



Moore & Wright Vernier Height Gauge 190 Series

Features

- Zero reference point can be adjusted for calibration
- Hardened stainless steel beam
- Measuring faces are micro-lapped for high accuracy
- Chrome plated scale
- Heavy duty base for increased stability
- Carbide tipped scriber
- Fine adjustment
- Magnifier glass for easy reading of vernier scale



VERNIER HEIGHT GAUGE 190 SERIES

Code No	Range (mm)	Resolution (mm)	Size of Base
MW190-30	0-300	0.02	125 x 85mm
MW190-50	0-500	0.02	170 x 110mm
MW190-60	0-600	0.02	180 x 120mm
MW190-75	0-1000	0.02	250 x 150mm

Digital Mini Height Gauge 192 Series

Features

- Large LCD display
- Solid aluminium alloy base with magnets
- Hardened stainless steel beam
- Measuring range: 0-6" / 0-150mm
- Reading: inch/metric/fractional
- IP54 water, dust and oil resistant
- ABS, HOLD and power saving functions



DIGITAL MINI HEIGHT GAUGE 192 SERIES

Code No	Range (mm)	Range (inch)	Accuracy (mm)	Accuracy (inch)
MW192-20D	0-150	0-6	0.04	0.0015

Moore & Wright Digital Height Gauge 190 Series

Features

- Easy to read LCD display
- 'Soft keys' for maximum operating comfort
- Ground micro-lapped measuring surfaces
- Functions: mm/inch conversion, on/off, zero-setting, max, min, hold, battery low indication
- Fine adjustment for high precision measurement



DIGITAL HEIGHT GAUGE 190-DBL SERIES

Code No	Range (mm)	Range (inch)	Resolution (mm)	Resolution (inch)	Size of Base
MW190-30DBL	0-300	0-12	0.01	0.0005	125 x 85mm
MW190-60DBL	0-600	0-24	0.01	0.0005	150 x 120mm

Digital Height Gauge 191 Series

Features

- Heavy duty beam
- Handwheel for ease of use
- ABS/INC measurement
- Large LCD display
- Inch/mm conversion
- Positive lock carbide scriber
- Supplied in moulded case



DIGITAL HEIGHT GAUGE 191 SERIES

Code No	Range (mm)	Range (inch)	Resolution (mm)	Resolution (inch)	Accuracy (mm)	Accuracy (inch)
MW191-30DAB	0-300	0-12	0.01	0.0005	+/-0.04	+/-0.0015
MW191-60DAB	0-600	0-24	0.01	0.0005	+/-0.05	+/-0.002



Sylvac Hi_Gage ONE Height Gauge

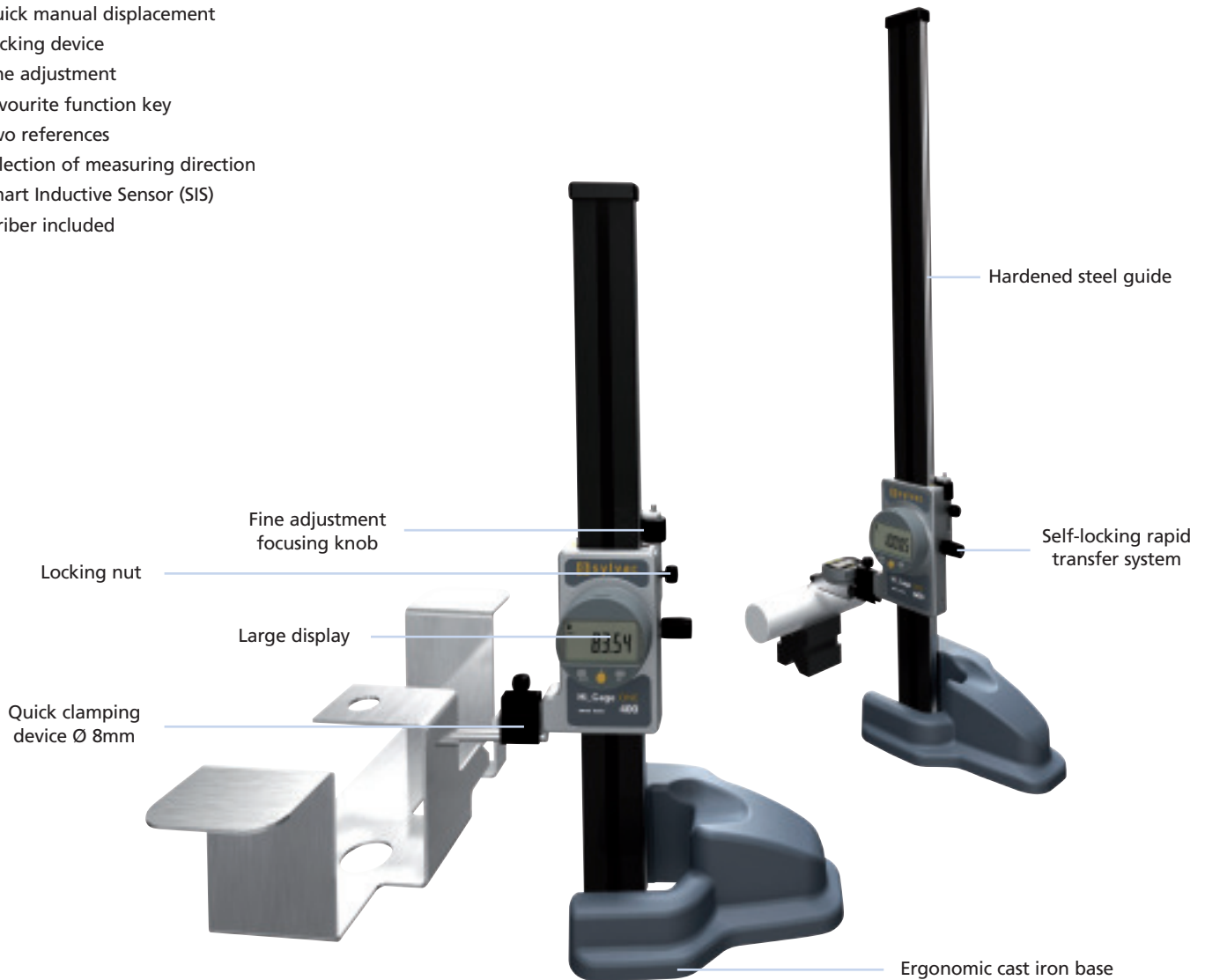
Available in 400mm and 600mm capacities, the robust new Sylvac Hi_Gage ONE Height Gauge is water and coolant resistant and designed to provide high levels of accuracy and repeatability throughout extended shop floor use.



Swiss Precision

Features

- Robust conception
- Quick manual displacement
- Locking device
- Fine adjustment
- Favourite function key
- Two references
- Selection of measuring direction
- Smart Inductive Sensor (SIS)
- Scriber included



SYLVAC HI_GAGE ONE HEIGHT GAUGE

Code No	Range (mm)	Resolution (mm)	Maximum Error (µm)	Repeatability (µm)
30-840-0400	400	0.01	40	10
30-840-0600	600	0.01	50	10

Code No	Description
30-840-9001	Ball Probe Ø 8mm
30-840-9002	Replacement scriber
30-905-2247	Lever indicator dovetail holder

Trimos Mini-Vertical Height Gauge

The Trimos Mini-Vertical Height Gauge is perfect for height measurements and scribing work and suitable for all kinds of workshop conditions. Its unique, compact design offers mobility and extreme stability. Because of its advanced measuring system, the self-contained working time of the Mini-Vertical is one year; therefore it can be used for multiple applications on the shop-floor.



Features

- Robust and compact construction
- Perfect for use on the shop-floor
- Constant measuring pressure
- Accurate and reliable measurements
- User friendly
- Opto-RS232 data output
- 3V Lithium battery CR2032
- Large range of accessories
- Two models available: cast iron base or granite base



TRIMOS MINI-VERTICAL

Code No	Description	Range (mm)	Range (inch)	Accuracy (mm)	Resolution (mm)	Resolution (inch)	Repeatability (mm)
20-23CI	300mm, Cast iron base	320	12	0.02	0.01 / 0.001	0.0005 / 0.00005	0.005
20-23GR	300mm, Granite base	320	12	0.02	0.01 / 0.001	0.0005 / 0.00005	0.005
20-2310CI	600mm, Cast iron base	620	24	0.03	0.01 / 0.001	0.0005 / 0.00005	0.005
20-2310GR	600mm, Granite base	620	24	0.03	0.01 / 0.001	0.0005 / 0.00005	0.005



Sylvac Hi_Cal Digital Motorised Height Gauge

The Sylvac Hi_Cal Digital Motorised Height Gauge is the latest, high specification electronic height gauge available from Bowers. With further improved accuracy, the Hi-Cal is perfect for a variety of measuring tasks including step heights, internal/external diameters and centre-line distances.

The height gauge benefits from Sylvac's patented inductive measuring electronics and the latest motorised probing system, to give excellent repeatability and ease of use.



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see p249 for wireless options



Features

- Available in two models: 150mm and 300mm
- Motorised carriage with 2 progressive speed ranges
- Light and compact with a small footprint
- Simultaneous display of diameter and centerline
- Measures internal and external diameter, centerline, height, thickness and depth
- Extremely low measuring force
- USB data output or RS232
- Supplied with setting master



SYLVAC HI_CAL DIGITAL MOTORISED HEIGHT GAUGE

Code No	Range (mm)	Range (inch)	Application Range (mm)	Application Range (inch)	Accuracy (mm)	Repeatability (µm)	Resolution (mm)
30-830-0150	150	6	0-155	6	2.5 + L / 175	2	0.01 / 0.001
30-830-0300	300	12	0-320	12	2.5 + L / 175	2	0.01 / 0.001

Code No	Description
30-930-2150	Full accessories set in wooden box - 13 probes and holders
30-930-2151	Basic accessories set in wooden box - 4 probes and holders

Trimos V Series Digital Height Gauge

Perfect for use in the workshop environment, the easy-to-operate Trimos V Series Height Gauge offers accuracy and repeatability alongside quick performance.



Features

- Extremely easy to operate
- Autonomous use with rechargeable battery pack
- Clear definition of all measuring functions
- Extremely large display of values
- Acceptance of a measured value by acoustic signal
- Direct RS232C data output (bi-directional)
- Supplied with setting master (20-3415)

Display/Software Features

The clearly defined functions of the display unit allow quick performance of all required height measurements.

- Surface and centreline distance measurements
- Zero setting of the display or preset value setting
- Data transfer (RS 232)
- Selection of measuring unit mm or inch
- Selector key to obtain a min/max/delta value
- Measuring using two references
- Adjustment of the acoustic signal
- Max. manual carriage displacement speed 1500mm/s



TRIMOS V SERIES SPECIFICATION

Code No	20-VL300	20-VL600
Range (mm)	300mm	600mm
Range (inch)	12"	24"
Application Range (mm)	535mm	835mm
Application Range (inch)	21"	32"
Maximum Error (µm)	8µm	10µm
Repeatability (µm)	2 (Ø4)µm	2 (Ø4)µm
Frontal Squareness Deviation (µm)	10µm	15µm
Resolution (mm)	0.01 / 0.001mm	0.01 / 0.001mm
Resolution (inch)	0.0005 / 0.00005"	0.0005 / 0.00005"
Force	1N	1N
Operational Time	100h	100h
Operating Temperature	+10 - +40°C	+10 - +40°C
Temperature Range	-10 - +40°C	-10 - +40°C
Power	Incorporated rechargeable battery pack	Incorporated rechargeable battery pack
Weight	10kg	12kg



Trimos V+ Series Digital Height Gauge

Ideally suited to shop-floor situations where accuracy, repeatability, ease of use and ruggedness are required. This battery operated, motorised gauge boasts a multitude of useful, easy to access features, whilst its built in air cushion enables great ease of movement and speed of operation.



Swiss Precision



see p249 for wireless options



Features

- Measures heights, depths, thickness, gaps
- Measures internal and external diameters
- Min / Max / Delta feature
- Measures centreline distances of bores, shafts and surface to centreline
- Storage of probe constant
- Unique touch sensitive probe
- Direct RS232 output
- Portable lightweight construction
- Adjustable measuring pressure
- Metric / Inch conversion
- Built in air cushion activation (600 & 1000mm versions)
- Supplied with setting master



20-3415 Setting Master



TRIMOS V+ SERIES SPECIFICATION

Code No	20-34300	20-34601	20-341001
Range (mm)	300mm	600mm	1000mm
Range (inch)	12"	23.6"	48.6"
Application Range (mm)	535mm	835mm	1235mm
Application Range (inch)	21"	32.8"	48.6"
Resolution (mm)	0.01 / 0.001mm	0.01 / 0.001mm	0.01 / 0.001mm
Resolution (inch)	0.0005 / 0.00005"	0.0005 / 0.00005"	0.0005 / 0.00005"
Maximum Error (µm)	2.5+L / 300µm	2.5+L / 300µm	2.5+L / 300µm
Repeatability (mm)	0.002mm	0.002mm	0.002mm
Repeatability (inch)	0.0001"	0.0001"	0.0001"
Speeder	3m / sec	3m / sec	3m / sec
Force	0.7-1.6N	0.7-1.6N	0.7-1.6N
Operational Time	100 hours	100 hours/30hours (air)	100 hours/30hours (air)
Power	Incorporated rechargeable battery pack	Incorporated rechargeable battery pack	Incorporated rechargeable battery pack
Weight	10kg	12kg	16kg
Note	-	With base air pump	With base air pump

Trimos Vectra Touch

The exceedingly robust construction, class leading ergonomic design and use of Trimos registered Embedded Technology gives the revolutionary new Vectra extremely impressive accuracy and repeatability figures. This easy to use Height Gauge boasts many advanced features.



Features

- On-board temperature compensation as standard
- (Optional) temperature compensation with external gauge
- (Optional) wireless data transfer via bluetooth
- USB data transfer
- Graphical display of reversal point
- Colour touch screen
- Programming of measuring sequences (motorised)
- XY coordinate measuring system
- A built-in RS232 output enables the simple transmission of measured data to printers, computers, SPC devices etc.
- Simplified memory sequence programs including tolerance limits input
- Statistical analysis of measurements and protocol
- Ambient temperature display can also be added to reports
- Robust Trimos carriage system not compromised
- The operating handle has been designed for optimum operator comfort, and includes programmable function keys
- The "Trimos Measurement Control" enables a smooth probe setting on surfaces and diameters, and guarantees a constant measuring force
- Semi-automatic motorised movement (motorised model only)
- Motorised version available on request
- Supplied with setting master

Accessories Set

Please request Trimos catalogue for complete range of accessories.



TRIMOS VECTRA

Code No	Description
20-4012	300mm / 12" Vectra Electronic Height Gauge manual
20-4014	600mm / 24" Vectra Electronic Height Gauge manual
20-4016	1000mm / 40" Vectra Electronic Height Gauge manual
20-4018	1500mm / 59" Vectra Electronic Height Gauge manual
20-4020	2000mm / 78" Vectra Electronic Height Gauge manual
20-4030	Macro Accessories (see p126)
20-4032	Micro Accessories (see p126)
20-4035	Squareness Probe with holder
20-4070	USB Memory Stick

Motorised versions available

TECHNICAL SPECIFICATION

	20-4012	20-4014	20-4016	20-4018	20-4020
Measuring range (mm) (in)	305 (12)	610 (24)	1016 (40)	1524 (60)	2034 (80)
With second probe holder (mm) (in)	567 (22)	872 (34)	1278 (50)	1786 (70)	2296 (90)
Max. permissible errors (µm)	2+L(mm)/400	2+L(mm)/400	2+L(mm)/400	2.5+L(mm)/300	2.5+L(mm)/300
Repeatability (2s) (µm)	1(Ø2)	1(Ø2)	1(Ø2)	1(Ø2)	1(Ø2)
Resolutions (mm) (in)	0.01/0.001/0.0001 (.001/.0001/.00001)				
Manual carriage displacement speed mm / s	1000	1000	1000	1000	1000
Motorised carriage displacement speed mm / s	150	150	150	150	150
Measuring force (adjustable) N	0.5 - 1.8	0.5 - 1.8	0.5 - 1.8	0.5 - 1.8	0.5 - 1.8
Frontal squareness deviation (µm)	4	6	10	15	25
Autonomy h	>8	>8	>8	>8	>8
Data output	2 x RS232 C and 2 x USB (A and B)				
Operational temperature °C	+10 - +40°C	+10 - +40°C	+10 - +40°C	+10 - +40°C	+10 - +40°C
Temperature of storage °C	-10 - +40°C	-10 - +40°C	-10 - +40°C	-10 - +40°C	-10 - +40°C
Weight (kg)	22	25	29	39	44



Trimos Mestra Touch Height Gauge

Supreme levels of accuracy are available from the innovative new Trimos Mestra Height Gauges due to their unique motorised probing system, extremely high contact stability and the use of Trimos registered embedded technology. The standard range of easy to use gauges boast an unparalleled list of useful functions, with even more advanced features available on the revolutionary 'Mestra Touch' versions.



Features

- On-board temperature compensation as standard
- (Optional) temperature compensation with external gauge
- (Optional) wireless data transfer via bluetooth
- USB data transfer
- Graphical display of reversal point
- Simplified memory sequence programs including tolerance limits input
- Statistical analysis of measurements and protocol
- Ambient temperature display can also be added to reports
- Robust Trimos carriage system not compromised
- The operating handle has been designed for optimum operator comfort, and includes programmable function keys
- The "Trimos Measurement Control" enables a smooth probe setting on surfaces and diameters, and guarantees a constant measuring force
- Semi-automatic motorised movement (motorised model only)
- Motorised version available on request
- Supplied with setting master
- Extreme accuracy level

Accessories Set

Please request Trimos catalogue for complete range of accessories.



TRIMOS MESTRA TOUCH

Code No	Description
20-4006	300mm / 12" Mestra Touch Electronic Height Gauge manual
20-4008	600mm / 24" Mestra Touch Electronic Height Gauge manual
20-4010	1000mm / 40" Mestra Touch Electronic Height Gauge manual
20-4030	Macro Accessories (see p126)
20-4032	Micro Accessories (see p126)
20-4035	Squareness Probe with holder
20-4070	USB Memory Stick

Motorised versions available.

TECHNICAL SPECIFICATION

	20-4006	20-4008	20-4010
Measuring range (mm) (in)	305 (12)	610 (24)	1016 (40)
With second probe holder (mm) (in)	567 (22)	872 (34)	1278 (50)
Max. permissible errors (µm)	1.2+L(mm)/1000	1.2+L(mm)/1000	1.2+L(mm)/1000
Repeatability (2s) (µm)	0.5(Ø1)	0.5(Ø1)	0.5(Ø1)
Resolutions (mm) (in)	0.01/0.001/0.0001/(.001.0001/0.00001)		
Manual carriage displacement speed mm/s	1000	1000	1000
Motorised carriage displacement speed mm/s	150	150	150
Measuring force (adjustable) N	0.5 - 1.8	0.5 - 1.8	0.5 - 1.8
Frontal squareness deviation (µm)	4	6	10
Autonomy h	>8	>8	>8
Data output	2 x RS232 C and 2 x USB (A and B)		
Operational temperature °C	+10 - +40°C	+10 - +40°C	+10 - +40°C
Temperature of storage °C	-10 - +40°C	-10 - +40°C	-10 - +40°C
Weight (kg)	22	25	29

Trimos Mestra Accessories

MICRO

Complete set includes:

- 1 case
- 1 hemispheric insert
- 1 probe with pin, 4 pins-shaped
- 1 disc shaped insert \varnothing 7.7mm
- 1 disc shaped insert \varnothing 11.5mm
- 1 corner insert 1mm
- 1 measuring insert of test indicator \varnothing 1mm
- 1 measuring insert of test indicator \varnothing 2mm
- 1 measuring insert of test indicator \varnothing 3mm
- 1 measuring insert holder for M2.5, M1.6, M1.4
- 1 insert holder L=80mm M2.5
- 1 insert holder 90° L=80mm \varnothing 4mm
- 1 measuring insert holder \varnothing 1mm
- 1 ball probe ruby \varnothing 2mm
- 1 ball probe \varnothing 1mm
- 1 knife-edged measuring probe L=88mm
- 1 holder with reduction 8mm/4mm
- 1 swivel holder \varnothing 4/ \varnothing 8mm
- 1 key for ball-insert
- 1 hex screw wrench 1.5mm
- 1 hex screw wrench 2.5mm



20-4032



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Trimos Vectra Accessories

MACRO

Complete set includes:

- 1 case
- 1 ball probe tungsten carbide \varnothing 4mm
- 1 ball probe tungsten carbide \varnothing 2mm
- 1 probe with pin tungsten carbide \varnothing 1.5mm
- 1 swivel holder \varnothing 4/8mm
- 1 insert holder 90° \varnothing 4mm
- 1 measuring insert holder \varnothing 2mm
- 1 insert holder (metrique) M2.5
- 1 insert holder L-124mm M2.5
- 1 insert holder L-200mm M2.5
- 1 hemispheric insert
- 1 disc-shaped insert \varnothing 18mm
- 1 measuring insert of test indicator \varnothing 1mm
- 1 measuring insert of test indicator \varnothing 2mm
- 1 measuring insert of test indicator \varnothing 3mm
- 1 key for ball insert
- 1 hex screw wrench 2.5mm



20-4030