

Digital MAURER Pyrometer

KTRD 4075-HS

measuring range 350-1500°C

HIGHSPEED COMPACT DEVICE

Laser application



Performance, precision and reliability - you can count on MAURER pyrometers. The compact and easy to use design, as well as a large selection of matching accessories, enables you to quickly integrate the pyrometer into your surroundings.

The most important **features** and **characteristics** at a glance:

- Spectral range: 1,45 – 1,7 µm
- **Ultra-short response time of 100 µs**
- Emissivity from 100 – 10 %, adjustable directly at the pyrometer or via interface
- Green target light (LED) that is exactly identical to the actual measuring spot in position and size
- With Vario-optic, adjustable from 100 – 500 mm, for exact focusing on the measuring spot
- Use with digital and analogue output
- 1 limit output (open collector)
- Operating voltage 24 V DC
- Free software (IR-LOG) for parameter setting, data recording and storage

Measuring Ranges

Short measuring ranges	Long measuring ranges	Target size
1. 350 – 900 °C (D = 135)	4. 350 – 1500 °C (D = 135)	Target size (mm) = $\frac{\text{Measuring distance (mm)}}{\text{Distance ratio } D}$
2. 400 – 1000 °C (D = 135)		for example:
3. 500 – 1200 °C (D = 135)		Target size 0,74 mm Ø = $\frac{\text{Measuring distance 100 mm}}{\text{Distance ratio } D = 135}$

Special measuring ranges upon request

Scope of Applications

Processing of steel, iron, non-ferrous metal, wires and ceramics; rolling, soldering, welding, transforming, induction heating; vacuum furnace etc.

Technical Data

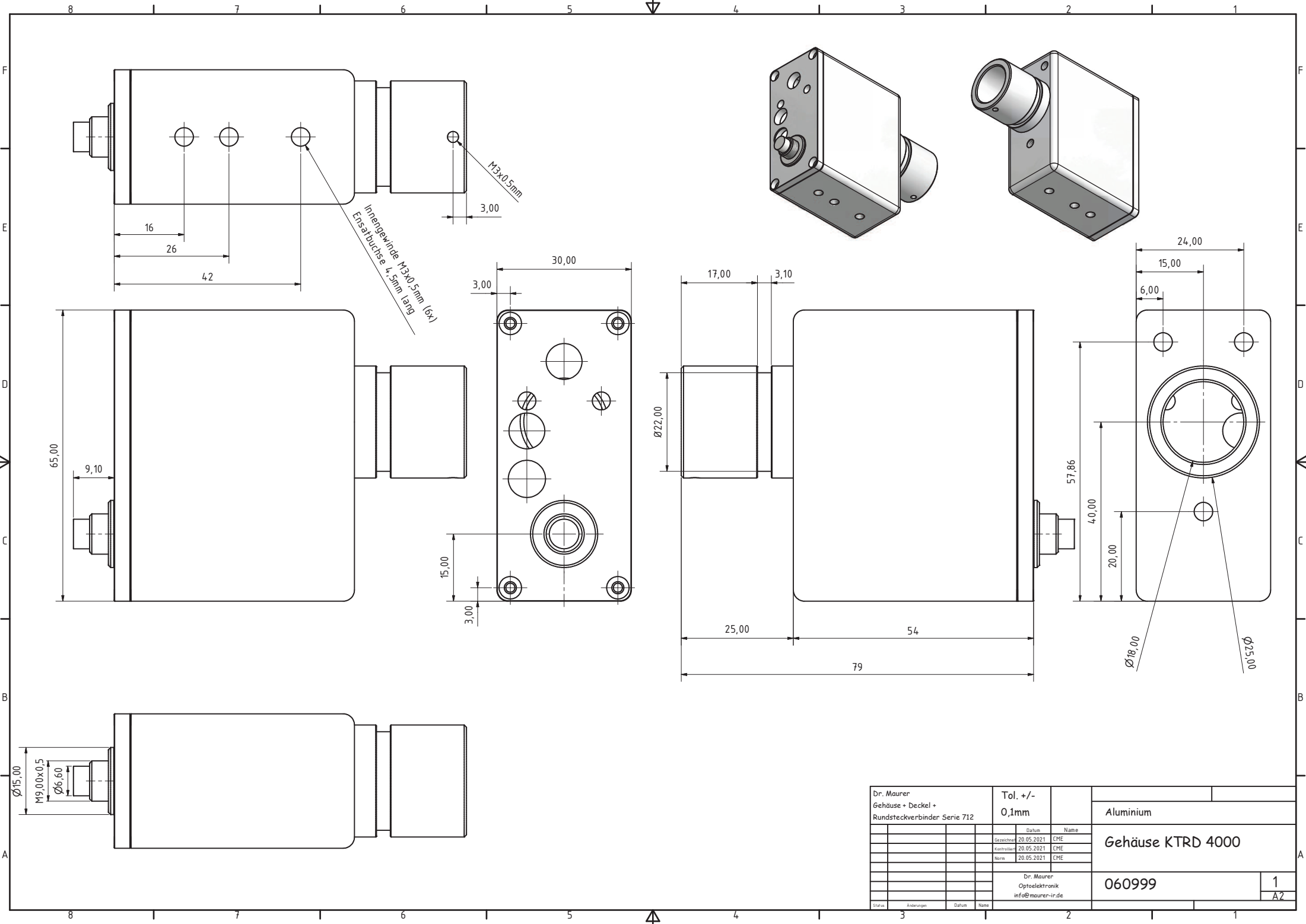
Spectral range	1,45 – 1,7 µm
Target marking	Green target light (LED)
Response time	100 µs
Measurement uncertainty	0,5 % ± 1 °C (ε = 1, Tu = 23 °C, T95 = 1 s)
Temperature dependence	0,01 % / °C
Reproducibility	0,1 % ± 1 °C (ε = 1, Tu = 23 °C, T95 = 1 s)
Emissivity	100 – 10 %, adjustable directly at the pyrometer or via interface
Resolution	< 0,1 % at the analogue output < 0,1 °C at the interface
Operating / Storage temperature	0 – 60 °C / -10 °C – 70 °C 32 – 140 °F / 14 – 158 °F
Permissible humidity	35 – 85 % RH (non-condensing)
Analogue output	0 – 20 mA / 4 – 20 mA (Load max. 500 Ω)
1 limit output (open collector)	24 V 100 mA
Interface	RS 232 ± 50 V isolated <u>or</u> RS 485 ± 70 V isolated
Maximum value memory	Maximum memory, peak value memory double, adjustable time and threshold value, erasing after time, external contact, by software, after every measuring object
Supply voltage	24 V DC ± 10 %
Power consumption	< 100 mA
Device connection	8-pol. plug connector if RS232, 7-pol. plug connector if RS485
Dimensions (LxHxW) / Weight	30 x 65 x 80 mm / 0,19 kg
IP Code	IP65

Configurations

- Version with optic: KTRD 4075
- Special objectives and measuring ranges upon request

Main Equipment

Electronic Equipment		Mechanical Equipment	
Connection cables	Power Supply 100-270 VAC – 24 VDC	Cooling plate	Mirror 90° for beam deflection
Electronic process units	Interface converter (to USB)	Mounting parts	Blowing device



Dr. Maurer				Tol. +/-					
Gehäuse + Deckel +				0,1mm		Aluminium			
Rundsteckverbinder Serie 712									
				Datum		Name		Gehäuse KTRD 4000	
				Gezeichnet		20.05.2021 CME			
				Kontrolliert		20.05.2021 CME			
				Norm		20.05.2021 CME			
								060999	
								1	
								A2	
Status	Änderungen	Datum	Name						