










# Height Gauges





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# PRESENTATION

Founded more than 45 years ago by metrology enthusiasts, Trimos has always kept a pioneering spirit by offering innovative solutions at the cutting edge of technology. Dimensional metrology is part of our DNA.

Trimos' core business is focused on the development, manufacture and marketing of dimensional measuring instruments as well as all tools for their efficient operation (accessories, software, maintenance). The product palette includes:

- Height gauges
- Length measuring and calibration instruments
- Optical instruments for surface measurement

Our philosophy is to offer products and solutions that help our customers improve their productivity. We achieve this goal by respecting 3 fundamental principles: Simplicity of use thanks to easy to understand interfaces, reliability by the use of proven components and precision by integrating the best measurement systems.

Resolutely oriented towards the future, the latest generation of Trimos instruments is ready to face the challenges of the next industrial revolution.



Patrice Kemper, CEO

## TRIMOS SA

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

## QUALITY

Quality has always been Trimos' main concern. Our organization, certified ISO9001 for many years, aims to offer its customers excellent products and services.

All instruments are developed and produced in our workshops by highly qualified personnel. We thus fully control the quality.

By choosing a Trimos instrument, you benefit from more than 45 years of experience in the field of metrology. This is the guarantee of a high-end instrument bearing the "Swiss Made" label.



## LABORATORY

In order to guarantee the highest performance of its instruments, Trimos has a calibration laboratory equipped with the latest technologies.

Environmental conditions are monitored using the exclusive **Trimos® Environment Control System**. Thus, a seamless monitoring of temperature, humidity and pressure is guaranteed 24 hours a day.



## SERVICES

### Standard measuring instruments

The true essence of our activity is to develop, manufacture and market dimensional measuring instruments.

### Technical support

Our team of specialists is at your disposal to help you find a solution to your metrological problems.

### Training

We offer training to exploit the full potential of your measuring instruments, on site or in our premises.

### Consulting in metrology

We help you plan your lab so you can optimize measurement times and minimize uncertainties.

### Repair

Trimos instruments last a long, long time! We repair them well beyond the deadlines prescribed by law.

### Calibration

Our laboratory offers a fast and efficient calibration service for all Trimos instruments regardless of their generation.

### Customized solutions

Our engineering department develops metrological solutions (mechanical, electronic, software) tailored for your applications.

### Maintenance contracts

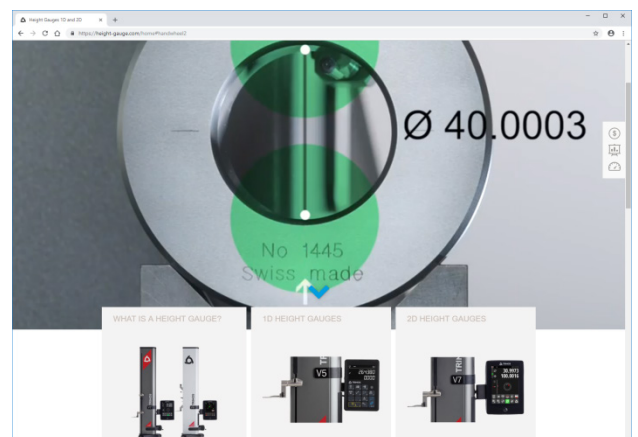
Thanks to our network of global agents we are able to offer you maintenance contracts adapted to your needs.

## WEBSITE

The website [www.trimos.com](http://www.trimos.com) is at your disposal. You will find the latest information on our company, products and our sales network.

A dedicated website for height gauges was also released recently: [www.height-gauge.com](http://www.height-gauge.com)

Do not hesitate to contact us!



# TVM



## INTRODUCTION

The TVM instrument range is ideal for height measurement and scribing applications in a production facility.

Its unique design makes it very mobile, compact and extremely robust.

Thanks to an advanced low energy measuring system, its autonomy is about a year. Its ease of use allows you to minimize user training time and use it in multi-station.

Its success is absolutely unmatched in the world of the vertical column, more than 16'000 units sold.

We offer a complete range of instruments ranging from 300 mm to 600 mm, as well as accessories to meet all your needs.

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ROBUST AND COMPACT DESIGN

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PERFECT IN WORKSHOP ENVIRONMENT

---

ACCURATE AND RELIABLE MEASUREMENTS

---

EASY HANDLING

---

OPTO-RS232 INTERFACE

---






AUTONOMOUS USE ON BATTERY

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TWO VARIANTS: CAST IRON OR GRANITE BASE



## DESCRIPTION

-  Heights
-  Diameters
-  Centerlines
-  Min / Max / Delta
-  2 references

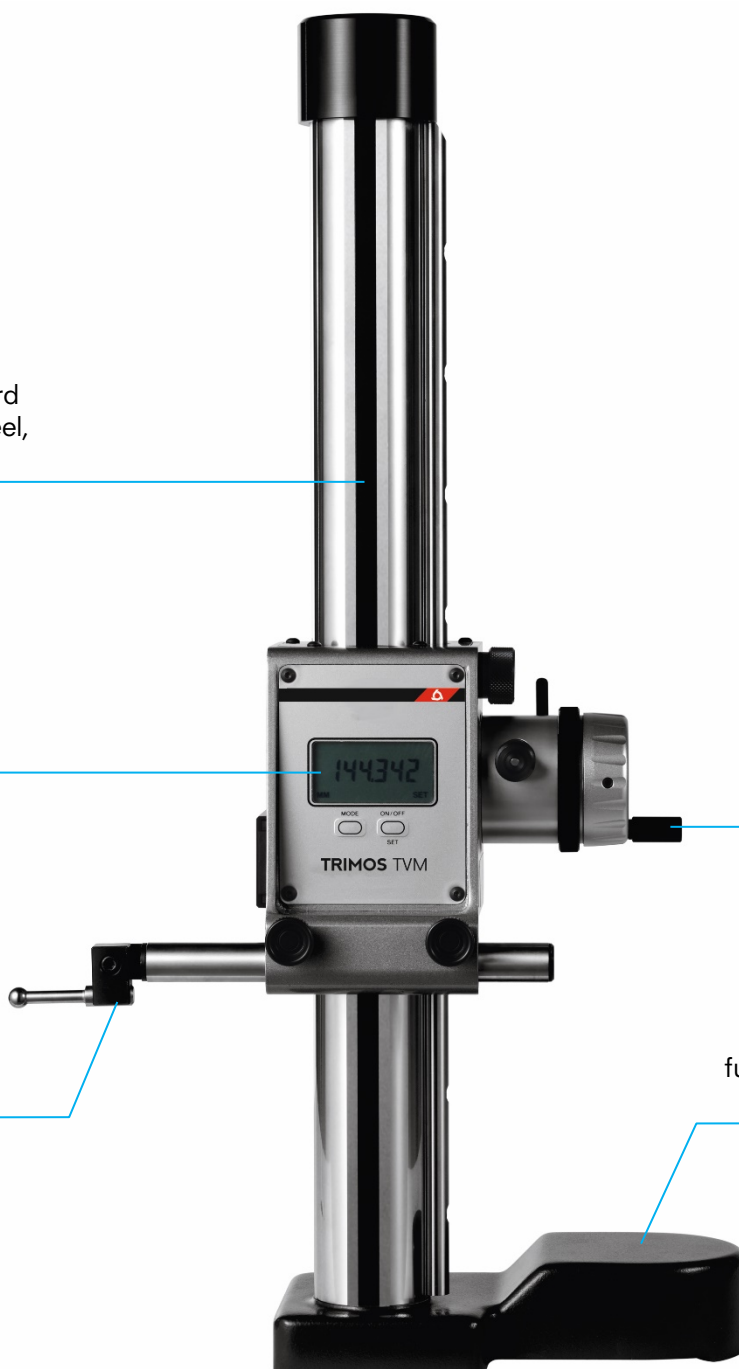
Column made of hard chromium plated steel, precision ground

Digital display

Handwheel for the displacement with fine adjustment

Interchangeables accessories

Cast iron base of functional design or granite plate (on request)



## DISPLAY/SOFTWARE

The clearly defined functions of the display unit allow to collect all height measuring values.

MIN/MAX FUNCTION INDICATOR

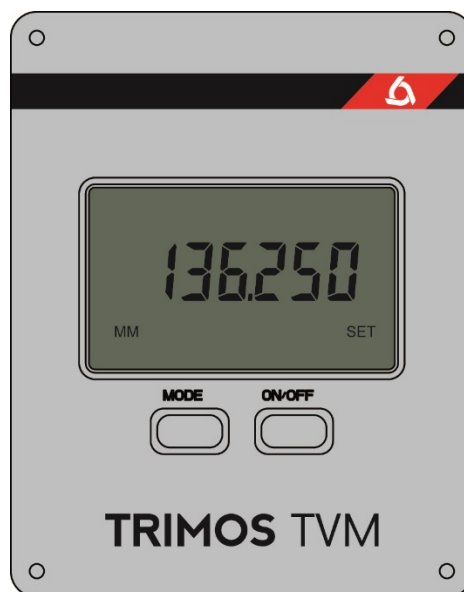
2 REFERENCES

END OF BATTERY LIFE WARNING INDICATOR

PRESET SELECTION

MEASURING UNIT (MM / IN )

TOLERANCE MODE

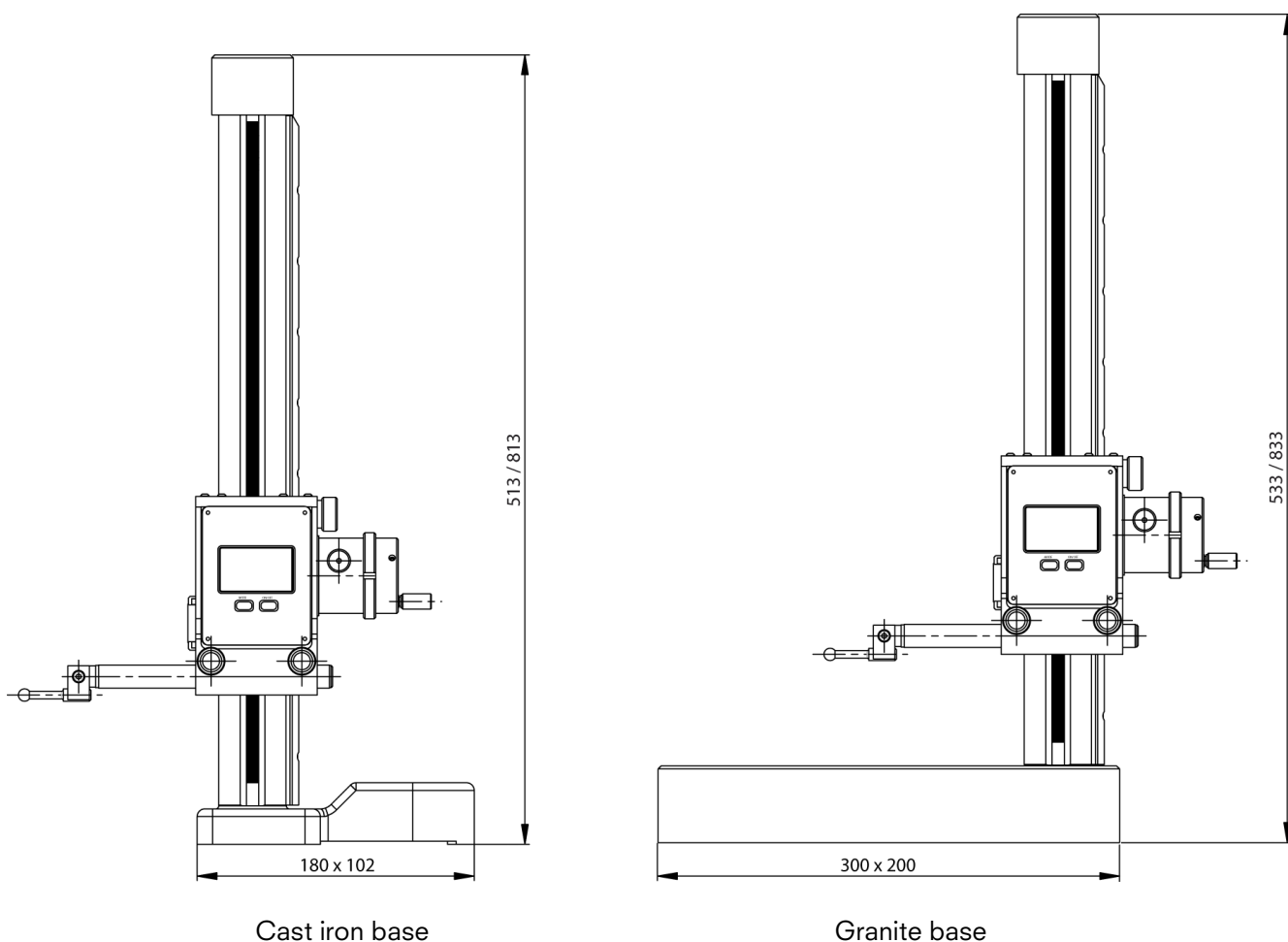


## TECHNICAL SPECIFICATIONS

TVM		304	604
Measuring range	mm (in)	320 (12)	620 (24)
Max. permissible errors <sup>1)</sup>	mm	0.02	0.03
Repeatability (2s) <sup>1)</sup>	mm	0.005	
Frontal squareness deviation	mm	0.02	0.03
Resolutions	mm (in)	0.01 / 0.001 (.0005/.00005)	
Measuring force	N	3	
Autonomy	h	2000	
Data output		Opto RS232	
Weight (cast iron base)	kg	6	10
Weight (granite base)	kg	14	18

The above values have been determined according to ISO 13225 with the standard insert (TVM1 / 1.1 / 2).

## DIAGRAM



## STANDARD INSTRUMENT

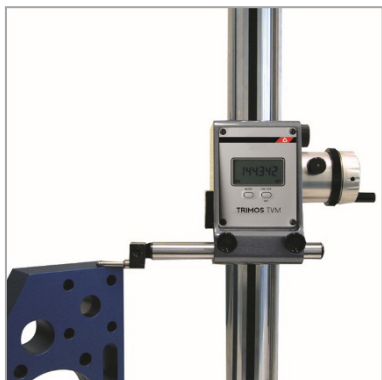
### The TVM instruments are supplied as follows

Instrument according to specifications	Protection cover (TVM.HO300/600)
Measuring insert and holder (TVM1/1.1/2)	User's manual (750 50 0018 03)
Lithium battery, 3 V (BAT-TVM.OPTO)	Calibration certificate

## ORDER NUMBERS

TVM Cast iron base		TVM Granite base		
<b>TVM304</b>	700 102 10 11	<b>TVM304G</b>	700 102 10 14	Measuring range 300 mm
<b>TVM604</b>	700 102 20 11	<b>TVM604G</b>	700 102 20 14	Measuring range 600 mm

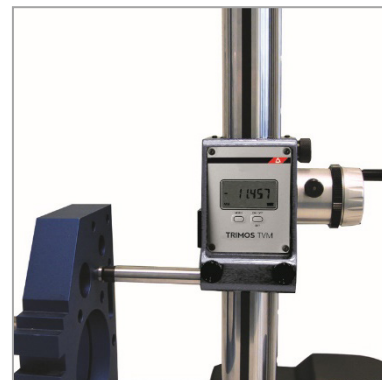
## APPLICATIONS



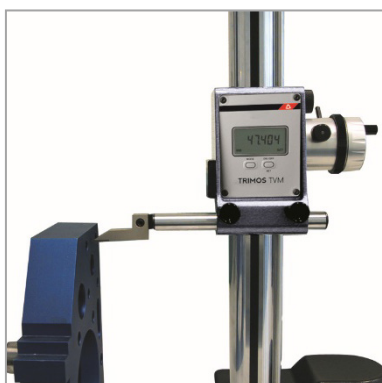
Height and depth measurements (TVM1/1.1/2)



Diameter measurement with bidirectional probe (TVM4)



Centreline measurement with cones (TVM5)



Scribing (TVM1/TVM3)



Easy handling

# V3 & V4



## INTRODUCTION

Vertical measuring instruments V3 and V4 have been developed for the most severe shop environments. Made entirely in Switzerland, they offer their users the guarantee of a robust, precise and reliable product in the long term.

The philosophy of Trimos for over 40 years is to offer simple and highly effective instruments in the production environment. The display unit is provided with functions that are directly accessible and represented by easily understandable symbols. They allow a quick start, even by unqualified staff. The large 2-line "Black Mask" display offers exceptional contrast in all lighting conditions, a unique feature on the market.

V3 is the entry level of Trimos universal measuring height gauges. It benefits fully from developments on the higher models. Robust in design and easy to use, it concentrates the essential functions for use in the workshop.

The V4 offers the same functions as the V3. It is also equipped with a second key holder and an air cushion for easy movement on the measuring table. The programmable function buttons on the handle allow quick access to the most used functions.

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MEASURING RANGES 400 AND 700 MM

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EXTREMELY SIMPLE USE

---

ELECTRONICALLY ADJUSTABLE MEASURING FORCE

---

TEMPERATURE COMPENSATION

---

STANDARD INSERTS UP TO 400 MM

---

VAST RANGE OF ACCESSORIES











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ALL POSSIBLE ADJUSTMENTS WITHOUT TOOLS

---

RS232 AND USB INTERFACES

## DESCRIPTION

- Heights 
- Diameters 
- Centreline distances 
- Min / Max / Delta 
- 9 references 
- Perpendicularity 
- Average 
- Difference 
- Temperature comp. 
- Wireless communication (V4) 

Upper probe holder (V4)

Floating probe suspension adjustment

Interchangeable insert and insert holder

"Black Mask" display with intuitive function keys

Handwheel for carriage displacement (manual)

Handle for instrument displacement with programmable function keys and air cushion button (V4)

Cast iron base for optimum stability



## DISPLAY/SOFTWARE

Keyboard functions are represented by clear and intuitive symbols. The display on 2 lines offers the user a great working comfort.

EXCELLENT CONTRAST WITH "BLACK MASK" DISPLAY

MEASUREMENTS OF HEIGHTS OR DIAMETERS

MIN / MAX / DELTA MEASURING MODES

ZERO OR PRESET

USB AND RS232 DATA OUTPUT

9 REFERENCES AVAILABLE

GRAPHICAL AND ACOUSTIC INDICATOR

SMART REVERSE DIAMETER MEASUREMENT



## TECHNICAL SPECIFICATIONS

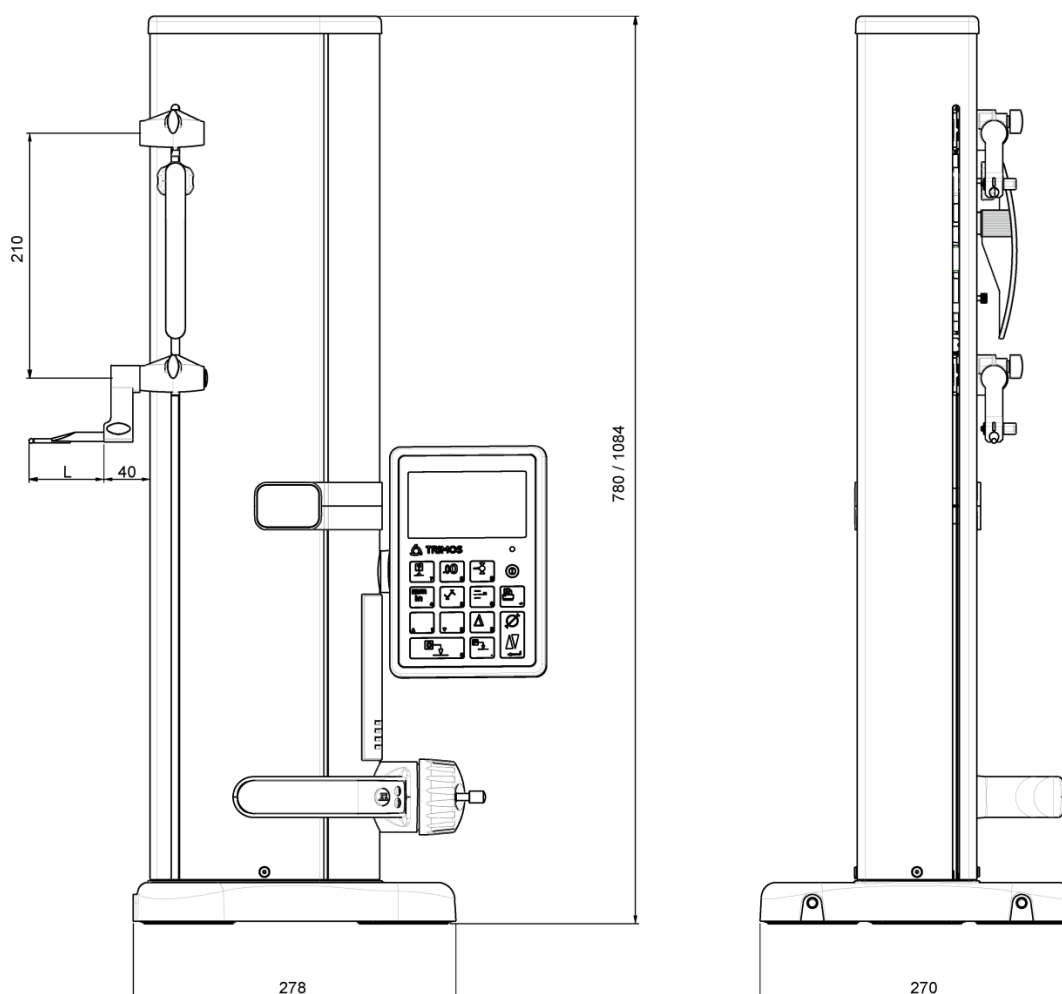
V3		400	700
Measuring range	mm (in)	407 (16)	711 (28)
Application range	mm (in)	508 (20)	812 (32)
Max. permissible errors, $B_{MPE}$	$\mu\text{m}$	7	8
Repeatability, $R_{MPE}$ (2s)	$\mu\text{m}$	2 ( $\varnothing$ : 4)	
Perpendicularity deviation (frontal), $S_{MPE}$	$\mu\text{m}$	10	15
Max. resolution	mm (in)	0.001 (0.00005)	
Measuring force	N	0.75 ÷ 1.5	
Autonomy	h	40	
Data output		USB / RS232	
Air cushion		No	
Weight	kg	21	24

V4		400	700
Measuring range	mm (in)	407 (16)	711 (28)
Application range	mm (in)	719 (28)	1023 (40)
Max. permissible errors, $B_{MPE}$	$\mu\text{m}$	4.5	6
Repeatability, $R_{MPE}$ (2s)	$\mu\text{m}$	2 ( $\varnothing$ : 4)	
Perpendicularity deviation (frontal), $S_{MPE}$	$\mu\text{m}$	10	15
Max. resolution	mm (in)	0.001 (0.00005)	
Measuring force	N	0.75 ÷ 1.5	
Autonomy	h	20	
Data output		USB / RS232 / Wireless (optional)	
Air cushion		Yes	
Weight	kg	21	24

The above values have been determined according to ISO 13225 with the standard insert (TA-MI-101)



## DIAGRAM



L: depends on the measuring insert used

## STANDARD INSTRUMENT

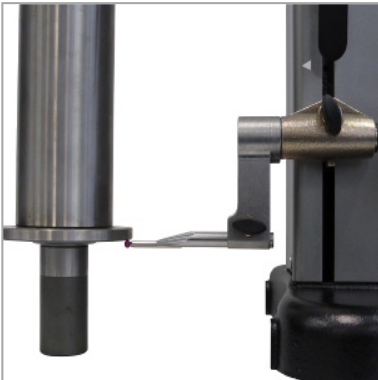
### The V3 and V4 are supplied as follows

Instrument according to specifications	Charging unit (TA-EL-132)
Measuring insert with ruby ball $\varnothing$ 4 mm (TA-MI-101)	Setting gauge (TA-MG-104)
V3: Quick guide (750 50 0046 00)	V4: User's manual (750 50 0045 03)
Calibration certificate	

## ORDER NUMBERS

V3	V4	
<b>V3-400</b> 700 110 10 03	<b>V4-400</b> 700 110 10 04	Measuring range 400 mm
<b>V3-700</b> 700 110 20 03	<b>V4-700</b> 700 110 20 04	Measuring range 700 mm

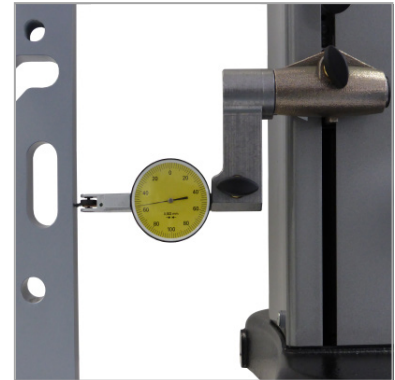
## APPLICATIONS



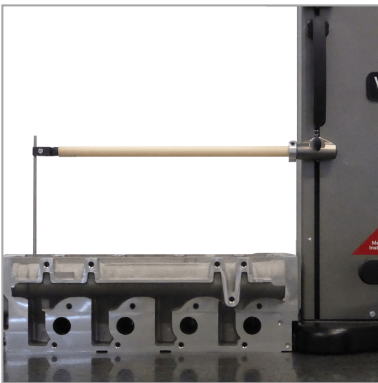
Measurements of height, thickness and chain of dimensions (TA-IH-135, TA-MI-101)



Simultaneous display of diameter and centreline (TA-IH-135, TA-MI-101)



All instruments are mechanically corrected (TA-IH-135)



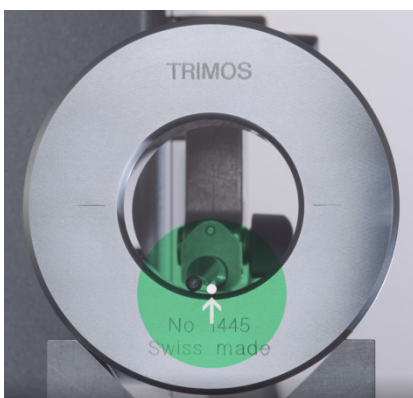
Standard measuring inserts up to 400 mm, with excellent repeatability (TA-IH-131, TA-AD-105, TA-IH-115, V-50.4)



Very large range of accessories for any type of application (TA-SE-106, TA-SE-102, TA-SE-105, TA-SE-107)



Straightforward symbols and directly accessible functions  
Display with maximum contrast



### SMART REVERSE

#### Diameter measurement faster, more accurate and simpler

SmartReverse technology is the result of an intense collaboration between Trimos height gauge users and our R&D team in order to optimize diameter measurements.

SmartReverse makes the measurement of diameters very effective by clearly indicating the passage of the reversal points by audible and visual signals. The user is guided precisely during the measurement of diameters, which generates a significant gain in speed and reliability of the measurement.

# V5 & V6



## INTRODUCTION

The V5 and V6 come from the legendary V + height gauge family, which has been sold thousands of times in workshops worldwide and universally recognized for their ease of use and quality.

Trimos was the first to offer a vertical measuring instruments on the market more than 40 years ago. The V5 and V6 represent a concentrate of know-how accumulated during all these years. The easy-to-read display and intuitive functions offer exceptional user comfort. But that's not all: The V5 and V6 are equipped with a revolutionary displacement crank offering the user the choice of how to move the measuring carriage, either manual or motorized. Each of these modes does not suffer from any compromise, that is to say that the user preferring a manual instrument will note no difference compared to a conventional manual instrument, ditto for motorized movement. This innovation avoids making a difficult choice during the acquisition and makes it possible to satisfy the multiple potential users of the same instrument.

The design of the V5 with its lateral probe holders revives an old tradition of Trimos: Enable measurement with long sturdy keys while ensuring excellent repeatability.

The V6 is of the same calibre as the V5. It is equipped with a more precise measuring system and allows the use of an electronic probe of perpendicularity.

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MEASURING RANGES 400, 700 AND 1100 MM

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EXTREMELY SIMPLE USE

---

ELECTRONICALLY ADJUSTABLE MEASURING FORCE

---

MANUAL OR MOTORIZED DISPLACEMENT

---

STANDARD INSERTS UP TO 400 MM

---

VAST RANGE OF ACCESSORIES











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ALL POSSIBLE ADJUSTMENTS WITHOUT TOOLS

---

RS232 AND USB INTERFACES

## DESCRIPTION

- Heights 
- Diameters 
- Centreline distances 
- Min / Max / Delta 
- 9 references 
- Perpendicularity 
- Average 
- Difference 
- Temperature comp. 
- Wireless communication 



## DISPLAY/SOFTWARE

Keyboard functions are represented by clear and intuitive symbols. The display on 2 lines offers the user a great working comfort.

EXCELLENT CONTRAST WITH "BLACK MASK" DISPLAY

MEASUREMENTS OF HEIGHTS OR DIAMETERS

MIN / MAX / DELTA MEASURING MODES

ZERO OR PRESET FUNCTION

USB AND RS232 DATA OUTPUT

9 REFERENCES AVAILABLE

GRAPHIC AND ACOUSTIC PROBE INDICATOR

SMART REVERSE DIAMETER MEASUREMENT



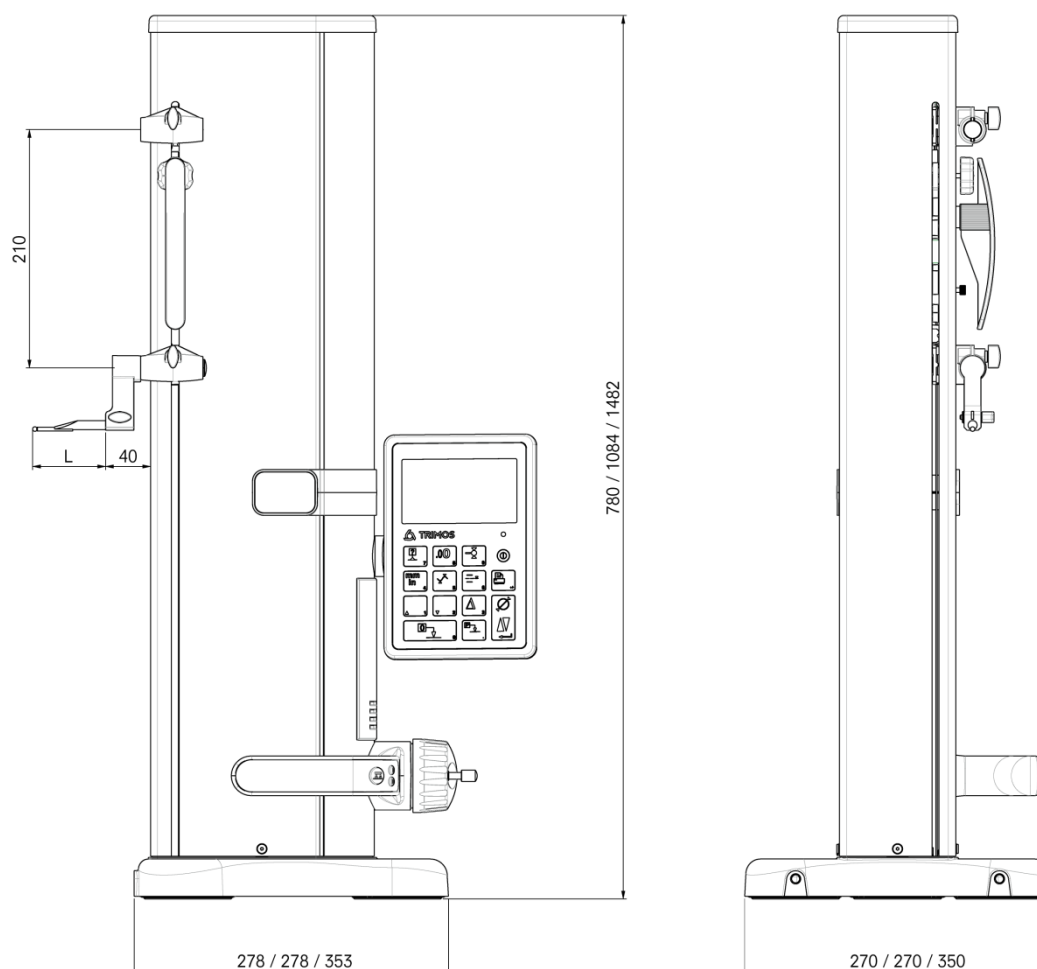
## TECHNICAL SPECIFICATIONS

V5		400	700	1100
Measuring range	mm (in)	407 (16)	711 (28)	1110 (44)
Application range	mm (in)	719 (28)	1023 (40)	1422 (56)
Max. permissible errors, B <sub>MPE</sub>	µm	2.5 + L(mm)/300		
Repeatability, R <sub>MPE</sub> (2s)	µm	2		
Perpendicularity deviation (frontal), S <sub>MPE</sub>	µm	5	8	11
Max. resolution	mm (in)	0.0005 (0.00005)		
Measuring force	N	0.75 ÷ 1.5		
Autonomy	h	12		
Data output		USB / RS232 / Wireless (optional)		
Air cushion		Yes		
Weight	kg	21	24	33

V6		400	700	1100
Measuring range	mm (in)	407 (16)	711 (28)	1110 (44)
Application range	mm (in)	719 (28)	1023 (40)	1422 (56)
Max. permissible errors, B <sub>MPE</sub>	µm	2 + L(mm)/400		
Repeatability, R <sub>MPE</sub> (2s)	µm	1 (Ø: 2)		
Perpendicularity deviation (frontal), S <sub>MPE</sub>	µm	5	8	11
Max. resolution	mm (in)	0.0001 (0.000005)		
Measuring force	N	0.75 ÷ 1.5		
Autonomy	h	12		
Data output		USB / RS232 / Wireless (optional)		
Air cushion		Yes		
Weight	kg	21	24	33

The above values have been determined according to ISO 13225, with the standard measuring insert (TA-MI-101).

## DIAGRAM



L: depends on the measuring insert used

## STANDARD INSTRUMENT

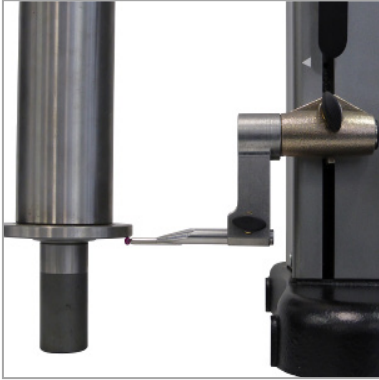
### The V5 and V6 are supplied as follows

Instrument according to specifications	Charging unit (TA-EL-132)
Measuring insert with ruby ball $\varnothing$ 4 mm (TA-MI-101)	Setting gauge (TA-MG-104)
Protection cover (TA-TO-114/115/116)	User's manual (750 50 0045 03)
Calibration certificate	

## ORDER NUMBERS

V5		V6		
<b>V5-400</b>	700 110 10 05	<b>V6-400</b>	700 110 10 06	Measuring range 400 mm
<b>V5-700</b>	700 110 20 05	<b>V6-700</b>	700 110 20 06	Measuring range 700 mm
<b>V5-1100</b>	700 110 30 05	<b>V6-1100</b>	700 110 30 06	Measuring range 1100 mm

## APPLICATIONS



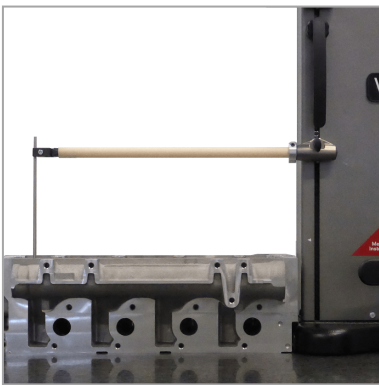
Measurements of height, thickness and chain of dimensions (TA-IH-135, TA-MI-101)



Simultaneous display of diameter and centreline (TA-IH-135, TA-MI-101)



Measurement of perpendicularity with electronic probe (V6) (TA-IH-136, TA-MS-101)



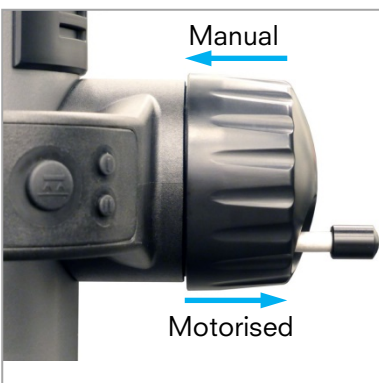
Standard measuring inserts up to 400 mm, with excellent repeatability (TA-IH-131, TA-AD-105, TA-IH-115, V-50.4)



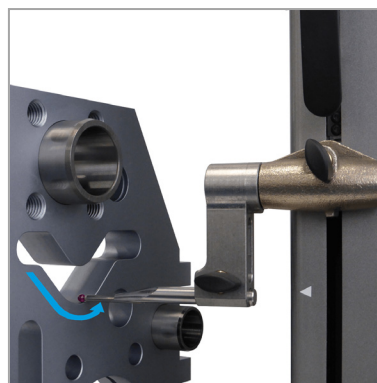
Very large range of accessories for any type of application (TA-SE-106, TA-SE-102, TA-SE-105, TA-SE-107)



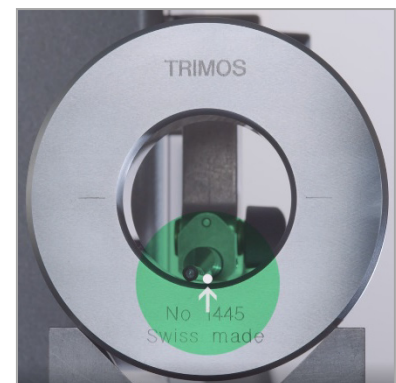
The instrument can be controlled remotely. This allows its integration into complex quality systems.



Instant switch from the manual to the motor-driven mode



The motorization guarantees a perfectly constant measuring force (TA-IH-135, TA-MI-101).



Very efficient diameter measurement thanks to SmartReverse technology



# V7



## INTRODUCTION

The series of V7 height gauges combines technological innovation with tradition. With a full touch display and proven lateral probe holders for decades, the V7s are positioned as universal instruments for the workshop.

Although it has been completely redesigned, the interface retains the philosophy of Trimos instruments and the user will have no difficulty in handling it quickly. The touch screen simplifies the use to the maximum because no superfluous information is displayed and the number of function buttons can be limited to the strictest necessary. Functions commonly considered complex such as 2D, programming, statistics become child's play. The result is unmatched ease of use and therefore a significant increase in productivity.

The 2 lateral probe holders are from generations of instruments that have forged the reputation of Trimos. Their robustness and flexibility allow the use of very varied inserts up to 400 mm in length with breathtaking repeatability.

The V7s are equipped with the revolutionary displacement handwheel allowing the user to choose the manual or motorized movement mode.

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MEASURING RANGES FROM 400 TO 1800 MM

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SIMPLE AND CONVIVIAL GRAPHIC INTERFACE

---

ELECTRONICALLY ADJUSTABLE MEASURING FORCE

---

MANUAL OR MOTORIZED DISPLACEMENT

---

2D, PROGRAMMING, STATISTICS

---

VAST RANGE OF ACCESSORIES



















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ALL POSSIBLE ADJUSTMENTS WITHOUT TOOLS

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RS232 AND USB INTERFACES

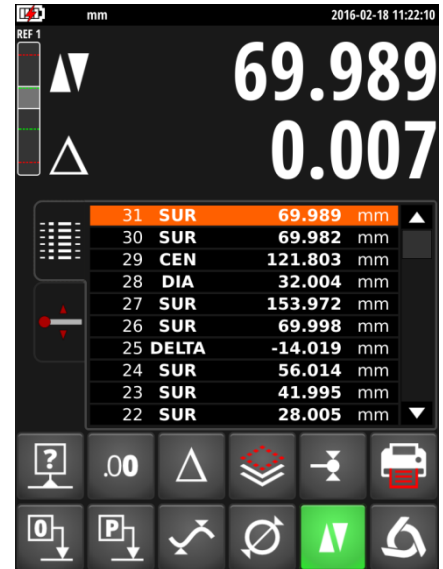
## DESCRIPTION

- Heights 
- Diameters 
- Centreline distances 
- Min / Max / Delta 
- 9 references 
- Perpendicularity 
- Average 
- Difference 
- Angles and cones 
- Calculation function 
- Tolerances 
- 2D mode 
- Programs 
- Statistics 
- Temperature comp. 
- USB ports 
- RS232 ports 
- Wireless communication 



## DISPLAY/SOFTWARE

The tablet-type display and the graphical interface correspond to the most modern industrial standards. The great flexibility offered by the touch screen allows easy and fast handling. The Smart Reverse function significantly improves diameter measurements.



VERY SIMPLE INTERFACE

GRAPHIC HELP FOR MEASUREMENT

MEASUREMENTS IN 2D MODE

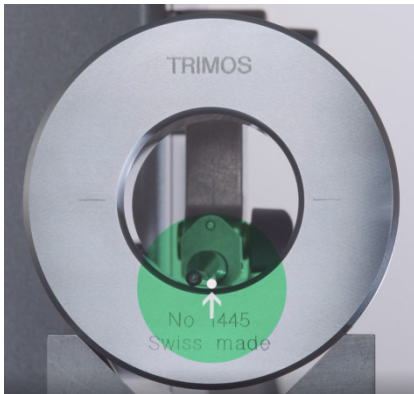
PROGRAMMING MEASUREMENT SEQUENCES

STATISTICAL ANALYSIS OF RESULTS

TEMPERATURE COMPENSATION

SMART REVERSE DIAMETER MEASUREMENT

### SMART REVERSE: Diameter measurement faster, more accurate and simpler



SmartReverse technology is the result of an intense collaboration between Trimos height gauge users and our R&D team in order to optimize diameter measurements.

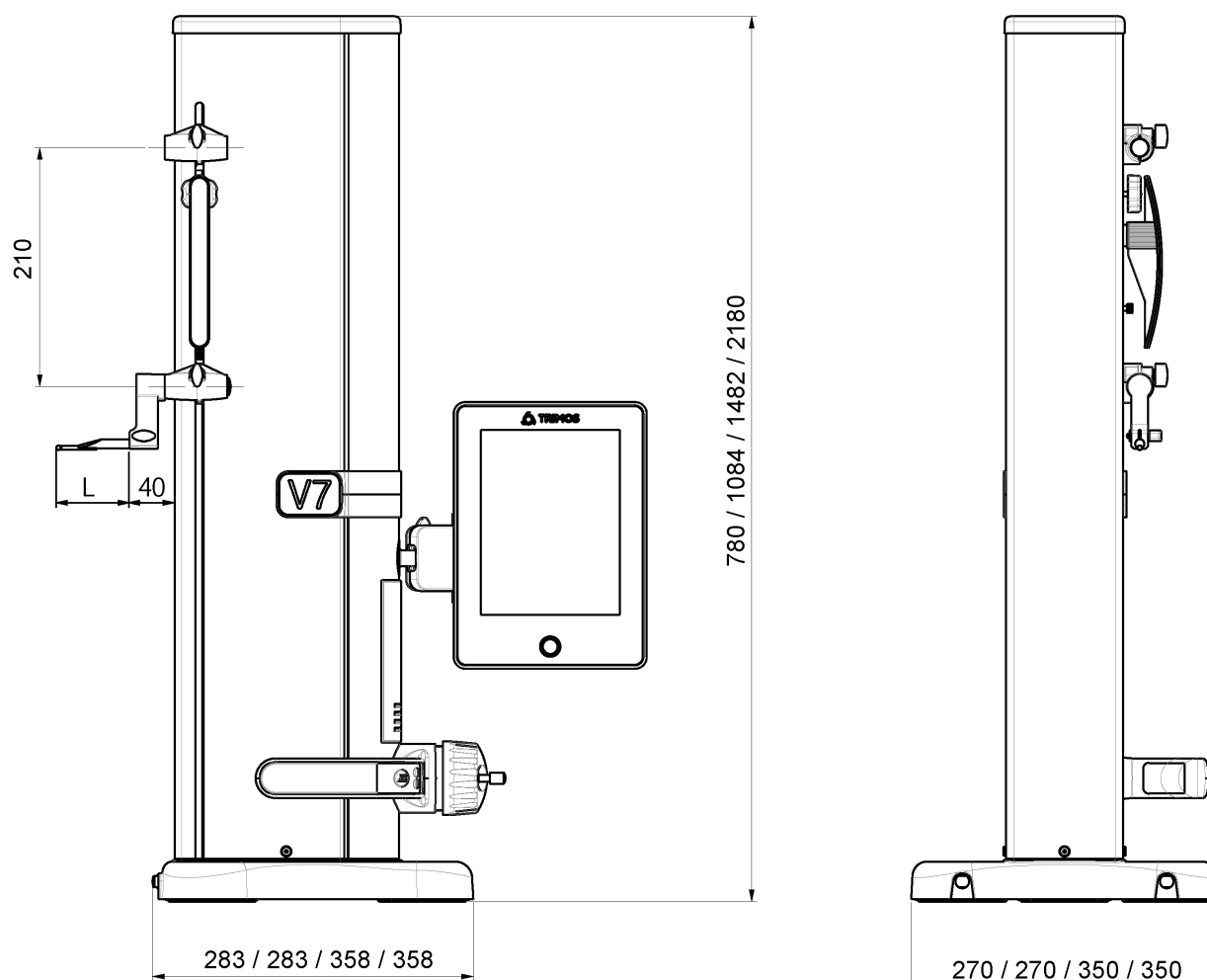
SmartReverse makes the measurement of diameters very effective by clearly indicating the passage of the reversal points by audible and visual signals. The user is guided precisely during the measurement of diameters, which generates a significant gain in speed and reliability of the measurement.

## TECHNICAL SPECIFICATIONS

V7		400	700	1100	1800
Measuring range	mm (in)	407 (16)	711 (28)	1110 (44)	1810 (71)
Application range	mm (in)	719 (28)	1023 (40)	1422 (56)	2122 (83)
Max. permissible errors, B <sub>MPE</sub>	µm	2 + L(mm)/400			2.5 + L(mm)/300
Repeatability, R <sub>MPE</sub> (2s)	µm	1 (Ø: 2)			
Perpendicularity deviation (frontal), S <sub>MPE</sub>	µm	5	8	11	25
Max. resolution	mm (in)	0.0001 (0.000005)			
Measuring force	N	0.75 ÷ 1.5			
Autonomy	h	12			
Data output		USB / RS232 / Wireless (optional)			
Air cushion		Yes			
Weight	kg	22	25	34	41

The above values have been determined according to ISO 13225 with the standard measuring insert (TA-MI-101).

## DIAGRAM



L: depends on the measuring insert used

## STANDARD INSTRUMENT

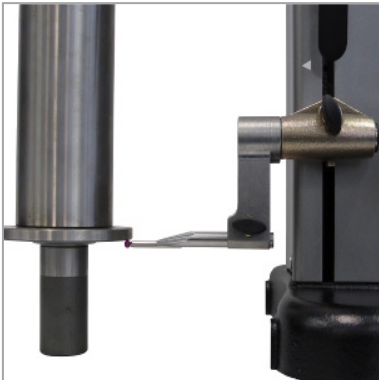
### The V7 are supplied as follows

Instrument according to specifications	Charging unit (TA-EL-133)
Measuring insert with ruby ball $\varnothing$ 4 mm (TA-MI-101)	Setting gauge (TA-MG-104)
Protection cover (TA-TO-114/115/116/117)	User's manual (750 50 0042 03)
Calibration certificate	

## ORDER NUMBERS

V7		
<b>V7-400</b>	700 110 10 07	Measuring range 400 mm
<b>V7-700</b>	700 110 20 07	Measuring range 700 mm
<b>V7-1100</b>	700 110 30 07	Measuring range 1100 mm
<b>V7-1800</b>	700 110 50 07	Measuring range 1800 mm

## APPLICATIONS



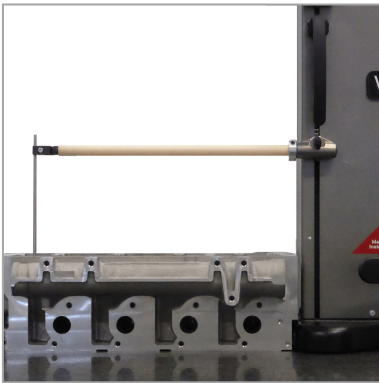
Measurements of height, thickness and chain of dimensions (TA-IH-135, TA-MI-101)



Simultaneous display of diameter and centreline (TA-IH-135, TA-MI-101)



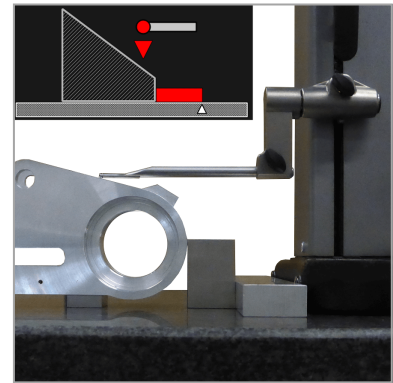
Measurement of perpendicularity with electronic probe (TA-IH-136, TA-MS-101)



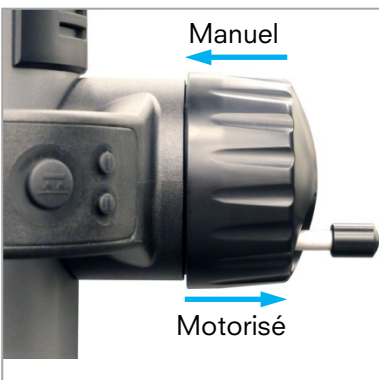
Standard measuring inserts up to 400 mm, with excellent repeatability (TA-IH-131, TA-AD-105, TA-IH-115, V-50.4)



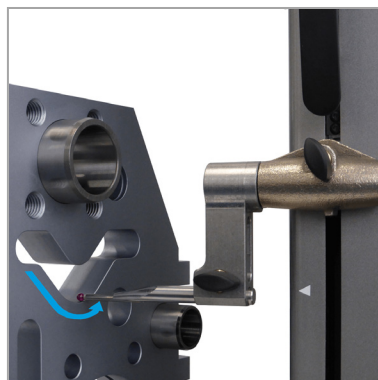
Very large range of accessories for any type of application (TA-SE-106, TA-SE-102, TA-SE-105, TA-SE-107)



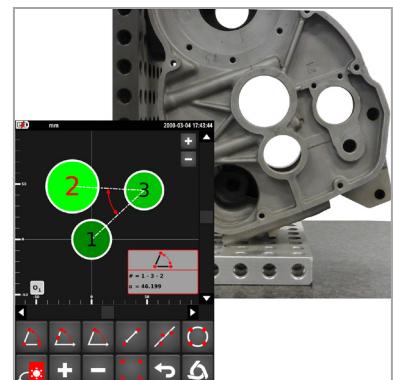
Measurement of angles and cones graphically assisted (TA-IH-135, TA-MI-105)



Instant switch from the manual to the motor-driven mode



The motorization guarantees a perfectly constant measuring force (TA-IH-135, TA-MI-101).



2D measurement extremely simple thanks to the graphical visualisation of the bores

# V8



## INTRODUCTION

The V8 is the latest addition to the new range of Trimos vertical instruments.

The mechanical construction and contents of the packaging are identical to the V9 model with the exception of the handwheel and the display.

The V8 shares the characteristics that made the V9 so successful: extreme precision and repeatability, high resolution and Swiss made finish. The specificity of the V8 lies in its handwheel with fine adjustment. It has been specially developed for applications requiring very precise positioning of the key.

Like its predecessors, the V8 is distinguished by great ease of use, robust construction and extreme accuracy.

The V8's large black mask display offers maximum reading contrast in all light conditions. All functions are directly accessible and represented by easy-to-understand symbols.

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MEASURING RANGES FROM 400 TO 1100 MM

---

SPECIFIC HANDWHEEL WITH FINE ADJUSTMENT

---

MANUAL MOVEMENT

---

EXCEPTIONAL PRECISION LEVEL

---

VAST RANGE OF ACCESSORIES

---

ALL POSSIBLE ADJUSTMENTS WITHOUT TOOLS

---











RS232 AND USB INTERFACES

---

WIRELESS DATA TRANSFER (OPTIONAL)



## DESCRIPTION

Heights	
Diameters	
Centreline distances	
Min / Max / Delta	
9 references	
Perpendicularity	
Average	
Difference	
Temperature compensation	
Wireless communication	



## DISPLAY/SOFTWARE

Keyboard functions are represented by clear and intuitive symbols. The display on 2 lines offers the user a great working comfort.

- EXCELLENT CONTRAST WITH "BLACK MASK" DISPLAY

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- MEASUREMENTS OF HEIGHTS OR DIAMETERS

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- MIN / MAX / DELTA MEASURING MODES

---

- ZERO OR PRESET DISPLAY

---

- USB AND RS232 DATA OUTPUT

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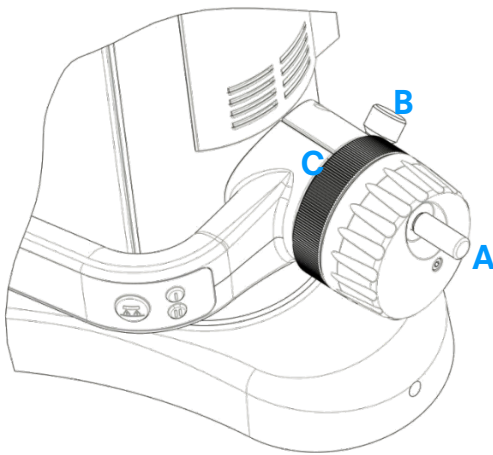
- 9 REFERENCES AVAILABLE

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- GRAPHIC AND SOUND PROBE INDICATOR



### Handwheel with fine adjustment specific to V8



- A** Handwheel for manual movement of the carriage
- B** Fine adjustment screw
- C** Locking ring for fine adjustment

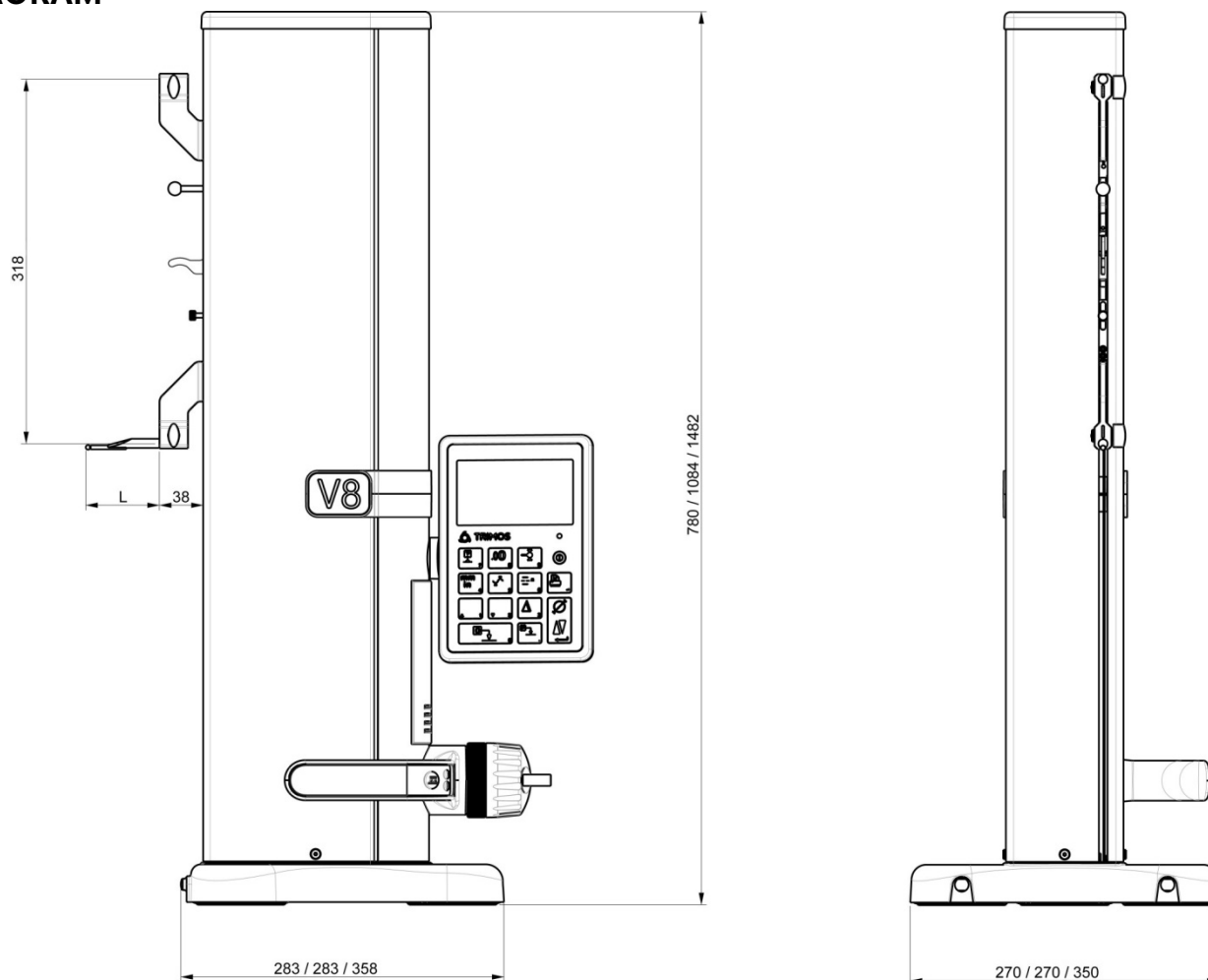
This handwheel is also available as an option on the V4 and V9.

## TECHNICAL SPECIFICATIONS

V8		400	700	1100
Measuring range	mm (in)	406 (16)	710 (28)	1109 (43)
Application range	mm (in)	724 (28)	1028 (40)	1427 (56)
Max. permissible errors, B <sub>MPE</sub>	µm	1.2 + L(mm)/1000		
Repeatability, R <sub>MPE</sub> (2s)	µm	0.4 (Ø: 1)		
Perpendicularity deviation (frontal), S <sub>MPE</sub>	µm	5	8	11
Max. resolution	mm (in)	0.0001 (0.000005)		
Measuring force	N	0.75 ÷ 1.5		
Autonomy	h	12		
Data output		USB / RS232 / Wireless (optional)		
Air cushion		Yes		
Weight	kg	21	24	33

The above values have been determined according to ISO 13225 with the standard insert (TA-MI-119).

## DIAGRAM



L: depends on the measuring insert used

## STANDARD INSTRUMENT

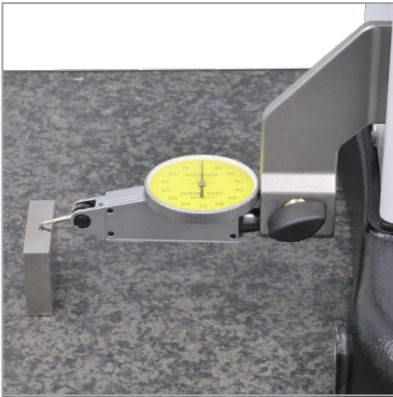
### The V8 are supplied as follows

Instrument according to specifications	Charging unit (TA-EL-132)
Measuring insert with ruby ball Ø 4 mm (TA-MI-119)	Setting gauge (TA-MG-104)
Protection cover (TA-TO-114/115/116)	User's manual (750 50 0045 03)
Calibration certificate	

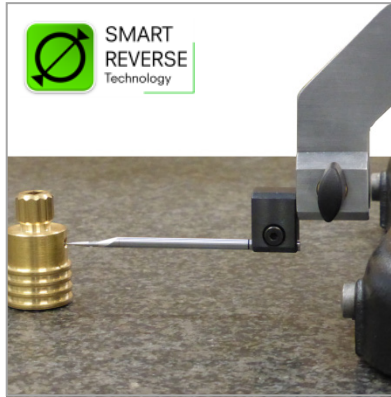
## ORDER NUMBERS

V8		
<b>V8-400</b>	700 110 10 18	Measuring range 400 mm
<b>V8-700</b>	700 110 20 18	Measuring range 700 mm
<b>V8-1100</b>	700 110 30 18	Measuring range 1100 mm

## APPLICATIONS



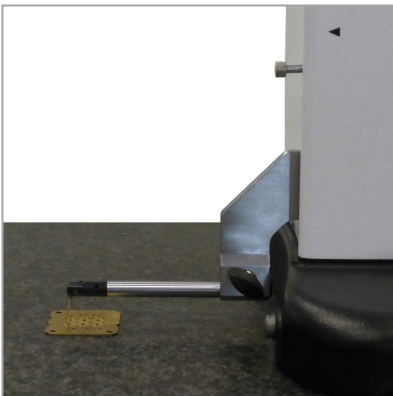
Fine adjustment for specific applications requiring an accurate carriage position



Small diameters measurements with insert  $\varnothing$  4 mm (V-5, TA-MI-109)



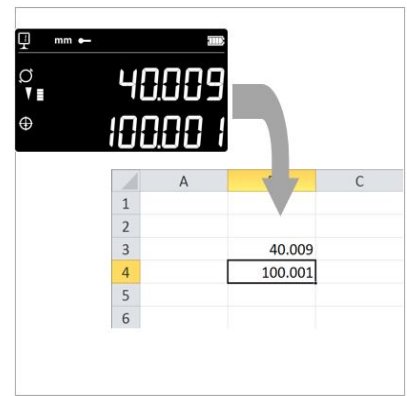
Perpendicularity measurements with electronic probe (TA-IH-126, TA-MS-101)



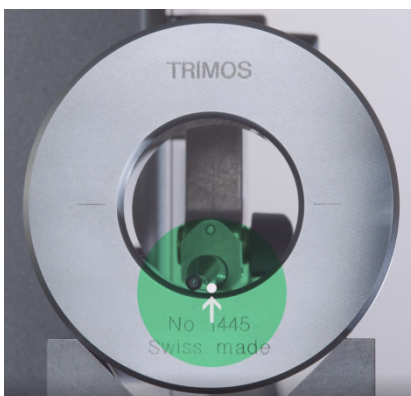
Height measurements on watch movement plate (TA-IH-101, TA-MI-115)



Large range of accessories for all types of applications (TA-SE-106, TA-SE-102, TA-SE-105, TA-SE-107)



Very easy data transfer via USB, RS232 or Wireless connection



### SMART REVERSE

#### Diameter measurement faster, more accurate and simpler

SmartReverse technology is the result of an intense collaboration between Trimos height gauge users and our R&D team in order to optimize diameter measurements.

SmartReverse makes the measurement of diameters very effective by clearly indicating the passage of the reversal points by audible and visual signals. The user is guided precisely during the measurement of diameters, which generates a significant gain in speed and reliability of the measurement.

# V9



## INTRODUCTION

The V9 has been developed for the most demanding users. Laboratories and workshops for which the reliability of the measurement is decisive will appreciate its exceptional level of precision and its "Swiss Made" finish.

The metrological performances were at the heart of the development of this height gauge. No compromises on accuracy and repeatability were tolerated. This is why some details of the construction and especially the key holders differ from other models.

The display based on a fully tactile interface offers a comfort of use never reached on a height gauge. Menus and functions displayed adhere to a very strict philosophy and design. They thus allow very high work efficiency, even in complex tasks such as programming, 2D mode, angle measurements or statistical analysis of the results.

The V9 can be used in manual or motorized mode. The transition from one mode to another can be done at any time with the handwheel.

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MEASURING RANGES FROM 400 TO 1100 MM

---

EXCEPTIONAL PRECISION LEVEL

---

ELECTRONICALLY ADJUSTABLE MEASURING FORCE

---

MANUAL OR MOTORIZED DISPLACEMENT

---

2D, PROGRAMMING, STATISTICS

---

VAST RANGE OF ACCESSORIES



















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ALL POSSIBLE ADJUSTMENTS WITHOUT TOOLS

---

RS232 AND USB INTERFACES

## DESCRIPTION

Heights	
Diameters	
Centreline distances	
Min / Max / Delta	
9 references	
Perpendicularity	
Average	
Difference	
Angles and cones	
Calculation function	
Tolerances	
2D mode	
Programs	
Statistics	
Temperature comp.	
USB ports	
RS232 ports	
Wireless communication	



## DISPLAY/SOFTWARE

The choice and position of the symbols as well as the colors used in the interface comply with very strict ergonomic rules. The result is a consistent package that provides readability and maximum user comfort. The Smart Reverse function significantly improves diameter measurements.

- VERY SIMPLE GRAPHIC INTERFACE

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- EXCELLENT READABILITY

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- MEASUREMENTS IN 2D MODE

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- MEASUREMENT SEQUENCES

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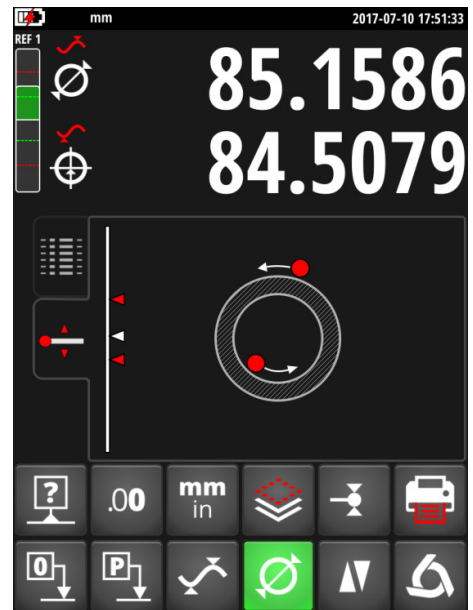
- STATISTICAL ANALYSIS OF RESULTS

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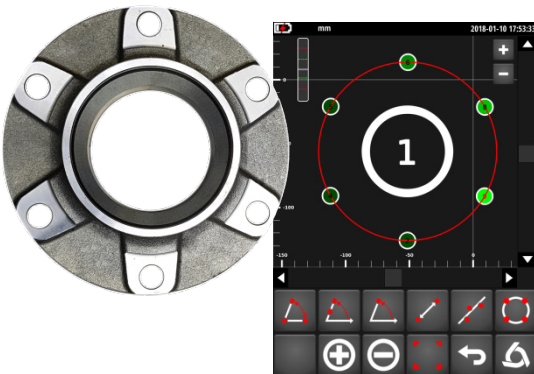
- TEMPERATURE COMPENSATION

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- SMART REVERSE FUNCTION FOR DIAMETERS



### 2 coordinates measurements: it has never been so easy



Measuring in 2 coordinates has always been a daunting task on height gauges because the results were not graphically represented. Today, thanks to the live visualization of measurements, it becomes child's play. Just measure the part normally, flip it over and measure it again. The results appear immediately on the screen in 2 dimensions. It is then very easy and instinctive to make measurements by clicking on the different bores measured.

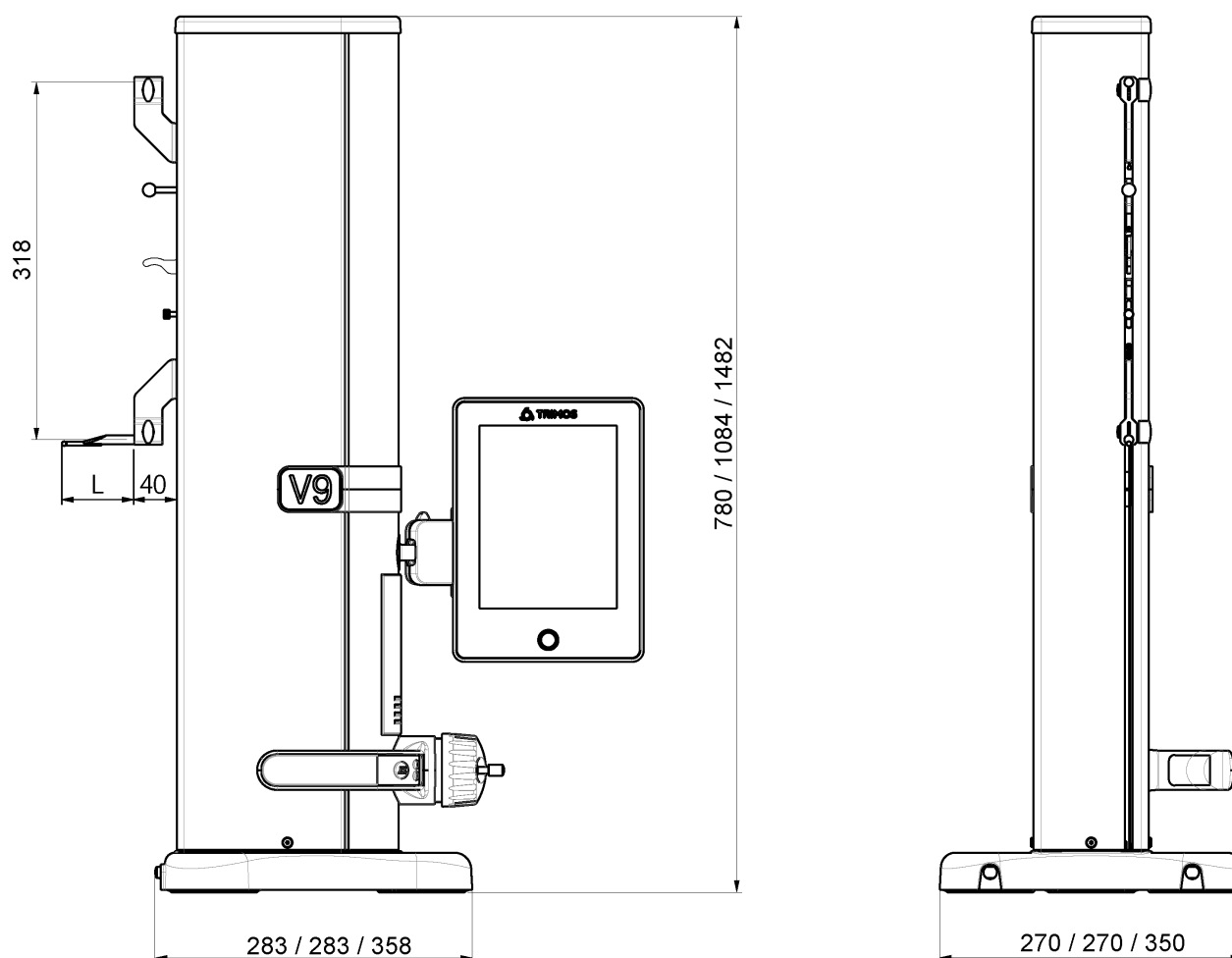
## TECHNICAL SPECIFICATIONS

V9		400	700	1100
Measuring range	mm (in)	406 (16)	710 (28)	1109 (43)
Application range	mm (in)	724 (28)	1028 (40)	1427 (56)
Max. permissible errors, B <sub>MPE</sub>	µm	1.2 + L(mm)/1000		
Repeatability, R <sub>MPE</sub> (2s)	µm	0.4 (Ø: 1)		
Perpendicularity deviation (frontal), S <sub>MPE</sub>	µm	5	8	11
Max. resolution	mm (in)	0.0001 (0.000005)		
Measuring force	N	0.75 ÷ 1.5		
Autonomy	h	12		
Data output		USB / RS232 / Wireless (optional)		
Air cushion		Yes		
Weight	kg	21	24	33

The above values have been determined according to ISO 13225 with the standard insert (TA-MI-119).



## SCHEMA



L: depends on the measuring insert used

## STANDARD INSTRUMENT

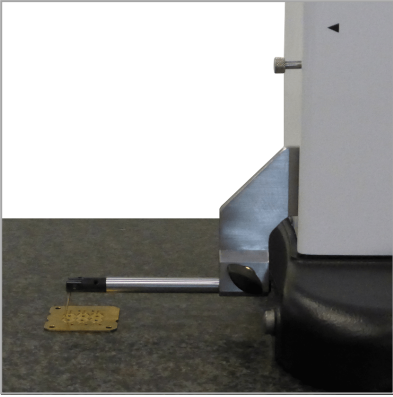
### The V9 are supplied as follows

Instrument according to specifications	Charging unit (TA-EL-133)
Measuring insert with ruby ball $\varnothing$ 4 mm (TA-MI-119)	Setting gauge (TA-MG-104)
Protection cover (TA-TO-114/115/116)	User's manual (750 50 0042 03)
Calibration certificate	

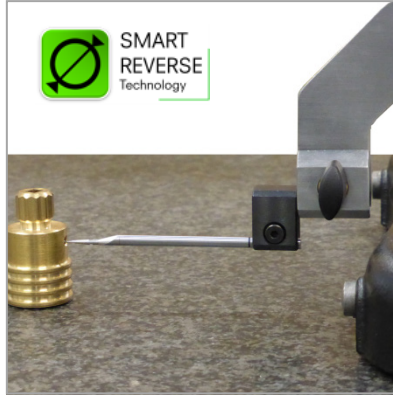
## ORDER NUMBERS

V9		
<b>V9-400</b>	700 110 10 09	Measuring range 400 mm
<b>V9-700</b>	700 110 20 09	Measuring range 700 mm
<b>V9-1100</b>	700 110 30 09	Measuring range 1100 mm

## APPLICATIONS



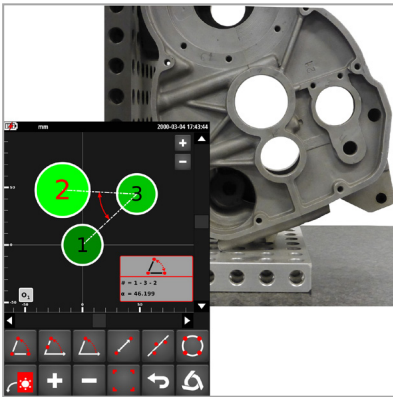
Height measurements on watch movement plate (TA-MI-115, TA-IH-103)



Small diameters measurements with insert  $\varnothing$  4 mm (V-50.12, V-5)



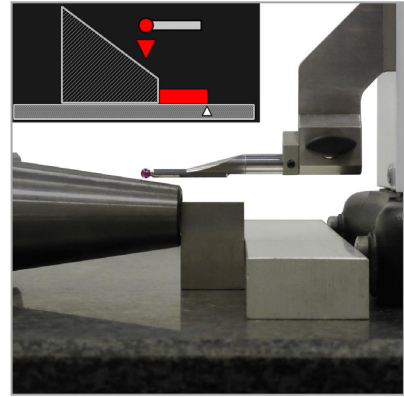
Perpendicularity measurements with electronic probe (TA-IH-126, TA-MS-101)



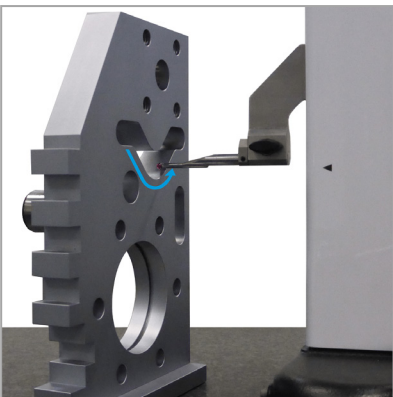
Very simple measurements in 2 coordinates thanks to the graphic interface



Very wide range of accessories for any type of measurement (TA-SE-102, TA-SE-106, TA-SE-107)



Measurements of angles and cones graphically assisted (TA-MI-101, TA-AD-101)



Minimum position measurement thanks to the contour tracking in motorized mode (TA-MI-101, TA-AD-101)











The instrument can be controlled remotely via a PC.



Display adjustable in every direction

# KEY POINTS

## CHARACTERISTICS

	TVM	V3	V4	V5	V6	V7	V8	V9
								
Measuring range 300 mm	■							
Measuring range 400 mm		■	■	■	■	■	■	■
Measuring range 600 mm	■							
Measuring range 700 mm		■	■	■	■	■	■	■
Measuring range 1100 mm				■	■	■	■	■
Measuring range 1800 mm						■		
Precision 20 - 30 µm	■							
Precision 7 - 8 µm		■						
Precision 4.5 - 6 µm			■					
Precision 2.8 µm / 100 mm				■				
Precision 2.2 µm / 100 mm					■	■		
Precision 1.3 µm / 100 mm							■	■
LCD display	■							
"Black Mask" display (1D)		■	■	■	■		■	
Touch colour display (2D)						■		■
Heights, diameters, centrelines	■	■	■	■	■	■	■	■
2D, measuring sequences, statistics						■		■
SmartReverse (Smart dia. measurement)		■	■	■	■	■	■	■
Perpendicularity with lever indicator		■	■	■	■	■	■	■
Perpendicularity with electronic probe					■	■	■	■
Manual movement	■	■	■				■	
Manual and motorised movement				■	■	■		■
Air cushion			■	■	■	■	■	■
Fine adjustment	■						■	
Long probes 400 mm		■	■	■	■	■		
Wireless data transfer (Option)			■	■	■	■	■	■

## 1D DISPLAY



V3, V4, V5, V6 and V8 models:

A 1D height gauge offers basic features such as height, diameter, centerline distance, min / max measurements. It is very appreciated in workshop for its great simplicity of use.

Keyboard functions are represented by clear and intuitive symbols. The 2-line screen offers the user a great working comfort.

- Easy to read at any time thanks to the "Black Mask" display
- Measurement of heights or diameters
- MIN / MAX / DELTA measurement modes
- Resetting or presetting the display
- USB and RS232 interfaces
- 9 references available
- Graphic and acoustic indicator

## 2D DISPLAY



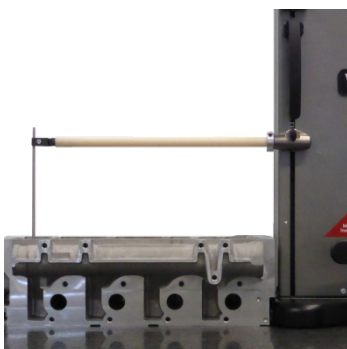
V7 and V9 models:

A 2D height gauge offers extensive measuring possibilities with a very high level of user comfort. Thus, the measurements in 2 coordinates and the programming of the measurement sequences can be performed very efficiently.

The touch screen and the graphical interface correspond to the most modern industrial standards. The great flexibility offered by the touch screen makes it easy and quick to use.

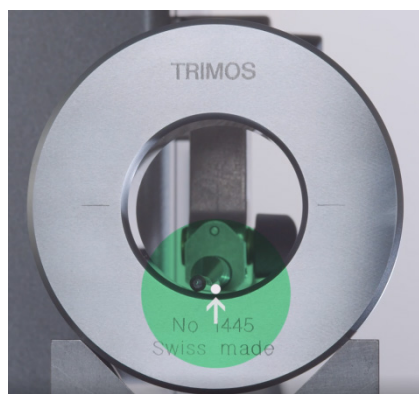
- Very simple graphical interface
- Exceptional readability
- 2D mode measurement
- Measurement sequences
- Statistical analysis of the results
- Integrated online help
- Temperature compensation

## LONG PROBES



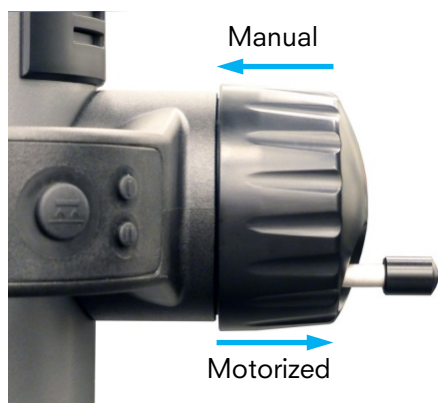
The robust construction of the Trimos height gauges allows the use of very diverse inserts up to 400 mm in length with breathtaking repeatability.

## SMART REVERSE



In order to provide exceptional measurement performance, the Trimos team has collaborated with many users to develop the SMART REVERSE technology. The result is incredible and opens a new dimension to the measurement of diameters. All the visual, auditory and tactile senses of the user are exploited to provide an unrivalled measurement experience in terms of comfort, speed and accuracy.

## MANUAL AND MOTORIZED MOVEMENT



The V5, V6, V7 and V9 are equipped with a revolutionary handwheel which allows the user to move the measuring carriage either manually or motorized. Each of these modes does not suffer from any compromise, that is to say that the user preferring a manual instrument will not notice any difference compared to a conventional manual instrument, ditto for a motorized movement. This innovation avoids making a difficult choice during the acquisition and makes it possible to satisfy the multiple potential users of the same instrument.

The other models are fully manual.

## WIRELESS COMMUNICATION



In addition to data transfer capabilities via RS232 or USB, Trimos offers a perfectly integrated wireless communication solution.

The free software TrimosDataTransfer makes it possible to recover the data in any application. It is also compatible with Sylvac software solutions Vmux and Sylcom.

This option is available on all models except V3 and TVM.

## PROFESSIONAL TEST REPORTS

#	Probe	Value	Reference	Max. diff.	Min.	Max.
1	MM	187,2540	187,2500	0,1	0,1	0,1
2	MM	187,2780	187,2500	0,1	0,1	0,1
3	MM	187,3180	187,2500	0,1	0,1	0,1
4	MM	187,3080	187,2500	0,1	0,1	0,1
5	MM	187,3580	187,2500	0,1	0,1	0,1
6	MM	187,3580	187,2500	0,2	0,2	0,2
7	MM	187,2980	187,2500	-0,1	0,2	0,2
8	MM	187,2880	187,2500	-0,1	0,2	0,2
9	MM	187,2980	187,2500	-0,1	0,2	0,2
10	MM	187,2980	187,2500	0,1	0,2	0,2
11	MM	187,2520	187,2500	0,2	0,2	0,2
12	MM	187,2180	187,2500	-0,5	0,5	0,5
13	MM	187,3080	187,2500	0,1	0,1	0,1
14	MM	187,3080	187,2500	0,1	0,1	0,1
15	MM	186,9980	187,2500	-0,1	0,1	0,1
16	MM	186,7540	187,2500	-0,1	0,1	0,1

Professional test reports can be generated directly from the instrument (V7 and V9). The interface allows you to create a personalized header template with company logo. The drawing of the part can also be integrated into the report. All measured dimensions are shown with their tolerance in graphical form. This makes reading the results very easy and efficient. The report can be printed directly on any USB printer or in pdf format on a USB key.

## ERGONOMICS



With a left-hand movement handle and a right-hand handwheel, the user's position is at all times optimal relative to the measured part regardless of size and shape. The user keeps control of the instrument and the movement of the piece at all times. The orientation of the screen ensures perfect readability in all configurations.

## ACCESSORIES



The range of available accessories covers almost all applications. The unique key weight compensation system also allows the use of specific keys up to 400 g.

## TRADITION AND SWISS MADE

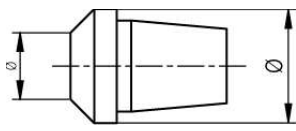
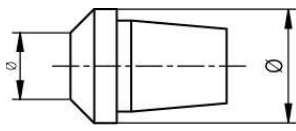
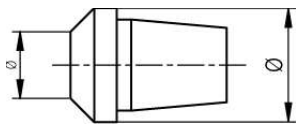
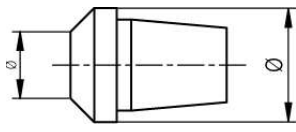
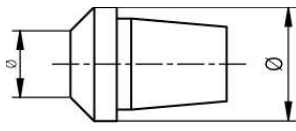
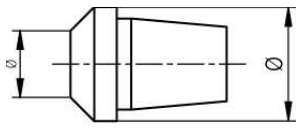
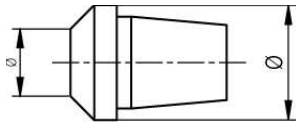
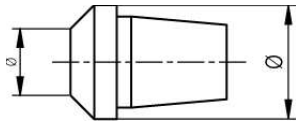
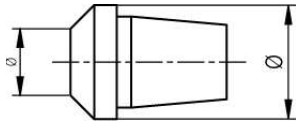
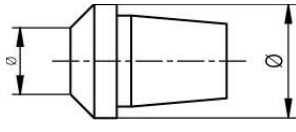
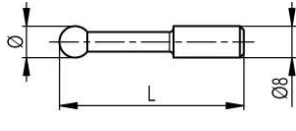


45 years ago, Trimos was the first manufacturer in the world to launch a height gauge on the market. Since then, the company has constantly offered its customers innovative and efficient products, always ahead of its competitors.

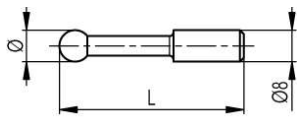
Our values of excellence, precision and quality are rooted in the Swiss tradition. All our height gauges are developed and manufactured in Switzerland. That's why they wear the Swiss Made label.

# ACCESSORIES



	<b>TV2S2</b> 279 901007 002	Cone Ø0-15 mm	■								
	<b>TV2S3</b> 279 901007 003	Cone Ø13-20.5 mm	■								
	<b>TV2S4</b> 279 901007 004	Cone Ø17-24.5 mm	■								
	<b>TV2S5</b> 279 901007 005	Cone Ø23-30.5 mm	■								
	<b>TV2S6</b> 279 901007 006	Cone Ø26-35.5 mm	■								
	<b>TV2S7</b> 279 901007 007	Cone Ø32-39 mm	■								
	<b>TV2S8</b> 279 901007 008	Cone Ø36-45 mm	■								
	<b>TV2S9</b> 279 901007 009	Cone Ø41-50 mm	■								
	<b>TV2S10</b> 279 901007 010	Cone Ø46-55 mm	■								
	<b>TV2S11</b> 279 901007 011	Cone Ø51-60 mm	■								
	<b>TVM2.9</b> 509 05 20 0001	Ball insert Ø0.5 mm, L=40.4 mm	■								

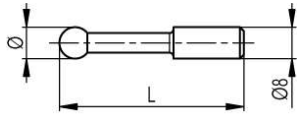




**TVM2.8**  
509 05 20 0003

Ball insert Ø1 mm, L=40.8 mm

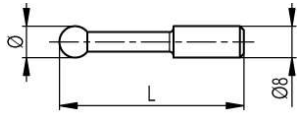
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**TVM2.4**  
509 05 20 0009

Ball insert Ø2 mm, L=41.6 mm

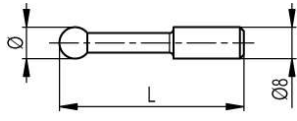
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**TVM2.3**  
509 05 20 0014

Ball insert Ø3 mm, L=42.5 mm

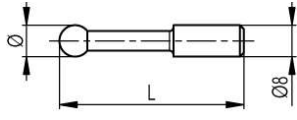
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**TVM2.2**  
509 05 20 0025

Ball insert Ø4 mm, L=43.5 mm

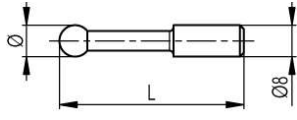
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**TVM2.6**  
509 05 20 0031

Ball insert Ø5 mm, L=43.9 mm

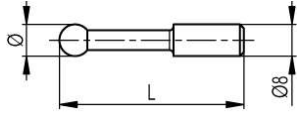
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**TVM2.1**  
509 05 20 0037

Ball insert Ø6 mm, L=45.1 mm

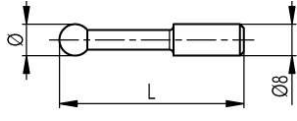
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**TVM2.7**  
509 05 20 0045

Ball insert Ø7 mm, L=46.1 mm

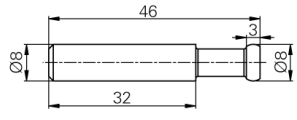
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**TVM2**  
509 05 20 0051

Ball insert Ø8 mm, L=47.3 mm

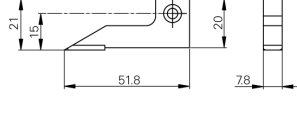
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**TVM2.5**  
509 05 20 0059

Disc shaped insert Ø8 mm

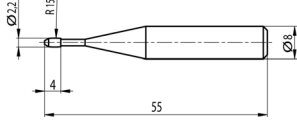
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**TVM3**  
609 12 003

Scriber

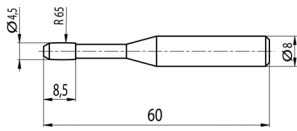
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**TVA9.1**  
509 05 20 0011

Barrel-shaped insert M3-M16, L=55 mm

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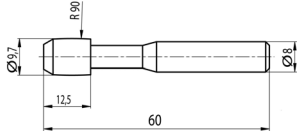


**TVA9.2**

509 05 20 0029

Barrel-shaped insert M6-M48, L=60 mm

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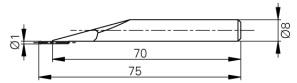


**TVA9.3**

509 05 20 0062

Barrel-shaped insert M12-M150, L=60 mm

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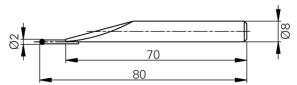


**TA-MI-111**

509 05 20 0078

Measuring insert with tungst. carb. ball, Ø1 mm, L=75 mm

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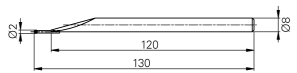


**TA-MI-110**

509 05 20 0077

Measuring insert with tungst. carb. ball Ø2 mm, L=80 mm

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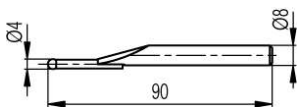


**TA-MI-104**

509 05 20 0080

Measuring insert with tungst. carb. ball Ø2mm, L=130 mm

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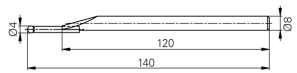


**TA-MI-102**

509 05 20 0075

Measuring insert with tungst. carb. ball Ø4 mm, L=90 mm

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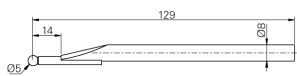


**TA-MI-105**

509 05 20 0079

Measuring insert with tungst. carb. ball Ø4 mm, L=140 mm

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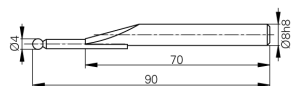


**TA-MI-106**

279 918011 004

Measuring insert with ruby ball Ø5 mm, L=129 mm

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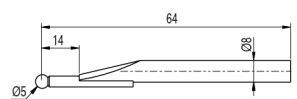


**TA-MI-101**

509 05 20 0074

Measuring insert with ruby ball Ø4 mm, L=90 mm

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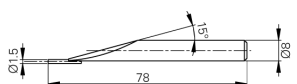


**TA-MI-119**

SP279 918011 005

Measuring insert with ruby ball Ø5 mm, L=64 mm

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**TA-MI-107**

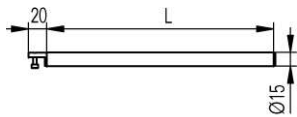
509 05 20 0081

Measuring insert with pin Ø1.5 mm, L=78 mm

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	<p><b>TA-MI-112</b> 509 05 20 0082</p>	<p>Measuring insert with parallel faces, 10 x 10 mm, L=90 mm</p>		■	■	■	■	■	■	■
	<p><b>TA-MI-108</b> 279 918011 002</p>	<p>Measuring insert with ruby ball Ø10 mm, L=100 mm</p>		■	■	■	■	■	■	■
	<p><b>TA-AD-101</b> 603 11 001</p>	<p>Positioning holder for measuring insert Ø8 mm</p>		■	■	■	■	■	■	■
	<p><b>TA-MI-109</b> 279 918011 003</p>	<p>Measuring insert with ruby ball Ø3 mm, L=87.5 mm</p>		■	■	■	■	■	■	■
	<p><b>V-50.10</b> 279 918007 001</p>	<p>Knife-edge insert</p>		■	■	■	■	■	■	■
	<p><b>V-50.11</b> 279 918013 001</p>	<p>Barrel-shaped insert Ø3 x 5 mm, L = 89 mm</p>		■	■	■	■	■	■	■
	<p><b>V-50.12</b> 279 918012 001</p>	<p>Measuring insert Ø1 mm with holder, L=86 mm</p>		■	■	■	■	■	■	■
	<p><b>TA-MI-114</b> 506 22 20 0063</p>	<p>Pin, 1 hemispheric and 1 plane face, L=100 mm</p>		■	■	■	■	■	■	■
	<p><b>TA-MI-115</b> 279 901001 001</p>	<p>Measuring insert M1.4 with ball Ø1 mm, L=12.5 mm</p>		■	■	■	■	■	■	■
	<p><b>TA-MI-116</b> 279 901001 002</p>	<p>Measuring insert M1.4 with ball Ø2 mm, L=12.5 mm</p>		■	■	■	■	■	■	■
	<p><b>TA-MI-117</b> 279 901001 003</p>	<p>Measuring insert M1.4 with ball Ø3 mm, L=12.5 mm</p>		■	■	■	■	■	■	■

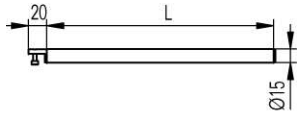
	<p><b>V-50.4</b> 279 918010 001</p>	<p>Measuring insert M2,5 with ball contact</p>		■	■	■	■	■	■	■	
	<p><b>TA-MI-118</b> 279 901003 001</p>	<p>Measuring insert M2.5 with 4 interchangeable pins, L=16/26/36/46 mm</p>		■	■	■	■	■	■	■	
	<p><b>V-50.2.1</b> 279 918005 002</p>	<p>Disc-shaped inserts M2.5, Ø7.7 mm</p>		■	■	■	■	■	■	■	
	<p><b>V-50.2.2</b> 279 918005 003</p>	<p>Disc-shaped insert M2.5, Ø11.5 mm</p>		■	■	■	■	■	■	■	
	<p><b>V-50.2.3</b> 279 918005 004</p>	<p>Disc-shaped inserts M2.5, Ø18 mm</p>		■	■	■	■	■	■	■	
	<p><b>V-50.2</b> 279 918005 001</p>	<p>Set of 3 disc-shaped inserts M2.5, Ø 7.7 / 11.5 / 18 mm</p>		■	■	■	■	■	■	■	
	<p><b>V-50.3</b> 279 918008 001</p>	<p>Corner insert M2.5</p>		■	■	■	■	■	■	■	
	<p><b>V-50.1</b> 279 918009 001</p>	<p>Measuring insert M2.5 with ruby ball Ø3 mm</p>		■	■	■	■	■	■	■	
	<p><b>TVM1.1</b> 502 02 10 0015</p>	<p>Clamping device Ø 8 mm</p>	■								
	<p><b>TVM1</b> 612 11 007</p>	<p>Standard insert holder for TVM, L=154 mm</p>	■								
	<p><b>TVM1/L250</b> 612 11 061</p>	<p>Insert holder, L=250 mm</p>	■								



**TVM1/L300**

612 11 062

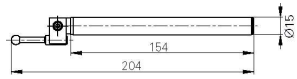
Insert holder, L=300 mm



**TVM1/L350**

612 11 063

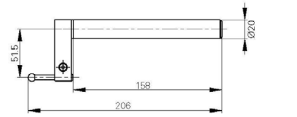
Insert holder, L=350 mm



**TVM1/1.1/2**

609 05 061

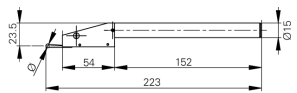
Measuring insert + holder (TVM1 + 1.1 + 2), (Complete Set)



**TVA1**

612 11 028

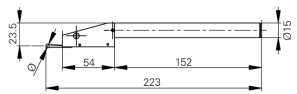
Measuring insert + holder for TVM1000



**TVM4**

609 05 074

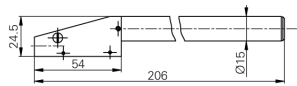
Bi-directional probe  $\varnothing$ 4 mm



**TVM4.1/4.2**

609 05 075

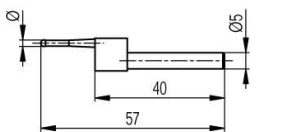
Bi-directional probe  $\varnothing$ 2 mm



**TVM4.1**

612 11 030

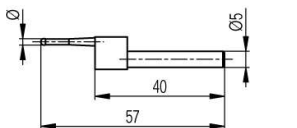
Holder for bi-directional probe



**TVM4.2**

609 05 021

Measuring insert  $\varnothing$ 2 mm for bi-directional probe



**TVM4.3**

609 05 024

Measuring insert  $\varnothing$ 4 mm for bi-directional probe



**TVM5.1**

609 05 054

Cone holder

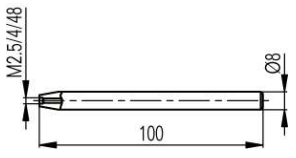


**TVM5**

709 05 054

Set of cones with holder (TV2S2/3/4/5 + TVM5.1)

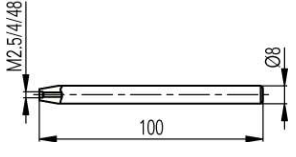




**TVM6**  
512 11 20 0018

Holder Ø8 mm for measuring inserts M2.5

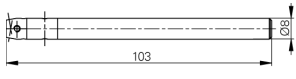
TVM	V3	V4	V5	V6	V7	V8	V9
■							



**TVM6E**  
512 11 20 0019

Holder Ø8 mm for measuring inserts 4-48

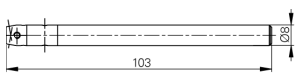
TVM	V3	V4	V5	V6	V7	V8	V9
■							



**TA-IH-101**  
612 11 045

Measuring insert holder M2.5, L=103 mm

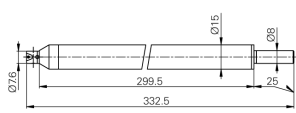
TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**TA-IH-103**  
612 11 047

Measuring insert holder 4-48, L=103 mm

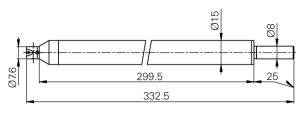
TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**TA-IH-102**  
612 11 046

Measuring insert holder M2.5, L=300 mm

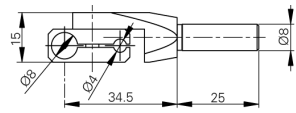
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-119**  
612 11 048

Measuring insert holder (")4-48, L=300mm

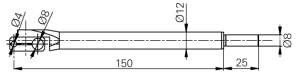
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-104**  
612 11 053

Swivel holder Ø4 and Ø8 mm

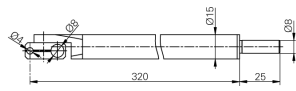
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-105**  
612 11 051

Swivel holder Ø4 and Ø8 mm, L=150 mm

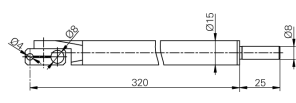
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**V-2E/D1/4/L1**  
612 11 013

Swivel holder Ø1/4 ", L=150 mm

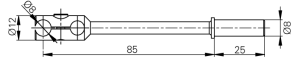
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-106**  
612 11 039

Swivel holder Ø4 and Ø8 mm, L=300 mm

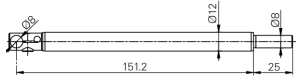
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-107**  
612 11 055

Insert holder 90°, Ø8 mm

TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**TA-IH-108**  
612 11 052

Insert holder 90°, Ø8 mm, L=150 mm

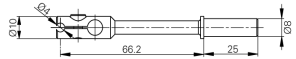
TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**TA-IH-129**  
612 11 040

Holder at 90°, Ø 8mm, L=300mm

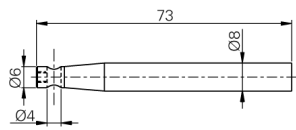
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-109**  
612 11 054

Insert holder 90°, Ø4 mm

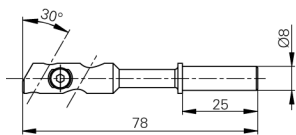
TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**TA-IH-110**  
279 918103 001

Insert holder 90°, Ø4 mm

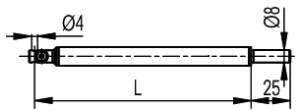
TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**V-4**  
612 11 011

Insert holder 30°, Ø4 mm

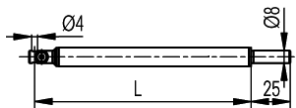
TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**TA-IH-111**  
612 11 041

Insert holder 90°, Ø4 mm, L=150 mm

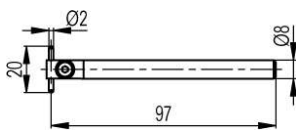
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-112**  
612 11 042

Insert holder 90°, Ø4 mm, L=300 mm

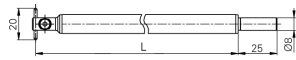
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TVA4**  
609 05 007

Insert holder with pin Ø2 x 20 mm

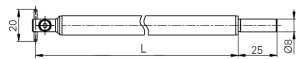
TVM	V3	V4	V5	V6	V7	V8	V9
	■	■	■	■	■	■	■



**TA-IH-113**  
612 11 043

Insert holder with pin Ø2 x 20 mm, L=200 mm

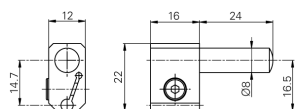
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-114**  
612 11 044

Insert holder with pin Ø2 x 20 mm, L=300 mm

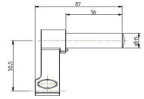
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**V-5**  
612 11 012

Reduction Ø 8 / 4 mm

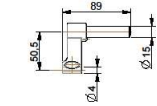
TVM	V3	V4	V5	V6	V7	V8	V9
						■	■



**TA-IH-135**  
612 11 065

Standard insert holder Ø8 mm

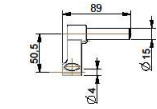
	■	■	■	■	■			



**TA-IH-128**  
612 11 067

Measuring insert holder Ø4 mm

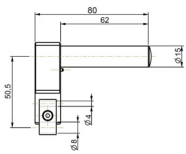
	■	■	■	■	■			



**TA-IH-137**  
SP612 11 065 01

Measuring insert holder Ø6 mm

	■	■	■	■	■			



**TA-IH-130**  
612 11 072

Swivel holder Ø4 and Ø8 mm

	■	■	■	■	■			



**TA-IH-127**  
612 11 066

Insert holder Ø8 mm, L=400 mm

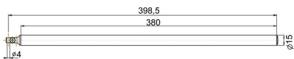
	■	■	■	■	■			



**TA-IH-131**  
612 11 068

Swivel holder Ø4 and Ø8 mm, L=400 mm

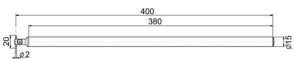
	■	■	■	■	■			



**TA-IH-132**  
612 11 069

Insert holder 90°, Ø4 mm, L=400 mm

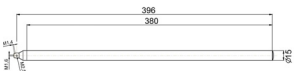
	■	■	■	■	■			



**TA-IH-133**  
612 11 070

Insert holder with pin Ø2 x 20 mm, L=400 mm

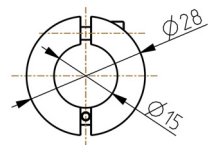
	■	■	■	■	■			



**TA-IH-134**  
612 11 071

Measuring insert holder M2.5, L=400 mm

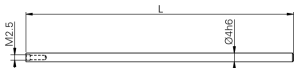
	■	■	■	■	■			



**TA-AD-105**  
603 11 003

Positioning holder for measuring insert Ø15 mm

	■	■	■	■	■			

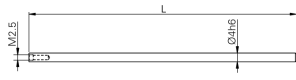
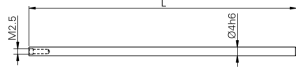
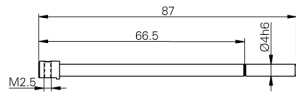
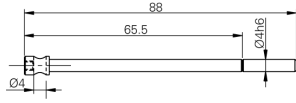
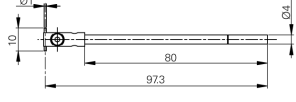
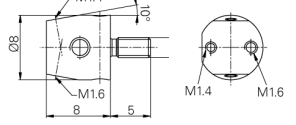
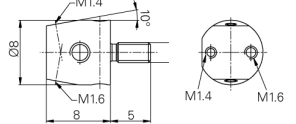
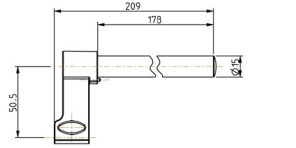
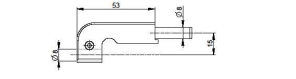




**V-50.6**  
279 918002 002

Measuring insert holder M2.5, L=80 mm

	■	■	■	■	■	■	■	■



	<b>V-50.5</b> 279 918002 001	Measuring insert holder M2.5, L=124 mm										
	<b>TA-IH-115</b> 279 918002 003	Measuring insert holder M2.5, L=200 mm										
	<b>V-50.7</b> 279 918001 002	Insert holder 90°, M2.5										
	<b>V-50.8</b> 279 918001 001	Insert holder 90°, Ø4 mm										
	<b>TA-IH-116</b> 279 918001 003	Measuring insert holder, Ø1 x 10 mm, L=80 mm										
	<b>TA-IH-117</b> 512 11 20 0012	Holder for measuring inserts M2.5, M1.6, M1.4										
	<b>TA-IH-118</b> 512 11 20 0013	Holder for measuring inserts 4-48, M1.6, M1.4										
	<b>TA-IH-136</b> 612 11 073	Insert holder Ø8 mm, L=200 mm, Holder for perpendicularity probe										
	<b>TA-IH-126</b> 612 07 006	Holder for perpendicularity probe										
	<b>TA-MS-101</b> 276 940001 001	Perpendicularity probe for V6/V7/V8/V9-400/700, (without support - V6/V7: TA-IH-136 & V8/V9: TA-IH-126)										
	<b>TA-MS-102</b> 276 940001 002	Perpendicularity probe for V6/V7/V8/V9-1100, (without support - V6/V7: TA-IH-136 & V8/V9: TA-IH-126)										

			TVM	V3	V4	V5	V6	V7	V8	V9
	<b>TA-MS-104</b> 609 02 021	Perpendicularity probe for V7-1800, (without support TA-IH-136)						■		
	<b>TA-SU-101</b> 740 02 001	Pair of abutment screw for instrument base V4 ÷ V9			■	■	■	■	■	■
	<b>TA-SE-106</b> 605 01 022	Set of accessories "Macro" (16 pcs)		■	■	■	■	■	■	■
	<b>TA-SE-102</b> 605 01 008	Set of accessories "Micro" (20 pcs)							■	■
	<b>TA-SE-105</b> 605 01 023	Set of accessories "Micro" (20 pcs)		■	■	■	■	■		
	<b>TA-SE-107</b> 605 01 024	Set of accessories "Eco" (7 pcs)		■	■	■	■	■	■	■
	<b>TA-MG-104</b> 609 01 032	Setting gauge 25 mm		■	■	■	■	■	■	■
	<b>TA-MG-105</b> SP609 01 032 02	Setting gauge with height and diameter, H=100 mm	■	■	■	■	■	■	■	■
	<b>TA-MG-001</b> 503 11 20 0078	Standard reference ring Ø40 mm, With SCS certificate, $U = (2s = 0,6 + 1.7 \times L)$ [µm]		■	■	■	■	■	■	■
	<b>TA-SU-102</b> SP609 40 040 03	Measuring stand for master ring gauge TA-MG-001, (without ring)		■	■	■	■	■	■	■
	<b>TA-TO-102</b> 614 00 007	Demonstration piece	■	■	■	■	■	■	■	■

			TVM	V3	V4	V5	V6	V7	V8	V9
	<b>V-60</b> 612 12 045	Wooden accessories support	■	■	■	■	■	■	■	■
	<b>V-50.13</b> 290 918001 001	Wrench for measuring inserts		■	■	■	■	■	■	■
	<b>TVM.HO300</b> 505 05 10 0009	Protection cover for TVM301	■							
	<b>TVM.HO600</b> 505 05 10 0011	Protection cover for TVM601	■							
	<b>TA-TO-114</b> 505 05 10 0041	Protection cover for V3 ÷ V9 - 400		■	■	■	■	■	■	■
	<b>TA-TO-115</b> 505 05 10 0042	Protection cover for V3 ÷ V9 - 700		■	■	■	■	■	■	■
	<b>TA-TO-116</b> 505 05 10 0043	Protection cover for V5 ÷ V9 - 1100				■	■	■	■	■
	<b>TA-TO-117</b> 505 05 10 0044	Protection cover for V7 - 1800						■		
	<b>TVM.O-PC/AT</b> 333 9 0003	Cable Opto-PC / AT 9 P/F 2 m	■							
	<b>TA-EL-112</b> 333 0 0104	Cable for RS232-PC connection		■	■	■	■	■	■	■
	<b>TA-EL-013</b> 332 02 0001	USB A-B connection cable, L=1.8 m						■		■



**TA-EL-014**  
332 02 0002

USB A-Mini B connection cable, L=1.8m

	■	■	■	■			■	



**TA-EL-022**  
716 35 008

Wireless data transmission system, 1 x dongle for the instrument & 1 x USB dongle for PC

		■	■	■	■	■	■	■



**TA-EL-032**  
756 0018

Thermal printer with holder, AC adapter and RS232 cable, (for V3 ÷ V6)

	■	■	■	■			■	



**TA-EL-033**  
756 0020

Thermal printer with holder, AC adapter and RS232 cable, (for V7 & V9)

						■		■



**V-30.7**  
788 000001 001

Paper rolls (5 pcs) for thermal printer

	■	■	■	■	■	■	■	■



**TA-EL-063**  
3704 0024

Battery pack for printer TA-EL-032 & TA-EL-033

	■	■	■	■	■	■	■	■



**TA-EL-016**  
332 08 0001

Connection cable Instrument-Display 0.23 m (HDMI)

	■	■	■	■	■	■	■	■



**TA-EL-132**  
357 0112

Adapter AC/DC 100-240V/12V - 3A (with adapter)

	■	■	■	■			■	



**TA-EL-133**  
357 0113

Adapter AC/DC 100-240V/12V - 2.5A (with adapter)

						■		■



**TA-EL-060**  
3704 0021

Battery pack for V2, V3, V4, V5, V6 & V8, (Li-ion 7,2V - 2600mA/h)

	■	■	■	■			■	



**TA-EL-061**  
3704 0022

Battery pack for V7 & V9, (Li-ion 7,2V - 10,4A/h)

						■		■

TVM V3 V4 V5 V6 V7 V8 V9



		TVM	V3	V4	V5	V6	V7	V8	V9
<b>TA-EL-062</b> 3705 0005 <small>EL-1202</small>	Back-up battery						■		■
<b>BAT-TVM.OPT</b> 3705 0002 <small>EL-1202</small>	Lithium Cell	■							
<b>TA-SW-002</b> 394 1 0051 <small>SW-0202</small>	Software for data transfer (TrimosDataTransfer)		■	■	■	■	■	■	■
<b>TA-SW-003</b> 394 1 0052 <small>SW-0202</small>	Software for data transfer (TrimosDataTransfer Advanced), with virtual COM-port creation			■	■	■	■	■	■



<b>TA-SE-102</b> 605 01 008	Set of accessories "Micro" (20 pcs)	V3	V4	V5	V6	V7	V8	V9
							■	■

- TA-IH-104** Swivel holder Ø4 and Ø8 mm
- V-5** Reduction Ø 8 / 4 mm
- V-50.6** Measuring insert holder M2.5, L=80 mm
- V-50.8** Insert holder 90°, Ø4 mm
- TA-IH-116** Measuring insert holder, Ø1 x 10 mm, L=80 mm
- TA-IH-117** Holder for measuring inserts M2.5, M1.6, M1.4
- TA-MI-109** Measuring insert with ruby ball Ø3 mm, L=87.5 mm
- V-50.10** Knife-edge insert
- V-50.12** Measuring insert Ø1 mm with holder, L=86 mm
- TA-MI-115** Measuring insert M1.4 with ball Ø1 mm, L=12.5 mm
- TA-MI-116** Measuring insert M1.4 with ball Ø2 mm, L=12.5 mm
- TA-MI-117** Measuring insert M1.4 with ball Ø3 mm, L=12.5 mm
- V-50.4** Measuring insert M2,5 with ball contact
- TA-MI-118** Measuring insert M2.5 with 4 interchangeable pins, L=16/26/36/4
- V-50.2.1** Disc-shaped inserts M2.5, Ø7.7 mm
- V-50.2.2** Disc-shaped insert M2.5, Ø11.5 mm
- V-50.3** Corner insert M2.5
- V-50.13** Wrench for measuring inserts
- TA-TO-003** Allen key 1.5 mm
- V-50.15** Allen key 2.5 mm



<b>TA-SE-105</b> 605 01 023	Set of accessories "Micro" (20 pcs)	V3	V4	V5	V6	V7	V8	V9
		■	■	■	■	■		

- TA-IH-104** Swivel holder Ø4 and Ø8 mm
- TA-IH-128** Measuring insert holder Ø4 mm
- V-50.6** Measuring insert holder M2.5, L=80 mm
- V-50.8** Insert holder 90°, Ø4 mm
- TA-IH-116** Measuring insert holder, Ø1 x 10 mm, L=80 mm
- TA-IH-117** Holder for measuring inserts M2.5, M1.6, M1.4
- TA-MI-109** Measuring insert with ruby ball Ø3 mm, L=87.5 mm
- V-50.10** Knife-edge insert
- V-50.12** Measuring insert Ø1 mm with holder, L=86 mm
- TA-MI-115** Measuring insert M1.4 with ball Ø1 mm, L=12.5 mm
- TA-MI-116** Measuring insert M1.4 with ball Ø2 mm, L=12.5 mm
- TA-MI-117** Measuring insert M1.4 with ball Ø3 mm, L=12.5 mm
- V-50.4** Measuring insert M2,5 with ball contact
- TA-MI-118** Measuring insert M2.5 with 4 interchangeable pins, L=16/26/36/4
- V-50.2.1** Disc-shaped inserts M2.5, Ø7.7 mm
- V-50.2.2** Disc-shaped insert M2.5, Ø11.5 mm
- V-50.3** Corner insert M2.5
- V-50.13** Wrench for measuring inserts
- TA-TO-003** Allen key 1.5 mm
- V-50.15** Allen key 2.5 mm



<b>TA-SE-106</b> 605 01 022	Set of accessories "Macro" (16 pcs)	V3	V4	V5	V6	V7	V8	V9
		■	■	■	■	■	■	■
	<b>TA-IH-101</b>	Measuring insert holder M2.5, L=103 mm						
	<b>TA-IH-105</b>	Swivel holder Ø4 and Ø8 mm, L=150 mm						
	<b>TA-IH-109</b>	Insert holder 90°, Ø4 mm						
	<b>TVA4</b>	Insert holder with pin Ø2 x 20 mm						
	<b>V-50.5</b>	Measuring insert holder M2.5, L=124 mm						
	<b>TA-IH-115</b>	Measuring insert holder M2.5, L=200 mm						
	<b>TA-MI-110</b>	Measuring insert with tungst. carb. ball Ø2 mm, L=80 mm						
	<b>TA-MI-105</b>	Measuring insert with tungst. carb. ball Ø4 mm, L=140 mm						
	<b>TA-MI-107</b>	Measuring insert with pin Ø1.5 mm, L=78 mm						
	<b>TA-MI-115</b>	Measuring insert M1.4 with ball Ø1 mm, L=12.5 mm						
	<b>TA-MI-116</b>	Measuring insert M1.4 with ball Ø2 mm, L=12.5 mm						
	<b>TA-MI-117</b>	Measuring insert M1.4 with ball Ø3 mm, L=12.5 mm						
	<b>V-50.4</b>	Measuring insert M2,5 with ball contact						
	<b>V-50.2.3</b>	Disc-shaped inserts M2.5, Ø18 mm						
<b>V-50.13</b>	Wrench for measuring inserts							
<b>V-50.15</b>	Allen key 2.5 mm							



<b>TA-SE-107</b> 605 01 024	Set of accessories "Eco" (7 pcs)	V3	V4	V5	V6	V7	V8	V9
		■	■	■	■	■	■	■
	<b>TA-IH-109</b>	Insert holder 90°, Ø4 mm						
	<b>TVA4</b>	Insert holder with pin Ø2 x 20 mm						
	<b>V-50.5</b>	Measuring insert holder M2.5, L=124 mm						
	<b>TA-MI-110</b>	Measuring insert with tungst. carb. ball Ø2 mm, L=80 mm						
	<b>V-50.4</b>	Measuring insert M2,5 with ball contact						
	<b>V-50.3</b>	Corner insert M2.5						
<b>V-50.15</b>	Allen key 2.5 mm							

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