



testo 735

The New Measurement Technology for Temperature

Security through precision - Versatility through data transmission by radio

NEW!

°C



Measuring several temperatures simultaneously



testo 735 - the multi-channel measuring instrument with highest versatility. Fully equipped, 6 temperature probes can be registered and displayed: three radio probes and three attachable probes. For classical probes with a wire, there are two inputs available for fast thermocouple probes (Type K/T) and one input for high precision Pt100 probes.

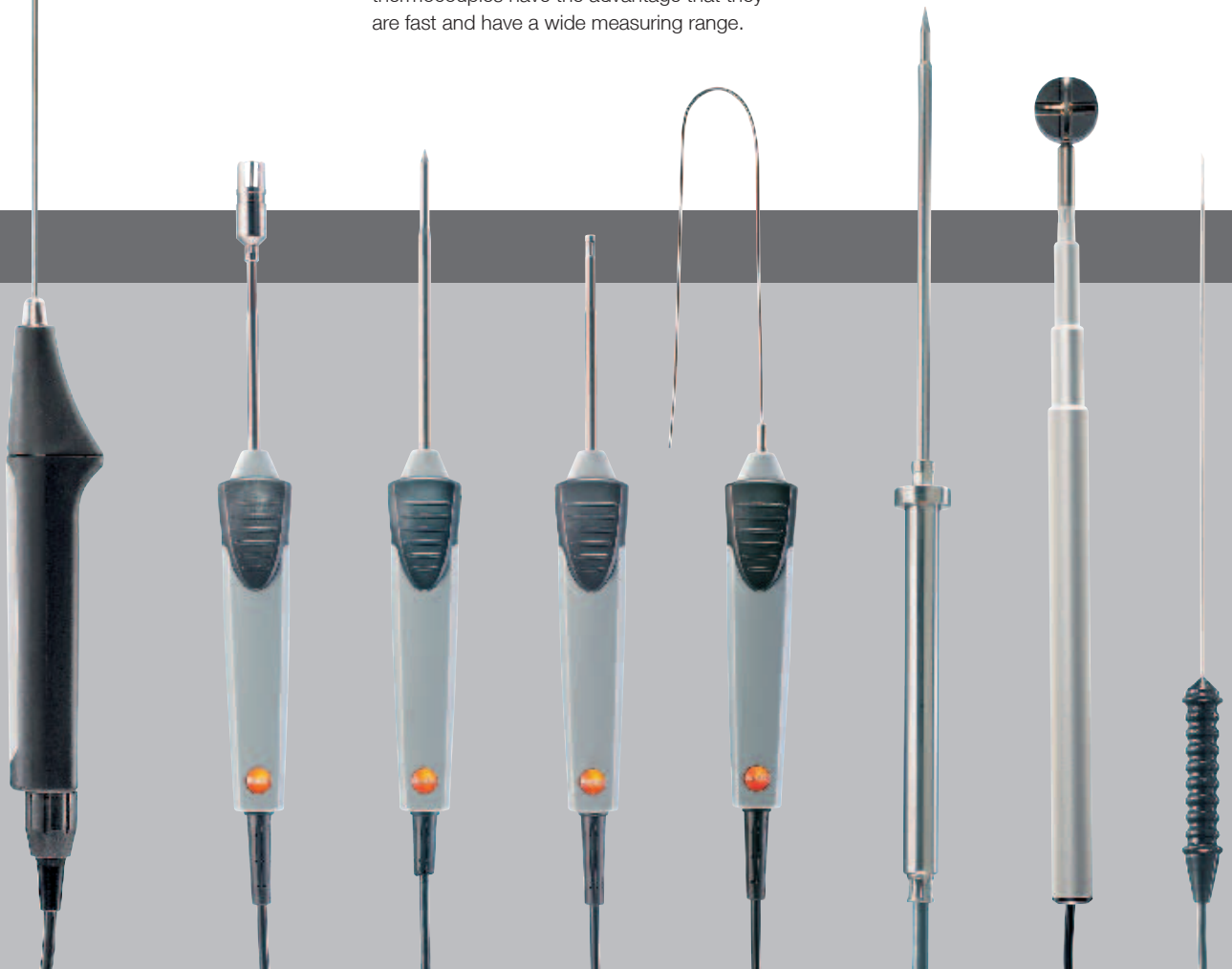
are shown in the display. The differential temperature between any temperature values can be calculated. The display of min or max values is possible for all temperature channels.

Up to three radio temperature probes can additionally be registered and displayed by testo 735. Two freely selectable temperature values

The right probe for every application

Highly precise, fast and with a temperature range from $-200...+1350\text{ }^{\circ}\text{C}$. In order to fulfil all temperature measurements professionally, a wide selection of Pt100 and thermocouple probes for immersion, surface and air measurements is available. The highly precise immersion/penetration probe achieves an accuracy of up to $0,05\text{ }^{\circ}\text{C}$ via the Pt100 probe input. The resolution of the probe is $0,001\text{ }^{\circ}\text{C}$. It is ideally suited for use as a working standard in quality assurance, in laboratories and in calibration services. The attachable thermocouples have the advantage that they are fast and have a wide measuring range.

The cross-band probes are outstanding for surface measurements. The cross-band measuring head with a sprung thermocouple band adapts to different surfaces. The cross-band measuring head assumes the actual temperature of the object to be measured in a few seconds.



Versatility through radio probes

Temperature measurement values can be transferred to the testo 735 over a distance of up to 20 m by radio. This takes place using the optional radio module and the corresponding radio probes. Damage to the wire or hindrances in use are thus eliminated. The radio probe with fixed immersion/penetration point is optimally suited for precision temperature measurements. High versatility is provided by the universal radio handle. Exchangable probe heads for surface or immersion/penetration measurements can be attached to the handle.

Each universal radio handle comes with an adapter for temperature probes with thermocouple plugs. Any thermocouple probe (Type K) with a TC plug can thus be attached to the universal radio handle and used for temperature measurement by radio.





More user comfort

The testo 735 excels through its logical usage and easy-to-follow menus. Functions such as time and point mean calculation, differential temperature measurement, max/min value display and the fixing of measurement values provide support in day-to-day measurement.

In testo 735-2, the user profiles „Standard“, „Route“ and „Longterm“ can be selected. These are tailored to suit typical applications.

For measurements made at different measurement locations, the user profile „Route“ provides the advantage of being able to select

measurement locations in seconds using the function button. The measurement values are thus always allocated to the respective measurement location. An acoustic alarm informs when limit values are exceeded.

Via the function buttons, the profile „Longterm“ provides direct access to the definition of the measurement program, such as the number of measurements and the measurement rate.

Absolutely robust instrument concept

The reliability of measuring instruments is a deciding factor. The testo 735 is a robust and reliable measuring instrument with the protection class IP 54. The material used works as a built-in protection against knocks and jars. The large illuminated display is positioned slightly set back in the housing and is thus better protected. The carrying strap on the instrument enable safe transport. Magnets on the back ensure secure attachment at the measuring location.



Security through documentation

With testo 735, measurement results can be documented either on location with the handy testo report printer or at the PC via the convenient ComSoft.

Single measurements as well as measurement series are stored in the testo 735-2 (10,000 measurement values) and are then displayed in ComSoft either in tabular or graphic form.

On location the testo 735 transmits the data to the testo report printer wirelessly by infra-red interface. Date and time are documented on the print-out as well as the measurement data.

With the testo 735-1, measurement data can be printed out on the testo report printer cyclicly with a measurement rate from 1 minute to 24 hours via the function „Cycle printing“. In this way, with the testo 735-1, measurement series can be documented on paper even without a data store.

testo 735

Joint advantages

- Connection of 3 attachable probea and three radio probes
- Data printing on testo report printer
- Acoustic alarm when limit values are exceeded
- System accuracy up to 0,05 °C
- Display of Delta T, min/max and mean values
- Illuminable display
- Protection type IP 54

testo 735-1

Advantages

Cycle printing of measurement values on testo report printer, e.g. once per minute

testo 735-1 Part no. 0560 7351

testo 735-2

Advantages

- Instrument store for 10,000 values
- ComSoft 3 for archiving and documenting measurement data
- Storage of single measurements or measurement series by location
- Quick access to the most important functions via user profiles

testo 735-2 Part no. 0563 7352



Probes

Laboratory probes	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Laboratory probe, glass-coated, exchangeable glass pipe, resistant to corrosive substances	200 mm Ø 6 mm 30 mm Ø 5 mm	-50 to +400 °C	Class A	45 s 12 s*	0609 7072
Glass shaft for immersion/penetration probe to protect from corrosive agents					0554 7072
Surface probes	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Robust, waterproof surface temperature probe, Pt100	114 mm Ø 5 mm Ø 9 mm	-50 to +400 °C	Class B	40 s	0609 1973
Fast-action surface probe with sprung thermocouple strip, also for uneven surfaces, measurement range short-term to +500°C, T/C Type K	115 mm Ø 5 mm Ø 12 mm	-60 to +300 °C	Class 2	3 s	0602 0393
Efficient, waterproof surface probe with small measurement head for flat surfaces, T/C Type K	150 mm Ø 2.5 mm Ø 4 mm	-60 to +1000 °C	Class 1	20 s	0602 0693
Fast-action surface probe with sprung thermocouple strip, bent, also for uneven surfaces, measurement range short-term to +500°C, T/C Type K	80 mm Ø 5 mm Ø 12 mm	-60 to +300 °C	Class 2	3 s	0602 0993
Flat head surface probe with telescopic handle max. 600 mm for measurements at hard-to-access points, T/C Type K	660 mm Ø 25 mm 12 mm	-50 to +250 °C	Class 2	3 s	0602 2394
Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces	35 mm Ø 20 mm	-50 to +170 °C	Class 2		0602 4792
Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces	75 mm Ø 21 mm	-50 to +400 °C	Class 2		0602 4892
Waterproof surface probe with widened measurement tip for flat surfaces, T/C Type K	115 mm Ø 5 mm Ø 6 mm	-60 to +400 °C	Class 2	30 s	0602 1993
Pipe wrap probe with Velcro strip, for temperature measurement on pipes with diameter up to max. 120 mm, Tmax +120°C	395 mm 20 mm	-50 to +120 °C	Class 1	90 s	0628 0020
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Measurement range short-term to +280°C, T/C Type K	Conn.: Fixed cable	-60 to +130 °C	Class 2	5 s	0602 4592
Spare meas. head for pipe wrap probe	35 mm 15 mm	-60 to +130 °C	Class 2	5 s	0602 0092
Clamp probe for measurements on pipes, pipe diameter 15 to 25 mm (max. 1"), meas. range short-term up to +130°C	Conn.: Fixed cable	-50 to +100 °C	Class 2	5 s	0602 4692
Immersion/penetr. probes	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Robust, waterproof Pt100 immersion/penetration probe	114 mm Ø 5 mm 50 mm Ø 3.7 mm	-50 to +400 °C	Class A	12 s	0609 1273
Highly accurate Pt100 immersion/penetration probe with certificate	295 mm Ø 4 mm	-40 to +300 °C	±0.05 °C (+0.01 to +100 °C) ±(0.05 °C + 0.05% of mv) (remaining range)	60 s	0614 0235
Efficient and fast-action immersion probe, waterproof, T/C Type K	300 mm Ø 1.5 mm	-60 to +1000 °C	Class 1	2 s	0602 0593
Super-quick, waterproof immersion/penetration probe, T/C Type K	60 mm Ø 5 mm 14 mm Ø 1.5 mm	-60 to +800 °C	Class 1	3 s	0602 2693
Immersion tip, flexible	500 mm Ø 1.5 mm	-200 to +1000 °C	Class 1	5 s	0602 5792
Waterproof immersion/penetration probe, T/C Type K	114 mm Ø 5 mm 50 mm Ø 3.7 mm	-60 to +400 °C	Class 2	7 s	0602 1293

Probes

Air probes	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Robust air probe, T/C Type K	115 mm Ø 4 mm Conn.: Fixed cable	-60 to +400 °C	Class 2	25 s	0602 1793
Efficient, robust air probe, Pt100	114 mm Ø 4 mm Conn.: Fixed cable	-50 to +400 °C	Class A	70 s	0609 1773
Thermocouples	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Thermocouple with T/C adapter, flexible, 800mm long, fibre glass, T/C Type K	800 mm Ø 1.5 mm	-50 to +400 °C	Class 2	5 s	0602 0644
Thermocouple with T/C adapter, flexible, 1500mm long, fibre glass, T/C Type K	1500 mm Ø 1.5 mm	-50 to +400 °C	Class 2	5 s	0602 0645
Thermocouple with T/C adapter, flexible, 1500mm long, Teflon, T/C Type K	1500 mm Ø 1.5 mm	-50 to +250 °C	Class 2	5 s	0602 0646
Food probes	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Robust, Pt100 stainless steel food probe (IP65)	125 mm Ø 4 mm 15 mm Ø 3 mm Conn.: Fixed cable	-50 to +400 °C	Class A	10 s	0609 2272
Waterproof food probe made of stainless steel (IP65), T/C Type K	125 mm Ø 4 mm 30 mm Ø 3.2 mm Conn.: Fixed cable	-60 to +400 °C	Class 2	7 s	0602 2292
Robust food probe with special handle, IP 65, reinforced cable (PUR), T/C Type K	115 mm Ø 5 mm 30 mm Ø 3.5 mm Conn.: Fixed cable	-60 to +400 °C	Class 1	6 s	0602 2492
Frozen food probe, corkscrew design, T/C Type K	110 mm Ø 8 mm 30 mm Ø 4 mm Conn.: Plug-in cable	-60 to +400 °C	Class 1	15 s	0602 3292
Waterproof super-fast needle probe, highly accurate measurements without visible penetration hole. Specially for food, ideal for hamburgers, steaks, pizza, eggs etc., T/C Type K	150 mm Ø 1.4 mm 15 mm Ø 1 mm Conn.: Fixed cable	-60 to +250 °C	Class 1	1 s	0628 0026
Waterproof robust immersion/penetration probe with metal protection hose Tmax +230°C, e.g. for monitoring temp. in cooking oil, T/C Type K	240 mm Ø 4 mm Conn.: Fixed cable	-50 to +230 °C	Class 1	15 s	0628 1292
Stable, robust surface probe with PTFE standing area and metal protection hose Tmax +230°C for cooking surfaces, heating and baking trays, T/C Type K	120 mm Ø 60 mm Conn.: Fixed cable	-50 to +230 °C	Class 2	45 s	0628 9992

Technical data

Probe type	Pt100	Pt100 with probe 0614 0235	Type K (NiCr-Ni)	Oper. temp.	-20 to +50 °C
Meas. range	-200 to +800 °C	-40 to +300 °C	-200 to +1370 °C	Storage temp.	-30 to +70 °C
Accuracy ±1 digit	±0.2 °C (-100 to +199.9 °C) ±0.2% of mv (remaining range)	See probe data	±0.3 °C (-60 to +60 °C) ±0.5% of mv (remaining range)	Battery type	Alkali manganese, Type AA
Resolution	0.05 °C	0.001 °C (-40 to +199.999 °C) 0.01 °C (remaining range)	0.1 °C	Dimensions	220 x 74 x 46 mm
				Weight	428 g
				Material/Housing	ABS/TPE/Metal
				Warranty	2 years

Ordering data


Measuring instrument	Part no.	Calibration Certificates	Part no.
testo 735-1, 3 channel temperature measuring instrument T/C Type K/Pt100, audible alarm, connection for max. 3 optional radio probes, incl. battery and calibration protocol	0560 7351	ISO calibration certificate/Temperature, For air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001
testo 735-2, 3 channel temp. meas. instr. T/C Type K/Pt100, audible alarm, connection for max. 3 optional radio probes, with readings memory, PC software and USB data transmission cable, with battery and calibration protocol	0563 7352	ISO calibration certificate/Temperature, Meas. instr. with air/immersion probe; cal. points 0°C; +150°C; +300°C	0520 0021
Accessories for measuring instrument	Part no.	ISO calibration certificate/Temperature, Thermometers with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071
External recharger incl. 4 Ni-MH rechargeable batteries with built-in, international mains adapter - 100-240 V, 300 mA, 50/60 Hz, 12 VA/instrument	0554 0610	DKD calibration certificate/Temperature, Meas. instr. with air/immersion probe; calibration points -20°C; 0°C; +60°C	0520 0211
Plug-in mains adapter for testo 735, testo 635, testo 435, 5 VDC 500 mA with European adapter	0554 0447	DKD calibration certificate/Temperature, Contact surface temperature probes; calibration points +100°C; +200°C; +300°C	0520 0271
Service case for basic equipment of measuring instrument and probes, dimensions: 400 x 310 x 96 mm	0516 0035	4 point adjustment for 0614 0240 probe, incl. ISO certificate at -40, 0, +100, +200, +300 °C	0520 0142
Service case for measuring instrument, probes and accessories	0516 0235	4 point adjustment for 0614 0240 probe, Incl. DKD certificate at -40, 0, +100, +200, +300 °C	0520 0241
Printer and accessories	Part no.		
Testo printer with wireless IRDA and infrared interface, 1 roll of thermal paper and 4 round cell batteries	0554 0547		
Spare thermal paper for printer (6 rolls), Measurement data documentation legible for up to 10 years	0554 0568		
Spare thermal paper for printer (6 rolls)	0554 0569		
Additional accessories	Part no.		
Probe holder for connection to stand	0554 0735		
Handle for attachable measurement tips, For measurement tip 0602 5792, thermocouples 0602 0644, 0602 0645, 0602 0646	0409 1092		
Extension cable, 5m, for thermocouple probe Type K	0554 0592		
Silicone heat paste (14g), Tmax = +260°C Improves heat transfer in surface probes	0554 0004		

Option: Radio



Radio module for upgrading measuring instrument with radio option

Country versions	Radio freq.	Part no.
Radio module for measuring instrument, 869.85 MHz, approval for the countries: DE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR	869.85 MHz FSK	0554 0188
Radio module for measuring instrument 869.35 MHz ASK, approval for the countries: FR, GB, BE	869.35 MHz ASK	0554 0192
Radio module for measuring instrument, 915.00 MHz FSK, approval for USA	915.00 MHz FSK	0554 0190


Radio probes for immersion/penetration measurements

Radio immersion/penetration probes	Meas. range	Accuracy	Resolution	t ₉₉
 Radio immersion/penetration probe, NTC 76 mm 29 mm Ø 5 mm Ø 3.4 mm	-50 to +275 °C	±0.5 °C (-20 to +80 °C) ±0.8 °C (-50 to -20.1 °C) ±0.8 °C (+80.1 to +200 °C) ±1.5 °C (remaining range)	0.1 °C	t ₉₉ (in water) 12 s
Country versions	Radio freq.	Part no.		
Radio immersion/penetration probe, NTC, approval for the countries: DE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR	869.85 MHz FSK	0613 1001		
Radio immersion/penetration probe, NTC, approval for the countries: FR, GB, BE	869.35 MHz ASK	0613 1003		
Radio immersion/penetration probe, NTC, approval for USA	915.00 MHz FSK	0613 1002		

Assembled for you: Radio handles with probe head

Radio handles with probe head for air and immersion/penetration meas.	Meas. range	Accuracy	Resolution	t ₉₉
 Radio handle for attachable probe heads with T/C probe head for air and immersion/penetration measurement 120 mm 30 mm Ø 5 mm Ø 3.4 mm	-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	t ₉₉ (in water) 10 s
Country versions	Radio freq.	Part no.		
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR	869.85 MHz FSK	0554 0189		
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: FR, GB, BE	869.35 MHz ASK	0554 0193		
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA	915.00 MHz FSK	0554 0191		
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handles with probe head for surface measurement	Meas. range	Accuracy	Resolution	t ₉₉
 Radio handle for attachable probe heads with T/C probe head for surface measurement 120 mm 40 mm Ø 5 mm Ø 12 mm	-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	5 s
Country versions	Radio freq.	Part no.		
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR	869.85 MHz FSK	0554 0189		
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: FR, GB, BE	869.35 MHz ASK	0554 0193		
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA	915.00 MHz FSK	0554 0191		
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	

Radio handles, separate

Radio handles for attachable T/C probes	Meas. range	Accuracy	Resolution
 Radio handle for attachable probe heads incl. adapter for attaching T/C probes (Type K)	-50 to +1000 °C	±(0.7 °C +0.3% of mv) (-40 to +900 °C) ±(0.9 °C +0.5% of mv) (remaining range)	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)
Country versions	Radio freq.	Part no.	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR	869.85 MHz FSK	0554 0189	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: FR, GB, BE	869.35 MHz ASK	0554 0193	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA	915.00 MHz FSK	0554 0191	

Radio probes: General technical data

	Radio immersion/penetration probe, NTC	Radio handle	Measuring rate	Radio coverage	Radio transmission	Unidirectional
Battery type	2 x 3V button cell (CR 2032)	2 AAA micro batteries	0.5 s or 10 s, adjustable on handle	Up to 20 m	Oper. temp. -20 to +50 °C Storage temp. -40 to +70 °C	
Battery life	150 h (meas. rate 0.5 s) 2 months (meas. rate 10 s)	215 h (meas. rate 0.5 s) 6 months (meas. rate 10 s)				

Applications

Simultaneous measurement of several temperatures, e.g. in a refrigeration plant

In the fully equipped version, the measurement values of up to 6 temperature probes can be shown in the display of testo 735. Three radio probes and three attachable probes can be connected to the instrument. The testo 735 documents the measurement values either on location via the testo report printer or at the PC using the convenient ComSoft.



Fast temperature measurement on surfaces with cross-band probes

Fast reaction times are achieved with the thermocouple probe for surface measurements. The probe is suitable for measurements on flat and non-flat surfaces.



Highly precise temperature measurement with an accuracy of up to 0,05 °C

Via the Pt100 input, the highly precise immersion/penetration probe achieves a system accuracy of up to 0,05 °C. The resolution of the probe is 0,001 °C. The testo 735 is therefore suitable for use as a working standard in quality assurance, laboratories and calibrating services.

