

# Your competent partner for measuring and services.

Intuitive, efficient, reliable – everything for facility management: Welcome to the Smart HVAC/R World of Testo.

# Guaranteed comfort Increased efficiency.

Measuring technology from Testo can help you to fulfil these tasks.







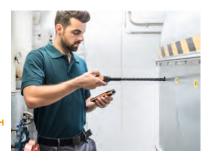
### Ensure environment quality and comfort

Testo's humidity, lux meters make it easy for you to create a pleasant indoor climate. With the testo 480 multifunction measuring instrument, you can evaluate the comfort level objectively and in compliance with PMV/PPD. Data loggers help you to easily identify the causes of mould. Sound meters keep the noise level under check.



### Check electrical installations

Electrical systems and switch cabinets also need to be checked regularly. In addition to testo 770 clamp meter and testo 760 digital multimeter, you can also use testo 871 and 872 thermal imagers for non-contact visualization of hot spots. User-specific Apps make your work and documentation easier.



### Efficient adjustment of ventilation systems

Only with correctly regulated supply and exhaust air systems can a system achieve full performance with minimum energy consumption. Testo offers you a range of smart devices and probes - for carrying out measurements in ducts as well as at air outlets. Application specific Apps not only offer you a perfect overview, they also make documentation easy.



### Efficient adjustment of heating systems

In addition to smart measuring instruments for flue gas analysis, Testo can also provide you with smart measuring instruments for determining the flow and return temperature and differential pressure. Free Apps also allow control via smartphone or tablet for flawless and efficient operation of your heating systems.



### Efficient adjustment of air conditioning systems

With the digital manifolds and the testo Refrigeration App, you have all pressure and temperature values in view on your smartphone. You can create and send personalized reports in just one click. Easy software updates ensure that you are always up-to-date with the latest technology and compliances when carrying out your measurement.

## Testo - your competent partner for

# facility management.

Operating costs, user convenience, energy consumption. Facility managers have to keep an eye on a number of things and improve the efficiency of systems and processes at the same time. Thanks to digital measuring technology, these many different tasks can be tackled more easily. To ensure that a building is managed smoothly, ventilation, air conditioning, refrigeration and heating systems need to be maintained just like electrical and switch cabinets.

Testo offers all the measuring equipment needed to carry out all your technical facility management applications. Moreover, you can also obtain after sales service, calibration or repairs from this one provider. For you, this means less outlay in procuring the technology as well as in your day-to-day work.

Digital technology enables you to reliably adhere to processes in accordance with ISO 9001 and digitally store readings or send them in reports. Application-specific Apps and optimized measurement menus make your work easier, faster and therefore cheaper. Bluetooth connections to the actual sensors make it possible to carry out measurements reliably and precisely, wherever required. Since all of the measuring technology can be operated intuitively, all procedures are learned quickly, which not only makes the work faster, but also less prone to errors. The measurement results can also be easily documented - including in graphical progression displays and digital images. This guarantees smartly configured systems and more efficient workflows in facilities management.

### Your advantages with Testo

### Digital, smart and extremely flexible

Since lots of measuring instruments are equipped with bluetooth, you can operate them via smartphone or tablet and use application-specific Apps. You can also connect with other Testo instruments. This makes your work easier and more accurate.

### One-stop service

Measuring instruments, repairs, spare part service, calibration and consultation with valuable practical information - all from one provider, so you can work more efficiently.

### $\label{lem:management} \textbf{Measuring technology for all facility management tasks.}$

At testo, you will find measuring instruments for heating, air conditioning, ventilation, refrigeration systems, electrical measurement parameters as well as thermography.

### Time-saving thanks to digital documentation

Creating reports automatically, adding photos, saving and sending them by e-mail: all is not a problem, with our measuring instruments with App connection.

### Professional multifunction measuring instruments

An extensive selection of probes will equip you for standard-compliant air velocity & IEQ, IAQ and comfort level measurements as well as for industrial maintenance. IEQ measurement is also according to EN 12599 and ASHRAE 111.



Efficient adjustment of air conditioning systems and heat pumps.

The power consumption of air conditioning systems is immense. If you can achieve optimal configuration for your systems and check them regularly, you will save money.

Testo can help make the commissioning and maintenance of air conditioning systems as convenient and accurate as possible for you, with digital manifolds and Apps. Testo Smart Probes AC & refrigeration test kit is available for easy testing of air conditioning systems. Testo 316-3 reliably detects leaks in refrigerant containers and hoses for trouble-free, efficient operation of your systems.





### **Digital manifold**

### testo 550

- · For the easy servicing of air conditioning and refrigeration systems
- Temperature and pressure as a progression
- Customized reports in just one click via App



### Digital manifold

### testo 557

- For the convenient installation and servicing of air conditioning and refrigeration systems
- Temperature and pressure as a progression
- Vacuum measurement with external Pirani probe
- · Customized reports in just one click via App



tion App

testo refrigera- Order no. 0563 1550



tion App

testo refrigera - Order no. 0563 1557



### testo Smart Probes

### AC & refrigeration test kit

- For fast and easy testing of air conditioning & refrigeration systems
- No hoses no refrigerant loss
- Temperature and pressure as a progression
- · Customized reports in just one click via App



Order no. 0563 0002 02



### Refrigerant leak detector

- · For CFC, HFC (partially and completely halogenated), H<sub>2</sub>
- High sensitivity (< 4 g/a)
- Fulfils the requirements of the F-gas regulation

Order no. 0563 3163

# Efficient adjustment of ventilation systems. Guaranteed comfort.

Incorrectly configured ventilation and air conditioning systems consume an unnecessarily large amount of energy. Smart measuring instruments from Testo help you configure your systems accurately and efficiently. Apps with application- specific measurement menus, bluetooth sensors and intuitive operation not only make your work easier, they also guarantee accurate results for maximum comfort with minimum energy loss.





### The probes

For more details on the fixed cable and Bluetooth probes with order nos., please see page 12

### Air velocity & IEQ measuring instrument testo 440

- · Measure all air velocity & IEQ parameters with one instrument - selection of probes for turbulence, flow, lux, CO<sub>2</sub>, temperature, humidity, radiant heat, pressure, differential pressure
- Intuitive operation thanks to a large display with clearly structured measurement menus
- Parallel display of 3 readings
- Wireless measurement convenience with Bluetooth
- Safe and reliable due to internal data memory and USB interface for data export
- · Wireless printing with optional bluetooth printer

Order no. 0560 4401



### WiFi data logger system testo 160 IAQ

- · Continuous remote monitoring of temperature, humidity, CO, and atmospheric
- Data transfer via WLAN directly to your Testo Cloud
- Automatic alerts via email when limit values are violated

Order no. 0572 2014



### Data logger for temperature and humidity testo 175 H1

- Continuous monitoring of humidity and temperature in offices and server rooms
- · Easy data transfer via USB / SD Card
- Data evaluation and documentation on the

Order no. 0572 1754



### Lux meter testo 540

· Uncomplicated and fast light intensity measurement in workplaces, meeting rooms, work stations etc.

Order no. 0560 0540



### Sound level meter

### testo 816-1

- · Measurement of sound level at workplaces, and monitoring adherence to limit values
- · Also in and outside of meeting rooms

Order no. 0563 8170











### The probes

 See page 12 for more details with order numbers

# Multifunction air velocity & IAQ measuring instrument testo 480

- Measure all air velocity & IAQ parameters with one instrument: Selection of probes for temperature, %RH, draught, flow velocity, CO<sub>2</sub>, lux
- Present comfort values objectively in accordance with PMV/PPD
- Carry out standard-compliant HVAC grid measurements
- Practical, step-by-step menu guidance
- Individually calibratable probes
- High-precision differential pressure sensor for Pitot tube measurement or filter monitoring
- With analysis software

Order no. 0563 4800



### testo Smart Probes

### VAC kit

- Easy determination of flow velocity, volume flow, surface temperature, humidity and mould.
- Always at hand in a compact case

Order no. 0563 0003



### Vane anemometer kit

### testo 417

- For measuring volume flow, flow velocity and temperature
- Precise recording of volume flow, independently of swirl direction
- Accurate measurement even in turbulent flows, thanks to patented flow straightener

Order no. 0563 4172



### Volume flow hood

### testo 420

- Precise measurement of incoming and outgoing air at large outlets, even in turbulent flows
- 2.9 kg light
- With app for convenient measurement at outlets

Order no. 0563 4200

# Efficient adjustment of ventilation systems. Guaranteed comfort.

# Air flow and IEQ measurement improved to the max The new universal IEQ instrument testo 400



# The Universal IEQ measuring instrument testo 400

- Smart support and evaluation for error free measurements
- Integrated camera for on site documentation
- · Wide range of probes for different measurements
- Simply exchange probes during the measurement without a restart
- · Probe calibration independent of measuring instrument
- Finish measurement with complete documentation directly on site
- Volume flow measurement in accordance with EN 12599 and ASHRAE 11
- Upto 6 probes can be connected at one time
- · Onsite logger Application also possible without instrument

### For Volume flow measurements:

#### testo 400 With hot wire With 16 mm vane air flow kits probe probe Components of both kits: · Hot wire probe with • 16 mm vane probe with telescope(length: 1 m), telescope (length: 1 m), testo 400 universal IEQ incl. temperature sensor, incl. temperature sensor, measuring instrument + testo with Bluetooth with Bluetooth DataControl software High-precision humidity/ Order no. 0563 0400 71 Order no. 0563 0400 72 temperature probe head 100 mm vane probe head • 90° angle for connecting vane probes (Ø 100 mm) + handle · Volume flow case (dimensions: 520 x 410 x160 mm)







### For Comfort level measurements:

### Our recommendation

# testo 400 IEQ and comfort kit with tripod

### Comprising:

- testo 400 universal IEQ measuring instrument + testo DataControl software
- CO<sub>2</sub> probe with Bluetooth®, including temperature and humidity sensor
- Turbulence probe
- Globe thermometer
- Measuring tripod
- Transport bag for tripod
- Comfort case

Order no. 0563 0401



# IAQ data logger for long-term measurements with the testo 400

### Comprising:

- IAQ data logger
- Mains power unit with USB cable Order no. 0577 0400

### Measuring tripod

### for comfort measurements

### Comprising:

- Folding tripod, attachment bar
- 4 x probe holders, incl. bag

Order no. 0554 1591



### Measurements Improved to the max: in laboratories, cleanrooms and industry

### Our recommendation

### testo 400

### Comprising:

- testo 400 universal IAQ measuring instrument + testo DataControl software
- Transport case for volume flow measurements
- Connection hose
- Mains unit with USB cable and calibration protocol

Order no. 0560 0400



### Check

# electrical installations.

The inspection of electrical systems and switch cabinets is one of the most important facility management tasks. Testo offers you a whole range of smart devices for testing electrical connections and determining the performance of switch cabinets, ventilation systems, heat pumps and air conditioning and heating equipment. With Testo thermal imagers, you can reliably identify problem areas in the electrical control cabinet and overheated components, so that you can replace them in good time. The Testo Apps make it easier for you to take measurements and also to document them.









testo Thermog-

raphy App

### Clamp meter

### testo 770-3

- Comfortable working even in tight spaces, thanks to completely retractable grabber
- Easy performance measurement
- TRMS for highly accurate results, even in large electrical installations with irregular patterns
- Measurement of inrush current
- All readings within view, and a safe distance from the measuring location, with the testo Smart Probes App

Order no. 0590 7703



### Digital multimeter

### testo 760-2

- Reliable work thanks to automatic measurement parameter detection
- TRMS for highly accurate results, even in large electrical installations with irregular patterns
- Low-pass filter for accurate measurements on motors controlled by frequency converters

Order no. 0590 7602



### testo 871

- Very good image quality thanks to IR resolution of 240 x 180 pixels (480 x 360 with testo SuperResolution)
- Temperature differences from 0.09 °C can be detected
- Integrated digital camera
- Special humidity palette for detecting mould risk
- testo ScaleAssist ensures objectively comparable and error-free thermal images
- Wireless connection to testo 770-3 clamp meter and testo 605i thermohygrometer

Order no. 0560 8712



### Thermal imager with App

### testo 872

- Highest image quality thanks to IR resolution of 320 x 240 pixels (640 x 480 with testo SuperResolution)
- Highest precision measurement with 0.06 °C thermal sensitivity
- Integrated digital camera
- Special humidity palette for detecting mould risk
- testo ScaleAssist ensures objectively comparable and error-free thermal images
- Wireless connection to testo 770-3 clamp meter and testo 605i thermohygrometer

Order no. 0560 8721



### **Efficient**

# adjustment of heating systems.

A building's greatest energy-saving potential is often hidden in its boiler room. Use smart, flexible measuring technology from Testo and application-specific Testo apps to analyze flue gases with precision, to measure flow and return temperatures, to locate gas leaks and to carry out pressure drop tests. Doing this enables you to optimize the efficiency of the system as well as to eliminate weak points and incorrect user behaviour.







# CO detector for measuring CO in surrounding air

### testo 317-3

- For carrying out CO checks when a gas heating system or boiler is being serviced or installed
- Audible and visual alarm with adjustable thresholds
- Ready to go: no zeroing phase
- 3-year CO sensor warranty

Order no. 0632 3173



# Promo kit for Δf measurement in chiller and waterlines

### testo 922

- Two-channel measuring instrument with optional wireless probe
- Display of temperature difference
- Continuous display of minimum and maximum values

Order no. 0563 9221



# Differential pressure measuring instrument testo 510i

- For differential pressure measurements (0 to 150 hPa)
- Measurement menu for pressure-drop test in air filters
- Magnetic holder for easy attachment

Order no. 0560 1510



# Flue gas measurement truly smart testo 300

- Intuitive measurement menus and the fastresponse Smart-Touch display ensure easy operation – as on your smartphone
- Including O2 and CO sensor upto 4000 ppm
- Large 5-inch HD display see all the system's measuring values at a glance
- Creation of documentation directly on site and e-mailing of reports

Order no. 0633 3002 70



### Differential pressure measuring instrument testo 510

- For differential pressure measurements (0 to 100 hPa) on air conditioning system filters
- Optional Pitot tube for flow measurements in ventilation ducts

Order no. 0563 0510



### Infrared thermometer

### testo 830 T1

- Laser measurement point maker
- Large optics for exact measurement even at greater distances
- Adjustable emissivity
- Fast recording two measurements per second
- Two adjustable alarm limit values
- Ergonomic "pistol design"

Order no. 0560 8311



# Recommended probes for

# testo 400 / 440 and testo 480.

Probes	for testo 400/440	Order no.	Probes for testo 480	Order no.
Flow			Flow	
	Hot wire probe including temperature and humidity sensor, 90° bendable	<ul><li>№ 0635 1571</li><li>№ 0635 1572</li></ul>	Vane probe Ø 100 mm, for mea ments at ventilation outlets*	usure- 0635 9343
X	Vane probe (Ø 16 mm), including temperature sensor		Vane probe Ø 16 mm with telescope (scaling max. 960 m and built-in measurement but	
	High-precision vane probe (Ø 100 mm), including temperature sensor	<ul><li>№ 0635 9371</li><li>№ 0635 9372</li></ul>	Thermal flow probe (hot wire) mm, 90° bendable (200 mm), v	with
	Vane probe (Ø 100 mm), including temperature sensor		telescope (scaling max. 1100 and built-in measurement butt	
Comfort I	evel		Comfort level	
-	Turbulence probe, fixed cable	₹ 0628 0152	Comfort probe for turbulence measurement in accordance v EN 13779*	0628 0143 vith
43	CO <sub>2</sub> probe, including temperature and humidity sensor	<ul><li>№ 0632 1551</li><li>№ 0632 1552</li></ul>	IAQ probe for evaluating the indoor air quality, CO <sub>2</sub> , humidi temperature and absolute pre	
	CO probe	<ul><li>№ 0632 1271</li><li>№ 0632 1272</li></ul>	measurement, including deskt	
	Lux probe, fixed cable	₹ 0635 0551	Lux probe for measuring illuminance	0635 0543
Humidity			Globe thermometer for measu	ring 0602 0743
	Humidity/temperature probe		the radiant heat, Ø 150 mm, TC type K	
	High-precision humidity/	8 0636 9771	Humidity	
- Sec.	temperature probe	<b>a</b> 0636 9772	High-precision humidity/ temperature probe (Ø 12 mm)	0636 9743
Temperat	ure		temperature probe (Ø 12 mm)	
-	Fast-action surface probe (TC type K)	0602 0393	Temperature	
	Robust air temperature probe (TC type K) – fixed cable 1.2 m	0602 1793	Fast-action surface probe (TC type K)	0602 0393
		🖇 with Bluetoo	Robust air temperature probe (TC type K) – fixed cable 1.2 m	0602 1793

with Bluetooth

### \*Plug-in head cable required (order no. 0430 0100)

### **Testo India Pvt Ltd**

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### **Regional Offices / Representatives:**

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### **Authorised Channel Partner**

a fixed cable