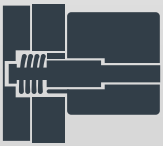
sylvac

Experts in connected metrology !



Our new Hi_Gage ONE Smart is now equipped with our very popular Bluetooth® data transmission system, making it the first height measuring and scribing instrument connectable wirelessly on the market !

Bluetooth®



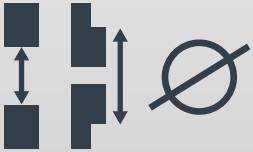
New blocking system

Your measurements made easier and faster thanks to the new secured blocking system.

IOT READY

IOT ready

You can now choose between 3 Bluetooth® connection profiles, manage the battery life, the calibration and much more...



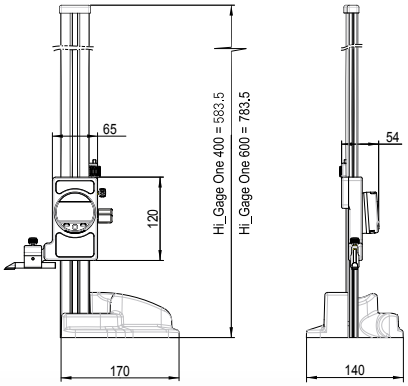
Up and down measurements

You can easily measure groove width, distance or diameter.

Sylvac SA - Chemin du Closalet 16, 1023 Crissier (CH)
Tel. +41 21 637 67 57 - Email. info@sylvac.ch - Web. www.sylvac.ch

FEATURES

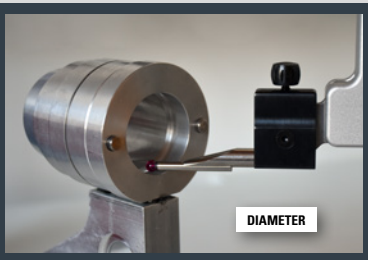
- First height measuring and scribing instrument with Bluetooth® wireless technology
- Intuitive functions
- New blocking system
- 400 and 600mm versions
- Robust mechanics
- Proximity, Power and Bluetooth® data outputs
- Introduction of a constant value

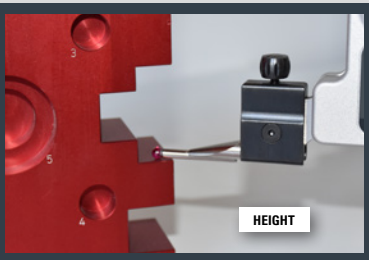


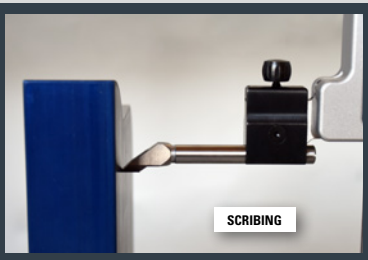
DATA

Specifications	840.0406	840.0606
Measurement range	400mm	600mm
Resolution	0.01mm	0.01mm
Max. error	40µm	50µm
Repeatability	10µm	10µm
2 references	✔	
PRESET	9999.99mm	
Selection of measuring direction	✔	
Smart inductive Sensor (S.I.S)	✔	
Output data	Bluetooth® wireless technology / RS232 / USB	

EXAMPLES







Discover the benefits of the new Hi_Gage ONE Smart, ***you will love it!***



INSTRUCTIONS

MODE D'EMPLOI

BEDIENUNGSANLEITUNG

MANUALE D'USO

MODO DE EMPLEO

HEIGHT SCRIBER **E**

COLONNE DE TRAÇAGE **F**

HÖHENMESS-UND ANREISSGERÄT **D**

COLONNA DI TRACCIATURA **I**

COLUMNA DE SEGUIMIENTO **S**

E

Introduction

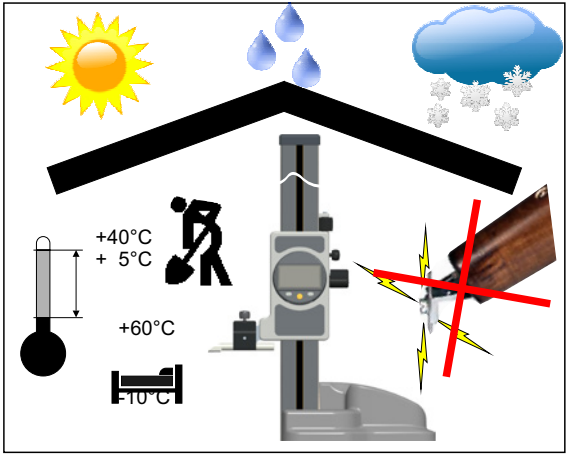
Thank you for your confidence in having acquired this product. Reading the manual and following its instructions will permit optimum use of the instrument.

The height gauge is a precision instrument intended for the production workshops that also permits fast inspection measurements during manufacturing or in the metrology room.
To get the best out of all the capabilities of this instrument, it is imperative to read this manual carefully.

Important instructions before using for the first time

- Clean the instrument with a soft dry cloth. For large stains wipe with a cloth slightly dampened with neutral such as alcohol. Avoid organic and volatile solvents such as thinners.
- Any modification of the instrument will void the guarantee.

Our technical advisers are available to answer all your questions.



Safety instructions

- Do not recharge the battery
- The battery must not be thrown in to fire
- The battery and all electronic components must be disposed of in accordance with current regulations.
- Do not bring a source of electricity close to the display module.
- Do not use an electrical marker on the instrument.

E

1. Instrument functions

MODE - The “MODE” button permits access to the equipment’s set-up functions (see chap. 3)

- The «Favourite» button gives direct access to the default function (see chap. 6). It also allows transmitting the measurements to a terminal through a proximity or powers-RS/USB cable

SET - The “SET” button permits assignment of the constant value, quitting a selection and managing switching off the instrument. By default, SIS mode permits automatic power down or shut off without losing the origin (see chap. 3)

- Personalising the functions

It is possible to activate or de-activate certain functions of the instrument via RS232 (see chap. 12)

- Data transmission parameters

4800Bds, 7 bits, even parity, 2 stop bits

2. Starting

Press any button.

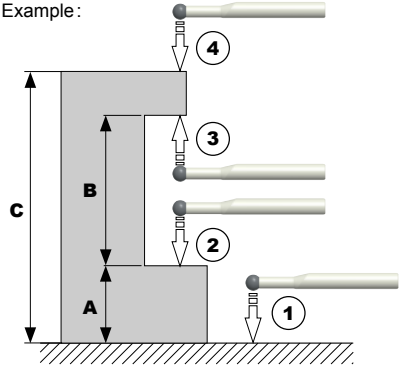
For a *Bluetooth*® connection (see chap. 7).

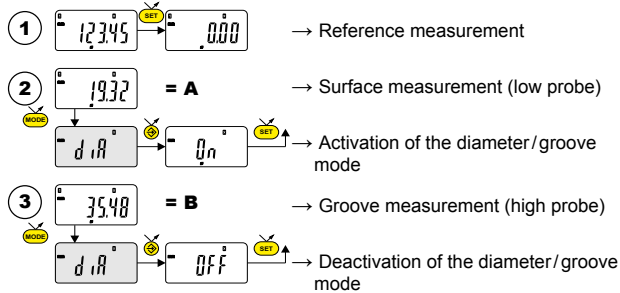
E

6. Diameter / groove measuring mode

To use this mode, you must first enter the touch value constant using the CSt menu or a calibration block (see chap. 4)

Example :





Hypothetical values

7. *Bluetooth*® configuration (depending on model)

The connection procedure has been designed to be simple and is signalled by the following three states:

- Symbol ᛒ off..... disconnected mode
- Symbol ᛒ blinking..... advertising mode
- Symbol ᛒ on..... connected mode

The following options can be selected to control the *Bluetooth*® module.

On	Enable *Bluetooth*® module (start advertising mode).
OFF	Disable *Bluetooth*® module (terminate active connection).
rESEt	Clear pairing information.
MAC	Display the MAC (Media Access Control) address.

E

Three *Bluetooth*® profiles are available.

SIMPLE	Profile without pairing (default).
PAIr	Paired and secured profile.
HId	Virtual keyboard mode (compatible with recent equipment without driver installation).

Note:
- *Bluetooth*® pairing information is cleared when the profile is changed.

Connection :

1° Activate *Bluetooth*® compatible software and hardware (Master : PC, Display Unit).

2° Start the instrument. By default the *Bluetooth*® module is active and the instrument is available for connection (advertising mode).

3° If no connection is established during the advertisement period reactivate the *Bluetooth*® module using the bt / On menu.

4° Instrument is ready to communicate (connected mode.)

Only with paired profile :

Pairing with master is automatically done at first connection.
To connect the instrument to a new master (new pairing), pairing information on the instrument must be cleared using the bt / rESEt menu.

7.1 *Bluetooth*® specifications

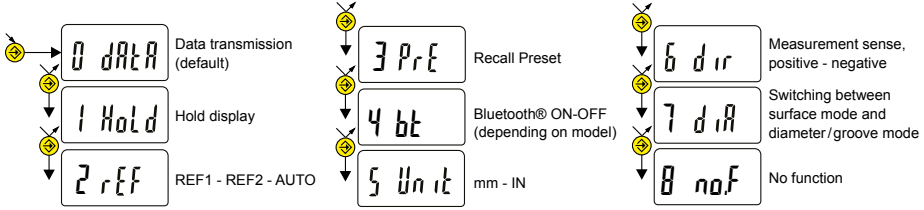
Frequency Band	2.4GHz (2.402 - 2.480GHz)
Modulation	GFSK (Gaussian Frequency Shift Keying)
Max Output Power	Class 3: 1mW (0dBm)
Range	Open space: up to 15m Industrial environment: 1-5m
Battery life	Continuous : up to 2 months - Always connected with 4 values /sec. Saver : up to 5 months - The instrument sends value only when the position has changed. Blind/Push : up to 7 months - Value is sent from the instrument (button) or requested from the computer.

Other specifications on the manufacturer's website.

E

8. Customising the instrument (favourite key)

The «favourite» key gives direct access to a predefined function, and can be configured according to the needs of the user. In order to assign a function to the «favourite» key, give a prolonged (>2s) press on , and then select the required function:



Validation of selection: By a prolonged press on or a short press on SET or MODE .

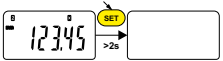
Note :

- A function can also be assigned via RS232 using the command <FCT + Function No.> (FCT 0..8) example : Toggle unit = **<FCT5>.**

9. Switching off

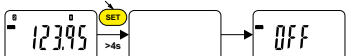
The instrument automatically switches to standby after 10 minutes without use, unless Auto OFF mode has been turned off (see chap. 3)

You can force stand-by mode, by a long press (>2s) on SET :



In stand-by mode, the value of the origin is retained by the sensor (SIS mode), and the instrument restarts automatically by moving the cursor.
It is possible to switch the instrument off completely if not used for a long period of time, but this will need a reset to zero when switched on (loss of origin):

- Make a long press (>4s) on SET :



10. Reinitializing the instrument

It is possible to restore the initial instrument settings at any time by a long simultaneous press (>4s) of the MODE button and the SET button until the rESEt message is displayed.

11. Personalising the instrument

Access to the functions of your instrument can be personalised, for more information see manufacturer's website (requires you to connect your instrument via a Proximity or Power RS / USB cable).

Possibilities :

- Enable or disable the required functions
- Modify access to the second level functions (direct access)

12. Connecting the instrument

The instrument can be connected to a peripheral via a Proximity (RS or USB), Power (RS or USB) cable or *Bluetooth®*. See page 3 for connecting the Power cable.

Measured values can be transmitted and the instrument driven using predefined retro-commands (see chap. 13 for a list of the main commands)

13. List of the main commands

Selection and configuration

CHA+ / CHA-	Change measurement direction
FCT0 ...9...A...F	Assign “favorite” function
MM / IN	Change measurement unit
KEY0 / KEY1	Lock / unlock keypad
PRE [+/-]xxx.xxx	Modify preset value
REF1 / REF2	Change active reference
STO1 / STO0	Activate / deactivate HOLD
ECO1 / ECO 0	Activate / de-activate economic mode
LCAL dd.mm.yy	Modify last calibration date
NCAL dd.mm.yy	Modify next calibration date
NUM x...x (up to 20chars)	Modify the instrument number
UNI1 / UNI0	Activate / deactivate unit change
OUT1 /OUT0	Active / deact. continuous data transm.
PRE ON / PRE OFF	Active / deact. Preset function
PRE	Recall Preset
SET	Set to zero
SBY xx	xx number of minutes before stand-by
BT0/BT1	Activate / de-activate *Bluetooth*® module
BTRST	Clear pairing information

Interrogation

CHA?	Measurement direction?
FCT?	“Favorite” function active?
UNI?	Active measurement unit?
KEY?	Keypad locked?
PRE?	Preset value?
REF?	Reference active?
STO?	HOLD function status?
ECO?	Current economic mode
LCAL?	Date of last calibration?
NCAL?	Date of next calibration?
NUM?	Instrument number?
?	Current value?
SET?	Main instrument parameters?
ID?	Instrument identification code?
SBY	Put instrument in stand-by (SIS)

Maintenance functions

BAT?	Battery status (BAT1=OK, BAT0=low battery)
OFF	Complete sw. off (wake by button or RS)
RST	Instrument reinitialization
VER?	Firmware revision and date
MAC?	*Bluetooth*® MAC address ?

Environmental note

Dear Customer,
This instrument contains a non-rechargeable lithium battery. If the battery is exhausted, do not throw it in the dustbin! Used batteries can contain substances that are harmful to health and the environment. Return batteries to an approved recycling centre. Regulations require them to be taken back free of charge. Only throw discharged batteries into the containers provided for them and cover the poles of lithium batteries with adhesive tape. Removing the battery is described in the instrument user manual. All batteries can be recycled. This permits the recovery of valuable raw materials like iron, zinc or nickel. Recycling batteries contributes to the protection of the environment.

Certificate of conformity

We certify that this instrument has been manufactured in accordance with our Quality Standard and tested with reference to masters of certified traceability by the National Office of Metrology.

Calibration certificate

Because we make our instruments in batches, you may find that the date on your calibration certificate is not current. Please be assured that your instruments are certified at point of production and then held in stock in our warehouse in accordance with our Quality Management System ISO 9001. Re-calibration cycle should start from date of receipt.

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.

U.S./Canada Certification

Sylvac

m.n.: Hi_Gage ONE

This device contains
FCC ID: 2AAQS-ISP091201
IC: 11306A-ISP091201

NOTICE:
Changes or modifications made to this equipment not expressly approved by Sylvac may void the FCC authorization to operate this equipment.

NOTICE:
This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions.
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE:
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Radiofrequency radiation exposure Information:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Brazil Certification

Description:

This module is based on Nordic Semiconductor nRF8001 µBlue *Bluetooth*® Low Energy Platform. The nRF8001 is a single chip transceiver with an embedded baseband protocol engine, suitable for ultra-low power wireless applications conforming to the *Bluetooth*® Low Energy Specification contained within v4.0 of the overall *Bluetooth*® specification. The nRF8001, used in the current revision of ISP091201, is a production product using a RoM for the baseband protocol engine.

Este equipamento opera em caráter secondário, isto é, não tem direito à proteção contra interferência prejudicial, mesmo de estações do mesmo tipo e não pode causar interferência a sistemas operando em caráter primário.



Mexico certification

Contiene modulo inalámbrico
Marca: Sylvac
Modelo: ISP091201D
IFT: RCPSYIS14-0655

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

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www.sylvac.ch

EU DECLARATION OF CONFORMITY (DoC)

We, Sylvac SA, hereby declare under our sole responsibility that the product

Name	Hi_Gage ONE
Description	Height gauge
Part Numbers	840.0400, 840.0600

has been submitted to a conformity assessment and fulfils the essential requirements of the following European directives

2001/95/EC	General product safety
2014/30/EU	EMC
2011/65/EU & 2015/863/EU	RoHS

and complies with the following harmonized standards or other normative documents

EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use – EMC requirements
EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Person authorized to compile the technical file and issue the declaration of conformity: Eric Schnyder

Place and date of issue	Yverdon-Les-Bains, September 12, 2019
Name (position)	Eric Schnyder (CEO)
Signature	

