

## Technical Data Sheet

### KTX.TQI

#### Infrared Radiation Thermometer

- Compact HD-version for up to 180 °C ambient temperature
- High temperature resolution
- Fast response time from 5 ms on (option)
- Selection of several lenses for target diameters from 2 mm on



#### Measurement specifications

|                                             |                                                                                                                                                         |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Temperature range<sup>1</sup>:</b>       | 50 ... 300 °C                                                                                                                                           |
| <b>Spectral range:</b>                      | 3.43 µm                                                                                                                                                 |
| <b>Measurement uncertainty:</b>             | ± 1 °C ± 0.8 % of the temperature difference between measured target and instrument or value of temperature resolution. The higher value shall prevail. |
| <b>Temperature resolution (NETD):</b>       | Depending on the measured temperature and the response time<br>Typical value is 0.3 °C (2 Sigma, by $t_{90}$ : 1 s, 200 °C; $\epsilon = 1$ )            |
| <b>Long-term stability:</b>                 | Better than 0.01 % of the absolute measured temperature in Kelvin per month                                                                             |
| <b>Field of view:</b>                       | from Ø 2 mm (± 5 %) on, depending on optic                                                                                                              |
| <b>Response time (<math>t_{90}</math>):</b> | Selectable from 50 ms ... 1 s, option: 5 ms                                                                                                             |
| <b>Temperature unit:</b>                    | °C, K or °F                                                                                                                                             |
| <b>Emissivity:</b>                          | Adjustable from 0.5 ... 1.0 by potentiometer                                                                                                            |
| <b>Lens:</b>                                | CaF <sub>2</sub> , ZnSe                                                                                                                                 |

#### Electrical specifications / Functions

|                                                               |                                                            |
|---------------------------------------------------------------|------------------------------------------------------------|
| <b>Analog output:</b>                                         | Linear 0 ... 20 mA; 4 ... 20 mA; adjustable via dip switch |
| <b>Laser aiming (accessory):</b>                              | Laser pointer LP15                                         |
| <b>Laterally adjustable via dip switch and potentiometer:</b> | Emissivity, analog output, response time, etc.             |
| <b>Operating voltage:</b>                                     | DC: 20 ... 30 V                                            |
| <b>Power consumption:</b>                                     | ≤ 2.5 W                                                    |

<sup>1</sup> Depending on configuration

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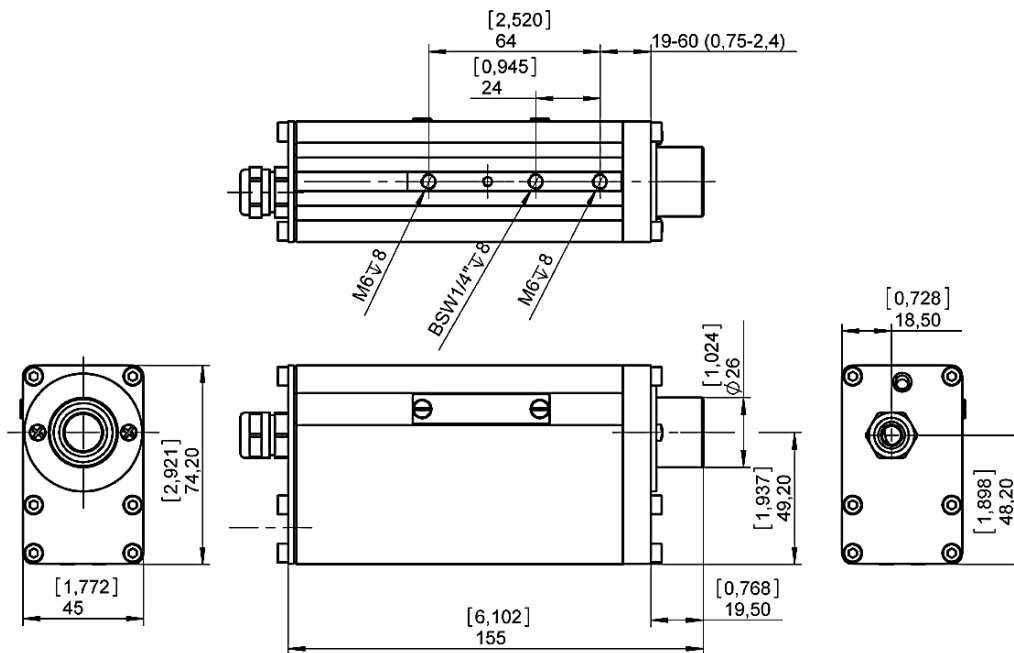
### General specifications

|                                         |                                                |
|-----------------------------------------|------------------------------------------------|
| <b>Storage temperature:</b>             | -20 ... 85 °C                                  |
| <b>Permissible ambient temperature:</b> | 0 ... 60 °C (optional HD-version up to 180 °C) |
| <b>Protection class:</b>                | IP65                                           |
| <b>Housing:</b>                         | Stainless steel and aluminum                   |
| <b>Weight:</b>                          | Appr. 0.75 kg                                  |

### Scope of supply and options<sup>2</sup>

|                                 |                                                                                                                                                                                                                                                                                  |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Accessories:</b>             | <ul style="list-style-type: none"> <li>■<sup>3</sup> Manual KTX</li> <li>■ Connecting cable, hardwired 2 m length, PVC, unterminated ends</li> <li>□ Connecting cable with female connector or hardwired ≥ 5 m length: PTFE; PUR; PVC; TPE, unterminated ends or plug</li> </ul> |
| <b>Calibration certificate:</b> | □ HEITRONICS certificate                                                                                                                                                                                                                                                         |
| <b>Housing:</b>                 | □ HD-version up to 180 °C ambient temperature                                                                                                                                                                                                                                    |
| <b>Temperature indication:</b>  | □ LED display reverse side for the measuring range of the instrument                                                                                                                                                                                                             |
| <b>Adapter and flanges:</b>     | □ See document Options and Accessories                                                                                                                                                                                                                                           |
| <b>Vacuum flanges ISO-KF:</b>   | □ DN25, DN40 ((at 10 <sup>-4</sup> Pa (10 <sup>-6</sup> Torr)), the leakage is < 10 <sup>-8</sup> std cm <sup>3</sup> /s                                                                                                                                                         |

### Dimensions<sup>4</sup>



Unit: mm [inch]

<sup>2</sup> Special model specification on request.

<sup>3</sup> ■ Standard function

□ Option

<sup>4</sup> The dimensions given within this document will be valid for the drawing shown