



**T8710**  
 Type J -200...900 °C  
 Type K -200...1370 °C  
 Type T -200...600 °C  
 Type E 0...1000 °C

Sixteen channels

**T8720**  
 Pt100 -200...850 °C  
 Twelve channels

**T8710**

Sixteen channel thermometer for several types of thermocouples: J, K, T, E.

Ideal for long distance measurements requiring a short response time with a reasonable accuracy.

**T8720**

Twelve channel thermometer for 2- or 3-wire Pt100 probes.

Ideal for highly accurate measurements at short or medium distances.

**Temperature**

Shows temperature in °C, °F or K.

Common or individual 1- or 2-point calibration of each channel to any known temperature, eliminating variations from probe to probe.

**Data-logging**

Up to 18000 data sets can be stored manually or at a programmable interval.

Download **free data acquisition software** from [www.consort.be](http://www.consort.be) to view, store and edit the measurements in your computer.

Stores minimum/maximum readings for each channel.

**Display**

Bright LCD screen with white backlight for better readability.

Hold function allows to freeze the display for convenient reading or recording.

The interactive LCD screen provides step by step instructions in the language of your choice (English, Dutch, French, German).

Real-time clock displays time and date.

Alternating mode enables an automatic sequential view of all channels and allows to send the measurements simultaneously to a printer or computer.

Shows a GLP report on the LCD screen.

**Alarms**

Individual high/low limits for each channel alerts the user and can close a relay when readings stray outside limits.

**Inputs**

T8710: three terminal blocks for sixteen thermocouple probes and four earthing connections.

T8720: three terminal blocks for twelve Pt100 probes.

Low voltage DC input for e.g. a mains adaptor.

**Outputs**

Galvanically isolated USB communication port for connection to a computer.

RS232 interface for connection to a printer or computer.

**Cabinet**

Benchtop cabinet.

Optional wall mounting kit.

**GLP**

All procedures for a Good Laboratory Practice are on board.

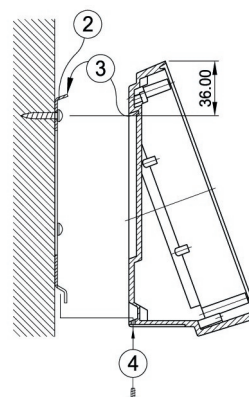
**Special features**

Two-way communication with a computer using USB or RS232.

Can be programmed to continue automatically with the measurements or data-logging after a power failure.

Password protection prevents any unauthorised modification of the instrument's settings.

Three year warranty.



CODE	DESCRIPTION
T8710	thermometer includes meter + USB cable
T8720	thermometer includes meter + USB cable
A4800	wall mounting kit (optional)
<p>➔ Supplied with a mains adaptor (100...240 VAC, EU/US)                      (Add a UK-sign for UK plug versions, e.g.: CT8710-UK)                      (Add a CH-sign for Swiss plug versions, e.g.: CT8710-CH)</p>	

SPECIFICATIONS		T8710
TEMPERATURE	Range, Type J	-200...900 °C (-328...1652 °F)
	Range, Type K	-200...1370 °C (-328...2498 °F)
	Range, Type T	-200...600 °C (-328...1112 °F)
	Range, Type E	0...1000 °C (32...1832 °F)
	Resolution	<1000°: 0.1 °C (0.1 °F)
		>999.9°: 1 °C (1 °F)
	Accuracy	0.5% ±0.5 °C (±1 °F)
	RJC Error	0.05 °C / °C
	Calibration	1...2 points
Channels	16	
INPUTS		terminal blocks for 16 thermocouples
CALIBRATION	GLP Protocol	✓
DISPLAY	LCD	128x64 pixels
	Alternating	✓
	Hold Function	✓
	Selectable Resolution	✓
	Real Time Clock	✓
Languages		EN, NL, FR, DE
COMMUNICATION	Interface with computer	USB
	RS232, baud rate	300...19200 b/s
	Printer	✓
DATA-LOGGING	Values	18000 + date/time
	Manual	✓
	Timed	✓
	Interval	4...9999 s
ALARM	Relays	2, max. 50 V/200 mA
SECURITY	Identification Number	✓
	Password Protection	✓
AMBIENT CONDITIONS	Temperature	0...40 °C
	Humidity	0...95%, non condensing
POWER SUPPLY	Mains	90...250 VAC, 50/60 Hz
DIMENSIONS	WxDxH	26x18x9 cm
WEIGHT	Meter	1 kg

SPECIFICATIONS		T8720
TEMPERATURE	Range, Pt100	-200...850 °C (-328...1562 °F)
	Resolution	0.1 °C (0.1 °F)
	Accuracy	0.1% ±0.3 °C (±0.5 °F)
	Calibration	1...2 points
	Channels	12
INPUTS		terminal blocks for 12 Pt100 probes
CALIBRATION	GLP Protocol	✓
DISPLAY	LCD	128x64 pixels
	Alternating	✓
	Hold Function	✓
	Selectable Resolution	✓
	Real Time Clock	✓
Languages		EN, NL, FR, DE
COMMUNICATION	Interface with computer	USB
	RS232, baud rate	300...19200 b/s
	Printer	✓
DATA-LOGGING	Values	18000 + date/time
	Manual	✓
	Timed	✓
	Interval	4...9999 s
ALARM	Relays	2, max. 50 V/200 mA
SECURITY	Identification Number	✓
	Password Protection	✓
AMBIENT CONDITIONS	Temperature	0...40 °C
	Humidity	0...95%, non condensing
POWER SUPPLY	Mains	90...250 VAC, 50/60 Hz
DIMENSIONS	WxDxH	26x18x9 cm
WEIGHT	Meter	1 kg



## Thermocouple Wires

Use these thermocouple wires to fabricate your own probes. Strip both ends, twist wires at one end and connect the other end to the T8710.

### PVC

Economic, flexible, up to 105 °C.

### Teflon

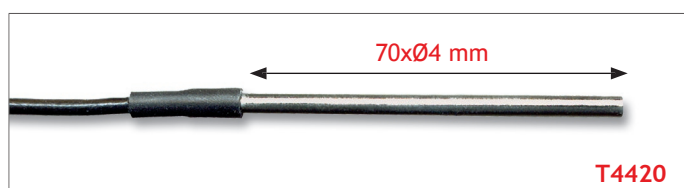
Chemical/moisture resistant, up to 204 °C.

### Fibre

Chemical/flame resistant, up to 510 °C.

CODE	DESCRIPTION
T3002K	roll of type-K wire, 100 m, PVC
T3012K	roll of type-K wire, 100 m, teflon
T3022K	roll of type-K wire, 100 m, fibre

## Pt100 Temperature Probe



CODE	DESCRIPTION
T4420	3-wire Pt100 temperature probe with 20 m cable

## THERMOCOUPLE

Thermocouples basically consist of two dissimilar wires (each made of a different alloy). One end is twisted or soldered to form a measuring junction. The other end is connected to a thermometer and forms the reference junction.

The signal is a small voltage ( $\mu$ Vs) proportional to the temperature gradient between the measuring and reference junctions.

Thermocouple probes are ideal to cover greater lengths. They also have a great temperature range and can easily pass through e.g. oven doors.

Response time is faster than with Pt100 probes.

Accuracy, stability and repeatability are less than with Pt100 probes.

## Pt100

Platinum resistance thermometer (100  $\Omega$  at 0 °C). It requires a low resistance cable for highest accuracy. For longer distances a 3-wire type should be used to compensate for the cable resistance.

Pt100 probes provide excellent accuracy, stability and repeatability.