HEITRONICS
Infrarot Messtechnik

CT18.03

Infrared Radiation Pyrometer CT18.03

for Non-Contact Temperature Measurement

- Rugged stainless steel housing, IP65
- Wide temperature ranges from 4**50 °C to 3000 °C**
- Very fast response times ≥ **1 ms** (programmable)
- Focusable Lens provides Fields-of-View as small as **0.7 mm**
- Laser aims the size of the Field-of-View in focus

GENERAL SPECIFICATION

Temperature ranges:	■	□ 450 °C to 1000 °C, □ 500 °C to 1400 °C, ■ 550 °C to 1800 °C, □ 650 °C to 2200 °C, □ 700 °C to 2500 °C, □ 750 °C to 3000 °C
Temperature resolution (NETD):	■	Depends on measured temperature and response time, typical value 0.1 °C (at 100 ms, 350 °C, ε= 1)
Accuracy (uncertainty):	■	± 0.5 °C plus 0.5% of the difference between target and sensor head temperature
Long term stability:	■	Better than 0.01% of the absolute measured value per month
Spectral response:	■	0.95 µm
Programmable functions via serial interface:	■	Emissivity, environmental temperature, analog output, function of analog output, response time, temperature unit, valley/peak picker with decay function, reset after time, laser function, alarm values and output
Emissivity:	■	0.050 to 1.000 in 0.001-steps
Response time:	■	From 1 ms to 10 s (0.001, 0.003, 0.01, 0.03, 0.1, 0.3, 1, 3, 10 s)
Temperature unit:	■	°C, K or °F
Analog output (Hardware):	■	Linear 0 - 20 mA or 4 - 20 mA or 0 – 10 V scalable temperature span ≥ 200 °C
Analog output (Functions):	■	Actual value, max-value or min-value
Analog output (Resolution):	■	16 bit
Valley/peak picker programmable:	■	Reset: internal
	■	Reset: external input
	■	Reset: after time (programmable)
Serial interface: (switchable)	■	RS232-interface, bi-directional, 9.6 kbps to 230 kbps and RS485 interface, Half-Duplex or Full-Duplex, 9.6 kbps to 230 kbps for programming and data transfer
Alarm output:	■	Programmable dry contact (relay)
Operating voltage:	■	10.5 VDC to 30 VDC
Power consumption:	■	≤ 2.5 W
Permissible ambient temperature:	■	-25 to 70 °C
	□	With protective and cooling housing WK15 up to 300 °C
Storage temperature:	■	-40 to 85 °C
Protective class:	■	IP65 (IEC), (NEMA 4 equivalent)
Housing:	■	Stainless steel
PC-based Software:	■	EasyConfig: Software for parameter setting
	□	EasyMeas: Software for parameter setting, data recording, data storage and data evaluation

■ Standard function
□ Option

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OPTICS

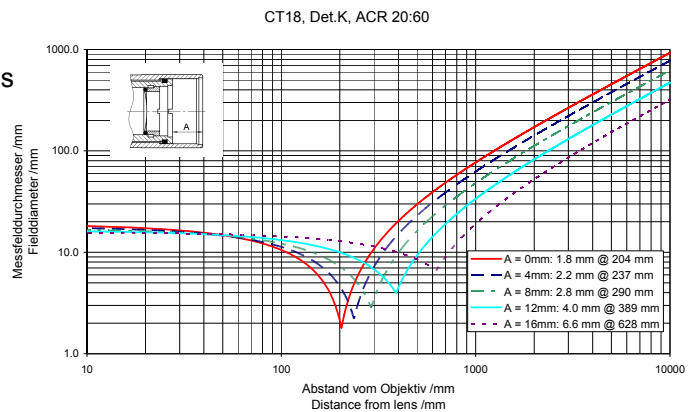|		
Objectives (Lenses):	■	Focusable from 132 mm to infinitive
Field of view diameter:	■	From Ø 0.7 mm, depends on lens
Field of view marking:	□	Laser built-in: aims the center and the size of the field of view in focus
Laser function:	■	Time out or permanent operation, while flashing or continuous marking
Through the lens view finder:	■	displays the Field of View of the target

APPLICATION

FIELD OF VIEW DIAGRAM (Example)

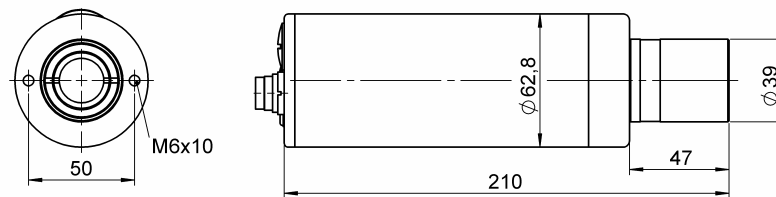Temperature Measurement of:

- Metals
- Metal oxid
- Semiconductors
- Glass
- Graphite
- Silicium
- ...

Prozess Temperatures in:

- Hardening
- Soldering
- Forging
- Induction heating
- Epitaxy
- Casting
- Annealing

CT18, Det.K, ACR 20:60

Messfelddurchmesser /mm / Fielddiameter /mm

A = 0mm: 1.8 mm @ 204 mm
A = 4mm: 2.2 mm @ 237 mm
A = 8mm: 2.8 mm @ 290 mm
A = 12mm: 4.0 mm @ 389 mm
A = 16mm: 6.6 mm @ 628 mm

Abstand vom Objektiv /mm / Distance from lens /mm

DIMENSIONS

M6x10
50
Ø 62,8
Ø 39
210
47

Dimensions in mm

ACCESSORIES

Protective and cooling housing WK15

Protective and cooling housing with air purge and extension tube