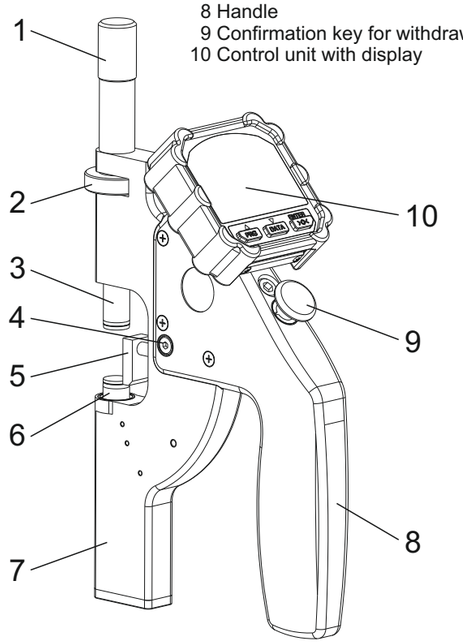
Functional elements

1 Counter sleeve
2 Adjusting nut
3 Anvil bolt
4 Clamping for support
5 Bracing support
6 Measuring bolt
7 Throats
8 Handle
9 Confirmation key for withdrawal
10 Control unit with display



Operation

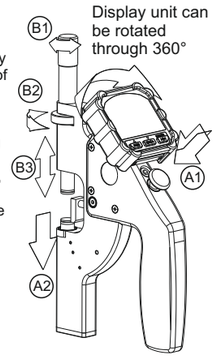
Description
The Digitalpassameter is a measuring device for comparative measurement with an inductive measuring system with extended measuring range and support point correction.
The detached handle (8) is used to reduce the hand heat transfer and allows easier positioning of the measuring device on the specimen thanks to the integrated venting knob (9). Safe handling is possible thanks to the anvil bolt (3) resting at the top and the additional centring support (5).

Application area
Passameters are adjustable snap gauges which are mostly used for measuring and testing of round-cut and milled parts. They replace a large number of fixed gauges whilst this device also has the advantage of a number display if there are deviations to the preset value.

Handling during measuring
Safe handling is the most important basis to avoid measuring errors. The measuring areas and the specimen have to be cleaned thoroughly prior to every measurement. Setting the device to the nominal dimension with gauge blocks, gauges or a selected specimen. Setting should only ever be done in reference to the electric zero position of the inductive measuring system; for this purpose an existing zero compensation has to be deleted by long pressing of the PRG key. First the counter sleeve (1) has to be loosened. Then the anvil bolt (3) has to moved axially by turning the adjusting nut (2) until the display (10) shows approx. zero. It may be necessary to readjust the counter sleeve (1) several times for this purpose. Once the desired position has been achieved, it is fixed by tightening the counter sleeve (1) and should be checked for reproducibility by indicating repeatedly.

Finally, a short pressing of the >0< key allows setting the previously programmed value.To insert and remove the specimen, the measuring bolt (5) has to be pulled back by applying pressure on the digimatic indicator (9). The use of the digimatic indicator (9) secures an even measuring force. Please avoid impact type loads and use of force. The combination of the overhead anvil bolt (2) and the adjustable centring support (5) allows the safe positioning of the measuring device onto the specimen and the user does not have to tare it. To adjust the centring support (5), the clamping screw (4) is loosened and the support (5) is moved in such a way, that the measuring area touches the specimen in the centre at the highest point. This position has to be fixed by the clamping screw (4).

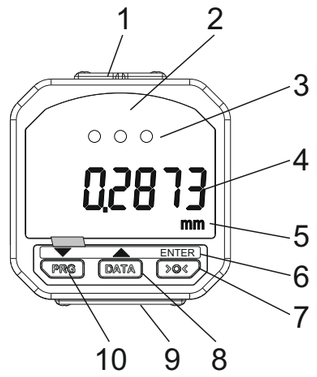
The adjoining image shows the control elements and the direction of motion.
A = Digimatic indicator
B = Anvil bolt adjustment



Display unit can be rotated through 360°

Control unit

Display and control unit



1 Interface protective cover
2 Display range for bargraph
3 Status LED
4 Measuring value/ functional level
5 Unit
6 Second allocation
7 Operating key ENTER >0<
8 Operating key ▲▼ DATA
9 Battery lid
10 Operating key PRG

Switch on
Pressing the key >0<

Switch off
Press >0< key for a long moment
The auto-power off time can be adjusted via the PC software

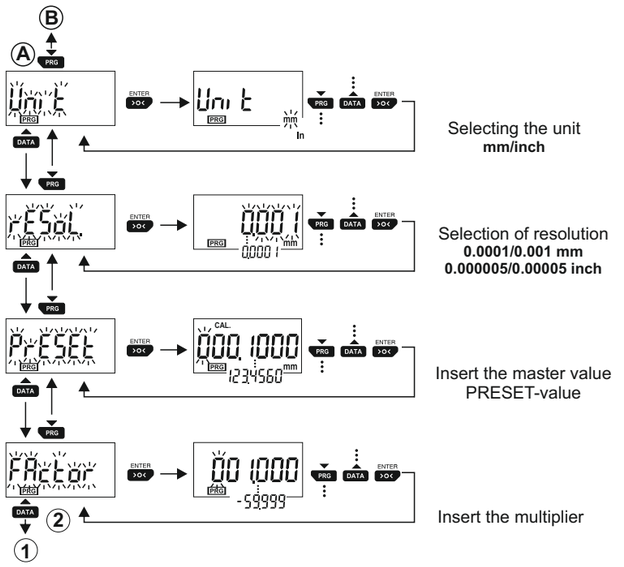
	PRG	DATA	>0<
Measuring mode Short press on key	Access Programming Menu	Data transfer with output Tolerance position for tolerance LEDs Start/stop of the dynamic measurement	Zero adjustment Meas. value is set on PRESET-value
Long press on key	Delete Zero adjustment	Permanent measuring value transmission for measuring value changes Mode is left by pressing any key.	SD1 switch off
Programming Mode Short press on key	Change Blinking display	Change Blinking display	Confirm Blinking display
Long press on key	Leave programming menu	---	---

Feinmess Suhl GmbH
Pfütschbergstraße 11
D-98527 Suhl
Fon: +49 (0) 3681 / 381-0
Fax: +49 (0) 3681 / 381-105
info@feinmess-suhl.de
www.feinmess-suhl.de

Operating instructions Digitalpassameter 76 3902

Programming

Password may be required!



Selecting the unit **mm/inch**

Selection of resolution **0.0001/0.001 mm 0.000005/0.00005 inch**

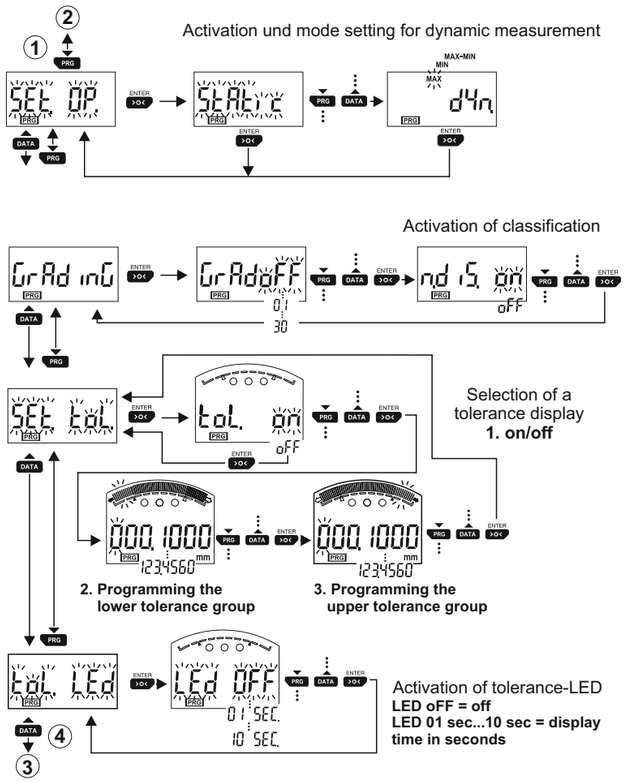
Insert the master value PRESET-value

Insert the multiplier

Further operational functions can only be carried out or activated when connected to a PC.
Please refer to the separate operating instructions for this purpose!

Programming

Continuation of the programming



Activation und mode setting for dynamic measurement

Activation of classification

Selection of a tolerance display **1. on/off**

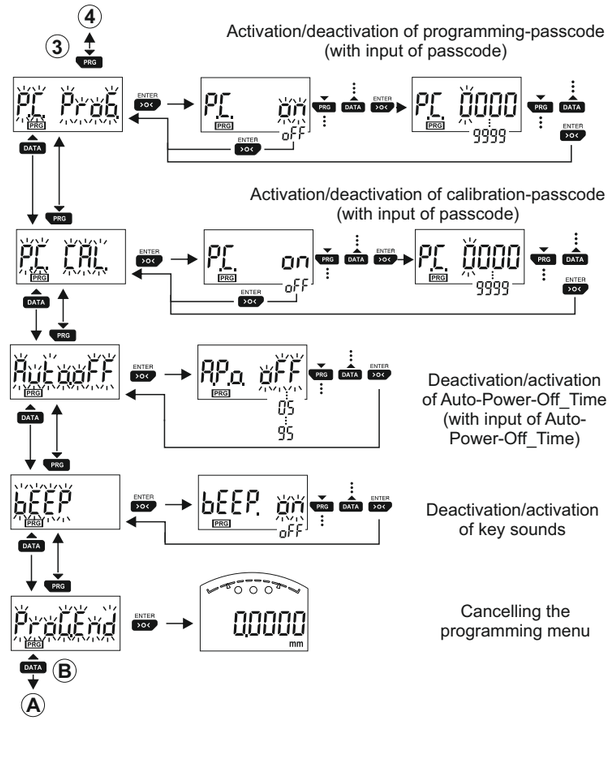
2. Programming the lower tolerance group

3. Programming the upper tolerance group

Activation of tolerance-LED
LED oFF = off
LED 01 sec...10 sec = display time in seconds

Programming

Continuation of the programming



Activation/deactivation of programming-passcode (with input of passcode)

Activation/deactivation of calibration-passcode (with input of passcode)

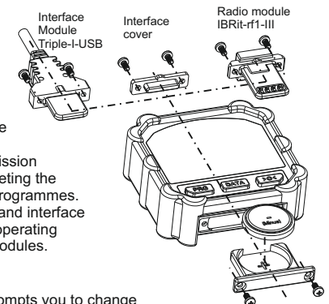
Deactivation/activation of Auto-Power-Off_Time (with input of Auto-Power-Off_Time)

Deactivation/activation of key sounds

Cancelling the programming menu

Interface/Technical data

Interface connection
In addition to data transmission via a cable-connected interface connection, it is also possible to transmit wireless with a radio module.
Turning the display unit allows setting a favourable position for insertion. After loosening the fitting screw of the interface cover, the interface or radio module can be used and fitted.
The measuring device is ready for transmission after establishing a connection and completing the installation of the necessary drivers and programmes. The description of the interface protocols and interface commands can be found in the separate operating instructions which are supplied with the modules.



Battery change:
The blinking BAT-symbol in the display prompts you to change the battery. All lithium type batteries for the 2032 series can be used as replacements (installation dimensions: ø20 mm; thickness 3,2 mm) with 3 V operating voltage. Turning the display unit allows setting a favourable position for removal. The battery holder can be removed after loosening the fitting screws. When inserting the new battery, please make sure you assign the poles correctly. The plus pole of the battery has to point downwards to the plus symbol of the holder. The measuring device is ready for use again after inserting and securing with the fitting screws.

Technical data

Adjustment range:	30 mm
Measuring range/indicator path:	4 mm
Resolution:	0,0001 mm/0,001 mm 0.000005 inch/0.00005 inch
Measuring area diameter	10 mm
Measuring force:	12-18 N
Display / Digit height:	7 digits / 10 mm
Functions:	Bargraph, Max/Min/Max-Min, PRESET, Tolerance mode with LED display Unit change possible mm/inch
Data interface:	USB/RS232 / Radio rf1
Battery:	CR2032
Operating duration:	approx. 2000 h
Protection class:	IP65

Right to make changes due to technical advancements is reserved.
Juli 2016