

# HEIDENHAIN-METRO Length Gauges

Accuracy  $\pm 0.5 \mu\text{m}$



G. E. Van Wert Co Inc,  
461 Boston St.,  
Topsfield, Ma 01921  
(978) 887-3389 [gevanwert.com](http://gevanwert.com)

Large measuring ranges together with their high accuracy make the MT 60 and MT 101 HEIDENHAIN-METRO length gauges attractive for incoming inspection, production monitoring, quality control, or anywhere parts with very different dimensions are measured. But they are also easy to mount as highly accurate position encoders, for example on sliding devices or X-Y tables.

## Plunger actuation

**M version** length gauges feature an integral motor that retracts and extends the plunger. While the MT 101 M operates at a constant gauging force, the MT 60 M allows you to select from three gauging force levels.

**K version** gauges have no integral plunger actuation. The plunger is freely movable. It can be connected to moving elements such as linear slides and X-Y table by a coupling.

## Mounting

The length gauges are mounted onto a flat surface by two screws. HEIDENHAIN offers the M versions for mounting in the accessory MS 100 and MS 200 gauge stands.



	Incremental			
	MT 60 M	MT 60 K	MT 101 M	MT 101 K
<b>Measuring standard</b>	DIADUR graduation on glass ceramic			
<b>Incremental signals</b>	$\sim 11 \mu\text{APP}$			
Signal period	10 $\mu\text{m}$			
<b>System accuracy</b>	$\pm 0.5 \mu\text{m}$		$\pm 1 \mu\text{m}$	
<b>Recommended measuring step</b>	1 $\mu\text{m}$ to 0.1 $\mu\text{m}$			
<b>Measuring range</b>	60 mm		100 mm	
<b>Plunger actuation</b>	Motor driven	Via coupling	Motor driven	Via coupling
<b>Protection</b>	IP 50			
<b>Reference mark</b>	One			



# Gage-Chek®

The Gage-Chek is a multi-axis metrology display that accepts up to eight discrete inputs. It features intuitive visual displays, helpful audio cues and user-defined formulas. It also reports dynamic Min/Max measurements, provides SPC analyses from an integrated database and includes connectivity to PCs and other peripherals.



## Specifications

LCD	5.9" Color
Resolution down to	0.000004" or 0.0001 mm
Operating temperature	0°C to 45°C
Enclosure (W x H x D)	11.5" x 7.5" x 2.75"
Base (W x H x D)	10" x 2" x 7.5"
Enclosure weight	3.5 lbs
Base weight	7 lbs
Power Voltage range	85 Vac to 264 Vac
Power frequency range	43 Hz to 63 Hz

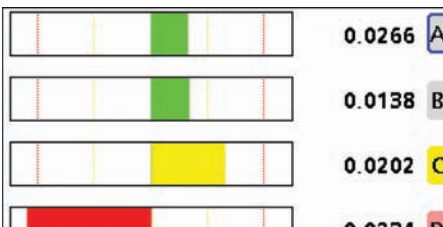
## Inputs

1, 4, 8 or 16 input measurement channels

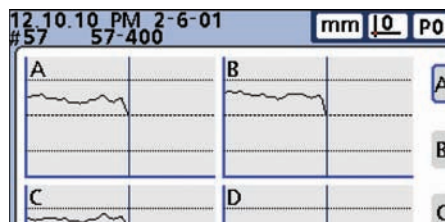
External connections:  
Footswitch  
Remote keypad  
Touch probe  
RS-232C serial port  
USB port  
Parallel data port

## Outputs

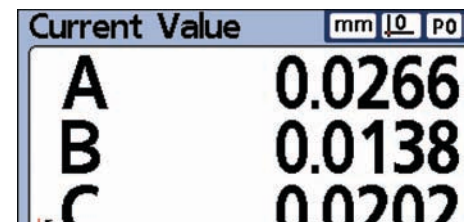
2 relay outputs  
Parallel data port  
RS-232C serial port  
USB port



**Visual feedback** A highly visible, intuitive and familiar interface with standard color cues. Instantly informs operators of pass/fail performance details for critical part dimensions.



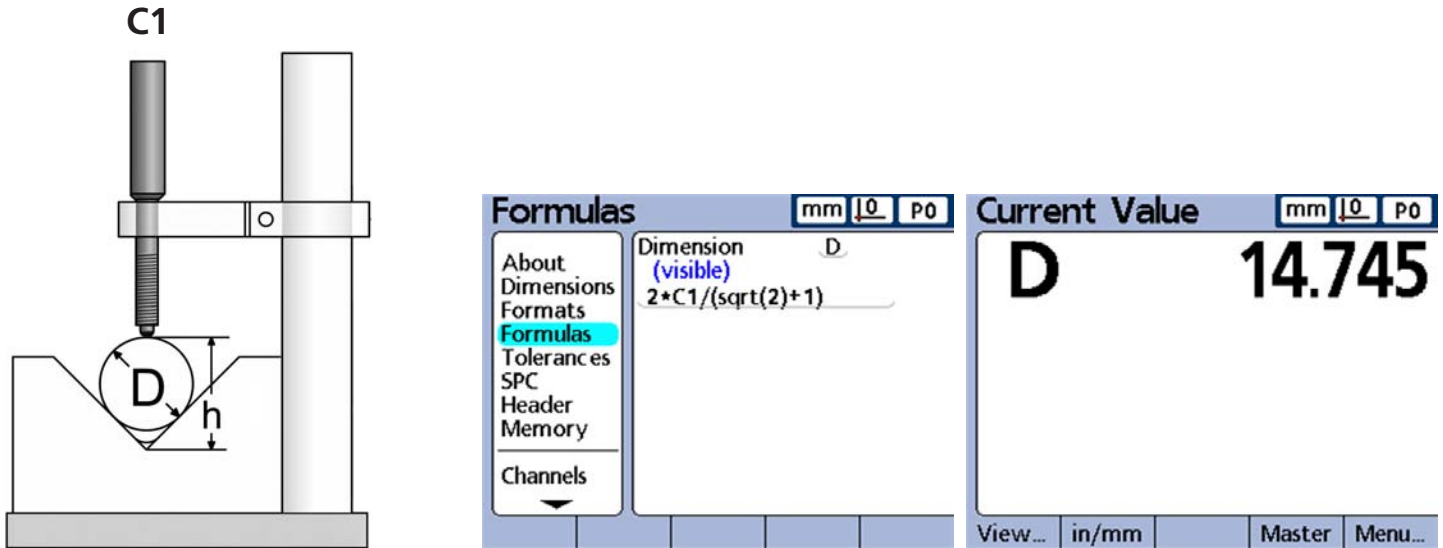
**Integrated SPC database** Store, retrieve and manage enormous amounts of measurement data on the shop floor. Check quality control of each gage. Share information locally and globally.



**Formulas** Up to 16 output channels apply mathematical formulas to measurement data for on-the-spot part analysis.

**Powerful formulas**

Create Gage-Chek formulas that transform simple measurements into the specific data you need for your unique applications; as shown in this example of a pin gage application.



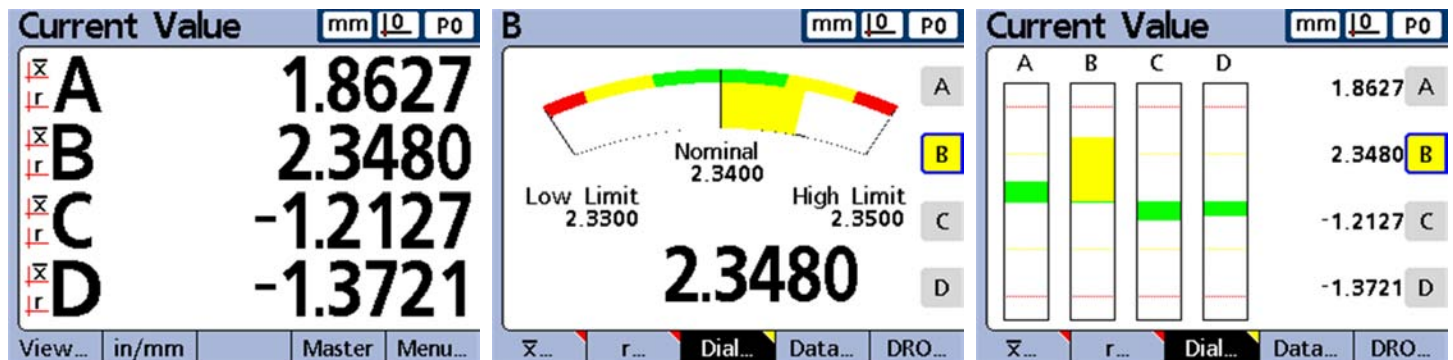
Encoder measurement (C1) → transformed by the formula → displays pin diameter (D)

$$Pin\ Diameter\ D = \frac{2(h)}{(\sqrt{2} + 1)}$$

**Flexible data views**

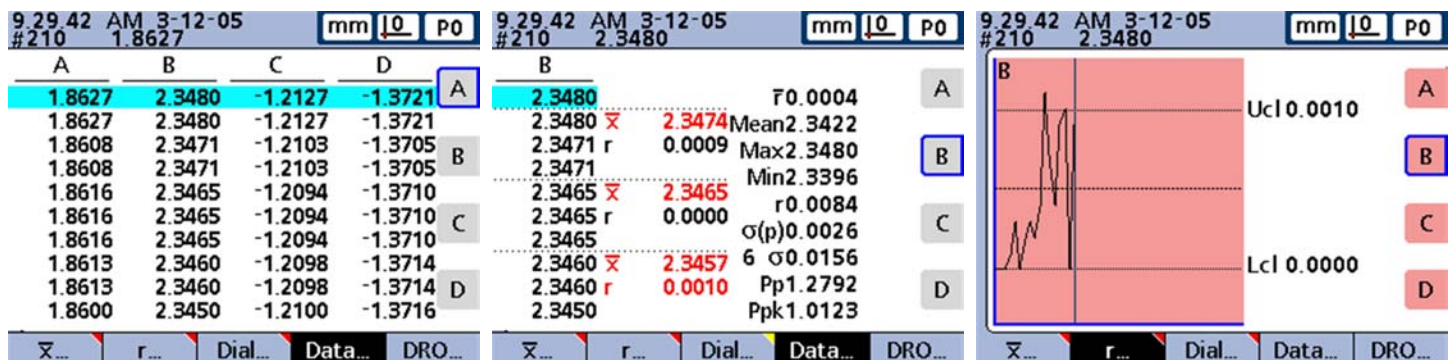
Change Gage-Chek data presentations at the touch of a button.

Display simple numeric digital readouts, dial gages, bar graphs, database tables or statistical analyses.



**Digital readouts, dials and bar graphs**

Display numeric and graphical current value, nominal, limit and warning information.



**Database tables and graphs**

Display raw measurement data, results of statistical analyses and data trends.

