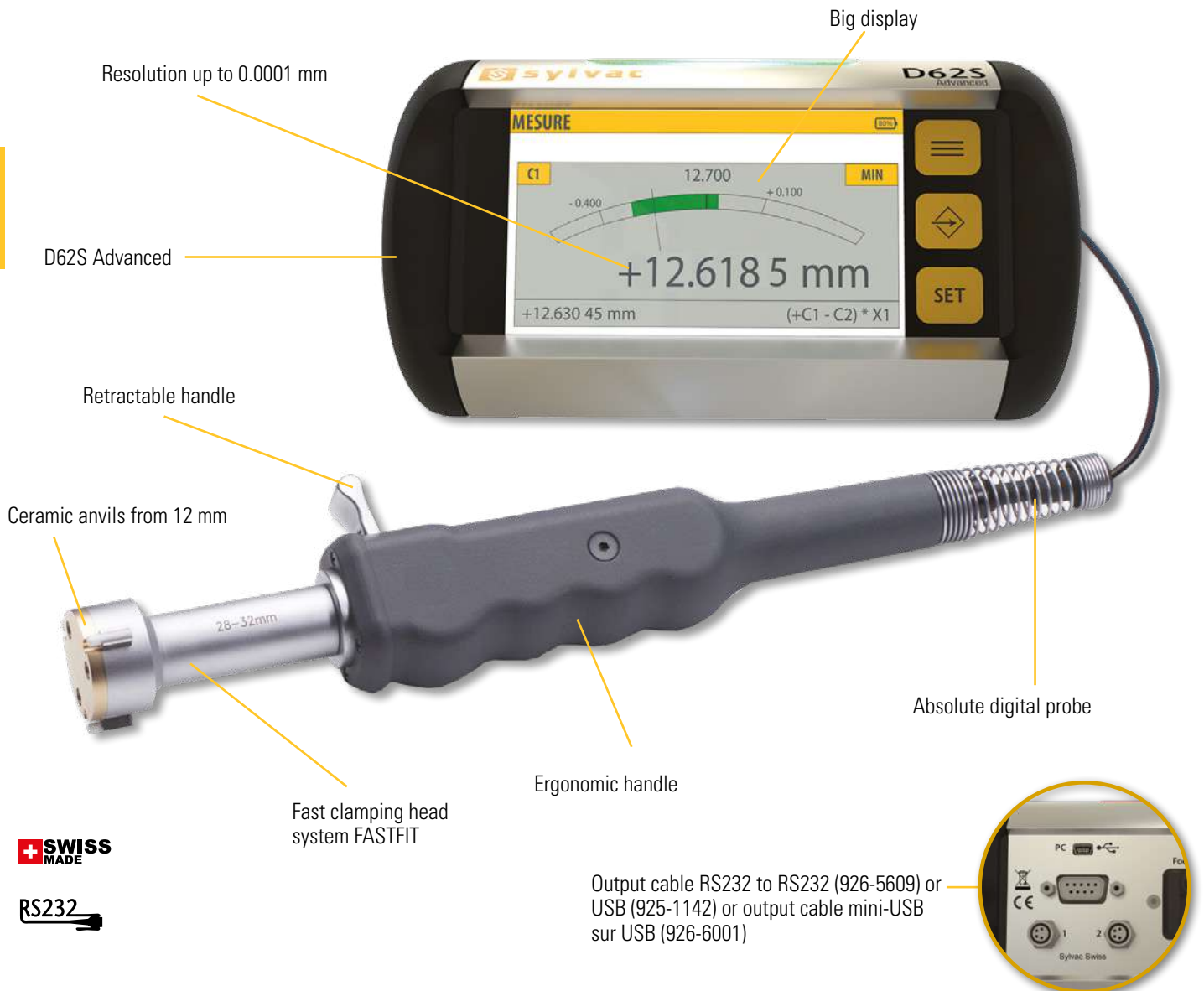
<b>Sets XT3H</b> 	<b>955-6107</b>	<b>955-6108</b>	<b>955-6114</b>	<b>955-6115</b>	<b>955-6116</b>
Meas. range mm	100-150	150-200	6-20	20-100	100-200
Type	SXT3H 7M BT	SXT3H 8M BT	SXTH10 BM BT	SXTH11 BM BT	SXT3H 9M BT
Number of heads	2	2	5	6	4
Numb. of rings	1	1	3	4	2
Meas. Force	22N	22N	9N	19N	22N

# High accuracy internal measurement

# Ultima

## DESCRIPTION

- High-precision internal measuring set consisting of an ergonomic handle with release lever, a absolute digital probe mounted in the handle, measuring head, external display unit for reading the value, calibration ring and certificates
- Interchangeable measuring heads (quick system) 2 points (Ø 2 to 6 mm) and 3 points (from Ø 6 mm). XT measuring heads are not compatible with the Ultima system.
- Tungsten carbide measuring heads up to Ø 10-12 mm and ceramic measuring heads from Ø 12-14 mm.
- Possibility to measure blind holes from Ø 12 mm upwards
- Display resolution 0.001 or 0.0001 mm (1 µm or 0.1 µm)
- Measuring range Ø 2 to 310 mm
- Available with special measuring heads for threads, grooves, flutes, etc. on request
- Available as an individual instrument or as a set
- Delivered in a wooden box containing all items



F

**SWISS MADE**

**RS232**



# High accuracy internal measurement

# Ultima

## TECHNICAL SPECIFICATIONS OF MEASURING HEADS

		960-1206	960-1207	960-1208	960-1209	960-1210	960-1211	960-1212	960-1213
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

		960-1214	960-1215	960-1216	960-1217	960-1218	960-1219	960-1220	960-1221
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

		960-1222	960-1223	960-1224	960-1225	960-1226	960-1227	960-1228	960-1229
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

		960-1230	960-1231	960-1232	960-1233	960-1234	960-1235	960-1236	960-1237
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

		960-1238	960-1239	960-1240	960-1241	960-1242	960-1243	960-1244	960-1245
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	80	80	80	80	80	80
Max. Error	µm	1.5	2	2	2	2	2	2	2

		960-1246	960-1247	960-1248
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

F



# High accuracy internal measurement

# Ultima

## TECHNICAL SPECIFICATIONS SETS

	961-1302	961-1303	961-1304
Meas. range mm	2-6	6-10	10-20
Number of rings	3	1	2

	961-1307	961-1308	961-1309	961-1310
Meas. range mm	6-20	20-50	50-100	20-100
Number of rings	3	3	3	6

## STANDARD DELIVERY

### Individual

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

### Sets

- Instrument according to technical specifications (handle with integrated probe + head)
- Setting rings according to technical specifications
- Digital display D62S Advanced (804-1063)
- Probe P12D Standard (801-2212)
- Wooden box <sup>1)</sup>
- Instruction manual + certificate

<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

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 through USB



Two Ultima gauges connected with one unit  
Sylvac D62S only



Adjustable depth stop (on request)



Set including 6 measuring heads, 3 master rings, 1 D62S, the handle and his probe, charging unit

F



# Bore gauges

# Special applications

## DESCRIPTION

- XTD or XTH instrument equipped with a special measuring head manufactured according to the particular item to be measured
- These instruments are subject to a feasibility analysis and a preliminary price offer based on the design of the component to be measured.
- We can measure the following elements :
  - Grooves, notches
  - Threads from M4 (all types)
  - Splines
  - Deep holes
  - etc.
- Delivery time 4-8 weeks

**Grooves and slots head**



**Threads measuring head**



**Spherical anvils head**



**Ball screw head**



Built-in  
**Bluetooth**

**PROXIMITY**

**SIS** Smart Inductive System

**WATER RESISTANT**

**IP67**

# HEIGHT GAUGES

## Hi\_Cal, Hi\_Gage ONE & Z5

---

An indispensable instrument in the workshop, the measuring column allows you to quickly measure heights, distances, internal and external diameters, centre-to-centre distances or even particular points (minimum or maximum). In this chapter you will find a range of columns comprising 3 models, from the simplest to the most complete, all connectable via Bluetooth® for maximum user convenience.

### GENERAL CHARACTERISTICS :

- **Powered by a CR2032 lithium battery for Hi\_Gage ONE columns 220V power supply for other models**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**

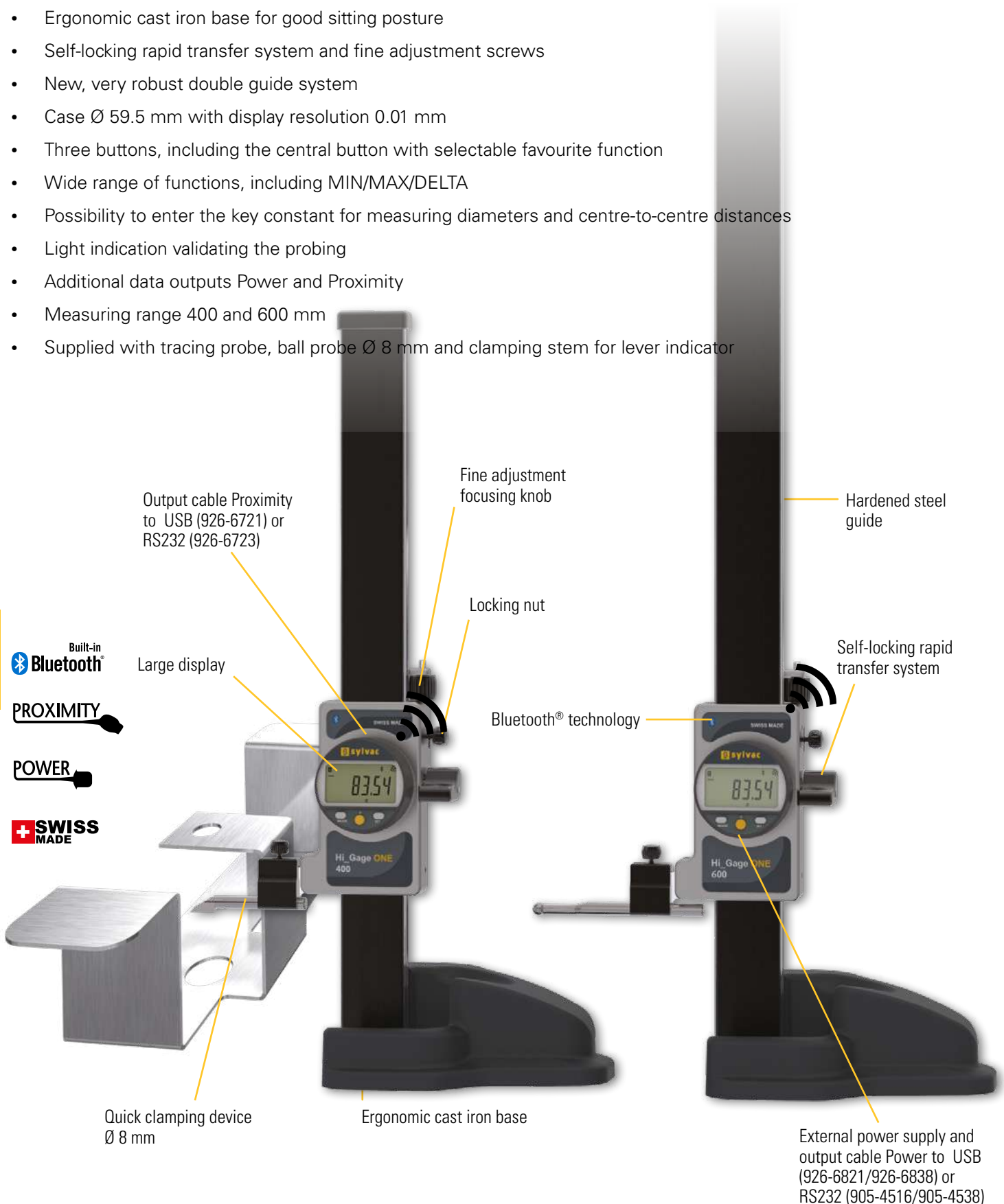


# Height gauge

# Hi\_Gage ONE Smart

## DESCRIPTION

- Measuring and tracing column with integrated Bluetooth® system
- Ergonomic cast iron base for good sitting posture
- Self-locking rapid transfer system and fine adjustment screws
- New, very robust double guide system
- Case Ø 59.5 mm with display resolution 0.01 mm
- Three buttons, including the central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Possibility to enter the key constant for measuring diameters and centre-to-centre distances
- Light indication validating the probing
- Additional data outputs Power and Proximity
- Measuring range 400 and 600 mm
- Supplied with tracing probe, ball probe Ø 8 mm and clamping stem for lever indicator

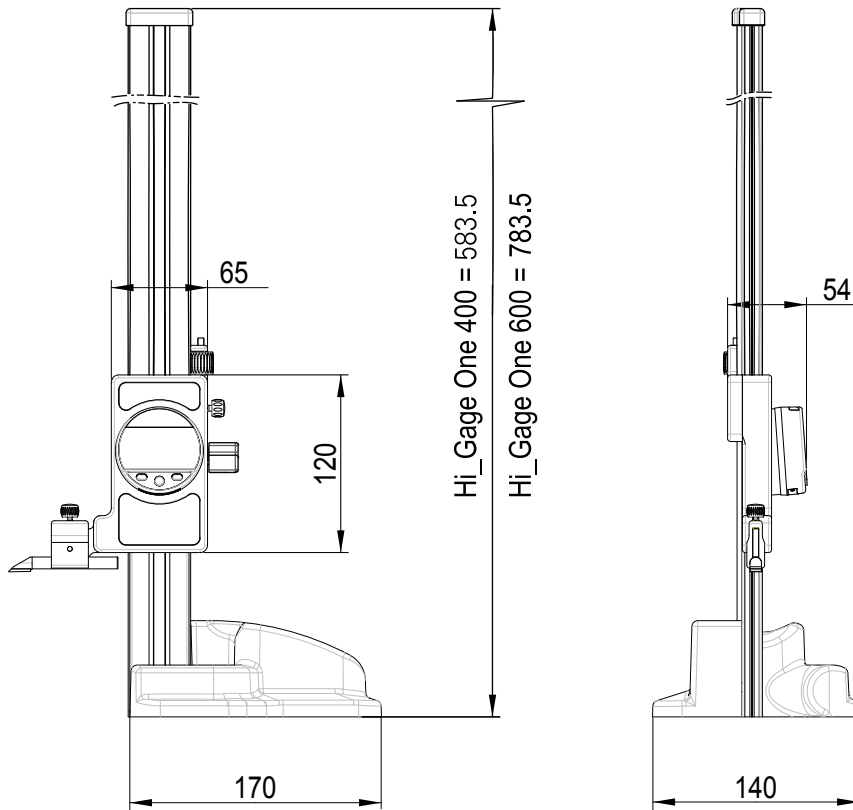




# Height gauge

# Hi\_Gage ONE Smart

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

	840-0406	840-0606
Measurement range mm	400	600
Resolution mm	0.01	0.01
Max. error $\mu\text{m}$	40	50
Repeatability $\mu\text{m}$	10 <sup>1)</sup>	10 <sup>1)</sup>
2 references	•	•
PRESET	9999.99	
Selection of measuring direction	•	
Smart Inductive Sensor (S.I.S)	•	
Output data	Tracing probe (840.9002)	
	Bluetooth® wireless technology* / RS232 / USB	

G

<sup>1)</sup> ± 1 digit

## STANDARD DELIVERY

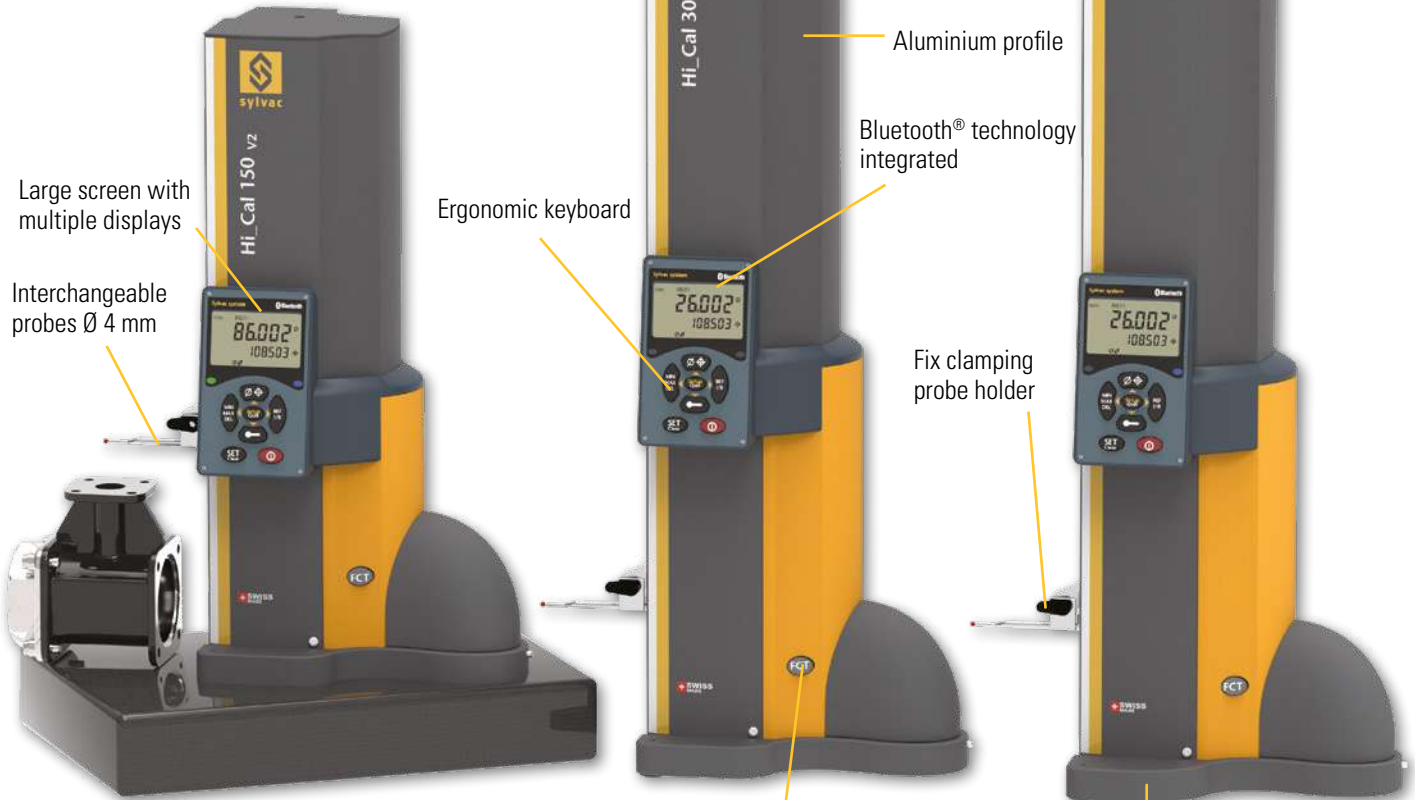
- Tracing probe (840-9002)
- Calibration certificate
- Quickstart

# Height gauge

# Hi\_Cal V2 Smart

## DESCRIPTION

- 1D workshop measuring columns with integrated Bluetooth® system and battery
- Perfectly suited for the rapid measurement of heights, depths, thicknesses, internal and external diameters, centre-to-centre distances, etc.
- Value of the key constant stored in memory even after the instrument is switched off.
- Compact and lightweight columns are easy to handle and do not require an air cushion.
- New construction with simplified guidance systems to ensure reliability
- Motorised measuring button movement with encoder integrated in the system eliminating operator influence
- Variable and progressive displacement speed according to the pressure exerted on the paddle
- Automatic pre-positioning of the key by the Sylcom software, allowing a reliable and fast measuring sequence
- Fixed key holder system with interchangeable Ø 3 mm ruby ball button
- Display resolution 0.01 / 0.001 / 0.0005mm
- Very small cast iron base equipped with 3 ground hard metal runners, requiring only a small working space
- Lower button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Light and sound indication to validate the probing process



**Built-in Bluetooth**

**mini-USB**

**RS232**

**SWISS MADE**



Output cable RS232 to USB (925-1142) or RS232 (925-5609) or output cable mini-USB to USB (926-6001)

**Switch on and measure!**

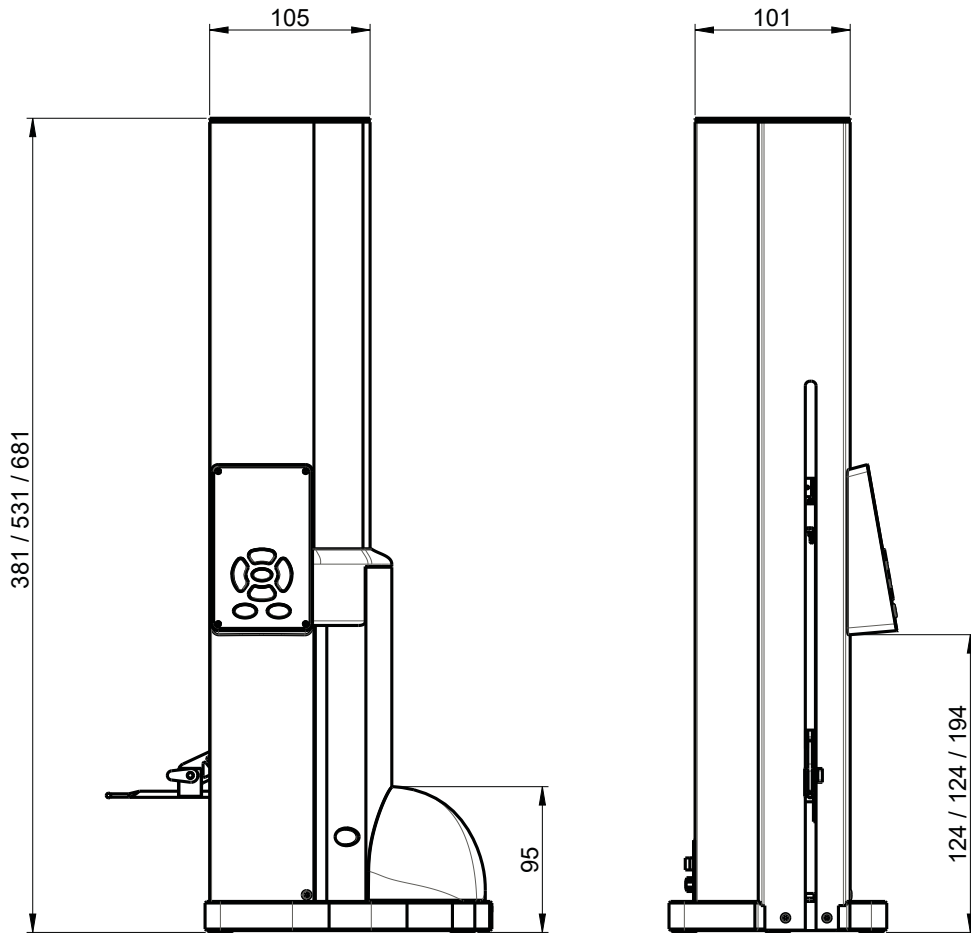




# Height gauge

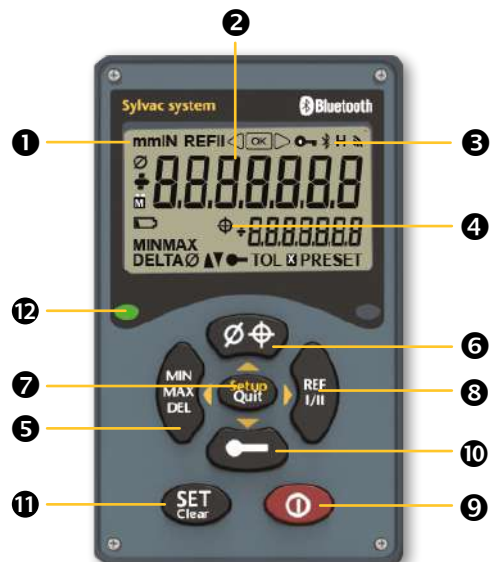
# Hi\_Cal V2 Smart

## DIMENSIONAL DRAWINGS



## DISPLAYS

- ❶ Measuring unit and actives reference
- ❷ Display of measuring value
- ❸ Bluetooth® Technology
- ❹ Centerline display
- ❺ Dynamic measuring mode
- ❻ Diameter / surface measurement
- ❼ Access to setting menu
- ❽ Selection of reference Ref I / Ref II
- ❾ ON / Standby / OFF Switch
- ❿ Ball probe constant
- ⓫ Zero / Initialization of min, max mode
- ⓬ Luminous indication of valide measurement





# Height gauge

# Hi\_Cal V2 Smart

## TECHNICAL SPECIFICATIONS

		830-0156	830-0306	830-0456
Measuring range	mm	150	300	450
Max. Error	µm	2.0 + L / 200 <sup>1)</sup>		
Repeatability	µm	1		
Resolution	mm	0.01 / 0.001 / 0.0005		
Velocity	mm/s	100		
Measuring force	N	0.25 - 0.35		
Autonomy of the battery	h	< 40 <sup>4)</sup>		
Height	mm	381	531	681
Weight	kg	4.0	4.7	6.8
Weight of the standard probe		7.5g, possibility of using 0-15g or 10-25g <sup>2)</sup> probes		
Output data		USB / RS232 / Bluetooth <sup>® 3)</sup>		
Programmable by PC		●		
Zero setting		●		
Min / max / delta		●		
PRESET function		●		
2 references		●		
Height measurement, Ø and centerlines		●		
1 type of progressive speed		●		

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

<sup>2)</sup> With adjustment of the measuring force

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

<sup>4)</sup> 8h/d at 20% use, 16h/d sby

## STANDARD DELIVERY

- Loose cover Hi\_Cal 150 (930-6001)
- Loose cover Hi\_Cal 300 (930-6002)
- Loose cover Hi\_Cal 450 (930-6005)
- Charging set (904-4200<sup>1)</sup> / 01/03/04/05)
- Ruby ball probe Ø 3 mm
- Setting gauge
- Calibration certificate
- Instruction manual

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



# Height gauge

# Hi\_Cal V2 Smart

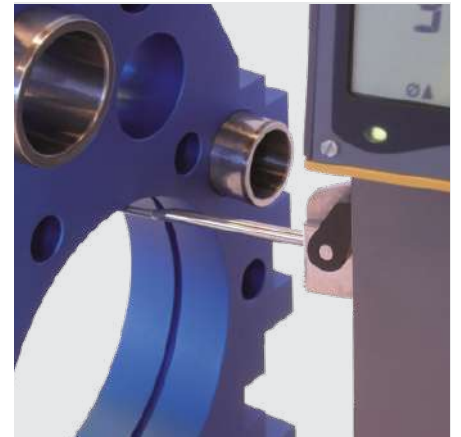
## APPLICATIONS



Depth measurement with accessories 930-2108 and 930-2105



Depth measurement with accessories 930-2108 and 905-2204



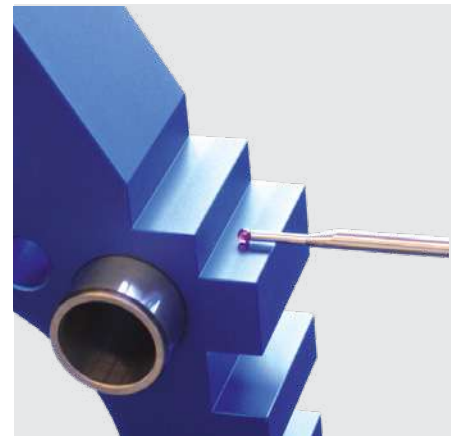
Internal measurement with ruby ball probe Ø 3 mm, 930-2101 (standard)



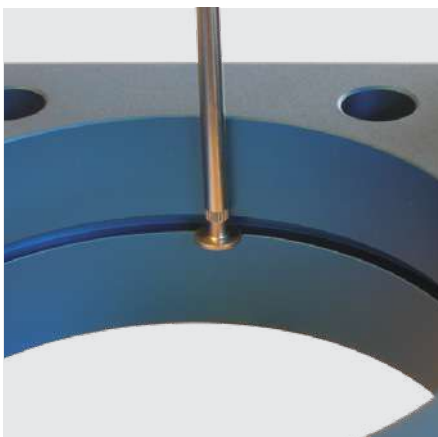
Internal groove measurement with accessories 930-2108, 930-2110 and 905-2207



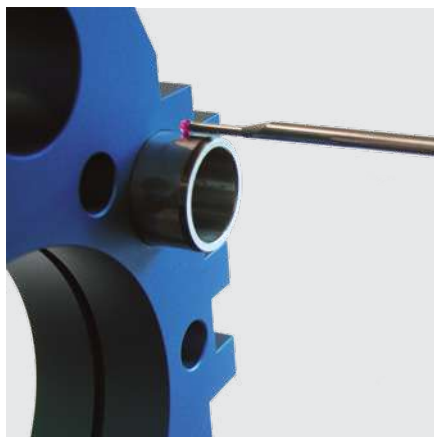
Taking the probe constant value with the setting bloc 930-2002 (standard)



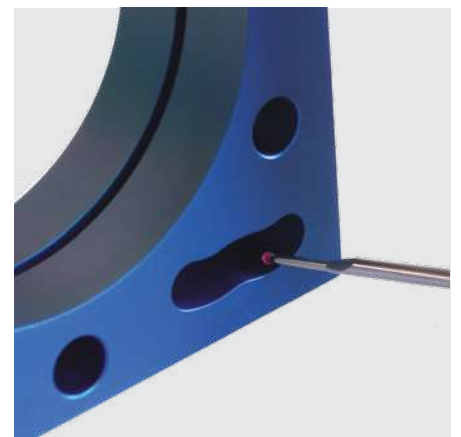
Heights and thicknesses measurements with the standard probe 930-2101



Internal groove measurement with accessories 930-2108, 930-2110 and 905-2205



External diameter measurement with the standard probe 930-2101



Min/Max/Delta measurements

G

# Height gauge

Z5

## DESCRIPTION

- 1D workshop measuring column with Trimos technology
- Perfectly suited for the rapid measurement of heights, depths, thicknesses, internal and external diameters, centre-to-centre distances, etc.
- Revolutionary crank handle offering the user the choice of manual or motorised carriage movement
- Lateral probe holder allows the use of extra-long keys (up to 400 mm) with excellent repeatability
- XL display module with 0.001 mm resolution and intuitive functions
- Cast iron base with ergonomic handle with air cushion control knob
- Measuring force electronically adjustable (0.75-1.5 N)
- Rechargeable battery with 12-hour working autonomy
- Measuring range 711 mm (1023 mm with extension)
- Supplied with interchangeable Ø 4 mm ruby ball button
- USB/RS232 data output
- Optionally, a Sylcom-compatible Bluetooth® communication accessory can be ordered as an accessory

## Let's measure higher !

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mini-USB

RS232

**SWISS MADE**



Output cable RS232 to RS232 (926-5505) or output cable mini-USB to USB (926-6001)

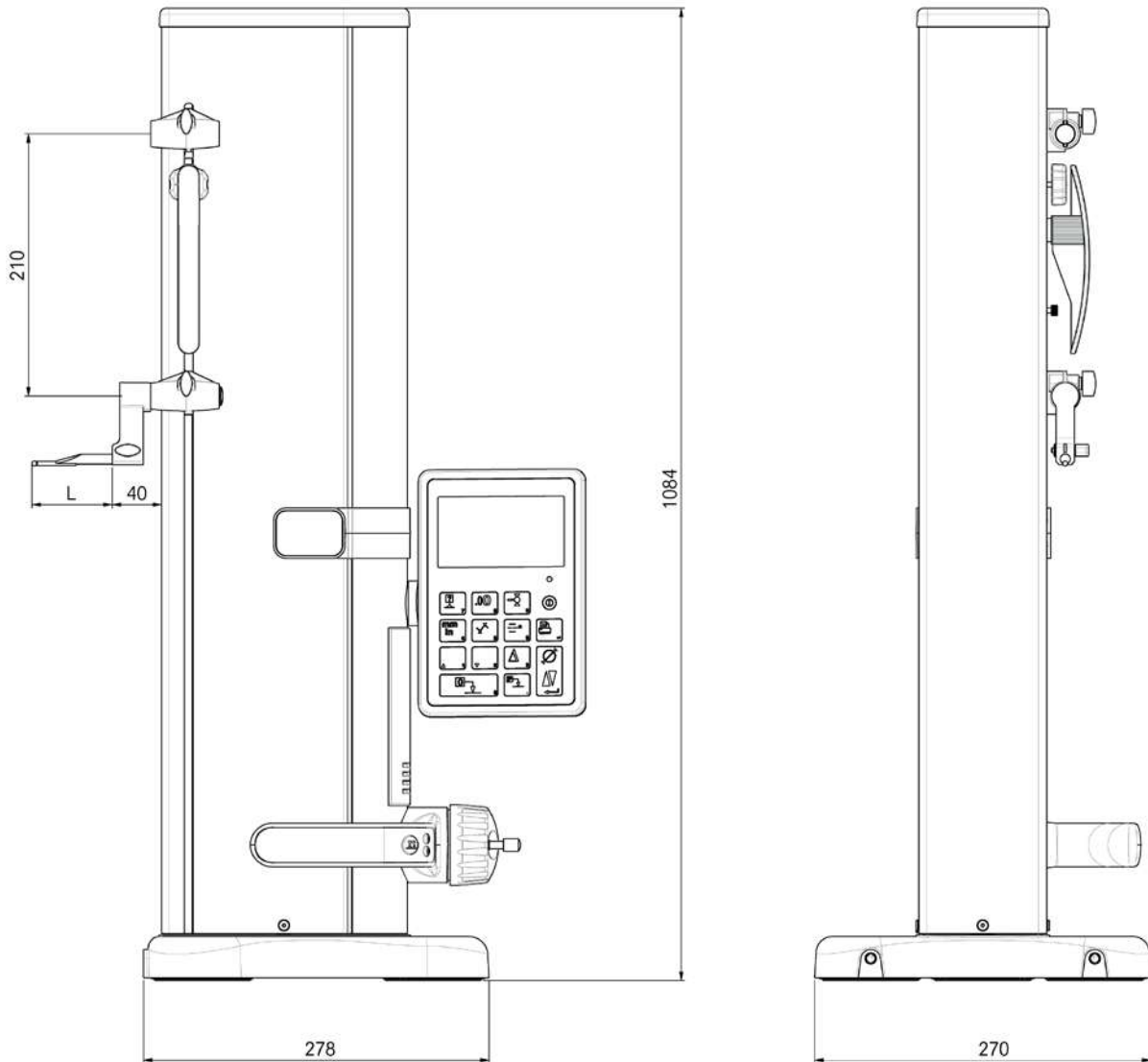




# Height gauge

Z5

## DIMENSIONAL DRAWINGS



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## STANDARD DELIVERY

- Instrument according to technical specifications
- Protection cover
- Charging set (904-4200<sup>1)</sup>/01/03/04/05)
- Ruby ball probe  $\varnothing$  4 mm
- Setting gauge
- Calibration certificate
- Instruction manual

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

# Height gauge

Z5

## TECHNICAL SPECIFICATIONS

		936-0700
Measuring range	mm	711
Measuring range with extension	mm	1023
Max. Error	$\mu\text{m}$	$2.5 + L / 300$
Repeatability $R_{MPE}$	$\mu\text{m}$	2
Frontal squareness deviation $S_{MPE}$	$\mu\text{m}$	8
Maximum resolution	mm	0.001
Measuring force	N	$0.75 \div 1.5$
Autonomy	h	12
Output data		USB / RS232
Air cushion		•
Weight	kg	24
Programmable by PC		•
Zero setting		•
Min / max / delta		•
PRESET function		•
Simultaneous display of diameters and centerlines		•
Thickness, chain and height measurements		•
Manual and motorised displacement		•

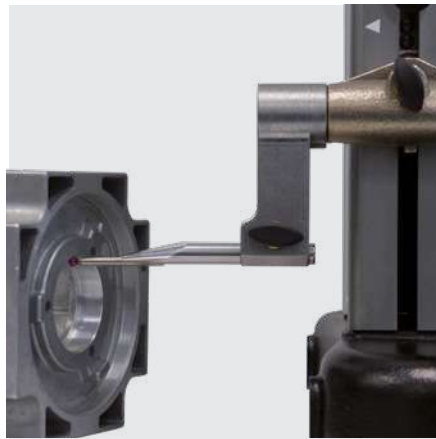
The above values have been determined according to ISO 13225, with the standard measuring insert.

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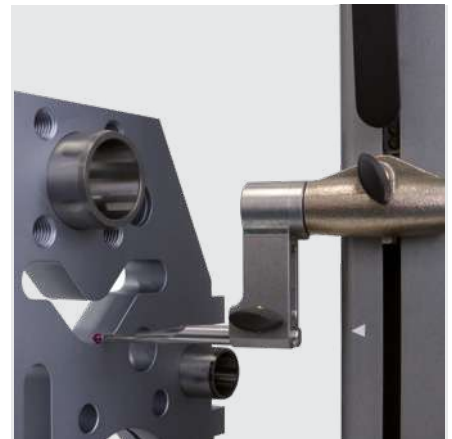
## APPLICATIONS



Thickness, chain and height measurements



Simultaneous display of diameters and centerlines

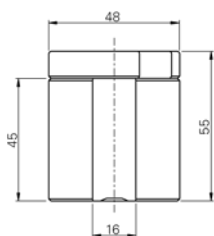
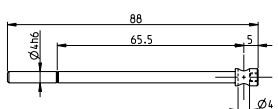
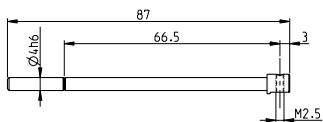
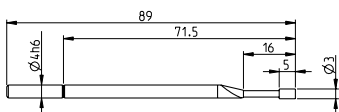
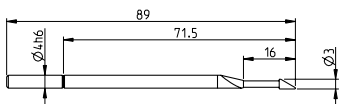
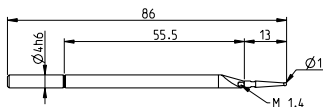
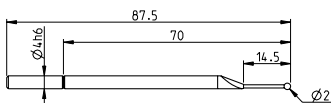
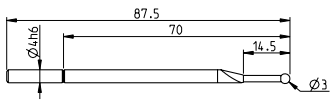


The motorisation guarantees a perfectly constant measuring force



# Height gauge

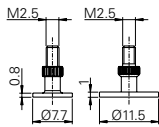
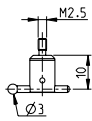
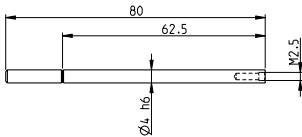
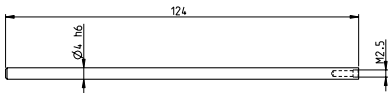
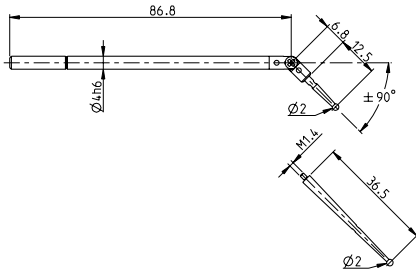
## ACCESSORIES



		Hi_Cal	Hi_Gage	Z5
<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>904-4200</b>	Charging set 100-240V / 9V	•		
<b>904-4205</b>	EUR cable, included in 904-4200 (CH - 904-4201)	•		
<b>904-4204</b>	UK cable, included in 904-4200	•		
<b>904-4203</b>	USA/JPN cable, included in 904-4200	•		

# Height gauge

## ACCESSORIES



		Hi_Cal	Hi_Gage	Z5
<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 accessory set in wooden box Content : 930-2103, 930-2104, 930-2105, 930-2106, 930-2107, 930-2108, 930-2109, 930-2110, 905-2204, 905,2205, 905-2207	●		
<b>930-2151</b>	Basic accessory set in wooden box Content : 930-2103, 930-2104, 930-2105, 930-2106	●		
<b>904-4101</b>	External contact (foot-pedal)	●		



# Height gauge

## ACCESSORIES



**930-2111**

Carbon probe-holder 200mm, Ø4mm

Hi\_Cal

Hi\_Gage

Z5



**930-2112**

Demonstration piece



**840.9001**

Ball probe Ø8mm



**840.9002**

Tracing probe (standard delivery)



**905-2247**

Clamping stem



**981-7200**

Bluetooth® module Z5

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# PROBES, DISPLAY UNITS AND INTERFACES

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An important chapter covering our measuring probes, display and multifunctional units as well as interfaces and multiplexers. This technical equipment is also used for control stations in workshops, laboratories or integrated in machines and automatic production lines controlled by a programmable logic controller. The most diverse solutions are presented to you in this section of our catalogue.

GENERAL CHARACTERISTICS :

- **220V power supply for all units**
- **mm/inch conversion on all models**
- **Working temperature +0° to +40°C**





# Measuring probes

## LISTING OF ALL MODELS

	INDUCTIVE				CAPACITIVE								
	TYPE	ORDER NUMBER	900-1101	900-1102	900-1111	900-1112	900-1001	900-1002	900-1003	900-1004	900-1007	900-1006	900-1008
<b>RANGE</b>													
±2 mm			•	•									
5 mm							•	•	•	•		•	•
± 5 mm					•	•							
10 mm													
12.7 mm													
25 mm													
<b>EXECUTION</b>													
Plain bearing							•		•			•	•
B- Ball bearing			•	•	•	•			•		•		
Pneumatic push				•		•							
V- Vacuum lifter									•		•		•
L- 90 degrees cable			*		*				•		•	•	•
S- with rubber boot			•	•	•	•	•	•	•	•	•	•	•
<b>MECHANIC</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)			65	65	65	65	64	64	64	64	64	64	64

\* by accessories, see next pages

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**CAPACITIVE****ABSOLUTE DIGITAL**

900-1010	900-1012	900-1014	900-1016	900-1025	900-1027	801-1012	801-1018	801-2012	801-2017	801-0012	801-1212	801-1218	801-2212	801-0212
P10	P10S	P10L	P10LS	P25	P25S	P12D HR USB	P12D HR USB CF	P12D USB	P12D USB LF	P12D USBWORK	P12D HR M8	P12D HR M8 CF	P12D M8	P12D M8 WORK
•	•	•	•			•	•	•	•	•	•	•	•	•
				•	•									
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
						•	•	•	•	•	•	•	•	•
	•	•	•		•									
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40	50	40	50	40	50	54	54	54	54	54	54	54	54	54

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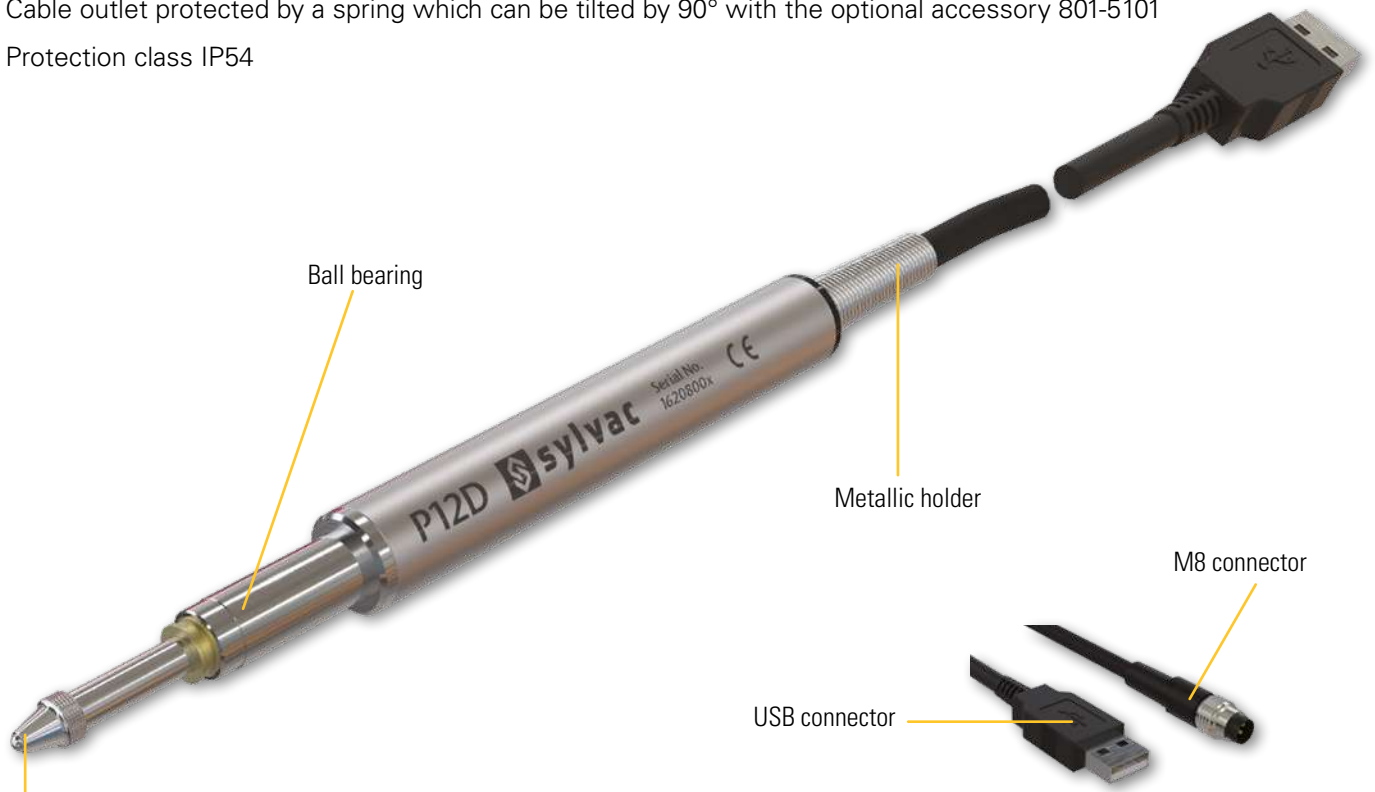


# Absolute digital measuring probes

# P12D

## DESCRIPTION

- High-precision measuring probes with patented measuring system combining inductive and capacitive technologies
- Absolute system with integrated electronic error correction (no more pairing with the unit or computer) guaranteeing high accuracy over the entire measuring range
- Extremely robust ball bearing guide guarantees a minimum of 100 million cycles (30 millions with radial load)
- Stainless steel body Ø 12 mm, fixing diameter 8 h6
- Measuring range 12.7 mm
- Available in 3 versions: Standard, Work and Pro
- Measuring force selectable: low or very low for vertical use only
- Output signal in direct digital format without the need for a converter
- Reading speed up to 100 values per second depending on configuration
- Straight cable length 2m with either USB or M8 connector
- Cable outlet protected by a spring which can be tilted by 90° with the optional accessory 801-5101
- Protection class IP54



Measuring anvil  
Interchangeable  
contact point M2.5,  
stainless steel with  
TC ball



**SWISS  
MADE**

**IP54**

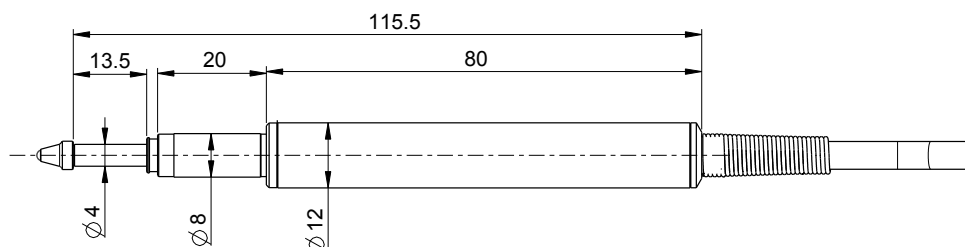
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# Absolute digital measuring probes

# P12D

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

PRO		801-1012	801-1018	801-1212	801-1218
Resolution type		High resolution			
Type		P12D HR USB	P12D HR USB CF <sup>2)</sup>	P12D HR M8	P12D HR M8 CF <sup>2)</sup>
Force <sup>1)</sup>	N	0.2 - 0.3	0.08	0.2 - 0.3	0.08
Measuring range	mm	12.7			
Resolution	µm	0.01			
Max. Error	µm	0.6			
Repeatability	µm	0.08			
Nb measures/s		up to 100/s, according to configuration <sup>5)</sup>			
Output data		USB		M8	
Cable output		Straight			

STANDARD		801-2012	801-2017	801-2212
Resolution type		Standard		
Type		P12D USB	P12D USB LF <sup>3)</sup>	P12D M8
Force <sup>1)</sup>	N	0.4 - 0.8	0.2 - 0.3	0.4 - 0.8
Measuring range	mm	12.7		
Resolution	µm	0.1		
Max. Error	µm	1		
Repeatability	µm	0.2		
Nb measures/s		up to 100/s, according to configuration <sup>5)</sup>		
Output data		USB		M8
Cable output		Straight		

<sup>1)</sup> ± 20%, vertical position

<sup>2)</sup> CF = constant force : usable only vertically, rod pointing downwards (without spring)

<sup>3)</sup> LF = low force

<sup>4)</sup> depends on resolution and software

<sup>5)</sup> depends on resolution and number of probes per bus



# P12D - special version

# P12D WORK

## TECHNICAL SPECIFICATIONS

WORK		801-0212	801-0012
Resolution type		Standard	
Type		P12D WORK M8	P12D WORK USB
Force <sup>1)</sup>	N	0.4 - 0.8	
Measuring range	mm	12.7	
Resolution	µm	0.1	
Max. Error	µm	1.8	
Repeatability	µm	0.2	
Nb measures/s		up to 100/s, according to configuration <sup>1)</sup>	
Output data		M8	USB
Cable output		Straight	

<sup>1)</sup> depends on resolution and number of probes per bus

# P12D - special version

# P12D OPEN

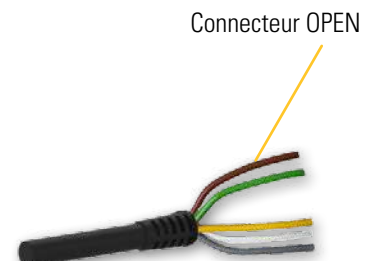
## DESCRIPTION

- Same specifications as P12D Work. In addition to this:
- Special execution with cable length 2 m. type «open connector» (4 coloured wires according to DIN 47100) for integration in machines or lines and communication with a PLC
- Output signal in direct digital format without the need for a converter.
- ASCII or ORBIT compatible communication protocol
- Resolution up to 0.0001 mm (0.1 µm), max. error 1.8 µm
- Measuring force 0.4 - 0.8 N

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 **SWISS MADE**

 **IP54**





# Absolute digital measuring probes

# P12D

## TECHNICAL SPECIFICATIONS

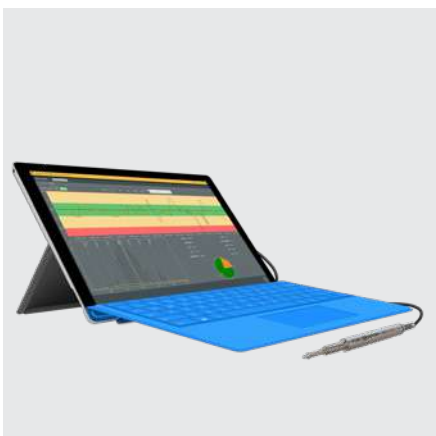
OPEN		801-0412
Resolution type		Standard
Type		P12D OPEN
Force <sup>1)</sup>	N	0.4 - 0.8
Measuring range	mm	12.7
Resolution	µm	0.1
Max. Error	µm	1.8
Repeatability	µm	0.2
Nb measures/s		up to 100/s, according to configuration <sup>1)</sup>
Output data		OPEN
Cable output		Straight

<sup>1)</sup> depends on resolution and number of probes per bus

## STANDARD DELIVERY

- Probe according to technical specifications
- Cable 2 m
- Stainless steel contact point with tungsten carbide ball Ø 2 mm
- Quickstart
- Calibration certificate

## APPLICATIONS



Probe P12D USB connected to a PC, measures displayed by Sylcom.



Probe P12D USB connected to a D300S (maximum resolution 0.1µm)



Probes P12D M8 connected to a D62S.

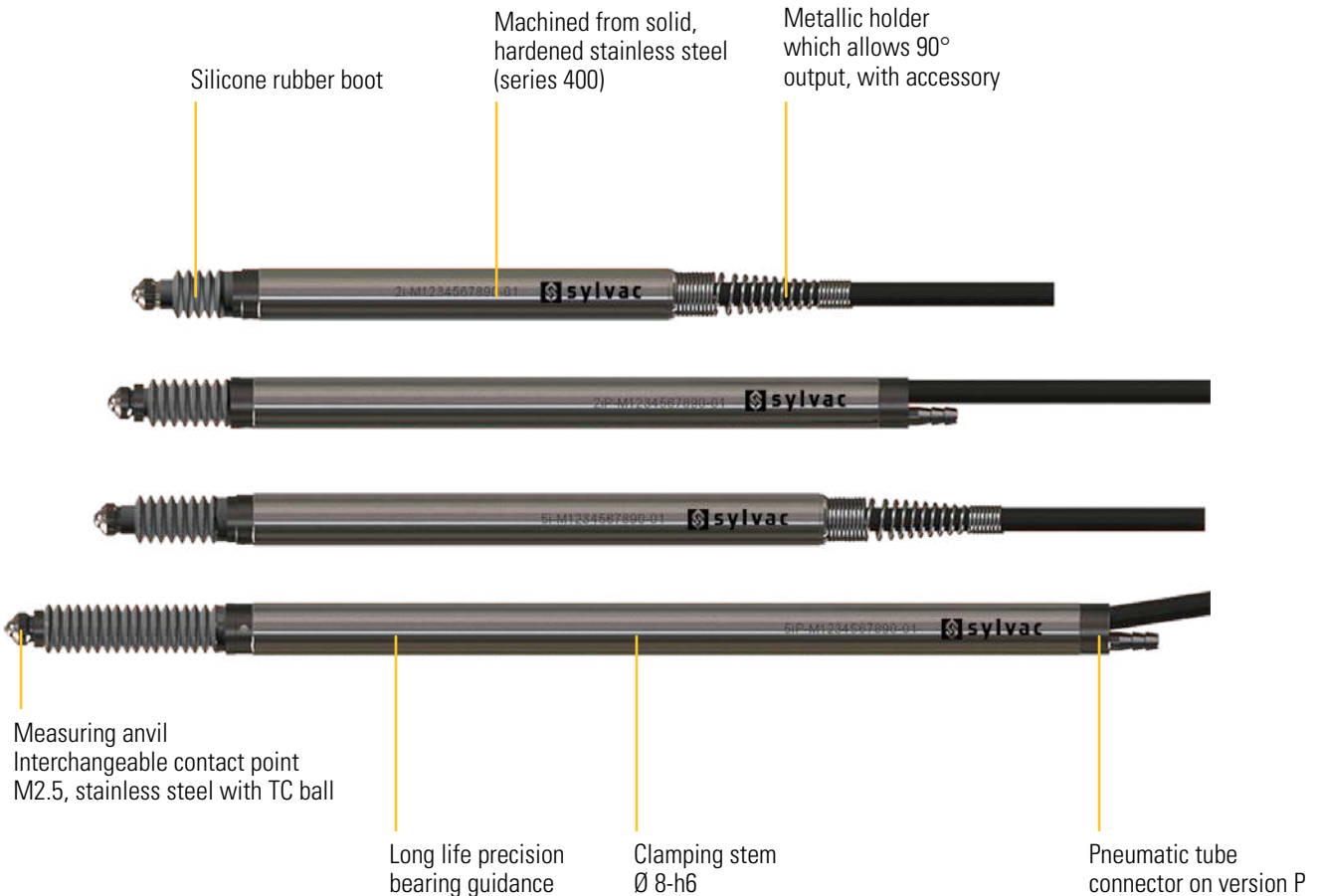




# Inductive measuring probes

## DESCRIPTION

- Inductive pencil-type measuring probes with stainless steel body  $\varnothing 8$  h6 over the entire length
- Particularly suitable for comparison measurements due to their excellent repeatability (0.15  $\mu\text{m}$ )
- Half-Bridge Output Type
- Reading speed up to 3900 values per second, depending on configuration
- Extremely robust ball bearing guide guarantees a minimum of 10 million cycles when the probe is not subjected to a lateral force
- Available in 2 versions :
  - Spring pressure, measuring force 0.7 N
  - Pneumatic thrust, the probe is retracted when it is not supplied with air (1 to 3 bar), pressure influencing the measuring force (0.4-0.7 N)
- Measuring range  $\pm 2$  mm and  $\pm 5$  mm
- Resolution up to 0.0001 mm (0.1  $\mu\text{m}$ )
- Cable outlet protected by a spring which can be tilted by 90° with the optional accessory 901-5110
- PUR cable length 2 m.
- IP65 protection with Viton® bellows

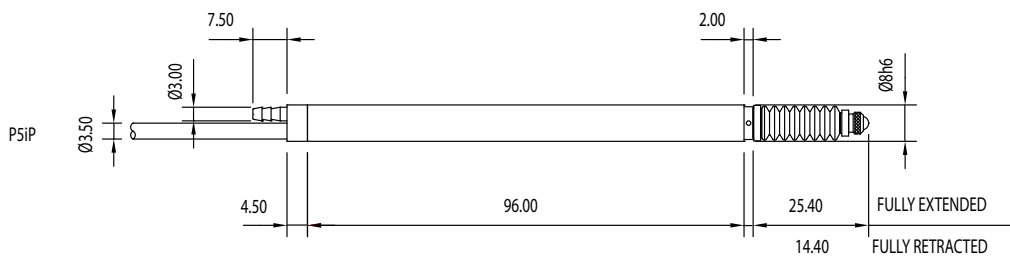
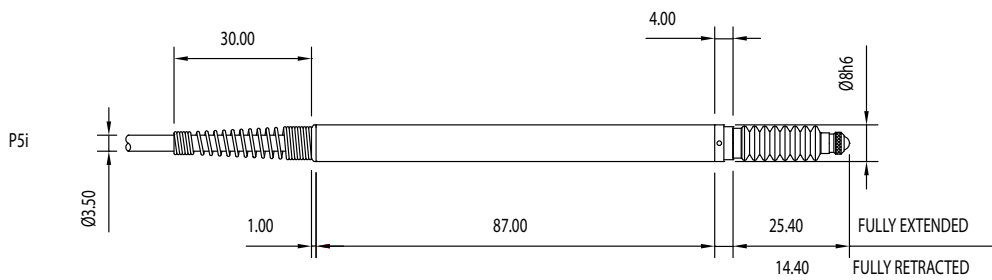
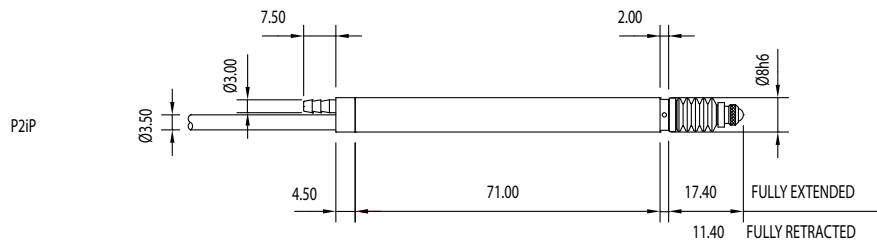
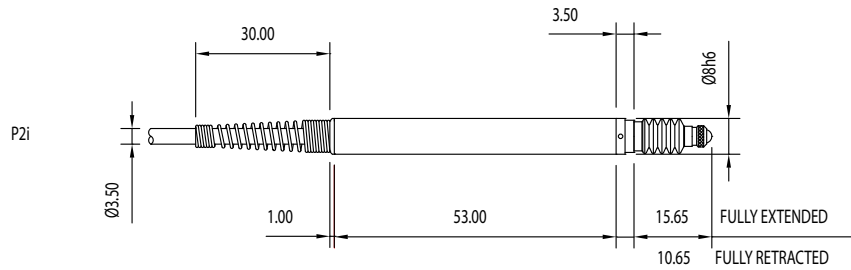


**IP65**



# Inductive measuring probes

## DIMENSIONAL DRAWINGS





# Inductive measuring probes

## TECHNICAL SPECIFICATIONS

		P2i	P2iP	P5i	P5iP
Travel	mm	±2	±2	±5	±5
Pre-travel	mm	0.15	0.8	0.15	0.3
Post-travel	mm	1.35	1.2	0.85	0.7
Resolution		Digital : user selectable to <0.1µm			
Repeatability	µm	0.15	0.15	0.15	0.15
Moving mass	g	3.4	3.4	3.7	3.7
Accuracy of reading %		0.5	0.5	0.5	0.5
Body diameter	mm	8h6			
IP rating		IP65			
Temperature	%FS/°C	0.01			

## MEASURING FORCE

		P2i	P2iP	P5i	P5iP
Standard	N	0.7	0.7 / 0.4 bar - 2.6 / 1 bar	0.7	0.7 / 0.4 bar - 2.6 / 1 bar

Tolerance ± 20%, measuring probe in middle course, outgoing spindle.

## PNEUMATIC PROBES

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Pneumatic probes are fully retracted when they are not supplied with air. For continual reliable operation and to maximise working life, the air supply should be clean and dry. 60% maximum relative humidity, filtered to better than 2µm particle size. Air pressure : 0.4-0.8 bar, don't go over 0.8 Bar because the rubber boot can be damaged.

## LIST OF REFERENCES

P2i				P5i			
P2i	900-1101	P2iP	900-1102	P5i	900-1111	P5iP	900-1112

P = pneumatic push



# Inductive measuring probes

## STANDARD DELIVERY

- Probe according to technical specifications
- Cable 2 m
- Stainless steel contact point with tungsten carbide ball Ø 3 mm (905-2204)
- Calibration certificate

## APPLICATIONS



Inductives probes connected to a D70I.



Inductives and Solartron probes connected to a M-Bus modul coupled with D400S.



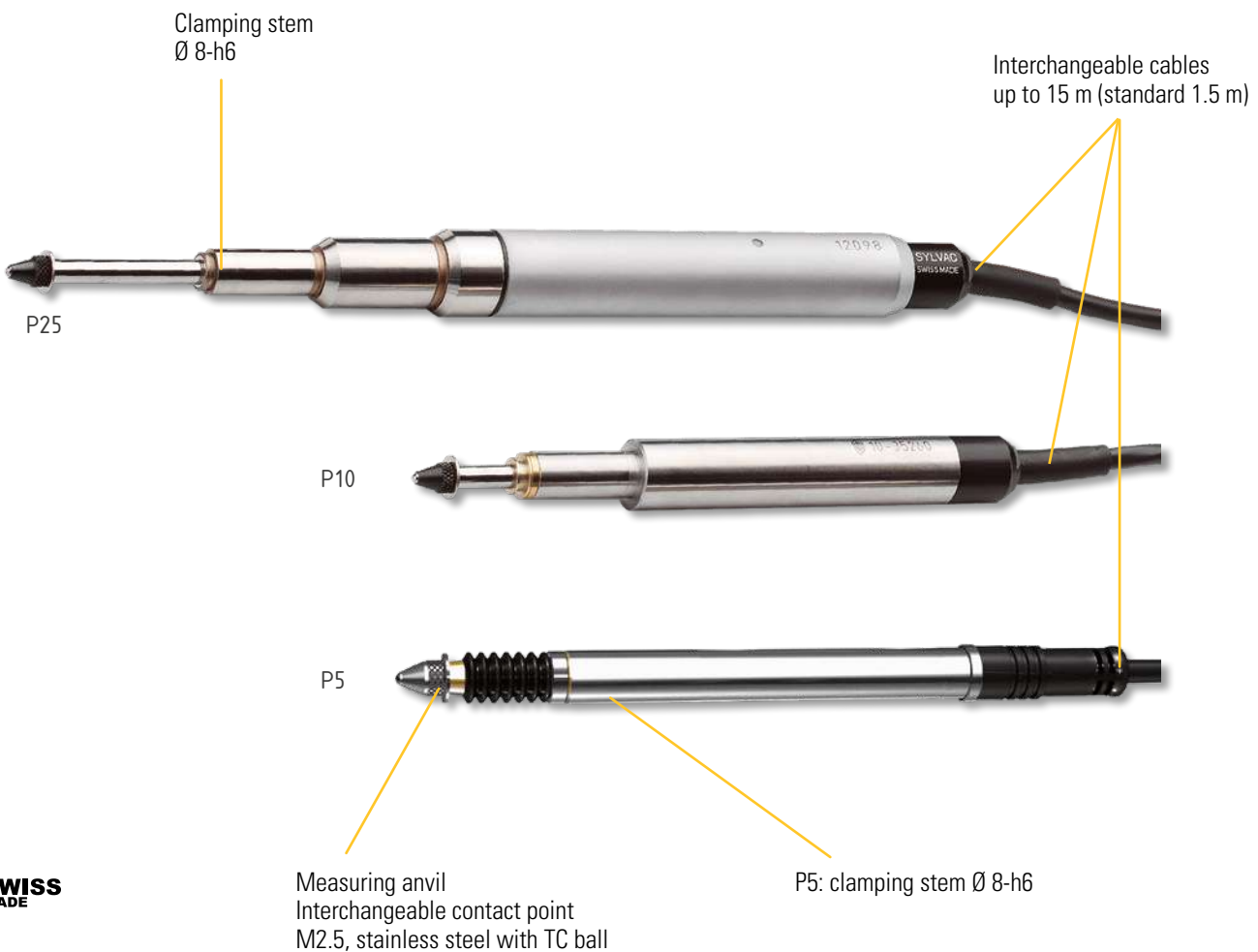
Inductives probes connected to a M-Bus modul coupled with D300S.



# Capacitive measuring probes

## DESCRIPTION

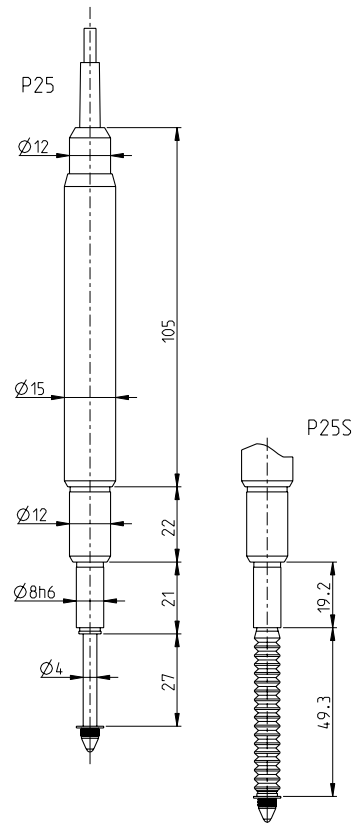
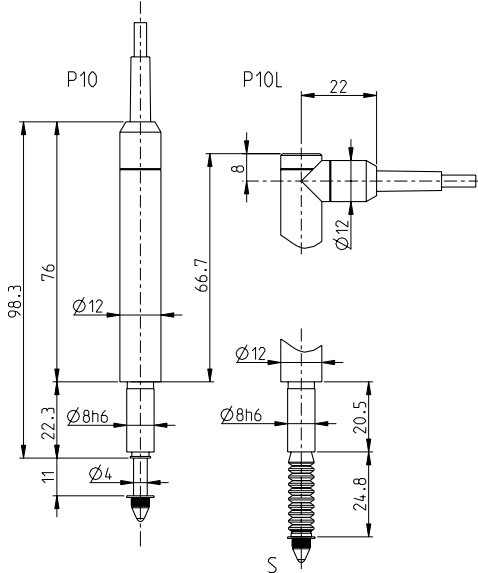
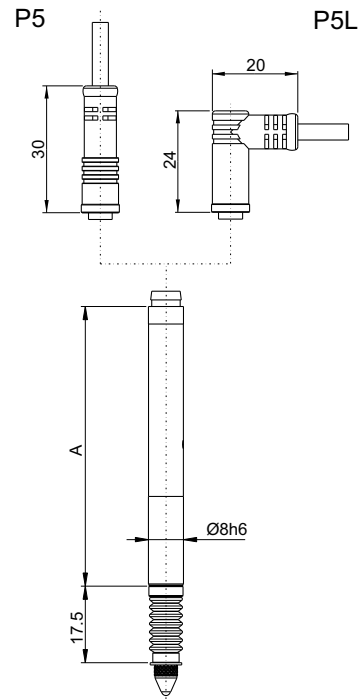
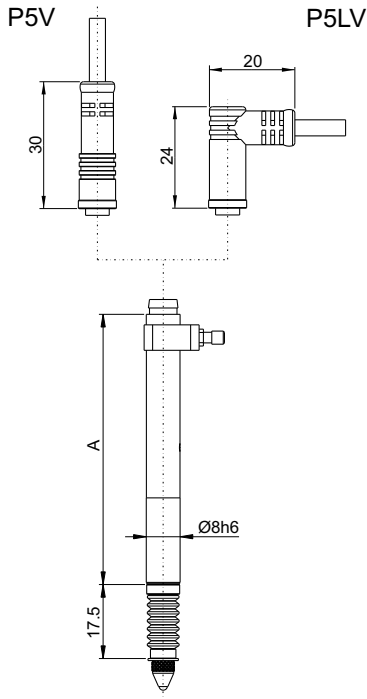
- Capacitive measuring probes
- Measuring system for high accuracy over the entire measuring range
- Sliding bearing guide guarantees a minimum of 10 million cycles when the probe is not subjected to a lateral force. Not suitable for high load applications.
- Available in 2 versions :
  - Spring-loaded thrust
  - Spring-loaded with integrated vacuum lift (V-version)
- Measuring range 5, 10 and 25 mm
- Resolution up to 0.0001 mm (0.1 µm)
- Measuring force selectable, low, standard or high
- Fixing diameter 8 h6
- Straight or 90° cable outlet (L version)
- Interchangeable PUR cable length 1.5 m.
- IP54 protection with Viton® bellows (S version)



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# Capacitive measuring probes

## DIMENSIONAL DRAWINGS



### P5/P5L - P5V/P5LV

Guiding axis	Measure A
Plain bearing	72
Ball bearing	64

H



# Capacitive measuring probes

## TECHNICAL SPECIFICATIONS

		P5	P10	P25
Travel	mm	5	10	25
Pre-travel	mm	0.7	0.5	0.8
Max. Error <sup>1)</sup>	µm	1	1	1.2
Repeatability	µm	0.2	0.2	0.2
Moving mass	g	3.7	4.1	9.6

<sup>1)</sup> With Master unit. See as well the specifications of the pair Measuring probe/display unit.

## MEASURING FORCE

		P5	P5B	P10	P10S	P25	P25S
Standard	N	0.50-0.90	0.50-0.90	0.60-0.80	0.70-1.25	0.60-1.00	0.65-1.4
Minimum	N	0.20-0.25*	0.25-0.50	< 0.10	---	< 0.15	---
Low	N	0.30-0.65	0.30-0.65	0.20-0.25	---	0.20-0.30	---
High	N	0.80-1.40	---	0.70-1.50	---	0.70-1.60	---

Tolerance ± 20%, measuring probe in vertical position, outgoing spindle.

\* without rubber boot

## LIST OF REFERENCES

P5				P10				P25			
P5	900-1001	P5BV	900-1005	P10	900-1010	P10L LF	900-1014.91	P25	900-1025	P25S	900-1027
P5BL	900-1002	P5L	900-1006	P10 LF	900-1010.91						
P5V	900-1003	P5BVL	900-1007	P10S	900-1012	P10LS	900-1016				
P5B	900-1004	P5LV	900-1008	P10L	900-1014						

B = ball bearing / V = Vacuum lifter / L = 90° cable / LF = low force / S = with rubber boot

## STANDARD DELIVERY

- Probe according to technical specifications
- Calibration certificate
- Cable 1.5 m
- Stainless steel contact point with tungsten carbide ball Ø 2 mm (905-2204)



# Capacitive measuring probes

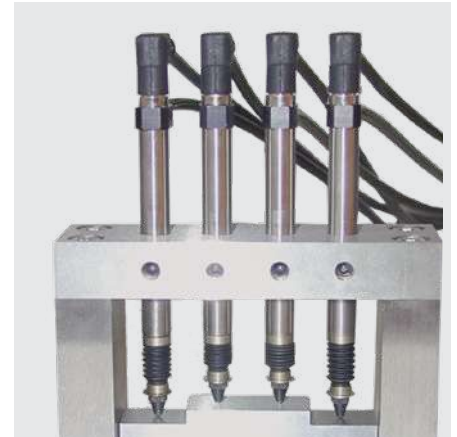
## APPLICATIONS



P5 probes connected to a D302 coupled with D300S for OD, concentricity and cylindricity measurements



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



Combined probes for the measurement of several heights



Capacitive probes connected to a D70S.



Capacitive probes connected to a D200S



Capacitive probes on a jig

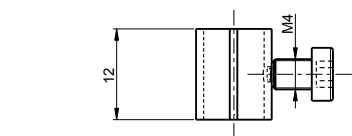
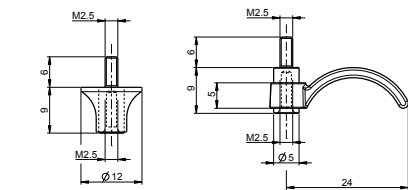
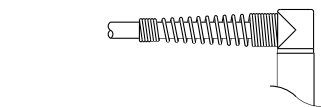
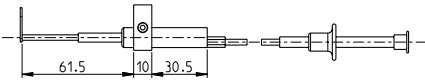
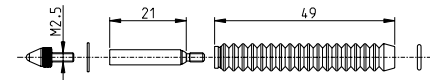
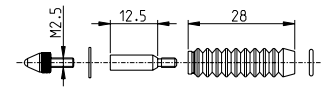
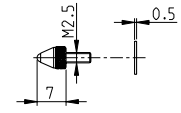
H





# Measuring probes

## ACCESSORIES



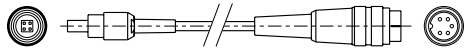
		P2i	P2iP	P5i	P5iP	P2	P5	P10	P25	P12D
<b>905-2204</b>	Stainless steel contact point M2.5 with TC ball probe (other contact points, see chapter digital indicators)					•	•	•	•	•
<b>901-2003</b>	Rubber boot and contact point set							•		
<b>901-2004</b>	Rubber boot and contact point set								•	
<b>901-2005</b>	Lifting device with photo-cable							•	•	•
<b>901-2012</b>	Tube Ø 4 mm / 2 mm, Length to be specified						•	•	•	
<b>901-2013</b>	Tube Ø 6 mm / 4 mm, Length to be specified						•	•	•	
<b>901-2014</b>	Double tube diameter 2 x 4 mm / 2 mm, Length to be specified						•	•	•	
<b>901-5110</b>	Bridle 90°	•		•						
<b>905-2225</b>	Plastic lifting ring (bottom)	•	•	•	•	•	•	•	•	•
<b>905-2224</b>	Plastic lifting lever (bottom)	•	•	•	•	•	•	•	•	•
<b>905-2231</b>	Sleeve Ø8 -->10mm with locking screw	•	•	•	•	•	•	•	•	•

H



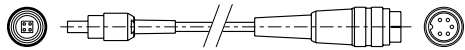
# Measuring probes

## ACCESSORIES



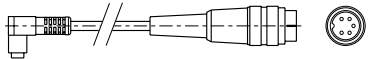
**901-5002**

Cable 1.5 m



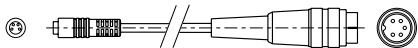
**901-5012**

Cable 1.5 m



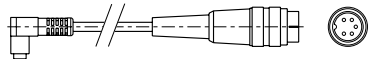
**901-5032**

Cable 1.5 m bent



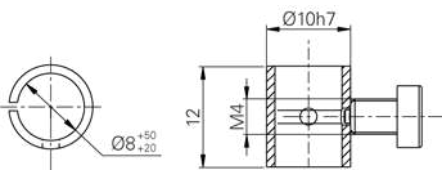
**901-5042**

Cable 1.5 m



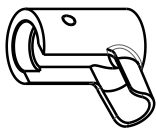
**901-5052**

Cable 1.5 m bent



**905-2231**

Adapting socket + screw



**801-5101**

Bridle 90°

**801-5202**

2m extension for probe P12D M8

**801-5210**

10m extension for probe P12D M8







P2i P2iP P5i P5iP P2 P5 P10 P25 P12D

		P2i	P2iP	P5i	P5iP	P2	P5	P10	P25	P12D
<b>901-5002</b>	Cable 1.5 m							•		
<b>901-5012</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	•	•	•	•	•	•	•	•	•
<b>801-5101</b>	Bridle 90°									•
<b>801-5202</b>	2m extension for probe P12D M8									•
<b>801-5210</b>	10m extension for probe P12D M8									•



# Digital display

## TABLE OF CORRESPONDENCES

							
		D50S	D50S PRO	D62S	D62S Adv.	D70S	D70H
Direct input	Probes	2 <sup>c)</sup>	2 <sup>c)</sup>	2 <sup>a)</sup>	2 <sup>a)</sup>	2 <sup>c)</sup>	2 <sup>H)</sup>
	RS/USB instruments						
	External contact	1	1	1	2	1 <sup>p)</sup>	1 <sup>p)</sup>
	Mbus						
	Air gages						
	Instrument with Bluetooth® technology						
Additional input	Probes						
	USB instruments						
	Analog display			•	•	•	•
Output	RS 232	•	•	•	•	•	•
	RS 485						
	USB			• <sup>10)</sup>	• <sup>10)</sup>	• <sup>10)</sup>	• <sup>10)</sup>
	Opto-coupled output						
	Analogic						
	Bluetooth® technology (slave)				•		
Functions	Direct zero setting	•	•	•	•	•	•
	Direct zero setting per channel	•	•	•	•	•	•
	Selection of resolution	•	•	•	•	•	•
	Selection of measuring direction	•	•	•	•	•	•
	PRESET	•	•	•	•	•	•
	Tolerance indicators			•	•	•	•
	Classification (max 8 classes)				•	• <sup>11)</sup>	• <sup>11)</sup>
	Min, Max, Delta				•	•	•
	A ± B (predifined functions)	•	•	•	•	•	•
	Mathematics functions				•		
	Scanning of the channels					•	•
	Histogram						
	Statistics						
	Memorization				•		
	Simultaneous display of the channels			•	•	•	•
	Dynamic measurement				•	•	•
	Calibration (max. 25 points)		•			•	
	Time and date display				•		
	Battery				•		

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

<sup>2)</sup> with 3 D200S units

<sup>3)</sup> 32 probes with units D200S or maximum 32 with D302 / D304 or M-Bus

<sup>4)</sup> with USB-Hub powered

<sup>5)</sup> depending on model, see details on pages D300S

<sup>6)</sup> with module MB-IO

<sup>7)</sup> with dongle Smart for D300S & MB-BT for D400S










<sup>8)</sup> A± B± C± D±, depending on model

<sup>9)</sup> Maximum 99 instruments on D400S through M-BUS (MB-4D & MB-8D digimatic)



# Digital display

## TABLE OF CORRESPONDENCES

 <b>D70I</b>	 <b>D70A</b>	 <b>D200S</b>	 <b>D300S<sup>*)</sup></b>	 <b>D302</b>	 <b>D302 a</b>	 <b>D304</b>	 <b>D304 a</b>	 <b>D400S</b>
2 <sup>i)</sup>		8 <sup>c)</sup>	2(4) <sup>c)</sup> 1/6	2 <sup>c)</sup>	2 <sup>c)</sup>	4 <sup>c)</sup>	4 <sup>c)</sup>	
1 <sup>p)</sup>	1 <sup>p)</sup>	1	2 ● <sup>5)</sup>	1	1	1	1	1 ●
	2		● <sup>7)</sup>					● <sup>7)</sup>
		24 <sup>2)</sup>	32 <sup>3)</sup> 6 <sup>4)</sup>					99 <sup>9)</sup> 99 <sup>9)</sup>
●	●							●
●	●	●	●	●	●	●	●	●
● <sup>10)</sup>	● <sup>10)</sup>	●	●	●	●	●	●	●
		●	●					● <sup>6)</sup>
					●		●	
●	●	●	●					●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
● <sup>11)</sup>	● <sup>11)</sup>		●					● <sup>11)</sup>
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●			● <sup>12)</sup>
		●	●			● <sup>8)</sup>	● <sup>8)</sup>	●
●	●		●					●
			●					●
			●					●
●	●	●	●	●	●	●	●	●
●	●	●	●					●
●		●	●	●	●	●	●	●

<sup>10)</sup> Mini-USB

<sup>12)</sup> Model 2018

<sup>11)</sup> Up to 16 classes for 1 channel only

<sup>p)</sup> Binder 3 poles for D70S and D62S or Jack for D70H, D70A and D70I

<sup>c)</sup> capacitive, <sup>h)</sup> Heidenhain, <sup>i)</sup> inductive, <sup>a)</sup> absolute digital

\* Maximum 62 mixed on the D300S instruments



# Digital display

# D50S

## DESCRIPTION

- Compact and simple display units for capacitive measuring probes
- Large, bright display
- 2 probe inputs :
  - display of channel 1 value
  - display of channel 2 value
  - display of the combined value of channel 1 - or + that of channel 2
- Resolution up to 0.0001 mm (0.1 µm)
- Available in 2 versions :
  - D50S Standard
  - D50S Pro to pair a probe by entering a point-by-point correction (up to 25 points) in order to increase the accuracy of the whole system.
- Connector for optional pedal 904-4101
- RS232 data output
- IP54 liquid-proof front panel for workshop use



H Output cable RS232 to USB (925-1142), RS232 (925-5609) or Digimatic (926-8116)



**IP40**

**SWISS MADE**

**RS232**

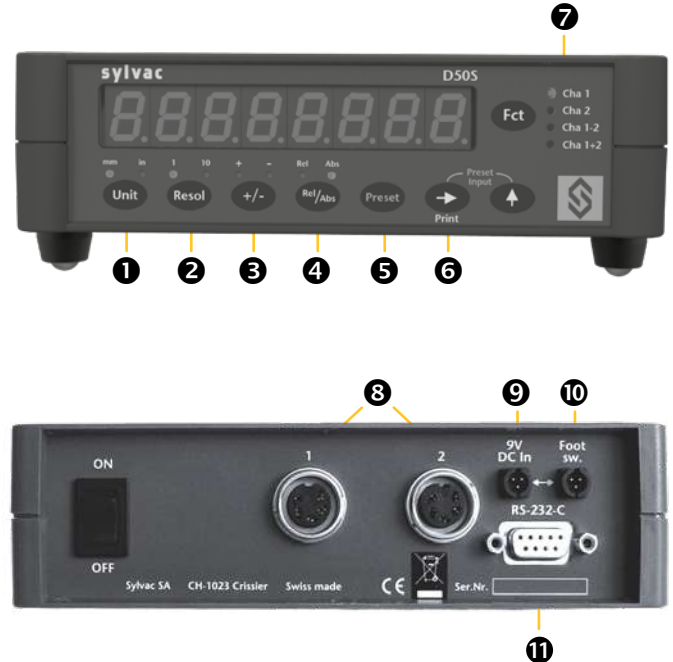


# Digital display

# D50S

## DISPLAY

- ❶ Conversion mm/inch
- ❷ Selection of resolution
- ❸ Selection of measuring direction
- ❹ REL and ABS measurement
- ❺ PRESET function
- ❻ Data sending
- ❼ Selection of measuring mode: channel 1 ; channel 2 ; channel 1-2 ; channel 1+2
- ❽ Probe inputs
- ❾ Power supply connection
- ❿ External contact connection
- ⓫ RS232 input/output



## TECHNICAL SPECIFICATIONS

		804-1050	804-1060
Type		D50S	D50S PRO
Max. Error	μm	P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9	P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8
Repeatability	μm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2
Overall dimensions	mm	180 x 75 x 50	180 x 75 x 50
Weight	kg	0.3	0.3
Case		Terblend Plastic	Terblend Plastic
Protection according to IEC 60529		IP40	IP40
Output data		RS232 / USB / Digimatic <sup>2)</sup>	RS232 / USB / Digimatic <sup>2)</sup>
Programmable by PC		•	•

<sup>1)</sup> Max error on D50S PRO paired with a probe

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

## STANDARD DELIVERY

- Unit according to technical specifications
- Feet (pair)
- Charging unit according to country (904-4200)
- Instruction manual



# Digital display

D50S

## APPLICATIONS



Measuring a shaft with 2 probes (A+B)



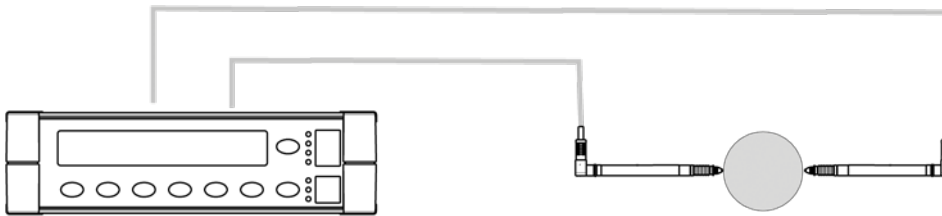
PS15 with connected to a D50S



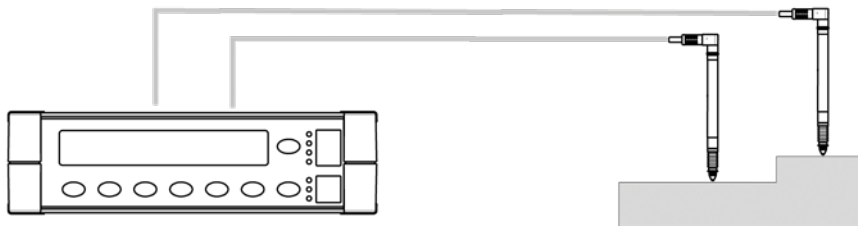
Simple measurement with one probe

## COMBINATIONS OF PROBES

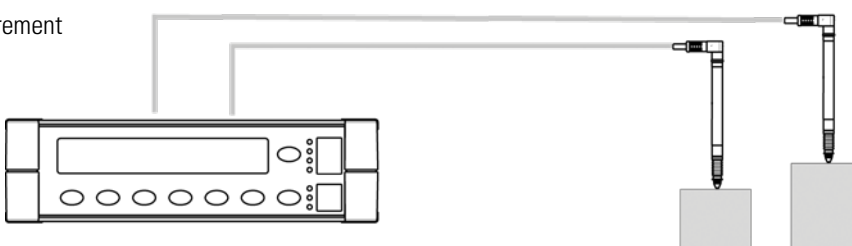
Diameter = 1+2



Difference = 1-2



Individual measurement



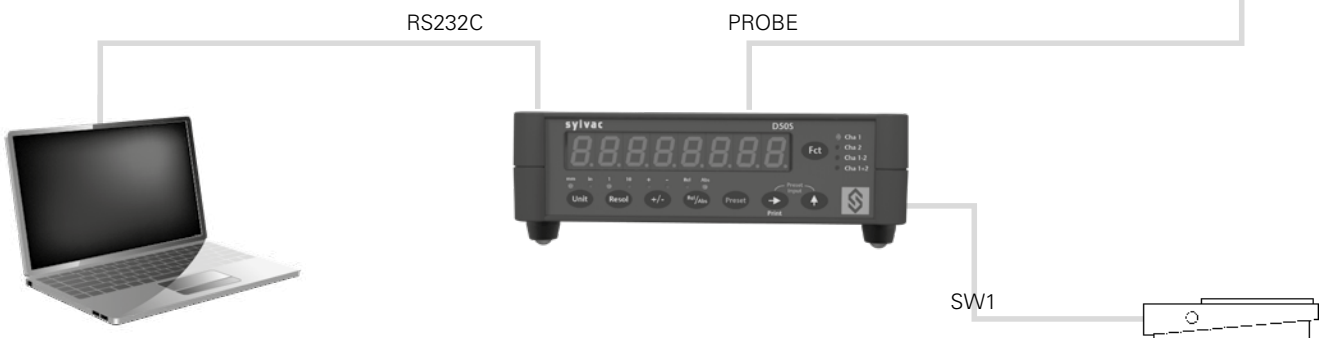
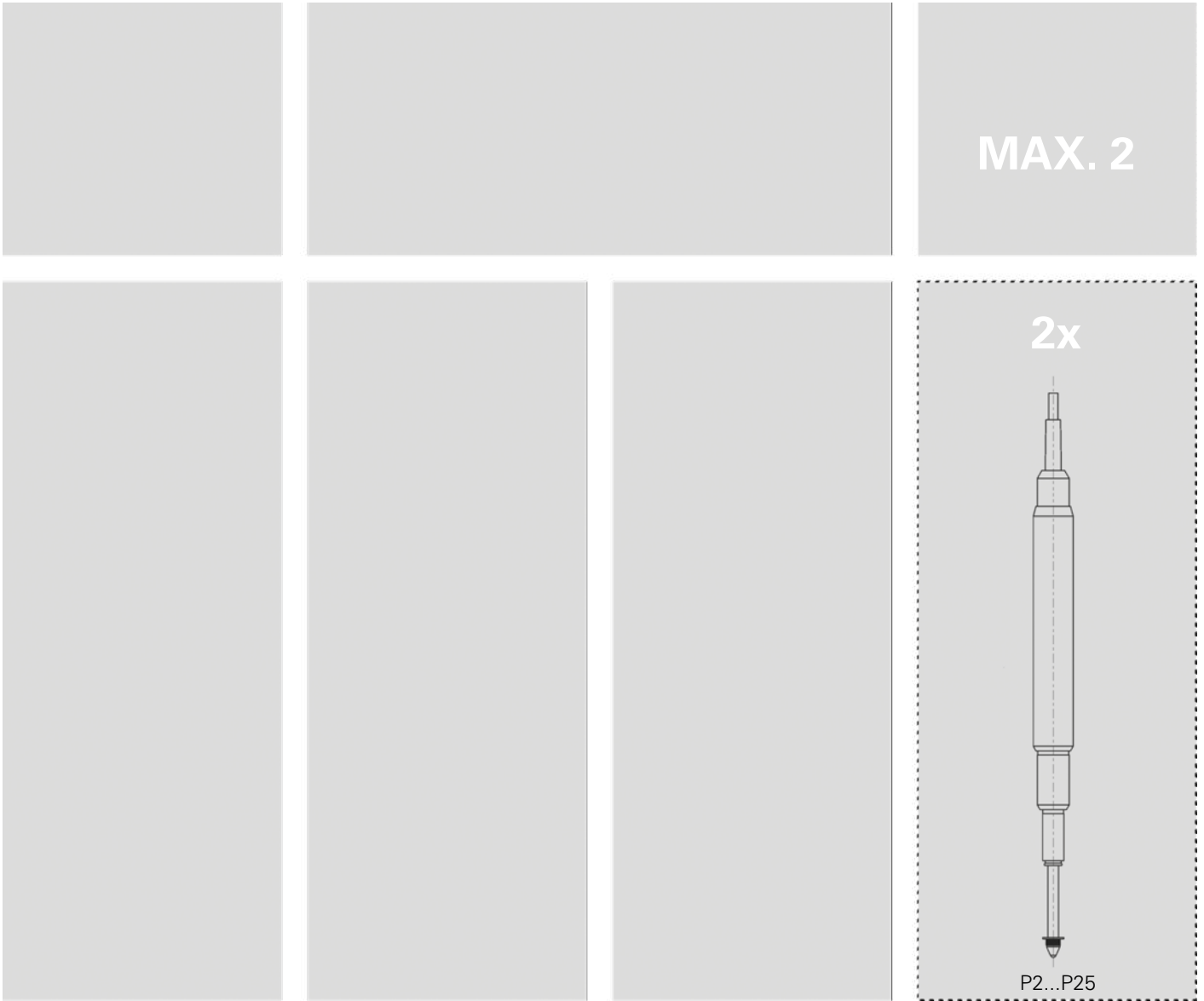
H



# Digital display

# D50S

## POSSIBILITIES OF CONNECTION



H





# Digital display

D62S

## DESCRIPTION

- New table display unit for digital P12D measuring probes
- Shockproof construction
- 2 inputs with connectors type M8 :
  - display of channel 1 value
  - display of channel 2 value
  - display of the combined value of channel 1 - or + that of channel 2
  - Automatic detection and display of the channel used
- Large 4.3" colour touch screen with intuitive functions
- Resolution up to 0.00001 mm (0.01 µm)
- Central button with selectable favourite function
- Wide range of functions, including MIN/MAX/DELTA
- Connector for optional pedal 904-4101
- USB and RS232 data outputs
- IP54 liquid-proof front panel for workshop use
- Advanced version with battery, Bluetooth® system and tolerance status indication via integrated LED bar



H

Large touch screen display

Indication of the global tolerance status (model D62S Advanced)

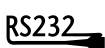
Indication of the battery status

Favourite key

Rubber protection - shockproof

### IP54

(front face)



Output cable RS232 to RS232 (926-5609) or USB (925-1142) or output cable mini-USB sur USB (926-6001)

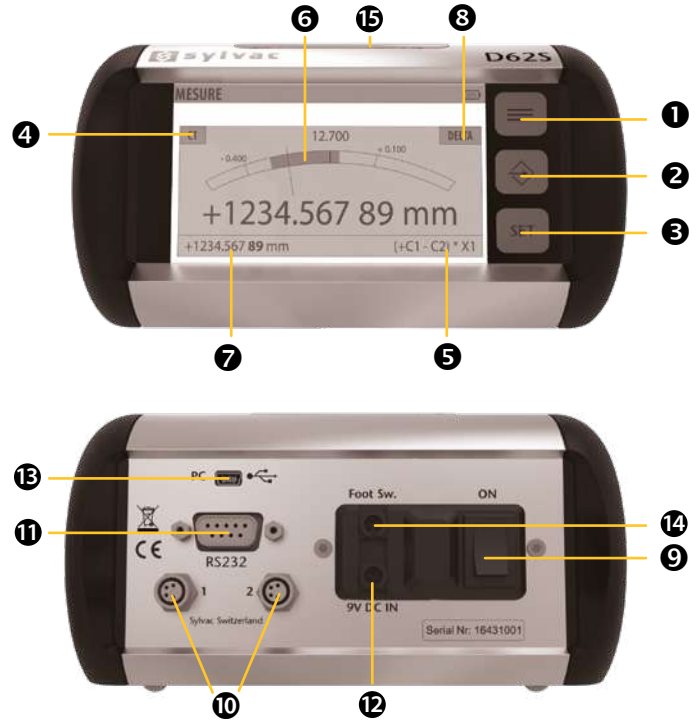


# Digital display

# D62S

## DISPLAY

- 1** Menu display
- 2** Favourite key
- 3** SET
- 4** Selection of channels
- 5** Formula <sup>1)</sup>
- 6** Analog display
- 7** Current value, mode MIN/MAX/DELTA <sup>1)</sup>
- 8** Measuring mode MIN/MAX/DELTA <sup>1)</sup>
- 9** ON/OFF switch
- 10** Probe inputs (M8 - P12D)
- 11** RS232 inputs/outputs
- 12** Power-supply
- 13** mini/USB Device (PC connection)
- 14** Footswitch input
- 15** Light indicator of the global tolerances <sup>1)</sup>



<sup>1)</sup> only on Advanced model

## TECHNICAL SPECIFICATIONS

	804-1062	804-1063
Model	D62S	D62S Advanced
Inputs	2x M8 for Sylvac absolute digital probes	
Resolution	µm	0.01
Max. error	µm	P12D HR : 0.6
Repeatability	µm	P12D HR : 0.08
Overall dimensions	mm	170 x 90 x90
Weight	g	613
Case	Aluminium and thermoplastic elastomer	
Protection according to IEC 60529	IP40 (Front face : IP65)	
Output data	USB (Device) <sup>1)</sup> , RS232	Bluetooth® wireless technology, RS232, USB (Device) <sup>1)</sup>
Indicator of the global tolerance		•
Battery		•
Time and date display (RTC)		•

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

H



# Digital display

# D62S

## STANDARD DELIVERY

- Unit according to technical specifications
- Charging unit according to country (904-4200)
- Instruction manual

## APPLICATIONS



Probes P12D connected to a D62S.



D62S Advanced sending data on the Sylvac Anywhere App for smartphones.

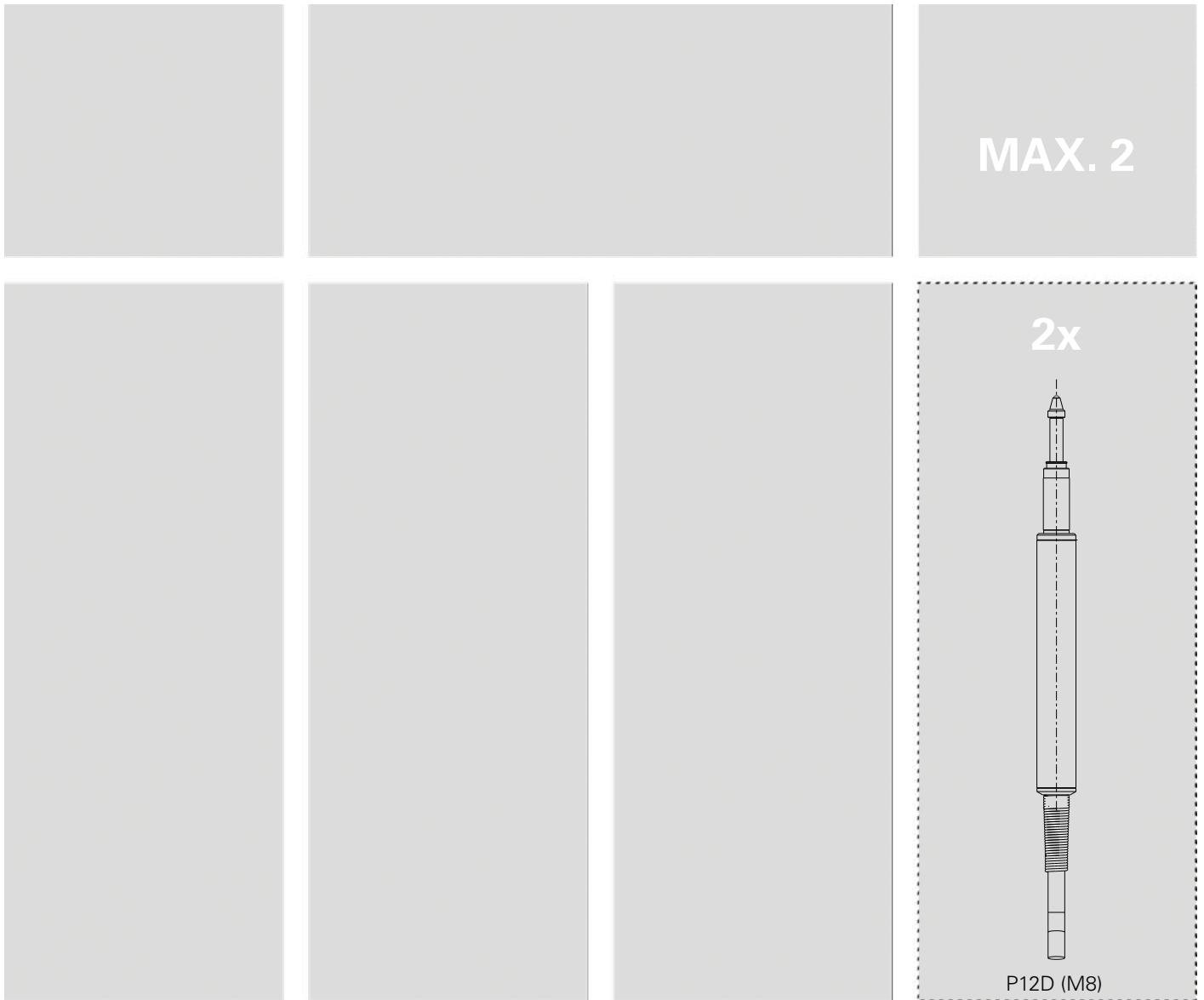
H



# Digital display

# D62S

## POSSIBILITIES OF CONNECTION





# Digital display

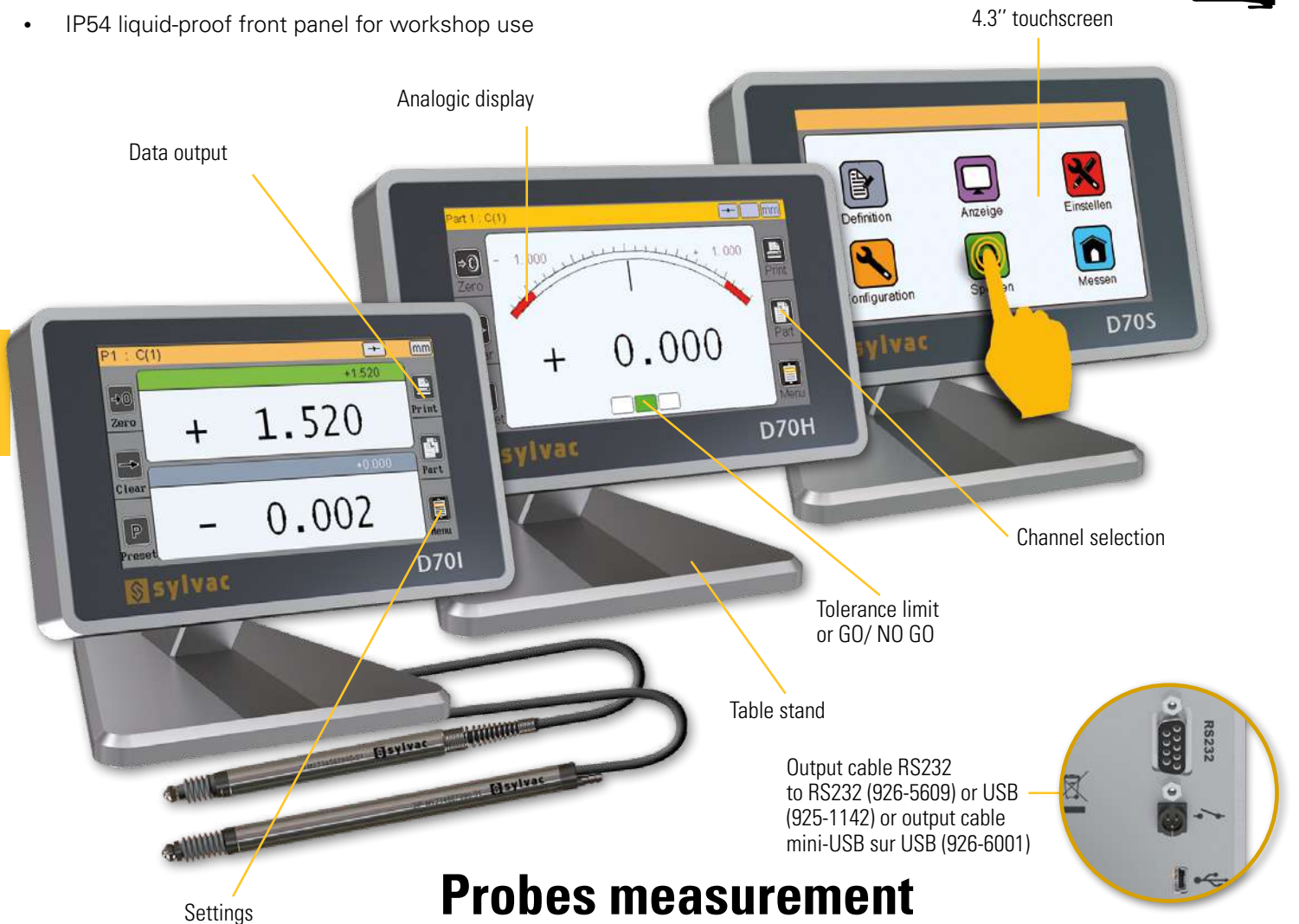
# D70S/H/I

## DESCRIPTION

- Compact display units for measuring probes
- Extremely robust aluminium housing
- Available in 3 versions with 2 probe inputs :
  - D70H = for HEIDENHAIN touch probes type ST/MT
  - D70I = for SYLVAC inductive probes
  - D70S = for SYLVAC capacitive probes
- Large 4.3" colour touch screen with intuitive functions
- Display in different modes (possibility to display the 2 values simultaneously)
- Resolution up to 0.0001 mm (0.1 µm) and 0.00001 mm (0.01 µm) for version D70H
- Extensive choice of functions including MIN/MAX/DELTA and channel combinations
- Connector for optional pedal 904-4101 (D70S) and 904-4102 (D70H and D70I)
- Powered by USB cable, the unit is detected as an «external keyboard» when connected to the computer, allowing for easy data transfer.
- USB and RS232 data outputs
- Connector for Mbus
- IP54 liquid-proof front panel for workshop use

**mini-USB**

**RS232**



## Probes measurement

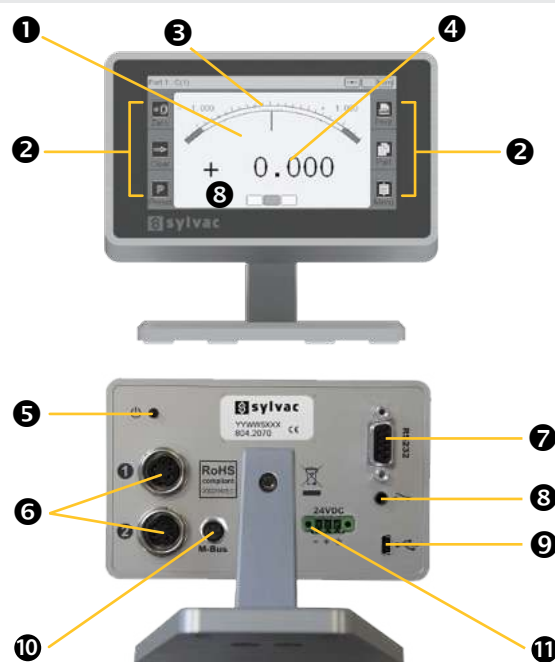


# Digital display

# D70S/H/I

## DISPLAY

- ❶ 4.3" Touchscreen display
- ❷ User friendly interface
- ❸ Analogic display
- ❹ Digital display
- ❺ ON/OFF
- ❻ 2 Capacitive / Inductive / 1VPP probes input (depending model)
- ❼ RS232 output
- ❽ 1 external contact
- ❾ Mini-usb and and supply/data
- ❿ Input M-Bus / M8 (depending model)
- ⓫ Power-supply 24VDC (depending on model)



## TECHNICAL SPECIFICATIONS

		804-2070
Type		D70S
Overall dimensions	mm	140x105x111
Weight	kg	0.6
Case		Aluminium
Protection according to IEC 60529		IP65
Output data		USB / RS232
Probes		Sylvac Capacitive probes
Programmable by PC		●

		804-2072
Type*		D70H
Overall dimensions	mm	140x105x111
Weight	kg	0.6
Case		Aluminium
Protection according to IEC 60529		IP65
Output data		USB / RS232 (1x1)
Probes		Heidenhain ST/MT probes (Mitutoyo & Magescale with adapter) / P12D
Programmable by PC		●

\* Not available in Switzerland





# Digital display

# D70S/H/I/

## TECHNICAL SPECIFICATIONS

		804-2071
Type		D70I
Overall dimensions	mm	140x105x111
Weight	kg	0.6
Case		Aluminium
Protection according to IEC 60529		IP40
Output data		USB / RS232 (1x1)
Probes		Sylvac Inductive probes (Tesa & Mahr* compatible) / P12D
Programmable by PC		●

\* Mahr probes : only probes compatible Tesa



D70S : Capacitive probes



D70I : Inductive probes



D70H : Heidenhain probes

## APPLICATIONS



D70S with capacitive Sylvac probes



D70H with Heidenhain probes



D70I with inductive probes

## STANDARD DELIVERY

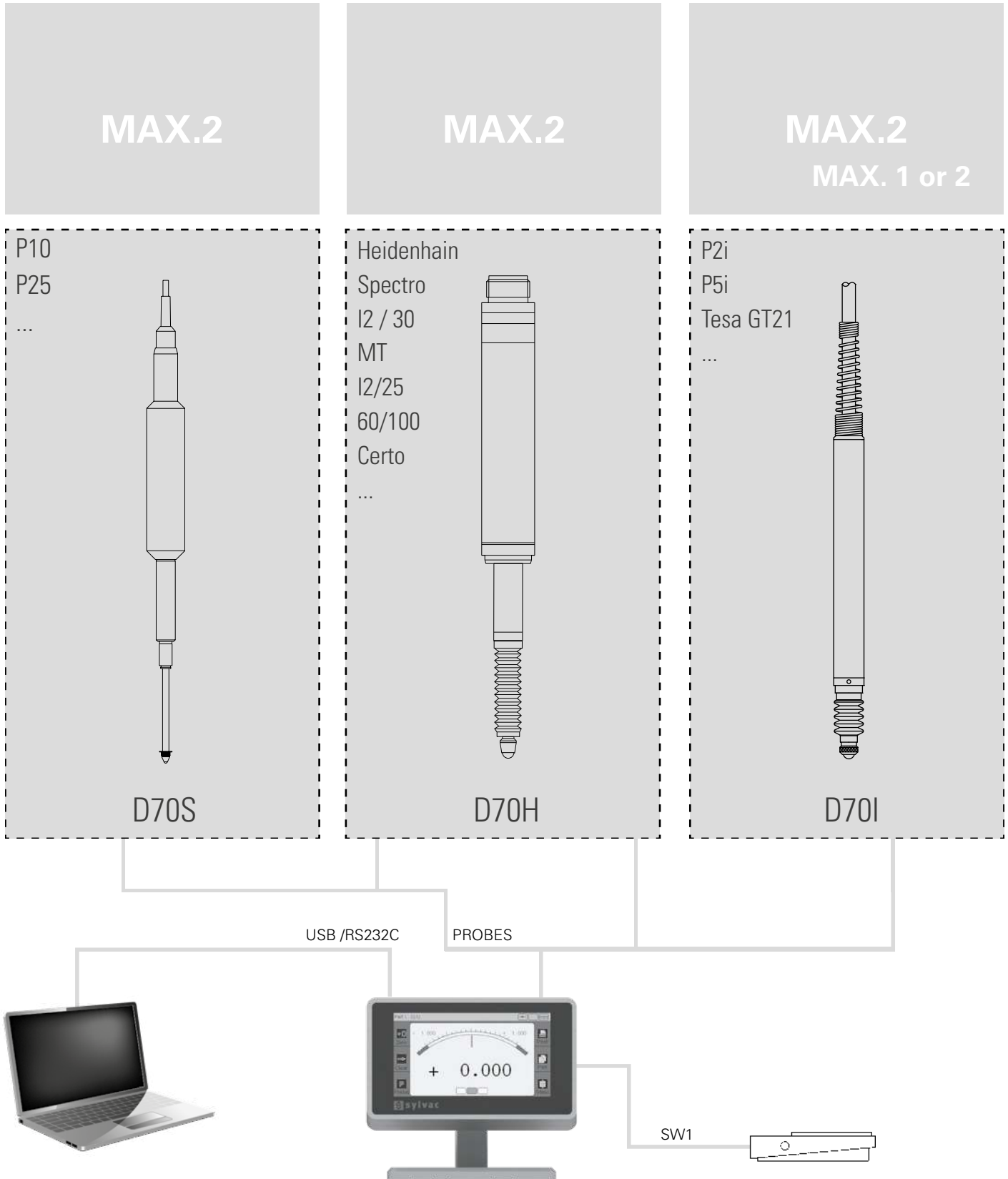
- Unit according to technical specifications
- Table base
- Charging unit
- Instruction manual



# Digital display

# D70S/H/I

## POSSIBILITIES OF CONNECTION



H





# Digital display

D70A

## DESCRIPTION

- Compact display units for air measurement equipped with a digital pressure sensor acting as a converter to convert a pressure value into a highly accurate dimensional value.
- Available in 2 versions :
  - D70A1 with one air inlet
  - D70A2 with two air inlets
- Features similar to the other D70 units, but with some special features specific to air measurement:
  - Each inlet is equipped with a throttle to define the volume of air entering the unit according to the specificities of the connected air buffer.
  - Calibration of the unit with 2 or 3 standards
  - Possibility to activate an alarm in case of a change in supply pressure or a change in temperature
  - Unit fully configurable by QR code
- Display resolution up to 0.00001 mm (0.01  $\mu\text{m}$ )
- Requires no maintenance or calibration
- Compatible with all brands of air pads
- Delivered with a set of 6 different choke valves.
- Connector for M-BUS modules
- IP54 liquid-proof front panel for workshop use

## Air measurement



4.3" touchscreen

mini-USB

RS232

Table stand

\* plug and air gages available on request

Output cable RS232 to RS232 (926-5609) or USB (925-1142) or output cable mini-USB sur USB (926-6001)

H

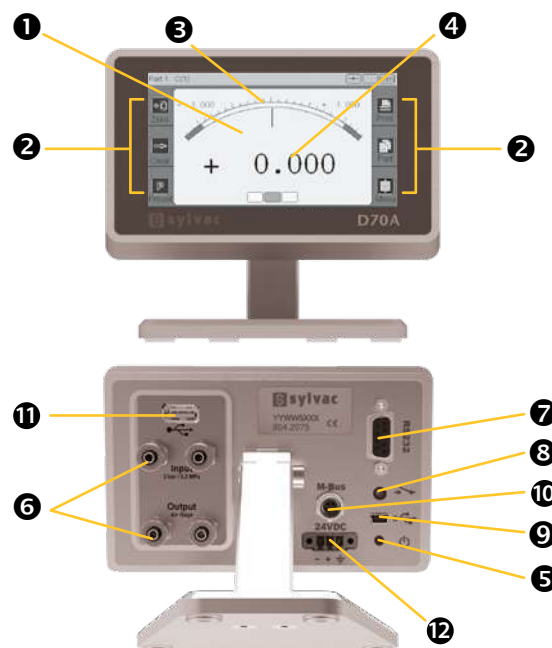


# Digital display

# D70A

## DISPLAY

- ❶ 4.3" Touchscreen display
- ❷ User friendly interface
- ❸ Analogic display
- ❹ Digital display
- ❺ ON/OFF
- ❻ 1 or 2 air gages inputs (depending model)
- ❼ RS232 output
- ❽ 1 external contact
- ❾ Mini-usb and and supply/data
- ❿ M-Bus Input
- ⓫ USB key input
- ⓬ Power-supply 24VDC



## TECHNICAL SPECIFICATIONS

		804-2074
Type		D70A - 1 input
Overall dimensions	mm	140x105x111
Weight	kg	0.6
Case		Aluminium
Protection according to IEC 60529		IP65
Output data		USB / RS232
Instruments		Plug gages and air gages / P12D
Programmable by PC		●

		804-2075
Type*		D70A - 2 inputs
Overall dimensions	mm	140x105x111
Weight	kg	0.6
Case		Aluminium
Protection according to IEC 60529		IP65
Output data		USB / RS232 (1x1)
Instruments		Plug gages and air gages / P12D
Programmable by PC		●

H

# Digital display

# D70A

## TECHNICAL SPECIFICATIONS



D70A - 1 input

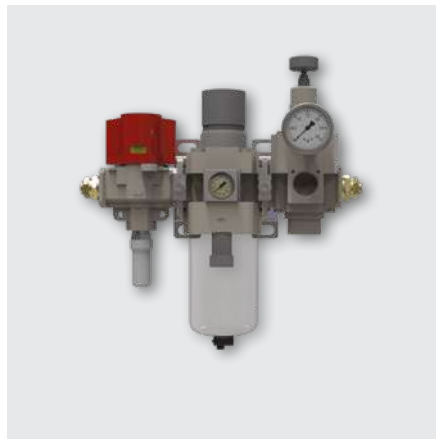


D70A - 2 inputs

## APPLICATIONS AND ACCESSORIES



D70A with air and plug gauges



Air kit for D70A (804-2203)



D70A with accessory 804-2202 (panel mounting)

## STANDARD DELIVERY

- Unit according to technical specifications
- Table base
- Charging unit
- Instruction manual
- 2 additional sets of restrictors

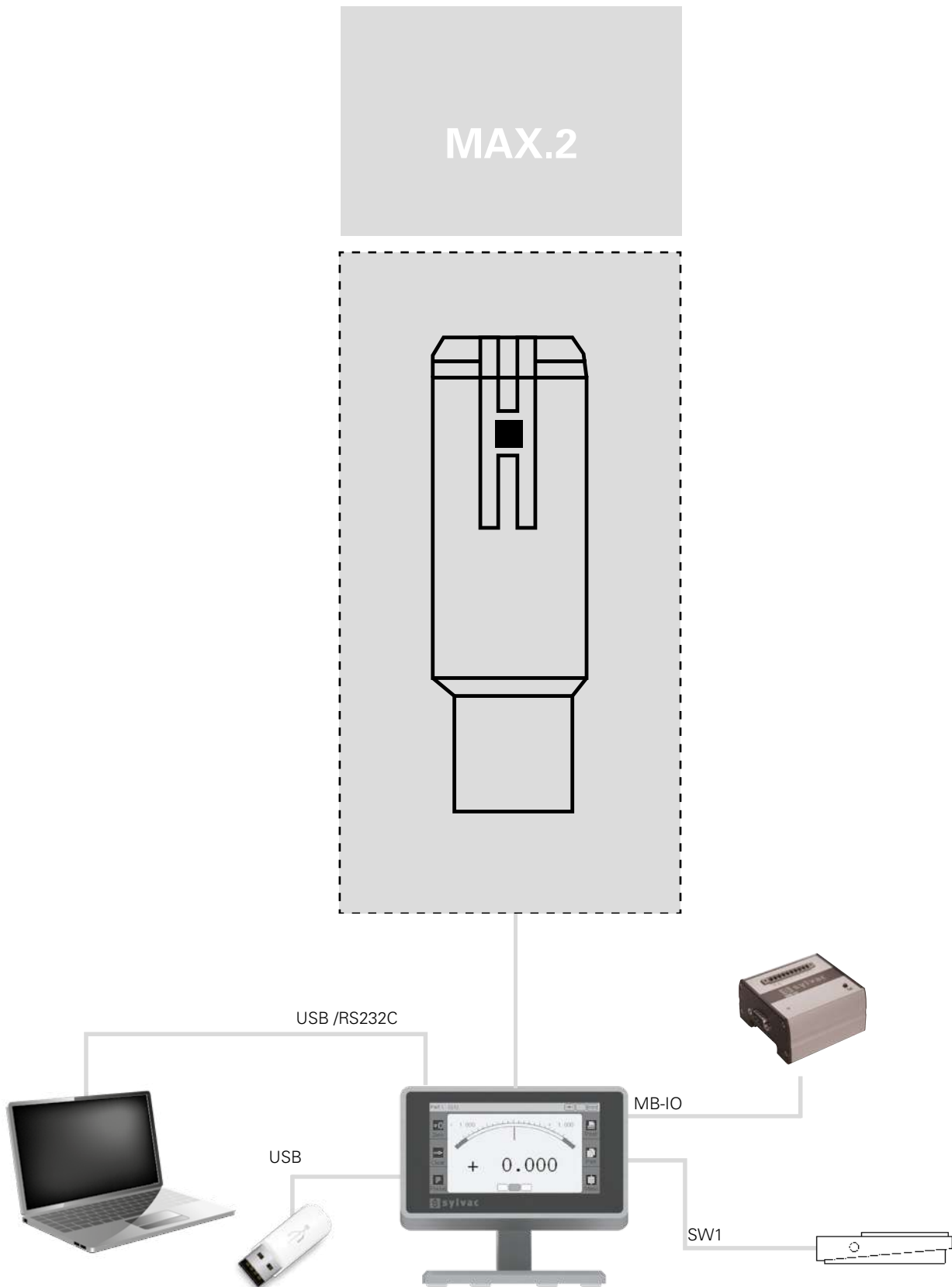
H



# Digital display

D70A

## POSSIBILITIES OF CONNECTION



H



# Multiplexer unit

# D200S

## DESCRIPTION

- Unit for connecting up to 8 SYLVAC capacitive probes and visualising the results on a PC (software included) or exporting the data.
- Housing made of aluminium profile and ABS plastic that can be placed vertically or horizontally
- 8 inputs for capacitive sensors P5, P10 and P25
- I/O terminal block with opto-coupled inputs/outputs
- Free software to view up to 24 channels simultaneously, create channel combinations, perform dynamic measurements or create sequences.
- Up to 3 units can be connected to the software, so that up to 24 probe inputs can be used.
- Possibility to connect a D110V unit for lifting the vacuum probes
- 2 connectors for optional pedal 904-4101
- USB and RS232 data outputs
- IP50 protection



Output cable USB to USB (804-1210) or output cable RS232 to RS232 (925-5609)

8 inputs for Sylvac probes



Software allowing the treatment of up to 24 channels simultaneously (bargraph)

Tolerance indicators

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

Opto-coupled digital output rack

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



H

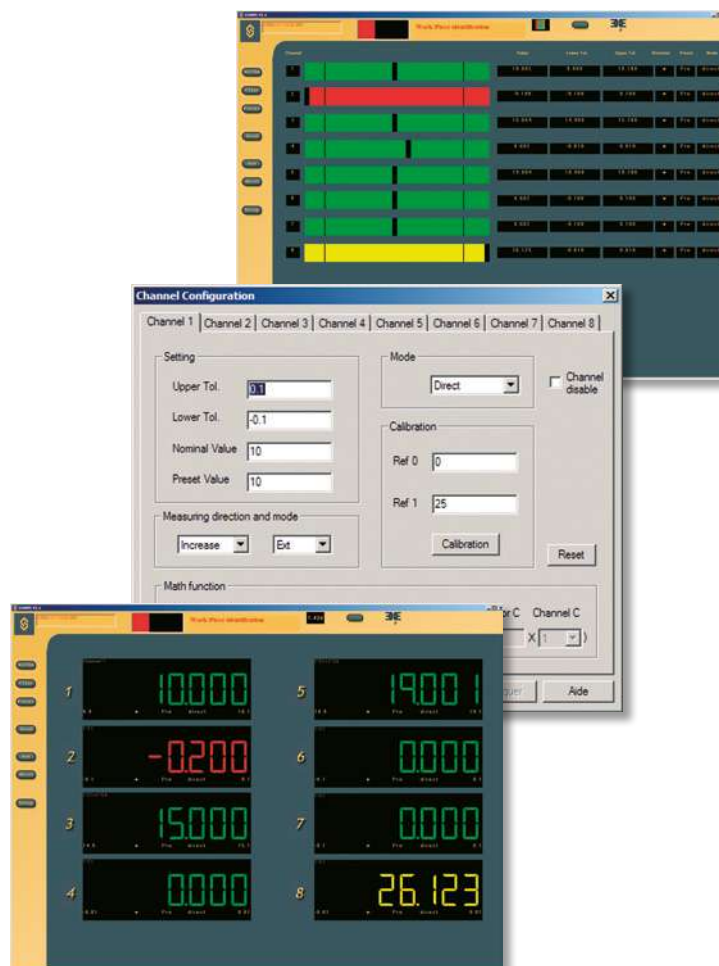


# Multiplexer unit

# 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
Repeatability	μm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2
Frequency of measurement		200 values /second
Overall dimensions	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
Output data		USB / RS232 <sup>1)</sup>
Programmable by PC		●

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





# Multiplexer unit

# D200S

## STANDARD DELIVERY

- Instrument according to technical specifications
- Feet for use in vertical position
- Charging unit according to country (904-4200)
- PC Connection cable type USB (804-1210)
- CD with D200S software
- Instruction manual

## APPLICATIONS



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



Capacitive probes connected to a D200S.



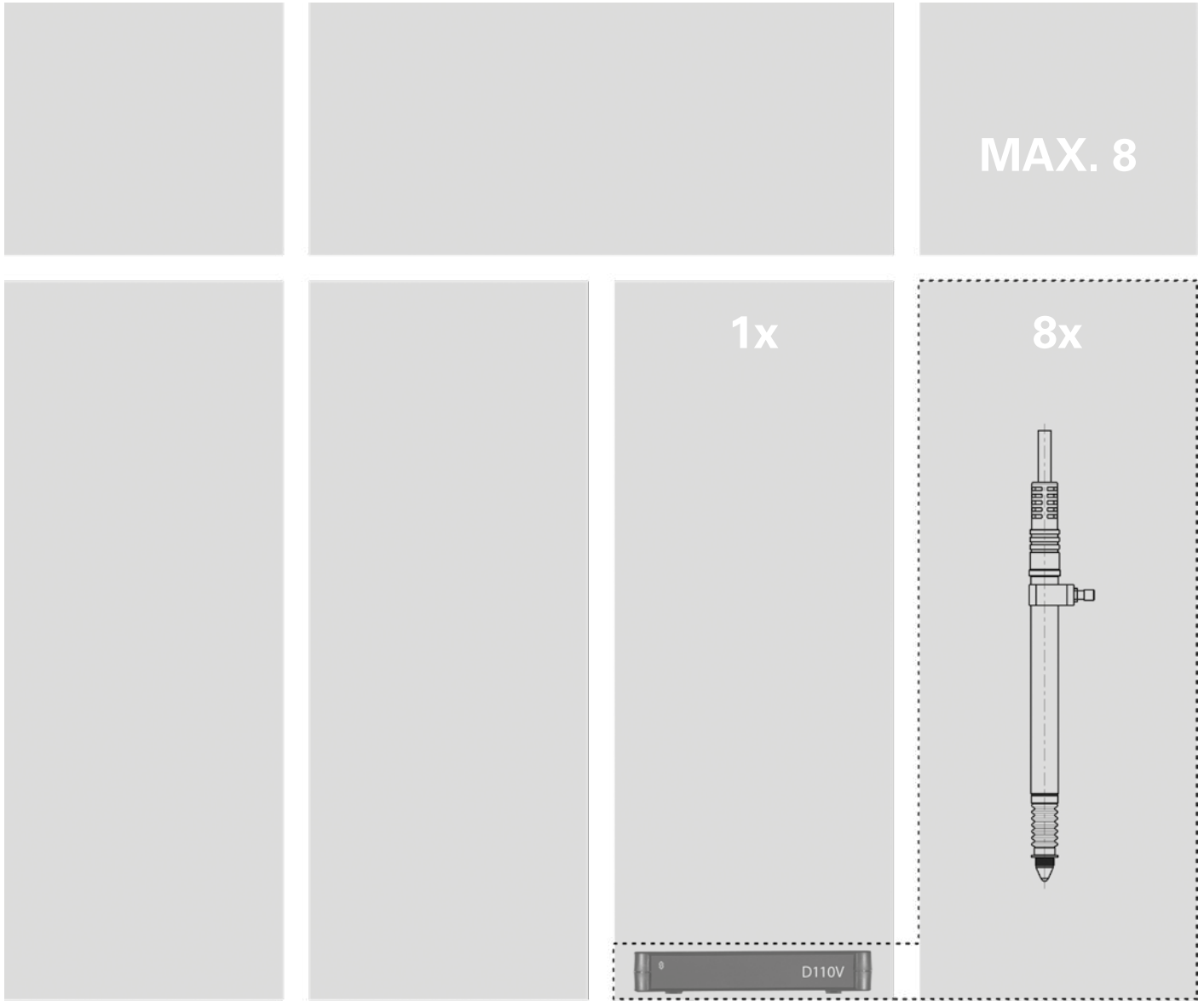
Multi-gauging application



# Multiplexer unit

D200S

## POSSIBILITIES OF D110V PNEUMATIC LIFTER



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# Multiplexer unit

D200S

## POSSIBILITIES OF CONNECTION

MAX. 8

8x



P2...P25

MAX. 8

8x



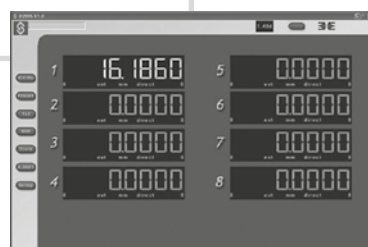
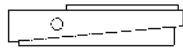
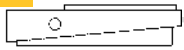
P2...P25

MAX. 8

8x



P2...P25



H





# Digital display

# D300S V2

## DESCRIPTION

- Multifunctional units for connecting both capacitive probes and handheld instruments connected via USB cable or Bluetooth®
- Housing made of aluminium profile and ABS plastic
- Large 8.5" colour touch screen
- Available in several versions with different connection possibilities :
  - 804-1300: 2 inputs for capacitive sensors and 6 USB inputs
  - 804-1320: 4 inputs for capacitive sensors and 6 USB inputs
  - 804-1320: input for M-BUS modules and 6 USB inputs
  - 804-1330: input for M-BUS modules and 2 inputs for capacitive sensors
  - 804-1340: input for M-BUS modules and 4 inputs for capacitive sensors
- Intuitive interface to create up to 64 pages with up to 8 display channels per page, create channel combinations, perform dynamic measurements or create sequences
- Display resolution up to 0.0001 mm (0.1 µm)
- I/O terminal block with opto-coupled inputs/outputs
- 2 connectors for optional pedal 904-4101
- VGA output for external display connection
- Ethernet RJ-45 connector
- USB and RS232 data outputs
- IP65 liquid-proof front panel for workshop use

Large touchscreen 8.5" protected against liquids IP65

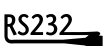


Output cable USB to USB (804-1210) and output cable RS232 to RS232 (925-5609)



Fully configurable user interface allowing to define the number of displayed channels per screen

Ergonomic keyboard



\* Dongle Smart required

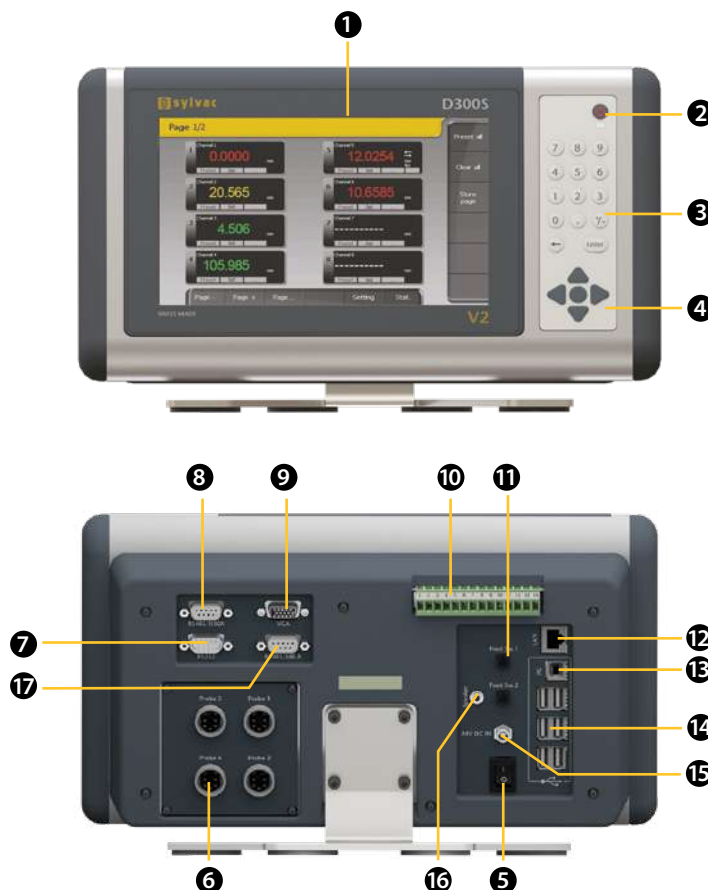


# Digital display

# D300S V2

## INTERFACE | HARDWARE

- ❶ Touchscreen 8.5"
- ❷ ON/OFF button for LCD
- ❸ Numeric keyboard
- ❹ Navigation keyboard
- ❺ ON/OFF switch
- ❻ Capacitive probes inputs
- ❼ RS-232 instrument input or PC connection <sup>1)</sup>
- ❽ RS-485 input
- ❾ VGA output
- ❿ Opto-coupled digital output
- ⓫ 2 inputs for external contacts
- ⓬ RJ-45 Ethernet
- ⓭ USB Device connector
- ⓮ 6 USB Host inputs
- ⓯ 24VDC connector
- ⓰ Audio jack connector
- ⓱ RS485 connector for connecting MB-X modules



<sup>1)</sup> depends on configuration

## TECHNICAL SPECIFICATIONS

	804-1300	804-1320	804-1310	804-1330	804-1340
Model	D300S-2	D300S-4	D300S		
Inputs *	2 probes / 6 USB**	4 probes / 6 USB**	M-Bus / 6 USB**	2 probes / M-Bus	4 probes / M-Bus
Max error	µm	P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9	---	---	---
Max. Error <sup>1)</sup>	µm	P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8	---	---	---
Repeatability	µm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2	---	---	---
Overall dimensions	mm	330 x 175 x 77			
Weight	kg	3.3			
Case		Steel / Plastic			
Protection rating according to IEC 60529		IP40			
Output data		USB / RS232			
Programmable by PC		•			

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

\* Extensible to 32 probes and 12 USB instruments



# Digital display

# D300S V2

## STANDARD DELIVERY

- Unit according to technical specifications
- Table base
- External contact (foot-pedal)
- Charging unit according to country (804-4000)
- Instruction manual

## APPLICATIONS



Many instruments connected to the D300S with live displayed colored values to indicate the tolerances



Multi-gauging measurement using D200S interface and D300S display



Measurement using PS17 bench Automatic detection of measuring channel and automatic switch to the right window



Multiple instruments connection through Bluetooth® wireless technology



Multiple instruments connection through M-BUS inputs



Dial gauges with Bluetooth® wireless technology connected to D300S

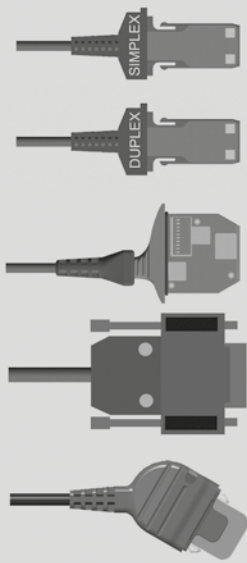




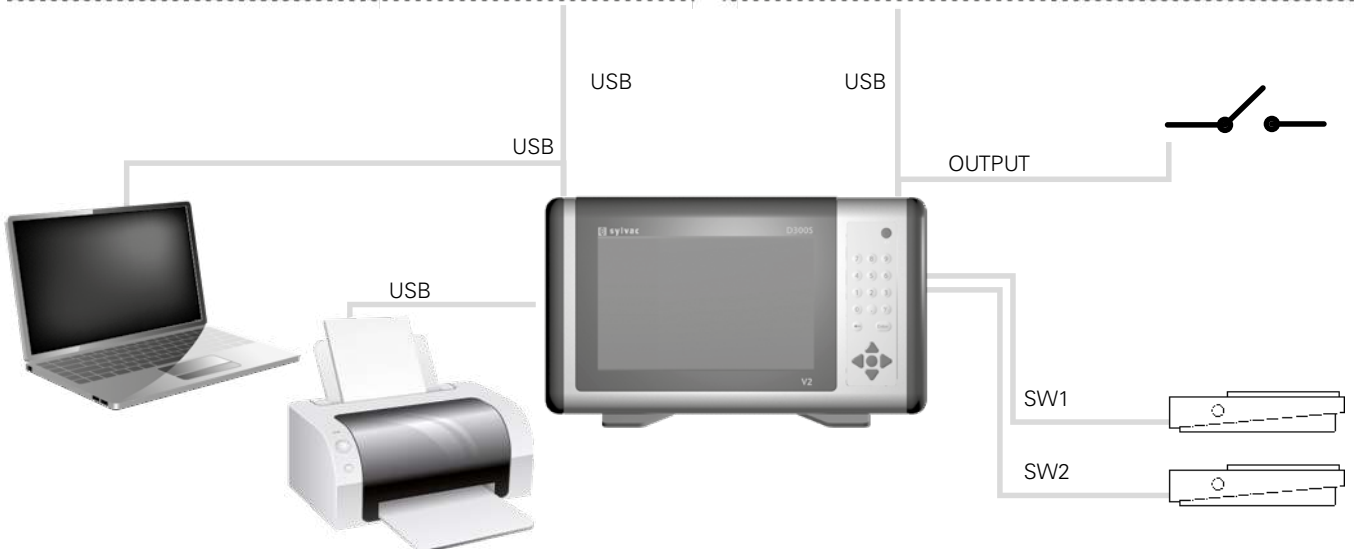
# Digital display

# D300S V2

## POSSIBILITIES OF CONNECTION WITH ACCESSORIES

<p><b>MAX. 6</b> Power supplied by D300S</p> <p><b>MAX. 12</b> Power supplied by USB-HUB</p>		<p><b>MAX. 30</b> Via D200S</p>
--	--	-------------------------------------

<p><b>6x USB</b> <b>1x RS-232</b></p> 		<p><b>4x</b></p>  <p>D200S</p>	<p><b>8x</b></p>  <p>P2...P25</p>
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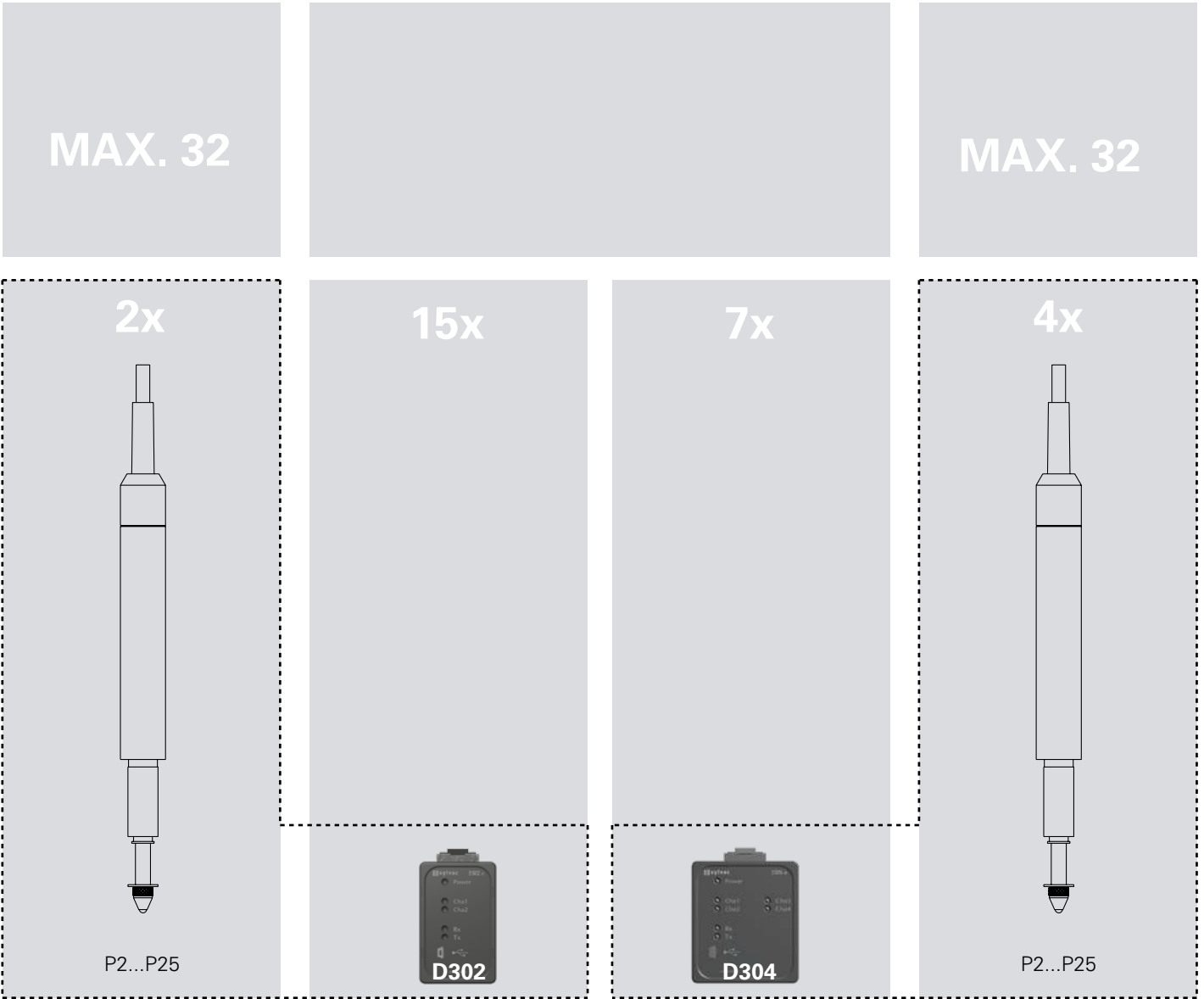
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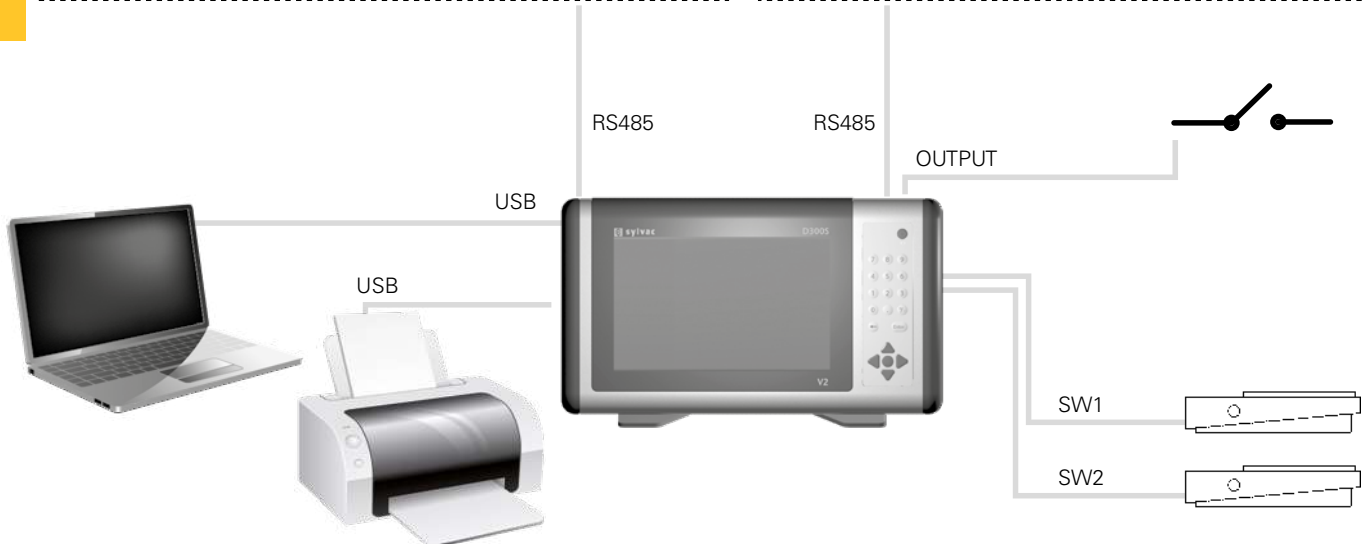
# Digital display

# D300S V2

## POSSIBILITIES OF CONNECTION WITH ACCESSORIES



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# Digital display

# D300S V2

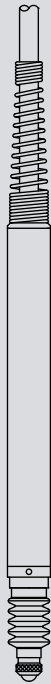
## POSSIBILITIES OF CONNECTION WITH ACCESSORIES

MAX. 32

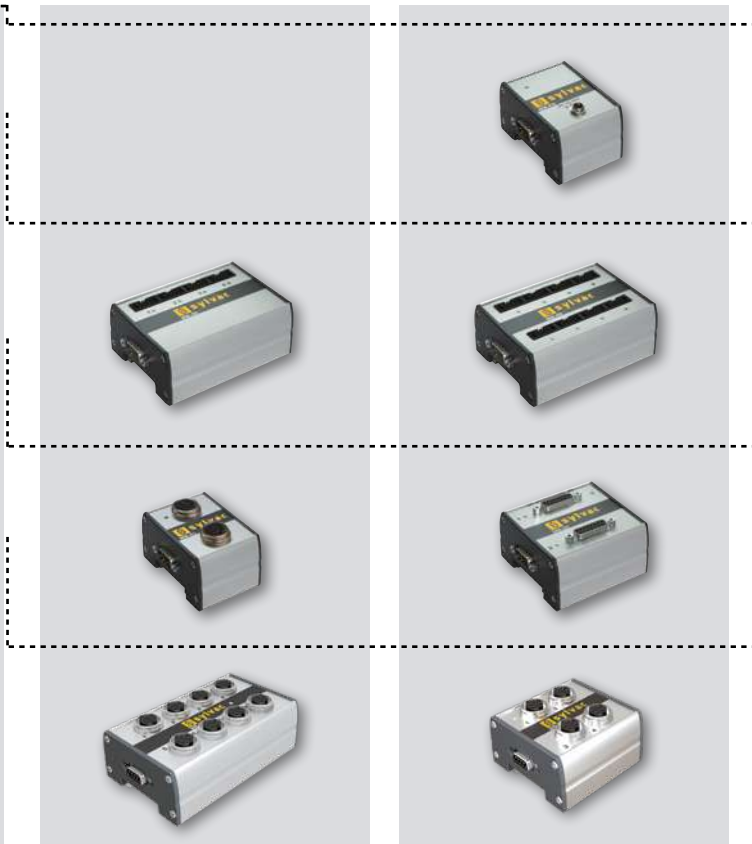
Compatible with all M-BUS modules, except MB-RS, MB-AG and MB-BT

MAX. 32

2 - 8x\*



P2i / P2iP / P5i / P5iP

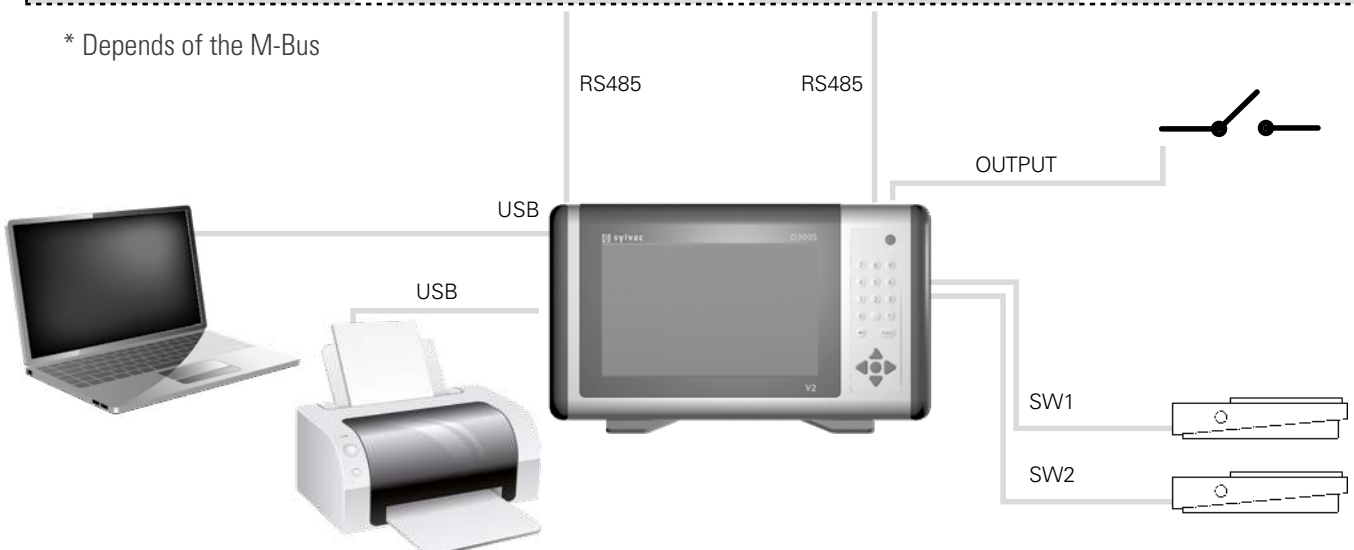


2 - 8x\*



P2i / P2iP / P5i / P5iP

\* Depends of the M-Bus



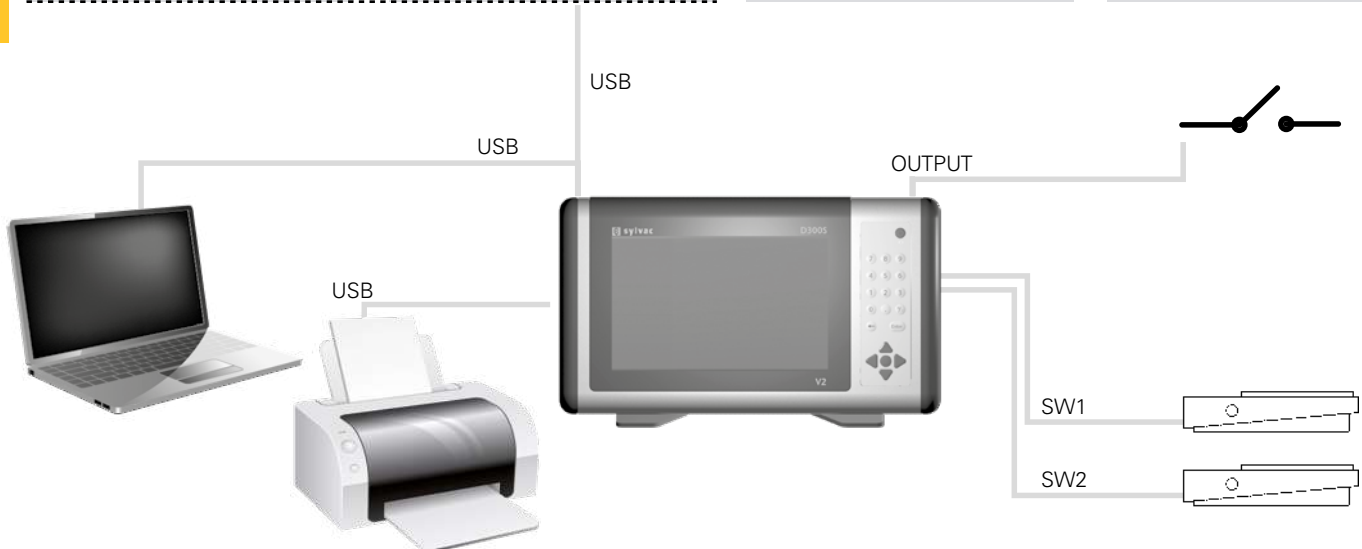
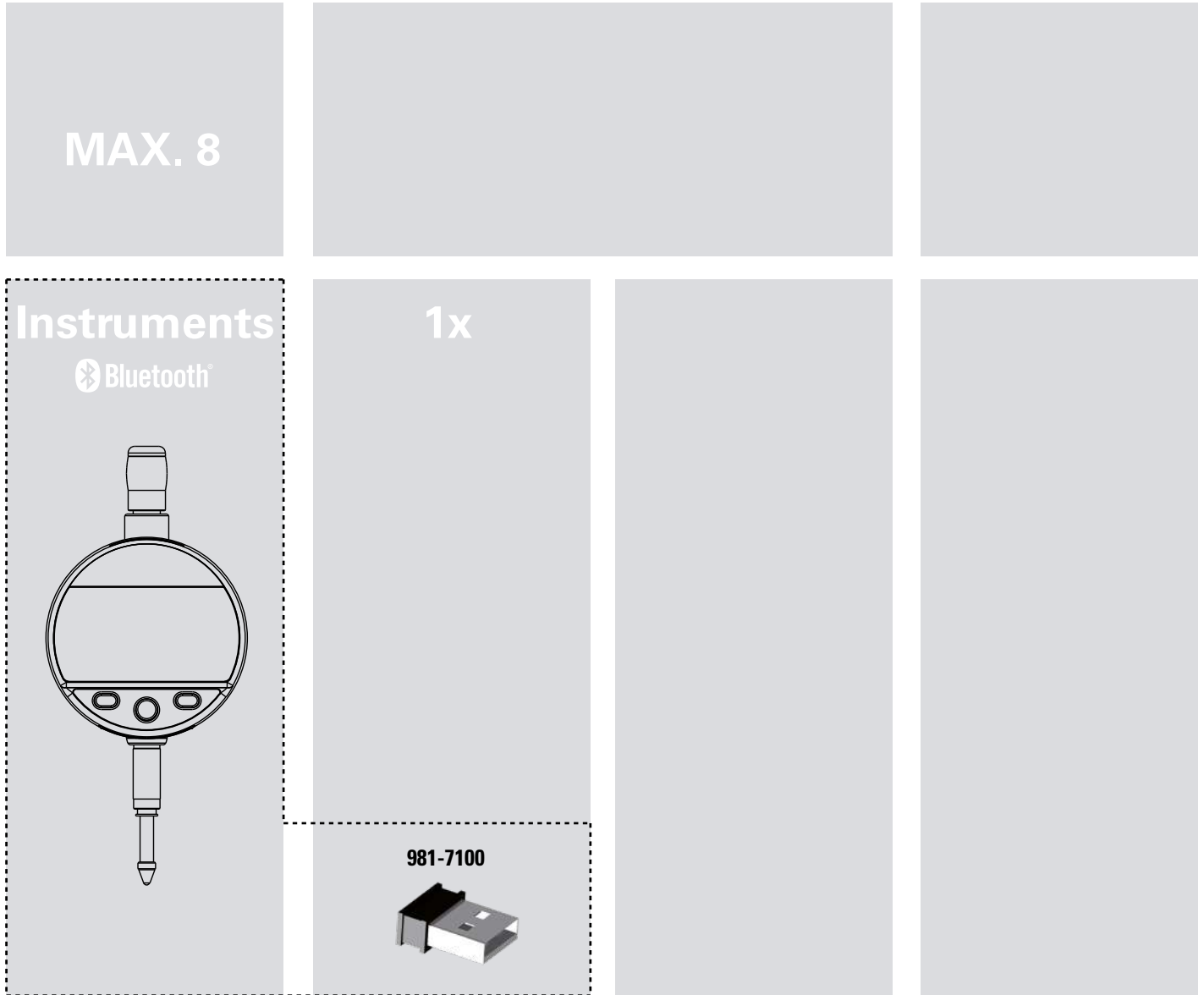




# Digital display

# D300S V2

## POSSIBILITIES OF CONNECTION WITH BLUETOOTH® WIRELESS TECHNOLOGY







# Digital display

# D400S

## DESCRIPTION

- Multifunctional unit for connecting up to 99 Sylvac instruments of different makes via M-BUS modules (the unit itself has no inputs for the instruments)
- Ideal for multi-dimensional control stations and automation applications
- Robust aluminium housing with table stand or can be integrated into a panel
- Large 7" colour touch screen
- Displays up to 32 channels simultaneously (on the same screen) or spread over several pages (max. 32)
- Intuitive interface for creating channel combinations, performing dynamic measurements, editing mathematical formulas or creating sequences
- Up to 128 room configurations can be stored and up to 30,000 values can be saved per configuration or saved on a USB stick.
- Basic SPC functions (Cp, Cpk, run chart, Pareto, histogram with Gauss curve, etc.).
- Display resolution up to 0.0001 mm (0.1  $\mu$ m)
- Connectors for optional pedal 904-4101
- USB and RS2323 data outputs
- ASCII and Modbus communication protocols
- IP54 liquid-proof front panel for workshop use



Panel mounting  
(accessory 804-2202)

Large touchscreen 7" protected against liquids IP65



Output cable USB to USB (804-1210) or RS232 (925-5609)



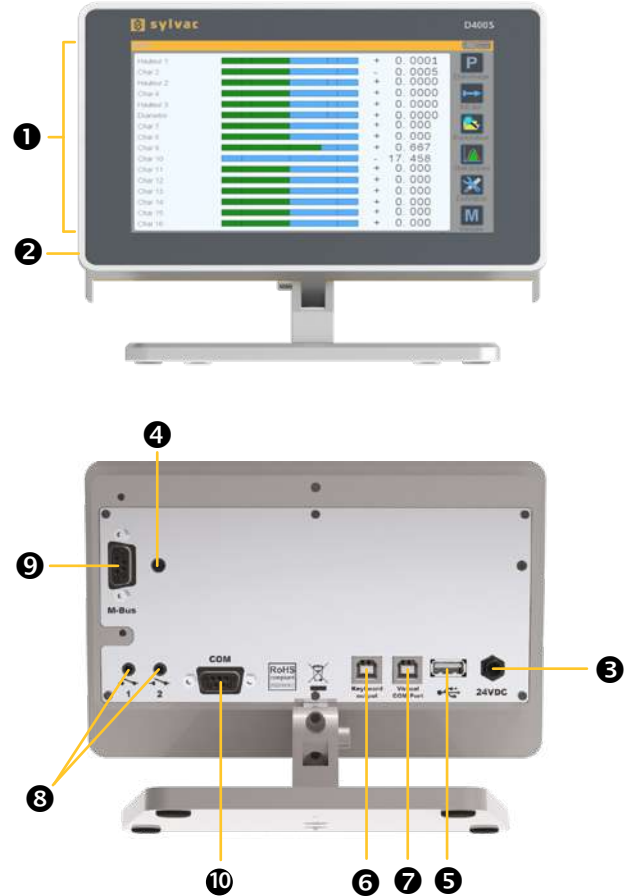


# Digital display

# D400S

## INTERFACE | HARDWARE

- ❶ Customizable display interface
- ❷ Aluminium body
- ❸ 24VDC Power supply
- ❹ Nut for DIN rail mounting (optional)
- ❺ USB key connector or QR code reader
- ❻ USB for HID keyboard emulation
- ❼ Virtual Com Port
- ❽ Footswitch 1 and 2
- ❾ Mbus connector
- ❿ Com Port (ASCII communication, Modbus RTU and Profinet module connection)



## TECHNICAL SPECIFICATIONS

		804-2400
Model		D400S
Overall dimensions	mm	200x143x151.6
Weight	kg	1.3
Case		Aluminium
Protection rating according to IEC 60529		IP65 (front face)
Output data		USB / RS232
Programmable by PC		●



# Digital display

D400S

## STANDARD DELIVERY

- Unit according to technical specifications
- Charging unit
- Instruction manual

## APPLICATIONS



Probes connection through M-BUS inputs



Inductive probes connection on a jig



Probes and indicators connection through M-BUS inputs



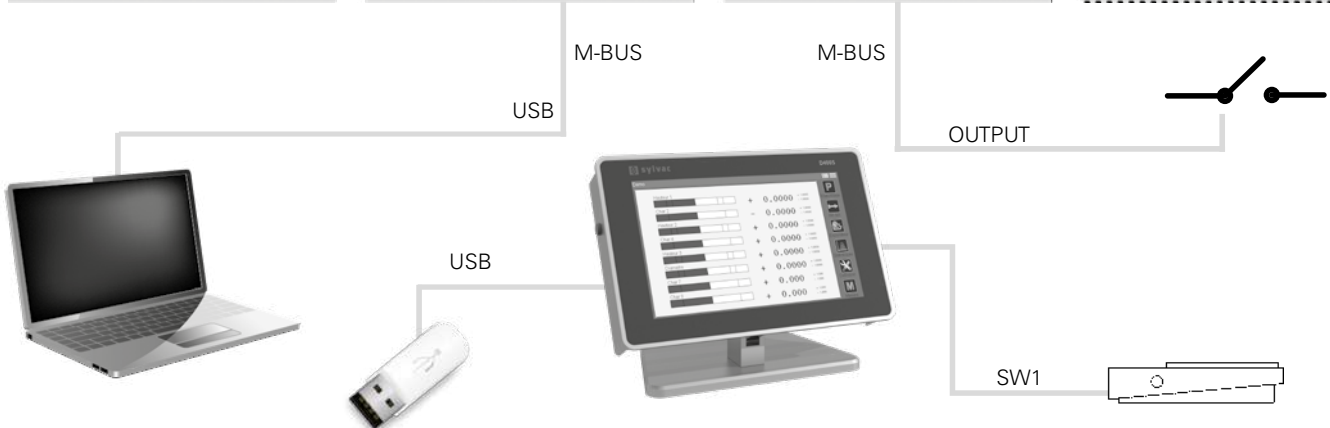
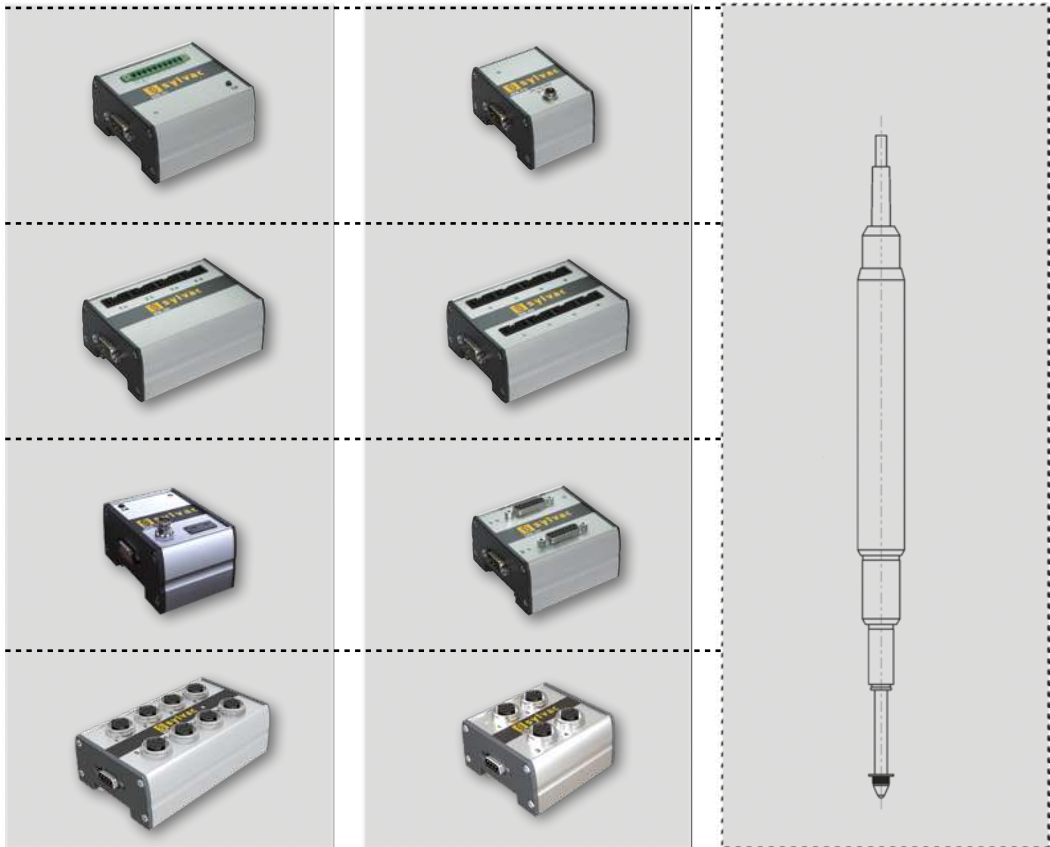
# Digital display

# D400S

## POSSIBILITIES OF CONNECTION WITH ACCESSORIES

MAX.99

Compatible with all M-BUS modules, except MB-RS



H



# Multiplexer unit

# D302 / D304

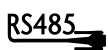
## DESCRIPTION

- Multiplexing units for connecting Sylvac capacitive probes to a computer or a PLC
- 2 or 4 inputs for capacitive sensors P5, P10 or P25
- Aluminium and plastic housing
- Available in 2 versions :
  - D302/D304 allowing the reading and conversion of the position value of Sylvac capacitive probes up to a resolution of 0.1µm. The results are available on a USB port and on a MODBUS RS485 port.
  - D302a/D304a equipped with an extension to provide analogue voltages corresponding to the position of the probes, with a range of +/-10V and a resolution of up to 0.025 mV
- Baud rate 10-20 measurements per second depending on resolution
- Up to 16 D304 units can be coupled together to have a maximum of 64 probe inputs.
- IP40 protection



Output cable RS485 to RS485 (925-5609)

Output cable mini-USB to USB (926-6001)



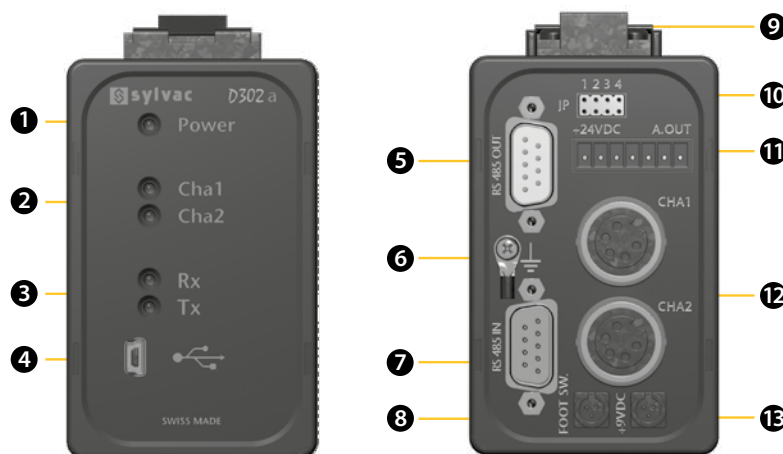


# Multiplexer unit

# D302 / D304

## HARDWARE DESCRIPTION

- ❶ LED Power
- ❷ LED channel
- ❸ LED RS 485 activity
- ❹ USB port for PC connection
- ❺ RS 485 output
- ❻ Ground connector
- ❼ RS 485 input
- ❽ External connector
- ❾ Standard clamping (DIN 35mm)
- ❿ Jumpers
- ⓫ Analog output / 24 VDC (only version a)
- ⓬ Probes input
- ⓭ 9V power supply input



## TECHNICAL SPECIFICATIONS

		804-1302	804-1303	804-1304	804-1305
Modele		D302	D302a	D304	D304a
Max error	µm	P2 : 1.5 / P5 : 1.6 / P10 : 1.6 / P25 : 1.9			
Max. Error <sup>1)</sup>	µm	P2 : 0.5 / P5 : 0.6 / P10 : 0.6 / P25 : 0.8			
Repeatability	µm	P2 : 0.2 / P5 : 0.2 / P10 : 0.2 / P25 : 0.2			
Overall dimensions	mm	95 x 88 x 55		95 x 88 x 77	
Weight	kg	0.3			
Case		Aluminium profil / plastic TA 6			
Protection rating according to IEC 60529		IP40			
Output data		USB / RS 485			
Programmable by PC		•			
Analog output signal			-10V ... +10V		-10V ... +10V

## STANDARD DELIVERY

- Unit according to technical specifications
- Feet (pair)
- RS232/RS485 cable
- Charging unit according to country (904-4200)
- Instruction manual

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# Multiplexer unit

# M-Bus

## DESCRIPTION

- Interfacing modules for connecting Sylvac instruments (hand instruments and probes) as well as instruments of other brands to the D300S and D400S units, to a computer (Sylcom Advanced and Pro) or to a PLC
- Manufactured from an anodised aluminium profile for mounting on a DIN rail, our M-Bus modules are suitable for use in harsh industrial environments.
- RS485 data output
- The following modules are available:

### 804-2160 MB-RS module

Master module for communication with the computer or PLC via USB or RS232.

### 804-2104 Module MB-4C

Module with 4 connectors for Sylvac capacitive probes.

### 804-2107 Module MB-4I / 804-2108 Module MB-8I

Module with 4 or 8 connectors for Sylvac inductive probes. These modules are also suitable for Half-Bridge probes from other manufacturers using the Tesa protocol (Mahr, Dong-Do, Tesa, Peter Hirt, etc.).

### 804-2122 Module MB-2S

Module with 2 connectors for Heindenhein incremental probes 11µmA/1VPP .

### 804-2190 Module MB-AG

Module with one inlet for tampon or air ring, supplied with a set of 6 different throttles.

### 804-2140 MB-PS module

Additional power supply module that may be required when a large number of M-BUS modules are connected together.

### 804-2130 MB-I/O module

Module with 8 opto-coupled inputs/outputs for communication with a PLC or peripherals such as an alarm signal. It is possible to connect several I/O modules in order to have up to 32 inputs/ outputs.

### 804-2105 Module MB-4P

Module with 4 connectors type M8 for Sylvac P12D digital probe.

### 804-2111 Module MB-1D / 804-2114 Module MB-4D

Module with 1 or 4 Digimatic type connectors for Mitutoyo instruments and instruments of other Digimatic compatible brands.

### 804-2180 MB-BT module

Module for connecting 8 Sylvac Smart Bluetooth® instruments (only compatible with D400S unit).

### 804-2170 MB-TP module

Module with one input for a thermocouple or PT100 temperature sensor/probe.

### 804-21xx MB-NET module

Module with Ethernet connector to transfer values to a server (only compatible with D400S unit).



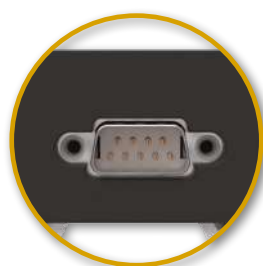
Multiplexer units M-Bus

# Multiplexer unit

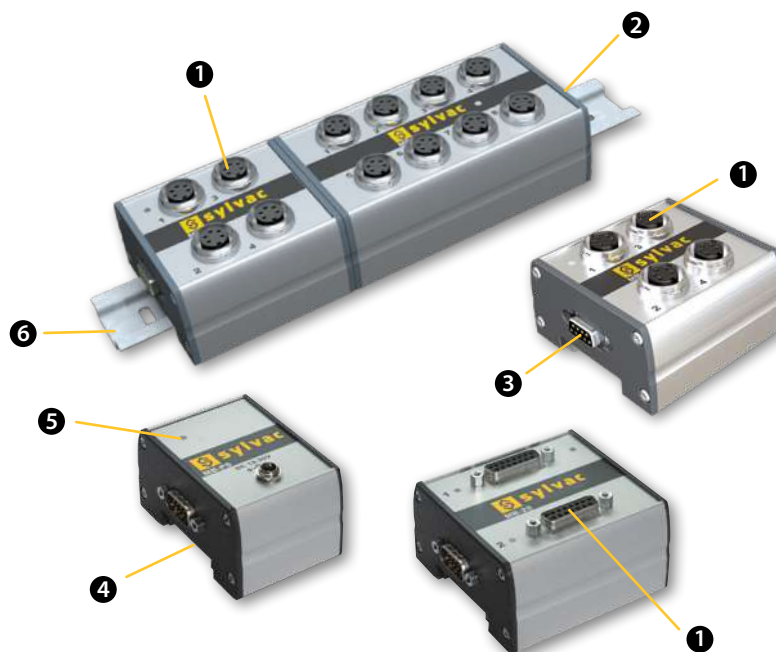
# M-Bus

## HARDWARE DESCRIPTION

- ❶ Probes input
- ❷ M-Bus input
- ❸ M-Bus output
- ❹ DIN mounting groove
- ❺ LED / Power module
- ❻ DIN rail



Output cable RS485 to RS485 (925-5609)



## TECHNICAL SPECIFICATIONS

	804-2104	804-2108	804-2122	804-2114	804-2111	804-2105	804-2107
Modele	MB-4C	MB-8i	MB-2S	MB-4D	MB-1D	MB-4i	MB-4P
Instrument type	Sylvac capacitive probes	Inductive <sup>1)</sup>	Heidenhain probes (11µA/1VPP)	Digimatic		Inductive <sup>1)</sup>	Probes P12D
Compatibility	D300S & D400S						
Dimensions (L x h x w) mm	107x42x74	131x44x74	82x43x74	107x39x74	52x39x74	107x39x74	107x42x74
Weight kg	0.2	0.3	0.2	0.2	0.1	0.2	0.2
Inputs	4	8	2	4	1	4	4
Case	Anodized aluminium profile						
Output data	RS 485						

<sup>1)</sup> Half-bridge: see [www.sylvac.ch](http://www.sylvac.ch) for information on compatibility



# Multiplexer unit

# M-Bus

## TECHNICAL SPECIFICATIONS

	804-2130	804-2140	804-2160	804-2170	804-2180	804-2190	804-21xx
Modele	MB-IO	MB-PS	MB-RS	MB-TP	MB-BT	MB-AG	MB-NET
Instrument type	PLC I/O	Power-Supply	Computer	Temperature sensor input PT100 and Thermocouple	Instruments with Bluetooth® wireless technology	Plug gauges and Air gauges	Ethernet connector for server sending
Compatibility	D300S & D400S			D400S			
Dimensions (L x h x w) mm	82x39x74	52x42x74	82x39x74	52x51x74	52x39x74	52x64x74	52x64x74
Weight kg	0.2	0.2	0.2	0.1	0.1	0.15	0.15
Inputs	8	12-30 VDC	254	1 / 1	8	1	1
Case	Anodized aluminium profile						
Output data	RS 485						



MB-4C



MB-8i



MB-2S



MB-4D



MB-8D



MB-4P



MB-IO



MB-PS



MB-RS



MB-TP



MB-BT



MB-AG

## STANDARD DELIVERY

- M-Bus module according to technical specifications
- Instruction manual



# Multiplexer unit

# M-Bus

## APPLICATIONS



Probes connection through M-BUS inputs



Probes connection on PC through MB-RS



Probes and indicators connection through M-BUS inputs



Probes connection on a D300S through D302 multiplexer units

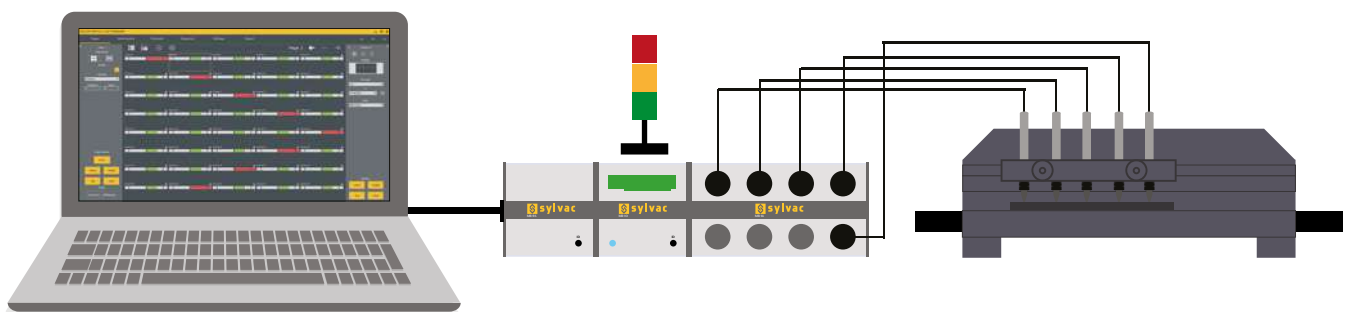


Digimatic instruments connected to a MB-4D



Probes connected to a MB-8i

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Connection of probes via Mbus on Sylcom



# Multiplexer unit

## ACCESSORIES



		D50S	D62S	D70S	D70H	D70I	D70A	D200S	D300S	D302 D304	D400S	P12D
<b>904-1108</b>	D108-additional 8 input unit for probes											
<b>904-1112</b>	D110V-control unit with 16 vacuum outputs							•	•			
<b>904-4200*</b>	Charging set 100-240V / 9V	•	•					•		•		
<b>904-4205</b>	EUR cable, included in 904-4200	•	•					•		•		
<b>904-4204</b>	UK cable, included in 904-4200	•	•					•		•		
<b>904-4203</b>	USA/JPN cable, included in 904-4200	•	•					•		•		
<b>904-4201</b>	CH cable, included in 904-4200	•	•					•		•		
<b>804-4000*</b>	Charging set 100-240V / 24V								•		•	
<b>904-4001</b>	EUR cable included in 804-4000								•		•	
<b>904-4003</b>	UK cable included in 804-4000								•		•	
<b>904-4002</b>	USA/JPN cable included in 804-4000								•		•	
<b>804-4010*</b>	Charging set 100-240V / 24V											
<b>804-4011</b>	EUR cable included in 804-4010											
<b>804-4013</b>	UK cable included in 804-4010										•	
<b>804-4012</b>	USA/JPN cable included in 804-4010											
<b>904-4101</b>	External contact (footpedal)	•	•	•				•	•	•	•	
<b>904-4102</b>	Footpedal (jack)				•	•	•					
<b>926-7022</b>	Footpedal Smart								• <sup>1)</sup>			
<b>926-7020</b>	Footpedal USB											PC only
<b>926-7021</b>	Footpedal USB robust											PC only
<b>904-6001</b>	Dust cover								•			
<b>804-1211</b>	Connection cable D200S - D110/V							•				

<sup>1)</sup> Dongle Smart required

<sup>2)</sup> The right country cable, depending on the delivery location, will be delivered with 904-4200, 804-4000 and 804-4010.

# Display units

## ACCESSORIES



		D50S	D62S	D70S	D70H	D70I	D70A	D200S	D300S	D302 D304	D400S	P12D
<b>804-2104</b>	MB-4C								•		•	
<b>804-2108</b>	MB-8i								•		•	
<b>804-2122</b>	MB-2S								•		•	
<b>804-2114/18</b>	MB-4D & MB-8D								•		•	
<b>804-2130</b>	MB-IO								•		•	
<b>804-2140</b>	MB-PS								•		•	
<b>804-2160</b>	MB-RS											
<b>804-2170</b>	MB-TP								•		•	
<b>804-2180</b>	MB-BT										•	
<b>804-2190</b>	MB-AG										•	
<b>804-2105</b>	MB-4P											•
<b>804-2203</b>	Air kit						•					
<b>804-2202</b>	Bracket for panel mounting						•					
<b>804-4101</b>	Restrictor Ø 0.3mm						•				•	
<b>804-4102</b>	Restrictor Ø 0.4mm						•				•	
<b>804-4103</b>	Restrictor Ø 0.5mm						•				•	
<b>804-4104</b>	Restrictor Ø 0.7mm						•				•	
<b>804-4105</b>	Restrictor Ø 0.9mm						•				•	



H



# MEASURING BENCH PS15/16/17

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Benefiting from long experience acquired through contact with our demanding Swiss watchmaking customers, Sylvac has developed a range of measuring benches enabling most small external and internal dimensions to be checked precisely and quickly.

As the miniaturisation of components nowadays affects all industrial fields, Sylvac is in a position to provide a reliable solution with these instruments for the most unlikely of applications.

## GENERAL CHARACTERISTICS :

- **PS15 and PS17 measuring benches to be equipped with a digital indicator or a measuring probe**
- **PS16 V2 measuring benches with integrated display**
- **Powered by lithium battery type CR2477/CR2032 (PS16 V2)**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**



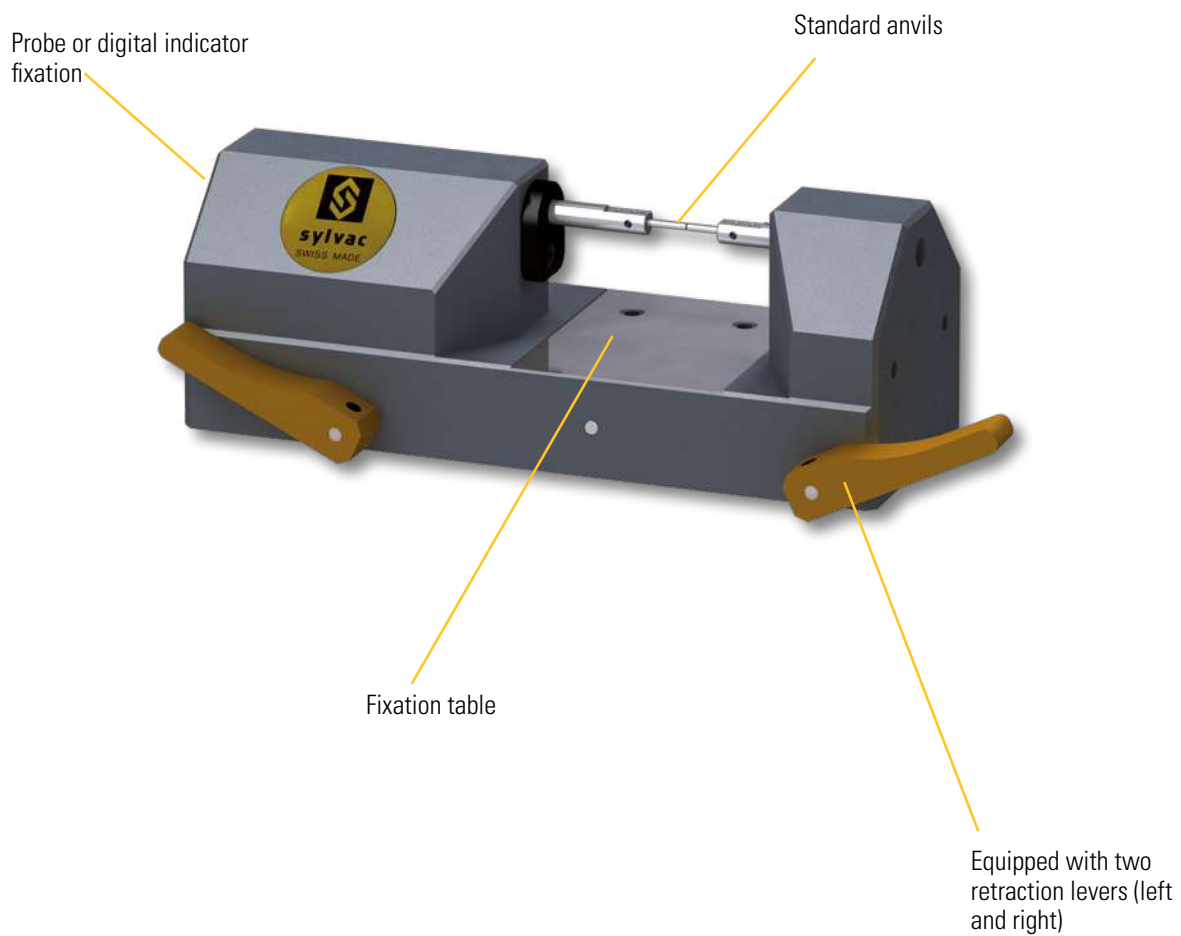


# Bench table

# PS15

## DESCRIPTION

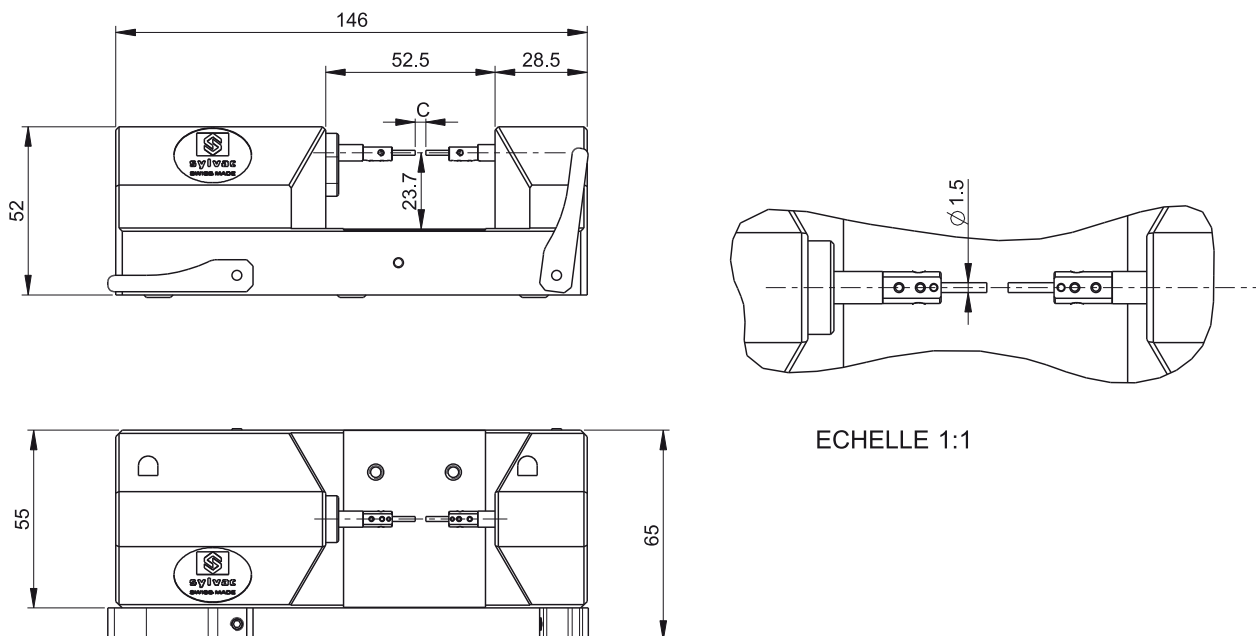
- Horizontal precision bench for measuring small external dimensions
- Can be equipped with either a digital digital indicator or a Sylvac measuring probe.
- Robust cast iron construction
- 2 ergonomic levers for moving the movable axis with ball-bearing guide
- Compatible with Sylvac Ø 1.5 mm and Cary type anvils
- Supplied with hard metal measuring anvils Ø 1.5 mm
- Adjustable measuring force 0.3-1.0 N
- Measuring capacity 20 mm, measuring range 10 mm
- Wide choice of measuring anvils and support tables



# Bench table

# PS15

## DIMENSIONAL DRAWINGS



ECHELLE 1:1

## TECHNICAL SPECIFICATIONS

		808-1215
Type		PS15BH
Max. Capacity C	mm	20
Measuring range	mm	10
Adjustable measuring force	N	0.3 - 1.0
Max. error	µm	Probe P10 : 0.6µm / Digital indicator S_Dial : 1.6 - 3µm
Weight	kg	1.8
Measuring direction		Horizontal
Anvils fixation		Ø 1.5 mm
Cary Compatibility		•

## STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Measuring anvils Ø 1.5 mm (908-2175)
- Allen anvils 2 and 2.5 mm
- Dust cover

# Bench table

PS15

## DESCRIPTION

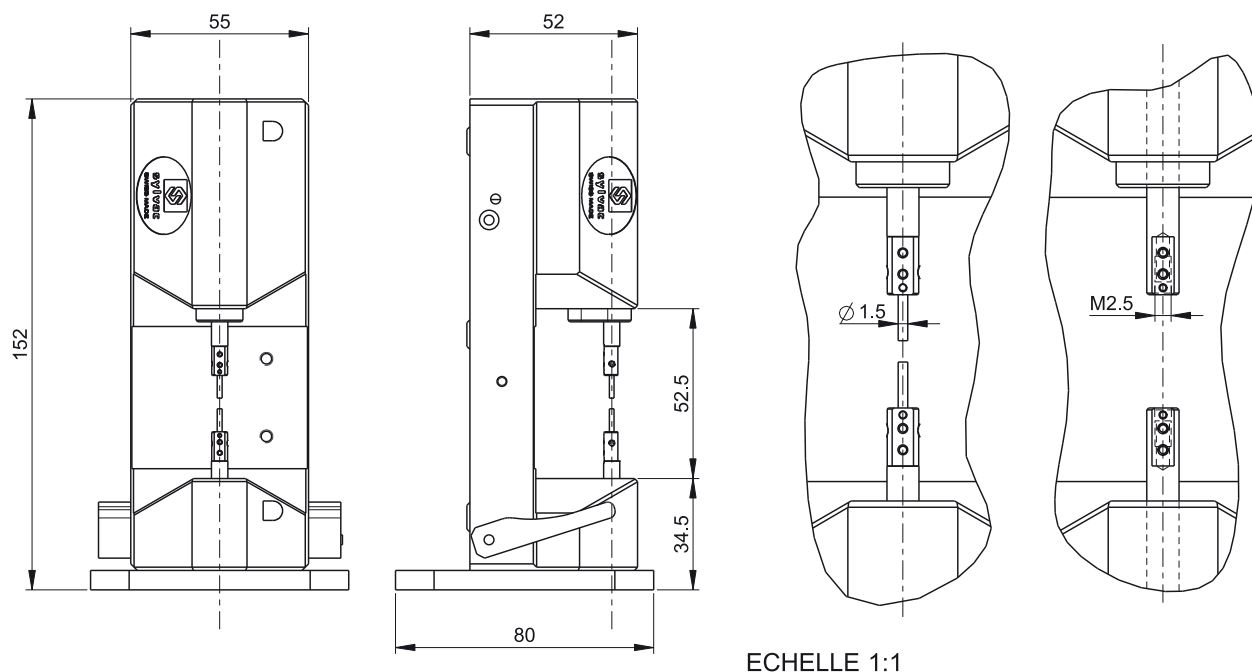
- Measuring bench similar to the horizontal bench but prepared for vertical use, with support base and levers positioned to the left and right of the bench.
- This bench is generally equipped with either a flat round table 908-2165 or a rotary hole table 908-2172 with 25 bores  $\varnothing$  0.2 to 5 mm for measuring shoulder heights. These tables are to be ordered separately
- Supplied with hard metal measuring anvils  $\varnothing$  1.5 mm



# Bench table

# PS15

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

		808-1216	808-1218
Type		PS15BV	PS15BV +
Measuring scale	mm	10	10
Adjustable measuring force	N	0.3 - 1.0	0.3 - 1.0
Max. error	µm	Probe P10 : 0.6µm / Digital indicator S_Dial : 1.6 - 3µm	
Weight	kg	1.8	1.8
Measuring direction		Vertical	Vertical
Anvils fixation		M2.5	Ø 1.5 mm
Cary Compatibility		•	•

## STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Measuring anvils Ø 1.5 mm or Ø 5 mm (depending on model)
- Allen anvils 2 and 2.5 mm
- Dust cover

# Bench table

# PS15

## TABLES, PLATES AND LAPPING



N°	Designation	PS15BH	PS15BV / BV+
908-2170	Supporting table adjustable in XYZ	•	
908-2160	Supporting table with fine adjustment XYZ	•	
908-2161	Supporting table with fine adjustment Z	•	
908-2166	Floating table	•	
908-2172	Rotating table with 25 bores		•
908-2165	Plain table only		•
908-2162	Cylindrical plate with 25 bores from 0.2 to 5 mm		•

## ACCESSORIES



N°	Designation	PS15BH	PS15BV / BV+
908-2198	Replacement lapping stone for 908-2199	•	
908-2199	Lapping device (3 stones and lapping liquid included)	•	

### Lapping device

- Device for lapping the anvils on the PS15 BH, PS16 V2 and PS17 measuring benches, enabling perfect parallelism of the anvils for greater measuring accuracy.
- Set consisting of a movable element with linear guide and a motorised rotary drive system for the honing stone
- Delivered complete with 3 honing stones and a bottle of honing liquid.

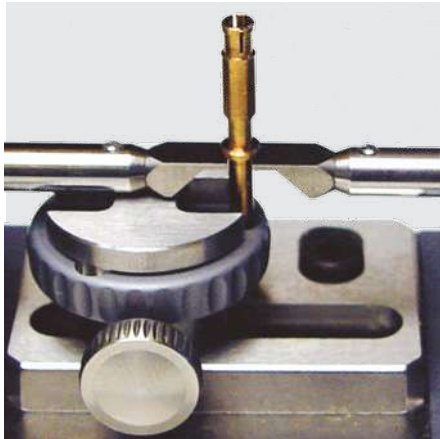
## ANVILS

Compatible anvils list at the end of this chapter.

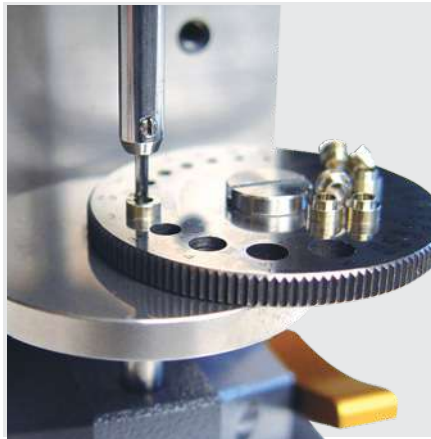
# Bench table

# PS15

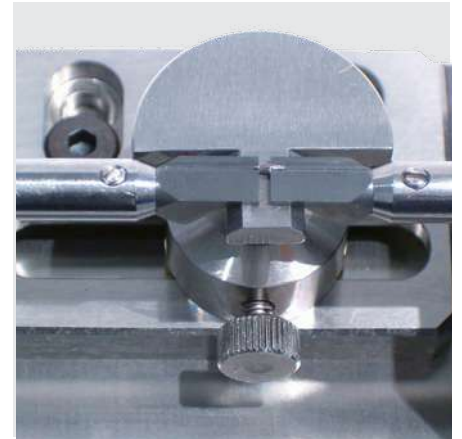
## APPLICATIONS



XYZ table with plate with fine adjustment.



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



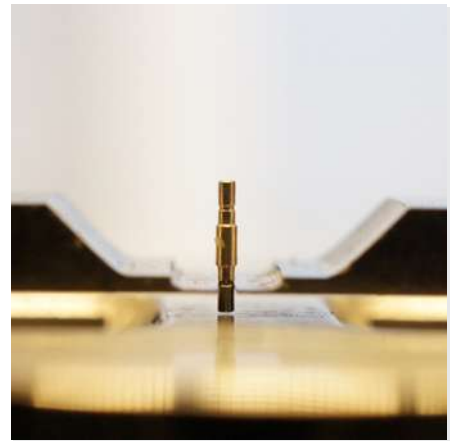
Special anvils



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



Multi-functional measuring station



Gear measuring anvils. On request



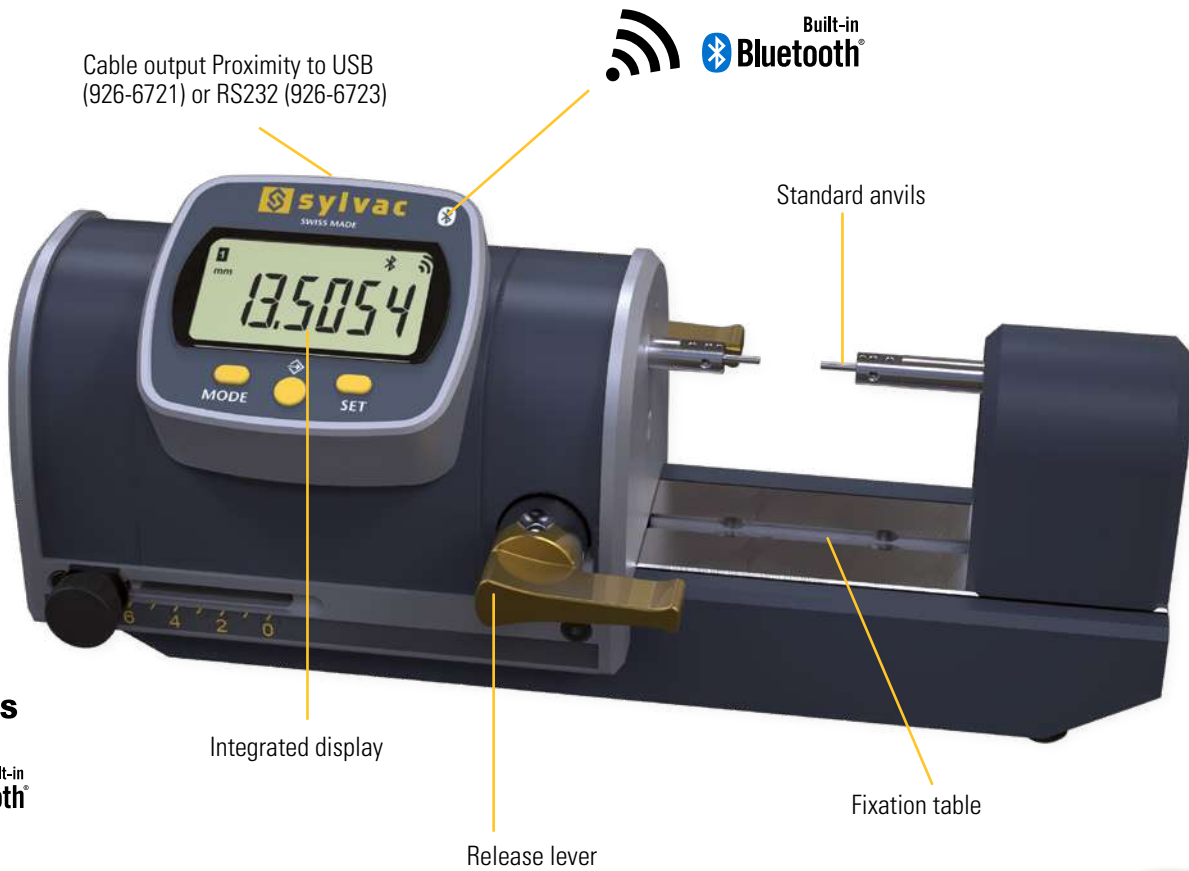
# Bench table

# PS16 V2

## DESCRIPTION

## SMART

- Precision horizontal measuring bench for the measurement of external dimensions
- Robust cast iron construction
- New design with integrated Bluetooth® system
- Large display resolution 0.0001 mm (0.1 µm) with tolerance status indication by colour LEDs
- Three buttons, including the central button with selectable favourite function
- 2 ergonomic, position-adjustable levers for moving the movable axis with ball bearing guide
- The position of the levers can be used to adjust the backward movement of the mobile axis.
- Compatible with Sylvac Ø 1.5 mm and Cary type anvils
- Supplied with hard metal measuring anvils Ø 1.5 mm
- Adjustable measuring force 0.1-0.6 N
- Measuring range 25 and 50 mm
- Additional data outputs Power and Proximity
- Protection class IP67



**SWISS MADE**

Built-in **Bluetooth**

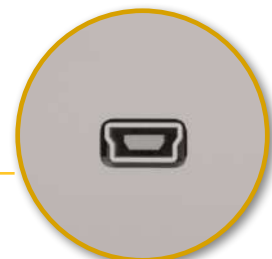
**USB**

**PROXIMITY**

**WATER RESISTANT**

**IP67**

Cable output mini-USB to USB (926-6001)

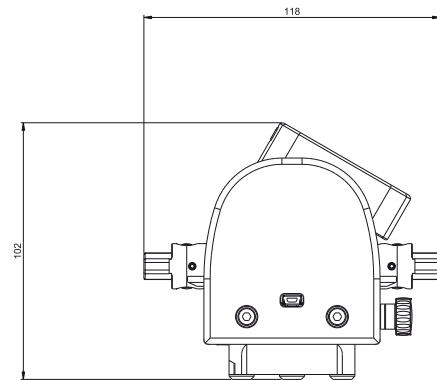
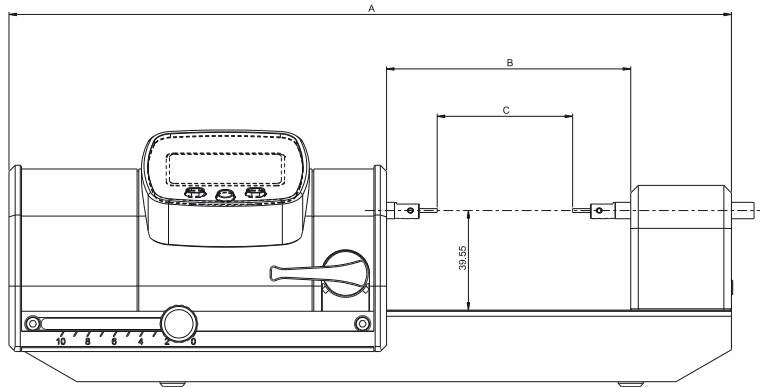


# Bench table

# PS16 V2

## DIMENSIONAL DRAWINGS

## SMART



## TECHNICAL SPECIFICATIONS

External measurement		808-1231	808-1232
Max. Capacity C	mm	25	50
Max. Error	µm	1.5	2.0
Repeatability	µm	0.2	0.2
Resolution	µm	0.1	0.1
Measuring force (Adjustable)	N	0.1 - 0.6 <sup>1)</sup>	
Weight	kg	3.6	4.2
Output data		Bluetooth® wireless technology* / RS232 / USB	
Anvils clamping dimension	mm	Ø 1.5	
Cary compatibility		●	
A	mm	232	287
B	mm	66	97

<sup>1)</sup> ± 20%

## STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Calibration certificate
- Table not included
- Anvils Ø 1.5mm (908-2175)
- Dust cover





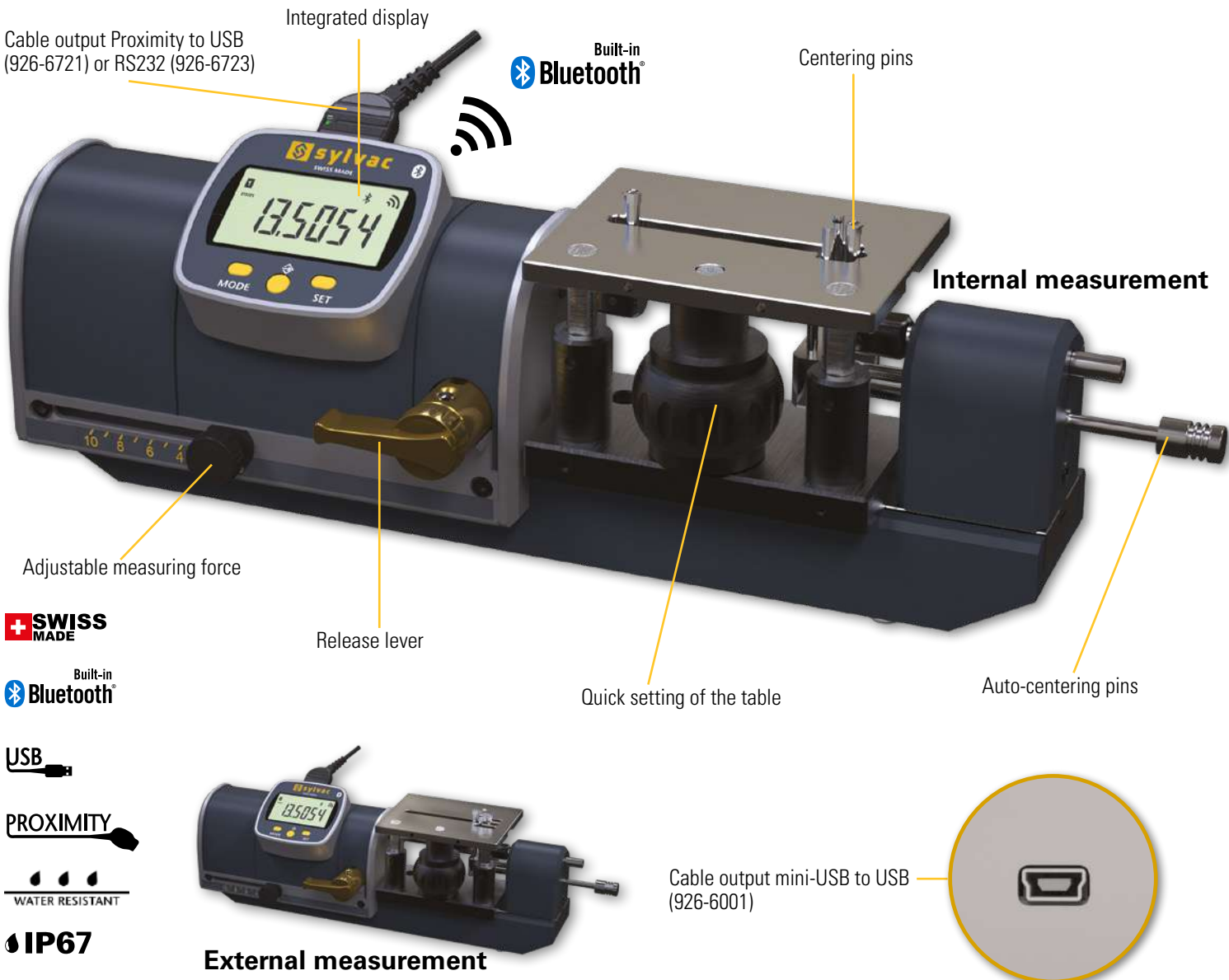
# Bench table

# PS16 V2 LV

## DESCRIPTION

## SMART

- Measuring bench similar to the PS16 V2 bench, but equipped with a table and anvils assembly allowing to measure large internal diameters up to 74 mm.
- Originally designed for measuring watch cases, it is also suitable for measuring rings and thin parts.
- 2-point measurement with positioning of the workpiece in the measuring axis by 2 movable centring pins
- Table height adjustable by up to 20 mm (a mini dial indicator can be mounted on the table to check its movement)
- Available in 3 versions :
  - 808-1233: version for measuring internal diameters from 12 to 62 mm
  - 808-1234: execution for measuring internal diameters 24 to 74 mm
  - 808-1235: special version for measuring outside diameters 0 to 50 mm
- Supplied with 0.4 mm thick measuring anvils.

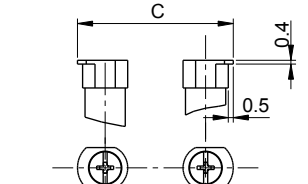
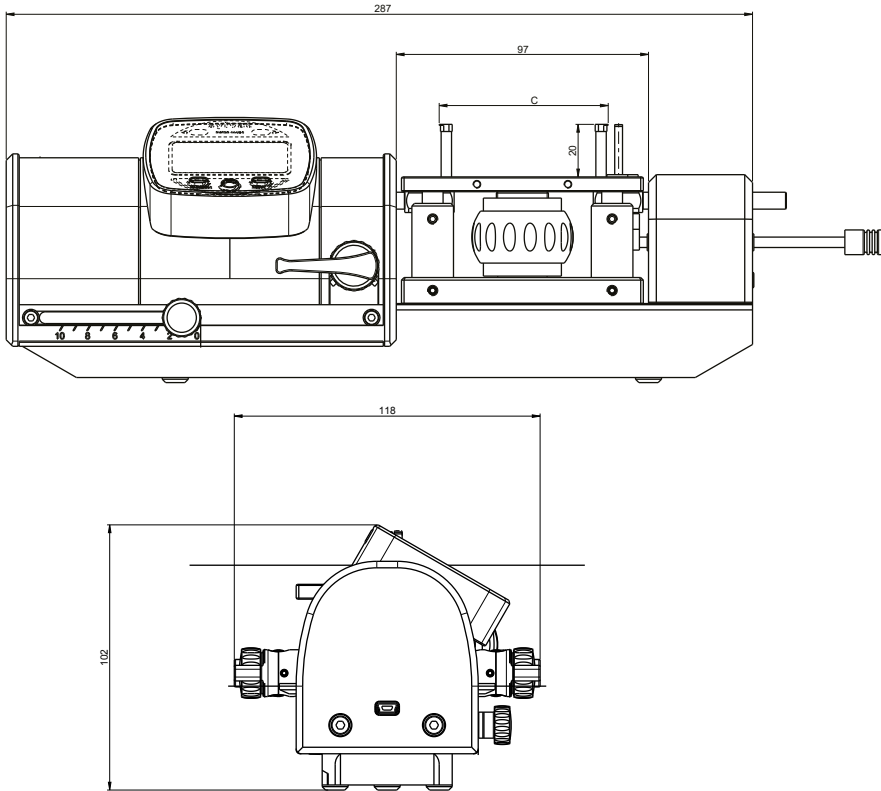


# Bench table

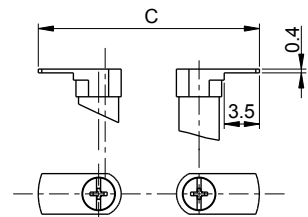
# PS16 V2 LV

## DIMENSIONAL DRAWINGS

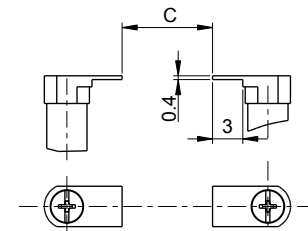
## SMART



**808-1233 (Anvils 808-2183)**



**808-1234 (Anvils 808-2184)**



**808-1235 (Anvils 808-2185)**

## TECHNICAL SPECIFICATIONS

External and internal measurement		808-1233	808-1234	808-1235
Max. Capacity C	mm	Ø 12 - 62	Ø 18 - 68	Ø 0 - 50
Measuring type		Internal measurement		External measurement
Max. Error	µm	6.0	6.0	6.0
Repeatability	µm	1.5	1.5	1.5
Resolution	µm	0.1	0.1	0.1
Measuring force (Adjustable)	N	0.1 - 0.6 <sup>1)</sup>		
Weight	kg	5.1	5.1	5.1
Output data		Bluetooth® wireless technology* / RS232 / USB		

<sup>1)</sup> ± 20%

## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Instruction manual
- Calibration certificate
- Anvils 0.4mm and LV table included
- Dust cover

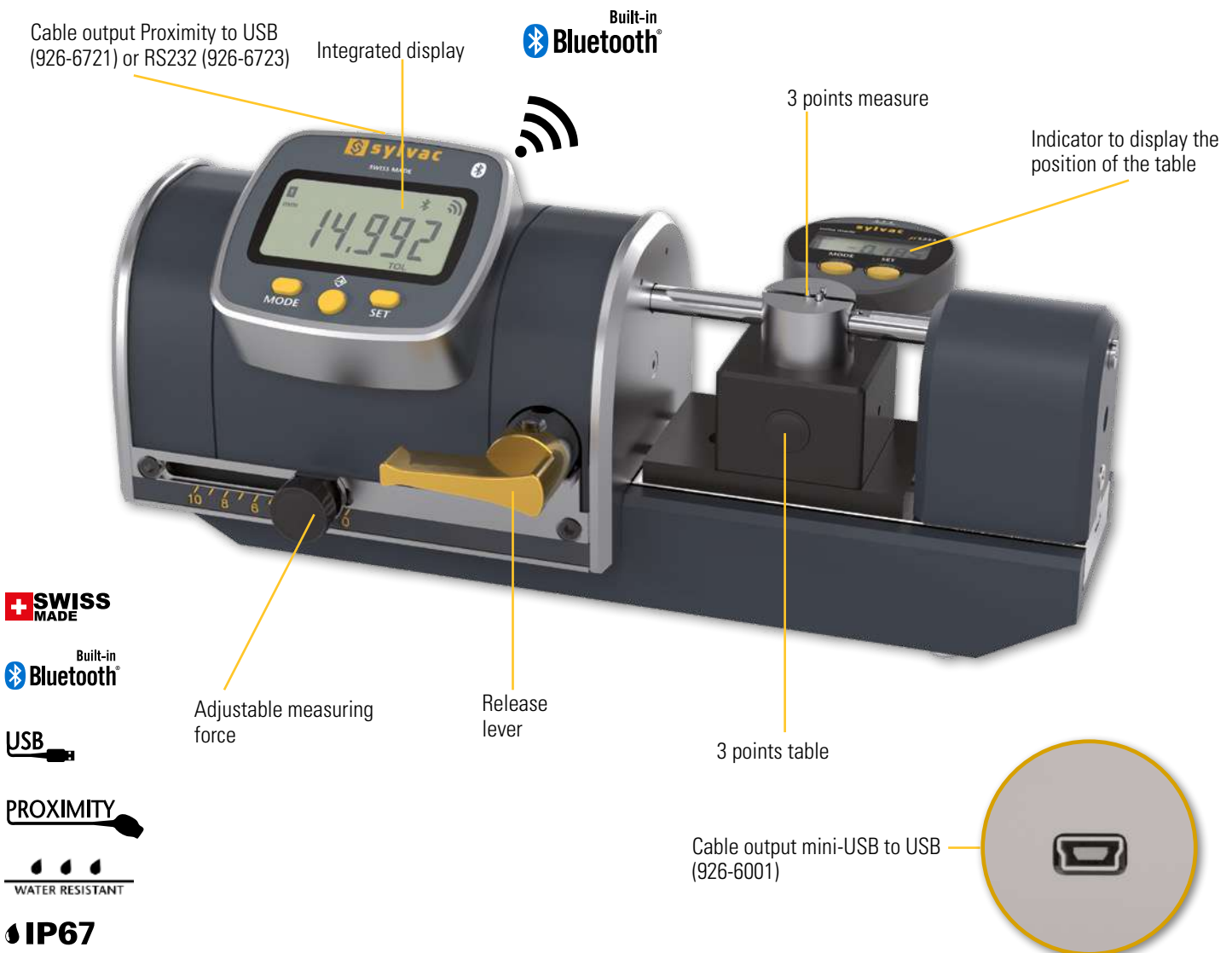
# Bench table

# PS16 V2 3-Points

## DESCRIPTION

## SMART

- Measuring bench similar to the PS16 V2 bench, but equipped with a table and anvils assembly allowing very small shallow internal diameters to be measured at 3 points, thanks to an electronic calculation function.
- Calibration using 2 rings supplied with the bench
- Table with fine height adjustment up to 3 mm with mini digital indicator for precise movement control
- Available in 5 versions :
  - 808-1335: version for measuring internal diameters 0.8 to 1.3 mm
  - 808-1336: execution for measuring internal diameters 1.3 to 2.5 mm
  - 808-1337: execution for measuring internal diameters 2.5 to 4 mm
  - 808-1338: execution for measuring internal diameters 4 to 8 mm
  - 808-1339: execution for measuring internal diameters 8 to 12.5 mm
- It is possible to obtain the placemats and anvils separately and to change them according to the dimensions to be measured, but this delicate operation requires a certain amount of dexterity.

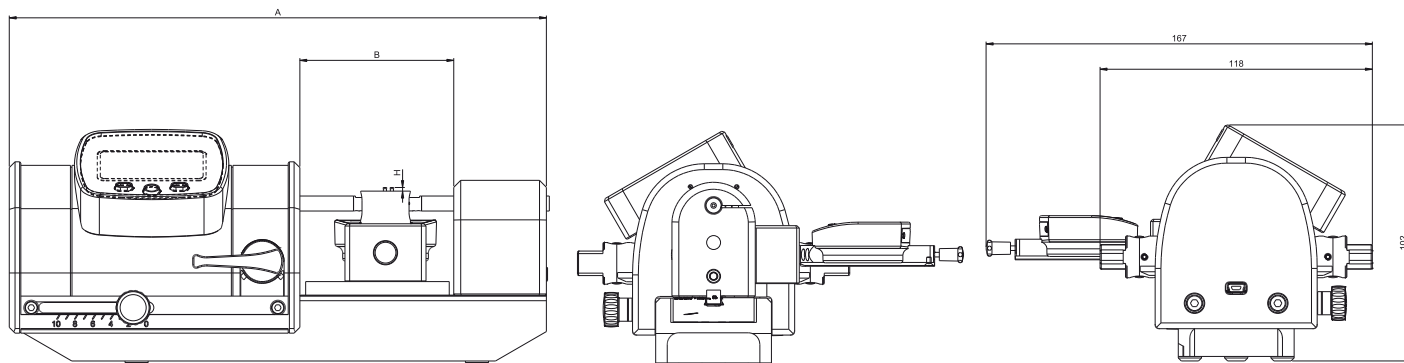


# Bench table

# PS16 V2 3-Points

## DIMENSIONAL DRAWINGS

## SMART



## TECHNICAL SPECIFICATIONS

Internal measurement		808-1335	808-1336	808-1337	808-1338	808-1339
Max. Capacity C	mm	Ø0.8-1.3	Ø1.3-2.5	Ø2.5-4.0	Ø4.0-8.0	Ø8.0-12.5
Max. Error	µm	1.5				
Repeatability	µm	1				
Resolution	µm	0.1				
Measuring force (Adjustable)	N	0.1 - 0.6 <sup>1)</sup>				
Weight	kg	4.1				
Data output		Bluetooth® wireless technology* / RS232 / USB				
Anvils clamping dimension	mm	Ø1.5				
A	mm	232				
B	mm	60				

<sup>1)</sup> ± 20%

## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Instruction manual
- Calibration certificate
- Table and anvils according to technical specification
- Mini indicator and 2 setting rings included
- Dust cover

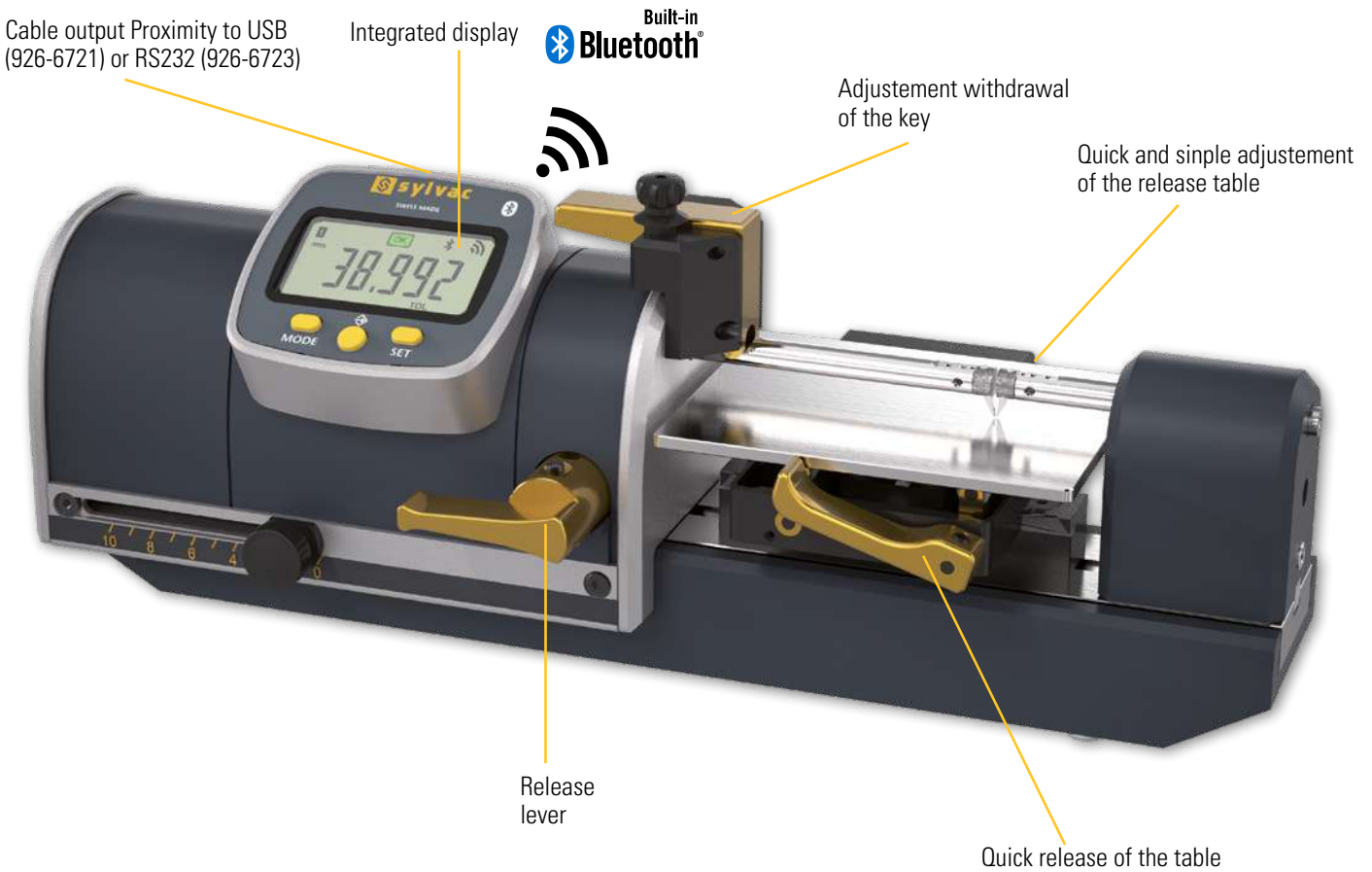
# Bench table

# PS16 V2 Goutte

## DESCRIPTION

## SMART

- Measuring bench similar to the PS16 V2 bench but equipped with a table and anvils set specially designed to measure small pivots (called drops in the watch industry) on watch plates.
- Equipped with height-adjustable table, quick-release lever and key removal system
- Delivered complete and ready to use for this particular application



**SWISS MADE**

Built-in **Bluetooth**

**USB**

**PROXIMITY**

**WATER RESISTANT**

**IP67**

Cable output mini-USB to USB (926-6001)

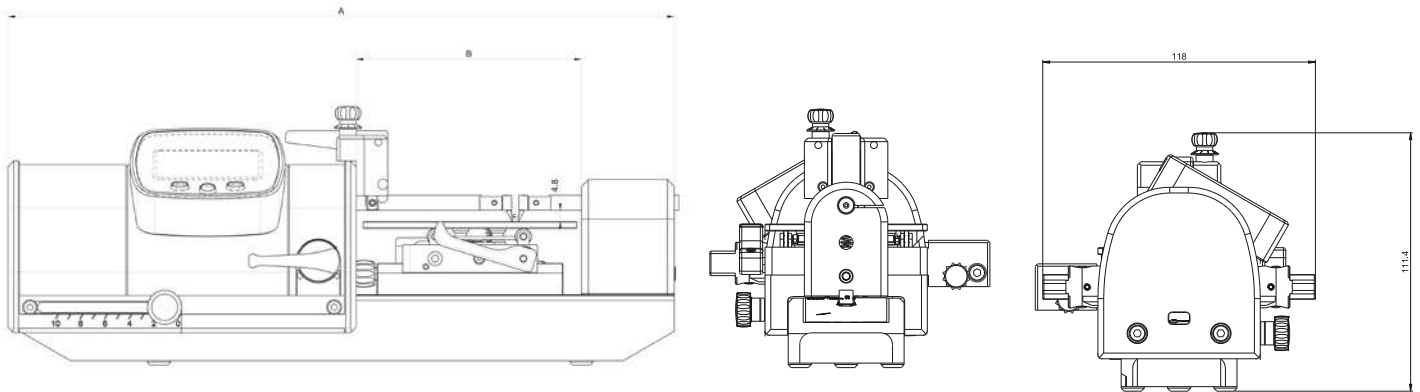


# Bench table

# PS16 V2 Goutte

## DIMENSIONAL DRAWINGS

## SMART



## TECHNICAL SPECIFICATIONS

External measurement		808-5213	808-5413
Max. Capacity C	mm	25	50
Quick clearance	mm	7	7
Measuring range E	mm	3	3
Resolution	µm	0.1	0.1
Max. Error	µm	2.5	3.5
Repeatability	µm	0.5	0.5
Table dimensions (lxL)	mm	58x70	92x70
Measuring force (Adjustable)	N	0.1 - 0.6 <sup>1)</sup>	
Weight	kg	4.0	4.7
Output data		Bluetooth® wireless technology* / RS232 / USB	
A	mm	232	287
B	mm	66	97

<sup>1)</sup> ± 20%

## STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Instruction manual
- Calibration certificate
- Table and anvils according to specification
- Dust cover

# Bench table

# PS16 V2

## TABLES, PLATES AND LAPPING



N°	Designation	PS16 V2 25	PS16 V2 50	PS16 V2 LV	3 points	Goutte
808-2190	Supporting table XYZ	•	•			
808-2302	Supporting table adjustable XZ	•	•			

## ACCESSORIES



N°	Designation	PS16 V2 25	PS16 V2 50	PS16 V2 LV	3 points	Goutte
908-2194	Digital indicator holder (display height / depth)			•		
908-2198	Replacement lapping stone for 908-2199	•	•			•
908-2199	Lapping device (3 stones and lapping liquid included)	•	•			•
808-2196	Setting ring Ø20mm			•		
808-2197	Setting ring Ø30mm			•		

### Lapping device

- Device for lapping the anvils on the PS15 BH, PS16 V2 and PS17 measuring benches, enabling perfect parallelism of the anvils for greater measuring accuracy.
- Set consisting of a movable element with linear guide and a motorised rotary drive system for the honing stone
- Delivered complete with 3 honing stones and a bottle of honing liquid.

## ANVILS

Compatible anvils list at the end of this chapter.



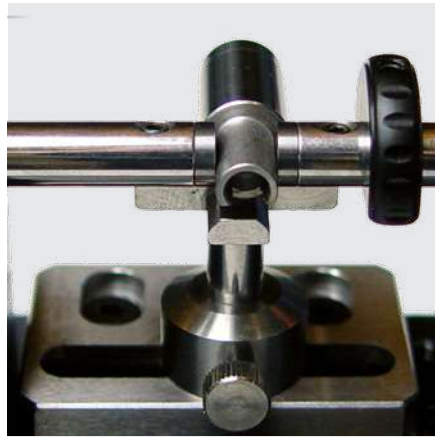
# Bench table

# PS16 V2

## 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

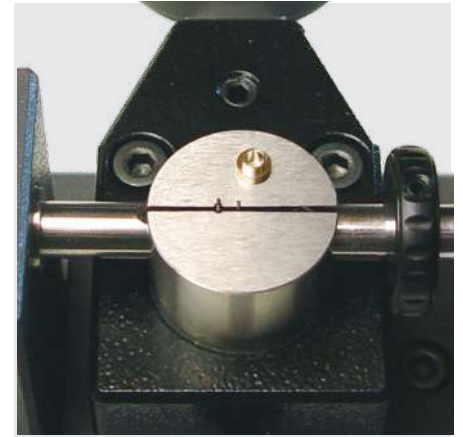
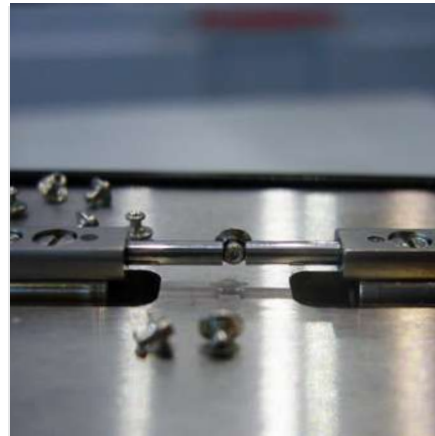


Table and anvils for internal measurement in 3 - points 1.3 - 2.5 mm



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



Measurement of a small external diameter

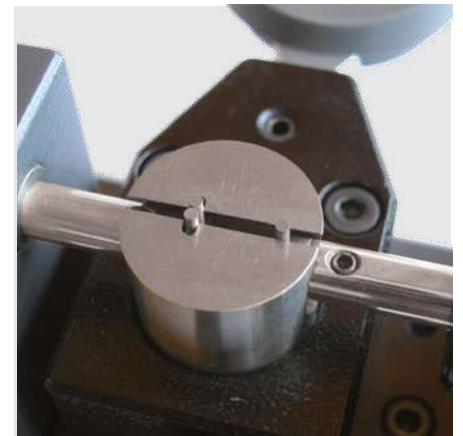


Table and anvils for internal measurement in 3 - points 2.5 - 4 mm



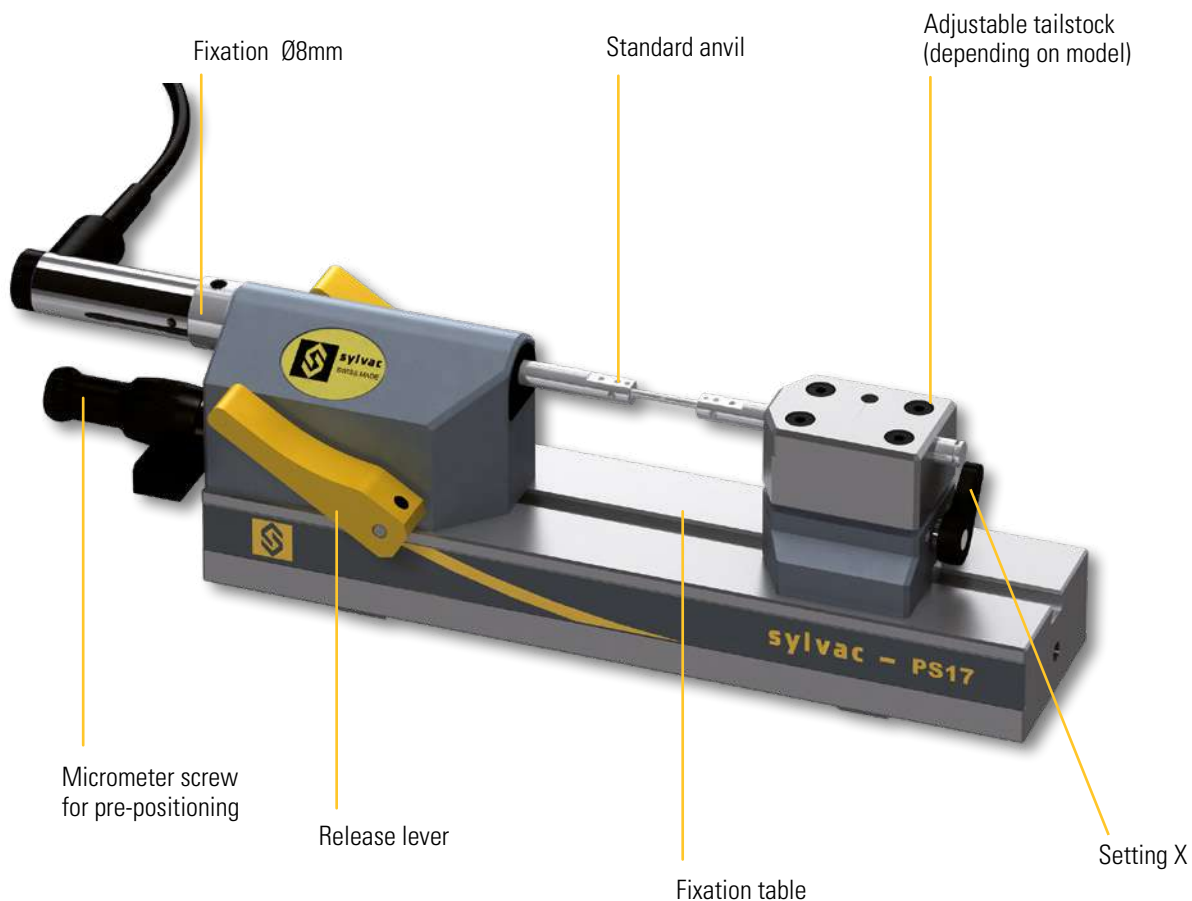


# Bench table

# PS17 VS

## DESCRIPTION

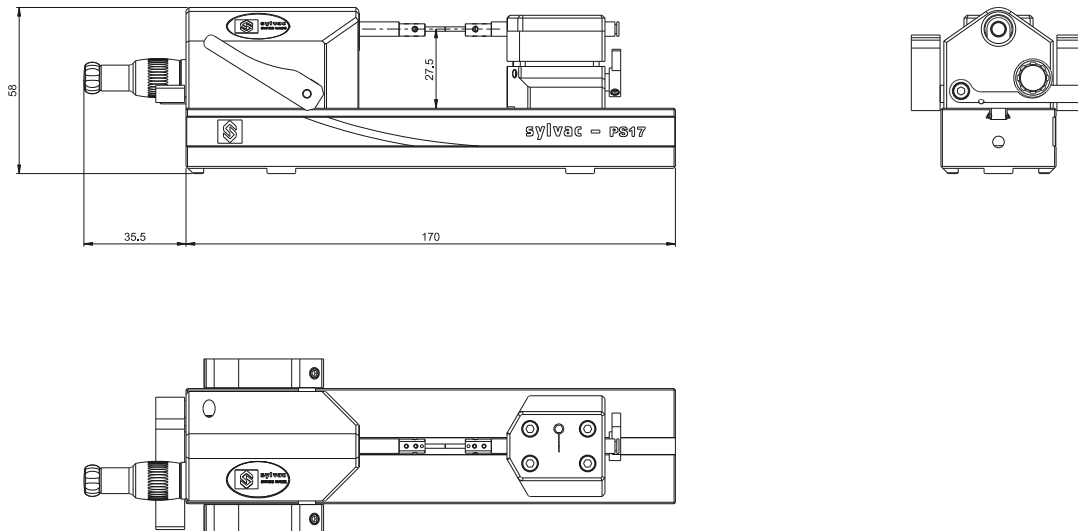
- Horizontal precision bench for measuring small external dimensions similar to the PS15 bench, but with a tailstock.
- Can be equipped with either a digital digital indicator or a Sylvac measuring probe.
- Robust cast iron construction
- 2 ergonomic levers for moving the movable axis with ball-bearing guide
- Equipped with a micrometric screw to control the recoil of the mobile axis.
- Compatible with Sylvac  $\varnothing$  1.5 mm and Cary type anvils
- Supplied with hard metal measuring anvils  $\varnothing$  1.5 mm
- Adjustable measuring force 0.2-1.0 N
- Measuring capacity 37 mm, measuring range 10 mm



# Bench table

# PS17 VS

## DIMENSIONAL DRAWING



## TECHNICAL SPECIFICATIONS

		908-1242
Type		VS <sup>1)</sup>
Measuring system		at choice <sup>2)</sup>
Tailstock adjustable in Z $\pm 1.75$ mm		•
Measurement capacity C	mm	37
Measuring scale	mm	10
Adjustable measuring force	N	0.2 - 1.0
Weight	kg	1.4
Clamping anvils $\varnothing 1.5$ mm		•
Compatibility with Cary		•
Micrometer screw		•

## STANDARD DELIVERY

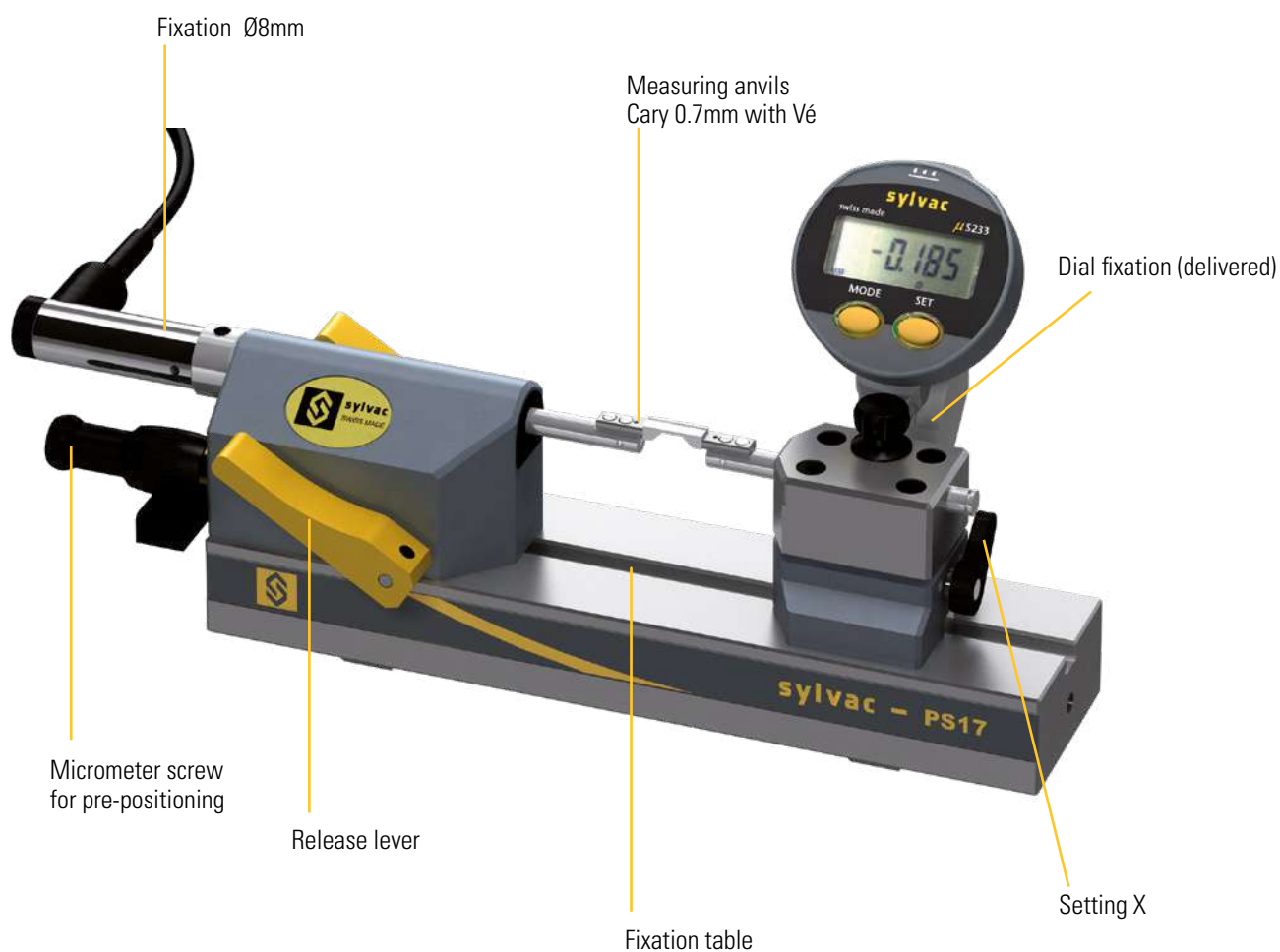
- Instrument according to technical specifications
- Instruction manual
- Measuring anvils  $\varnothing 1.5$  mm (908-2175)
- Dust cover

# Bench table

# PS17 Entre-portée

## DESCRIPTION

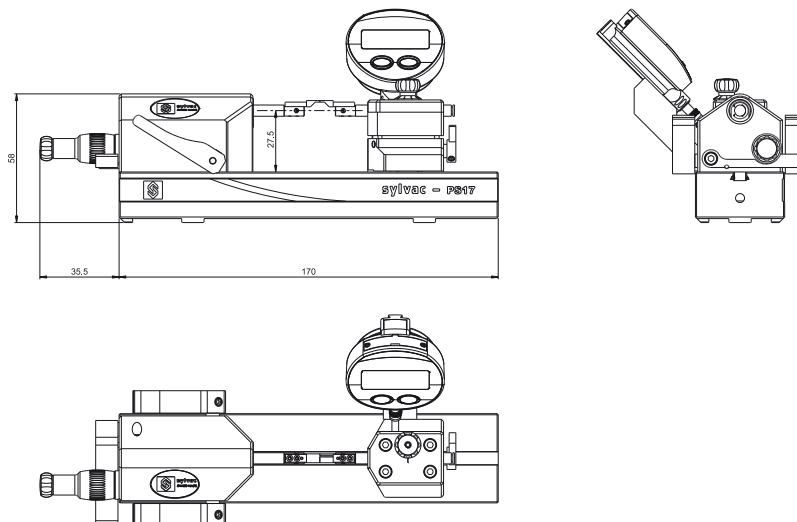
- Measuring bench with great flexibility of use for external dimensions
- Tailstock adjustable in X axis and in Z
- Mini indicator to display the position in Z axis (height) of the tailstock
- Delivered with carbide anvils 0.7mm with 90°V for the measure of distance width
- Accurate micrometer screw for pre-positioning
- Compatibility with Sylvac anvils (Ø1.5mm) and Cary type anvils
- Several accessories available



# Bench table

# PS17 Entre-portée

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

		908-1244
Type		VS
Measuring system		at choice <sup>1)</sup>
Tailstock adjustable in Z	±1.75 mm	•
Measurement capacity C	mm	0 - 37
Measurement scale	mm	0 - 10
Measurement force	N	1
Working temperature (storage)	°C	5 - 40 (-10 - 60)
Weight	kg	1.4
Cary Compatibility		•
Micrometer screw		•

<sup>1)</sup> No-included on delivery

## STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Measuring anvils Cary 0.7mm with Vé (908-2220)
- Mini digital indicator
- Dust cover

# Bench table

# PS17

## TABLES, PLATES AND LAPPING



N°	Designation	PS17 VS / VP
908-2290	Supporting table adjustable XYZ	•
908-2301	Supporting table adjustable XZ	•
908-2296	Floating table	•

## ACCESSORIES



N°	Designation	PS17 VS / VP
908-2310	Kit for low and strong measuring force	•
908-2198	Replacement lapping stone for 908-2199	•
908-2199	Lapping device (3 stones and lapping liquid included)	•

### Lapping device

- Device for lapping the anvils on the PS15 BH, PS16 V2 and PS17 measuring benches, enabling perfect parallelism of the anvils for greater measuring accuracy.
- Set consisting of a movable element with linear guide and a motorised rotary drive system for the honing stone
- Delivered complete with 3 honing stones and a bottle of honing liquid.

## ANVILS

Compatible anvils list at the end of this chapter.

# Bench table

# PS17

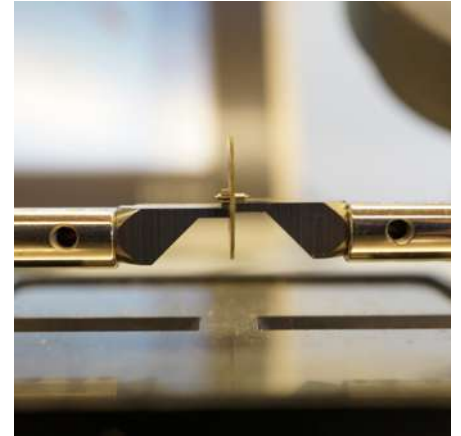
## APPLICATIONS STANDARD



Measure of a small part on a floating table



Multifunctional control station



Measure of a distance width with the Z axis adjustable tailstock.

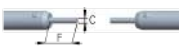

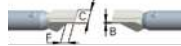



# Bench table

# PS15/PS16/PS17

## ANVILS

### Anvils Ø1.5

		B	F	C	PS15 BH	PS15 BV	PS15 BV+	PS16 V2	PS16 V2 LV	PS 17
N°	Designation									
	<b>908-2175</b> Cylindrical anvils TC Ø 1.5 mm	-	8	Ø 1.5	•		•	•		•
	<b>908-2176</b> Cylindrical anvils TC Ø 2 mm	-	8	Ø 2	•		•	•		•
	<b>908-2177</b> Cylindrical anvils TC Ø 6.5 mm	-	2	Ø 6.5				•		
	<b>908-2174</b> Knife-shaped anvils TC 0.7 mm	0.70	2.2	4	•		•	•		•
	<b>908-2178</b> Knife-shaped anvils TC 0.4 mm	0.40	2.2	4	•		•	•		•
	<b>908-2179</b> Knife-shaped anvils TC 0.3 mm	0.30	2.2	4	•		•	•		•
	<b>908-2180</b> Knife-shaped anvils standard TC 0.2 mm	0.20	2.2	4	•		•	•		•
	<b>908-2181</b> Knife-shaped anvils standard TC 0.14 mm	0.14	2.2	4	•		•			•
	<b>908-2182</b> Knife-shaped anvils standard TC 0.1 mm	0.10	2.2	4	•		•			•
	<b>908-2201</b> Knife-shaped anvils TC 0.7 mm/V	0.70	2.2	4	•		•	•		•
	<b>908-2202</b> Knife-shaped anvils standard TC 1.5 mm	1.5	2.2	4	•		•	•		•

# Bench table

# PS15/PS16/PS17

## ANVILS

### Anvils Cary

		B	F	C	PS15 BH	PS15 BV	PS15 BV+	PS16 V2	PS 17
N°	Designation								
	908-2214	Knife-shaped anvils TC 0.10 mm	0.10	2.2	4	●			●
	908-2221	Knife-shaped anvils TC 0.12 mm	0.12	2.2	4	●			●
	908-2215	Knife-shaped anvils TC 0.14 mm	0.14	2.2	4	●			●
	908-2213	Knife-shaped anvils TC 0.15 mm	0.15	2.2	4	●		●	●
	908-2216	Knife-shaped anvils TC 0.20 mm	0.20	2.2	4	●		●	●
	908-2217	Knife-shaped anvils TC 0.30 mm	0.30	2.2	4	●		●	●
	908-2218	Knife-shaped anvils TC 0.40 mm	0.40	2.2	4	●		●	●
	908-2219	Knife-shaped anvils TC 0.70 mm	0.70	2.2	4	●		●	●
	908-2220	Knife-shaped anvils TC 0.70 mm/vé	0.70	2.2	4	●		●	●
	908-2223	Knife-shaped anvils TC 1.5 mm	-	6	Ø1.5	●		●	●
	908-2224	Cylindrical anvils TC Ø 1.5 mm	-	6	Ø2	●		●	●
	908-2225	Cylindrical anvils TC Ø 2.0 mm	-	6	Ø3	●		●	●
	908-2222	Cylindrical anvils TC Ø 3.0 mm	1.50	2.2	4	●		●	●





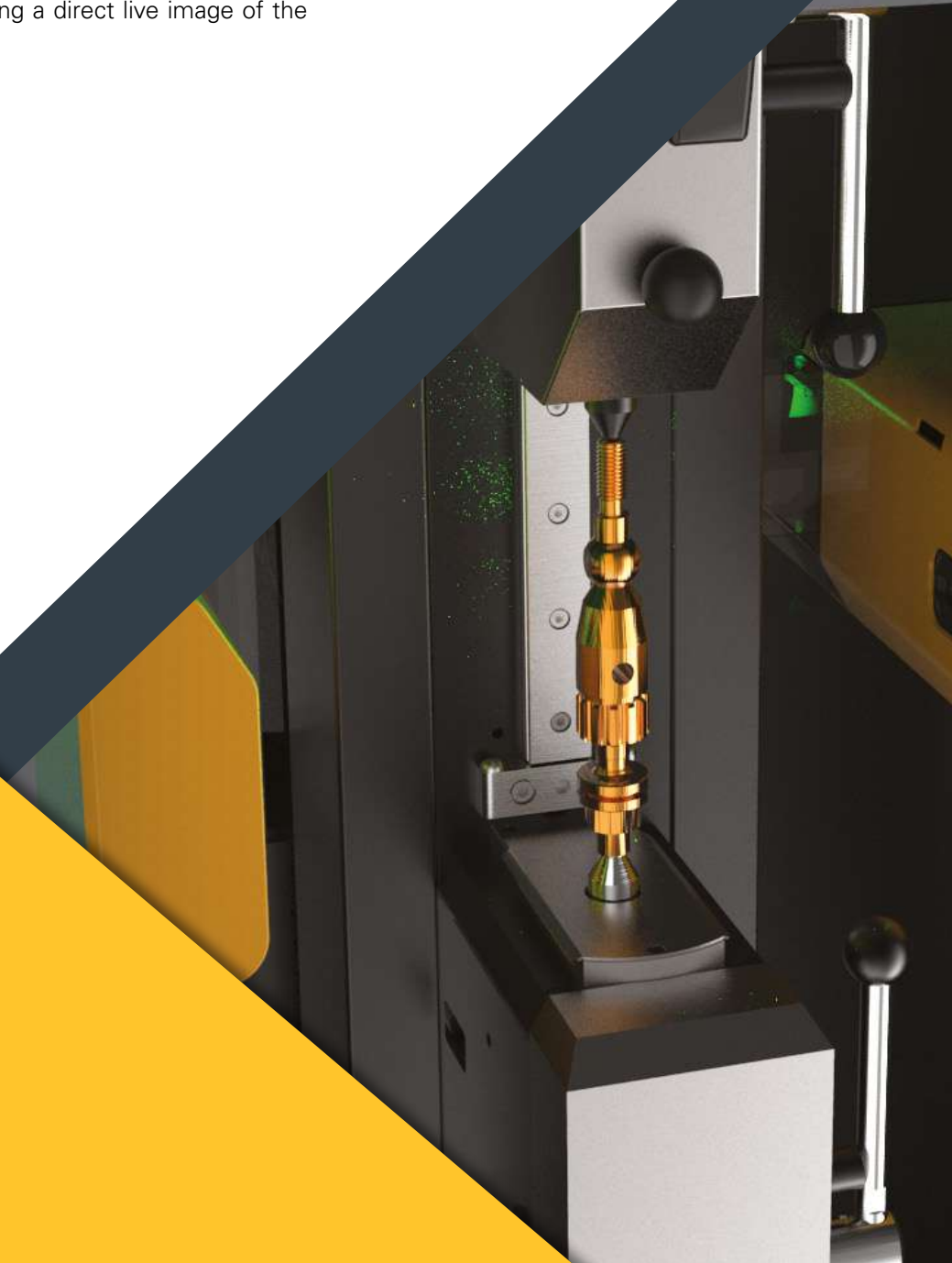


# OPTICAL MEASURING MACHINES

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The strategic diversification operated by Sylvac a few years ago led us to the development of optical machines that meets today's needs perfectly. Our SCAN machines, designed for the ultra-fast measurement of cylindrical parts, allow a multitude of elements that previously required countless pieces of equipment to be inspected in the workshop in a matter of seconds, with measurements which could have taken several hours before. The fact that our SCAN optical machines can be integrated into automation lines and communicate with the controls of production machines is also a perfect match for the Industry 4.0 model.

In this chapter you will also find our VISIO range of video measuring machines, which enable most industrial components to be checked quickly using a direct live image of the part displayed in the software.



# Optical measurement

# SYLVAC-SCAN

## DESCRIPTION

S25 & S25T

- Vertical optical measuring machine for static and dynamic measurement of various elements on small cylindrical parts.
- The parts can be mounted between two centres or held in place using various accessories. Attractive design and robust construction with many new features: New touch screen control panel for easy operation directly at the work-place, bi-telecentric optical system, high resolution camera, precision rotary headstock with integrated and protected daily standard, quick and easy accessory changing system, integrated temperature sensors, dynamic LED indicator of the general status of the measured part (GO/NG) and operator messages. Equipped with an exclusive optics tilting system.
- Machines specially designed to measure threads such as, parallel, trapezoidal, conical, round, square, conical, worms, ball screws, bone screws, dental implants, etc.
- Reflex SCAN+ concept for measuring parts without prior programming at the touch of a button
- Delivered complete with a PC and the Reflex SCAN+ software, which allows a multitude of elements to be measured easily and intuitively.
- The machine is delivered fully equipped «Automation Ready» as standard.



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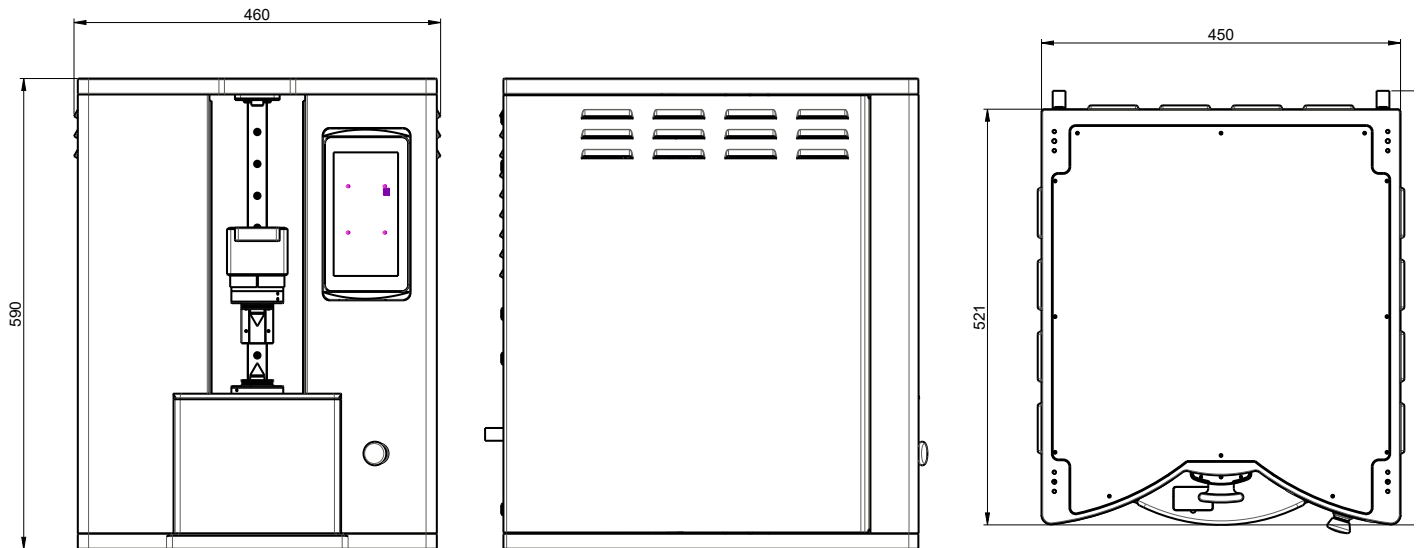


# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

## S25 & S25T



## TECHNICAL SPECIFICATIONS

		902-4020*		902-4025	
		Sylvac SCAN S25		Sylvac SCAN S25T	
		Diameter	Length	Diameter	Length
Measuring range	mm	26	200	26	200
Resolution up to	mm	0.0001	0.0001	0.0001	0.0001
Max. error	µm	0.9 +D[mm]/100) µm	(2.5 +D[mm]/200) µm	0.9 +D[mm]/100) µm	(2.5 +D[mm]/200) µm
Repeatability <b>2σ</b>	µm	0.5	0.8	0.5	0.8
Holding capacity diameter	mm	51	200	51	200
Tilting for thread measurement		-		• 30°	
Headstock		High precision rotary			
Axial move speed	mm/s	Up to 100mm/s			
Max. weight of part	kg	3			
Machine's weight	kg	73			

\* machine soon available

## STANDARD DELIVERY

- Instrument according to technical specifications
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Accessories : 2x 902-6259 ISO / MK2 adapter, 2x 902-6202, 902-6161 & 902-6212
- Manual

# Optical measurement

# SYLVAC-SCAN

## DESCRIPTION

## 52 REFLEX-CLICK

- Entry-level horizontal optical measuring machines for static or dynamic measurement of various elements on cylindrical workpieces.
- The parts can be mounted in between centres or held in place with various accessories.
- Robust construction with granite column for use in the workshop or test laboratory
- Reflex SCAN concept for measuring workpieces without pre-programming at the touch of a button
- Easy daily calibration thanks to a standard integrated in the machine
- Available in 2 versions :
  - 902-5520: machine with non-rotating headstock, only for static measurements
  - 902-5521: machine with rotary headstock for static and dynamic measurements
- Measuring range: Ø 0.5 to 52 mm, max. length 300 mm
- Delivered complete with a PC and the easy to use Reflex-Click software.



Sylvac Reflex SCAN Software

One click measurement



For turned parts



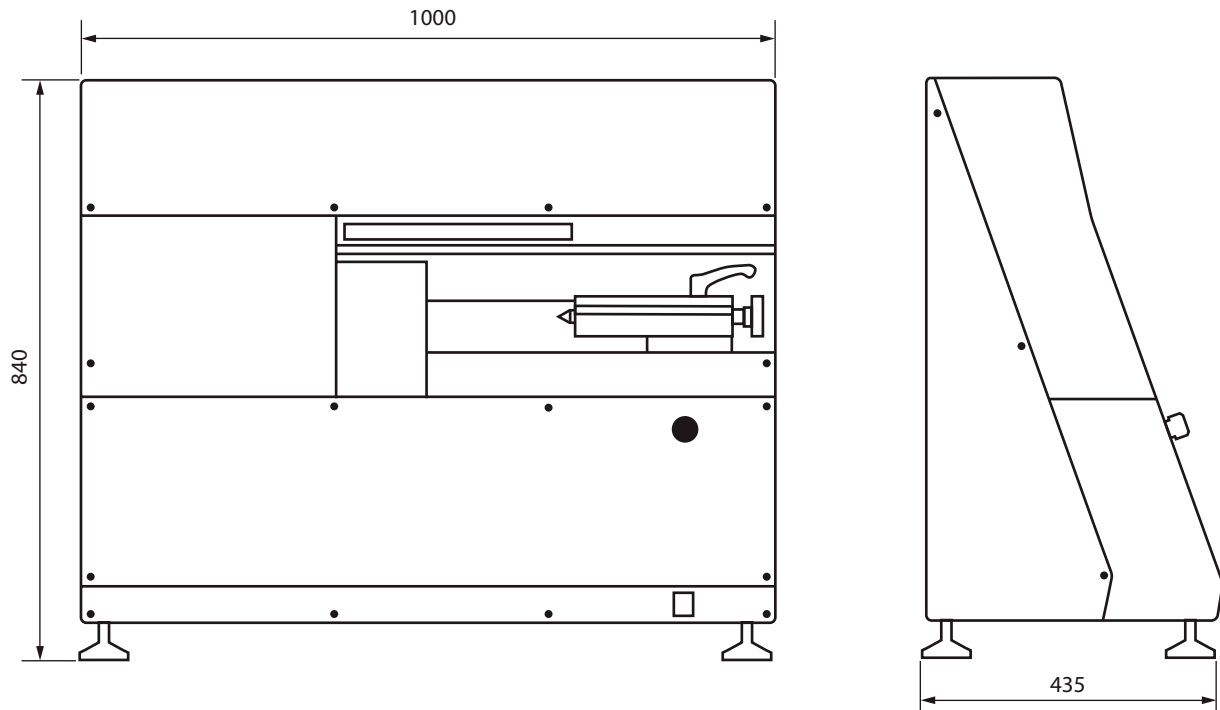


# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

## 52 REFLEX-CLICK



## TECHNICAL SPECIFICATIONS

		902-5520		902-5521	
		Diameter	Length	Diameter	Length
Measuring range	mm	0.5 ÷ 52	300	0.5 ÷ 52	300
Resolution up to	mm	0.0001	0.0005	0.0001	0.0005
Max. error	µm	1.5 + D/100	4 + L/100	1.5 + D/100	4 + L/100
Repeatability	µm	0.6	2.5	0.6	2.5
Headstock		Non-Rotating headstock for static measurements		Rotary headstock for static and dynamic measurements	
Max. weight of part	kg	4			
Machine's weight	kg	103			

## STANDARD DELIVERY

- Instrument according to technical specifications
- Accessories : 2x 902-6202, 902-6161, 902-6212
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software
- Manual

# Optical measurement

# SYLVAC-SCAN

## DESCRIPTION

F60 & F60T

- Vertical optical measuring machines for static or dynamic measurement of various elements on cylindrical workpieces.
- The parts can be mounted in between centers or held in place with various accessories.
- Attractive design and robust construction including many new features: Bi-telecentric optics, high-resolution CMOS camera, rotary headstock with integrated and protected daily calibration standard, quick and easy accessory changing system, integrated temperature sensors, LED indicator of the overall status of the measured part (GO/NG)
- The machine can be operated with the sliding door closed or open, with a light barrier automatically stopping the machine in case of intrusion.
- Reflex SCAN+ concept for measuring workpieces without prior programming at the touch of a button
- Available with tilt system (T) for true comprehensive thread measurement
- Delivered with a complete computer and the Reflex SCAN+ software allowing a multitude of elements to be measured in a simple and intuitive way.
- Machines that can be delivered in «Automation Ready» version on request



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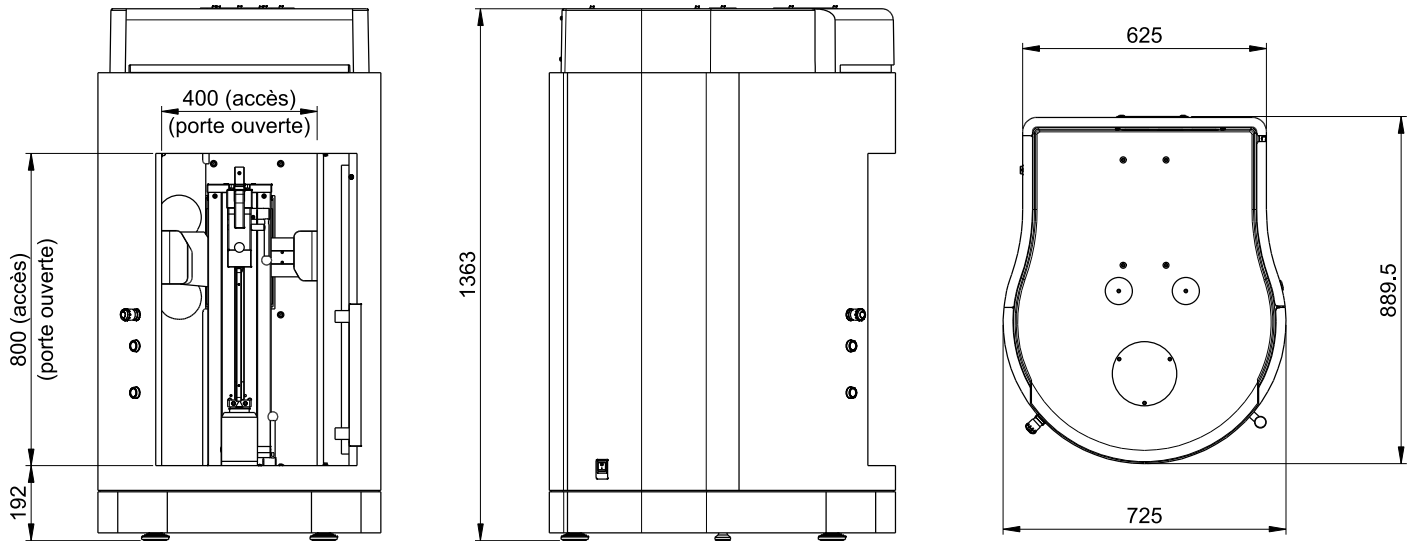


# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

## F60 & F60T



## TECHNICAL SPECIFICATIONS

		902-4060		902-4065	
		Sylvac SCAN F60		Sylvac SCAN F60T	
		Diameter	Length	Diameter	Length
Measuring range	mm	64	300	64	300
Resolution up to	mm	0.0001	0.0001	0.0001	0.0001
Max. error	µm	$(1 + D[\text{mm}]/100) \mu\text{m}$	$(3 + L[\text{mm}]/200) \mu\text{m}$	$(1 + D[\text{mm}]/100) \mu\text{m}$	$(3 + L[\text{mm}]/200) \mu\text{m}$
Repeatability	µm	0.5	1.8	0.5	1.8
Holding capacity diameter	mm	120	315	120	315
Headstock	Rotary headstock for dynamic measurements				
Tilting for thread measurement			-	• 30°	
Axial move speed	mm/s	Up to 100mm/s			
Max. weight of part	kg	10			
Machine's weight	kg	265			

## STANDARD DELIVERY

- Instrument according to technical specifications
- Accessories : 2x 902-6202, 902-6161, 902-6212
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Manual



Unique helix tilting system by Sylvac, for more comprehensive thread measurements.



# Optical measurement

# SYLVAC-SCAN

## DESCRIPTION

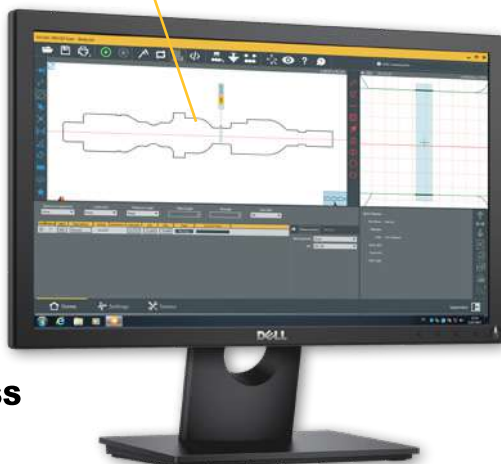
F60L & F60LT

- Optical machine similar to the F60, but in a long version, allowing measurements up to 500mm long and 64mm in diameter.
- Available in 2 versions :
  - 902-4062: SCAN F60L, measuring range Ø 0.5 to 64 mm, max. length 500 mm
  - 902-4067: SCAN F60LT, measuring range Ø 0.5 to 64 mm, max. length 500 mm, with tilting system Exclusive Sylvac up to an angle of 30° allows you to view and measure a multitude of additional elements on the threads, as their detailed profile is not visible unless viewed at the helix angle.
- Machines that can be delivered in «Automation Ready» version on request

## Version L !



Unique helix tilting system by Sylvac, for more comprehensive thread measurements.



Software Reflex SCAN +

One click measurement

Door for dust protection

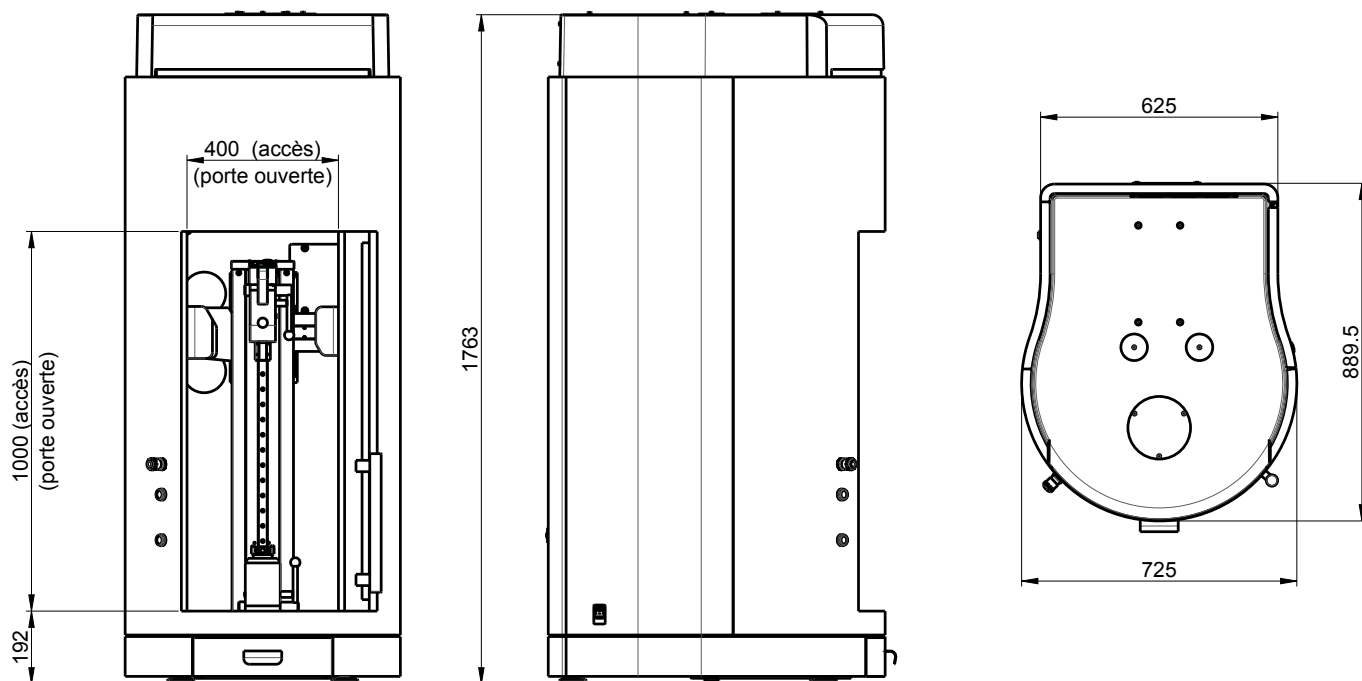


# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

## F60L & F60LT



## TECHNICAL SPECIFICATIONS

		902-4062		902-4067	
		Sylvac SCAN F60L		Sylvac SCAN F60LT	
		Diameter	Length	Diameter	Length
Measuring range	mm	64	500	64	500
Resolution up to	mm	0.0001	0.0001	0.0001	0.0001
Max. error	µm	$(1 + D[\text{mm}]/100) \mu\text{m}$	$(3 + L[\text{mm}]/200) \mu\text{m}$	$(1 + D[\text{mm}]/100) \mu\text{m}$	$(3 + L[\text{mm}]/200) \mu\text{m}$
Repeatability	µm	0.5	1.8	0.5	1.8
Holding capacity diameter	mm	120	500	120	500
Headstock	Rotary headstock for dynamic measurements				
Tilting for thread measurement		-		• 30°	
Axial move speed	mm/s	Up to 100mm/s			
Max. weight of part	kg	10			
Machine's weight	kg	330			

## STANDARD DELIVERY

- Instrument according to technical specifications
- Accessories : 2x 902-6202, 902-6161, 902-6212
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Manual

# Optical measurement

# SYLVAC-SCAN

## DESCRIPTION

S145

- New high-capacity optical measuring machines for static and dynamic measurement of various elements on cylindrical parts.
- The parts can be mounted in between centres or held in place with various accessories.
- Attractive design and sturdy construction with many new features: bi-telecentric optical system, high resolution camera, precision rotary headstock with integrated and protected daily calibration standard, motorised tailstock, quick and easy accessory changing system, integrated temperature sensors, LED indicator of the overall status of the measured part (GO/NG), light barrier automatically stops the machine in case of intrusion, removable roof for easy loading of heavy workpieces up to 100 kg and exceptional precision and repeatability
- Delivered complete with a PC and the Reflex SCAN+ software, which allows a multitude of elements to be measured easily and intuitively.
- Machine delivered fully equipped «Automation Ready» as standard



LED status light indicator

One click measurement

Software Reflex SCAN +



SCAN S145 with double table

Table with drawer



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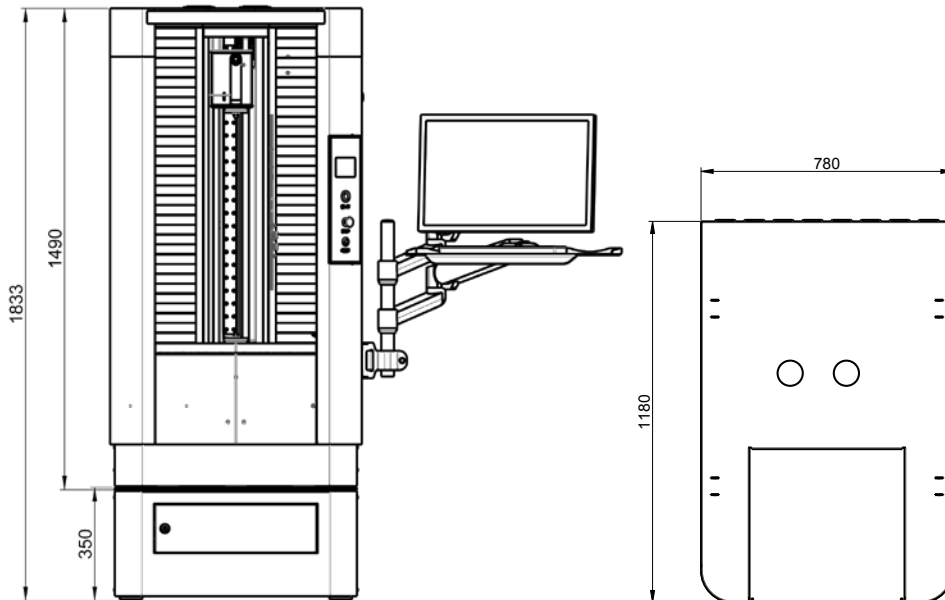


# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

S145



## TECHNICAL SPECIFICATIONS

		902-4145	
		Sylvac SCAN S145	
		Diameter	Length
Measuring range	mm	145	615
Resolution up to	mm	0.0001	0.0001
Max. error	µm	$(1.5 + D[\text{mm}]/100) \mu\text{m}$	$(4 + L[\text{mm}]/200) \mu\text{m}$
Repeatability	µm	$2\sigma=0.5$	$2\sigma=1.0$
Holding capacity diameter	mm	254	615
Axial positioning speed	mm/s	Up to 160	
Headstock		Rotary headstock for static and dynamic measurements	
Max. weight of part	kg	100	
Machine's weight	kg	530	

## STANDARD DELIVERY

- Instrument according to technical specifications
- Adapter for Morse 2 (902-6260)
- Computer with screen, keyboard and mouse
- Table 350mm (700mm optional, 902-6611)
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Manual
- Accessories 902-6210, 902-6380

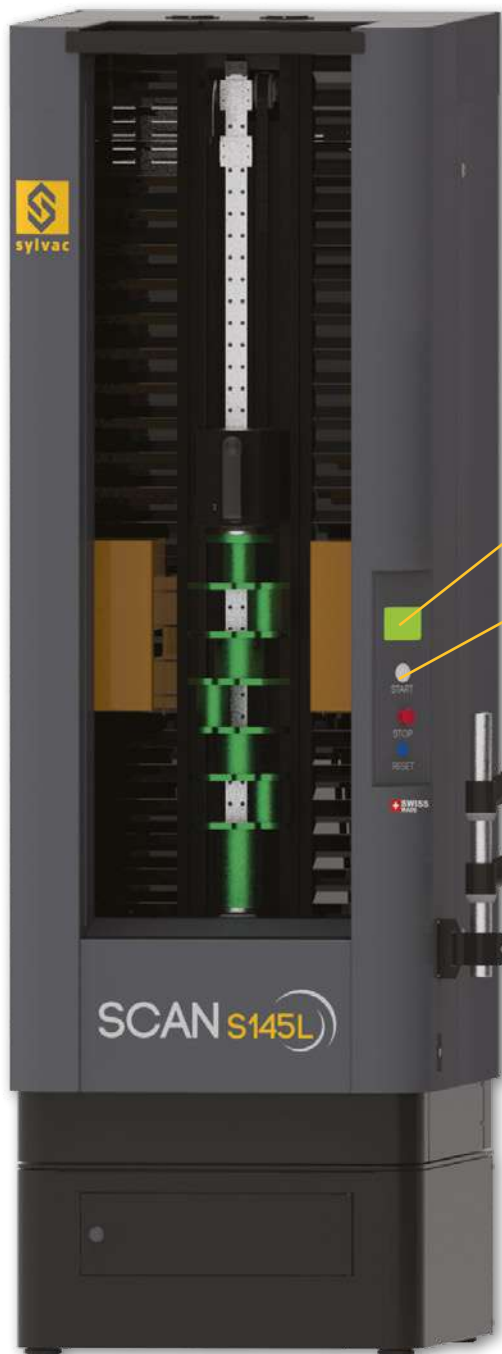
# Optical measurement

# SYLVAC-SCAN

## DESCRIPTION

S145L

- Optical machine similar to the S145, but in a long version, allowing measurements up to 1'280mm long and 254mm in diameter.
- Machine delivered fully equipped «Automation Ready» as standard



## Version L !

LED status light indicator

One click measurement



Software Reflex SCAN +



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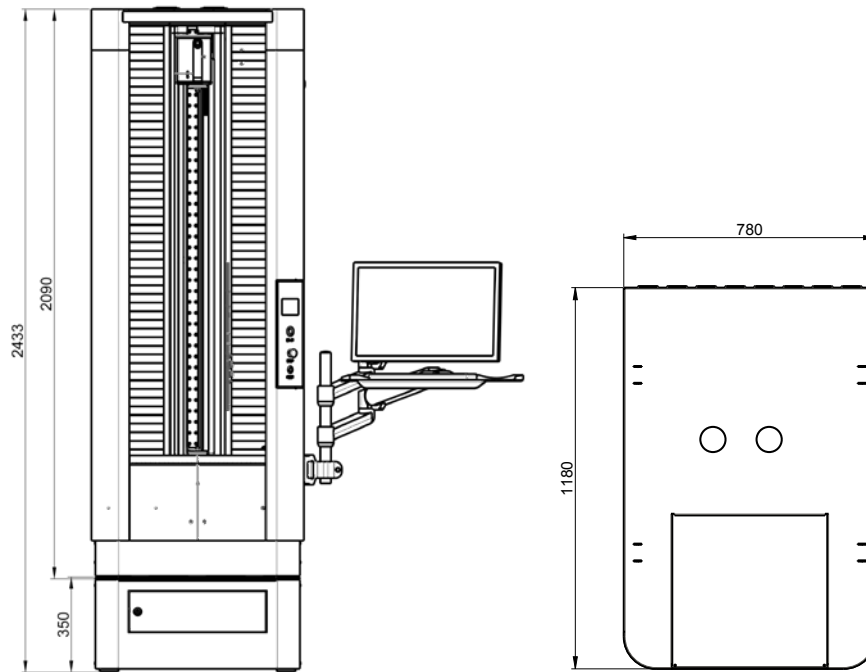


# Optical measurement

# SYLVAC-SCAN

## DIMENSIONAL DRAWINGS

S145L



## TECHNICAL SPECIFICATIONS

		902-4147	
		Sylvac SCAN S145	
		Diameter	Length
Measuring range	mm	145	1280
Resolution up to	mm	0.0001	0.0001
Max. error	µm	$(1.5 + D[\text{mm}]/100) \mu\text{m}$	$(4 + L[\text{mm}]/200) \mu\text{m}$
Repeatability	µm	$2\sigma=0.5$	$2\sigma=1.0$
Holding capacity diameter	mm	254	1280
Axial positioning speed	mm/s	Up to 160	
Headstock		Rotary headstock for static and dynamic measurements	
Max. weight of part	kg	100	
Machine's weight	kg	650	

## STANDARD DELIVERY

- Instrument according to technical specifications
- Adapter for Morse 2 (902-6260)
- Computer with screen, keyboard and mouse
- Windows multilingual operating system
- Sylvac Reflex SCAN Software +
- Manual

# Optical measurement

# SYLVAC-SCAN

## TECHNICAL SPECIFICATIONS

## SOFTWARES

	FUNCTIONS		
	SYLVAC REFLEX SCAN	SYLVAC REFLEX SCAN+	SYLVAC REFLEX SCAN+ PRO
Automatic measurement of the main features (diameters, lengths, angles, radius)	●	●	●
Automatic parts / program recognition	●	●	●
Reports editor	●	●	●
Data export	●	●	●
SPC basic calculation	●	●	●
Access management - security level	1	Multiple	Multiple
Off-line programming		Optional	Optional
Advanced dust filtering		●	●
Statistic view		●	●
CAD Import / Export / Compare			●
Script function			●
Monitoring SPC module			●
Thread wizard for custom threads			●

	GEOMETRICAL TOLERANCING - FEATURES SUMMARY		
	SYLVAC REFLEX SCAN	SYLVAC REFLEX SCAN+	SYLVAC REFLEX SCAN+ PRO
Diameters	●	●	●
Lengths, heights, distances	●	●	●
Angles, chamfers	●	●	●
Radii	●	●	●
Roundness	●	●	●
Cylindricity	●	●	●
Across flats	●	●	●
Rotational diameters	basic	●	●
Run out	basic	●	●
Concentricity	basic	●	●
Threads (parallel)	●	●	●
Threads taper		●	●
Advanced threads (root detail, taper, multistarts, worm screws,...)		● Tilt machines only	● Tilt machines only
Custom threads (bone-screws, dental implants, etc.)			●
Perpendicularity		●	●
Form deviation		●	●
Straightness		●	●
Interrupted parts (splines, turbines)		●	●

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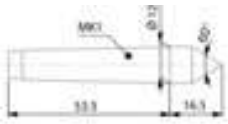
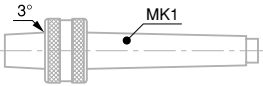
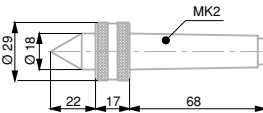
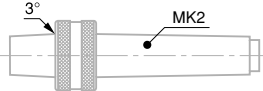
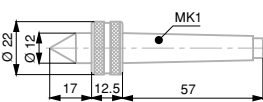
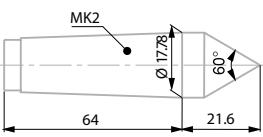
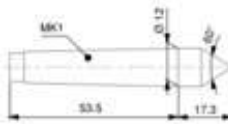
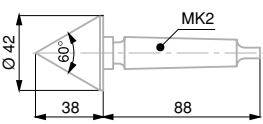


# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

## CENTRES AND DRIVE CENTRES

			Scan S25T	Morse 2 SCAN 52 / F60	Scan S145
	<b>902-6000</b>	Male centre 10 mm MK1	• Requires 902-6360	• Requires 902-6360	• Requires 902-6360
	<b>902-6160</b>	Rotation centre with a B12 male taper plus a Morse 1 taper shank	• Requires 902-6360	• Requires 902-6360	• Requires 902-6360
	<b>902-6161</b>	Rotation centre, Morse 2	•	•	•
	<b>902-6162</b>	Rotation centre with a B18 male taper plus a Morse 2 taper shank	•	•	•
	<b>902-6163</b>	Rotation centre, Morse 1	• Requires 902-6360	• Requires 902-6360	• Requires 902-6360
	<b>902-6202</b>	Male centre 17.78 mm, extra (Standard delivery with Sylvac-SCAN S25, F60 and S145)	•	•	•
	<b>902-6203</b>	Drive centre (Diamond coated 10mm)	• Requires 902-6360	• Requires 902-6360	• Requires 902-6360
	<b>902-6210</b>	Drive centre, Ø 42 mm plus a Morse 2 taper shank Diamond coated	•	•	•

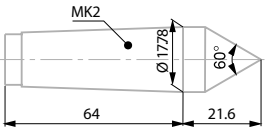
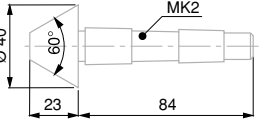
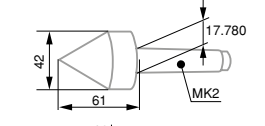
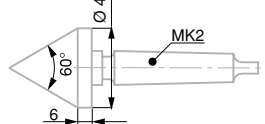
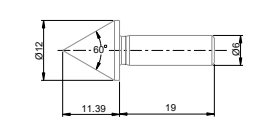
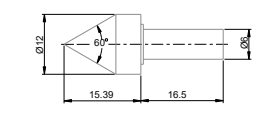


# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

## CENTRES AND DRIVE CENTRES

		Scan S25T	Morse 2 SCAN 52 / F60	Scan S145	
	<b>902-6211</b>	Non diamond coated Drive centre Ø 42mm	•	•	•
	<b>902-6212</b>	Centre MK2 diamond coated, Ø 17mm	•	•	•
	<b>902-6341</b>	Male centre, Ø 15÷40 mm, plus a Morse 2 taper shank	•	•	•
	<b>902-6380</b>	Rotation centre Ø 42mm MK2	•	•	•
	<b>902-6410</b>	Drive centre - diamond coated, with reference diameter. Ø 42 mm max.	•	•	•
	<b>902-6420</b>	Small male centre	• Requires 902-6251		
	<b>902-6421</b>	Small male rotating centre	• Requires 902-6251		

## ACCESSORIES

## INVERTED V-CENTRES

	<b>902-6204</b>	Female centre Ø10mm Capacity Ø3 - 10mm	• Requires 902-6251	• Requires 902-6251	• Requires 902-6251
	<b>902-6205</b>	Female centre Ø20mm Capacity Ø5 - 20mm	• Requires 902-6251	• Requires 902-6251	• Requires 902-6251



# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

## INVERTED V-CENTRES

		Scan S25T	Morse 2 SCAN 52 / F60	Scan S145
	<b>902-6206</b> Rotating female centre Ø10mm Capacity Ø3 - 10mm	• Requires 902-6360 902-6160	• Requires 902-6360 902-6160	• Requires 902-6360 902-6160
	<b>902-6214</b> Small Female centre 5mm	• Requires 902-6251	• Requires 902-6251	• Requires 902-6251
	<b>902-6215</b> Small Rotating female centre 5mm	• Requires 902-6251	• Requires 902-6251	• Requires 902-6251
	<b>902-6307</b> Rotating female centre Ø20mm Capacity Ø5 - 20mm	• Requires 902-6360 902-6160	• Requires 902-6360 902-6160	• Requires 902-6360 902-6160
	<b>902-6310</b> Female centre Ø10mm Capacity Ø3 - 10mm	• Requires 902-6162	• Requires 902-6162	• Requires 902-6162
	<b>902-6311</b> Rotating female centre Ø30 Capacity Ø5 - 30mm	• Requires 902-6162	• Requires 902-6162	• Requires 902-6162
	<b>902-6312</b> Female centre Ø45mm	• Requires 902-6162	• Requires 902-6162	• Requires 902-6162
	<b>902-6340</b> Female centre Ø40mm MK2 Capacité Ø5 - 40mm	•	•	•

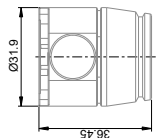
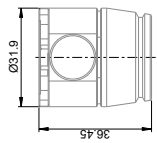
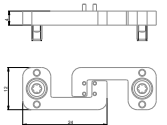
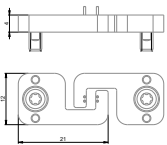
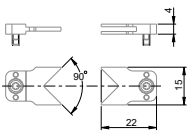
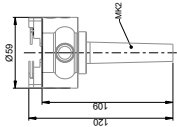
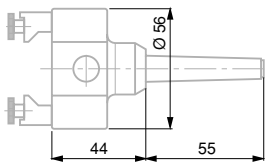
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# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

## MANUAL CHUCKS



		Scan S25T	Morse 2 SCAN 52 / F60	Scan S145
<b>902-6220</b>	External 2-jaw gripper MK1	• Requires 902-6360	• Requires 902-6360	• Requires 902-6360
<b>902-6270</b>	2-jaw gripper Ø 0-19.5mm MK2 (delivered without jaws)	•	•	•
<b>902-6271</b>	External jaws Ø 0-20mm, H=4mm for gripper 902-6270	•	•	•
<b>902-6272</b>	Internal jaws Ø 2-5mm, H=2mm (for gripper 902-6270)	• Requires 902-6270		
<b>902-6273</b>	Internal jaws Ø 5-10mm, H=3mm (for gripper 902-6270)	• Requires 902-6270		
<b>902-6280</b>	Micro pincer Ø 0.1 - 1.00mm (10 - 75g clamping force)	•		
<b>902-6281</b>	Micro pincer Ø 0.5 - 2.50mm (50 - 250g clamping force)	•		
<b>902-6306</b>	3-jaw chuck MK2 External clamping Ø 0.5mm - 41mm Internal clamping Ø 12mm - 36mm Step Height : 5mm	•	•	•
<b>902-6307</b>	3-jaw chuck MK2 External clamping Ø 1mm - 71mm Internal clamping Ø 18mm - 66mm Step Height : 10mm		•	•
<b>902-6308</b>	3-jaw chuck ISO40 External clamping Ø 1mm - 150mm Internal clamping Ø 34mm - 174mm Step Height : 10mm			•

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# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

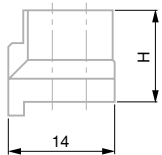
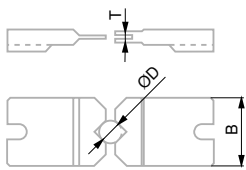
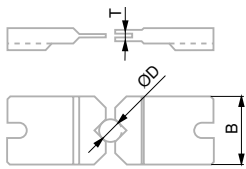
## MANUAL CHUCKS

Scan S25T

Scan F60

Scan S145

<p><b>902-6140</b> 0=6 mm T = 1.5</p> <p><b>902-6141</b> 0=6 mm T = 1.5</p> <p><b>902-6142</b> 0=6 mm T = 1.5</p> <p><b>902-6143</b> 0=6 mm T = 1.5</p> <p><b>902-6144</b> 0=6 mm T = 1.5</p> <p><b>902-6145</b> 0=6 mm T = 1.5</p> <p><b>902-6152</b> 0=6 mm T = 1.5</p> <p><b>902-6153</b> 0=6 mm T = 1.5</p>	<p>External jaws, in pairs</p>		<p>•</p> <p>For 902.6220 <i>(also for Morse 1)</i></p>	<p>•</p>
<p><b>902-6154</b> Set with 5 articles</p>	<p>External jaws, in pairs</p> <p>902.6141 : Jaws dia 0-6mm, T1=1.5mm 902.6142 : Jaws dia 0-6mm, T1=1.3mm 902.6143 : Jaws dia 6-12mm, T1=3mm 902.6144 : Jaws dia 12-18mm, T1=6mm 902.6145 : Jaws dia 18-24mm, T1=9mm</p>	<p>•</p>		<p>•</p> <p>Requires 902.6260</p>
<p><b>902-6231</b></p>	<p>Raising blocks for external jaws, in pairs</p>		<p>•</p> <p><i>(Morse 1 requires 902.6220)</i></p>	<p>•</p> <p>Requires 902.6260</p>

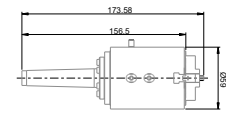


# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

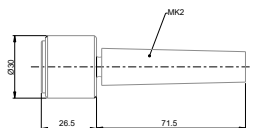
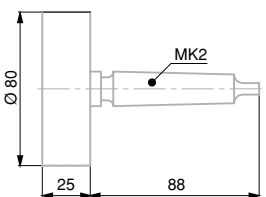
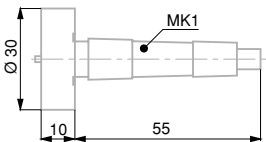
## PNEUMATIC CHUCKS



		Scan S25T	Morse 2 SCAN 52 / F60	Scan S145
<b>902-6309</b>	3-jaw pneumatic chuck MK2 1mm - 60mm		•	
<b>902-6316</b>	3-jaw pneumatic chuck 0.5mm - 41mm	•		
<b>902-6318</b>	3-jaw pneumatic chuck 1mm - 150mm			•
<b>902-6221</b>	2-jaw pneumatic chuck MK1		• Requires 902-6360	

## ACCESSORIES

## PLATES



<b>902-6208</b>	Plate, Ø 30 mm MK1	• Requires 902-6360	• Requires 902-6360	• Requires 902-6360
<b>902-6209</b>	Plate, Ø 80 mm MK2	•	•	•
<b>902-6228</b>	Magnetic clamping plate Ø0-24 mm MK2	•	•	•

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# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

## ADAPTERS

		Scan S25T	Morse 2 SCAN 52 / F60	Scan S145
	<b>902-6258</b>	Adapter MK1 for SCAN S25	•	
	<b>902-6259</b>	Adapter MK2 for SCAN S25	•	
	<b>902-6260</b>	Adapter MK2 for SCAN S145		•
	<b>902-6263</b>	Adapter MK3 for SCAN S145		•
	<b>902-6250</b>	Adapter with bore Ø 6 mm MK1	• Requires 902-6360	• Requires 902-6360
	<b>902-6251</b>	Adapter with bore Ø 6 mm MK2	•	•
	<b>902-6360</b>	Reduction sleeve DIN 2185 MK A/I 2:1	•	•

# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES



		SCAN 52	SCAN F60	SCAN S145	SCAN S25
***	Reflex SCAN Standard (delivered with 902-5520 & 902-5521)	•			
***	Reflex SCAN+ Standard (delivered with 902-4060, 902-4062, 902-4065, 902-4067, 902-4020 & 902-4025)		•	•	•
902-7015	Reflex SCAN+ Offline Software		•	•	•
902-7017	Reflex-SCAN+ Automation software module (Option, require Reflex SCAN+, standard delivery with S145 and S25)		•	•	•
902-7021	Reflex-Scan+ «PRO» including, advanced thread wizard, CAD compare, Monitoring SPC, scripting		•	•	•
902-7022	Reflex-SCAN+ PRO Offline		•	•	•












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# Optical measurement

# SYLVAC-SCAN

## ACCESSORIES

			SCAN 52	SCAN F60	SCAN S145	SCAN S25
	<b>902-6012</b>	Gold demo part	•	•	•	•
	<b>902-6013</b>	Gold demo part for threads	•	•	•	•
	<b>902-6014</b>	Gold demo part XL			•	
	<b>902-6600</b>	Table for Sylvac SCAN F60 (85x85x70cm)		•		•
	<b>902-6601</b>	Furniture for Sylvac SCAN F60 storage for PC, drawer with lock and arm for keyboard and screen		•		
	<b>902-6602</b>	Table S25T (75x75mm), selectable height 75cm or 105cm				•
	<b>902-6605</b>	Height-adjustable table (71-1140mm) for keyboard, screen and mouse (80x60mm)		•		
	<b>902-6607</b>	Accessories tidy insert for drawer (included with 902-6601)		•		
	<b>928.6006</b>	Plastiform case for SCAN and VISIO	•	•	•	•
	<b>902-6609</b>	Rack	•	•	•	•
	<b>902-6611</b>	Table 700mm			•	
	<b>902-6608</b>	Automation preparation for F60 series (I/O & Pneumatic prep, includes 902-7017		•		
	<b>902-6610</b>	Pneumatic actuation of tailstock for F60 series		•		
	<b>602-104-01</b>	Protective cover				•



# Optical measurement

# SYLVAC-VISIO

## DESCRIPTION

200 & 300 V3

- High quality ergonomic 2.5D optical (video) measuring system
- Extremely robust and durable construction with granite base and gooseneck
- Full HD camera with wide field of view for increased accuracy
- Manual X-Y table with quick-release and high-precision guidance
- Manual or motorised zoom depending on the version
- Lighting with ring light adjustable in segments, coaxial light and diasopic light
- Delivered complete with a computer with touch screen and the very easy to use Reflex-Vista software offering a wide range of functionalities: Semi-automatic intuitive measurement, automatic edge detection, comparison with imported DXF contour
- Available in 3 versions :
  - 902-2210: VISIO 200, manual zoom, measuring range 200 x 100 x 150 mm
  - 902-2211: VISIO 200, motorised zoom, measuring range 200 x 100 x 150 mm
  - 902-2212: VISIO 300, motorised zoom, measuring range 300 x 200 x 150 mm
- Numerous accessories available



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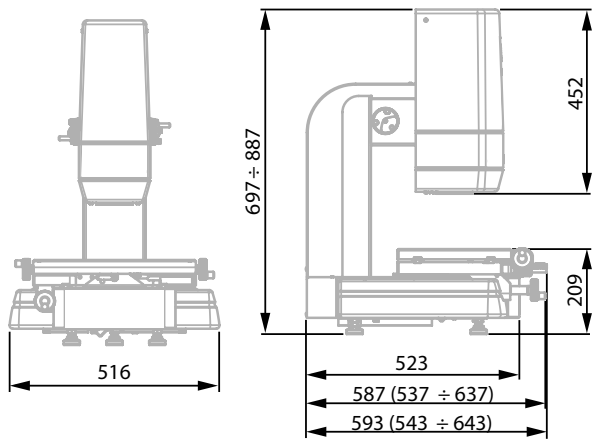


# Optical measurement

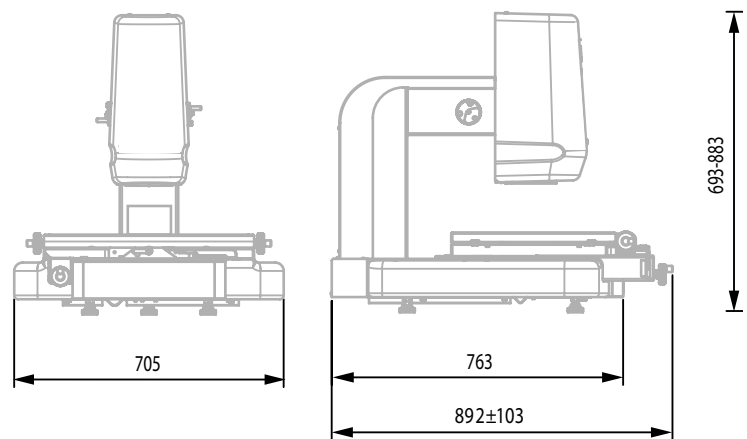
# SYLVAC-VISIO

## DIMENSIONAL DRAWINGS

## 200 & 300 V3



**Sylvac VISIO 200 V3**



**Sylvac VISIO 300 V3**

## TECHNICAL SPECIFICATIONS

		902-2210	902-2211	902-2310
Model		Sylvac Visio 200		Sylvac Visio 300
Measuring volume	mm	200x100x150		300x200x150
X, Y Accuracy (E <sub>1</sub> , X, Y)	µm	1.9 + 10L/1000 (L = mm) <sup>1) / 3)</sup>		1.9 + 4L/1000 (L = mm) <sup>1) / 3)</sup>
XY Accuracy (E <sub>2</sub> , XY)	µm	2.4 + 10L/1000 (L = mm) <sup>1) / 3)</sup>		2.4 + 4L/1000 (L = mm) <sup>1) / 3)</sup>
Z Accuracy (E <sub>1</sub> , Z) <sup>2)</sup>	µm	2.9 + 10L/1000 (L = mm)		2.9 + 5L/1000 (L = mm)
Resolution	mm	0.001		0.001
Max. load capacity	kg	10		20
Magnification (screen 23.8")		24x - 144x (12x - 288x with additional lenses)		
Zoom		Manuel 4x	Motorised 6x	Motorised 6x
Weight		98		170
International standards		EN61000-6-2, EN61000-6-4, EN61326-1, EN12100-1, EN12100-2		

<sup>1)</sup> m ≤ 5 kg

<sup>2)</sup> mechanical accuracy

<sup>3)</sup> at glass plate level

## STANDARD DELIVERY

- Instrument according to technical specifications
- Software Sylvac-REFLEX Vista multilingual
- Computer with touchscreen 23.8", keyboard and mouse
- CAD compare software
- Windows 10 multilingual operating system
- Manual
- Calibration certificate

# Optical measurement

## ACCESSORIES



**902-6020**

Visio demo part

**VISIO 200**

•

**VISIO 300**

•



**902-7370**

Diascopic illumination, parallel light

•

•

**902-7100**

Additional lens, 0,5x for zoom 6,5x

•

•

**902-7101**

Additional lens, 0,75x for zoom 6,5x

•

•



**902-7102**

Additional lens, 1.5x for zoom 6,5x

•

•

**902-7103**

Additional lens, 2x for zoom 6,5x

•

•



**902-7380**

Foot switch for value capture

•

•



**902-7390**

Sylvac - Reflex Vista COMPARE

Standard  
delivery

Standard  
delivery



**928-6006**

Plastiform case for SCAN and VISIO

•

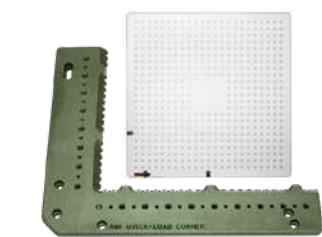
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# Optical measurement

# SYLVAC-VISIO

## ACCESSORIES



**902-7300**

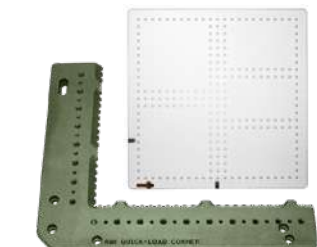


Basic fixtures Kit :

- 1x Quick-Load Corner Fixture (QLC)
- 1x 13mm x 150mm x 150mm R&R Acrylic Multi-Hole Fixture Plate
- 1x (3) Dowel Pins
- 3x 6mm Dia. x 10 and x 25mm Standoff
- 3x 9mm Dia. x 5, x 10, x 20 and x 25mm Standoff
- 3x 12mm Dia. x 10 and x 25mm Standoff
- 2x 6mm Dia. x 10mm Pin Standoff
- 2x 9mm Dia. x 10mm Pin Standoff
- 2x 40mm Tension Clamp with Rubber Coated Tip
- 2x 25mm Wire Clamp with Rubber Coated Tip
- 2x 50mm Wire Clamp with Rubber Coated Tip
- 4x Aluminium Resting Pin with M4 Thread
- 1x 50mm x 50mm Corner Viewer for M4
- 1x 9mm Dia. Adjustable Jackstand with M4 Thread
- 1x M4 Pusher Clamp
- 1x 30mm and 1x 45mm Long Adjustable Slide with M4 Thread
- 1x M4 Tower Block
- 1x Micro-Clamp Vise with Base for M4 Components
- 1x 12mm Dia. x10mm Spring Pusher Standoff Clamp
- 1x 300mm x 190mm x 25mm Component Tray to Hold M4 Components

**VISIO 200**

**VISIO 300**



**902-7301**



Advanced fixtures Kit :

All Basic fixtures (acrylic plate 13x200x200mm) kit added with :

- 3x 6mm Dia. x 5, x 10 and x 25mm Standoff
- 3x 9mm Dia. x 10, x 20, x 25mm Standoff
- 3x 12mm Dia. x 10, x25mm Standoff
- 2x 6mm Dia. x 10mm Pin Standoff
- 2x 9mm Dia. x 10mm Pin Standoff
- 4x 12mm Dia. x 10mm Pin Standoff
- 2x 40mm Tension Clamp with Rubber Coated Tip
- 2x 25mm Wire Clamp with Rubber Coated Tip
- 2x 50mm Wire Clamp with Rubber Coated Tip with 50mm Post
- 1x 9mm Dia. Adjustable Jackstand with M4 Thread
- 1x 30mm and 1x 45mm Long Adjustable Slide with M4 Thread
- 1x Base 16mm Sq x 19mm (for M4 Tower Block)



**902-7104**

Fresnel kit 0.5x / Fresnel lens + lens 0.5x + fixation screws (for Ringlight)



**902-7105**

Fresnel kit 0.75x / Fresnel lens + lens 0.75x + fixation screws (for Ringlight)



**902-7106**

Fresnel kit 1.5x / Fresnel lens + lens 1.5x + fixation screws (for Ringlight)



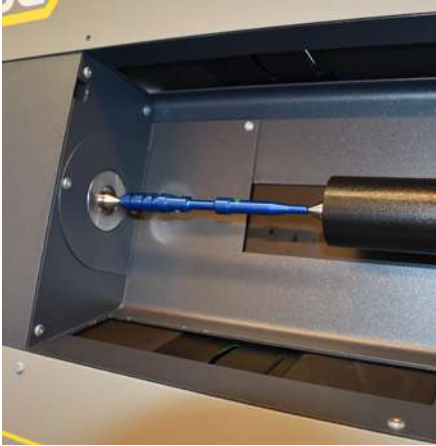
**902-7108**

Fresnel kit 0.5x / Fresnel lens + lens 0.5x + fixation screws (for Ringlight)

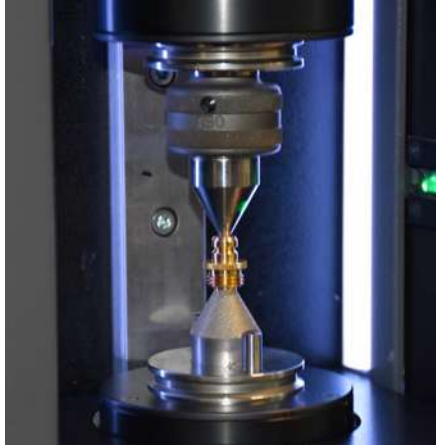
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# Optical measurement

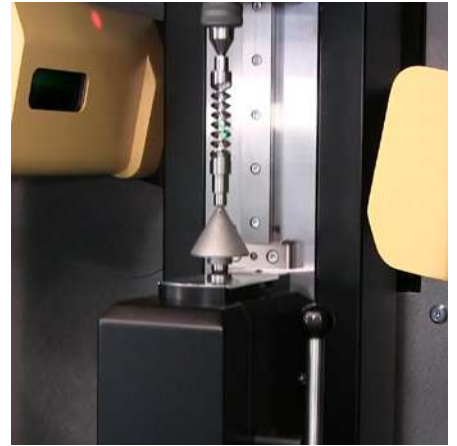
## APPLICATIONS



Measurement of a turned part with SCAN 52



Part measurement with SCAN S25T



Thread measurement with SCAN F60T



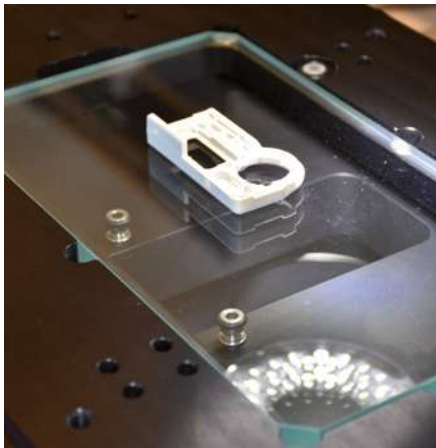
Part measurement with SCAN F60



Part measurement with SCAN F60L



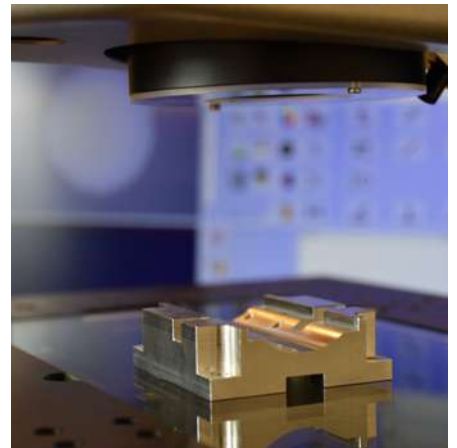
SCAN 52 and robot : closed loop with automatic correction of the part



Part lighted by ring light on VISIO



Part lighted by diasopic light on VISIO



Part lighted by coaxial light on VISIO

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# PLASTIFORM®

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As an excellent complement to our Sylvac measuring instruments and optical machines, Plastiform's bi-component products allow us to obtain in a few minutes very precise impressions (replicas) of all the details of the surface to which they have been applied. Depending on the type of Plastiform product used, a complete or partial impression will be obtained with a soft, semi-flexible, rigid or semi-rigid consistency that can be measured optically. These products make it possible to avoid having to cut and therefore destroy sometimes expensive parts in order to be able to control them, or having to dismantle and move more important elements.



# Plastiform®

# SRL

## DESCRIPTION

## LIQUID PRODUCTS

- Products with an initial liquid consistency to produce high precision, optically measurable, flexible to semi-rigid full impressions.
- Easy to use products, thanks to their fluidity, they can be set up by themselves.
- Specially designed for complex internal shapes, such as threads and grooves that require flexibility so that the impression can be removed from the workpiece without breaking it.
- Semi-rigid impressions can be cut with a double-blade cutter to measure the cross-section optically.



Cans 1.7l



Cartridges 50ml and 400ml



Cans 10.2l

### Internal impression



### Non-destructive control





# Plastiform®

# SRL

## TECHNICAL SPECIFICATIONS

## LIQUID PRODUCTS

Cartridges 50ml	928-2001	928-2005	928-2101	928-2105	928-2002	928-2006	928-2102	928-2106
Type	SRL2	SRL3V	SRL5	SRL8	SRL2	SRL3V	SRL5	SRL8
Description	2 Cartridges 50ml + 12 Standard Nozzles + 3 Tips				8 Cartridges 50ml + 48 Standard Nozzles + 6 Tips			
Color								
Final consistency	Flexible	Flexible	Semi-Flexible	Rigid	Flexible	Semi-Flexible	Semi-Flexible	Rigid
Cut with cutter ?	✗	✗	✓	✗	✗	✗	✓	✗
Removal constraint	30%	20%	10%	0%	30%	20%	10%	0%

Cartridges 400ml	928-3001	928-3003	928-3004	928-3005
Type	SRL2 L	SRL5 L	SRL7 L	SRL8 L
Description	1 Cartridge 400ml + 10 Quadro Nozzles			
Color				
Final consistency	Flexible	Semi-Flexible	Semi-Rigid	Semi-Rigid
Cut with cutter ?	✗	✗	✗	✗
Removal constraint	20%	5%	0%	0%

Cans 1.7l	928-8001	928-8005	928-8007	928-8009
Type	SRL2 XL	SRL5 XL	SRL7 XL	SRL8 XL
Description	1 Can 1.7l (2x 850ml)			
Color				
Final consistency	Flexible	Semi-Flexible	Semi-Rigid	Semi-Rigid
Cut with cutter ?	✗	✗	✗	✗
Removal constraint	20%	5%	0%	0%

Cans 10.2l	928-8002	928-8006	928-8008	928-8010
Type	SRL2 XXL	SRL5 XXL	SRL7 XXL	SRL8 XXL
Description	1 Can 10.2l (2x 5.1l)			
Color				
Final consistency	Flexible	Semi-Flexible	Semi-Rigid	Semi-Rigid
Cut with cutter ?	✗	✗	✗	✗
Removal constraint	20%	5%	0%	0%



# Plastiform®

# SRC, SRD, SRF

## DESCRIPTION

## CEMENT, DOUGH & RE-FORM PRODUCTS

- Cement (SRC), Dough (SRD) and Re-form (SRF) initial consistency products for checking partial internal and external shapes that can be measured optically or, for some products, to size.
- Impressions can be cut with a double-blade cutter to measure the cross-section optically.
- The SRC8 Ra product enables the production of indentations on which the roughness Ra can be measured with high precision.



### External impression (SRD)



### Control of roughness Ra (SRC)



### Protection (SRF)



Re-form



# Plastiform®

# SRC, SRD, SRF

## TECHNICAL SPECIFICATIONS

## CEMENT, DOUGH & RE-FORM PRODUCTS

Cartridges 50ml	928-2109	928-2113	928-2111	928-2110	928-2114	928-2112
Type	SRC3	SRC8 Ra	SRC10	SRC3	SRC8 Ra	SRC10
Description	2 Cartridges 50ml + 12 Standard Nozzles + 3 Tips			8 Cartridges 50ml + 48 Standard Nozzles + 6 Tips		
Color						
Final consistency	Flexible	Semi-Rigid	Rigid	Rigid	Semi-Rigid	Rigid
Cut with cutter ?	✓	✗	✗	✓	✗	✗
Removal constraint	20%	0%	0%	20%	0%	0%

Boxes 90ml	928-7004	928-7006	928-7008
Type	SRD6	SRD7	SRD9
Description	Small boxes 90ml (2x45ml)		
Color			
Final consistency	Semi-Flexible	Semi-Flexible	Rigid
Cut with cutter ?	✓	✓	✗
Removal constraint	5%	5%	0%

Boxes 900ml	928-7003	928-7005	928-7007
Type	SRD6	SRD7	SRD9
Description	Pack of boxes 900ml (2x450ml)		
Color			
Final consistency	Semi-Flexible	Semi-Flexible	Rigid
Cut with cutter ?	✓	✓	✗
Removal constraint	5%	5%	0%

Bags	928-4001	928-4001
Type	SRF	SRF
Description	Bag of 500g	Bag of 1000g
Color		
Final consistency	Rigid	Rigid
Cut with cutter ?	✗	✗
Removal constraint	-	-



# Plastiform®

# KITS

## DESCRIPTION

## KITS & ACCESSORIES

- Complete kit with cartridges and accessories
- Large volumes kits
- Accessories



Example of content of a large volume kit (928-5001)



Twin blade cutter



Special kit SCAN & VISIO

Kit complet	928-6006
Typ	Special kit SCAN & VISIO
Content	1 manual dispensing gun (928-1001), 1 twin blade cutter 60mmx1mm (928-1009), 1 cutting guide for cutter (928-1010), 50 standard mixer injectors, 10 standard white nozzle tips, 21 rings for mold removal (928-1008), 1 plastin 250g (928-1201), 1 degreaser DN1 400ml (928-1205), 1 Re-form bag (SRF) 50g (928-4001), 2 cartridges SRL2 (928-2001), 2 cartridges SRL5 (928-2101), 2 cartridges SRC3 (928-210), 1 cartridge SRL8 (928-2105), 1 tube SRD7 2x45ml (928-7006)

\* Not included or delivered if shipped by air



Large volume kits	928-5001	928-5002	928-5003	928-5004
Type	Kit SRL2 KXL	Kit SRL5 KXL	Kit SRL7 KXL	Kit SRL8 KXL
Description	Kit with 4 cartridges 400ml and accessories			
Color				
Final consistency	Flexible	Semi-Flexible	Semi-Rigid	Semi-Rigid
Cut with cutter ?	✗	✗	✗	✗
Removal constraint	20%	5%	0%	0%

Guns	928-1001	928-1002	928-1207	928-1208	928-1209
Description	Manual Dispensing Gun DS53 (for 50 ml cartridges)	Pneumatic Dispensing Gun DP50 (for 50 ml cartridges)	Manual Dispensing Gun DS 400 (for 400 ml cartridges)	Battery Dispensing Gun DB 400 (for 400ml cartridges)	Pneumatic Dispensing Gun DS 400 (for 400 ml cartridges)

Nozzles, tips and rings	928-1003	928-1004	928-1005	928-1301	928-1302
Description	Pack of 48 Standard Grey Mixer Injectors	Pack of 96 Standard Grey Mixer Injectors	Pack of 192 Standard Grey Mixer Injectors	Pack of 10 Needle Mixer Injectors	Pack of 50 Needle Mixer Injectors
Compatibility	Cartouches 50ml				

Nozzles, tips and rings	928-1303	928-1304	928-1305	928-1306	928-1210
Description	Pack of 100 Needle Mixer Injectors	Pack of 200 Needle Mixer Injectors	Pack of 50 Quadro Mixer Injectors	Pack of 100 Quadro Mixer Injectors	Pack of 10 Large Mixer Injectors
Compatibility	Cartouches 50ml		Cartouches 400ml		

Nozzles, tips and rings	928-1211	928-1212	928-1008	928-1202	928-1203	928-1201
Description	Pack of 50 Large Mixer Injectors	Box of 4 different Fill'in	Pack of 21 Rings for mould removal	Pack of 20 White Nozzles Tips	Pack of 50 White Nozzles Tips	Plastin
Compatibility	Cartouches 400ml	-	-	Injecteur mélangeurs standards gris		-

Cutters & products	928-1011	928-1101	928-1102	928-1103	928-1104
Description	Standard Twin Blade Cutter + Support	Special Twin Blade Cutter 60mm + Support	Special Twin Blade Cutter 60mm + Support	Special Twin Blade Cutter 100mm + Support	Special Twin Blade Cutter 100mm + Support
Space between blades	1mm	0.5mm	2mm	0.5mm	1mm

Cutters & products	928-1105	928-1106	928-1107	928-1108	928-1205*	928-1206*
Description	Special Twin Blade Cutter 100mm+Support	Special Twin Blade Cutter 200mm+Support	Special Twin Blade Cutter 200mm+Support	Special Twin Blade Cutter 200mm+Support	Surface cleaner DN1 400ml	Surface cleaner DN1 1l
Space between blades	2mm	0.5mm	1mm	2mm	-	-

\* Not included or delivered if shipped by air

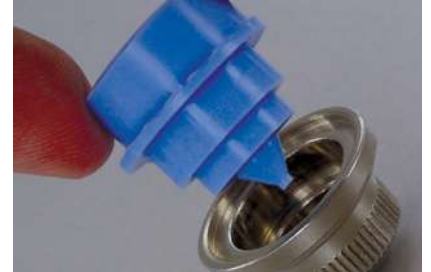


# Plastiform®

## APPLICATIONS



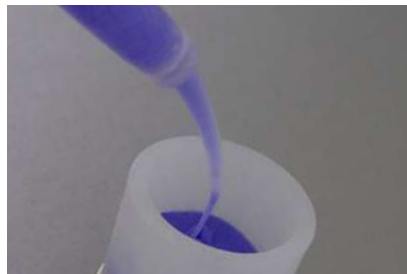
Internal dimensional control



Internal dimensional control



External dimensional control



Non-destructive control



Custom protective cap







# Plastiform®

## APPLICATIONS



Profile cutting



Roughness control Ra



Visual finishing control



Protection, masking, seal



Fix, clamp, add strength to parts



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