We measure it. testo

testo 885 is a test winner!

Professional, versatile and precise thermography.

The testo 885 thermal imager.

So that wear does not become a problem.

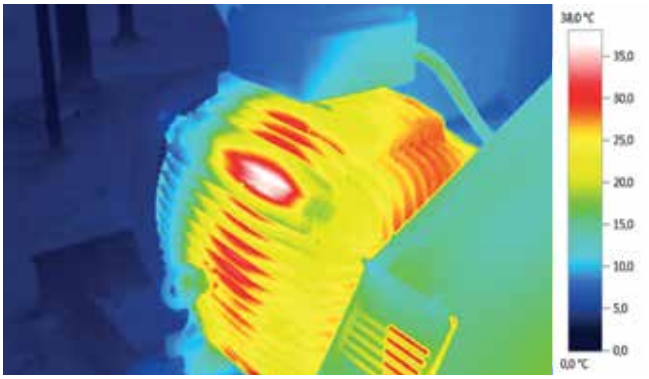
Preventive maintenance with the testo 885 thermal imager.

The testo 885 thermal imager is your ideal partner for preventive maintenance in industrial environments. It will enable you to identify and analyse thermal anomalies in electrical and mechanical components, in a way that is non-contact and cost-saving. Ideal for monitoring low, medium and high-voltage systems, mechanical components or the fill level of sealed fluid tanks.

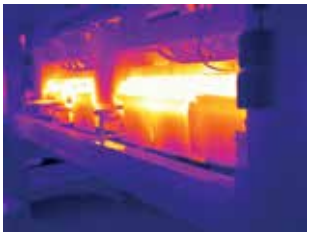
Minimise fire risks and prevent production downtimes.
In preventive maintenance, the main concern is reliable, precise measurement and also time efficiency. The goal is to ensure the availability of the systems and to avoid costly downtimes.

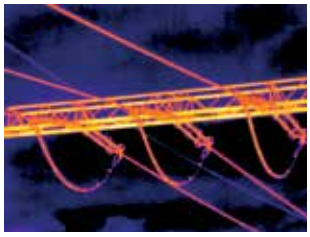
In order to accomplish this, inspections (and the documentation of them) should take as little time as possible, but must also guarantee that even the smallest anomalies are identified reliably.

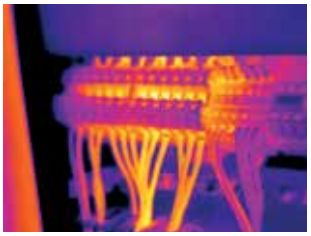
The testo 885, with its 320 x 240 pixel detector, enables you to do just that: a single measurement using the thermal imager corresponds to a measurement using over 76,000 infrared thermometers at the same time. This means that you will no longer miss any thermal details on any of your mechanical or electrical components. The testo 885 also boasts outstanding thermal sensitivity of < 30 mK and numerous practical features to make your day-to-day work easier.

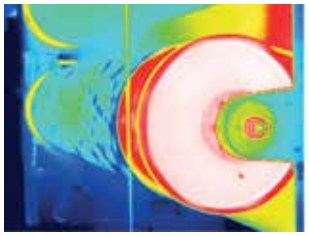


Check engines and mechanical components for anomalies.

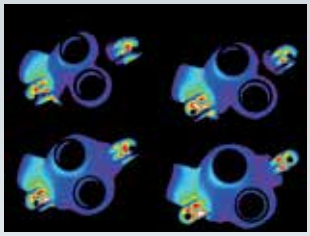

Monitor production processes.

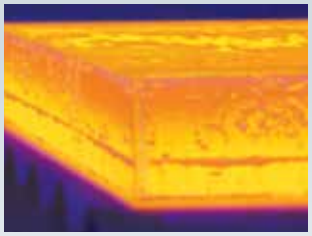

Check high-voltage systems.

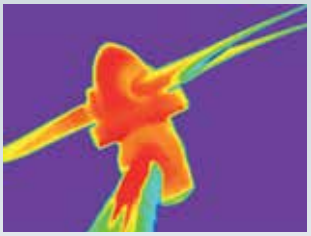

Spot faulty electrical components.

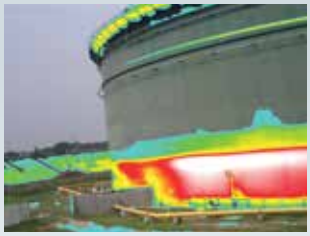

Monitor production processes.

Other applications for the testo 885 thermal imager:


Ensuring the product quality of injection-moulded plastic parts.

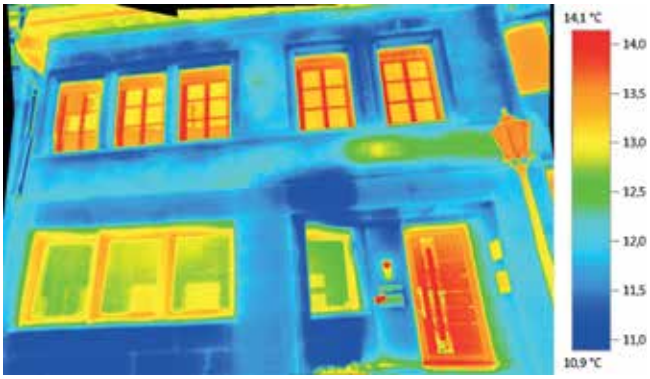

Measuring high temperatures up to 1200 °C.


Determining the critical functional statuses of wind turbines.

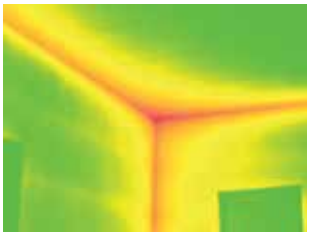

Monitoring the fill levels of fluid tanks.

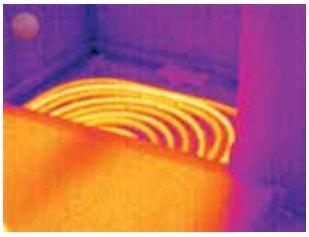
See the true face of a building.

Professional building thermography with the testo 885 thermal imager.

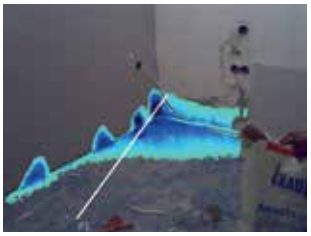


Examining large objects at close range in order to show energy losses is no problem at all, thanks to the testo 885's panoramic image function.


Visualise the risk of mould.


Check heating equipment and installations.


Identify thermal bridges.


Track down water damage.

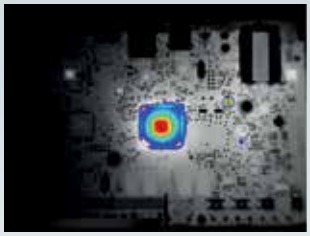
When it comes to detecting energy losses in buildings quickly and effectively, you can always depend on the testo 885. Faulty insulation, thermal bridges or areas prone to mould are displayed in detail in the thermal image. This means that you can visualise defects, plan remedial action and document the quality of structural changes.

Detect structural defects and safeguard construction quality.

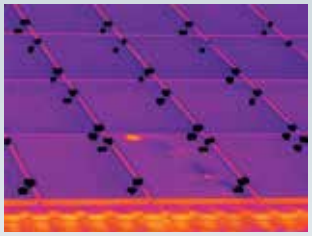
The testo 885 thermal imager will offer you comprehensive measurement and diagnosis support in professional energy consultation. Thanks to the exceptionally good resolution and high thermal sensitivity of < 30 mK, you are provided with a detailed view of your measurement object and potential sources of energy loss, both indoors and outdoors. The optional telephoto lens makes this possible even when you have parts of buildings which cannot be thermographically recorded from close proximity (e.g. skylights).

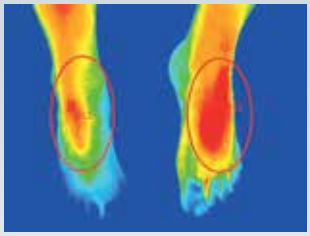
The visualisation of damp areas is of huge significance in building thermography, since this can lead to mould formation. Testo's patent-pending “humidity image” shows the relative surface moisture for each individual reading in the thermal image, and presents the various danger zones according to an easy-to-follow traffic light principle.

You can also use the testo IRSoft analysis software to summarise all the findings very easily in a customised report, which you can present to your customers.


Visualising thermal processes in R&D.


Visualising thermal anomalies in veterinary medicine.


Detecting faults in photovoltaic modules.


Visualising thermal anomalies in human medicine.

Outstanding features.

Record even better thermographic images.

640 x 480 pixel detector
Displays objects in excellent image quality.

testo SuperResolution
Improves the geometric resolution of the thermal images by a factor of 1.6 (see page 7).

30° wide-angle lens for large image sections.
11° telephoto lens and
5⁰ super-telephoto lens
for detailed measurements at great distances.

Thermal sensitivity < 30 mK
Makes even the smallest temperature differences visible.

High temperature option
For extending the measuring range to 1200 °C.

testo SiteRecognition
For the automatic detection and management of measuring locations (see page 7).

Process analysis package
Thanks to image sequence capturing in the instrument and fully radiometric video measurement, thermal processes can be streamed to a PC, where they can be analysed.

Display of surface moisture distribution
For each measuring point, the value of the relative surface moisture is displayed according to the traffic light principle.

Panorama image assistant
In the case of large measurement objects, a composite image is automatically stitched together from multiple individual images.

Laser marker
A laser dot is indicated on the measurement object for orientation purposes and displayed parallax-free in the infrared image.

Minimum focus distance of 10 cm
This means that even very small measurement objects can be inspected at close range.

Auto-focus
Automatic thermal image focusing.

Superior image quality from the test winner.

Independent experts are impressed by the testo 885 thermal imager and the testo SuperResolution Technology.

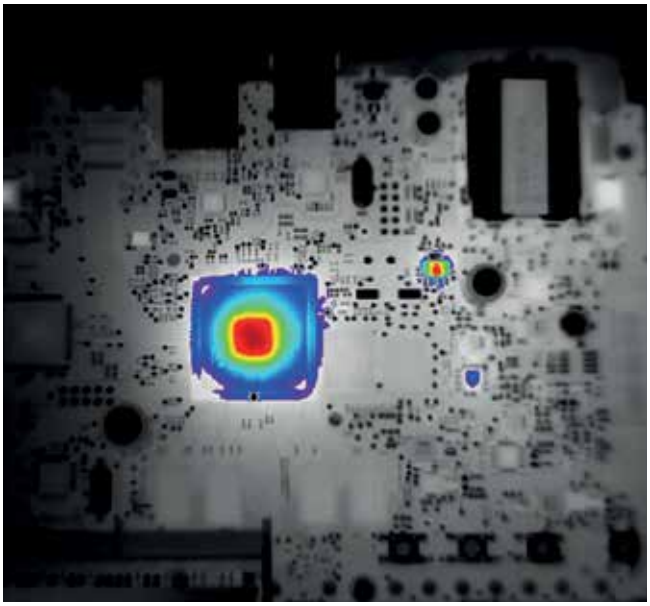
testo 885 is a test winner.

Prestigious trade journals Photon and Photon International tested 14 thermal imagers from the world's leading manufacturers. Almost 100 individual pieces of information were gathered for each camera, with the instruments eventually being assessed in 13 categories. The testo 885 (with testo SuperResolution option) ranked first in almost all the individual disciplines. Ultimately the instrument came out top. With an overall rating of 1.6, it very narrowly missed out on achieving the top grade of “very good”. “Every detail is spot on”, was the experts' opinion on the test winner. Not only did they appreciate the display and the resolution, they also praised the thermal imager's battery life and ease of use.

Read or download the test report on the testo 885: www.testo.xx/XXX

testo SuperResolution: more detailed thermal images.

The patent-pending technology uses the natural movement of the hand, and records multiple, slightly offset images in quick succession. Using an algorithm, these are then compiled into an image. It contains four times as many readings and a geometric resolution that is improved by a factor of 1.6, making the quality of the infrared images a cut above the rest. The end result is a sharper, more detailed image – thus, thermal images can be taken of even the smallest structures. Extensive testing by the renowned Fraunhofer Institute has confirmed the benefits of using thermal imagers featuring SuperResolution within the field of thermography (www.testo.xx/XXX). This is also good news for your budget, because thermal imagers with a 320 x 240 pixel detector and testo SuperResolution achieve the same resolution as conventional instruments with 640 x 480 pixels – at less than half the cost.



With testo SuperResolution, even the smallest of structures – such as the heat distribution of a circuit board shown here – can be accurately detected in the thermogram.

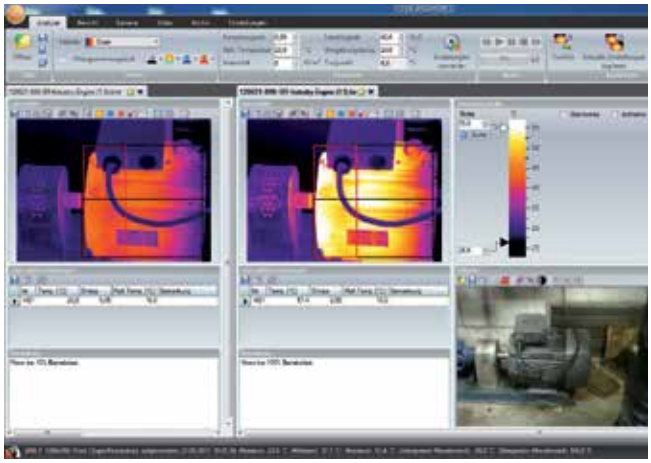
Comprehensive analysis and efficient management of thermal images.

Professional analysis software testo IRSoft and testo SiteRecognition location management.

testo IRSoft: professional analysis software for thermal images.

Thermography at the highest level needs more than just a modern imager system. A high-performance analysis software is crucial in order to quickly and easily analyse and evaluate thermal images, and to document them in a report. The licence-free software testo IRSoft was specially developed for these requirements. It offers extensive analysis functions and is characterised by its intuitive operation and excellent user-friendliness.

Download testo IRSoft free of charge now:
www.testo.xx/XXX

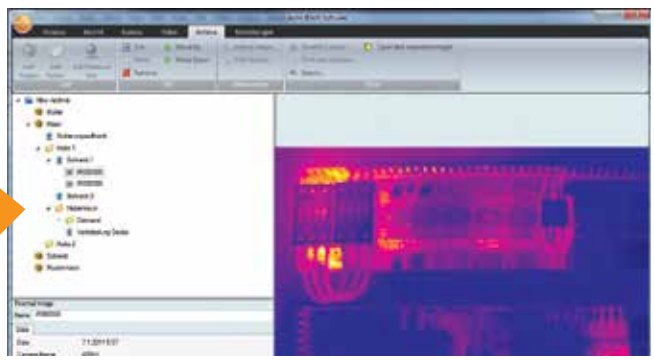


Evaluation and comparison of several thermal images and the associated real image in the testo IRSoft software.

testo SiteRecognition: automatic detection and management of measuring locations.

A lot of similar measuring objects mean a lot of similar thermal images. Up to now, after the measurement users have needed to keep complex lists or add a voice commentary to each individual thermal image in order to be able to clearly assign the images to the measuring locations. testo SiteRecognition is the solution to this problem. You can use it to create a measurement site archive in the testo IRSoft software, which serves as a database for your thermal images. For every measurement site stored in the archive, you can create markers (small symbols similar to QR codes), and attach them on site. During the subsequent inspection you simply record this marker using the camera's testo SiteRecognition assistant. The measuring location, along with its corresponding information, is then automatically stored with the thermal imager itself. When you transfer these thermal images to the analysis software after the measurement, they are then fully automatically sorted into the archive. This takes away the need for any time-consuming administration or manual archiving. You can then conveniently open the images from the archive, and analyse or process them in reports.

Measurement object with a testo SiteRecognition marker.



Measurement object management in the measurement site archive of the IRSoft software.

From the Black Forest into the big, wide world.

The success story of Testo AG.
"We measure it." This motto is both a slogan and also the key to success for our company, which is based in Lenzkirch in the Black Forest. For over 50 years now, everything at Testo has revolved around innovative measuring technology: whether we are talking about flue gas analysis, temperature measurement or the maintenance of complex systems – our measuring instruments help to save both time and resources, they also protect the environment and human health, and they improve the quality of products and services. The high-tech instruments are used, for example, in the storage and transport of sensitive goods in the pharmaceutical and food sectors, in production and quality assurance in industry or in the monitoring of climate data in energy production and by contractors.

Thermal imagers from Testo.
Ever since Testo was established in 1957, the company has gained experience in temperature measurement – which forms the basis of thermography. In 2007 we launched the first thermal imager developed entirely in Germany on the market. Ever since then, our thermal imagers have been manufactured exclusively in Germany – this enables us to maintain the consistent and very high quality of the instruments.

Meanwhile, at our site in Titisee, Baden-Württemberg, highly-qualified staff are working on developing practical functions and new technologies for the thermal imagers of the future. Our developers and product managers always work together with heating engineers, electricians, building contractors, service engineers or facility managers, because being aware of the exact requirements of our target groups is the only way to ensure that we develop thermal imagers which enable them to view their systems and processes in a whole new light.

testo 885: Overview of versions.

Features	testo 885	testo 885 set
Infrared resolution	320 x 240 pixels	
Thermal sensitivity (NETD)	< 30 mK	
Image refresh rate	33 Hz*	
Measuring range	-30 to +650 °C	
SuperResolution	(✓)	(✓)
Exchangeable telephoto lens 11° x 9° *****	(✓)	✓
Super-tele 5° x 3.7° *****	(✓)	✓
Auto-focus	✓	✓
High temperature measurement up to 1,200 °C	(✓)	(✓)
Panorama image assistant	✓	✓
Site recognition with image management	✓	✓
Laser marker**	✓	✓
Display of surface moisture distribution (via manual input)	✓	✓
Humidity measurement with radio humidity probe*** (automatic measurement value transfer in real time)	(✓)	(✓)
Speech recording using headset****	✓	✓
Process analysis package: Image sequence capturing in instrument and fully radiometric video measurement	(✓)	(✓)
Save image as JPG	✓	✓
Solar mode	✓	✓
Lens protection glass	(✓)	✓
Additional battery	(✓)	✓
Fast battery charger	(✓)	✓

✓ Included in delivery (✓) optional – Not available

* Within the EU and for countries without export restrictions, otherwise 9 Hz
** excepting USA, China and Japan
*** Radio humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia
**** Bluetooth only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Japan, Russia, Ukraine, India, Australia
***** depending on the selected set

testo 885: technical data.

Infrared image output			
Infrared resolution	320 x 240 pixels		
Thermal sensitivity (NETD)	< 30 mK at +30 °C		
Lens version	**Standard lens**	**Telephoto lens**	**Super-telephoto lens**
Field of view/min. focusing distance	30° x 23° / 0.1 m	11° x 9° / 0.5 m	5° x 3.7° / 2 m
Geometric resolution (IFOV)	1.7 mrad	0.6 mrad	0.27 mrad
SuperResolution (pixels/IFOV) - optional	640 x 480 pixels / 1.06 mrad	640 x 480 pixels / 0.38 mrad	640 x 480 pixels / 0.17 mrad
Image refresh rate	33 Hz*		
Focus	Automatic/manual		
Spectral range	7.5 to 14 µm		
Visual image output			
Image size / min. focusing distance	3.1 MP / 0.5 m		
Image presentation			
Image display	4.3" LCD touchscreen with 480 x 272 pixels		
Digital zoom	1 to 3 x		
Display options	IR image/real image		
Video output	USB 2.0		
Colour palettes	9 (iron, rainbow, rainbow HC, cold/hot, blue/red, grey, inverted grey, sepia, Testo)		
Measuring			
Measuring range	-30 to +100 °C / 0 to +350 °C (switchable) / 0 to +650 °C (switchable)		
High temperature measurement - optional	+350 to +1200 °C (not in connection with the telephoto lens)		
Accuracy	±2 °C, ±2 % of m.v.		
Setting emissivity / reflected temperature	0.01 to 1 / manual		
Transmission correction (atmosphere)	✓		
Measuring functions			
Display of surface moisture distribution (via manual input)	✓		
Humidity measurement with radio humidity probe** (automatic measurement value transfer in real time)	(✓)		
Solar mode	✓		
Analysis functions	up to 10 measurement points, Hot/Cold Spot Recognition, up to 5 x area measurement (min/max & average), Isotherm and alarm values		

✓ Standard (✓) optional – Not available

Imager equipment	
Digital camera with power LEDs	✓
Lenses	Standard lens 30° x 23° Telephoto lens 11° x 9° Super-telephoto lens 5° x 3.7°
SiteRecognition (meas. site recognition with image management)	✓
Panorama image assistant	✓
Laser*** (laser classification 635 nm, Class 2)	Laser marker
Voice recording	Bluetooth**** / wired headset
Video measurement (via USB)	Up to 3 measuring points
Process analysis package: image sequence capturing in instrument and fully radiometric video measurement	(✓)
Interface	LabVIEW, interface description download on the Testo homepage
Image storage	
File format individual image	.jpg, .bmt; can export in .bmp, .jpg, .png, .csv, .xls
Video file format (via USB)	.wmv, .mpeg-1 / Testo format (fully radiometric video)
Removable storage device	SD card 2 GB (approx. 1500 - 2000 images)
Power supply	
Battery type	Fast-charging, Li-ion battery can be changed on-site
Operating time	4.5 hours
Charging options	In instrument/in charger(optional)
Mains operation	yes
Ambient conditions	
Operating temperature range	-15 to +50 °C
Storage temperature range	-30 to +60 °C
Air humidity	20 % to 80 % non-condensing
Housing protection class (IEC 60529)	IP 54
Vibration (IEC 60068-2-6)	2G
Physical features	
Weight	1570 g
Dimensions (L x W x H) in mm	253 x 132 x 111
Tripod mounting	1/4" - 20UNC
Housing	ABS
PC software IRSoft	
System requirements	Windows 10, Windows Vista, Windows 7 (Service Pack 1), Windows 8, USB 2.0 interface
Standards, tests, warranty	
EU Directive	2004/108/EC
Warranty	2 years

✓ Standard (✓) optional – Not available

* Within the EU and for countries without export restrictions, otherwise 9 Hz
** Radio humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia
*** Excepting USA, Japan and China
**** Bluetooth only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Japan, Russia, Ukraine, India, Australia

Ordering data.

testo 885 sets with your selection of lenses

Complete sets in a robust case, each including pro software, SD card, USB cable, carrying strap, lens-cleaning cloth, mains unit, Li ion rech. battery, headset, lens case, lens protection glass, additional rech. battery and fast charging station

	Order no.	
testo 885 set with standard and telephoto lens – see above for further set components	0563 0885 V3	
testo 885 set with standard or telephoto, and super-telephoto lens – see above for further set components	0563 0885 V5	
testo 885 set with standard, telephoto and super-telephoto lens – see above for further set components	0563 0885 V6	

testo 885 thermal imagers	Order no.	
Thermal imager testo 885 with standard lens in a robust case, including pro software, SD card, USB cable, carrying strap, lens-cleaning cloth, mains unit, Li ion rech. battery and headset	0563 0885 V2	
Thermal imager testo 885 with super-telephoto lens in a robust case, including pro software, SD card, USB cable, carrying strap, lens-cleaning cloth, mains unit, Li ion rech. battery and headset	0563 0885 V4	

Accessories	Code[1] (First equipment)	Order no. (Retro-fit)	
SuperResolution. Four times as many readings, for even more detailed analysis of the thermal images.	S1	0554 7806	
Lens protection glass. Special protective glass for optimum protection of the lens from dust and scratching.	F1	0554 0289	
Additional battery. Additional Lithium ion rechargeable battery for extending the operating time.	G1	0554 8852	
Fast battery charger. Desktop charging station for two rechargeable batteries for optimising the charging time.	H1	0554 8851	
High temperature measurement up to 1200 °C	I1	[2]	
Humidity measurement with radio humidity probe[3]	E1	[2]	
Interchangeable telephoto lens 11° x 9°	D1	[2]	
Super-telephoto lens 5° x 3.7°	T2	[2]	
Process analysis package Image sequence capturing in instrument and fully radiometric video measurement	V1	0554 8902	
Emission tape. Adhesive tape, e.g. for shiny surfaces (roll, L.: 10 m, W.: 25 mm), ε = 0.95, temperature-resistant up to +250 °C		0554 0051	
ISO calibration certificates		[4]	
Calibration points at 0 °C, +25 °C, +50 °C		0520 0489	
Calibration points at 0 °C, +100 °C, +200 °C		0520 0490	
Freely selectable calibration points within the range -18 to +250 °C		0520 0495	

[1] When ordering as first equipment, you receive the accessories directly in the case.
[2] Please contact our customer service.
[3] Wireless humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia.
[4] Per lens

2981 4044/dk/l/07.2016