

CT13 series

Infrared Radiation Thermometer CT13

- Rugged stainless steel housing, IP68
- Wide temperature ranges from 0 °C to 900 °C / 500 °C to 2000 °C
- Very fast response times ≥ 30 ms (programmable)
- Fields-of-view as small as 1 mm
- Pilot laser aims the center of the field-of-view



GENERAL SPECIFICATION

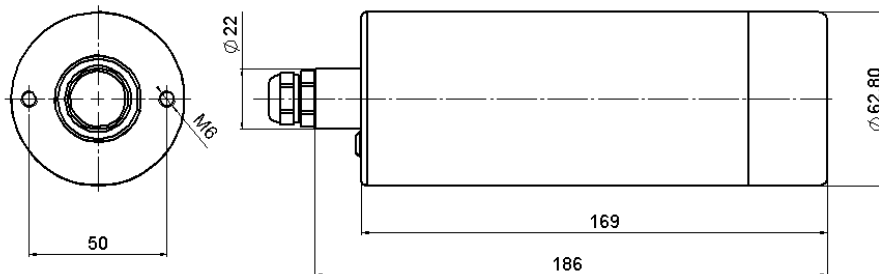
Temperature ranges:	<ul style="list-style-type: none"> ■ 0 to 900 °C; 200 to 1400 °C; 500 to 2000 °C (→ Table "Application / Model")
Temperature resolution (NETD):	<ul style="list-style-type: none"> ■ Depends on measured temperature and response time, typical value 0.2 °C (at 300 ms, 100 °C, $\epsilon = 1$)
Accuracy (uncertainty):	<ul style="list-style-type: none"> ■ ± 0.8 °C plus 0.8% of the difference between target and sensor head temperature
Long term stability:	<ul style="list-style-type: none"> ■ Better than 0.01% of the absolute measured value per month
Field of view diameter:	<ul style="list-style-type: none"> ■ From \varnothing 1 mm, depends on lens
Field of view marking:	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Pilot laser</i>, built-in: aims the center of the field of view at any distance <input type="checkbox"/> <i>Laser pointer</i> as accessory for non transparent lenses
Laser function:	<ul style="list-style-type: none"> ■ Time out or permanent operation, while flashing or continuous marking (A)
Spectral response:	<ul style="list-style-type: none"> ■ 8 to 14 μm
Programmable functions via serial interface:	<ul style="list-style-type: none"> ■ Emissivity, environmental temperature, analog output, function of analog output, response time, temperature unit, valley/peak picker with decay function, laser function (A), alarm values and output (B)
Emissivity:	<ul style="list-style-type: none"> ■ 0.100 to 1.000 in 0.001-steps
Response time:	<ul style="list-style-type: none"> ■ From 30 ms to 10 s (0.03, 0.1, 0.3, 1, 3, 10 s)
Temperature unit:	<ul style="list-style-type: none"> ■ °C, K or °F
Analog output (Hardware):	<ul style="list-style-type: none"> ■ Linear 0 - 20 mA, or 4 - 20 mA, scalable temperature span ≥ 50 °C
Analog output (Functions):	<ul style="list-style-type: none"> ■ Actual value, max-value or min-value
Analog output (Resolution):	<ul style="list-style-type: none"> ■ 12 bit
Valley/peak picker programmable:	<ul style="list-style-type: none"> ■ Reset: internal <input type="checkbox"/> Reset: external input
Serial interface:	<ul style="list-style-type: none"> ■ RS232-interface, bi-directional, 9.6 to 57.6 kbps, for programming and data transfer
Alarm output:	<ul style="list-style-type: none"> <input type="checkbox"/> Programmable (open collector)
Operating voltage:	<ul style="list-style-type: none"> ■ 10.5 VDC to 30 VDC / 12 (-10 %) VAC to 24 (+10 %) VAC
Power consumption:	<ul style="list-style-type: none"> ■ ≤ 2.5 W
Permissible ambient temperature:	<ul style="list-style-type: none"> ■ -25 to 60 °C <input type="checkbox"/> With protective and cooling housing WK15 up to 300 °C
Storage temperature:	<ul style="list-style-type: none"> ■ -40 to 85 °C
Protective class:	<ul style="list-style-type: none"> ■ IP68 (IEC), (NEMA 4 equivalent)
Housing:	<ul style="list-style-type: none"> ■ Stainless steel
PC-based Software:	<ul style="list-style-type: none"> ■ EasyConfig: Software for parameter setting <input type="checkbox"/> EasyMeas: Software for parameter setting, data recording, data storage and data evaluation

■ Standard function	(A) with option "Pilot laser"
<input type="checkbox"/> Option	(B) with option "Alarm output"

SELECTION GUIDE
FOR CT13-Series

<u>Application / Material</u>	<u>Model / Type</u>	<u>Temperature range / °C</u>
Natural Material, Paint, Chemicals, Rubber Paper, textiles, ceramics, asphalt, wood, electronic components, building materials, food, ...	CT13.10	0 ... 900
Thin Plastic Film Thin plastic film / oil / paint ... PET, PA, ...	CT13.3i CT13.7	50 ... 300 0 ... 400
Glass / Quartz Glass volume Glass and Quartz surface Glass surface	CT13.4 CT13.5 CT13.8	200 ... 1000 200 ... 1400 0 ... 1000
Metal / Metal Oxide / Ceramic Metal / metal oxide / ceramic	CT13.2	500 ... 2000

DIMENSIONS



CT13 Dimensions in mm



ACCESSORIES



Airpurge



Protective and cooling housing WK15



Protective and cooling housing with airpurge and extension tube