



Fine pressure probe

Instruction manual





en



General notes

Please read this documentation through carefully and familiarize yourself with the operation of the product before putting it to use. Keep this document to hand so that you can refer to it when necessary.

Identification

Icon	Significance	Comments
	Important.	Please pay particular attention.
Text	Text appears on the instrument display	-
	Key	Press the key.
	Function key with the function "OK".	Press function key..
 xyz	Short form for operating steps.	

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A. Safety instructions



Avoid electrical hazards:

- ▶ Never use the measuring instrument and fine pressure probe to measure on or near live parts!



Protect the fine pressure probe:

- ▶ Never store the measuring instrument/measuring cells together with solvents (e.g. acetone). Do not use any desiccants.



Product safety/preserving warranty claims:

- ▶ Operate the fine pressure probe only within the parameters specified in the technical data.
- ▶ Handle the fine pressure probe properly and according to its intended purpose only.
- ▶ Never apply force!
- ▶ Temperatures given on probes/sensors relate only to the measuring range of the sensors. Do not expose handles and feed lines to any temperatures in excess of 70 °C unless they are expressly permitted for higher temperatures.
- ▶ Open the measuring instrument only when this is expressly described in the instruction manual for maintenance purposes.
- ▶ Carry out only the maintenance and repair work that is described in the Operating Instructions. Follow the prescribed steps exactly. For safety reasons, use only original spare parts from Testo.

Any additional work must only be carried out by authorized personnel. Testo will otherwise refuse to accept responsibility for the proper functioning of the measuring instrument after repair and for the validity of certifications.



Ensure correct disposal:

- ▶ Dispose of defective rechargeable batteries and spent batteries at the provided collection points.
- ▶ Send the measuring instrument directly to us at the end of its useful life. We will ensure that it is disposed of in an environmentally friendly manner.

B. Intended purpose

This chapter describes the areas of application for which the fine pressure probe is intended.

The fine pressure probe can be used for the following measurements in conjunction with the testo 330 (0632 3301 - 3305 from firmware version 1.40 and 0632 3306 - 3307 from firmware 1.09):

- Measurement of the flue draught for atmospheric gas burners
- Checking the vacuum in a closed room with simultaneous operation of fireplace and exhaust air equipment
- Measurement of vacuums in equipment rooms for fireplaces
- Parallel Delta-P measurement

The testo Easyheat software (as of software version 2.40) is required for the evaluation of measurement data.

Under www.testo.com/download-center you can download the current instrument software (Firmware) for the testo 330 (registration required).

C Product description

This chapter provides an overview of the individual components of the product.

C.1 Overview



- 1 Surface probe connection
- 2 Measuring instrument connecting cable
- 3 Capillary hose/pressure tube connection
- 4 Hanger bracket
 - for hanging on pipes of at least 15 mm up to max. 40 mm diameter
 - for hanging on (plate) edges up to a thickness of 4 mm
- ! Do not move the brackets sideways towards the outside. To open, move the brackets forwards and backwards.
- 5 Magnetic holder (on rear)



WARNING! Magnetic field!

May be harmful to those with pacemakers.

> Keep a minimum distance of 15 cm between pacemaker and instrument..



ATTENTION! Magnetic field!

Damage to other devices

> Keep a safe distance away from products which could be damaged by the effects of magnetism (e.g. monitors, computers or credit cards).

C.2 Use hanger bracket



Detach hanger bracket from the rear side of the housing and fold upwards



To pry open the connecting joint at the opening, carefully and repeatedly move the hanger brackets in opposite directions.



To open, move the brackets forwards and backwards.



! Do not move the hanger brackets sideways towards the outside.



D. Measurements

! A leak test cannot be performed with the fine pressure probe.

D.1. Measurement with flue gas analyzers 0632 3301 - 3305

D.1.1 E-Draught

► Connect Pitot tube at input +.

! A simultaneous E-Draught and flue gas measurement can be performed if:

- the parameter is included in the display sequence.
- no measurement was performed beforehand in the E-Delta-P menu.

Calling up the function:

►  - **Measurements** -  - **Finepress. probe** - .

Performing the measurement:

1 **E-Draught** - 

- Measurement begins.

2 Stop measuring: .

- The reading is recorded.

Option:

► To print the reading: .

3 Copy the reading to the **Draught** menu: .

- The **Measurements** menu is opened.

D.1.2 E-Delta-P

! The menu is only available if the fine pressure probe is connected to the instrument.

! A simultaneous E-Delta P and flue gas measurement can be performed if:

- the parameter is included in the display sequence.
- no measurement was performed beforehand in the E-Delta-P menu.

Calling up the function:

- ▶  - **Measurements** - - **Finepress. probe** - - **E-Delta-P** -

D.1.2.1 Individual measurement:


Performing the measurement:

- 1 **single** -
 - 2 Start measuring:
 - 3 Stop measuring:
- The reading determined from **E-Delta-P** is recorded and copied into the Flue gas menu, where it is displayed (if selected in the Display sequence menu).

D.1.2.2 Logger

Performing the measurement:

- 1 **Logger** -
- 2 Enter the measurement period: **Measurement period** - - enter value (max. 1440 min)
- 3 Enter rate: **Rate** - - enter value (default value 1 sec)


 The measuring rate must not be greater than the measurement period

- 4 Start measuring:
- The residual time and the current reading are shown.

Options:

- ▶ Print readings: .
A printout of all readings is only possible in the "**Memory/location**" menu (**Memory/location** - - - **Print all**)
- ▶ Display readings graphically: .
- ▶ From the graphic display back to the reading display:

- 5 Stop measuring: .
- The determined reading from **E-Delta-P** is displayed.

 The logger program is always saved, even if it has not run through completely.

D.2. Measurement with flue gas analyzers 0632 3306 - 3307

D.2.1 E-Draught


▶ Connect Pitot tube at input +.

! A simultaneous E-Draught and flue gas measurement can be performed if the parameter is included in the display sequence.

Calling up the function:

▶  - **Measurements** -  - **Finepress. probe** -  - **E-Draught** - 

Carry out measurement:

1 Start measuring: 

2 Stop measuring: 

Options:

 - **Clipboard:** Data are saved in the clipboard.

 - **Save:** The measurement values are saved in a report

 - **Show Graphic:** The measurement values are saved in a line diagram

3 Exit function: 

D.2.2 E-Delta-P Single measurement

! A simultaneous E-Delta-P Single measurement and flue gas measurement can be performed if the parameter is included in the display sequence.

Calling up the function:


▶  - **Measurements** -  - **Finepress. probe** -  - **E-Delta-P Single meas.** - 

Carry out measurement:

1 Start measuring: 





2 Stop measuring: 

Options::



- Options** - **Clipboard:** Data are saved in the clipboard.
 - Options** - **Save:** The measurement values are saved in a report
 - Options** - **Show Graphic:** The measurement values are saved in a line diagram
 - Options** - **Perform measurement program:** The selected measurement program can be started
- 3 Exit function: 

D.2.3 E-Delta-P Program

Calling up the function:

- ▶  - **Measurements** -  - **Finepress. probe** -  - **E-Delta-P Program** - 

Carry out measurement

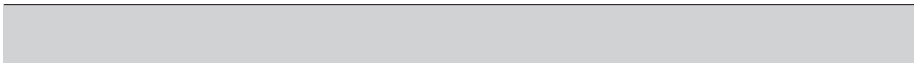
- 1 Start measuring: 
 - Measurement is automatically ended after the end of the measurement duration
 - Options** - **Show Graphic:** The measurement values are displayed in a line diagram
 - Optionen** - **Change Program:** The measurement duration and measurement rate can be changed in the selected measurement program
- 2 Exit function: 

E. Technical data

Characteristic	Values
Parameter	Differential pressure via internal sensor Temperature via external thermocouple Typ K (accessory)
Calculated variables	Flow Display range: 0.15 to 3 m/s Resolution: 0.1 m/s
Differential pressure measurement	Measuring range -9999.9 Pa to 9999.9 Pa Resolution 0.01 Pa (-149.99 Pa to 149.99 Pa) 0.1 Pa (rest of measuring range) Accuracy ± 0.3 Pa (0 to 9.99 Pa) $\pm 3\%$ of reading (10.00 to 9999.9 Pa) additionally ± 1 digit Measuring rate max. 1/s Zero point drift none (cyclical zeroing)
Temperature measurement	Measuring range Depends on probe, max. -40 °C to $+1200$ °C Resolution 0.1 °C Accuracy ± 0.5 °C (-40 to 100 °C) $\pm 0.5\%$ of reading (rest of measuring range) additionally ± 1 digit, additionally accuracy of probe Measuring rate max. 1/s
Temperature measurement with surface probe 0604 0994 (accessory)	Measuring range -200 to 300 °C Resolution 0.1 °C
Operating temperature	5 to 45 °C
Storage/transport temperature	-20 to 50 °C
Humidity	10 to 90% RH non-dewing
Protection class	IP 40
Warranty	2 years

F. Accessories/spare parts

Designation	Article no.
Fine pressure probe	0638 0330
Flue draught set	0554 3150
Capillary hose set	0554 1215
Update CD (firmware update for testo 330)	0554 3351
testo 330-1 LL	0632 3304
testo 330-2 LL	0632 3305
Basic retrofit kit	0563 3344
Professional retrofit kit	0563 3345





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