

# CT11 Series

## Infrared Radiation Thermometer CT11

- Rugged stainless steel housing, IP68
- Wide temperature ranges from 0 to 500 °C / 500 to 2000 °C
- Very fast response times  $\geq 50$  ms (programmable)
- Fields-of-view as small as 1 mm



## GENERAL SPECIFICATION

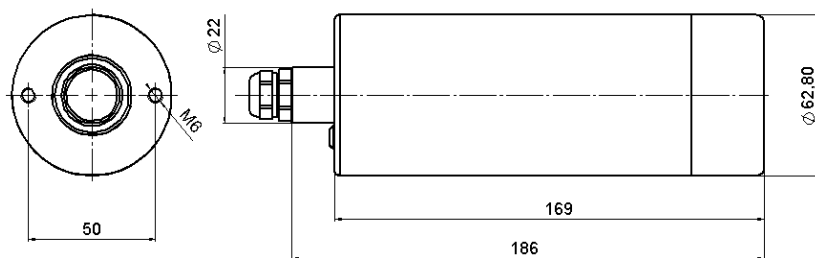
<b>Temperature ranges:</b>	■ 0 to 500 °C, 200 to 1000 °C, 500 to 2000 °C (→ Table "Application / Model")
<b>Temperature resolution (NETD):</b>	■ Depends on measured temperature and response time, typical value 0.1 °C (at 300 ms, 100 °C, $\epsilon=1$ )
<b>Accuracy (uncertainty):</b>	■ $\pm 0.8$ °C plus 0.8% of the difference between target and sensor head temperature
<b>Long term stability:</b>	■ Better than 0.01% of the absolute measured value per month
<b>Field of view diameter:</b>	■ From $\varnothing 1$ mm, depends on lens
<b>Spectral response:</b>	■ 8 to 14 $\mu\text{m}$ , 2.5 $\mu\text{m}$ , 3.9 $\mu\text{m}$
<b>Programmable functions via serial interface:</b>	■ Emissivity, Environmental temperature, Analog output, Function of analog output, Response time, Temperature unit, Valley / Peak-picker with decay function
<b>Emissivity:</b>	■ 0.100 to 1.000 in 0.001-steps
<b>Response time:</b>	■ From 50 ms to 10 s (0.05, 0.1, 0.3, 1, 3, 10 s)
<b>Temperature unit:</b>	■ °C, K or °F
<b>Analog output (Hardware):</b>	■ Linear 0 - 20 mA, or 4 - 20 mA, Scalable temperature span $\geq 50$ °C
<b>Analog output (Functions):</b>	■ Actual value
<b>Analog output (Resolution):</b>	■ 12 bit
<b>Valley / peak picker programmable (only digital):</b>	■ Reset: internal (via Serial interface)
<b>Serial interface:</b>	■ RS232-interface, bi-directional, 9.6 to 57.2 kbps, for programming and data transfer
<b>Alarm output:</b>	□ Programmable (Open Collector)
<b>Operating voltage:</b>	■ 10.5 VDC to 30 VDC / 12 (-10 %) VAC to 24 (+10 %) VAC
<b>Power consumption:</b>	■ $\leq 2.5$ W
<b>Permissible ambient temperature:</b>	■ -25 to 60 °C □ With Protective- and Cooling Housing WK15 up to 300 °C
<b>Storage temperature:</b>	■ -40 to 85 °C
<b>Protective class:</b>	■ IP68 (IEC), (NEMA 4 equivalent)
<b>Housing:</b>	■ Stainless steel
<b>PC-based Software:</b>	■ EasyConfig: Software for Parameter setting □ EasyMeas: Software for Parameter setting, data recording, data storage and data evaluation

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| <ul style="list-style-type: none"> <li>■ Standard function / value</li> <li>□ Option</li> </ul> |
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**SELECTION GUIDE**  
FOR CT11-Series

<u>Application / Material</u>	<u>Model / Type</u>	<u>Temperature range / °C</u>
<b>Natural material, Paint, Chemicals, Rubber</b> Paper, textiles, ceramics, asphalt, wood, electronic components, building materials, food ...	CT11.11	0 ... 500
<b>Glass / Ceramic / General</b>	CT11.4	200 ... 1000
<b>Metal / Metal oxide / Ceramic</b>	CT11.2	500 ... 2000

**DIMENSIONS**



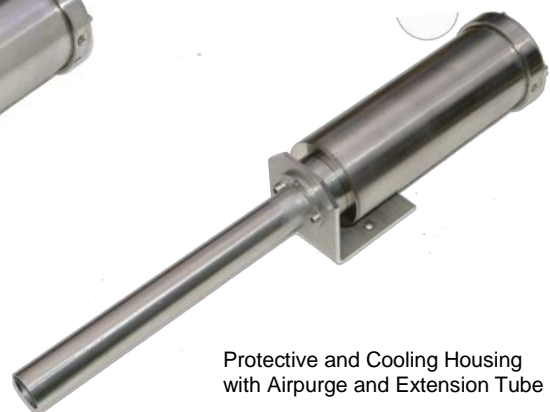
**ACCESSORIES**



Airpurge



Protective and Cooling Housing



Protective and Cooling Housing with Airpurge and Extension Tube