

Technical Data Sheet

KTX.DD

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

Temperature range¹:	500 ... 2000 °C
Spectral range:	2 ... 2.7 µm
Measurement uncertainty:	± 1 °C ± 0.8 % of the temperature difference between measured target and instrument or value of temperature resolution. The higher value shall prevail.
Temperature resolution (NETD):	Depending on the measured temperature and the response time Typical value is 0.1 °C (2 Sigma, by t_{90} : 1 s, 500 °C; $\epsilon = 1$)
Long-term stability:	Better than 0.01 % of the absolute measured temperature in Kelvin per month
Field of view:	from Ø 2 mm (± 5 %) on, depending on optic
Response time (t_{90}):	Selectable from 50 ms ... 1 s, option: 5 ms
Temperature unit:	°C, K or °F
Emissivity:	Adjustable from 0.5 ... 1.0 by potentiometer
Lens:	CaF ₂ , ZnSe

Electrical specifications / Functions

Analog output:	Linear 0 ... 20 mA; 4 ... 20 mA; adjustable via dip switch
Laser aiming option:	Pilot laser
Laterally adjustable via dip switch and potentiometer:	Emissivity, analog output, response time, etc.
Operating voltage:	DC: 20 ... 30 V
Power consumption:	≤ 2.5 W

¹ Depending on configuration

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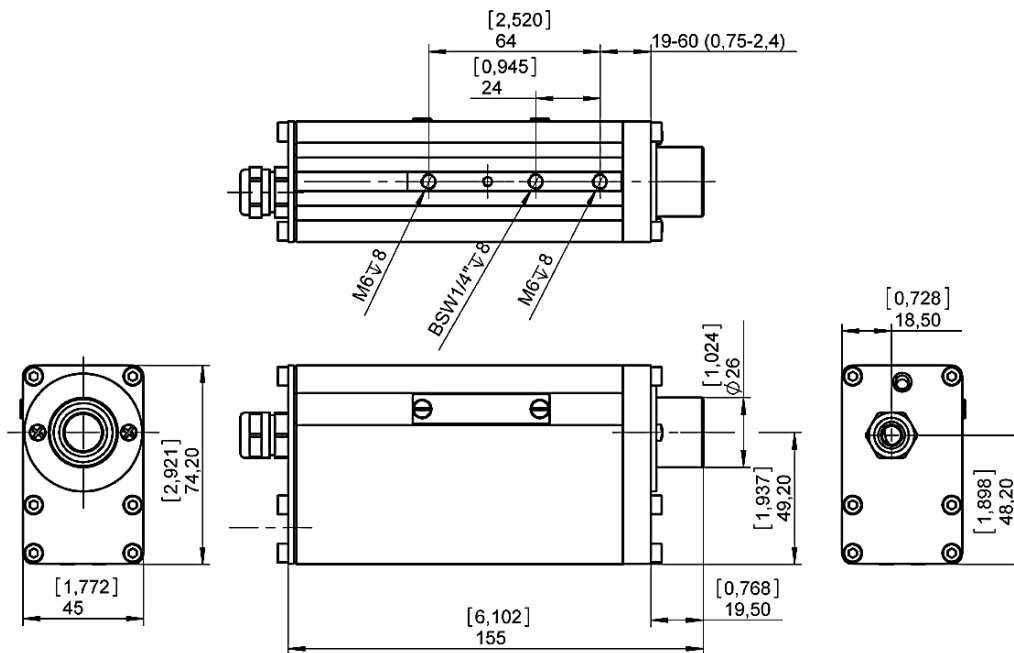
General specifications

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

Scope of supply and options²

Accessories:	■³ Manual KTX ■ Connecting cable, hardwired 2 m length, PVC, unterminated ends □ Connecting cable with female connector or hardwired ≥ 5 m length: PTFE; PUR; PVC; TPE, unterminated ends or plug
Calibration certificate:	□ HEITRONICS certificate
Housing:	□ HD-version up to 180 °C ambient temperature
Temperature indication:	□ LED display reverse side for the measuring range of the instrument
Adapter and flanges:	□ See document Options and Accessories
Vacuum flanges ISO-KF:	□ DN25, DN40 ((at 10 ⁻⁴ Pa (10 ⁻⁶ Torr)), the leakage is < 10 ⁻⁸ std cm ³ /s)

Dimensions⁴



Unit: mm [inch]

² Special model specification on request.

³ ■ Standard function

□ Option

⁴ The dimensions given within this document will be valid for the drawing shown