

# HEIGHT GAUGES

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

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Specially developed and optimized for use in production lines, HI\_CAL offers a great efficiency thanks to its large screen which can simultaneously display diameters and centerlines.

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

**Inductive Sylvac system (patented)**

**Automatic motorized probe (patented)**

**Data output RS232 – USB**

**mm/inch conversion**



# Height gauge

# Hi\_Gage ONE

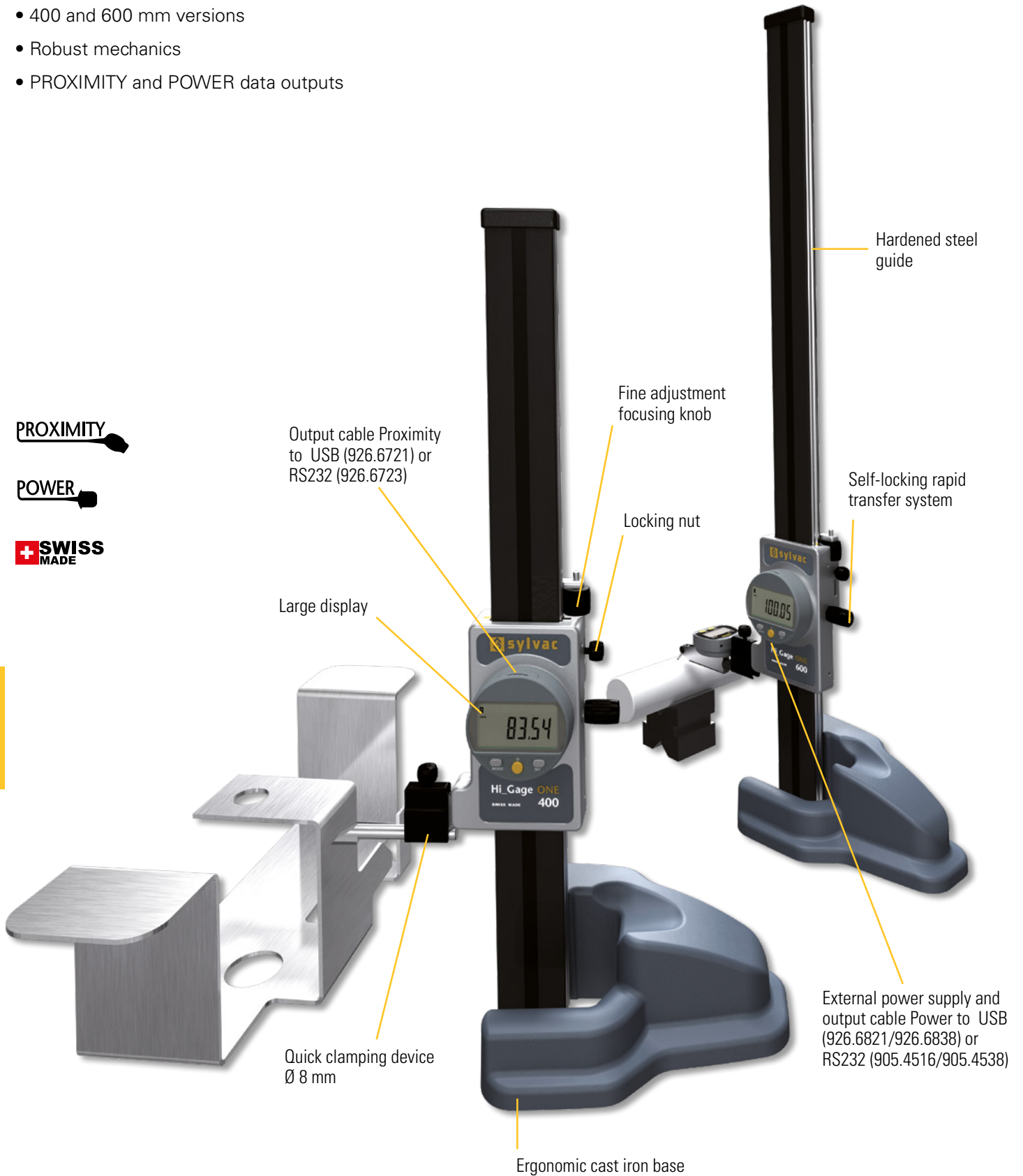
## DESCRIPTION

- Intuitive functions
- 400 and 600 mm versions
- Robust mechanics
- PROXIMITY and POWER data outputs

PROXIMITY

POWER

SWISS  
MADE

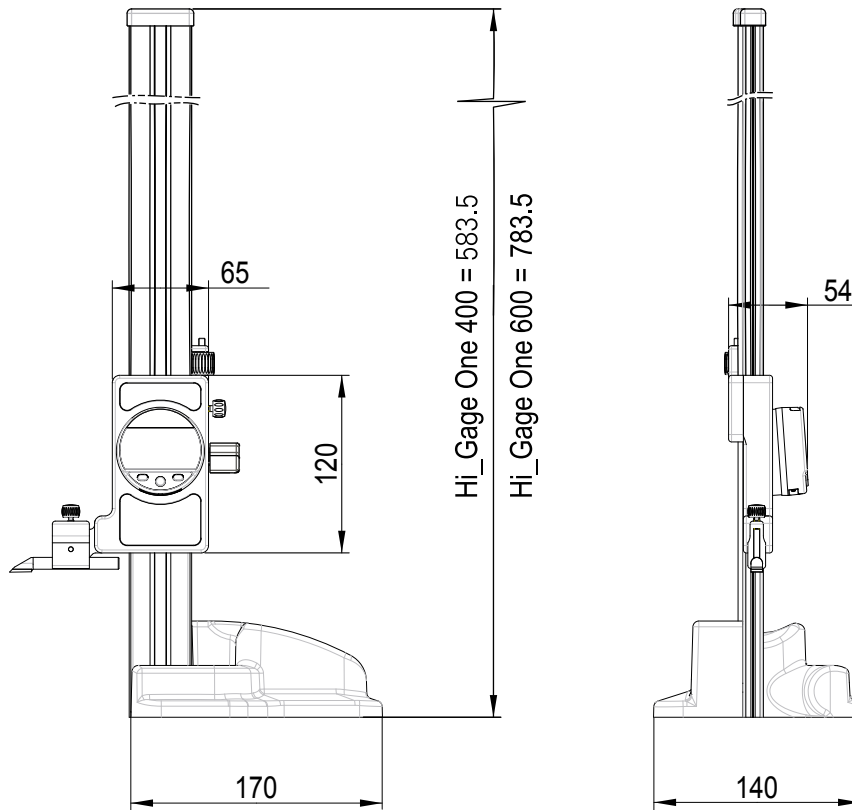


G

# Height gauge

# Hi\_Gage ONE

## DIMENSIONAL DRAWINGS



## TECHNICAL SPECIFICATIONS

|                                  | 840.0400         | 840.0600         |
|----------------------------------|------------------|------------------|
| 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                      | USB / RS232      |                  |

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

## ACCESSORIES

|                        | Description                   |
|------------------------|-------------------------------|
| 840.9001               | Ball probe $\varnothing 8$ mm |
| 840.9002 <sup>1)</sup> | Tracing probe                 |
| 905.2247               | Clamping stem                 |

<sup>1)</sup> supplied in standard



840.9001



840.9002



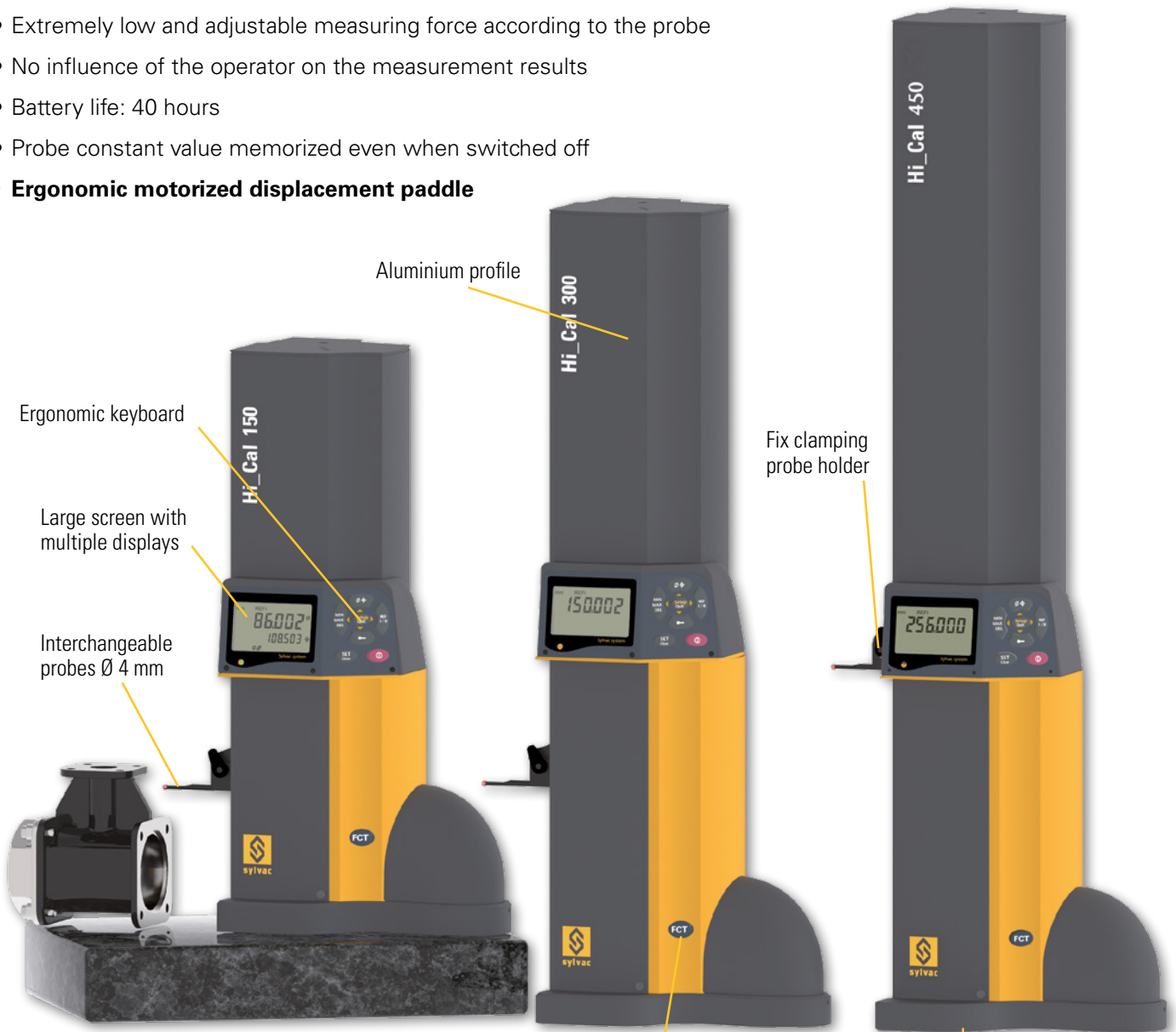
905.2247

# Height gauge

# Hi\_Cal

## DESCRIPTION

- Intuitive functions
- Great mobility
- Measurement of internal and external diameters, centerlines, heights, thicknesses, depths, surfaces
- 150, 300 and 450 mm range
- Data output USB and RS232
- Extremely low and adjustable measuring force according to the probe
- No influence of the operator on the measurement results
- Battery life: 40 hours
- Probe constant value memorized even when switched off
- **Ergonomic motorized displacement paddle**



mini-USB

RS232

SWISS MADE



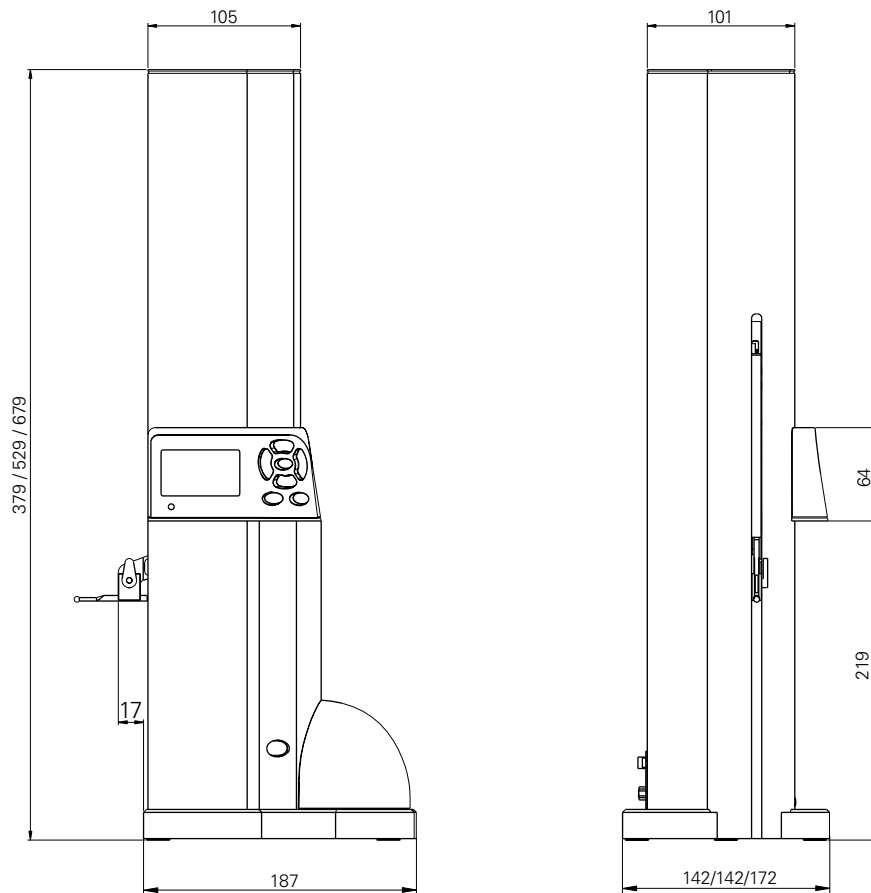
Output cable RS232 to USB (925.1142) or RS232 (925.5609) or output cable mini-USB to USB (926.6001)

## Switch on and measure!

# Height gauge

# Hi\_Cal

## DIMENSIONAL DRAWINGS



## DISPLAYS

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



## TECHNICAL SPECIFICATIONS

|                                       |      | 830.0150  | 830.0300 | 830.0450 |
|---------------------------------------|------|---|----------|----------|
| Measuring range                       | mm   | 150   | 300      | 450      |
| Application range                     | mm   | 0 - 155   | 0 - 320  | 0 - 470  |
| Max. Error                            | µm   | 2.5 + L / 175 <sup>1)</sup>                                     |          |          |
| Repeatability                         | µm   | 2   |          |          |
| Resolution                            | mm   | 0.01 / 0.001  |          |          |
| Velocity                              | mm/s | 50 / 100  |          |          |
| Measuring force                       | N    | 0.2 - 0.3   |          |          |
| Self-contained use                    | h    | >40   |          |          |
| Height                                | mm   | 379   | 529      | 679      |
| Weight                                | kg   | 3.9   | 4.6      | 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 <sup>3)</sup>                                       |          |          |
| Programmable by PC                    |      | ●   |          |          |
| Zero setting                          |      | ●   |          |          |
| Min / max / delta                     |      | ●   |          |          |
| PRESET function                       |      | ●   |          |          |
| 2 references                          |      | ●   |          |          |
| Height measurement, Ø and centerlines |      | ●   |          |          |
| 2 types of progressive speed          |      | ●   |          |          |

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

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

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

## BASIC INSTRUMENT

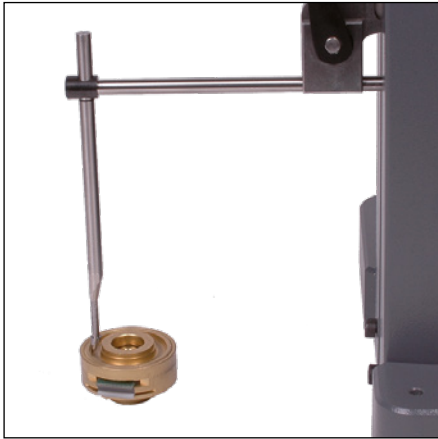
- Loose cover Hi\_Cal 150 (930.6001)
- Loose cover Hi\_Cal 300 (930.6002)
- Loose cover Hi\_Cal 450 (930.6005)
- Charging set (904.4200<sup>1)</sup>/01/03/04/05)
- Ruby ball probe Ø 3 mm
- Setting gauge
- Calibration certificate
- Instruction manual

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

# Height gauge

# Hi\_Cal

## APPLICATIONS



Depth measurement with accessories 930.2108 and 930.2105



Depth measurement with accessories 930.2108 and 905.2204



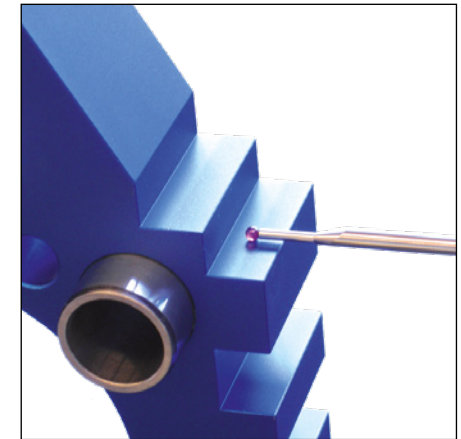
Internal measurement with ruby ball probe Ø 3 mm, 930.2101 (standard)



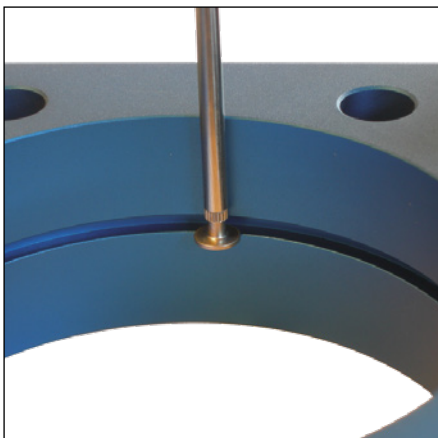
Internal groove measurement with accessories 930.2108, 930.2110 and 905.2207



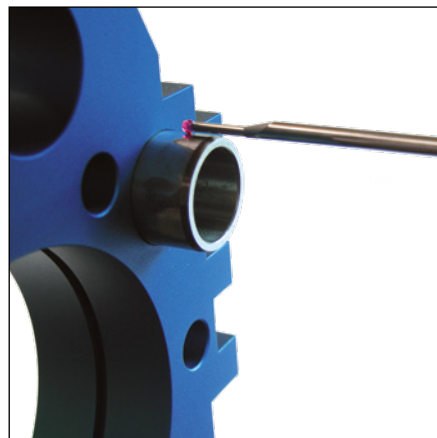
Taking the probe constant value with the setting bloc 930.2002 (standard)



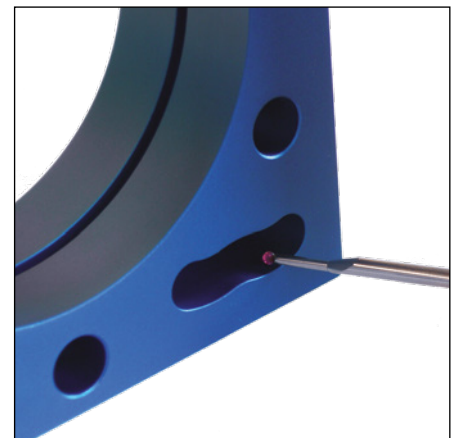
Heights and thicknesses measurements with the standard probe 930.2101



Internal groove measurement with accessories 930.2108, 930.2110 and 905.2205

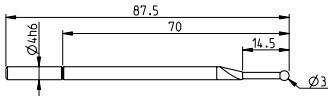


External diameter measurement with the standard probe 930.2101

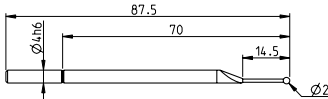


Min/Max/Delta measurements

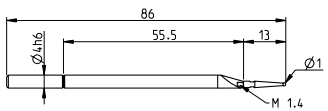
## ACCESSORIES



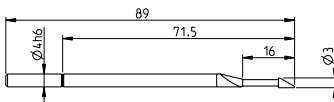
**930.2101** Ruby ball probe  $\varnothing$  3 mm



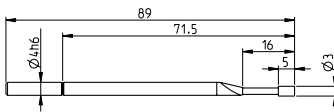
**930.2103** Ruby ball probe  $\varnothing$  2 mm



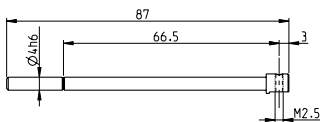
**930.2104** Tungsten carbide ball probe  $\varnothing$  1 mm



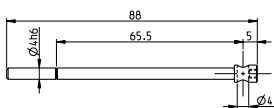
**930.2105** Knife-edged measuring probe TC  $\varnothing$  3 mm



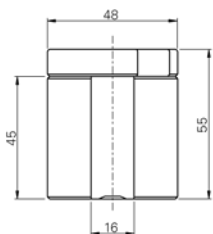
**930.2106** Cylindrical measuring probe TC  $\varnothing$  3 mm



**930.2107** Probe holder 90° M2.5



**930.2108** Probe holder 90°  $\varnothing$  4 mm



**930.2002** Setting gauge



**904.4200** Charging set 100-240V / 9V

**904.4205** EUR cable, included in 904.4200 (CH - 904.4201)

**904.4204** UK cable, included in 904.4200

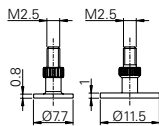
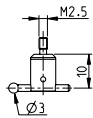
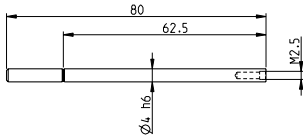
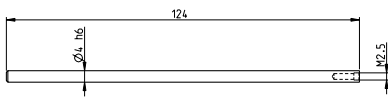
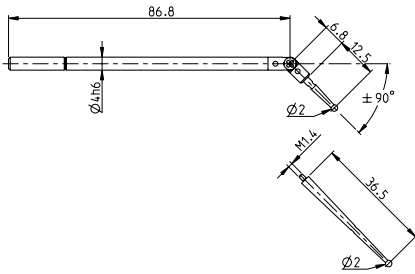
**904.4203** USA/JPN cable, included in 904.4200



# Height gauge

# Hi\_Cal

## ACCESSORIES



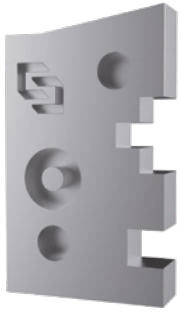
|                 |  |
|-----------------|--|
| <b>930.2102</b> | Swivelling tungsten carbide ball probe (M1.4)  |
| <b>930.2109</b> | Extension 124 mm M2.5  |
| <b>930.2110</b> | Extension 80 mm M2.5   |
| <b>905.2207</b> | Probe holder and ruby ball probe Ø 3 mm, M2.5  |
| <b>905.2205</b> | Disk shaped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

## ACCESSORIES



**930.2111**

Carbon probe-holder 200mm, Ø4mm



**930.2112**

Demonstration piece



# Height gauge

# Z5

## DESCRIPTION

- Height gauge with measuring range 700mm
- Extremely easy to use
- Electronically adjustable measuring force
- Manual or motor-driven displacement
- Standard probes up to 300 mm
- Vast range of accessories
- All adjustments possible without tools
- Possibility of using a thermal printer (926.1830)
- Battery life: 12 hours
- RS232 and USB interfaces

mini-USB

RS232

SWISS MADE

Easy balance adjustment system

Interchangeable insert holder and probe



Output cable RS232 to RS232 (926.5505) or output cable mini-USB to USB (926.6001)

Additional probe holder

«Black Mask» display with user-friendly functions

Measuring carriage displacement handwheel

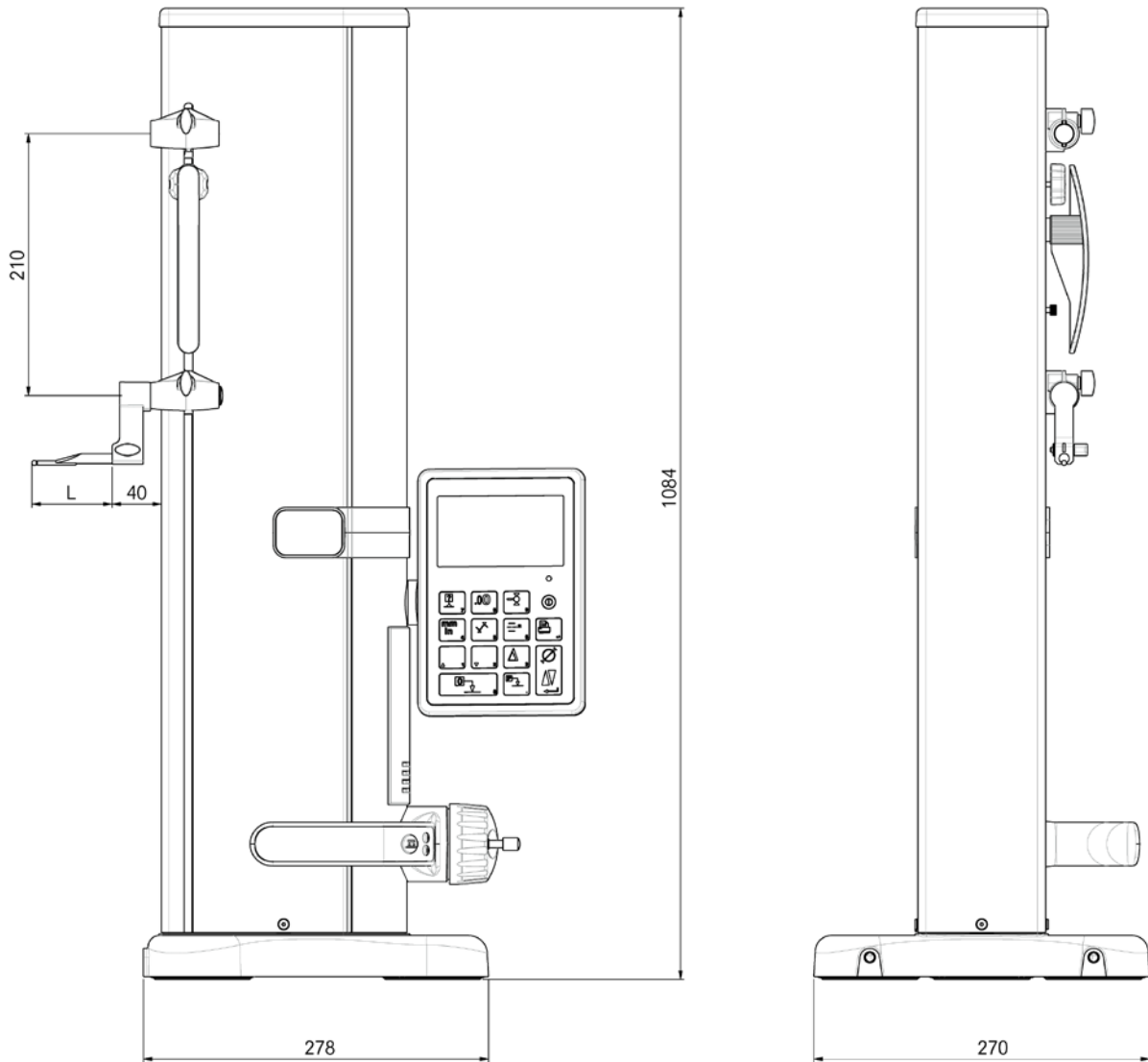
Horizontal displacement handle with buttons for functions and air cushion

Cast iron base

## Let's measure higher !

# Height gauge

## DIMENSIONAL DRAWINGS



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## BASIC INSTRUMENT

- Instrument according to technical specifications
- Protection cover
- Charging set (904.4200<sup>1)</sup>/01/03/04/05)
- Ruby ball probe Ø 4 mm
- Setting gauge
- Calibration certificate
- Instruction manual

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

# Height gauge

# Z5

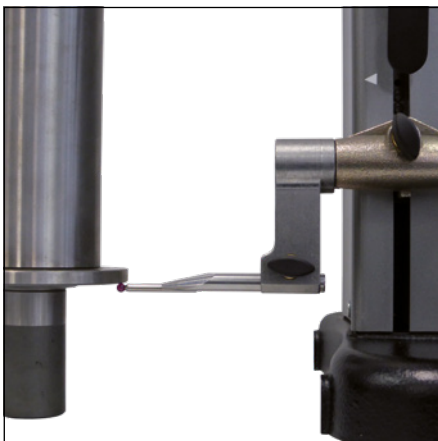
## TECHNICAL SPECIFICATIONS

|   |               | 936.0700      |
|---|---------------|---------------|
| Measuring range                                   | mm            | 711           |
| Measuring range with extension                    | mm            | 1023          |
| Max. Error  | $\mu\text{m}$ | 2.5 + L / 300 |
| Repeatability $R_{\text{MPE}}$                    | $\mu\text{m}$ | 2             |
| Frontal squareness deviation $S_{\text{MPE}}$     | $\mu\text{m}$ | 8             |
| Maximum resolution                                | mm            | 0.001         |
| Measuring force                                   | N             | 0.75 ÷ 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                 |               | •             |

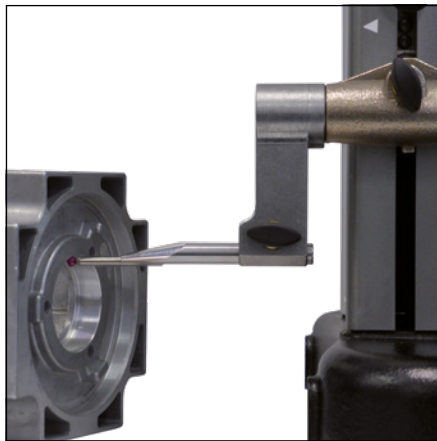
The above values have been determined according to ISO 13225, with the standard measuring insert.

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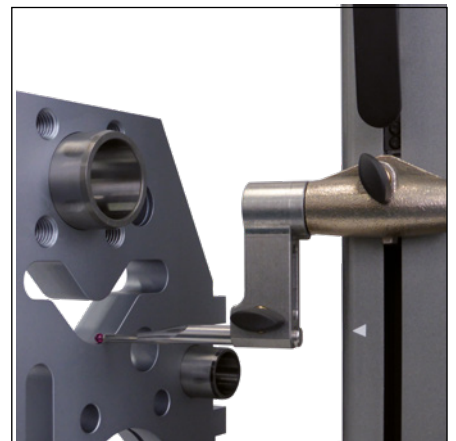
## APPLICATIONS



Thickness, chain and height measurements



Simultaneous display of diameters and centerlines



The motorisation guarantees a perfectly constant measuring force

For the accessories, refer to Trimos website : [www.trimos.com](http://www.trimos.com)