

Temperature measuring instrument (1-channel)

testo 110 - Universally applicable

Wireless measurement with radio probes possible

TopSafe, the indestructible protective case, protects from dirt and impact (with TopSafe and probe attached)

Automatic final value recognition (Auto-hold)

Audible alarm (settable limit values)

Min./max. value store

Large illuminated display

Certified according to EN 13485





The testo 110 is a highly accurate, universally applicable temperature measuring instrument. The optional protective cover (TopSafe) protects it reliably from dirt, water and impact; this makes it ideal for use in tough surroundings. With the TopSafe, the testo 110 conforms to HACCP as well as EN 13485.

The monitoring measuring instrument is especially designed for measurements in refrigerated rooms and buildings, and in outdoor areas. In addition to the wide selection of classical probes, a wireless radio probe can simultaneously be used (when the wireless module in used in the instrument). As the user, you can set your own upper and lower limit values in the instrument; as soon as these values are violated, an audible alarm sounds. In addition to this, the minimum and maximum values are clearly shown in the 2-line backlit display.

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Temperature measuring instrument (1-channel)

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testo 110, 1 channel temperature measuring instrument NTC, audible alarm, connection to an optional radio probe, with battery and calibration

Part no. 0560 1108







Optional protective case TopSafe



Probe connection

Sensor type	NTC
Meas. range	-50 to +150 °C
Accuracy ±1 digit	±0.2 °C (-20 to +80 °C) ±0.3 °C (remaining range)
Resolution	0.1 °C

General technical data

Storage temp.	-40 to +70 °C
Oper. temp.	-20 to +50 °C
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)
Weight	171 g
Dimensions	182 x 64 x 40 mm
Material/Housing	ABS
Warranty	2 years

Accessories	Part no.
Accessories for measuring instrument	
9V rech. battery for instrument instead of battery	0515 0025
Recharger for 9V rechargeable battery for external recharging of 0515 0025 battery	0554 0025
Lithium battery button cell , CR2032 AA batteries for radio handle	0515 0028
Radio module for upgrading measuring instrument with radio option	
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
Printer and Accessories	
Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries; for printing out measurements on site	0554 0549
Spare thermal paper for printer (6 rolls), permanent ink; measurement data documentation legible for up to 10 years	0554 0568
Spare thermal paper for printer (6 rolls)	0554 0569
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610
Transport and Protection	
TopSafe, protects from impact and dirt (incl. 2 attachment magnets)	0516 0221
Case for measuring instrument and probes	0516 0210
Transport case for meas. instr. and probes (405 x 170 x 85 mm)	0516 0201
Transport case for measuring instrument, 3 probes and accessories (430 x 310 x 85 mm)	0516 0200
Calibration certificates	
ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001
ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +60°C	0520 0072
ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +120°C	0520 0073
DAkkS calibration certificate/temperature, meas. instr. with air/immersion probe; calibration points -20 °C; 0 °C; +60 °C	0520 0211

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Radio probes

Radio probes for immersion/penetration measurements

Part no.

Radio immersion/penetration probe, NTC, 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	0613 1001	
Radio immersion/penetration probe, NTC, approval for USA, CA, CL; Radio freq. 915.00 MHz FSK	0613 1002	

Dimensions Probe shaft/probe shaft	tip	Measuring range	Accuracy	Resolution	t ₉₉
105 mm	30 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)	0.1 °C	t ₉₉ (in water) 12 s
Ø 5 mm	Ø 3.4 mm		±1.5 °C (remaining range)		12.5

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, attachable to radio handle, 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, attachable to radio handle, T/C Type K	0602 0293	

Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	Resolution	t ₉₉
100 mm 30 mm 0 5 mm 0 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 _{ss} (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, attachable to radio handle, 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, attachable to radio handle, T/C Type K	0602 0394	

Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	Resolution	t ₉₉
120 mm 40 mm 0 5 mm 0 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

Radio handles for attachable T/C probes

Part no.

Illustration	Measuring range	Accuracy	Resolution
0	-50 to +1000 °C	$\pm (0.7~^{\circ}\text{C} + 0.3\% \text{ of mv}) (-40 \text{ to } +900~^{\circ}\text{C}) \\ \pm (0.9~^{\circ}\text{C} + 0.5\% \text{ of mv}) \text{ (remaining range)}$	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 AAA micro batteries		
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
Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +70 °C

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Probes

Probe type	Dimensions Probe shaft/probe shaft tip		Measuring range	Accuracy	t99	Part no.
Air probes						
Efficient, robust NTC air probe, Fixed cable 1.2 m	115 mm	50 mm	-50 to +125 °C ²⁾	±0.2 °C (-25 to +80 °C) ±0.4 °C (remaining range)	60 s	0613 1712
	Ø 5 mm	Ø 4 mm				
Surface probes						
Waterproof NTC surface probe for flat surfaces, Fixed cable 1.2 m	115 mm	50 mm	-50 to +150 °C ²⁾	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	35 s	0613 1912
	Ø 5 mm	Ø 6 mm				
Pipe wrap probe with Velcro for pipe diameter to max. 75 mm, Tmax. +75°C, NTC, Fixed cable 1.5 m	300 mm		-50 to +70 °C ²⁾	±0.2 °C (-25 to +70 °C) ±0.4 °C (-50 to -25.1 °C)	60 s	0613 4611
Immers./penetr. probes						
Waterproof NTC immersion/penetration probe, Fixed cable 1.2 m	115 mm	50 mm	-50 to +150 °C	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	10 s	0613 1212
	Ø 5 mm	Ø 4 mm				
Food probes						
Stainless steel NTC food probe (IP65) with PUR cable, Fixed cable 1.6 m	125 mm	15 mm	-50 to +150 °C ²⁾	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 2211
	Ø 4 mm	Ø 3 mm				
Stainless steel NTC food probe (IP67) with PTFE cable to +250°C, Fixed cable	125 mm	15 mm	-50 to +150 °C ²⁾	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 3311
	Ø 4 mm	Ø 3 mm				
Robust NTC food penetration probe with special handle, reinforced PUR cable, Fixed cable	115 mm	30 mm	-25 to +150 °C ²⁾	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	7 s	0613 2411
	Ø 5 mm	Ø 3.5 mm				
Frozen food probe NTC, corkscrew design (incl. plug-in wire)			-50 to +140 °C ²⁾	±0.5% of mv (+100 to +140 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	20 s	0613 3211
	110 mm	110 mm 30 mm				
	Ø 8 mm	Ø 4 mm				

♠ The measuring instrument inside TopSafe is waterproof with this probe.
 2) Long-term measurement range +125°C, short-term +150°C or +140°C (2 minutes)

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