

## CT09

### Infrared Radiation Pyrometer CT09

- Rugged stainless steel housing, IP65
- Wide temperature range from -30 to 900 °C
- Very fast response times  $\geq 50$  ms (programmable)
- Fields-of-view as small as 1 mm
- Compatible to Infrared Radiation Pyrometer KT12



### GENERAL SPECIFICATION

|   |   |
|---|---|
| <b>Temperature range:</b>                           | ■ -30 to 500 °C; □ 0 to 900 °C  |
| <b>Temperature resolution (NETD):</b>               | ■ Depends on measured temperature and response time, typical value 0.2 °C (at 300 ms, 100 °C, $\epsilon = 1$ )  |
| <b>Accuracy (uncertainty):</b>                      | ■ $\pm 1.0$ °C plus 0.6 % of the difference between target and sensor head temperature as a function of housing temperature: 0.01 % / °C for housing temp. others than 25 °C            |
| <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 $\mu$ 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, alarm values and output (B) |
| <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, max-value or min-value  |
| <b>Analog output (Resolution):</b>                  | ■ 12 bit  |
| <b>Valley/peak picker programmable:</b>             | ■ Reset: internal<br>□ Reset: external input  |
| <b>Serial interface:</b>                            | ■ RS232-interface, bi-directional, 9.6 to 57.6 kbps, for programming and data transfer  |
| <b>Alarm output:</b>                                | □ Programmable (open collector)   |
| <b>Operating voltage:</b>                           | ■ 15 VDC to 32 VDC<br>□ 10 VDC to 15 VDC  |
| <b>Power consumption:</b>                           | ■ Approx. 1.6 W   |
| <b>Permissible ambient temperature:</b>             | ■ -25 to 70 °C<br>□ With protective and cooling housing WK11 up to 300 °C   |
| <b>Storage temperature:</b>                         | ■ -40 to 85 °C  |
| <b>Protective class:</b>                            | ■ IP65 (IEC), (NEMA 4 equivalent)   |
| <b>Housing:</b>                                     | ■ Stainless steel   |
| <b>PC-based Software:</b>                           | ■ EasyConfig: Software for parameter setting<br>□ EasyMeas: Software for parameter setting, data recording, data storage and data evaluation  |

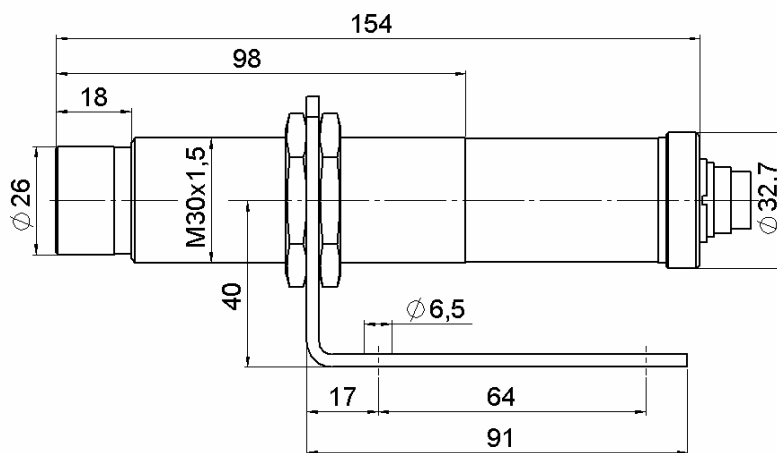
|                     |
|---------------------|
| ■ Standard function |
| □ Option            |

(B) with option „Alarm output“

**SELECTION GUIDE**  
**FOR CT09-Series**

| <b><u>CT09 Lens type</u></b> | <b><u>Field of view @ mm distance</u></b> |
|------------------------------|---|
| CT09.K                       | 40 mm @ 1 m                               |
| CT09.L                       | 3 mm @ 110 mm                             |
| CT09.M                       | 1 mm @ 25 mm                              |
| CT09.N                       | 4.5 mm @ 165 mm                           |

**DIMENSIONS**



CT09 Dimensions in mm

**ACCESSORIES**



Protective and cooling housing WK11