## 3. Analytical measurement and testing


6.239884

6.239883

Mini data logger testo 174 H
The mini data logger for temperature and humidity, testo 174 H , is ideal for monitoring
Testo
temperature and humidity sensitive goods in storage. The testo 174 H also monitors
building climate, continuously, securely and unobtrusively. The free software ComSoft testo 174 allows fast programming of the data logger and easy analysis.

- Humidity sensor with long-term stability
- High data integrity, even with empty battery
- Large measurement data memory
- Display of the current temperature or humidity value
- Large measuring range
- Compact and robust
- Issue of alarms via display
- Data transfer to the PC via USB interface


## Specification

Probe type:
Measuring range:
Accuracy: Resolution:
Operating temperature:
Storage temperature:
Battery type:
Battery life:
Protection class:
Meas. cycle:
Memory:
Software:

NTC temperature sensor and internal capacitive humiditiy sensor 0 to $100 \% \mathrm{RH},-20$ to $+70^{\circ} \mathrm{C}$
$\pm 0.5^{\circ} \mathrm{C}, \pm 3 \% \mathrm{RH}$
$0.1 \% \mathrm{RH}, 0.1^{\circ} \mathrm{C}$
-20 to $+70^{\circ} \mathrm{C}$
-40 to $+70^{\circ} \mathrm{C}$
$2 \times$ CR 2032 lithium
1 year ( 15 min measuring cycle, $+25^{\circ} \mathrm{C}$ )
IP20
1 min to 24 h (can be selected)
16000 readings
can be used with Windows XP, Vista, Win7

| Type | Description | PK Cat. No. |
| :---: | :---: | :---: |
| testo 174H | Mini data logger, 2-channel, incl. wall bracket, battery ( $2 \times$ CR 2032 lithium) and calibration protocol | 16.2398841 |
| testo 174H-Set | Mini data logger, 2-channel, incl. USB-interface for programming and reading out the logger, wall bracket, battery ( $2 \times$ CR 2032 lithium) and calibration protocol | 16.2398832 |



| 3 Mechanical stopwatch |  |  |
| :--- | :--- | :--- |
| Start/stop/reset by single crown, clockwork mechanism, 13 jewels, <br> chrome metal case, measuring range 15 minutes, <br> $1 / 10$ second increments. Supplied with lanyard and soft case, diam. $50 \mathrm{~mm}, 250 \mathrm{~g}$ (incl. packaging) |  |  |
|  |  | PK |
| Type | Cat. No. |  |
| Mechanical stopwatch | $\mathbf{9 . 8 5 1 0 2 1}$ |  |



## 4 Stopwatch, mechanical

Amigo. Impact resistant. Unbreakable spring movement. 55 mm diameter ABS case. Supplied with 120 cm lanyard.

| Time <br> intervals | Display | PK | Cat. No. |  |
| :--- | ---: | ---: | ---: | ---: |
| secs. | mins. | 15 | 1 | $\mathbf{9 . 2 6 2 4 1 0}$ |
| $1 / 10$ | 30 | 1 | $\mathbf{9 . 2 6 2 4 1 1}$ |  |
| $1 / 5$ |  |  |  |  |

## 3. Analytical measurement and testing <br> Timing/Timers

## 1 Stopwatch Tristop, mechanical

Separate $1 / 10$ second display magnified 10 times.
Chrome-plated ABS housing with neck cord ( 120 cm ), 7 jewel, pin lever movement. $1 / 5 \mathrm{sec}$. divisions. 0 to 30 minute face.

| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| Tristop | 1 | $\mathbf{9 . 2 6 2 5 1 0}$ |

2 Stopwatch, mechanical
Impact resistant, dustproof and water resistant. With diamond-turned metal case. 55 mm diameter. Built-in strap ring.

| Time <br> intervals <br> secs. | Display | PK | Cat. No. |  |
| :--- | ---: | ---: | ---: | ---: |
| $1 / 5$ | mins. | 30 | 1 | $\mathbf{9 . 2 6 2 0 0 5}$ |
| $1 / 10$ | 15 | 1 | $\mathbf{9 . 2 6 2 0 1 0}$ |  |

## Stopwatch, mechanical

Impact resistant, dustproof, water resistant. With diamond-turned metal case. 55 mm diameter. Built-in strap ring.

| Time <br> intervals <br> secs. | Display | PK | Cat. No. |  |
| :--- | ---: | ---: | ---: | ---: |
| $1 / 5$ | mins. | 30 | 1 | $\mathbf{9 . 2 6 2} \mathbf{2 0 5}$ |
| $1 / 10$ | 15 | 1 | $\mathbf{9 . 2 6 2} \mathbf{2 1 0}$ |  |



| 4 Stopwatch SL 110 |  |  |
| :---: | :---: | :---: |
| $-1 / 100$ sec. timer up to 40 minutes, 1 sec. timer for 40 minutes up to 24 hours <br> - lap time function <br> - time in 12/24-hour-format <br> - time, month, day, alarm <br> - snooze function <br> - splash water resistant <br> - Incl. $1 \times 1.5 \mathrm{~V}$ button cell SR44 <br> - dimensions: $70 \times 60 \times 23 \mathrm{~mm}$ <br> - weight: 51g |  |  |
| Type | PK | Cat. No. |

- lap time function
- time in 12/24-hour-format
- time, month, day, alarm
- snooze function
- splash water resistan
- Incl. $1 \times 1.5 \mathrm{~V}$ button cell SR44
- dimensions: $70 \times 60 \times 23 \mathrm{~mm}$
- weight: 51g


## 3. Analytical measurement and testing



1 Stopwatch, HiTRAX Run
$1 / 100$ seconds,max. 23 hours, 59 minutes, 59 seconds, split time, clock, date, alarm. Supplied with 3V Lithium long-life battery CR 2032 button cell:
Dimensions: $78 \times 58 \times 12 \mathrm{~mm}$
Weight: 60g

| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| HiTRAX Run | 1 | $\mathbf{9 . 8 5 1} \mathbf{0 2 0}$ |



2 Stopwatch Stopstar 2, digital
Stopstar 2. ABS housing with lanyard. Temperature range -10 to $+55^{\circ} \mathrm{C}$. With 7 -digit, 7 mm high LCD readout.
Start/Stop/Reset, Cumulative (as often as required), Split interval timing (as often as required), dual measurement of two events in quick succession.
Time display: 9hrs, 59mins, 59.99sec.
Battery life approx. 2 to 3 years.
Supplied with button cell (IEC R 6).

| Dimensions: <br> Weight: | $82 \times 61 \times 28 \mathrm{~mm}$ |  |  |
| :--- | :--- | ---: | ---: |
| Type | 70 g |  |  |



## 3 Stopwatch, digital

Profile LCD.
2 button operation, with 5 event memory, each with split and lap times, 8 mm high LCD readout, 7 -figure +2 event counter, display range: 9hrs, 59mins, 59.99 secs . With Start/Stop/Reset, Add./Split/Lap, time functions.

| Type | PK | Cat. No. |
| :--- | :---: | :---: |
| Stopwatch, digital | $\mathbf{9 . 2 6 2 1 1 1}$ |  |



## 4 Stopwatches, Delta E series

## Delta E 100

- 65 memories with evaluation, fast run/memory functions
- Large, clear, 2.5 -line LCD readout with 7 mm high digits
- Battery status indicator
- Function window for Lap, Short-Lap and time. Date indicator and pre-settable split time from the real-time clock
- Mode function button
- Display and memory button.


## Delta E 200

Generally as Delta E 100 model, but additionally with:

- Pacer function (1 to 300 strokes/min.)
- Countdown function
- Countdown and stopwatch can be used simultaneously.

| Type | Colour | PK | Cat. No. |
| :--- | :--- | :--- | :--- | :--- |
| Delta E 100 | black | 1 | $\mathbf{9 . 2 6 2 5 2 0}$ |
| Delta E 100 | red | 1 | $\mathbf{9 . 2 6 2 5 2 1}$ |
| Delta E 200 | black | 1 | $\mathbf{9 . 2 6 2 5 3 0}$ |

## 3. Analytical measurement and testing <br> Timing/Timers

## 1 Interval timer with alarm

Benchtop mechanical timer. Suitable for standing, hanging and in addition on the back of two magnets, which allows the fitting of metal parts. Casing and rotary setting knob are white, the dial is black. Running time max. 60 mins .

Dimensions (WxDxH):

$$
65 \times 35 \times 65 \mathrm{~mm}
$$

| Type | PK | Cat. No. |
| :--- | :---: | :---: |
| Interval timer with alarm | $\mathbf{9 . 2 6 0} 020$ |  |


| 2 Radio controlled alarm clock | (NEW!) |
| :--- | ---: | ---: |
| Analogue display with pointer, digital display of seconds, alarm with snooze function, | TFA Dostmann |
| backlight, battery 1.5 V AA included. |  |
| Dimensions $(W \times D x H): ~$ $152 \times 115 \times 68 \mathrm{~mm}$  <br> Weight: 120 g PK <br> Type Cat. No.  <br> Radio controlled alarm clock 1 $\mathbf{9 . 2 6 2 5 4 0}$ |  |



## 3 Stopclock, analogue, Mesotron

Quartz-accurate timer with large, analogue display. Measuring range: 0 to 60 secs, 0 to 60 mins.
Inner scale 1 to 100 secs/ 100 mins.
110 mm dia.
Battery life over 18 months with a 1.5 V button cell.

| Dimensions (WxDxH): | $130 \times 40 / 95 \times 175 \mathrm{~mm}$ |
| :--- | :--- |
| Weight: | 375 g |


| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| Mesotron stopclock | 1 | $\mathbf{9 . 2 6 2 0 8 0}$ |



## 5 Electronic Timer II

Electronic timer and stopwatch with large display and 10-key setting. Counts up or down from 10 hours to 1 second. With pocket clip, bench stand, magnetic attachment and battery. Overall $70 \times 60 \times 25 \mathrm{~mm}$, weight 95 g .

| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| Timer II | 1 | $\mathbf{9 . 8 5 1 0 2 7}$ |

## 1 Short period timer KT188

Countdown timer from max. 99 mins., 59 secs. A 30 Sec . loud audible alarm sounds when 'zero' reached.
With magnet. Operating instructions in 3 languages.
Supplied with 'SR 44' 1.5 V button cell.


Dimensions (WxDxH):
Weight:
$88 \times 12 \times 46 \mathrm{~mm}$
30 g

| Type | PK Cat. No. |
| :--- | :--- |

Short period timer KT188

2


| 2 Electronic timer clock | Amarell |
| :--- | :--- |
| Count down/count up timer with loud alarm signal at end of timed period. With Clock, |  |
| Stopwatch and Memory functions. Timer up to 24 hours. Fittings: magnet, stand and |  |
| clip. Dimensions $(W \times D \times H): 68 \mathrm{~mm} \times 53 \mathrm{~mm} \times 20 \mathrm{~mm}$, with battery. |  |


| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| Electronic Timer Clock | 1 | $\mathbf{9 . 2 3 5 1 4 5}$ |

3


## Countdown timer TR 113

- large, 4 digit, LCD readout

Oregon Scientific

- countdown/countup 99 min. 59 sec .
- measuring cylinders Audible alarm sounds when 'zero' reached
- with pocket clip/bench stand and magnet
- operation manual in 5 languages
- with $1 x$ 1.5V AAA battery
- dimensions: $73 \times 66 \times 18 \mathrm{~mm}$
- weight: 61g

| Type | PK | Cat. No. |
| :--- | ---: | ---: |
| TR 113 | 1 | $\mathbf{6 . 7 0 0} 333$ |

4


4 3-channel-timer
Indispensable for laboratories. Triple timer with large display.
Dostmann electronic

- indicates three separate times simultaneously
- stopwatch function
- integrated quartz watch
- supplied with magnet and clip


## Technical Specifications

Range:
Operating temperature:
Power supply:
Dimensions:
Weight:
Type

1 sec to 20 hours
0 to $50^{\circ} \mathrm{C}$
1.5 V AAA
$88 \times 71 \times 24 \mathrm{~mm}$
115 g

| Type | PK | Cat. No. |  |
| :--- | ---: | ---: | ---: |
| 3-channel-timer | $E \& O E$. | 1 | $\mathbf{6 . 2 3 3 6 9 0}$ |
|  |  |  |  |

## 3. Analytical measurement and testing <br> Timing/Timers

## 1 Laboratory Timer Compact

Compact.
Countdown/Countup.
Digital reading, with alarm and repeat function.
12 hr . clock function.
Countdown and countup display: 23 hrs , 59 mins , 59 secs.

| Dimensions (WxDxH): <br> Weight: | $64 \times 60 \times 16 \mathrm{~mm}$ <br> 40 g |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Type |  | PK | Cat. No. |
| Compact |  | 1 | $\mathbf{9 . 2 6 2 0 7 1}$ |



## 2 Microchronometer with clock

Easy to operate.
Quartz-accurate. With electronic alarm signal.
Adjustable from 1 sec . to 24 hrs.
Memory.

| Dimensions (WxDxH): |
| :--- |
| Weight: |$\quad 80 \times 45 \times 85 \mathrm{~mm}$


| Type | PK | Cat. No. |
| :--- | ---: | ---: |
| Microchronometer with clock | 1 | $\mathbf{9 . 2 6 0 1 8 7}$ |



## 3 Stopwatch WB 388

Three separate timers in one instrument. Countdown/countup. Audible alarm sounds when 'zero' reached. 12/24 hour clock. Loud/soft alarm switch. Operating instructions in 3 languages.

| Dimensions (WxDxH): <br> Weight: | $83 \times 22 \times 70 \mathrm{~mm}$ <br> 80 g |  |  |
| :--- | :--- | :--- | :--- |
| Type |  | PK | Cat. No. |
| WB 388 | 1 | $\mathbf{9 . 2 6 0 1 8 4}$ |  |


(1) (1) 5

4 Dual Timer TR 118 OS
4

- Large, 6 digit, LCD readout
- 2 separate timers in one instrument
- Countdown/countup 99 hrs. 59 mins. 59 secs.
- Clock function switch
- Audible alarm sounds when 'zero' reached
- With pocket clip/bench stand and magnet
- Operating instructions in 3 languages.
- Supplied with 'AAA' 1.5V battery

Dimensions (WxDxH)
$73 \times 66 \times 18 \mathrm{~mm}$
63 g

| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| TR 118 OS | 1 | $\mathbf{9 . 2 6 0 1 8 6}$ |

5 Digi-Clock timer, TR 119 OS

- Large, 6-digit LCD display
- Programmable for up to 23 hrs, 59 mins, 59 secs.
- 1-minute audible alarm when timed period has expired
- Countdown or countup functions
- Time display
- Case incorporates combined bench stand/pocket clip with magnet.
- With instructions in 3 languages

Supplied with $1 \times 1.5 \mathrm{~V}$ AAA battery

| Dimensions (WxDxH): | $73 \times 70 \times 19 \mathrm{~mm}$ |
| :--- | :--- |
| Weight: | 50 g |


| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| TR 119 OS | 1 | $\mathbf{9 . 2 6 0 1 8 9}$ |



| 1 Microchronometer, TR 112 OS |  |  |
| :---: | :---: | :---: |
| - 4-figure LCD time readout for minutes and seconds <br> - Programmable for up to 99 mins, 59 secs. <br> - 30 -second audible alarm when timed period has expired <br> - Countdown <br> - Timer memory function <br> - Case incorporates combined bench stand/pocket clip with magnet. <br> - With instructions in 3 languages <br> - Supplied with $1 \times 1.5 \mathrm{~V}$ AAA battery. |  |  |
| Dimensions (WxDxH): $\quad$$66 \times 56 \times 18 \mathrm{~mm}$ <br> Weight:$\quad 45 \mathrm{~g}$ |  |  |
| Type | PK | Cat. No. |
| TR 1120 S | 1 | 9.260181 |



## 2 Benchtop timers, countdown/countup, Prisma series

Prisma 200.

- ABS plastic case
- Large, easy to read LCD display
- Stopwatch function
- Normal time display
- Selectable time resolution 999 mins., 59 secs. or 9 hrs., 59 mins., 59 secs., $1 / 10 \mathrm{sec}$.
- Loud audible alarm
-2 channels with start/stop operation, either separately or together.
Prisma 400.
Generally as Prisma 200, but additionally with:
- Sequence programming
- Function window
- 4 channels.

| Type | Colour | PK | Cat. No. |  |
| :--- | :--- | :--- | ---: | ---: |
|  |  | white | 1 | $\mathbf{9 . 2 6 0 1 7 8}$ |
| Prisma 200 | 9.260 | 179 |  |  |



## 3 Radio alarm clock RM 912 BOS

- time adjustment and synchronization via radio signal DCF-77 for Central European time zones only
- with 24 hour display with hh: mm: ss
- date display: day/month
- weekday display in choice of 4 languages
- second time zone function
- time and date manually adjustable
- radio signal strength display in 3 stages
- backlighting by pressing on the snooze button ( 5 sec .) and during the alarm ( 5 sec .)
- alarm function
- snooze function (8 mins.)
- 2-minute crescendo alarm
- easy adjustment "24h Alarm off" and "Permanent On/Off"
- two independent alarm times can be set
- battery change display
- supplied with $2 \times 1.5 \mathrm{~V}$ 'AAA' batteries.
- colour: silver-blue

Dimensions (WxDxH): $\quad 85 \times 47 \times 107 \mathrm{~mm}$
Weight:
160 g

| Type | PK | Cat. No. |
| :--- | :---: | :---: |
| RM 912 BOS | $\mathbf{6 . 2 3 7} 724$ |  |



## 4 Radio controlled wall clock

- Highest precision radio-controlled clock
- Analogue display with second hand
- Digital display of date
- Large dial
- Ideal for home, office, waiting room, lobby or entrance hall and as a gift
- Ø 300mm
- Battery included 1.5 V AA

| Type | PK | Cat. No. |
| :--- | ---: | ---: | ---: |
| Radio controlled wall clock | 1 | $\mathbf{9 . 8 5 1} \mathbf{0 1 9}$ |

