

# Anemometer + Thermohygrometer + Luxmeter + Brightness meter “TKA-PKM” (61)



## Main technical characteristics

|                                                                                                              |                                  |
|--------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>Illumination</b> measurement range                                                                        | 10 ÷ 200,000 lx                  |
| Limits of the basic relative error of illumination measurements in the visible spectral range (380 ÷ 760) nm | ± 8.0%                           |
| <b>Brightness</b> measurement range                                                                          | 10 ÷ 200,000 cd / m <sup>2</sup> |

|                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Limits of the basic relative error of brightness measurements                                                                                                                                                                                                                                                                              | $\pm 10.0\%$                                                                                                                          |
| <b>Air temperature</b> measurement range                                                                                                                                                                                                                                                                                                   | $-30 \div +60 \text{ }^{\circ}\text{C}$                                                                                               |
| Limits of the basic absolute error of temperature measurements in the range from $+15$ to $+25 \text{ }^{\circ}\text{C}$                                                                                                                                                                                                                   | $\pm 0.2 \text{ }^{\circ}\text{C}$                                                                                                    |
| Limits of additional absolute error of air temperature measurements at air temperature, $^{\circ}\text{C}$ from $-30$ to $-10$ inclusive above $-10$ to $+15$ inclusive above $+25$ to $+45$ inclusive above $+45$ to $+60$                                                                                                                | $\pm 0.3 \text{ }^{\circ}\text{C} \pm 0.1 \text{ }^{\circ}\text{C} \pm 0.1 \text{ }^{\circ}\text{C} \pm 0.3 \text{ }^{\circ}\text{C}$ |
| Measurement range of <b>relative humidity</b>                                                                                                                                                                                                                                                                                              | $5 \div 98\%$                                                                                                                         |
| Limits of the basic absolute error of measurements of relative humidity in the range from $+15$ to $+25 \text{ }^{\circ}\text{C}$                                                                                                                                                                                                          | $\pm 3.0\%$ rel. ow.                                                                                                                  |
| Limits of permissible additional absolute error of relative humidity measurements when the air temperature changes by every $10 \text{ }^{\circ}\text{C}$ in the range from $-30$ to $+15$ and over $+25$ to $+60 \text{ }^{\circ}\text{C}$                                                                                                | $\pm 3.0\%$ rel. ow.                                                                                                                  |
| <b>Air velocity</b> measurement range                                                                                                                                                                                                                                                                                                      | $0.1 \div 20 \text{ m / s}$                                                                                                           |
| Limits of the basic absolute error of air velocity measurements (V) in the temperature range from $+15$ to $+25 \text{ }^{\circ}\text{C}$ :                                                                                                                                                                                                |                                                                                                                                       |
| – in the range $(0.1 \div 1.0) \text{ m / s}$                                                                                                                                                                                                                                                                                              | $\pm (0.045 + 0.05 V) \text{ m / s}$                                                                                                  |
| – in the range $(> 1.0 \div 20) \text{ m / s}$                                                                                                                                                                                                                                                                                             | $\pm (0.1 + 0.05 V) \text{ m / s}$                                                                                                    |
| The limits of the admissible additional absolute error of the relative humidity measurements when the air temperature changes by every $10 \text{ }^{\circ}\text{C}$ in the range from $-30$ to $+15$ and over. $+25$ to $+60 \text{ }^{\circ}\text{C}$ , in fractions of the limits of the permissible basic absolute error               | $\pm 1.0$                                                                                                                             |
| The limits of the additional relative error of the device when measuring optical quantities, due to a change in the sensitivity of the photometric head when the air temperature in the measurement zone changes by every $10 \text{ }^{\circ}\text{C}$ in the range from $-30$ to $+15$ and over. $+25$ to $+60 \text{ }^{\circ}\text{C}$ | $\pm 3.0\%$                                                                                                                           |

The combined device “TKA-PKM” (61) implements the option of measuring the air velocity averaged over a certain period of time (100 s) (in accordance with the recommendations to SanPiN, see, for example, the Manual “Physical factors. Ecological and hygienic assessment and control “. M.” Medicine “, 1999, so 2., p. 416).

#### dimensions

|                                                                                        |                  |
|----------------------------------------------------------------------------------------|------------------|
| Signal processing unit                                                                 | 160 x 86 x 31 mm |
| Measuring head                                                                         | 425 x 48 x 55 mm |
| Device weight (no more)                                                                | 0.45 kg          |
| A NiMH rechargeable battery is used to power the devices – Krona battery standard size | 8.4V             |

Combining in one device the ability to measure the main parameters of the microclimate and parameters of optical radiation Compactness and ease of use.

