



# HEIDENHAIN



Product Information

## **GAGE-CHEK 2000**

Evaluation Unit for  
Metrology Applications

# GAGE-CHEK 2000

## Evaluation unit for reliable 1-D measured-value acquisition

The GAGE-CHEK 2000 evaluation unit is particularly well suited for positioning tasks on measuring devices and positioning equipment, and for the retrofitting of measuring machines for the capture and transfer of data to a PC.

### Design

Thanks to its rugged industrial design, the GAGE-CHEK 2000 is superbly suited for applications in measuring rooms as well as in harsh production environments. Its slim aluminum housing with integrated power adapter and fanless passive cooling system is exceptionally sturdy and resilient. The unit's straightforward touchscreen, made of specially hardened glass, supports multi-touch gesture control and permits operation with gloves.

### Functions

The logical arrangement of menus and function elements provides intuitive user guidance that supports you in the use of the various functions. Along with the typical functions of an evaluation unit, such as zeroing and preset setting, the GAGE-CHEK 2000 also offers the following useful features:

- Configurability of each axis for length or angle display
- Measurement series with recording of minimum and maximum values
- Simple switching of the counting direction
- Measured-value output—either manually, continuously, or when triggered by a touch probe

You can transfer the captured measured values to a PC via the data interface.

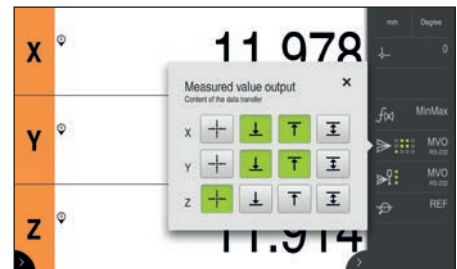


### Software options

Software options allow you to adapt the range of functions of the GAGE-CHEK 2000 to your given requirements. You can enable these software options by entering a license key. Please contact HEIDENHAIN for more information.

### Intuitive display

All of the information you need is displayed in a clean and easy-to-read layout on the unit's high-resolution, 7-inch color flat-panel screen. Only those functions that are actually available within a given context and situation are shown. The self-explanatory operating controls provide intuitive user guidance.





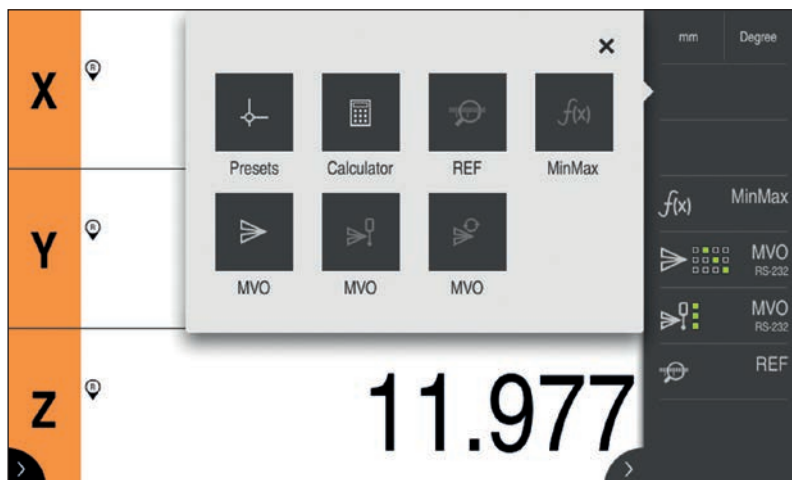
	GAGE-CHEK 2013	GAGE-CHEK 2023	GAGE-CHEK 2093
<b>Axes</b>	3 (two of which can be enabled with a software option)		
<b>Encoder interface</b>	~ 1 V <sub>PP</sub> EnDat 2.2	□ TTL	2 × ~ 1 V <sub>PP</sub> EnDat 2.2, 1 × □ TTL
Input frequency	~ 1 V <sub>PP</sub> : ≤ 400 kHz	≤ 5 MHz	~ 1 V <sub>PP</sub> : ≤ 400 kHz □ TTL: ≤ 5 MHz
Subdivision factor	4096-fold (only with 1 V <sub>PP</sub> )		
Display step	Configurable for up to eight digits; linear axes X,Y, and Z: down to 0.00001 mm; rotary axis Q: down to 0.00001° (00° 00' 00.1")		
<b>Display</b>	7-inch screen with multi-touch functionality (15:9); WVGA resolution: 800 x 480 pixels for dialogs, inputs, position values, and graphical functions		
<b>Functions</b>	<ul style="list-style-type: none"> <li>• Precise capturing of measured values, and spot-on positioning in metrology applications</li> <li>• 100 presets</li> <li>• Measurement series with min. and max. value recording</li> <li>• Recording of the difference between min. and max. values (range)</li> <li>• Data transfer—manually, continuously, or when triggered by a touch probe</li> <li>• User administration</li> <li>• Configurability of each axis for length or angle display</li> </ul>		
<b>Additional encoder input</b> (software option AEI1)	One additional encoder input		
<b>Error compensation</b>	<ul style="list-style-type: none"> <li>• Linear error (LEC) and segmented linear error compensation (SLEC) via up to 200 supporting points</li> <li>• Table squareness error compensation; matrix compensation (NLEC) via up to 99 x 99 points</li> </ul>		
<b>Data interface</b>	1x Ethernet 100 Mbit/1 Gbit (RJ45); 1x Hi-Speed USB 2.0 (Type A)		
<b>Other connections</b>	Foot switch for two functions		
<b>Accessories</b>	Multi-Pos and Duo-Pos stand, Multi-Pos holder, power cable, adapter connector, foot switch		
<b>Power connection</b>	AC 100 V to 240 V (±10 %); 50 Hz to 60 Hz (±5 %); ≤ 38 W		
<b>Operating temperature</b>	0 °C to +45 °C (storage temperature: -20 °C to +70 °C)		
<b>Protection</b> EN 60529	IP65; back panel: IP40		
<b>Mounting</b>	Multi-Pos or Duo-Pos stand; Multi-Pos holder; mounting systems with 50 mm x 50 mm hole pattern		
<b>Mass</b>	Device with Multi-Pos stand: ≈ 2.0 kg; device with Duo-Pos stand: ≈ 1.5 kg; device with Multi-Pos holder: ≈ 1.7 kg; device alone: ≈ 1.3 kg		

# GAGE-CHEK 2000

## Functions

### Configurable function elements

The functionality of the GAGE-CHEK 2000 can be adapted to the given requirements by means of individually configurable function elements in the Inspector view. Along with function elements for the output of measured values, functions such as a preset table and the recording of minimum and maximum values are available as well.



### Recording of minimum and maximum values (MinMax)

The GAGE-CHEK 2000 is equipped with a function for recording minimum and maximum values. It can be configured for the axes as desired. The highest and lowest measured values of a measurement series, including their difference, are recorded and can be output over the data interface. This function is particularly advantageous for radial run-out inspection.



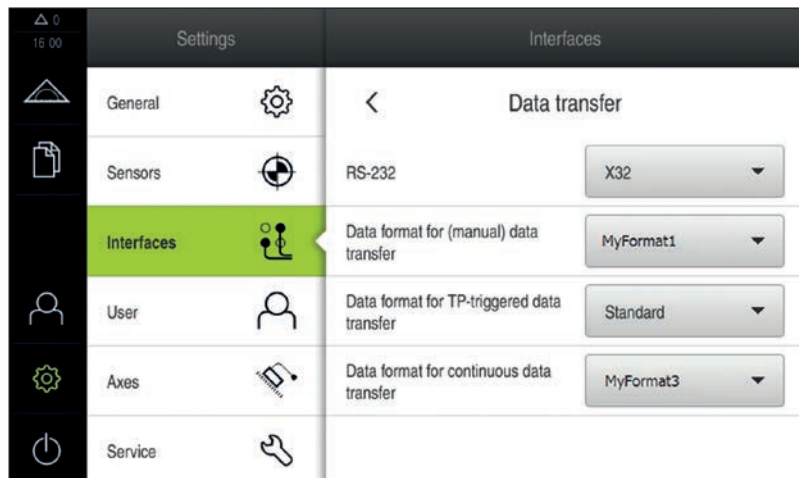
### Touch-probe connection

The GAGE-CHEK 2000 is equipped with a connection for touch probes (e.g., from HEIDENHAIN or Renishaw). During probing, the evaluation unit automatically displays the current position value, taking the radius of the stylus into account.



### Configurable data formats for measured-value output

In addition to providing a default format, the GAGE-CHEK 2000 also features the option of storing your own data formats for data transfer. Thanks to this configurability of data formats, the GAGE-CHEK 2000 is particularly effective as a data logger for the retrofitting of manually operated measuring machines. Within such applications, the GAGE-CHEK 2000 captures the measured values and relays them to a higher-level PC for processing.



# Mounting

The GAGE-CHEK 2000 can be set up with versatility at various viewing angles with the Multi-Pos or Duo-Pos stand. For fastening to a machine, the Multi-Pos holder is well suited, as are mounting systems with a 50 mm x 50 mm hole pattern.

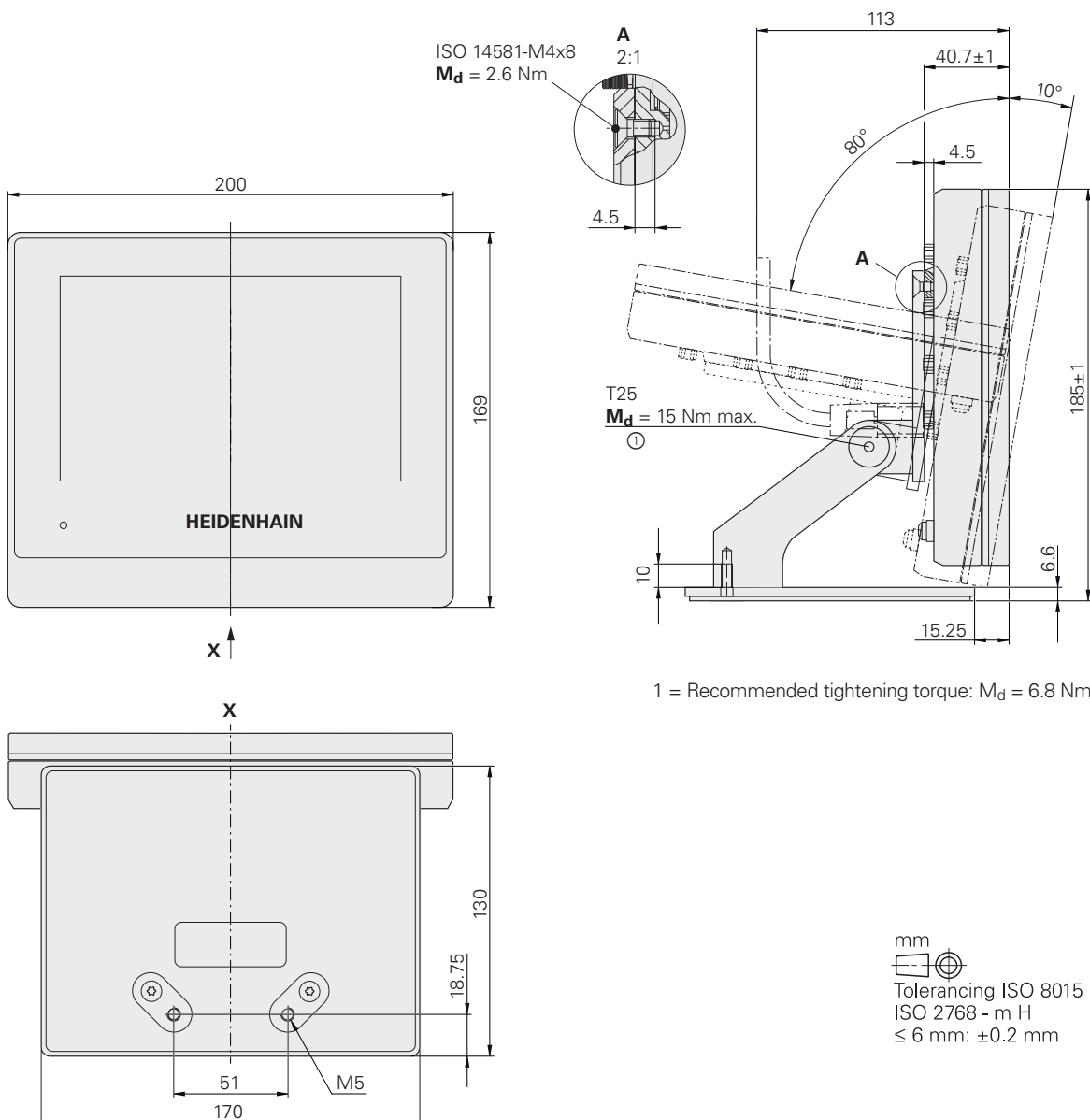
## Multi-Pos stand

For setup on and fastening to a horizontal surface; continuous tilt range of 90°

ID 1089230-07



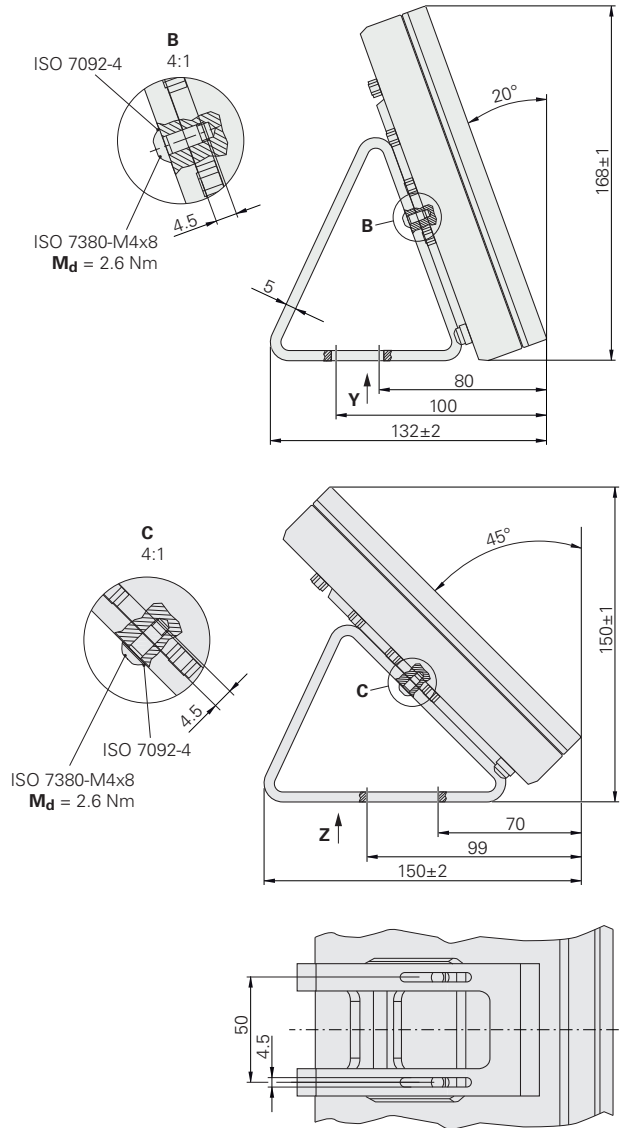
**GAGE-CHEK 2000  
with Multi-Pos stand**



**Duo-Pos stand**

For setup on and fastening to a horizontal surface; possible tilt angles: 20° or 45°

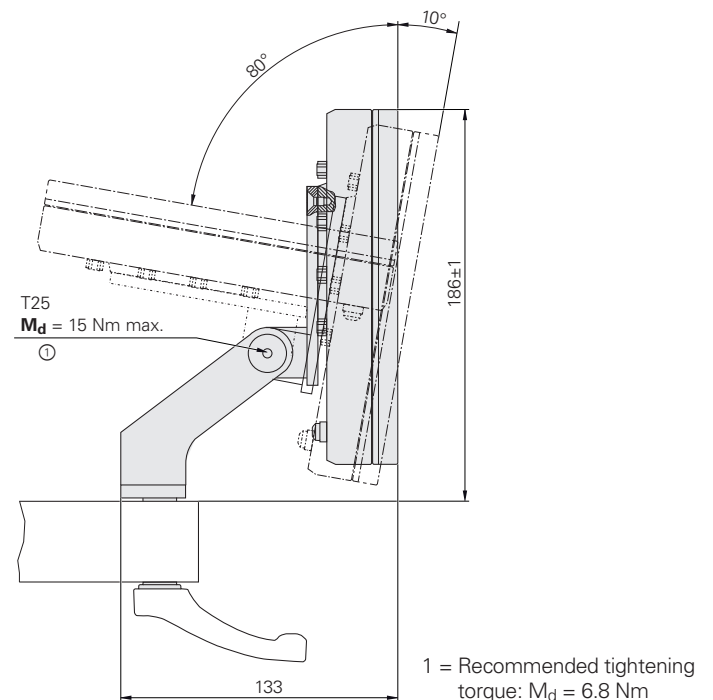
ID 1089230-06



**Multi-Pos holder**

For fastening to an arm; continuous tilt range of 90°

ID 1089230-08



# Accessories

## Adapter connectors for the GAGE-CHEK 2000

For pin-layout conversion from HEIDENHAIN TTL to RSF TTL and Renishaw TTL: 15-pin D-sub (female) and 9-pin D-sub (male)  
ID 1089210-01



For pin-layout conversion from HEIDENHAIN 11  $\mu$ APP to HEIDENHAIN 11  $\mu$ APP: 9-pin D-sub (female) and 15-pin D-sub (male)  
ID 1089213-01



For pin-layout conversion from HEIDENHAIN 1 V<sub>PP</sub> to HEIDENHAIN 1 V<sub>PP</sub>: 15-pin D-sub (male) and 15-pin D-sub (male)  
ID 1089214-01

For pin-layout conversion from HEIDENHAIN 1 V<sub>PP</sub> to Mitutoyo 2 V<sub>PP</sub>: 15-pin D-sub (female) and 15-pin D-sub (male)  
ID 1089216-01

## Adapter cable

For pin-layout conversion from HEIDENHAIN touch-probe interface to Renishaw touch-probe interface  
ID 1095709-xx

## Foot switch

Cable length of 2.4 m,  
with two assignable buttons  
ID 681041-04



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**Further information:**

Brochure: *Evaluation Electronics For Metrology Applications*

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