

# Temperature measuring instrument (2-channel)

**testo 922 – For fast (differential) temperature measurement**

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Ideally suited for applications in the HVAC field

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2-channel temperature measuring instrument with optional wireless probes

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Display of differential temperature

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TopSafe, the indestructible protective cover, protects from dirt and impact

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Continuous display of min./max. values

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Hold-button for freezing measurement values

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Cyclic printing of measurement values, e.g. once per minute

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testo 922 is a temperature measuring instrument which is especially suited to applications in the HVAC field. The measuring instrument records the temperature values of two connected thermocouple probes, and shows these simultaneously together with the differential temperature in the display. Measurement data transfer by radio additionally allows the measurement value from a further temperature probe to be displayed wirelessly.

With the TopSafe, and the probe plugged in, the measuring instrument has protection class IP65.

The instrument continuously displays the minimum and maximum values. The measurement values shown in the display (current measurement value, fixed measurement value or the minimum/maximum value) can be printed out on site using the Testo report printer (optional). In addition to this, the measurement values can be cyclically printed – the intervals can be individually set.

# Technical data

## testo 922

testo 922, 2 channel temperature measuring instrument T/C Type K, connection of an optional radio probe, with battery and calibration protocol

Part no. 0560 9221



## Differential temperature set testo 922

testo 922, 2 channel temperature measuring instrument T/C Type K, 2 x Velcro probes for temperature measurement on pipes with max. Ø 120 mm, Handy bag for measuring instrument and probes, with battery and calibration protocol

Part no. 0563 9222

### Sensor type Type K (NiCr-Ni)

Measuring range	-50 to +1000 °C
Accuracy ±1 digit	±(0.5 °C +0.3% of m.v.) (-40 to +900 °C) ±(0.7 °C +0.5% of m.v.) (remaining range)
Resolution	0.1 °C (-50 to +199.9 °C) 1 °C (remaining range)

### General technical data

Operating temperature	-20 to +50 °C
Storage temperature	-40 to +70 °C
Housing material	ABS
Battery type	9V block battery, 6F22
Battery life	200 h (connected probe, backlight off) 45 h (radio mode, backlight off) 68 h (connected probe, backlight always on) 33 h (radio mode, backlight always on)
Dimensions	182 x 64 x 40 mm
Weight	171 g
Warranty	2 years



Optional protective case TopSafe



Wireless measurement with radio probes



Simultaneous recording of temperature by two connected probes and display of differential temperature



2 probe connections

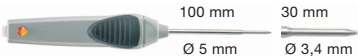
# Accessories

<b>Accessories for measuring instrument</b>	<b>Part no.</b>	
9V rech. battery for instrument, instead of battery	0515 0025	
Recharger for 9V rechargeable battery for external recharging of 0515 0025 battery	0554 0025	
<b>Radio module for upgrading measuring instrument with radio option</b>		
Radio module for measuring instrument, 869.85 MHz, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	0554 0188	
Radio module for measuring instrument, 915.00 MHz FSK, approval for USA, CA, CL	0554 0190	
<b>Printer and Accessories</b>		
Testo fast printer IrDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries	0554 0549	
Spare thermal paper for printer (6 rolls), permanent ink measurement data documentation legible for up to 10 years	0554 0568	
<b>Transport and Protection</b>		
TopSafe, protects from impact and dirt (incl. 2 attachment magnets)	0516 0222	
Service case for measuring instrument, probe and accessories, dimensions 454 x 316 x 111 mm	0516 1200	
Service case for measuring instrument and probe, dimensions 454 x 316 x 111 mm	0516 1201	
Case for measuring instrument and probes	0516 0210	
<b>Other features</b>		
Handle for attachable measurement tips, applicable for all Testo probes with miniature thermocouple plugs	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	
<b>Calibration Certificates</b>		
ISO calibration certificate/temperature for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001	
ISO calibration certificate/temperature (Applies only to immersion/penetration probe 0602 2693) meas. instr. with air/immersion probe; cal. points 0°C; +150°C; +300°C	0520 0021	
ISO calibration certificate/temperature meas. instr. with air/immersion probe; calibration points 0°C; +300°C; +600°C	0520 0031	
ISO calibration certificate/temperature meas. instr. with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071	
DAkkS calibration certificate/temperature meas. instr. with air/immersion probe; calibration points -20 °C; 0 °C; +60 °C	0520 0211	
DAkkS calibration certificate/temperature contact surface temperature probes; calibration points +100°C; +200°C; +300°C	0520 0271	

# Radio probes

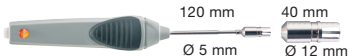
## Radio handles with probe head for air-/ immersion-penetration-meas.

Part no.

Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO; Radio freq. 869.85 MHz FSK					0554 0189	
T/C probe head for air/immersion/penetration measurement (T/C Type K)					0602 0293	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL; Radio freq. 915.00 MHz FSK					0554 0191	
T/C probe head for air/immersion/penetration measurement (T/C Type K)					0602 0293	
Dimensions Probe shaft/probe shaft tip		Measuring range	Accuracy	Resolution	$t_{99}$	
		-50 to +350 °C Short-term to +500 °C	Radio handle: $\pm(0.5\text{ °C} + 0.3\% \text{ of m.v.})$ (-40 to +500 °C) $\pm(0.7\text{ °C} + 0.5\% \text{ of m.v.})$ (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	


## Radio handles with probe head for surface measurement

Part no.

Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO; Radio freq. 869.85 MHz FSK					0554 0189	
T/C probe head for surface measurement (T/C Type K)					0602 0394	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL; Radio freq. 915.00 MHz FSK					0554 0191	
T/C probe head for surface measurement (T/C Type K)					0602 0394	
Dimensions Probe shaft/probe shaft tip		Measuring range	Accuracy	Resolution	$t_{99}$	
		-50 to +350 °C Short-term to +500 °C	Radio handle: $\pm(0.5\text{ °C} + 0.3\% \text{ of m.v.})$ (-40 to +500 °C) $\pm(0.7\text{ °C} + 0.5\% \text{ of m.v.})$ (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	5 s	

## Radio handles for attachable T/C probes

Part no.

Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO ; Radio freq. 869.85 MHz FSK					0554 0189	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL; Radio freq. 915.00 MHz FSK					0554 0191	
Illustration	Measuring range	Accuracy	Resolution			
	-50 to +1000 °C	$\pm(0.7\text{ °C} + 0.3\% \text{ of m.v.})$ (-40 to +900 °C) $\pm(0.9\text{ °C} + 0.5\% \text{ of m.v.})$ (remaining range)	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)			

## Technical data Radio probes

### Radio immersion/penetration probe, NTC

Battery type	2 x 3V button cell (CR 2032)
Battery life	150 h (meas. rate 0.5 s) 2 months (meas. rate 10 s)

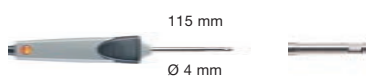

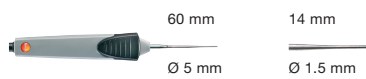



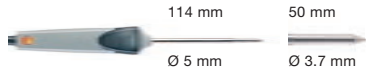

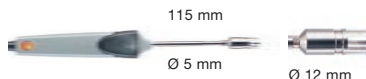
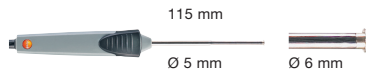
### Radio handle

Battery type	2 x 3V button cell (CR 2032)
Battery life	215 h (meas. rate 0.5 s) 6 months (meas. rate 10 s)

### Common Technical Data


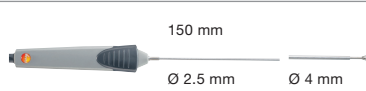



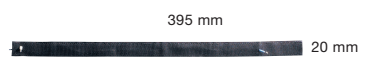
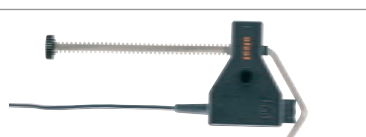
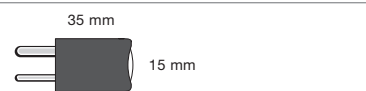

Measuring rate	0.5 s or 10 s, adjustable on handle
Radio coverage	Up to 20 m (without obstructions)
Radio transmission	Unidirectional
Operating temperature	-20 to +50 °C
Storage temperature	-40 to +70 °C

# Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Part no.
<b>Air probes</b>					
<ul style="list-style-type: none"> <li>Robust air probe, T/C Type K, Fixed cable 1.2 m</li> </ul>		-60 to +400 °C	Class 2 <sup>1)</sup>	25 s	0602 1793
<b>Immers./penetr. probes</b>					
<ul style="list-style-type: none"> <li>Efficient and fast-action immersion probe, waterproof, TC Type K, Fixed cable 1.2 m</li> </ul>		-60 to +1000 °C	Class 1 <sup>1)</sup>	2 s	0602 0593
<ul style="list-style-type: none"> <li>Fast-action, waterproof immersion/penetration probe, TC Type K, Fixed cable 1.2 m</li> </ul>		-60 to +800 °C	Class 1 <sup>1)</sup>	3 s	0602 2693
Immersion tip, flexible, TC Type K		-200 to +1000 °C	Class 1 <sup>1)</sup>	5 s	0602 5792
Immersion measurement tip, flexible, for measurements in air/exhaust gases (not suitable for measurements in smelters), TC Type K		-200 to +1300 °C	Class 1 <sup>1)</sup>	4 s	0602 5693
Immersion tip, flexible, TC Type K		-200 to +40 °C	Class 3 <sup>1)</sup>	5 s	0602 5793
<ul style="list-style-type: none"> <li>Waterproof immersion/penetration probe, TC Type K, Fixed cable 1.2 m</li> </ul>		-60 to +400 °C	Class 2 <sup>1)</sup>	7 s	0602 1293
<b>Surface probes</b>					
<ul style="list-style-type: none"> <li>Fast-reaction paddle surface probe, for measurements in inaccessible places, e.g. narrow apertures and slots, TC Type K, Fixed cable</li> </ul>		0 to +300 °C	Class 2 <sup>1)</sup>	5 s	0602 0193
<ul style="list-style-type: none"> <li>Fast-action surface probe with sprung thermocouple strip, also for uneven surfaces, measurement range short-term to +500°C, TC Type K, Fixed cable 1.2 m</li> </ul>		-60 to +300 °C	Class 2 <sup>1)</sup>	3 s	0602 0393
<ul style="list-style-type: none"> <li>Waterproof surface probe with widened measurement tip for flat surfaces, T/C Type K, Fixed cable 1.2 m</li> </ul>		-60 to +400 °C	Class 2 <sup>1)</sup>	30 s	0602 1993

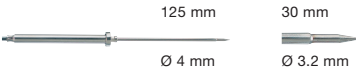
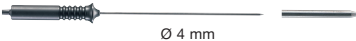
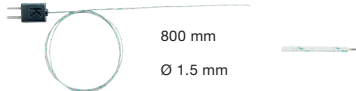

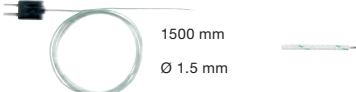
- The measuring instrument inside TopSafe is waterproof with this probe.
- 1) According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (Type K), Class 2 to -40 to +1200 °C (Type K), Class 3 to -200 to +40 °C (Type K). A probe always corresponds to only **one** accuracy class.

# Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Part no.
<b>Surface probes</b>					
<ul style="list-style-type: none"> <li>Fast-action surface probe with sprung thermocouple strip, bent, also for uneven surfaces, measurement range short-term to +500°C, TC Type K, Fixed cable 1.2 m</li> </ul>		-60 to +300 °C	Class 2 <sup>1)</sup>	3 s	0602 0993
<ul style="list-style-type: none"> <li>Efficient, waterproof surface probe with small measurement head for flat surfaces, TC Type K, Fixed cable 1.2 m</li> </ul>		-60 to +1000 °C	Class 1 <sup>1)</sup>	20 s	0602 0693
Flat head surface probe with telescopic handle max. 680 mm for measurements at hard-to-access points, TC Type K, Fixed cable 1.6 m (correspondingly shorter when telescope extended)		-50 to +250 °C	Class 2 <sup>1)</sup>	3 s	0602 2394
Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K, Fixed cable 1.6 m		-50 to +170 °C	Class 2 <sup>1)</sup>	150 s	0602 4792
Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K, Fixed cable		-50 to +400 °C	Class 2 <sup>1)</sup>		0602 4892
Pipe wrap probe with velcro strip; for temperature measurement on pipes with diameter up to max. 120 mm; Tmax. +120 °C; TC Type K, Fixed cable		-50 to +120 °C	Class 1 <sup>1)</sup>	90 s	0628 0020
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term to +280°C, TC Type K, Fixed cable		-60 to +130 °C	Class 2 <sup>1)</sup>	5 s	0602 4592
Spare meas. head for pipe wrap probe, TC Type K		-60 to +130 °C	Class 2 <sup>1)</sup>	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, TC Type K, Fixed cable		-50 to +100 °C	Class 2 <sup>1)</sup>	5 s	0602 4692

- The measuring instrument inside TopSafe is waterproof with this probe.
- 1) According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (Type K), Class 2 to -40 to +1200 °C (Type K), Class 3 to -200 to +40 °C (Type K). A probe always corresponds to only **one** accuracy class.

# Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Part no.
<b>Food probes</b>					
<ul style="list-style-type: none"> <li>Waterproof food probe made of stainless steel (IP65), TC Type K, Fixed cable</li> </ul>		-60 to +400 °C	Class 2 <sup>1)</sup>	7 s	0602 2292
<ul style="list-style-type: none"> <li>Waterproof robust immersion/penetration probe with metal protection hose Tmax +230°C, e.g. for monitoring temp. in cooking oil, T/C Type K, Fixed cable</li> </ul>		-50 to +230 °C	Class 1 <sup>1)</sup>	15 s	0628 1292
<b>Thermocouples</b>					
<ul style="list-style-type: none"> <li>Thermocouple with TC adapter, flexible, 800 mm long, fibre glass, TC Type K</li> </ul>		-50 to +400 °C	Class 2 <sup>1)</sup>	5 s	0602 0644
<ul style="list-style-type: none"> <li>Thermocouple with TC adapter, flexible, length 1500 mm, fibreglass, TC Type K</li> </ul>		-50 to +400 °C	Class 2 <sup>1)</sup>	5 s	0602 0645
<ul style="list-style-type: none"> <li>Thermocouple with TC adapter, flexible, 1500 mm long, PTFE, TC Type K</li> </ul>		-50 to +250 °C	Class 2 <sup>1)</sup>	5 s	0602 0646

◆ The measuring instrument inside TopSafe is waterproof with this probe.

1) According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (Type K), Class 2 to -40 to +1200 °C (Type K), Class 3 to -200 to +40 °C (Type K). A probe always corresponds to only **one** accuracy class.

### Information on surface measurement:

- The response times t<sub>99</sub> stated are measured on ground steel or aluminium plates at +60 °C.
- The stated accuracies are sensor accuracies.
- The accuracy in your application is dependent on the surface structure (roughness), material of the measurement object (heat capacity and heat transfer), as well as sensor accuracy. Testo creates a corresponding calibration certificate for the deviations of your measurement system in your application. For this purpose, Testo uses a surface test bench developed in cooperation with the PTB (Physikalisch Technische Bundesanstalt).

