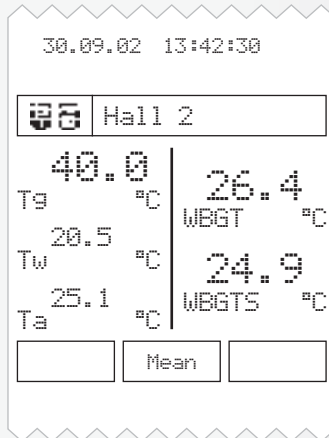


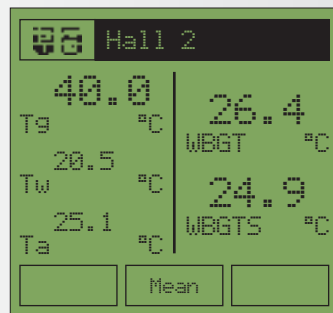
## The professional set for assessing workplaces subjected to heat, testo 400



Measure with testo 400 and WBGT probe



testo 400 on-site printout e.g. with attachable printer



Calculated WBGT and WBGTS indices are displayed directly

### Wet Bulb Globe Temperature Probe

The measurement task involves assessing workplaces, particularly those subjected to heat radiation:

The WBGT probe is used to determine the WBGT (Wet Bulb Globe Temperature) climate index in accordance with DIN 33403 and ISO 7243.

The WBGT index is used to determine the maximum allowable exposure time at workplaces subjected to heat.

Possible applications are e.g.:

- Steel industry
- Foundries
- Glass industry
- Furnaces
- Ceramics industry.

Heat radiation causes an increase in temperature based on:

- the thermal influence of the surroundings
- Work intensity
- Thermal transfer of clothing
- Duration of exposure.

If this burden is too high, there is a risk of a circulatory collapse, heat cramps or heat stroke.

Three different temperatures have to be measured for WBGT calculation:

- Temperature of a naturally aired, humidified thermometer (T<sub>w</sub>), natural wet bulb temperature
- Globe temperature (T<sub>g</sub>)
- Air temperature (T<sub>a</sub>).

Calculation occurs inside and outside the building without exposure to sun:

$$\text{WBGT} = 0.7 T_w + 0.3 T_g$$

Outside buildings with exposure to sun:

$$\text{WBGTS} = 0.7 T_w + 0.2 T_g + 0.1 T_a$$

The testo 400 measuring instrument calculates indices and shows them in its display.



The WBGT case for fast assessment of workplaces

### Recommended Set:

	Part no.
testo 400, multi-functional meas. instr., incl. meas. value store up to 500,000 readings, VAC-module (determination of volume flow with error calc.), battery, Li-cell and calibration protocol	0563 4001
Wet Bulb Globe temperature probe to assess workplaces subjected to heat, in accordance with ISO 7243 or DIN 33403, incl. WBGT case	0635 8888 ID No. 0699 4239/1
Attachable printer (securely attached) including 1 roll of thermal paper and batteries, quickly prints readings on location	0554 0570
Mains unit 230 V/ 8 V/ 1 A, for instrument (European plug), for mains operation and battery recharging	0554 1084

### We recommend the following for each of the 3 temperature probes:

ISO calibration certificate/temperature for air/immersion probes, calibration points -8°C; 0°C; +40°C	0520 0181
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