





**HEIGHT GAGES**



## Mestra-Touch

The Fowler/Trimos Mestra-Touch 1-D/2-D height gage includes all the upgraded design features of the Vectra-Touch with a higher resolution, repeatability and accuracy.

- Manual or motorized carriage movement.
- Self triggering probe.
- Swiss engineering and construction.
- Surface/Diameter/Centerline measurement
- Min/Max/Delta value
- 9 references
- Squareness measurement (*requires optional probe*)
- Angle measurement
- Calculation mode
- Tolerances
- 2D measuring mode
- Programmable measurement sequences
- Statistical analysis
- Temperature measurement/compensation (*requires optional probe*)
- Built-in pump provides air cushion to reduce wear and fatigue.
- USB/RS-232/Wireless communication
- Touch screen
- Takes 8mm probes



### Specifications:

Mestra - Touch models		300	600	1000
Measuring range	in	12"/305mm	24"/610mm	40"/1016mm
Application range	in	22"/567mm	34"/872mm	50"/1278mm
Resolution	in	0.00001"/0.0001mm		
Max. permissible errors	µm	1.2 + L(mm)/1000		
Repeatability	in	.00002"/.00004"		
Manual carriage displacement speed	mm/s.	1000		
Motorized carriage displacement speed	mm/s	150		
Measuring force, adjustable	N	0.5-1.8		
Squareness deviation	in	.00016"	.000024"	.00039"
Power supply		rechargeable battery pack		
Battery life	h	8		
Available interface connections		2x RS232C, 2x USB (A and B)		
Operational temperature		50 to 104° F/°C+10 to 40		
Total Height	in	25.4"/645mm	37.4"/950mm	53.4"/1357mm
Weight	lbs	35.2lbs/16kg	41.8lbs/19kg	50.6kg/23kg

The values of max. permissible error and repeatability are valid only when using the standard probe (measuring insert with tungsten carbide ball, 4mm L=90 mm), at temperature of 20±1 °C and relative humidity of 50± 5%.

### Part Number

### Description

54-194-301-0	12"/300mm Mestra Electronic Height Gage
54-194-601-0	24"/600mm Mestra Electronic Height Gage
54-194-901-0	40"/1000mm Mestra Electronic Height Gage
54-194-311-0	12"/300mm with Manual Carriage Movement
54-194-611-0	24"/600mm with Manual Carriage Movement
54-194-902-0	40"/1000mm with Manual Carriage Movement

**See pgs 218-220 for probes**



High Accuracy

2D Mode

Programmable

5 yr. Warranty

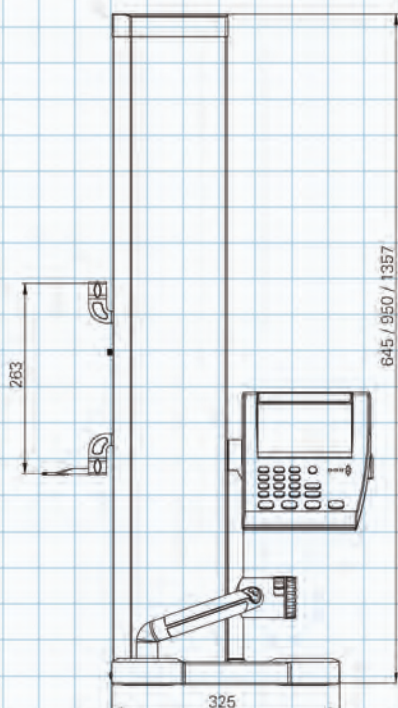




Swiss Quality!



Mestra and Vectra-Touch  
Dimensions



2-D Measurements

Motorized

5 yr Warranty

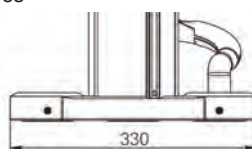


## Vectra-Touch

The Fowler/Trimos Vectra-Touch 1-D/2-D height gage with the latest in upgraded technology is now available with the following features:

- Manual or motorized carriage movement
- Self triggering probe
- Swiss engineering and construction
- Surface/Diameter/Centerline measurement
- Min/Max/Delta value
- 9 references
- Squareness measurement (requires optional probe)
- Angle measurement
- Calculation mode
- Tolerances
- 2D measuring mode
- Programmable measurement sequences
- Statistical analysis
- Temperature measurement/compensation (requires optional probe)
- Built-in pump provides air cushion to reduce wear and fatigue.
- Online help
- USB/RS-232/Wireless communication
- Up to 2000mm measuring range available
- Takes 8mm probes

Side view



### Specifications:

Vectra - Touch models	300	600	1000
Measuring range	in 12"/305mm	24"/610mm	40"/1016mm
Application range	in 22"/567mm	34"/872mm	50"/1278mm
Resolution	in	0.00001"/0.0001mm	
Max. permissible errors	µm	2+ L(mm)/400	
Repeatability	in	.00004"/.00008"	
Manual carriage displacement speed	mm/s.	1000	
Motorized carriage displacement speed	mm/s	150	
Measuring force, adjustable	N	0.5-1.8	
Squareness deviation	in .00016"	.00024"	.00039"
Power supply		rechargeable battery pack	
Battery life	h	8	
Available interface connections		2x RS232C, 2x USB (A and B)	
Operational temperature		50 to 104° F/°C+10 to 40	
Total Height	mm 25.4"/645mm	37.4"/950mm	53.4"/1357mm
Weight	kg 35.2lbs/16kg	41.8lbs/19kg	50.6kg/23kg

The values of max. permissible error and repeatability are valid only when using the standard probe (measuring insert with tungsten carbide ball, 4mm L=90 mm), at temperature of 20±1 °C and relative humidity of 50± 5%.

### Part Number Description

54-193-300-0	12"/300mm Vectra Electronic Height Gage
54-193-600-0	24"/600mm Vectra Electronic Height Gage
54-193-900-0	40"/1000mm Vectra Electronic Height Gage
54-193-060-0	60"/1500mm Vectra Electronic Height Gage
54-193-301-0	12"/300mm with Manual Carriage Movement
54-193-601-0	24"/600mm with Manual Carriage Movement
54-193-901-0	40"/1000mm with Manual Carriage Movement
1D Only Models	
54-193-101-0	24"/600mm 1D Vectra Electronic Height Gage with Motorized Movement
54-193-100-0	24"/600mm 1D Vectra Electronic Height Gage with Manual Carriage Movement

60"/1500mm and 80"/2000mm available. Contact Fowler for pricing info.

See pgs 218-220 for probes





## V Electronic Height Gages

The **NEW** Fowler-Trimos V vertical measuring instruments have been developed for the most difficult workshop environments. Manufactured in their entirety in Switzerland, they guarantee a robust, precise and reliable product in the long run.



*Designed by Trimos,  
Swiss masters of  
Metrology.*

*A very accurate,  
robust shop gage that  
features high accuracy  
and easy-to-use  
features*

- Measuring ranges 400mm, 700mm and 1100mm
- Extremely easy to use
- "Black mask" display with user friendly functions
- Electronically adjustable measuring force 0.75/1.5 (N)
- Battery life: approximately 40 hours (lithium-ion batteries)
- Vast range of accessories
- All adjustments possible without tools
- Cast iron base for optimal stability
- RS232 and USB interfaces
- Air cushion (V4, V5 and V6 Only)
- Dual probe holders (V4, V5 and V6 Only)
- Carriage displacement: Manual  
(V5 and V6 includes **selectable manual or motorized carriage displacement**)
- Measures heights, diameters, perpendicularity, centerlines, Min/Max/Delta
- Accessory measuring probes up to 340mm in length available and provide excellent repeatability
- Repeatability (2s): 0.00008"/0.002mm (Ø 0.00016"/0.004mm)

### All V Models Include:

- Charging unit
- Measuring insert with ruby ball Ø4mm
- Probe holder elbow Ø 8mm
- Setting gage
- User's manual
- Test certificate



Probe kits and extra length arms available to tackle almost any application.

See pg 220



54-199-005-0



V3	54-192-340-0	54-192-370-0
Measuring Range	16"/407mm	28"/711mm
Range with Probe inverted	20"/508mm	31.9"/812mm
Max. Permissible Errors	0.00032"/0.008mm	0.00032"/0.008mm
Frontal Squareness Deviation	0.0004"/0.010mm	0.0006"/0.015mm
Resolution:	0.00005"/0.001mm	
Air Cushion	<b>NO</b>	

V4	54-191-440-0	54-191-470-0
Measuring Range	16"/407mm	28"/711mm
Range with Probe inverted	28.3"/719mm	40.2"/1023mm
Max. Permissible Errors	0.0002"/0.005mm	0.00028"/0.007mm
Frontal Squareness Deviation	0.0004"/0.010mm	0.0006"/0.015mm
Resolution:	0.00005"/0.001mm	
Air Cushion	<b>YES</b>	

V5	54-199-540-0	54-199-570-0	54-199-590-0
Measuring Range	16"/407mm	28"/711mm	43.7"/1110mm
Range with Probe inverted	28.3"/719mm	40.2"/1023mm	56"/1422mm
Max. Permissible Errors (µm)		2.5 + L(mm)/300	
Frontal Squareness Deviation	0.0002"/0.005mm	0.00032"/0.008mm	0.00043"/0.011mm
Resolution:	0.00005"/0.001mm		
Air Cushion	<b>YES</b>		

V6	54-199-640-0	54-199-670-0	54-199-690-0
Measuring Range	16"/407mm	28"/711mm	43.7"/1110mm
Range with Probe inverted	28.3"/719mm	40.2"/1023mm	56"/1422mm
Max. Permissible Errors (µm)		2 + L(mm)/400	
Frontal Squareness Deviation	0.0002"/0.005mm	0.00032"/0.008mm	0.00043"/0.011mm
Resolution:	0.00005"/0.0001mm		
Air Cushion	<b>YES</b>		
Squareness Probe	<b>YES</b>		
Accessory Available			



No. 54-199-400-0

Part Number	Description	Range
54-192-340-0	V3 Electronic Height Gage	16"/407mm
54-192-370-0	V3 Electronic Height Gage	28"/711mm
54-191-440-0	V4 Electronic Height Gage	16"/407mm
54-191-470-0	V4 Electronic Height Gage	28"/711mm
54-199-540-0	V5 Electronic Height Gage	16"/407mm
54-199-570-0	V5 Electronic Height Gage	28"/711mm
54-199-590-0	V5 Electronic Height Gage	43"/1100mm
54-199-640-0	V6 Electronic Height Gage	16"/407mm
54-199-670-0	V6 Electronic Height Gage	28"/711mm
54-199-690-0	V6 Electronic Height Gage	43"/1100mm
Accessory Probe Sets See pg 220		
54-199-105-0	21 pc. Micro Probe Set	
54-199-106-0	16 pc. Macro Probe Set	
54-199-107-0	7 pc. Economy Probe Set	
54-199-400-0	300mm probe holder (for 8mm probes)	

## Hi\_CAL Electronic Height Gage



- Measuring ranges: 6"/150mm and 12"/300mm
- Error Max  $\mu\text{m}$ :  $2.5 + L / 175\text{mm}$
- Extra low measuring force, from 0.2 N
- Measurement of internal and external diameters, centerlines, heights, widths, depths, surfaces.
- MIN, MAX, TIR capability
- Excellent repeatability thanks to the motorized carriage.
- Intuitive functions/minimizes key strokes
- Customizable with free software
- Great mobility
- High reliability
- Data output USB and RS232
- Battery life: 40 hours rechargeable during operation.
- Touch sensitive probe speed for easy operation.
- Base with small footprint.
- 4mm probe shank

**Instrument Includes Protective Cover, Charging Set,  
Ruby Ball Probe Ø3mm, Setting gage and Calibration Certificate!**

Part Number	Description	Range
54-931-150-0	Hi-Cal Height Gage	6"/150mm
54-931-300-0	Hi-Cal Height Gage	12"/300mm

**See pgs 218-220 for probes**

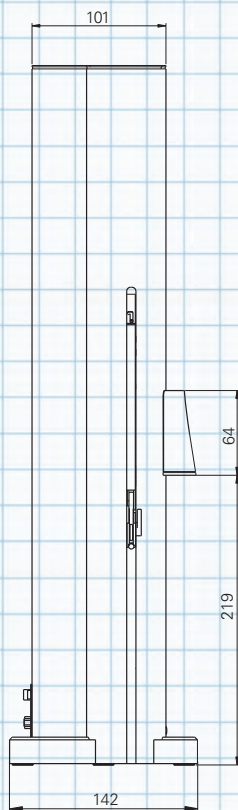
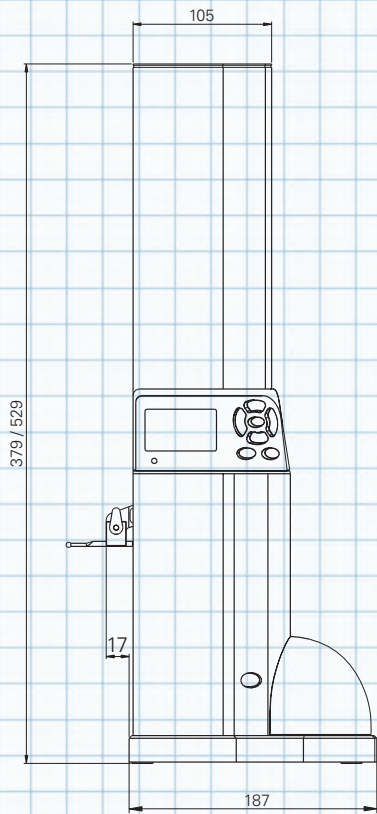


*Motorized movement!*





## Hi\_CAL Electronic Height Gage



### Innovative Intuitive Keypad

1. Inch/Metric and datum reference display
2. Display of measuring value
3. Active measuring mode diameter/surface
4. Centerline display
5. Min/Max/Tir mode
6. Diameter/surface selection
7. Access to setup menu
8. Selection of Datum reference Ref I / Ref II
9. On/Off Switch
10. Ball probe constant
11. Zero set and preset
12. Probe contact indication lamp

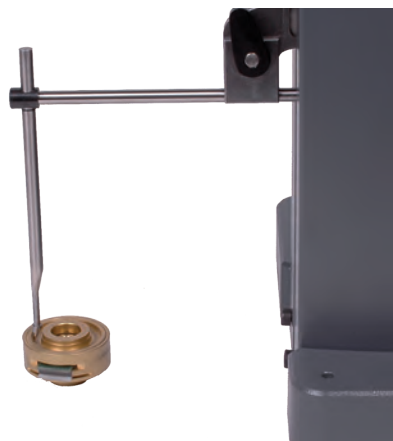
### Specifications:

	No. 54-931-150-0	No. 54-931-300-0
Measuring range	6"/150mm	12"/300mm
Application range	6.1"/0-155mm	12.6"/0-320mm
Max Error $\mu$ m	2.5 + L/175	
Repeatability	2 $\mu$ m	
Resolution	0.00005"/0.001mm	0.00005"/0.001mm
Velocity (mm/sec.)	50/100	
Measuring Force	0.2-0.3 Newtons	
Self-contained use	Approx. 40 Hours	
Overall Height	14.92"/379mm	20.83"/529mm
Weight	8.6 lb/3.9kg	10.14 lb/4.6 kg
S_Connect	USB/mini USB/ RS232	
Programmable by PC	✓	
Zero setting	✓	
Min/max/delta	✓	
PRESET function	✓	
2 references	✓	
Height measurement, $\varnothing$ and centerlines	✓	
2 types of progressive speed	✓	

**See pgs 218-220 for probes**



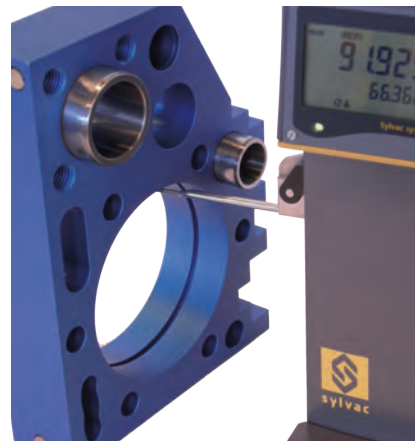
## Height Gage Applications



Depth measurements with accessories 54-199-508 and 54-199-510



Depth measurements with accessory 54-199-508



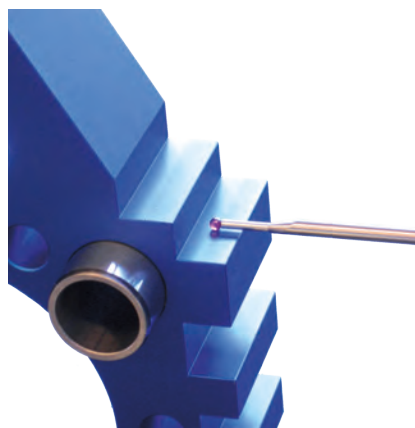
Internal measurements with ruby ball probe Ø3mm, 54-930-211



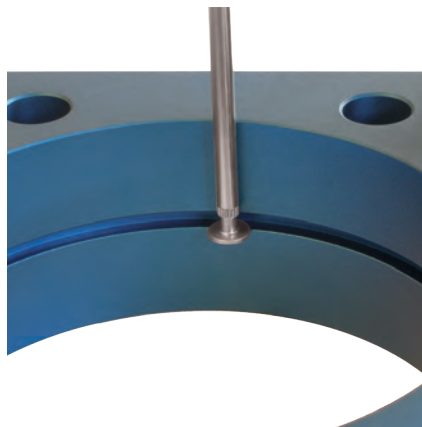
Internal groove measurements with accessories 54-199-508, 54-199-506 and 54-199-501



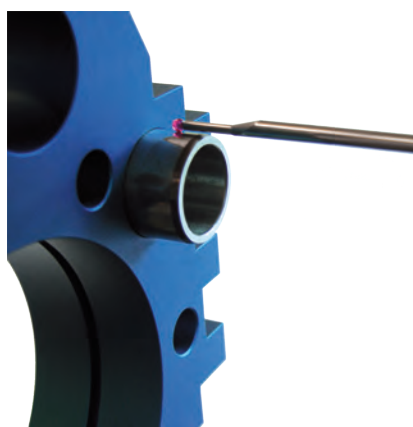
Taking the probe constant value with the setting gage 54-930-202



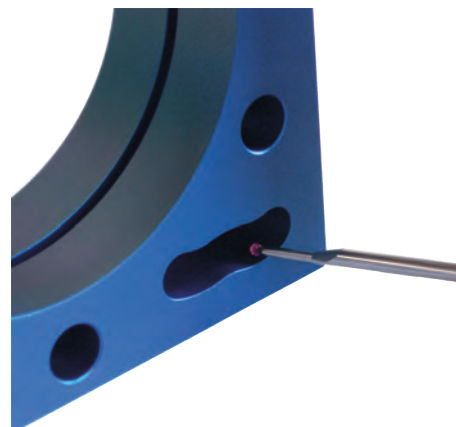
Heights and thicknesses measurements.



Internal groove measurements with accessories 54-199-508, 54-199-506 and 54-199-502



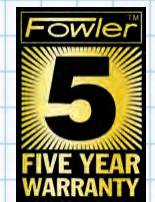
External diameter measurements with the standard probe 54-930-211



Min/Max/Delta measurements



Swiss Quality!



Ideal for measuring and scribing

Exceptionally robust

Great for the shop floor



## Mini-Vertical Series

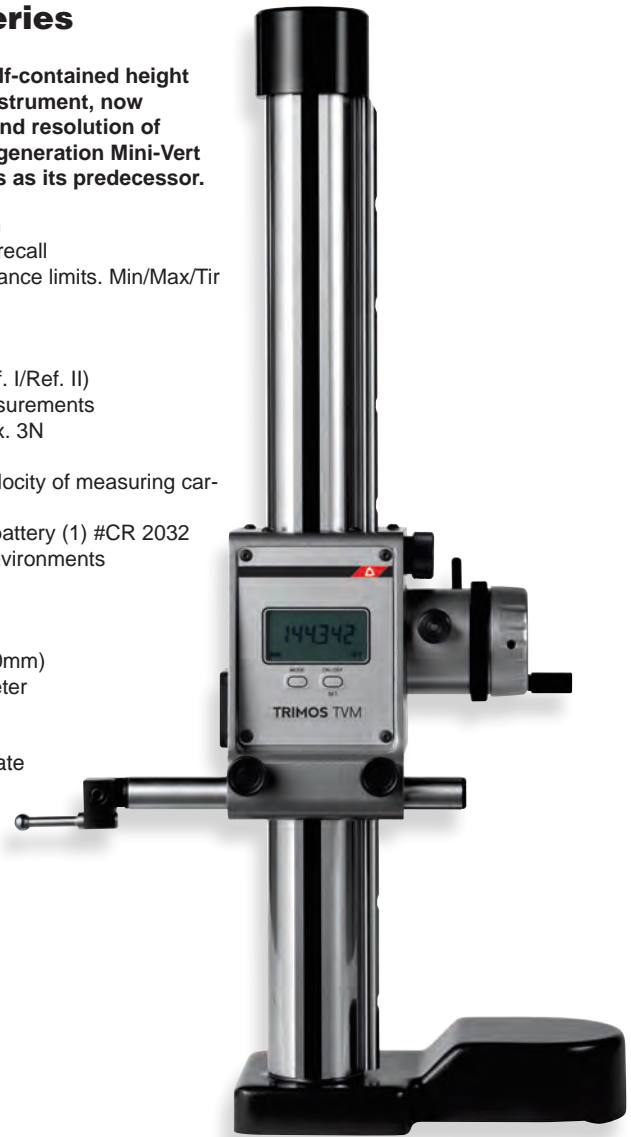
Mini-Vertical Series II, a self-contained height measuring and scribing instrument, now with direct RS232 output and resolution of .00005"/.001mm. The new generation Mini-Vert uses the same accessories as its predecessor.

- Zero setting at any position
- Input of preset values and recall
- Setting and display of tolerance limits. Min/Max/Tir modes
- Hold display function
- Inch/Metric selection
- Two reference datums (Ref. I/Ref. II)
- Accurate and positive measurements
- Measuring pressure approx. 3N
- Bidirectional data output
- Maximum displacement velocity of measuring carriage 40"/sec. (1m/sec.)
- Power supply: 3 V lithium battery (1) #CR 2032
- Robust design for harsh environments

### Standard Equipment

Each unit includes:

- Main probe holder 5.9"(150mm)
- One ball probe 8mm diameter
- Protection cover
- Instruction manual
- Test and guarantee certificate



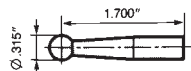
### Specifications

<b>Model:</b>	54-180-212-0 & 215-0	54-180-224-0 & 226-0
<b>Measuring range:</b>	12.6" (320mm)	24.4" (620mm)
<b>Accuracy over full range: (maximum error)</b>	.0008" (.02mm)	.0012" (.03mm)
<b>Weight with cast iron base:</b>	13.7 lbs.	23.2 lbs.
<b>Weight with granite base:</b>	30.9 lbs.	40.4 lbs.

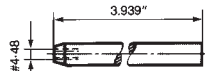
Part Number	Description
54-180-212-0	12.6"(320mm) Mini-Vertical with cast iron base
54-180-215-0	12.6"(320mm) Mini-Vertical with granite base
54-180-224-0	24.4"(620mm) Mini-Vertical with cast iron base
54-180-226-0	24.4"(620mm) Mini-Vertical with granite base



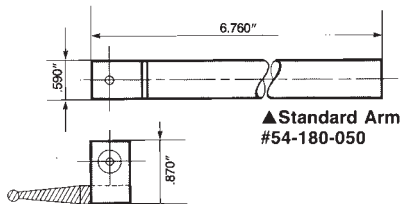
## Mini-Vertical Series



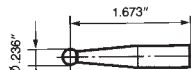
▲ Standard Ball Probe.  
#54-180-060



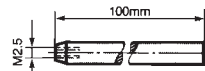
▲ #4-48 probe shaft  
for Indicator Points.  
#54-180-031



▲ Standard Arm  
#54-180-050

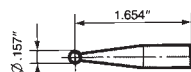


▲ .236" Diameter  
Ball Probe.  
#54-180-236

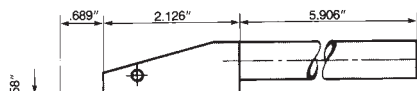


▲ Metric probe shaft  
for Indicator Points.  
#54-180-030

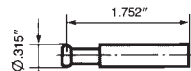
▲ Standard Intermediate Connector.  
(Used with Standard Arm).  
#54-180-055



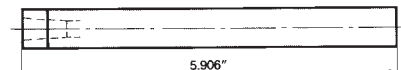
▲ .157" Diameter  
Ball Probe.  
#54-180-157



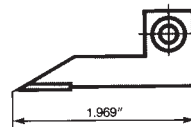
▲ Bi-directional Probe.  
#54-180-040



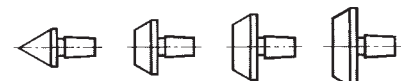
▲ Disc shape Probe.  
#54-180-315



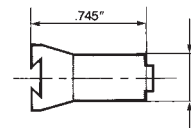
▲ Centering Cone Holder.  
#54-180-035



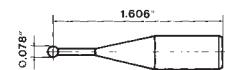
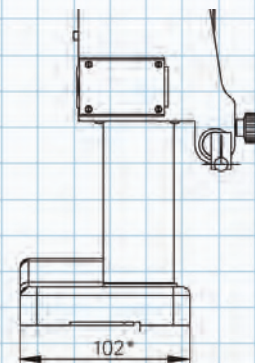
▲ Scriber attachment.  
#54-180-025



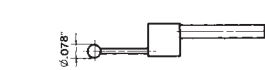
▲ Centering Cones.  
Available individually or in sets.



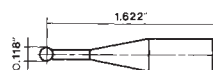
▲ Dovetail Clamp  
for Indicators.  
#52-565-093



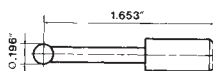
▲ .078" Dia. Ball  
Probe #54-180-152.



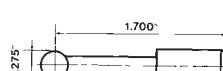
▲ .078" Dia. contact point for Bi-  
directional Probe #54-180-042.



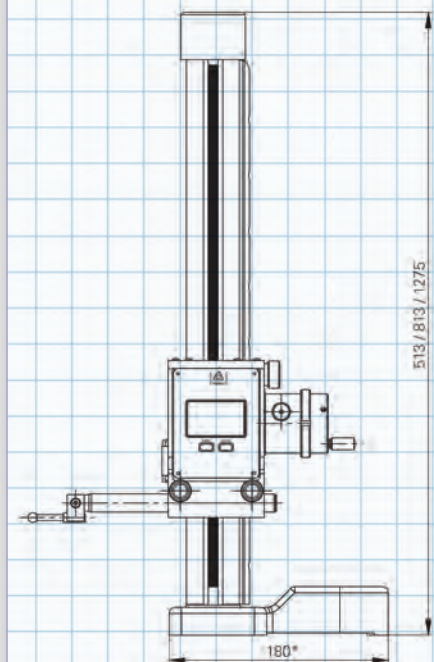
▲ .118" Dia. Ball  
Probe #54-180-153.



▲ .196" Dia. Ball Probe #54-180-155.



▲ .275" Dia. Ball Probe #54-180-156.





Smooth, quick  
lock-release carriage  
movement



## Hi\_Gage One Electronic Height Gage

Fowler-Sylvac's new Hi\_Gage One Electronic Height Gage features a proven electronic scale that is not affected by oil, dust, chips or shock.

- Scale not affected by oil, dust, chips, magnetism, shock, etc.
- Direct RS-232 output
- The Sylvac measuring system is exceptionally fast (60" per second traverse) and is the most reliable and maintenance free system ever created for measurement.
- Customizable with free software
- True inch/metric conversion
- Accuracy: .002"/50µm
- Resolution: .0005"/.01mm
- Repeatability: .0004"/10µm
- Base Size: 5.6" wide X 6.8" length
- 8mm probe shank
- Probe size memory and directional sensing allow diameter and slot width measurement.



Exceptionally fast (60" per second traverse)!



### Part Number

54-212-016-1

54-212-024-1

Accessories

54-212-001-0

54-100-350-0

### Range/Description

0—16"/400mm Hi\_Gage One

0—24"/600mm Hi\_Gage One

Indicator post attachment

CR2032 Battery





## Digital Ultra-Height Gages

Fowler's "Ultra-Height" has evolved to bring you the finest digital height gage of its kind in the industry.

### Design Features:

- Resolution: .0005" (.01mm).
- Lock screw: for scribing, transferring, etc.
- Microfine adjustment screw. Lock screw locks unit before using fine adjustment screw.
- Sturdy single column beam: hardened, ground and stress relieved. Sealed-in Sylvac electronic scale is unbreakable and not affected by oil, dust, chips, magnetism, shock, etc.
- Robust base is fully hardened, ground and microlapped to ensure accuracy. Stress-relieved base. The base/scriber design allows direct zero reading from the base over the full range. Base size: length 6", width 3-1/2", height 2-1/2".
- Carbide-tipped scriber

### Electronic Specifications:

- Completely re-engineered measuring sensor, a marked improvement of the already proven Sylvac capacitive measuring system.
- Incremental floating zero. Deviations are read out directly with no math.
- Direct inch/metric conversion
- 2 presetable references
- Increased measuring, tracking speed of approximately 60"/second.
- Zero button may be reconfigured as a hold button. If tool is used for SPC, it'll automatically be configured as a data output switch.
- Large, high contrast LCD display indicates in/mm, hold, and zero functions.
- Hold feature freezes display for later viewing. Ideal for hard to reach places.
- Low drain, high efficiency lithium wafer battery 4500 hrs. of continuous on time.
- Direct RS-232C output.
- Direct connection to any PC computer or printer without an interface.



Part No.	Description	Overall Accuracy	Overall Height	Weight
54-105-012-0	0-12"/0-305mm	±.0015"/±.035mm	18-3/4"/475mm	8 lbs/3.6 kgs
54-105-024-0	0-24"/0-600mm	±.002"/±.05mm	30"/750mm	11.5 lbs/5.2 kgs
54-105-040-0	0-40"/0-1000mm	±.003"/±.07mm	46"/1170mm	47.5 lbs/21.6 kgs

### Accessories:

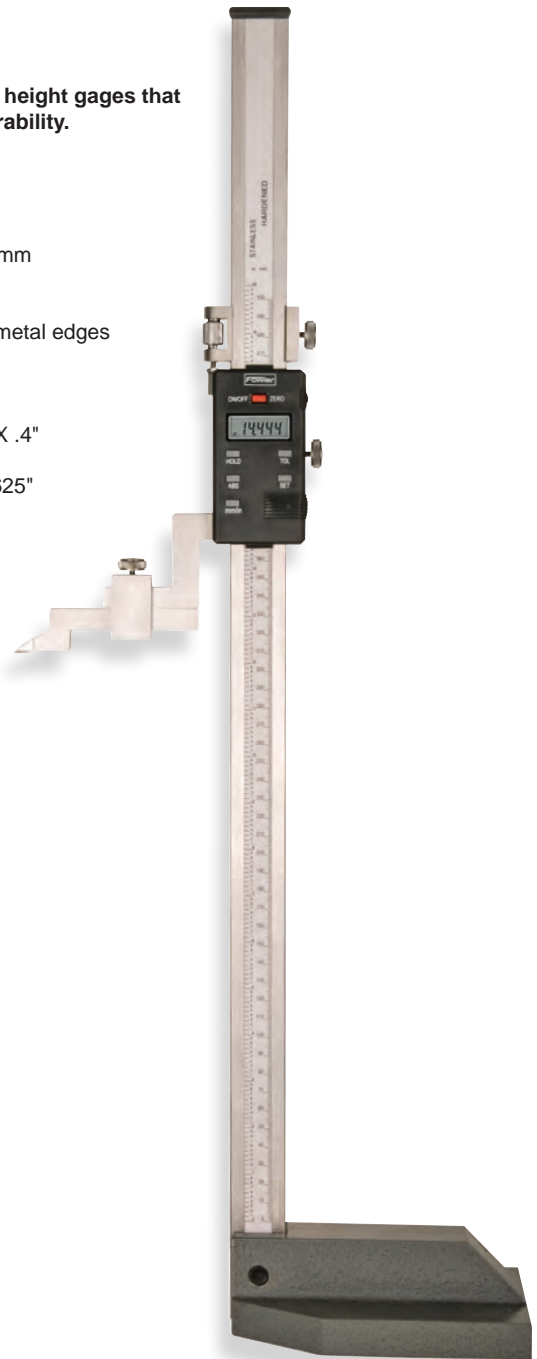
- 54-115-525-0 Opto USB Cable
- 54-115-333-0 Opto Serial Cable
- 54-100-350-0 Replacement battery (one required).
- 52-565-005-0 Indicator holding bar with dovetail clamp.
- 52-177-024-0 Replacement case for No. 54-105-024.



## Electronic Height Gage

No. 54-106-020 & 040 are economical height gages that offer high quality, accuracy and durability.

- Large base for easy movement
- True inch/metric conversion
- Range: 0—20"/500mm or 0-40"/1000mm
- Resolution: .0005"/.01mm
- Repeatability: .0005"/.01mm ( $\pm 2s$ )
- Deluxe wooden case with reinforced metal edges
- Large easy to read LCD
- Non-glare chrome reading surface
- Overall height of 54-106-020: 28"
- Beam thickness of 54-106-020: 1.25 X .4"
- Overall height of 54-106-040: 50"
- Beam thickness of 54-106-040: 2 X .625"
- Presetable display



▲ No. 54-106-020

Part Number	Range	Accuracy
54-106-020-0	0—20"/500mm	$\pm .0025$
54-106-040-0	0—40"/1000mm	$\pm .0035$
54-902-110-0	Battery E-357	



## Z-HEIGHT Electronic Height Gage

- Direct Inch/Metric Conversion
- Accuracy:
  - 0-12" model:  $\pm 0.002"/.05\text{mm}$
  - 0-18" model:  $\pm .003"/.07\text{mm}$
  - 0-24" model:  $\pm .003"/.07\text{mm}$
- Resolution .0005" (.01mm)
- Large, high contrast LCD display
- Hold feature
- ABS/INC Measurement
- Floating zero
- Positive lock
- Carbide scribe



Part Number	Range	Accuracy
54-175-012-0	0-12"/0-300mm	$\pm 0.002"/.05\text{mm}$
54-175-018-0	0-18"/0-450mm	$\pm 0.003"/.07\text{mm}$
54-175-024-0	0-24"/0-600mm	$\pm 0.003"/.07\text{mm}$
54-100-350-0	Replacement Battery	



## Z-HEIGHT -Jr. 6" Electronic Height Gage

- Direct Inch/Metric Conversion
- Range: 6"/150mm
- Accuracy: .001"
- Resolution .0005" (.01mm)
- Large, high contrast LCD display
- Hold feature
- ABS/INC Measurement
- Floating zero
- Positive lock
- Carbide scribe



Part Number	Range	Accuracy
54-175-006-0	0-6"/0-150mm	0.001"
54-100-350-0	Replacement Battery	



## TWIN Z-HEIGHT

### Twin Beam Electronic Height Gage

- Large LCD display
- Direct inch/metric conversion.
- Resolution: .001"/.01mm
- Hold function
- ABS/INC function allows measurements of the true size or comparison measurements of parts to master.
- Dual chrome plated beams.
- Carbide tipped scribe.
- Base is hardened, ground & lapped for maximum flatness.
- Patented measuring system.
- Includes indicator holding bar.
- Includes molded case.



Part Number	Range	Accuracy
54-174-212-1	12"/300mm	.002"
54-174-224-1	24"/600mm	.003"

### Twin Beam Dial Height Gage

- Separate digit counters register both upward & downward travel.
- Zero setting can be obtained throughout the gage's range.
- Coarse readings in .100" graduations: fine readings taken on indicator are .001"
- Dual chrome plated beams.
- Carbide-tipped scribe.
- Base is hardened, ground & lapped for maximum flatness.



Part Number	Range	Accuracy
52-174-212-0	12"	±0.0015"
52-174-224-0	24"	±0.002"





## Dial Height Gage

Fowler's Dial Height Gage features a large easy-to-read "one-rev" dial and a fine-adjust for precise control. It is an excellent choice when a high quality, economical height gage is needed.

### Special Features:

- Stainless steel construction with satin chrome finish.
- Indicator holder included.
- Easy-to-read large 1 rev. dial.
- Graduations: 0.001"
- Carbide-tipped scribe
- Ergonomically shaped base for ease of handling.
- Fine-adjust for precise control.

Part Number	Range
52-170-012-0	0—12"



## Vernier Height Gage

First choice for an all-around Height Gage design, this series offers every feature to help make your work very fast, easy and extremely accurate.

### Features:

- The adjustable main scale has a full 3/4" adjustment range. You can quickly "reset" zero or any reference figure at any point for easy reading without special calculations.
- Swing-away magnifier plus extra long vernier scales with wide separations in inch and metric for exact and precise reading.
- Ultra-smooth fine adjustment mechanism.
- Carbide tipped scribe is offset for direct reading over the full range of travel.
- Satin-chrome finish on all scales and plates for glare free reading. Raised lands on main scale surfaces prevent friction wear.
- Beam & slide of hardened stainless steel. Base and measuring surfaces all hardened tool steel, carefully ground and microlapped.
- Price includes height gage, carbide tipped scribe, and magnifier

Part Number	Capacity	Graduations	Accuracy
	Inch/Metric	Inch/Metric	
52-174-012-0	12"/300mm	.001"/.02mm	0.003"
52-174-024-0	24"/600mm	.001"/.02mm	0.004"
52-174-040-0	40"/1000mm	.001"/.02mm	0.004"
52-174-250-0	Holding bar for test indicators .350" x .350" (includes clamp)		



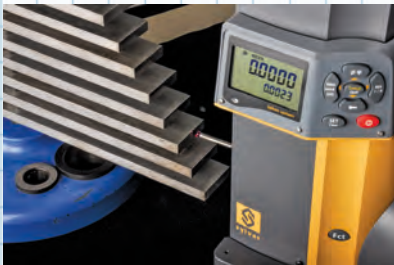
Adjustable main scale control.

▲ Vernier Height Gage No. 52-174-012.



## Hi\_Cal XZ

*Specialty gage that  
checks both heights  
and diameters.  
  
Eliminates swing gages.*



The Hi\_Cal XZ is a highly accurate 2-axis electronic height gage that was developed by Fowler and Sylvac for aircraft engine manufacturers. The Hi\_Cal XZ eliminates the need for multiple diameter gages at multiple depths.

- Innovative method to measure your large ID and OD
- Gage point measurement on angled surfaces.
- Z range 300mm/12", 150mm/6"
- X range 80mm/3"
- Portable

***For more information on the Hi\_Cal XZ  
Contact the Fowler Technical Department.***

Part Number	Description
54-930-000-0	Hi_Cal XZ





## 4mm Height Gage Probes

Description	Part No.	Description	Part No.
Ruby ball probe Ø 3mm	54-930-211	Swiveling tungsten carbide ball probe (M134)	54-930-212
Ruby ball probe Ø 2mm	54-199-509	Extension 124mm M2.5	54-199-505
Tungsten carbide ball probe Ø 1mm	54-199-512	Extension 80mm M2.5	54-199-506
Knife-edged measuring probe TC Ø 3mm	54-199-510	Probe holder and ruby ball probe Ø3mm, M2.5	54-199-501
Cylindrical measuring probe TC Ø3mm	54-199-511	Disk shaped anvils Ø7.7mm and Ø11.5mm, M2.5	54-199-502
Probe holder 90° M2.5	54-199-507	Ball point Ø 2mm/M2.5	54-618-540
Probe holder 90° Ø 4mm	54-199-508	Corner insert 1mm/M2.5	54-199-503
Knife-edge insert	54-190-043	Full accessories set in wooden box. Content: 54-199-509, 54-199-512, 54-199-510, 54-199-511, 54-199-507, 54-199-508, 54-199-502, 54-199-506, 54-618-540, 54-199-501	54-930-215
Pin shaped insert	54-190-046	Basic accessories set in wooden box. Content: 54-199-509, 54-199-512, 54-199-510, 54-199-511	54-930-217
Ball insert	54-190-044	External contact (foot-pedal) for Hi-Cal and V-Series	54-618-165
Disc shaped insert	54-190-047		
Hi-Cal Setting gage	54-930-202		
Charging set 120V US for Hi-Cal and V-Series	54-199-018		

## 8mm Height Gage Probes

**Fowler**

Insert holder (metrique) M2.5 L=95 mm

Insert holder (inch) 4-48 L=95 mm

54-194-930, 54-194-931



Insert holder (metrique) M2.5 L=300 mm

Insert holder (inch) 4-48 L=300 mm

54-194-607, 54-194-608



Holder with reduction 8 mm/4 mm

For use with Sylvac Probes 54-194-934



Swivel holder  
Ø 8 mm, Ø 4 mm

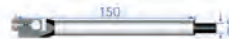
54-194-935



Swivel holder

Ø 8 mm, Ø 4 mm L=150 mm

54-194-936



Swivel holder

Ø 8 mm, Ø 4 mm L=300 mm

54-194-610



Insert holder 90° Ø 4 mm L=65 mm

54-194-938



Insert holder 90° Ø 8 mm L=85 mm

54-194-939



Insert holder 90° Ø 4 mm L=150 mm

54-194-940



Insert holder 90° Ø 8 mm L=150 mm

54-194-917



Insert holder 90° Ø 4 mm L=300 mm

54-194-941



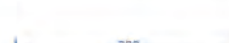
Measuring insert holder Ø 2 mm

54-194-942



Measuring insert holder Ø 2 mm

54-194-943



Measuring insert holder for Mestra/Vectra  
M2.5 male, M1.6 f, M1.4 f

54-194-948

Measuring insert holder for Mestra/Vectra  
4-48 male, M1.6 f, M1.4 f

54-194-949



Electronic probe

run 12 mm, accuracy ± 1 µm

54-194-605



Setting gauge 25 mm

for Mestra/Vectra and V Series

54-199-580-1



Ball probe tungsten carbide Ø 1mm

54-194-905



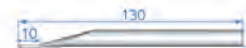
Ball probe tungsten carbide Ø 2mm

54-194-906



Ball probe tungsten carbide Ø 2mm

54-194-907



Ball probe ruby Ø 2mm

54-194-908



Ball probe tungsten carbide Ø 4mm

54-194-909



Ball probe tungsten carbide Ø 4mm

54-194-910



Ball probe ruby Ø 4mm

54-194-911



Probe with pin tungsten carbide Ø 1.5mm

54-194-912



Measuring insert with parallel faces

54-194-913



Barrel-shaped  
insert for M3-M16

54-194-914



Barrel-shaped  
insert for M6-M48

54-194-915



Barrel-shaped  
insert for M12-M150

54-194-916



### Other Height Gage Accessories (not shown)

54-199-000

Printer including: Printer & AC adaptor (without cable & bracket)

54-199-005

Complete Printer kit (Includes printer, AC adaptor, cable and bracket)

54-199-004

Printer bracket with mounting hardware

54-199-002

RS232 printer cable

54-618-166

RS232 PC cable

54-199-010

Thermal printer paper (5 rolls)

54-199-018

110V AC adaptor for V Series

54-199-580

V-Series setting gage

54-199-560

Wooden accessory support block