



## Latest generation testo air velocity & IAQ probes with fixed cable

Instruction manual



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# 1 About this document

- The instruction manual is an integral part of the instrument.
- Please read this instruction manual through carefully and familiarize yourself with the product before putting it to use.
- Pay particular attention to the safety instructions and warning advice in order to prevent injury and damage to the product.
- Keep this documentation to hand so that you can refer to it when necessary.
- Always use the complete original instruction manual.
- Hand this instruction manual on to any subsequent users of the product.

# 2 Safety and disposal


## Security

- Only use the product properly, for its intended purpose, and within the parameters specified in the technical data. Do not apply any force.
- Dangers may also arise from the systems being measured or the measuring environment: always comply with the locally valid safety regulations when carrying out measurements.
- Do not carry out any contact measurements on uninsulated, live parts.
- Do not store the product together with solvents. Do not use any desiccants.
- Only carry out maintenance and repair work on this instrument which is described in the documentation. Follow the prescribed steps exactly when doing the work. Use only original spare parts from Testo.
- Temperature information given on probes/sensors relates only to the measuring range of the sensor technology. Do not expose handles and feed lines to temperatures in excess of 50°C (122°F), unless they are expressly authorized for use at higher temperatures.
- Do not operate the instrument if there are signs of damage on the housing or supply lines.

#### Disposal

- At the end of its useful life, deliver the product to the separate collection point for electric and electronic devices (observe local regulations) or return the product to Testo for disposal.



-  WEEE Reg. no. DE 75334352

## 3 System description

You have acquired a probe, if applicable with additional probe-specific accessories.

The probe can be directly connected to the testo 440 measuring instrument.

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You will find detailed information about how each of the probes works along with the testo 440 measuring instrument in the corresponding chapter of the instruction manual for the measuring instrument.

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## 4 Description of the instrument

### 4.1 Hot wire probe, including temperature sensor (0635 1032)

#### Application

In conjunction with the testo 440, the hot wire probe is suitable for flow and humidity measurements in ventilation ducts.

#### Structure



1	Sensor with protective sleeve	2	Probe adapter
3	Telescope with scaling	4	Cable
5	Connection plug		

#### CAUTION

Damage to sensor possible!

- **Do not touch sensor!**
- **Close the protective sleeve after the measurement.**



Low flow velocities may result in greater measurement uncertainties during temperature and humidity measurement. The probe should be switched on outside a duct under the following conditions:

Ambient temperature: 20°C

Flow: approx. 0 m/s.



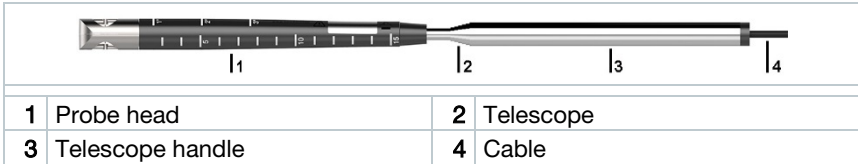
Collapse the telescope after use and do not constrict with the cable.

## 4.2 Vane probe (Ø 16 mm) (0635 9532)

### Application

In conjunction with the testo 440, the vane probe (Ø 16 mm) is suitable for flow measurements in ventilation ducts.

### Structure



### CAUTION

Damage to sensor possible!

- Do not touch sensor!
- Put the protective sleeve on after the measurement.



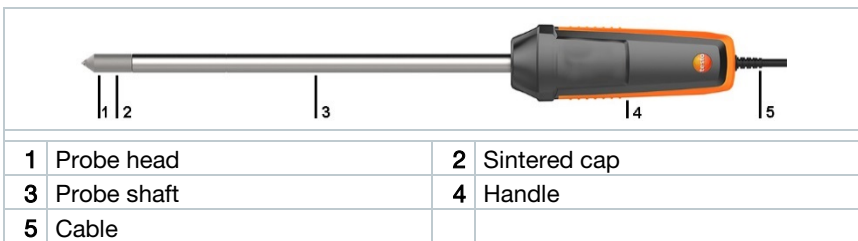
Collapse the telescope after use and do not constrict with the cable.

## 4.3 High-precision temperature/humidity probe up to +180°C (0636 9775)

### Application

In conjunction with the testo 440, the high-precision temperature/humidity probe is used to measure humidity and temperature.

### Structure



### CAUTION

Damage to sensor possible!

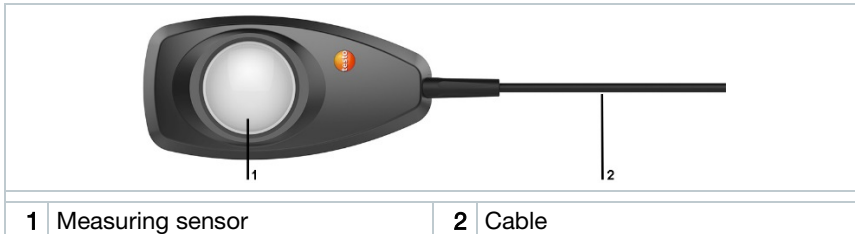
- Do not touch sensor!

## 4.4 Lux probe (0635 0551)

### Application

In conjunction with the testo 440, the lux probe is used to determine the illuminance of workplaces. In general, the illuminance measurement of warm light or white LEDs is possible because these types of LED cover the whole spectral range of the human eye. The measurement of one-colour LEDs (e.g. blue LEDs) is not recommended.

### Structure



### CAUTION

Damage to sensor possible!

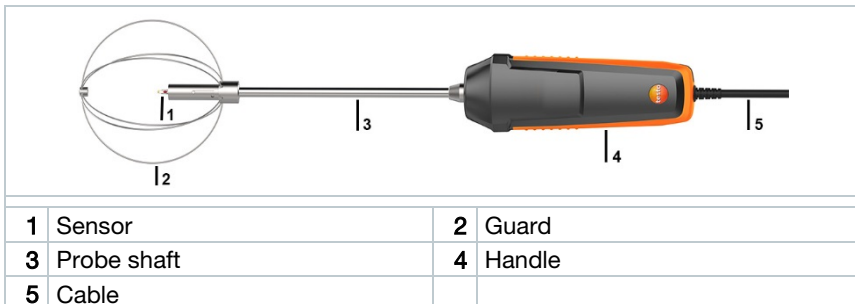
- Do not touch sensor!

## 4.5 Turbulence probe (0628 0152)

### Application

In conjunction with the testo 440, the turbulence probe is used for temperature and air pressure measurement.

### Structure



### ATTENTION

Damage to sensor possible!

- **Do not touch sensor!**



The probe contains sensitive components. Please handle the probe with care.

## 4.6 Laboratory flue probe (0635 1052)

### Application

In conjunction with the testo 440, the laboratory flue probe is used to determine flow velocities in laboratory fume cupboards.

### Structure



1	Sensor	2	Protective sleeve
3	Button	4	Handle
5	Cable		

### ATTENTION

Damage to sensor possible!

- **Do not touch sensor!**
- **Push the protective sleeve over the sensor after the measurement.**



The probe contains sensitive components. Please handle the probe with care.



Low flow velocities may result in greater measurement uncertainty during temperature measurement!



## 5 Commissioning

### Displaying readings

- ✓ | Sensor is connected to the measuring instrument.
- ▶ | Readings are displayed.

## 6 Maintenance

### 6.1 Maintaining the probes

#### 6.1.1 Cleaning the instrument



Do not use any aggressive cleaning agents or solvents; instead use mild household cleaning agents or soapy water.



Always keep the connections clean and free from grease and other deposits.

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Clean the instrument and the connections with a damp cloth and dry them off.

#### 6.1.2 Calibration



The probes are supplied with a factory calibration protocol as standard. Recalibration of the probes once every 12 months is recommended in many applications.

This can be carried out by Testo Industrial Services (TIS) or other certified service providers with the aid of easy-to-use service software.

Please contact Testo for further information.

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## 7 Technical data



- Adjustment conditions for flow probes:  
Adjustment in free jet Ø 350 mm, reference pressure 1013 hPa, based on testo reference Laser Doppler Anemometer (LDA).
- Note for flow probes:  
Low flow velocities may result in greater measurement uncertainties during humidity and temperature measurement!
- Note for humidity probes:  
Please do not use the humidity probes in condensing atmospheres.  
For continuous use in high-humidity ranges  
> 80% RH at ≤ 30°C for > 12 h  
> 60% RH at > 30°C for > 12 h  
please get in touch with Testo Service or contact us via the Testo website.

### Hot wire probe, including temperature sensor (0635 1032)

Feature	Value
Measuring range	0 to +30 m/s -20 to +70°C 700 to 1100 hPa
Accuracy (at 22°C, ± 1 digit)	± (0.03 m/s + 4% of m.v.) (0 to 20 m/s) ± (0.5 m/s + 5% of m.v.) (20.01 to 30 m/s) ± 0.5°C (0 to +70°C) ± 3 hPa
Resolution	0.01 m/s 0.1°C 0.1 hPa
Storage temperature	-20°C to +70°C
Operating temperature	-20°C to +70°C
Protection class	IP20
Dimensions	Cable length: 1.7 m Extension length with telescope: 850 mm Ø probe head on the sensor: 9 mm Ø end of probe shaft: 12 mm
Weight	90 g
Directives, standards and tests	EU Directive: 2014/30/EU

**Vane probe (Ø 16 mm) (0635 9532)**

Feature	Value
Measuring range	0.6 to 50 m/s
Accuracy (at 22°C, ± 1 digit)	± (0.2 m/s +1% of m.v.) (0.6 to 40 m/s) ± (0.2 m/s +2% of m.v.) (40.1 to 50 m/s)
Resolution	0.1 m/s
Storage temperature	-10°C to +70°C
Operating temperature	-10°C to +70°C
Protection class	IP20
Dimensions	Cable length: 1.7 m Extension length with telescope: 850 mm Ø probe head: 16 mm Ø end of probe shaft: 12 mm
Weight	148 g
Directives, standards and tests	EU Directive: 2014/30/EU

**High-precision temperature/humidity probe up to +180°C (0636 9775)**

Feature	Value
Measuring range	-20 to +180°C 0 to 100% RH
Accuracy (at 22°C, ± 1 digit)	±0.5°C (-20 to 0°C) ±0.4°C (0.1 to +50°C) ±0.5°C (+50.1 to +180°C)
Accuracy (at 25°C, ±1 digit)	±3% RH (0 to 2% RH) ±2% RH (2.1 to 98% RH) ±3% RH (98.1 to 100% RH) Additional uncertainty - Long-term stability: ±1% RH / year
Resolution	0.1°C 0.1% RH
Temperature coefficient	type (k=1) ±0.03% RH/K (-20 to +50°C) type (k=1) ±0.06% RH/K (+50 to +180°C)
Storage temperature	-20 to 60°C
Operating temperature	Handle: -5 to +50°C Probe head: -20 to +180°C
Protection class	IP20

## 7 Technical data

Feature	Value
Dimensions	Cable length: 1.4 m Overall probe length: 420 mm Probe shaft length: 270 mm Ø probe shaft: 12 mm
Weight	255 g
Directives, standards and tests	EU Directive: 2014/30/EU

### Lux probe (0635 0551)

Feature	Value
Measuring range	0 to 100,000 lux
Accuracy (at 22°C, ±1 digit)	DIN EN 13032-1 Appendix B; Class C according to DIN 5032-7
Resolution	0.1 lux < 10,000 lux 1 lux ≥ 10,000 lux
Storage temperature	-20 to +50°C
Operating temperature	0 to +50°C
Ambient humidity	Preferred use: 20 to 80% RH
Dimensions	Cable length: 1.4 m Housing: 110 x 55 x 22 mm
Weight	110 g
Directives, standards and tests	EU Directive: 2014/30/EU

### Turbulence probe (0628 0152)

Feature	Value
Measuring range	0 to +5 m/s 0 to +50°C 700 to 1100 hPa
Accuracy (at 22°C, ± 1 digit)	± (0.03 m/s + 4% of m.v.) (0 to +5 m/s) ± 0.5°C ± 3 hPa
Resolution	0.01 m/s 0.1°C 0.1 hPa
Storage temperature	-20 to +60°C
Operating temperature	0°C to +50°C

Feature	Value
Dimensions	Cable length: 1.4 m Overall probe length: 400 mm Probe shaft length: 195 mm
Weight	250 g
Directives, standards and tests	EU Directive: 2014/30/EU

### Laboratory flue probe (0635 1052)

Feature	Value
Measuring range	0 to +5 m/s 0 to +50°C 700 to 1100 hPa
Accuracy (at 22°C, ± 1 digit)	± (0.02 m/s + 5% of m.v.) (0 to +5 m/s) ± 0.5°C ± 3 hPa
Resolution	0.01 m/s 0.1°C 0.1 hPa
Storage temperature	-20 to +60°C
Operating temperature	0°C to +50°C
Dimensions	Cable length: 1.4 m Overall probe length: 350 mm Probe shaft length: 195 mm
Weight	230 g
Directives, standards and tests	EU Directive: 2014/30/EU

## 8 Accessories and spare parts

Description	Order no.
Measuring stand with standard-compliant positioning of probes (including bag)	0554 1590

