

CT15 Series

Infrared Radiation Thermometer

- Temperature ranges for -25 to 2000 °C * (-13 to 3632 °F)
- Response times ≥ 5 ms
- Target size ≥ 1 mm (0.04in.)
- ± 0.03 °C temperature resolution capability
- Pilot or Focus Laser aiming options
- Rugged stainless steel housing, IP67

Focus Laser



Pilot Laser

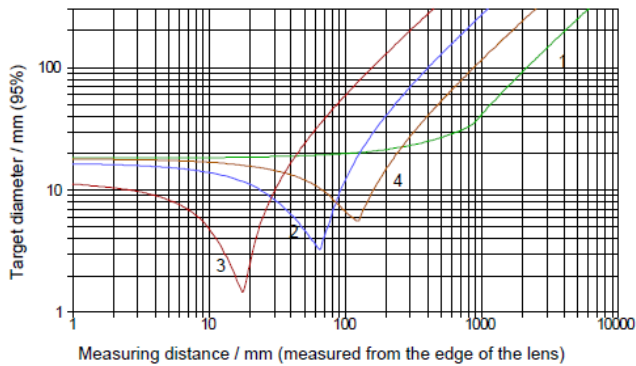
GENERAL SPECIFICATION

Accuracy:	± 0.5 °C (0.9 °F) + 0.7% of difference between target and thermometer temperature
Long term stability:	Better than 0.01% of the absolute measured value per month
Laser Aiming options:	Pilot Laser or Focus Laser ; Class II, <1mw, 650nm (<i>Focus Laser not available when Germanium lenses are specified</i>)
Emissivity:	0.100 to 1.000 , in 0.001-steps
Response time:	5 ms to 600 s (0.005, 0.010, 0.03, 0.1, 0.3, 1, 3, 10s +) (<u>5ms, 10ms & >10s = option</u>)
Temperature unit:	°C, °F or K
Analog output:	0 - 20 mA, or 4 - 20 mA, scalable span ≥ 50 °C (100 °F), Actual, max or min value , 16 bit resolution
Serial interface:	RS232, RS485 option, 9.6 to 115.2 kb (<u>Networking on Profibus, Ethernet etc = option</u>)
Operating voltage:	10.5 to 30 VDC or 12 to 24 VAC ($\pm 10\%$) ; ≤ 3.5 W ; ≤ 150 mA @ 24V
Permissible ambient temperature:	-20 to 60 °C (-4 to 140 °F); ≤ 300 °C (570 °F) with WK15 Protective Cooling Housing
Storage temperature:	-20 to 70 °C (-4 to 158 °F)
Protection class:	IP67 (<i>protection for immersion in water – exceeds NEMA4X</i>)
Housing:	304 stainless steel
PC-based Software:	EasyConfig: Software for parameter setting (<i>supplied with each CT15</i>) EasyMeasure: EasyConfig features plus data recording, storage & evaluation (<u>option</u>)
Programmable functions via serial interface:	Emissivity, background temperature, analog output scale & function, response time, temperature unit, valley/peak picker with decay function. <u>Optional laser function input or open collector alarm output or thermal switch opens on high internal temperature</u>

<u>Application / Material</u>	<u>Model / Spectral Range</u>	<u>Temperature Range / °C</u>
Metals, Combustion Zone temperature for PetroChem industry..	CT15.2 / 2 to 2.7 μ m	500 ... 2000
Glass & Quartz volume – sub surface.....	CT15.4 / 3.9 μ m	200 ... 1000
Glass & Quartz surface.....	CT15.5 / 4.9 to 5.5 μ m	200 ... 1400
Thin Polyester Film, paint curing.....	CT15.7 / 7.93 μ m	0 ... 400
Glass surface – thin glass.....	CT15.8 / 7.5 to 8.2 μ m	0 ... 1000
Atmospheric & Environmental Sciences, long sight path length.	CT15.85/ 9.6 to 11.5 μ m	-25 ... 200
Paper, Thick Plastics, Rubber, Textiles, Asphalt,		
Wood, Agriculture, Sea Surface, Ice & Ground, Food etc.....	CT15.10 / 8 to 14 μ m	-25 ... 900

* A variety of non-standard temperature ranges are available upon request including as low as -100 °C

Field of View Diagrams



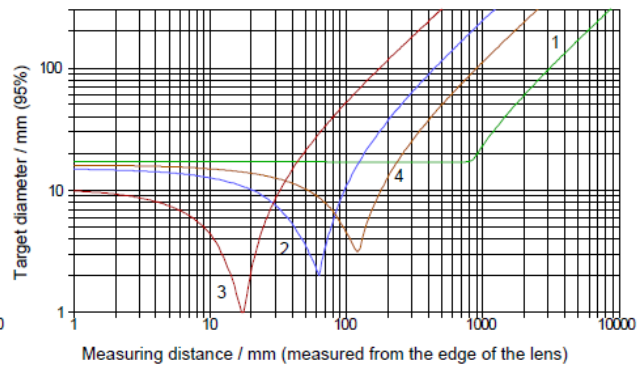
CT15.2 (2 ... 2.7 μm)

Detector type **A**

Lens material CaF_2

- 1 Lens K7
- 3 Lens M7

- 2 Lens L7
- 4 Lens N7



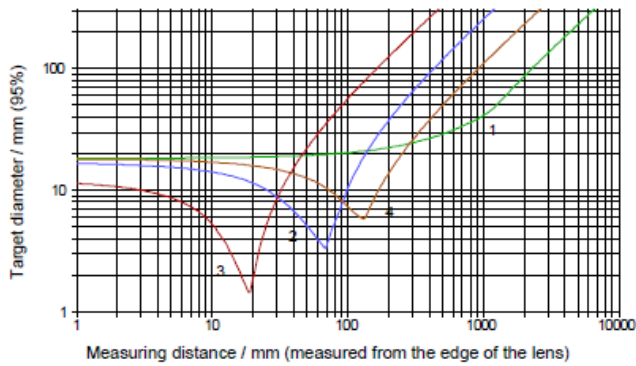
CT15.2 (2 ... 2.7 μm)

Detector type **B**

Lens material CaF_2

- 1 Lens K7
- 3 Lens M7

- 2 Lens L7
- 4 Lens N7



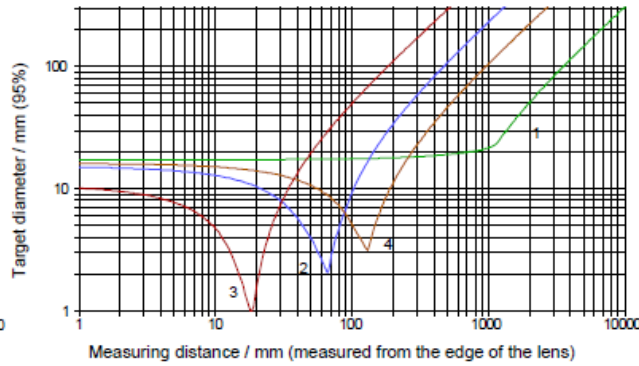
CT15.4 (3.9 μm)

Detector type **A**

Lens material CaF_2

- 1 Lens K7
- 3 Lens M7

- 2 Lens L7
- 4 Lens N7



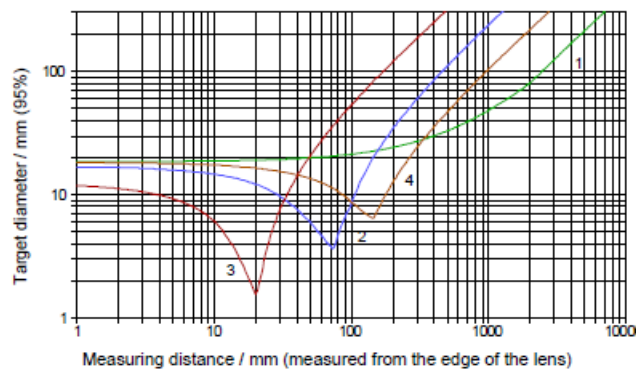
CT15.4 (3.9 μm)

Detector type **B**

Lens material CaF_2

- 1 Lens K7
- 3 Lens M7

- 2 Lens L7
- 4 Lens N7



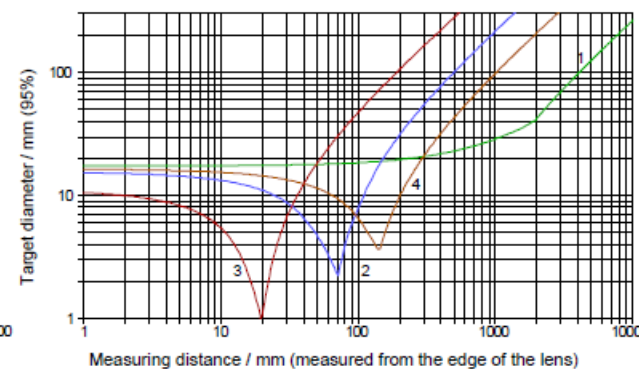
CT15.5 (4.9 ... 5.5 μm)

Detector type **A**

Lens material CaF_2

- 1 Lens K7
- 3 Lens M7

- 2 Lens L7
- 4 Lens N7



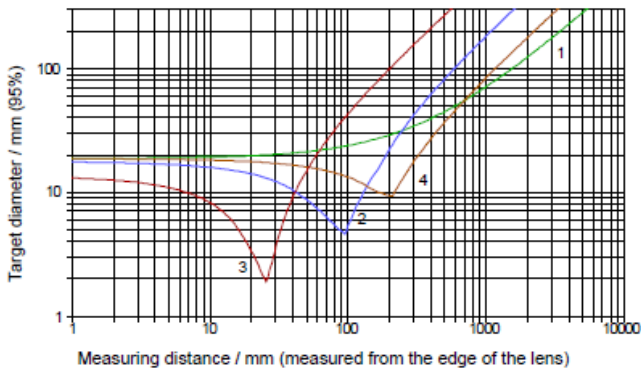
CT15.5 (4.9 ... 5.5 μm)

Detector type **B**

Lens material CaF_2

- 1 Lens K7
- 3 Lens M7

- 2 Lens L7
- 4 Lens N7



CT15.7 (7.93 μm)

Detector type **A**

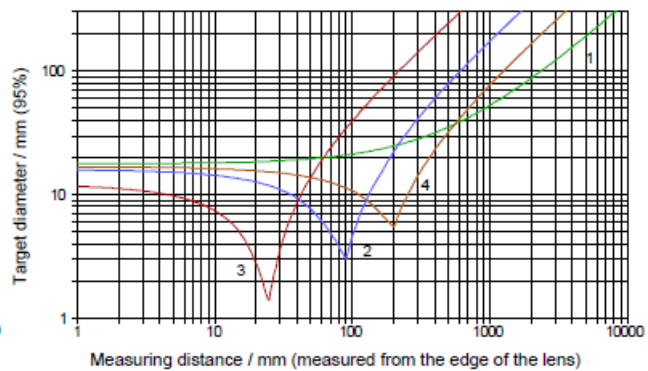
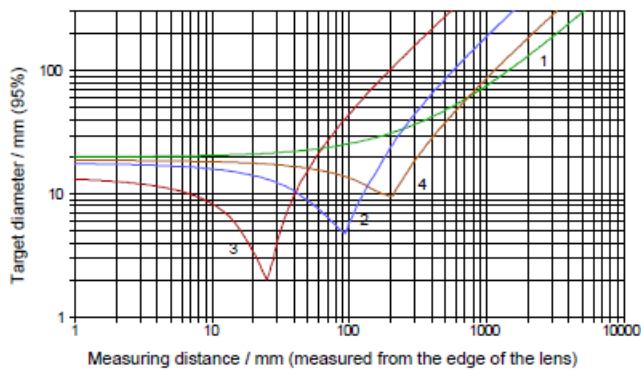
Lens material CaF_2

1 Lens K7

2 Lens L7

3 Lens M7

4 Lens N7



CT15.8 (7.5 ... 8.2 μm)

Detector type **A**

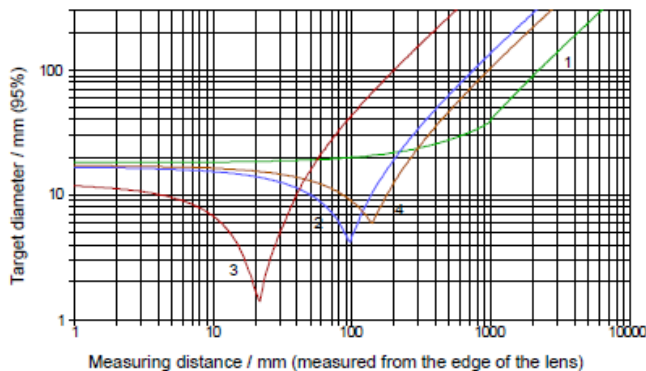
Lens material CaF_2

1 Lens K7

2 Lens L7

3 Lens M7

4 Lens N7



CT15.8 (7.5 ... 8.2 μm)

Detector type **B**

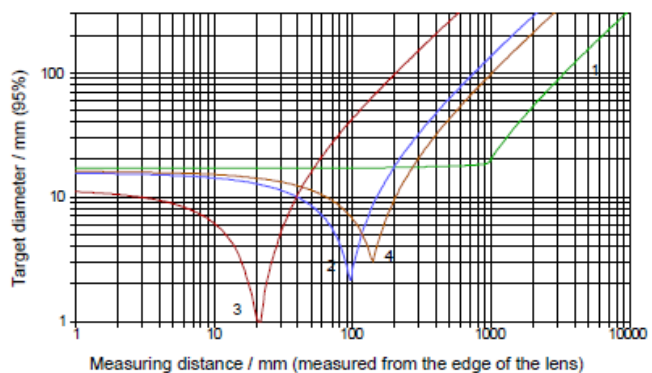
Lens material CaF_2

1 Lens K7

2 Lens L7

3 Lens M7

4 Lens N7



CT15.10 (8 ... 14 μm) CT15.85 (9.6 ... 11.5 μm)

Detector type **A**

Lens material Ge

1 Lens K6

2 Lens L6

3 Lens M6

4 Lens N6

CT15.10 (8 ... 14 μm) CT15.85 (9.6 ... 11.5 μm)

Detector type **B**

Lens material Ge

1 Lens K6

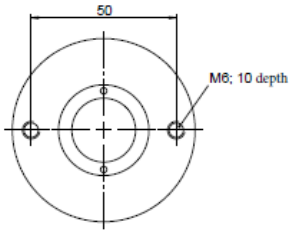
2 Lens L6

3 Lens M6

4 Lens N6

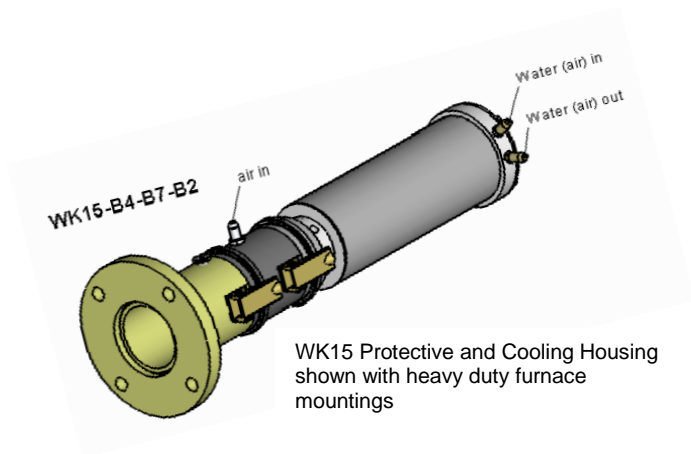
Field of View Diagrams

DIMENSIONS



Specify 12 core wiring cable length and jacket material type at time of placing order.....
2m, 5m etc.
PVC, TFE, TPE, Silicone Rubber.

ACCESSORIES and OPTIONS for Housings and Mountings (partial listing of what is available)



WK15 Protective and Cooling Housing shown with heavy duty furnace mountings



CT15 shown with optional NW25 vacuum flange (40mm dia); others available on request



Lens Air Purge



WK15 Protective and Cooling Housing with Lens Air Purge and Mounting Bracket



WK15 Protective and Cooling Housing with Lens Air Purge, Mounting Bracket and Extension Tube