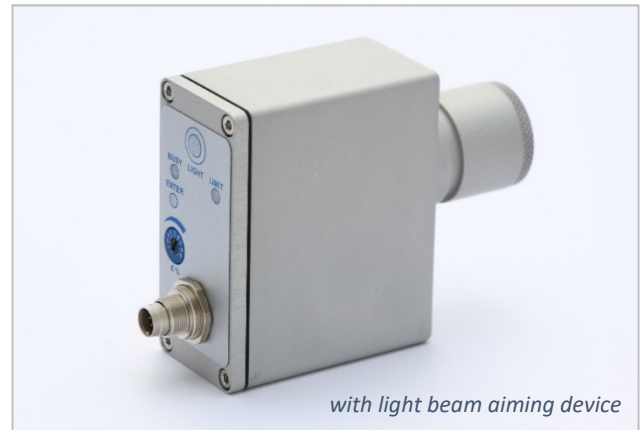


Digital MAURER Two-Colour Pyrometer

QKTRD 4085

Measuring range 700 to 2500 °C

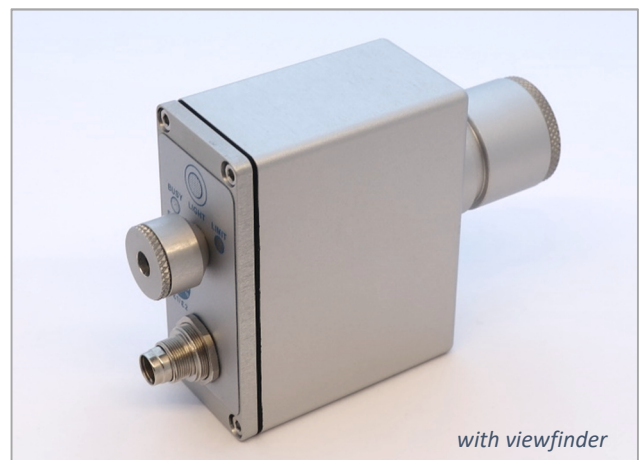
COMPACT DEVICE



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: 0,85 – 1,1 µm
- Short response time of less than 1 ms, with dynamic adjustment
- Emissivity slope from 0,8 – 1,2, 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

measuring ranges

1. 700 – 1600 °C (D = 85)
2. 800 – 2500 °C (D = 85)

Target size

$$\text{Target size (mm)} = \frac{\text{Measuring distance (mm)}}{\text{Distance ratio } D}$$

for example:

$$\text{Target size 1,18 mm } \varnothing = \frac{\text{Measuring distance 100 mm}}{\text{Distance ratio } D = 85}$$

Special measuring ranges upon request

Scope of Applications

Processing of steel, iron, non-ferrous metal and wires, ceramics, glass tub, glass arching, as well as hardening, rolling, soldering, forging, welding, transforming, induction heating, vacuum furnace, etc.

Technical Data

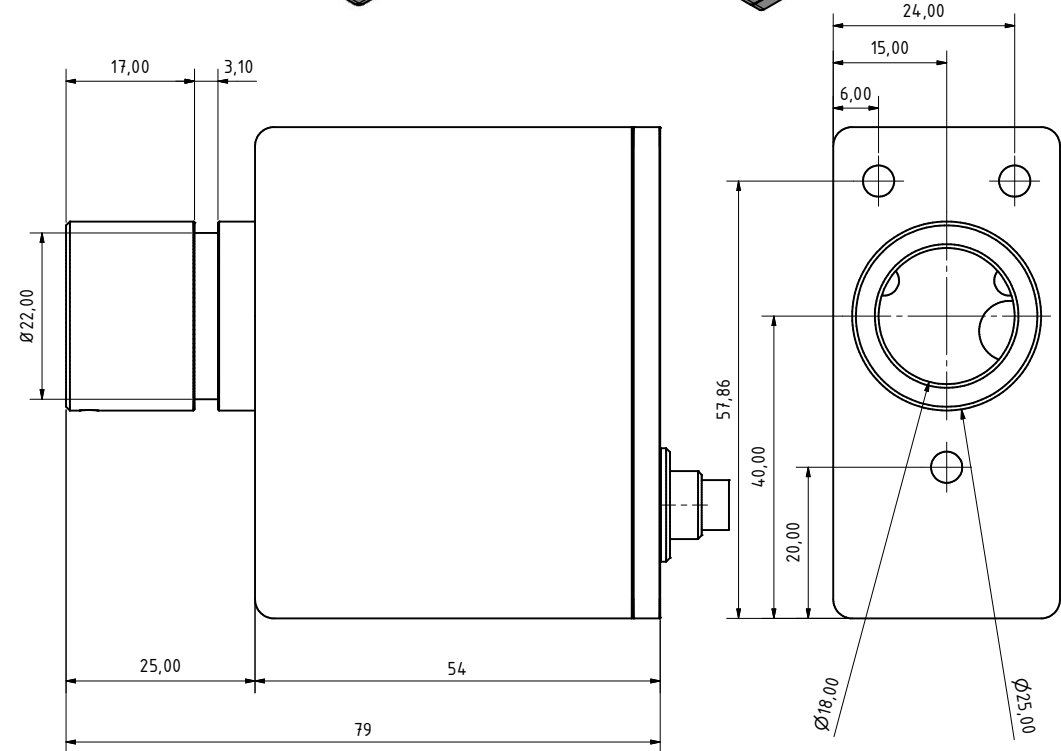
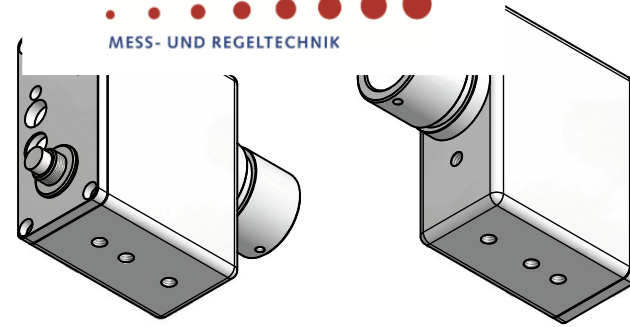
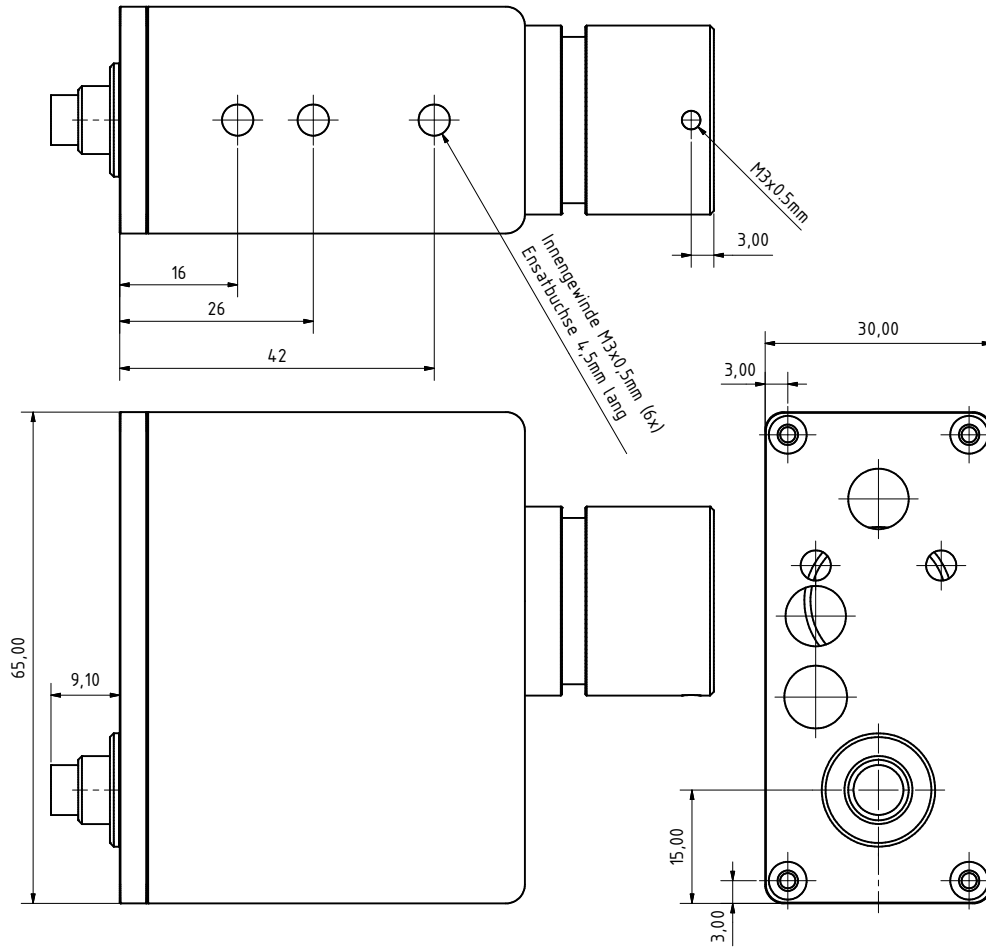
Device type	QKTRD 4085-1	QKTRD 4085-2
Target marking	Light beam aiming device with LED (green)	viewfinder
Response time	<1 ms, with dynamic adjustment	
Spectral range	0,85 – 1,1 µm	
Measurement uncertainty	0,5 % ± 1 °C (ε = 1, Tu = 23°C, T95 = 1 s)	
Temperature dependence	0,01 % / °C	
Reproducibility	0,1 % ± 1 °C (ε = 1, Tu = 23°C, T95 = 1 s)	
Emissivity slope	0,8 – 1,2, 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)	
Subranges	freely adjustable within measuring range	
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

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